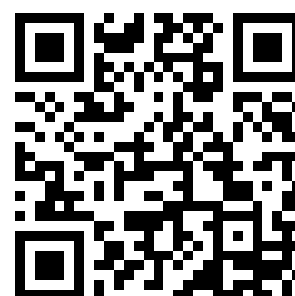

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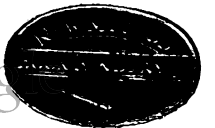
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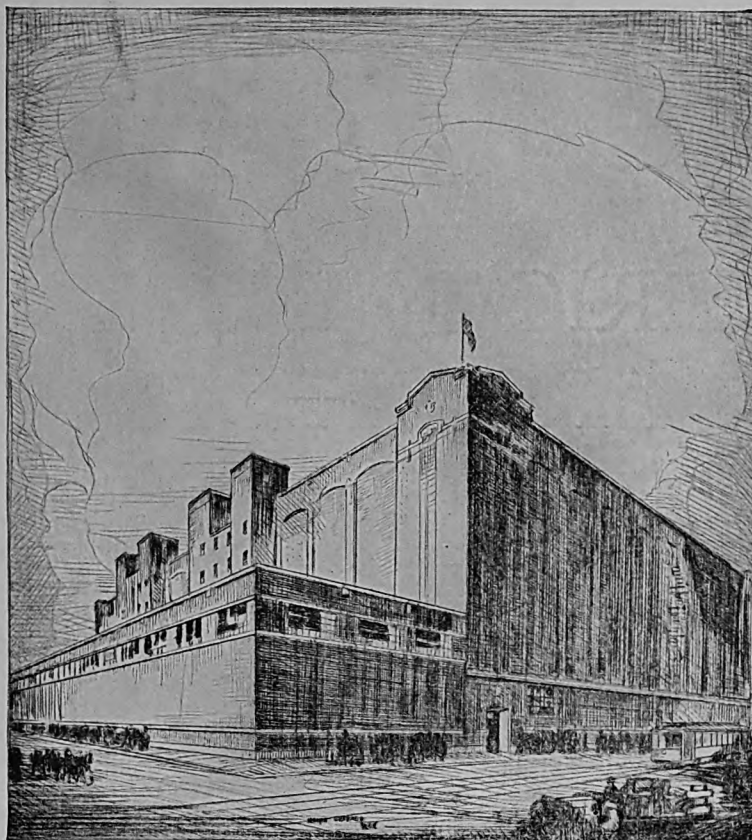
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Volume IX

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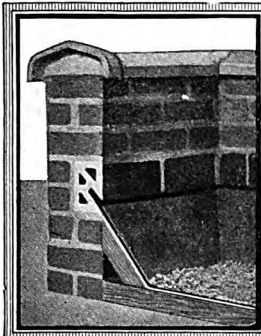
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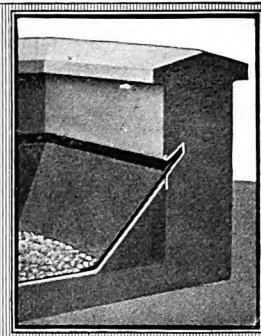
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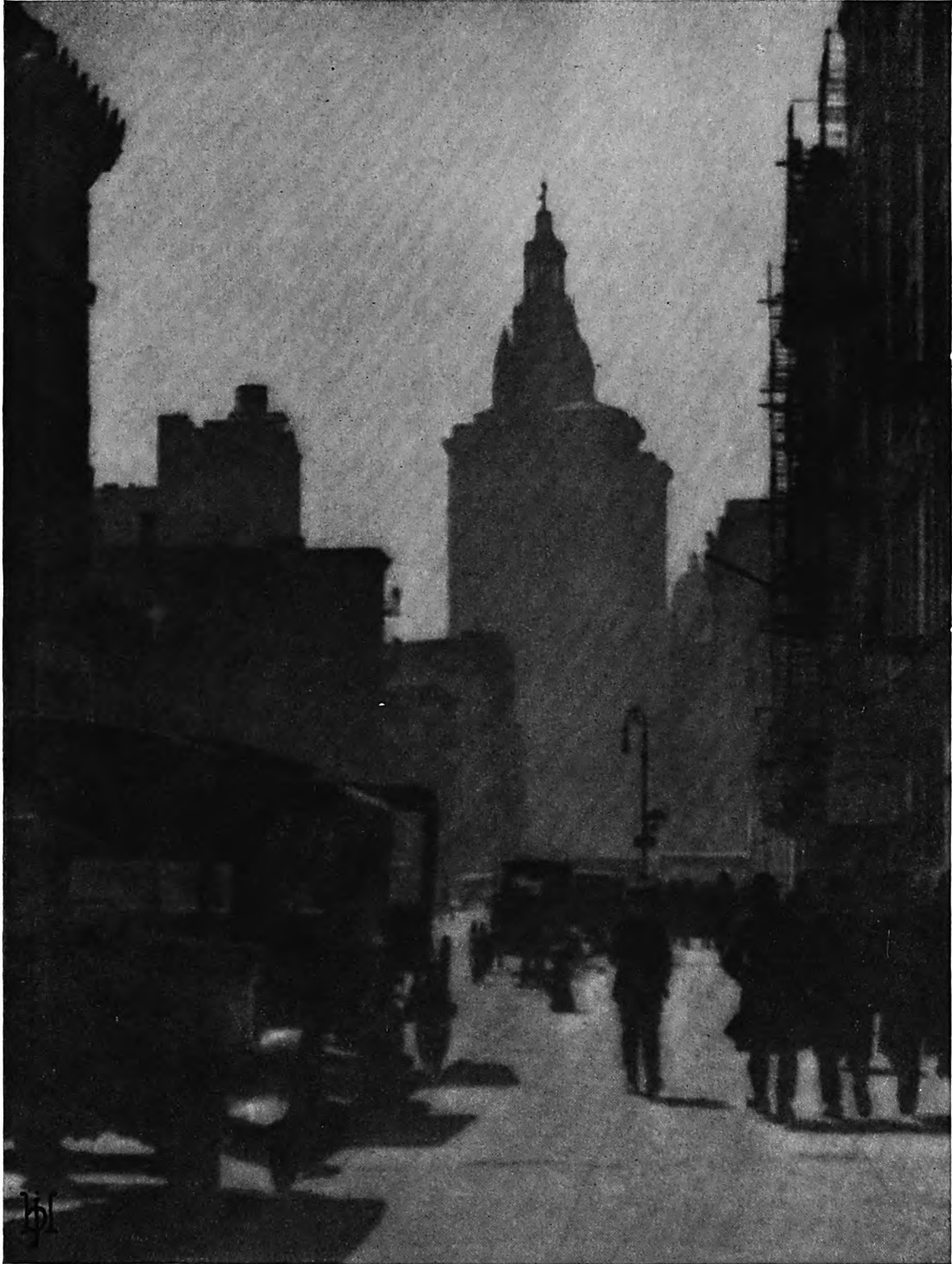
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No. 7

Shadows and Straws

IN HIS ADDRESS at the University of Pennsylvania, where the honor of Doctor of Fine Arts was conferred upon him, as mentioned elsewhere in our columns, Dr. C. Howard Walker said, in part:

"Art, which is the crowning glory of the world of the senses, is also the helpmate of man's thought. It is his creation, and his alone, and his willing servant. By it he sends a lambent message down the ages portraying the intimate recesses of his soul. It records his aspirations, his dawning ideals, and finally his achievement, indisputable. Whether he will it or not, art is persistently his companion, for he can not carry any of his material work beyond the point of utility without its appearance. For it is subtle, insidious, insistent, appearing as embellishment long before it masters man's expression. Therefore art is essential to the life of man, as his universal and most readily comprehended medium of expression, and his chronicle of the past and his prophecy of the future. * * * * *

"Art has a power of gravitation forming nodes of influence for good and for evil. Each work of art has its aura, which shapes opinions and stimulates thought. It can give pleasure even akin to pain; it can soothe; it can challenge or sound a clarion for war, or for peace. A Raemaker cartoon was said to have the value of an army corps. A great work of art is an epitome, a culmination of desire. With what humility and with what temerity is the teaching of so God-like a thing as art to be approached. Are the doors of its sanctuary to remain casually open, or shall the portals be guarded by knowledge and reverence? Is this Hesperian fruit, in which lies the purest pleasures, the subtlest visions and an omnipresent power, to be gained with slight endeavor?

"The varieties of art are as numerous as those of man himself. The earliest expression is that of man's love and fear of nature, which mould his moods and form his fancies, and which he defies by his imagination. He worships the universe of which he is a part, studies its laws and produces science; observes and portrays its multifold treasures, arranges and transmutes them and in his turn creates, and this achievement is art. In contradistinction to the analysis of his scientific research he epitomises nature in art, and says in a word what it has taken her æons to relate. Blake's morning stars that sing together embrace the entire firmament. The Hermes of Praxiteles knows the secret of life and is serene in that knowledge.

* * * * *

"Our years are not numbered by decades, but by centuries. If we were offered the wealth of the ages, not merely as opportunity, but in accomplished fact, if the glory that was Greece and the splendor that was Rome should be proffered to us for the asking, is it conceivable that we should consider it of little importance in our lives? It is this inestimable offering with which art welcomes us. Accept it, with joy, and the horizon broadens to the illimitable, the heavens rise above us to infinite depths. Accept it, with praise, and our hearts are stirred at the memorials to heroism, we bow before the poignant anguish of Calvaries, and are awed in the fanes of religion as in the presence of Deity. Everywhere the work of man's mind and hand in the past is an inspiration to the present. The man in the streets of Thebes and of Phigalia is but a name, a drop melted into the sea of humanity, but the work of the artists of Karnak and of the frieze of the Apollo temple lives, and is still a power. No wonder the Greek potter signed his work and added *kalos enei* (it is good). That was not conceit, but was pride in the knowledge of skill and accomplishment which made the work the measure of the man. If so much has been done and so well, shall we with such an heritage do less?"

Mr. Clive Bell, the English critic, writes thus in a recent issue of the *New Republic*:

"I do not disbelieve in absolute beauty any more than I disbelieve in absolute truth. On the contrary, I gladly suppose that the proposition—this object must be either beautiful or not beautiful—is absolutely true. Only can we recognize it? Certainly, at moments we believe that we now can. We believe it when we are taken unawares and bowled over by the purely aesthetic qualities of a work of art. The purely aesthetic qualities, I say, because we can be thrown into that extraordinary lucid and unself-conscious transport wherein we are aware only of a work of art and our reaction to it by aesthetic qualities alone. Every now and then the beauty, the bald miracle, the 'significant form'—if I may venture the phrase—of a picture, a poem or a piece of music—of something, perhaps, with which we had long believed ourselves familiar—springs from an unexpected quarter and lays us flat. We are not on the look-out for that sort of thing and we abandon ourselves without one meretricious gesture of welcome. What we feel has nothing to do with a pre-existent mood; we are transported into a world washed clean of all past experiences aesthetic or sentimental. When we have picked

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ourselves up we begin to suppose that such a state of mind must have been caused by something of which the significance was inherent and the value absolute. 'This,' we say, 'is absolute beauty.' Perhaps it is. Only, let us hesitate to give that rather alarming style to anything that has moved us less rapturously or less spontaneously."

"For ninety-nine out of a hundred of our aesthetic experiences have been carefully prepared. Art rarely catches us: we go half way to meet it, we hunt it down with a pack of critics. . . . The emotion that we obtain is thrilling enough, and exquisite may be; but it is self-conscious and reminiscent: it is conditioned. It is conditioned by our mood; what is more—critics please take note—this precedent mood not only colors and conditions our experience, but draws us inevitably toward those works of art in which it scents sympathy and approval . . . let us admit that we do sometimes mistake what happens to suit us for what is absolutely and universally good; which once admitted, it will be easy to concede further that no one can hope to recognize all the manifestations of beauty. History is adamant against any other conclusion. No one can quite escape his age, his civilization, and his peculiar disposition."

"The fact is, most of our enthusiasms and antipathies are the bastard offspring of a pure aesthetic sense and a permanent disposition or transitory mood. The best of us start with a temperament and a point of view, the worst of us with a cut-and-dried theory of life; and for the artist who can flatter and intensify these we have a singular kindness, while to him who appears indifferent or hostile it is hard even to be just . . . but I do think a critic should cultivate a sense of humor. If he be very sure that his enthusiasm is the only appropriate response of a perfectly disinterested sensibility to absolute beauty, let him be as dogmatic as is compatible with good breeding; failing that, I counsel as great a measure of modesty as may be compatible with the literary character. Let him remember that, as a rule, he is not demanding homage for what he knows to be good but pointing to what he likes and trying to explain why he likes it. That, to my mind, is the chief function of a critic. An unerring eye for masterpieces is of more use to a dealer than to him."

IN ANY discussion of the English Building Guilds, or of the Guild system generally, the question most often asked is for an explanation of how it is possible to work for no profit. Yet the answer is both easy and hard. It depends little upon him who answers and much upon the one who asks. The word "profit" is confusing, and indeed, it is evident to anyone who attempts a discussion of industrial questions in economic terms, that great terminological difficulties present themselves. Generally speaking we believe it would be better to say that the Guilds mainly propose to substitute a new motive in industry. They therefore set forth the hope that the present profit-making motive may be replaced by the service motive. Equally they propose the transformation of the wage-system by offering a new motive as well. But wages, profits, pay, or whatever one may call the monetary or material ar-

range made with any worker in any industry, plainly imply a means of providing the wherewithal by which to live. It is this question of motive, and not of the term used to describe the pay, that is important and that of course does imply a very great change in the present system of inducing productivity.

That a theory which is based upon the supposition that men will accept new motives, or undergo such a spiritual transformation as will lead them to regard their work, whatever it may be, as a social service which they are impelled to discharge through a feeling of brotherliness such as Christ proclaimed even though he did not reduce it to a detailed application, would find ready acceptance is scarcely to be imagined. As has often been pointed out, there is no reason to believe that the fervent spirit of service which has activated the Guildsmen of England in their preachments would become the Golden Rule of industry even though the Guild theories were applied. And it is not to be denied that a Guild might become just such a monopoly as we have already experienced through capital, through labor, and through the most merciless combinations of both. But that a new motive must be found is coming more and more to be recognized. It is thus important not to be confused with terminologies, difficult as it is to adjust new meanings of old words to new ideas and points of view. Indeed, nothing is more difficult than this, and perhaps it is largely this very difficulty which makes progress so slow.

PERHAPS the following statement by Mr. Ramsay Muir, Professor of History at Manchester University, England, may help to shed some light:

"There are three main criticisms of the existing industrial system, three main explanations of the bad working of the system, as we see it today. There is a good deal of justification for each of the three.

"The first is that the State is meddling too much with industry, and is meddling in the wrong ways. The Cabinet, Parliament and the Bureaucracy are trying to deal with a multitude of industrial questions which they are really incompetent to handle. This is causing both the managers and the workpeople in industry to regard the State as in some degree their enemy. And at the same time it is causing government to neglect its proper functions, and discrediting our whole governmental system.

"The second criticism is that, in another sense, the State (as representing the community) is not meddling with industry enough, because it has failed to find the means of ensuring that all its citizens shall be justly dealt with, shall enjoy their fair share of the product of industry, and shall have a full chance of making the best of themselves.

"The third criticism is that, ever since the beginning of the industrial revolution, the mass of those engaged in industry have been in effect disfranchised; they have been cut off from direct interest and concern in the conduct and results of their work; their labor has been treated as a commodity; they have not been enabled to feel that they are citizens and partners in the industry in which they work.

THE ARCHITECTS

All these criticisms are valid, though they may seem to be mutually inconsistent. It is not easy to define an industrial policy which gives due weight to them all.

The defenders of pure "capitalism" are conscious of the first of the three criticisms. But they are prone to overlook the second and third; and, while freeing industry as far as possible from State interference, they are apt to leave the interests of the workers insufficiently protected, and to fail to obtain for them their proper share in control.

The advocates of State Socialism fix their attention on the second criticism; but they are apt to disregard the third and greatly to intensify the first, by unduly exaggerating the functions of the State and its bureaucratic agents.

The advocates of Guild Socialism lay all their emphasis on the third criticism, but disregard the second; because their solution is to turn each industry into an exclusive trust, and thus to deprive the State of the needful power of defending the interests both of workers and consumers."

The Architects A TALK TO CLIENTS

By PERCY E. NOBBS

FOR a hundred years we architects have been failing most conspicuously to make our public understand what we are after. This remark would furnish a text for a whole course of lectures, but we must here leave it as a bald statement. It is our hope to set before you, as clients, certain ideas as to the aims and objects of our art which may be new to some, or if not new, may at least serve a use next time you have dealings with one of us, for they are rarely acted on.

Of architects in general it may be said that all aspire more or less to be, or to be considered, artists; and it is of those whose aspiration is well founded that I have most to say. It is not my intention to say anything of styles and schools and periods, for these are inconsequent brain-spun notions which stand in the way of our understanding one another.

The architect, the client, and the public: that is my theme. Of the three, the client is the most indispensable, but the least important—a mere human link whose privileged function it is to bring architect and public face to face, and the public is very literally "the man in the street." First let us consider what the architect of today inherits from the past in his relation to client and public.

The Past

From sun-baked Nineveh to wind-swept Chicago, all down the ages, building has been an affair of organization very closely parallel in its technical arrangements to good soldiering. In Roman times, indeed, it is difficult to say whether the legion was based on the builder's yard or the yard on the legion. Labor, skilled labor, foreman, master, architect, and, behind all, the man who pays, in the one case and in the other, private, sapper, non-com., commander, staff and, again behind all, the man who pays

In happier times, before the propagandist's pen came to vie with the sword among the instrumentalities of chaos, that is to say, before the discovery of printing with movable types, there were two activi-

ties, and only two, to which all other productions were subordinated—building in peace time, and fighting in war time. Both required men of imagination to formulate the plans of action, and generals and architects were rewarded as much in fame and honor as through their recognized systems of pay, commission, spoils or graft.

While public appreciation of architects has been both fickle and variable throughout history, the function of the man whose trade is to conceive, and perhaps draw or model a new thing, a thing distinctive and unique, a thing not yet in existence, has been much the same for a thousand years—the same in the day of the Coliseum, and of the Albert Hall, of the wayside chapel at Houghton, or of the Pierpont Morgan Library in New York. General social conditions, it is true, have so wrought that, in certain places and at certain times, the architect has tended to absorb many of the functions of the master builder, like William of Sens at Canterbury, or to have forced upon him the work of an engineer, like Michael Angelo in the case of the quarries, or to owe his selection to sheer impractical pedantry, like Dr. Perrault, of the Collonade of the Louvre. But all, at any rate, who achieved architecture, had these endowments in common—imaginative power, the geometrical sense and the instinct for scale. If they have differed as practical men, as professionals, as dilettanti, it is not difficult to recognize their kinship as artists. "By their fruits ye shall know them."

Now, from the remote past up to comparatively recent times, the people who did the staff work of building were selected primarily because they were artists in the sense above described. This does not necessarily mean that they were ornamentalists, though in certain periods most of them were that also, to the delight of our eyes.

Modern Professionalism

It would be tedious to trace in detail the effect of modern industrialism on the practice of building

since "Puffing Billy" plied his noisy course on rails of wood. The whole story is summarized in a word—the advent of "competitive prices." That is the result of the industrial revolution. The professionalized architect, as we know him today, and as he differs from his predecessors, is a by-product.

What, then, is the modern architect? He is occasionally an artist himself; he often owes much to professional assistants who are. When things are so, there is no use wasting time, energy, sentiment and ink as *laudator temporis acti*, or beating about the bush. So let us recognize the facts, without even alleging that they are brutal and see what it all means.

The professional architect of today is not necessarily an artist, but he must be a rather clear headed, just, business man, and a fairly skilled constructor. Ingenuity will carry him farther on the road to success than artistic power, and we are discussing the successful ones. Without opportunity, the architect, whether artist or not, is as nothing. Of himself he cannot build a cottage.

Let us look into this matter of architecture from the point of view of that kind of artist who is not a dancer, nor a poet, nor a musician, nor a painter, nor an engraver, nor a sculptor; but one who delights to express in stone, wood, concrete, and such like building materials, certain spiritual things—emotional complexes, the ugly-tongued psychologists would call them—that can not be danced, or sung, or done in black on white; and let us seek better acquaintance with him.

Opportunity

Assuming him to have the instinct, the accomplishments, and the necessary training, on what does his opportunity of expression in the manner aforesaid depend—how does he get his work? Competitions, the making of himself indispensable in an older man's office, strict observances, dancing, the buying of a practice, marriage with a builder's daughter, partnership with a promoter—all these avenues to opportunity have oft been sought; and when certain elements of success (of which more later) have been part and parcel of his makeup, the avenue has led to something. But these are all avenues which, being not quite straight, the end cannot be seen from the beginning.

Indulgence in competitions—a vice akin to gambling—does not lead to a comfortable general practice, and often leads to bankruptcy—financial and spiritual. There is always a very considerable element of chance in a competition. When very fairly conducted, with professional judges, and all possible safeguards, competitions are decided on purely practical issues—cost, cubic contents, close planning, adroit connections—all which constraining

considerations are as often as not destructive of such architectural potentialities as the problem might otherwise suggest.

As to making himself indispensable, blood is thicker than water, and his master's nephew, yet unborn, when that process began, may become a junior partner on completing his articles.

Church connection is a well recognized pathway towards public confidence, but the wise ones will seek to serve their congregation individually, as clients, rather than in their corporate capacity. Parsons, wardens, elders and deacons have proverbially thin business ethics where the design of extensions to the Sunday School is concerned. Few architects achieve their competence unscarred by these harpies, unless they be avowed free-thinkers, as so many great ecclesiastical architects are.

The social avenue is of course at once the pleasantest and the least dignified path to tread in search of opportunity—a variant on the commercial traveler's glad hand and "Have a cigar!" Yet many firms of architects have a dancing partner, or a sporting partner, and find the arrangement profitable. But here again there must be that very solid something already referred to in the way of special service to offer, and quite apart from the art that they profess to purvey; otherwise the useful dancing partner would soon be short of nice white ties.

As to buying a practice, the sense of the scoundrelly venality of such transactions is only dawning on the profession in Great Britain, though simony was attacked so far back as the XIVth century. The sale of architects' practices has never been at all general in America, where "goodwill" is a more personal thing than it is in Europe. An old established address in a dingy street has less advertising value on this continent than accommodation in a modern office building. The extreme case of the sale of the good will of an architect's practice by his widow is now obsolescent. Progress in architectural education, moreover, leads to more or less publicity in the discrimination between the sheep and the goats who enter the profession.

So much for the avenues of opportunity. These are not what we are seeking to disclose as the *sine qua non*, the conditional endowment on which an architect's success ultimately depends, though many of the architects and the public think they are.

The XIXth Century In England

Let us seek for further light in the history of the recent past. A critical review of the profession in England throughout the nineteenth century—tempered with justice and with mercy—reveals the fact that, of the many thousands who practised professionally, scarcely one hundred can merit the name of artist; while those who could fairly be ranked as

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eminent in their art can be told off on less than ten fingers. On the other hand, some enormous and lucrative practices, coupled with the highest honors, have fallen to gentlemen of great force of character, fine scholarship and cultivated taste, whose work is wholly innocent of the divine fire.

The really great, Elmes, Barry, (Philip) Webb, Bentley, Norman Shaw, Garner, form a veritable constellation in a firmament of tallow dips. All these, individualists as they were, gave us architecture of an essentially modern kind, conforming to those great rules (so rarely learned in the schools, alas!) which ignore the differentiations and proclaim the common principles of Phile and the Propilea, the Pantheon and Chartres—and this in spite of surface pedantries. But the most curious thing about these good things done in England in the XIXth century is the vast agglomeration of “masonry brute mishandled” amidst which the treasures are imbedded. For there were many circumstances of the Victorian era which made the recognition of architectural power a slow and frosty process. Good influences were too often winter killed, root and branch. When the sincerer forms of flattery did manifest themselves as seedlings, variable winds of fashion and the gritty soil of ignorance combined to stunt the growth.

Much was built in England between 1800 and 1900, and never was a like amount of building more varied and original in thought and contrivance, yet never was the sum of architectural achievement less in its relation to the number, or importance, of building operations undertaken. The fact is, that at the end of the last century, strangely, few architects knew the art of architecture, even when it was exemplified before their eyes; while the general public's natural instinct for just appreciation had all but atrophied for lack of use, or, when discoverable, was vitiated by extraneous sentimental considerations.

Now, 1900 A. D. was not very long ago, yet when we look on the last twenty years—even allowing for the Great War's interruption—some improvement is noticeable in the appreciation of architectural effort, more especially in America. The recent publication of *popular* illustrated magazines, and volumes of current, instead of ancient architecture,—the works of Mr. Lutyens and of Mr. Platt, to single out two recent folios in the realm of domestic art—has done much to counteract the blight of style-mongering, generated by the legions of plates on the “historical styles”—unhappy phrase—and by the activities in period carpentry of the Warings, the Sloans, and other modern stage setters of the ready-made past.

The Appreciation of Architecture in America

Speaking of improvement, we said, “especially in America.” Now the culture of Europe delights to

patronize the culture of America, as an aunt of uncertain age acquiesces in the frivolities of a budding niece. Public appreciation of architecture usually has preceded public appreciation of literature in past civilizations. Architecture is the matter before us—let us rejoice that America begins to take pleasure and pride in something Europe has apparently outgrown. Admitting the debt to France which American architecture owes, and very fully acknowledges, there is still no comparison between the flood of genius sown in the architecture of the last twenty years in the United States and the drought-dried stream in France.

Of course America has had the wealth, and the opportunities have been unprecedented. But the point we make is not the quantitative occasion, but the qualitative results. One doubts if French traditionalism, with equal opportunities, could have done better in France. In any case, we recognize today in America a lively public appreciation of architecture, not very intelligent, not very spiritual, and rather materialistic, but quite sincere and full of promise. With all the goodwill in the world we cannot aver as much of any part of the British Empire; not even of London town. In France, cultivated public taste in architecture is no longer the active force it once was. Starvation has, as it were, reached the stage of alternate paroxysm and inanition—for positive proof look at any French villa built since 1870.

Germany

Very different was the case in the Germany of 1914. A vast material prosperity, combined with a robust increase of all national forces, had given architecture opportunities at once exuberant and profuse. With a logic which the Americans did not have the hardihood to risk, German genius, in the generation before the war, struck out in search of a modern nationalistic tradition. The experiments were, in many cases, disastrous enough. But there was a real public interest in the matter. Criticism and appreciation were not private matters between a jaundiced scribe on the one hand, and an outraged designer on the other, both unheeded of the reading public. Perhaps the German public read too much appreciative criticism, and looked too little. The bizarre, the gross, and the crudely experimental appeared, but soon gave way before the rational excellences of Messels' work and that of his great successor, Hoffman. We are of opinion still, as we were in 1914, that Hoffman's is by far the greatest individual contribution to the development of the art of architecture between 1890 and 1914. Whether the fervid building activity which was so marked a feature of German life before the War, has been brought to a dead stop, or has only suffered an interruption, it is of course

vain to guess. Certain it is, that in Germany before the War, the architect enjoyed a large, an appreciative, and, we are inclined to think, an understanding public. For it was not mere business ability, structural skill, or economic service that enabled Hoffman to extract from an elastic traditionalism the spiritual fires whose flickering light warms stone to very life. His public recognized his art as such and craved it.

The Agency

Now, when a client in the English-speaking world, whether individual or corporate, commissions an architect to design a building, the last thing he thinks of buying from the architect, or he in turn of selling, is that imponderable spiritual fire under whose warm and magic rays builded stones speak their serene consolations, passionately asseverate the everlasting melancholies, or smile indulgence on our reprobate gambols. No, what this client bargains for, and what this architect purveys, is agency—usually valued at something a little over six per cent of the cost of the work—agency to get better value in real estate than the client could do if left to his mother wit; spiritual fires are not in the bargain at all.

In detail, this agency consists in first helping the client to find out what he really wants or needs, then inducing the client to acquiesce in sketches, which he can not understand, but which purport to represent what is wanted. A great trust this, as between man and man, and recognized as worth between one and two per cent on the probable cost, which at this stage is guessed, chanced, or otherwise estimated. Working drawings are then prepared, and specifications are written, both with mechanical skill and elaboration, and a double object in every line and word: First, to enable expert valuers to make up competitive prices for the contractors who employ them, and, Secondly, should a price be accepted and the work proceed, to be adequate to show how things are done, clearly and without doubt. When the working drawings and specifications are complete, between two and three per cent on the estimated cost, or lowest tender, becomes due the architect, *whether work proceeds or not*. This arrangement obviously takes no account of possible spiritual fires. If it did, then in the case of work not proceeded with, large sums would be chargeable for moral damages to the architect—what the psychologists would call “the pains of inhibited emotional expression.” That such a charge is not the practice is proof positive that architects are not paid for art, but only for agency.

But if the work goes on there begins an anxious campaign to get the contractor's organization to do the thing, to do it rightly, and do it in time. The staff orders the architect issues are largely in the

form of supplementary drawings, on each and every one of which the question of excess over what is shown on contract documents may arise. The making of these drawings is, next to the sketch planning, the most fascinating part of the architect's work. He also gives general supervision. The client usually fails to distinguish between this and sitting on the job watching every brick laid. That is the function of a clerk of works, paid by the client and under the orders of the architect. Some architects profess to give this service free, as a gift, like the spiritual fire, but it is not so. They do not. There is a “joker”—but that is another story. As the work goes on, the architect computes the value of what is done, and when it is complete he checks the accounts for extras and deductions which may or may not represent additional work and authorized omissions. The client usually finds difficulty in distinguishing between additional work required by himself, and true extras, arising from errors of omission in the contract documents. He is also slow to perceive that an extra, or additional work, generally costs the architect far more than he can ever get out of it by his commission.

Some diplomatic finesse, a habit of mind usually bought by dear experience, is an essential accomplishment, when at last the accounts are squared and paid. If the contractor and the client have been successfully kept from engaging each other before the law, the architect often finds that he has incurred the suspicion of each that his mind is not judicially constituted. By that time the architect has earned his remaining two to three per cent on the cost of the work. It is due, and it is earned, often desperately. So much for professional services—agency. What of architecture?

We have followed the commission to its consummation, “My new cut ashlar takes the light,” and the job is paid for, and let us suppose holds together, fulfills its functions of use and convenience, and is hygienic withal. As a rule, the question as to whether it is good to look upon does not affect the architect's fee. No doubt a client often feels that he did not fully appreciate the significance of certain lines or tints upon the sketches; and that proves that he does not, or did not then understand sketches, and that is all there is to it.

Of course, if architects were suitably remunerated for pained susceptibilities—inhibition of expression—when work did not go beyond the sketch stage, then it would be fair to penalize them when a finished building could be proved to have failed to arouse in enhanced degree those emotional complexes experienced by the client at the time he approved the sketches. It is perhaps just as well for the peace of society that this is not the practice, though gaiety suffers in consequence.

THE ARCHITECTS

All which goes to prove beyond shadow of doubt or cavil that the art of architecture has at present no appreciable or demonstrable market value in the English-speaking world. On the other hand, agency in the skilled provision for material requirements is reasonably remunerative.

The Case from the Architect's Point of View

This brings us to the focus of our whole discussion. Let us now state the case from the architect's point of view, assuming for the sake of argument, that the architect happens to be an artist as well.

The *architect-designer-artist* should have realized three things in his student days, if properly instructed: That nobody wants to pay for his *architecturally-designed-art*; that some may be found to tolerate it, however; and that a few, (chiefly of his own profession) may even appreciate some of his efforts to make stone eloquent. He would not be what he is—a member of a most exacting profession with the longest apprenticeship of all the trades of man behind him—did he not desire, with a consuming passion, to exercise, or at least attempt, the magic touch of plastic art, and on the greatest scale too, and with the most expensive of materials—stone walls and landed property. What, then, is the condition he must fulfill before he may be permitted to try his hand? It has been answered above—perfect himself in agency, and try not to lose his soul in the process. He must do good, in the economic sense, rather than harm, to the property involved in his adventures and experiments.

The bargain is like this. If, says the client, you can convince me that you are sure you can convert this place, and these stones, bricks and what not, to my purpose, more conveniently and economically in all senses than anyone else, then proceed to do it, and so earn your commission. If you can at the same time so arrange things seen, by means of your art, trade, science and mystery, that people in general will profess aesthetic satisfaction, then go ahead and do your damndest; I don't pay you for that, and I don't fine you if you fail in that, but if I don't like it I'll never speak to you again, and shall "blast your reputation as far as my voice can carry!"

That's the implicit understanding when the architect writes that "following your call of yesterday, I shall be happy to proceed with your sketches, remuneration to be on the usual professional basis." Now, all this is perfectly right, though some architects grumble at this aspect of the world as they find it.

The Explanation

It is to be observed that architecture—the art—is not done for the client at all, and the client has there-

fore no reasonable right to blast his architect's reputation for anything but failure in agency, for that's all he pays for. The architect's art is a personal charity, as between himself as an artist and the "man in the street"—certain persons unknown, to whose need he seeks to minister.

"The song I sing for the minted gold,
The same I sing for the white monie;
But best I sing for the stoop of meal
That simple people given me."

Now, it would make the trade of architecture easier, and on the whole pleasanter, if clients, both individual and corporate, realized their function to be that of publishers, with the most shadowy claims to editorial control, once they have exercised their privilege of selecting their agents, or authors. It is always possible that the client may be entertaining an angel unawares; he must trust very largely to chance for that. Without opportunity to carry out works, none can prove whether he be artist, as well as agent.

As things are, on the other hand, there is only one claim that any architect may fairly advance for the privileged opportunity he seeks to use other people's walls and lands for his artistic ends, and that is sheer efficiency as a practical agent. Can he plan with an adroitness and economy never dreamed of in former generations? Can he construct with the mighty forces of modern materials scientifically used, and temper their use with some invention? Can he do these things with a cultured grace founded on tradition but not overbound thereby? Can he deal evenhandedly as between his clients and his contractors? Can he endure the sustained drudgery inevitable in the manufacture of contract drawings and specifications? If he can do these things willingly for from five to ten per cent, the question of his giving something else (if he has it to dispense, and of that he can never himself be sure) is entirely a matter between himself and his Maker.

And now we may probe a little deeper regarding this something which some architects are privileged to dispense as a free gift willingly bestowed and most of us would give if we could.

Design

The joy of design is in the *discovery of the form*; in so complex a thing as a modern building this is not achieved without very great and sustained concentration. The simple, graceful solution of harmonious plan and elevation, which looks so easy and self-evident, is usually a synthesis of very complex elements. Physical requirements, dimensions, connections, aspect, prospect, climate, materials, structural methods, traditional forms, the moods of color, and the reaction of the client's on the architect's, and

possibly on the contractor's temperament, to say nothing of the cultural development of the skill available—a little firmament to be reduced to order.

And the discovery of the form is only the beginning. If a work of art in any sense is to result, then the character, and more of the character, and yet again more character of this form must be apprehended, digested, exuded, and when realized be instilled throughout every fibre of the structure—as it is in the design of a man and of a tree.

The two great instrumentalities of the architect, out of which the souls of buildings are conjured, are called scale and proportion. The effects of scale and proportion are infinite, and can most readily be made manifest by the use of familiar forms. Experiment must necessarily be conducted with some caution in so costly an art as this. Traditional form is a mere incident, however, for mastery of scale and proportion, by any means new or old, is the ultimate technique of architecture.

But it would serve no useful purpose further to enlarge upon the technicalities of this art, when we are seeking to expound its fundamental nature. For one thing, to do so would involve us in those controversies of the rival schools of tradition which are so largely responsible for the prevailing mountains of ignorance we seek to dispel. And secondly, appreciation, and that is what art is for, was never engendered by the knowledge of means. Such science has an inevitable tendency to destroy those blessed illusions which are the ends of all the arts.

The architect is then an artist who, instead of a fiddle to play upon, or a yard of canvas to paint upon, or the back of an unpaid bill to write upon, demands acres, and square miles if he can get them, to build upon. As his stupendous materials are rarely within his means, he is forced to hire their use in exchange for such service as will give him *the necessary measure of control*. Why he does so, and whence his impulse, are not the questions before us. If it has been shown that this kind of artist pays a fair price in kind for his materials, the main object is achieved. If so, it may be inferred that he has a natural right to do with them as the spirit moves him, so long as he does not thereby diminish the price he must pay—be false to his agency. But loyal agency to his client is to be very clearly distinguished from loyal artistry to his public—the service of the man in the street.

It takes two to make a quarrel; it takes two to make love; it takes two to achieve a work of art—one to utter, one to respond. It is therefore for the client to identify himself with the man in the street if he would share this unearned increment of values. On the other hand, the architect may be very grateful to his clients for their support of his industry and experiments, for after all he can rarely know whether

his work has been fulfilment of agency—in itself a very respectable claim—or the magic that can quicken the hearts of men. Perhaps that is why architects as a rule are so shy and timid in voicing their aspirations, so hungry and brutal in contesting their opportunities, in all innocence of common greed. Each child of their imaginations may be a God.

Architecture

When one walks abroad, not too much engrossed with one's destination, the faces of the passers by, and sometimes their apparel, strike on one's attention with rich diversity of impact. The vast majority in any city (unless it be a city newly seen, where all has the glamour of fresh interest) seem dull, expressionless, common, perhaps repellent. But here comes some engaging villain, or a benevolent patriarch, or perhaps some haunted fanatic, or a dear complacent matron—someone displaying character, achieving style. Analysis racial, hereditary, circumstantial, has nothing to do with the interest aroused, though it may have much to do with the interest pursued, and may also be wholly astray. What matters is that these human objects of human interest manifest character, and if the manifestation be sometimes false, that is a small affair. It is the manifestation that concerns us. As it is with people, so it is with buildings. The blank, expressionless structures that are, for the most part, mere products of faithful agency, do not touch us at the heart as we pass along. One may be called in professionally to attend the case of a building, passed a thousand times without having been aware of its existence, till invited to look it over for reconstruction. But there, in the crowd, one saw mere eyes, and again, eyes that were windows to the soul; so, among the houses one sees windows, and again, windows that are eyes.

The ultimate test of the architectural quality of a building is the answer to the question "Can it look?"—look at you, look past you, look over you or beyond you, serenely, playfully, sadly, smugly? Is the look kindly or harsh, keen or naughty, austere or proud? If it looks to you, and at you, or anyone else, in any of such ways—and whether you like the way or not, has nothing to do with the case—then be sure you are in the presence of a work of art. Someone who had to do with the construction before you was an artist, and you are his man in the street, and the least you can do is to bow and salute your new acquaintance, the spirit of his building, for this thing may become your friend on better acquaintance.

But do not make the mistake of supposing that anyone paid the artist to make the building smile or frown. We have been at pains to explain that that is a service that cannot be either sold or bought, or even be performed at will.

The Literature of Architecture¹

By RUDOLF DIRCKS

WHAT Desgodetz did for Rome, a later Professor of the French Academy, Julien David Le Roy, did for Greece in his *Les Ruines des plus beaux Monuments de la Grèce*, published in Paris in 1758. And to continue in the same line of investigation of French research in regard to ancient architecture, if we take a leap of half a century we may thank Nelson's victory over the French fleet in Aboukir Bay, which held Napoleon and his army prisoners in Egypt, for the splendid series of twenty-three volumes—13 volumes of plates and 10 volumes of text—*La Description de l'Égypte*, published by order of the Government, 1809–1822, the result of observation and research during the time that Napoleon and his army were detained in Egypt. It may have been in a spirit of emulation that later induced King Frederic William the Fourth of Prussia to instruct Lepsius in 1842–45 to undertake an equally monumental work on Egypt, *Denkmäler aus Aegyptien und Aethiopien*, published in Berlin between the years 1849–59. As I have already said, the King presented the Institute copy. The sphere of French investigation was extended by L. F. Cassas to Syria by the publication in 1799 of his *Voyage pittoresque de la Syrie, Phénicie, Palestine et Basse Égypte*, which was supplemented at a later period by the Count de Vogüé in his *Syrie Centrale*, published in 1865, and by Flandin and Coste, Texier, Perrot and Chipiez, and other authors.

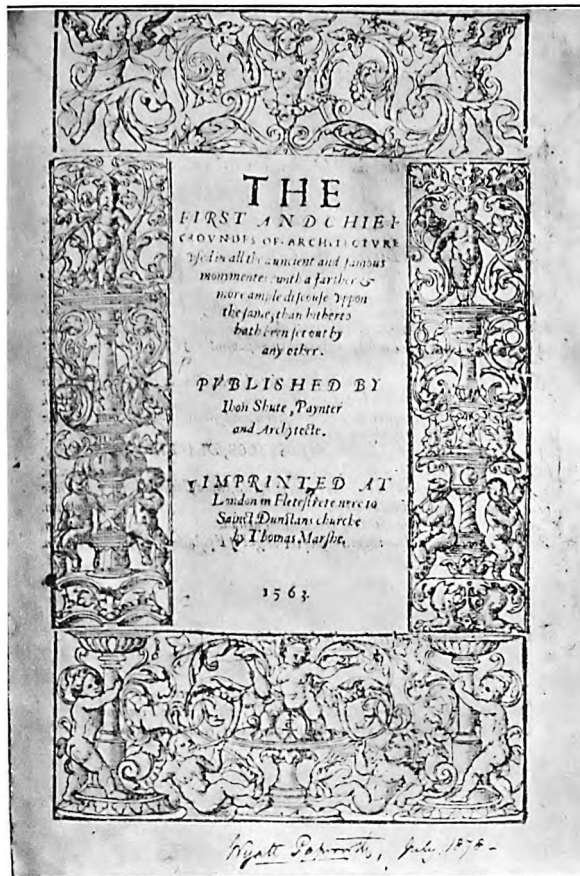
The Library is well stored with the French works published during the nineteenth century. As I have already mentioned, one of the first gifts to the Library was a series of the works of Percier and Fontaine, the architects most typical of the style of the First Empire. Sauvageot, Rouyer and Darcel, Texier, Ramée, Chapuy, Revoil, Choisy, Viollet-le-Duc, Berty, Palustre and many other distinguished authors are all represented. There are many links between French architects and authors and the Institute collection, but I shall confine myself to mentioning one (I have already spoken of Garnier's presentations). This is connected with Charles Félix Marie Texier, a writer familiar to all students of the architecture of Asia Minor for his archæological and architectural discoveries, delineated in three folio volumes (1839–49) *Description de l'Asie Mineure*, for the publication of which the Chamber of Deputies voted the sum of 100,000 francs. The Chamber also provided funds for the publication in 1842–52 of a later work, *L'Arménie, la Perse et la Mésopotamie* (two folio volumes). His last work *Byzantine Architecture*, completed in collaboration

with an English architect and archæologist, R. P. Pullan, was published simultaneously in English and French in 1864. During his researches in the East, Texier made a large number of drawings, and collected a great deal of information that has not been published. In 1867, the year in which he received the Royal Gold Medal of the Institute, he presented to the Library much of this unpublished matter, contained in five bulky folio volumes of drawings, and two volumes of manuscript. Four of the volumes of drawings contain plans, elevations, sections and details of Sancta Sophia and other mosques and buildings at Constantinople, as well as draughtsman's notes, general views, either in water-color or pencil, and sketches of Turkish types, illustrating the manners and customs of the people, and incidents, such as a man swallowing a sword or a man being hanged. The fifth volume of drawings takes us farther East, to Asiatic Turkey, to Persia and Mesopotamia. The manuscripts comprise miscellaneous matter, of which probably the most important are the pages devoted to Constantinople and archæological descriptions of districts in Asia Minor. The drawings are known to most authorities on the architecture of Constantinople.

With Texier I shall turn from French to English books, but before doing so I should like to remind students of the scholarly restorations by the *anciens pensionnaires* of the French Academy at Rome, who, in collaboration with distinguished archæologists, were responsible for the series of volumes dealing with Olympia, Epidaurus and Pergamos.

When we turn to England, after having glanced at the publications of Italy and France, we do not at first find the same richness and abundance. Although the Renaissance found its earliest expression in Italy, the movement no doubt expressed a universal spirit of reaction, of gradual growth, which followed the Middle Ages. But the vitality of Italy was contagious, and her influence spread rapidly, after the invention of printing, partly by the means of printed books, and partly by English travelers in Italy and Italian artists who came to this country in the sixteenth century. It may, perhaps, be assumed that the Institute Library contains a representative collection of English architectural authors: but, as has been indicated, English architects and students were not entirely dependent upon native authors for their instruction. The books of Italian and French authors were sufficiently familiar either in the original or in translation. In Italy and France we have seen that early authoritative

¹Continued from last issue.



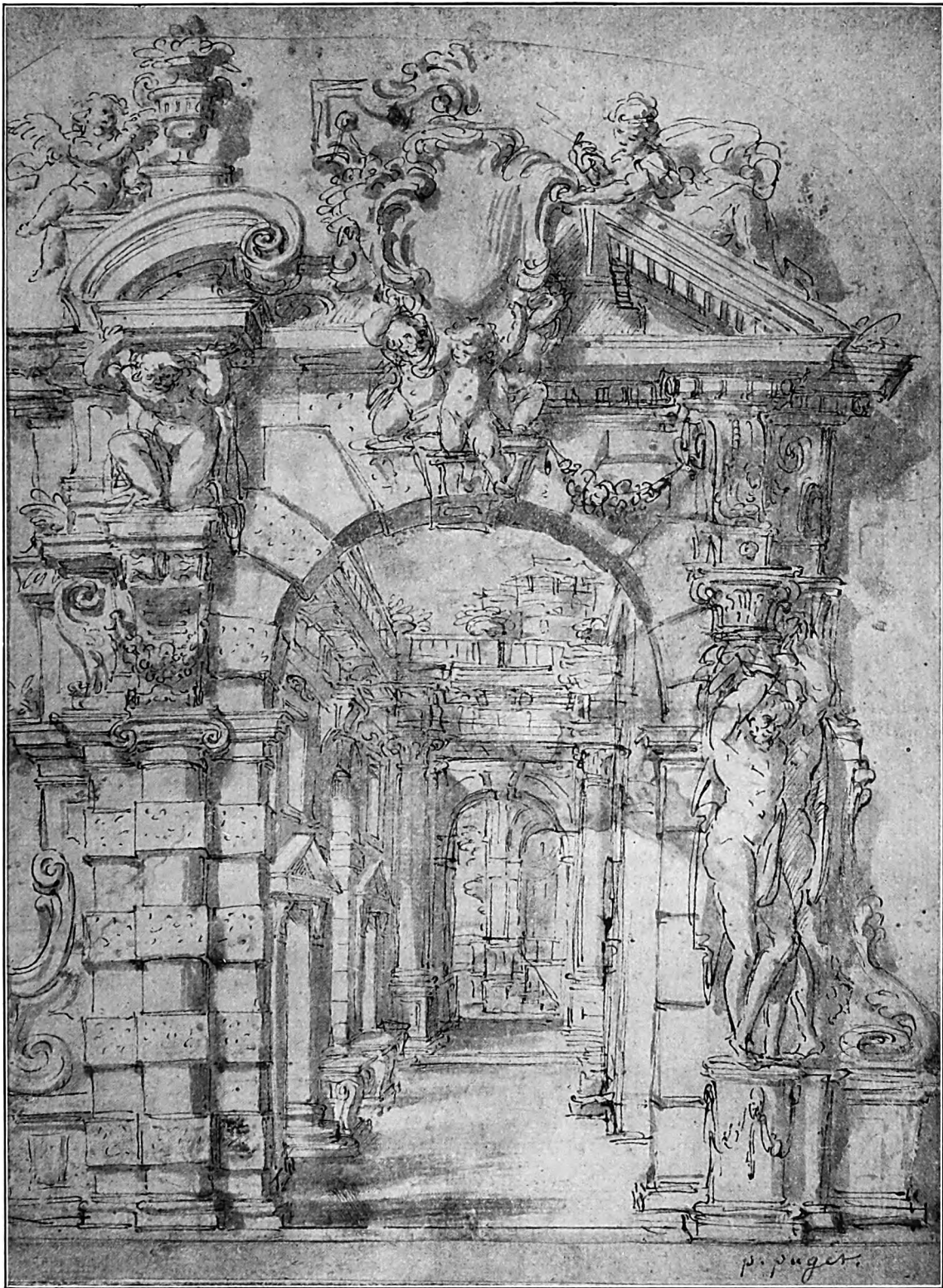
Title-page (reduced) of John Shute's "First and Chief Groundes of Architecture" (1563). (R.I.B.A. Collection.)

works were by notable architects. This was not quite the same case in England. It is doubtful whether John Shute was an architect. Gerbier was a diplomat and many other things, and an architect rather by accident than by design; Sir Henry Wotton was a British ambassador at the court of Venice and the author of the phrase *peregre missus ad mentiendum Reipublicæ causa*, but he was not an architect. "For I am but a gatherer," he said, "and disposer of other men's stuff at my best value;" John Evelyn, the diarist, was responsible for a translation, giving "with all the marrow and very substance" of Fréart de Chambray's *Parallele de l'Architecture*, published in 1664 (this edition is in the Library), and Wm. Leybourn translated Vincenzo Scamozzi's *Dell' Idea della Architectura Universale* (1700), but neither was an architect. The Library contains a very rare book, the first and only edition, of, so far as is known, the first book on architecture published in English, *The First and Chiefe Groundes of Architecture*, by John Shute, a folio volume published in London in 1563. Shute spent two or three years in Italy, and acknowledges his indebtedness to Vitruvius, Serlio, and Serlio's pupil, the Frenchman

Philander, who published an edition of Vitruvius with annotations at Rome, in 1544, Paris in 1545, Lyons in 1552, any of which might have been consulted by Shute. It is even within the bounds of possibility that he may have met Philander in Italy, but Serlio was probably dead before the time of his visit, the date of which is uncertain. The title page of this very rare book is here illustrated. We know, therefore, to a certain extent, the Italian writers with whom the first English author on architecture was familiar. But we are able to gather more complete information concerning the influence of Italian and French literature from the works belonging to the library of a greater man. Inigo Jones visited Italy on two occasions. The date of his first visit is not determined, but it was before 1606; he states in the introduction to his *Stoneheng Restored* that it was in his younger years. The time of his second visit is determined by his marginal notes in the well-known copy of *Palladio* in Worcester College Library. It was in the years 1613 and 1614. Inigo Jones was too great a man to be a typical man, but there is no reason to suppose that the books in his library were exceptional possessions for a cultivated and travelled man of his time. I have already spoken of his copy of Serlio, which is now in the possession of the Institute. I am indebted to the courtesy of Mr. C. H. Wilkinson, the librarian of Worcester College Library, Oxford, for a list of books preserved in that library which contain Inigo Jones's autograph. They include the 1601 copy of *Palladio*, to which I have already referred (the famous copy with MS. annotations and drawings); De l'Orme's *Le premier tome de l'Architecture*, 1567 edition; Vasari's *Le Vite de più eccellenti Pittori, Scultori e Archittetti* (Florence, 1568); F. Leandro Alberti's *Descrittione di Tutta Italia* (Venice, 1588); V. Scamozzi's *L'Idèa della Architettura Universale* (Venice, 1615); Torello Sarayna's *De Origine et Amplitudine Civitatis Veronæ* (Verona, 1540); Summonte's *Historia della Città e Regno di Napoli* (2 vols., Naples, 1601), *De Rebus Praeclare Gestis a Sixto Pon. Max* (Rome, 1588), and *Le Cose Maravigliose dell' Alma Città di Roma* (Venice, 1588)—the last named containing a scrap of writing which Mr. Wilkinson ascribes to Jones.

Inigo Jones was the author of only one published work, *The Most notable Antiquity of Great Britian, vulgarly called Stone-Heng, on Salisbury Plain, restored*, which was not published until after his death, by John Webb. The Library contains a copy of the 1725 edition. In this remarkable treatise Inigo Jones arrives at the conclusion that "this antient and stupendous pile" was originally a Roman temple, built after the Tuscan order.

In the drawings of the Burlington-Devonshire collection we are brought into closer touch with



From a Signed Drawing by Pierre Puget (1662-94).
(R.I.B.A. Library: Sir James Drummond Stewart's Collection.)

Jones. There are some seventy or eighty drawings, either by him or reasonably attributed to him. The Library also contains a facsimile copy of a sketch-book which Jones used in Italy during his second visit, in 1614, containing on the first page the inscription "Roma.—Altro diletto che Imparar non trovio.—Inigo Jones 1614." The Duke of Devonshire was responsible for the facsimile of which only 100 copies were produced in 1832. The Institute copy was presented by the Duke to Decimus Burton in 1836. The sketches, with one exception, are entirely devoted to figure and anatomical studies and are drawn with Jones's characteristic freedom. We have also most of the original drawings which Henry Flitcroft made for Wm. Kent's *Designs of Inigo Jones*, published at the expense of Lord Burlington, in 1727, a volume which also includes designs by Kent and Lord Burlington.

Sir Balthazar Gerbier's two books—*A Brief Discourse concerning the Three Chief Principles of Magnificent Buildings* (1662) and *Counsel and Advice to all Builders* (1663)—throw some light on the practice of architecture in the time of Sir Christopher Wren—little duodecimo volumes which contain almost as many pages of dedication as there are of text. In the second book I have mentioned there are no less than forty—the first addressed to "The Queen Mother" and the last to "The Courteous Reader." *Een Constich Boeck van de vijf Columnen van Architecture*, by Hans Bloem, fo. Amsterdam, 1598 (the plates were reproduced in an English version in 1660), possesses some interest on account of association, because it was discovered above the ceiling joists in an attic at Wotton House, the family seat of the Evelyns—it was at Wotton where John Evelyn was born and buried. While speaking of these rare early editions I should like to mention two which, although not bearing on architecture, are not without architectural interest: these are William Lambarde's *Perambulation of Kent*, the earliest of county histories, and John Stow's *Survey of London*, of which the Library contains, respectively, the 1576 and 1603 editions.

In the latter half of the seventeenth century Dugdale published his *Monasticon Anglicanum* (1655), containing Hollar's engravings, and David Loggan his engravings contained in *Oxonia Illustrata* (1675) and *Cantabrigia Illustrata* (1676–1670) (both copies are in the Library). These books are not only interesting as records or for their engravings, but also because they were the precursors of the considerable volume of illustrated literature on our national buildings which appeared in the following century and later, and which is continually being added to. Early in the eighteenth century (1708) we have Knyff and Kip's views of great country seats, and the Library also contains James Beeverell's

Les Delices de la Grande Bretagne et de l'Irlande, published in duodecimo at Leyden in eight volumes, containing 241 plates, as well as later works of a similar character such as Britton and Brayley's *Beauties of England and Wales* (1801–18), and Neale's *Noblemen and Gentlemen's Houses of Great Britian* (1824–9), etc.

We have numerous such works, usually remarkable for their engravings, dealing in a picturesque fashion with the buildings of other countries, of which an excellent example is Jacques Le Roy's *Castella et Prætoria Nobilium Brabantia*, a folio volume published at Amsterdam in 1696, with engravings by Wenceslaus Hollar, Adam Perelle, Franz Ertinger, Jacobus Harrewyn and other notable engravers of the seventeenth century.

The Institute is indebted to Mr. Lawrence Weaver (now Sir Lawrence Weaver) for two interesting contributions to the collection,—the interleaved heirloom copy of the *Parentalia*, which remained in the possession of Sir Christopher Wren's family until 1911, when it was purchased by a generous group of subscribers from Mrs. Pigott, since dead, the last surviving direct descendant of Wren; and for a copy of the third edition of Elyot's *The Boke named The Governour*, the 1546 and third edition which bears on the title page the autographs of Christopher Wren, Dean of Windsor, Sir Christopher Wren's father, and of Sir Christopher Wren himself. The interleaved copy of the *Parentalia* contains a large number of inserted engravings, in addition to the ten engravings published in the original edition, as well as numerous letters and documents in manuscript, and a few original drawings which show Wren's interest in physical and natural science. The *Parentalia* contains an original letter addressed by Wren to his son, who was traveling abroad at the time—a fatherly, gossipy letter. Independently of the *Parentalia* the Institute possesses another original letter of Wren, dated 1st December 1716, addressed to Mr. Vanbrugh (no doubt the der Vanbrugh), who at the time was Secretary to the Commissioners of Greenwich Hospital. In this letter Wren accounts for his non-attendance at a meeting of the Commission and makes suggestions with regard to matters connected with the Hospital. There is also in the Institute a drawing of a section of the dome of Greenwich Hospital, which Professor Donaldson attributed to Wren.

The eighteenth century was prolific in the publication of architectural books, and, so far as Classic architecture is concerned, they were designed on a scale and written with the authority of independent research that hitherto had been unknown in English architectural literature. In regard to national architecture there is the Vitruvius Britannicus of Colin Campbell, and those who followed him in this

THE LITERATURE OF ARCHITECTURE



Reproduced from a facsimile of Inigo Jones's Sketch-Book. (R.I.B.A. Collection.)

work,—Woolfe and Gandon, G. Richardson and P. F. Robinson,—with scale drawings of plans, sections and elevations, taking the place of picturesque or topographical views. Battye Langley's numerous books, probably the most consulted of their time belong to neither of these categories, and were misleading in many respects. There are also a number of books by architects illustrating their own designs (of which Rawlin's *Familiar Architecture* is a type), interesting expressions, for the most part of the style of the latter half of the eighteenth century. The publications of classic work were largely due to the influence of the Society of Dilettanti. The Society was founded in 1734 by "some Gentlemen who had travelled in Italy, desirous of encouraging at home a taste for those objects which had contributed so much to their pleasure abroad." The first book published under the auspices of the Society was the first volume of *The Antiquities of Ionia* in 1769, which developed into four volumes during this and the succeeding century; later works were *The Unedited Antiquities of Attica* (1833), and Penrose's *Investigation of the Principles of Athenian Architecture* (1851). It should, however, be remembered that prior to the publication of the *Ionian Antiquities* three members of the Society had already published independently most important works: Robert Wood's *Ruins of Palmyra* (of which we have the original drawings, no doubt the work of J. B. Barra, who accompanied Wood to the East as his draughtsman) in 1753 and *Ruins of Baalbec* in 1757, and the first volume of Stuart and Revett's *Antiquities of Athens* in 1762. In 1912 the Society of Dilettanti presented to the Institute a set of unpublished plates engraved between 1820 and 1840 and many original

drawings made by the members of the Second Ionian Mission sent out by the Society in 1811. The plates were subsequently published in a folio volume under the editorship of Professor Lethaby, and form Vol. V. of the *Antiquities of Ionia* series. The collection presented by the Society also includes earlier drawings made by James Stuart and others for the Society's publications which I have mentioned. In the consideration of the publications of the eighteenth century the influence of Lord Burlington—Richard Boyle, the third Earl of Burlington—to whom I have so often referred, should also be taken into account. He brought Leoni from Italy to undertake the translations of Alberti and Palladio, and, realising from Palladio's description



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AMPHITHEATRE, POLA.
From the Original Water-color Drawing by James Stuart (Stuart & Revett). R.I.B.A. Collection.

of Ancient Rome that he made drawings of the classic buildings, went to Italy on a voyage of discovery, and not only found the drawings of the Roman Baths, but also drawings of Palladio's own buildings, which he brought back to England, and which now form part of the Burlington-Devonshire collection. I have already referred to Lord Burlington's publication of a selection of the drawings of the Roman Baths.

Another interesting possession of the period are the lectures, in manuscript, delivered at the Royal Academy in 1768 by Thomas Sandby, the first Professor of Architecture of that Institution.

The name of Willey Reveley is not perhaps so familiar to students as the other names I have mentioned, although he was a man of parts and edited the third volume of *The Antiquities of Athens* (1794), in which he replies with some bitterness to criticisms of Greek Architecture which Sir William Chambers had written in his work on Civil Architecture. The Library possesses Reveley's manuscript notes and criticisms on the architecture of Italy, including the cities or towns of Rome, Florence, Milan, Verona and Pisa, and a diary of a tour in Greece and Egypt, whither he accompanied Sir Richard Worsley as his draughtsman and architect. He was abroad during the years 1785 (or 1784)-1789. In the following century we have the diaries (contained in 16 pocket-books) of J. L. Wolfe, who accompanied Sir Charles

Barry to Italy and Sicily in 1820, containing careful descriptions of the buildings seen on the way, and numerous delicate sketches, made either by a quill pen (the pen still remains in one of the books) or in pencil. We also have later the diary of Sir Charles Barry, containing notes and quick pencil sketches of a Rhine holiday taken in the autumn of 1842, depicting the Rhine Castles and details of buildings at Nuremberg and other places. The original manuscript of Gwilt's *Encyclopædia of Architecture* (1842) has also recently been added to the Library.

Before leaving these original manuscripts, I should like to refer for a moment to another type of document, of considerable historic interest. This consists of various books of accounts connected with Greenwich Hospital, the Horse Guards and Somerset House. The oldest of these, relating to Greenwich Hospital, include the Contract Prices for Building the Hospital and other documents (there are thirty altogether) associated with its erection in 1696.

There are also three books of accounts, described by Wyatt Papworth as "Manuscript Ledgers" connected with the building of the Horse Guards (begun in 1750) and Somerset House (1776) which are instructive as to the course of erection of these buildings, the method of carrying on the works, the prices paid for works done by "measure and value," and the names of the trades-people employed, covering the period from 1776 to 1795. They contain not only

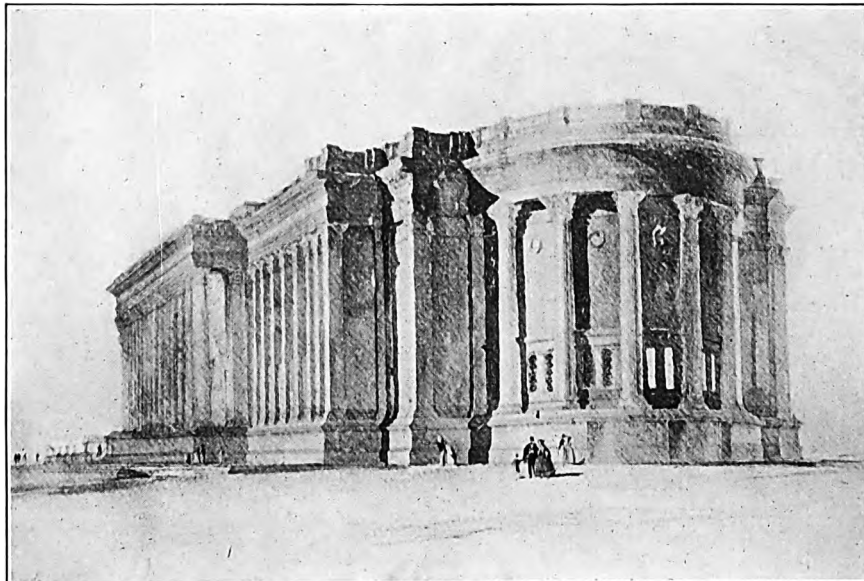
THE LITERATURE OF ARCHITECTURE

the accounts of the masons, bricklayers, etc., but also of the artists, Reynolds, Cipriani, West and others—which recall the fact that in the early days of the Royal Academy it was housed at Somerset House.

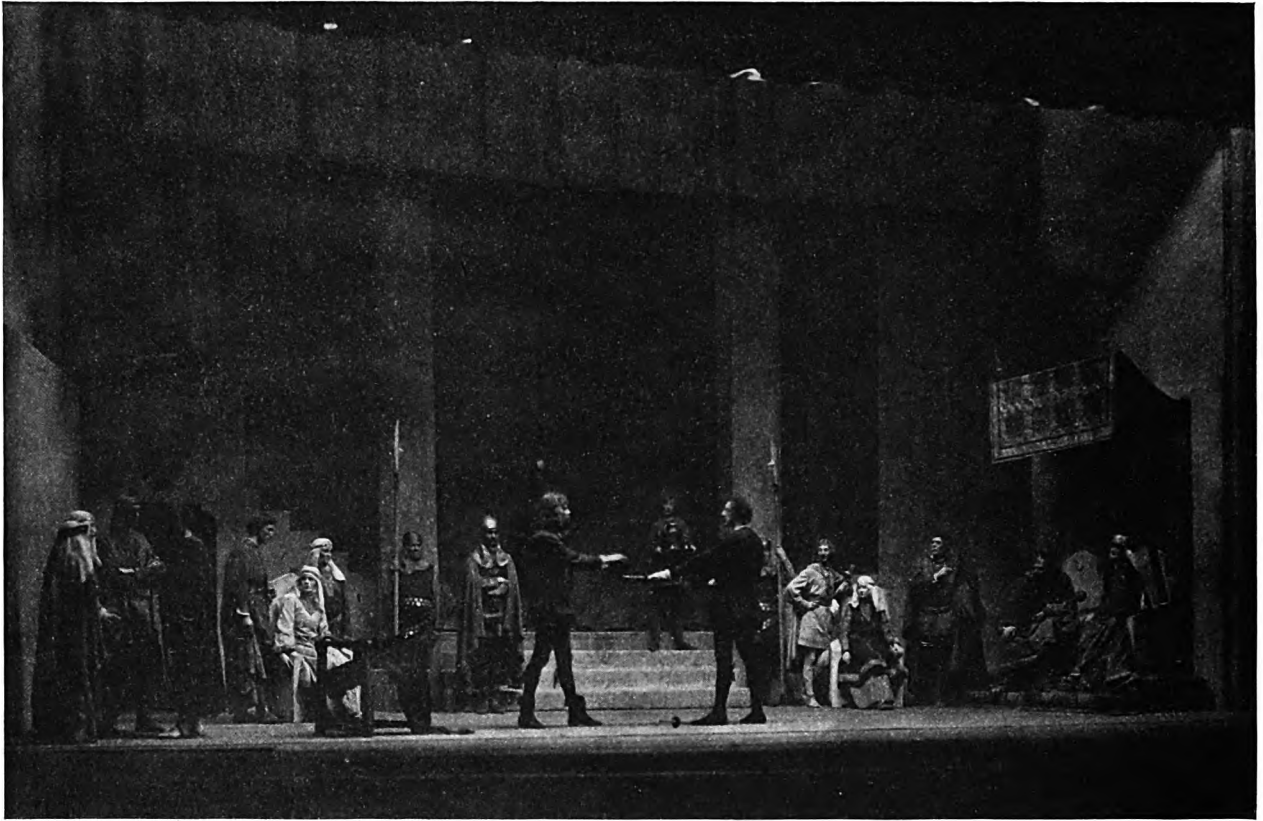
The publication of the early volumes of the Society of Dilettanti which I have already mentioned preceded the neo-Classic revival in England, and indicated the direction to which architectural thought was turning. We have, amongst other original drawings of this period, a water-color drawing of one of the most celebrated buildings, St. George's Hall, Liverpool, by the architect, H. L. Elmes, which is here illustrated. Although there was an architectural break in the classic revival, its influence was never wholly dissipated; the tradition was continued in the classic studies of Cockerell, Pennethorne and Penrose, and by architects and archæologists in England, Germany and France. Professor Richardson in his *Monumental Classic Architecture in Great Britain during the Eighteenth and Nineteenth Centuries* has quickened interest in the architectural work of the latter half of the eighteenth century and first half of the nineteenth.

As the Institute was founded at the time when the Gothic revival was in the air, it would be surprising if the Library were not fully equipped with the literature that preceded and grew with the movement. Britton's *Architectural Antiquities of Great Britain*, and his *Cathedral Antiquities of England*, Winkle's books of Cathedrals, both in England and France, the various books on mediæval art and ornament by Augustus Charles Pugin and his son Augustus Welby Pugin, the illustrations published contemporaneously by the Brandons, and by J. K.

Colling, Turner and Parker's *Domestic Architecture of the Middle Ages*, and Dollman and Jobbin's *Analysis of the Ancient Domestic Architecture in Great Britain*, the first *Discriminating History of Gothic Architecture* by T. M. Rickman—first published in 1817, and followed and improved by numerous subsequent editions—and the books of Bloxam, Parker, Paley and Sharpe are the principal works which go to make up the early literature of Gothic architecture. The collection includes many original drawings of these, including some examples of the work of Augustus Welby Pugin, and a complete set of the original drawings which J. K. Colling made for his *Gothic Details* and *Gothic Ornaments*. Since Mr. Townsend read his Paper on the Institute drawings the collection has been increased by considerable collections of the works of Wm. Burges, Norman Shaw, and Wm. Butterfield. Between the years 1840–50 there appeared concurrently the collections of lithographic plates of English domestic architecture from the drawings of C. J. Richardson and John Nash, which revived interest in the quality of early Renaissance architecture. Some forty years later, in 1894, Mr. J. A. Gotch published his well-known work, in two folio volumes, *Architecture of the Renaissance in England*, which was followed in 1901 by Belcher and Macartney's *Later Renaissance Architecture in England*, and again, later, in 1911, by Garner and Stratton's *Domestic Architecture of England during the Tudor Period*. The written history of the times covered by these works is developed in Sir Reginald Blomfield's exhaustive *History of Renaissance Architecture in England, 1500–1800*, and by Mr. Gotch in *The Growth of the English House* (1909), and in other works.

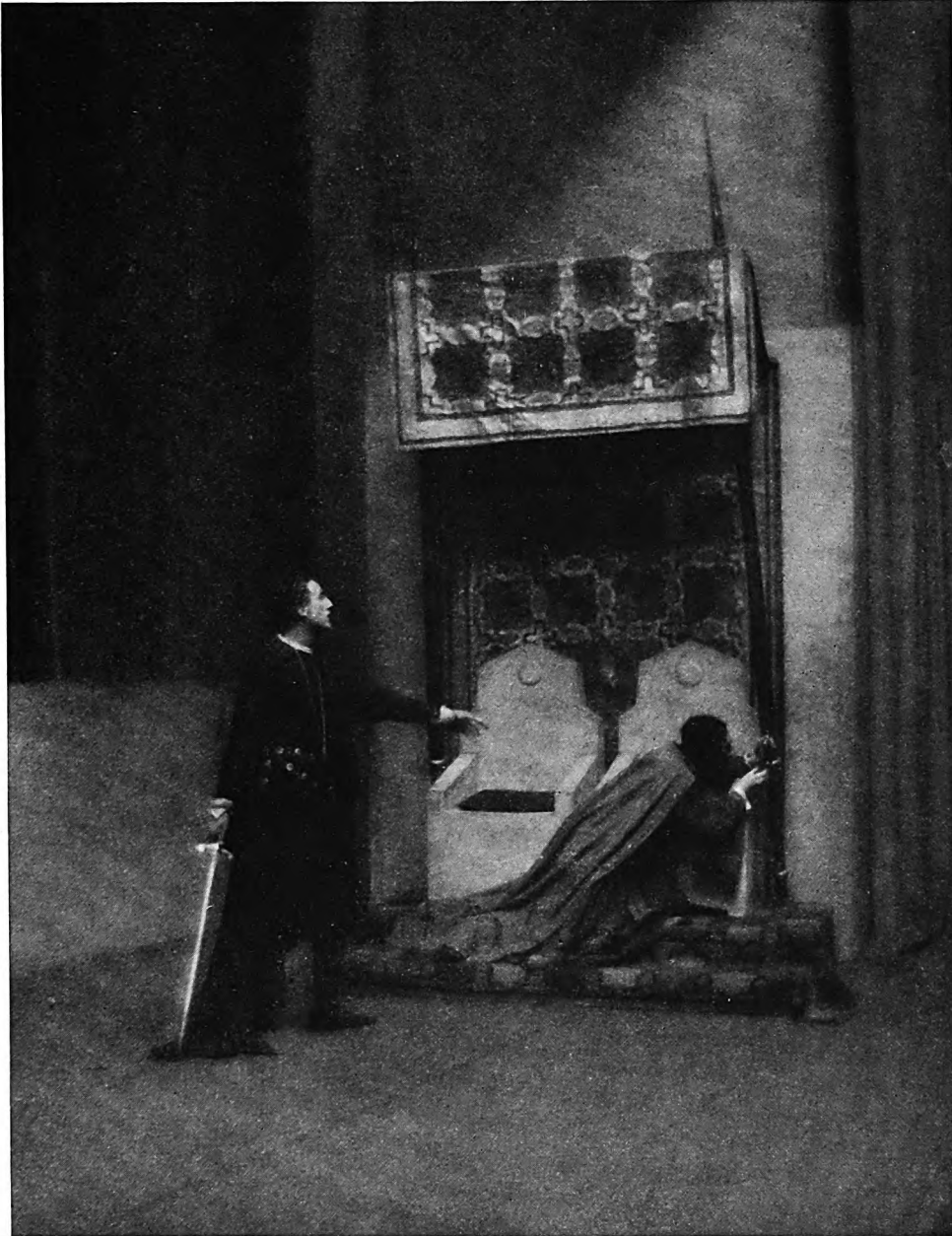


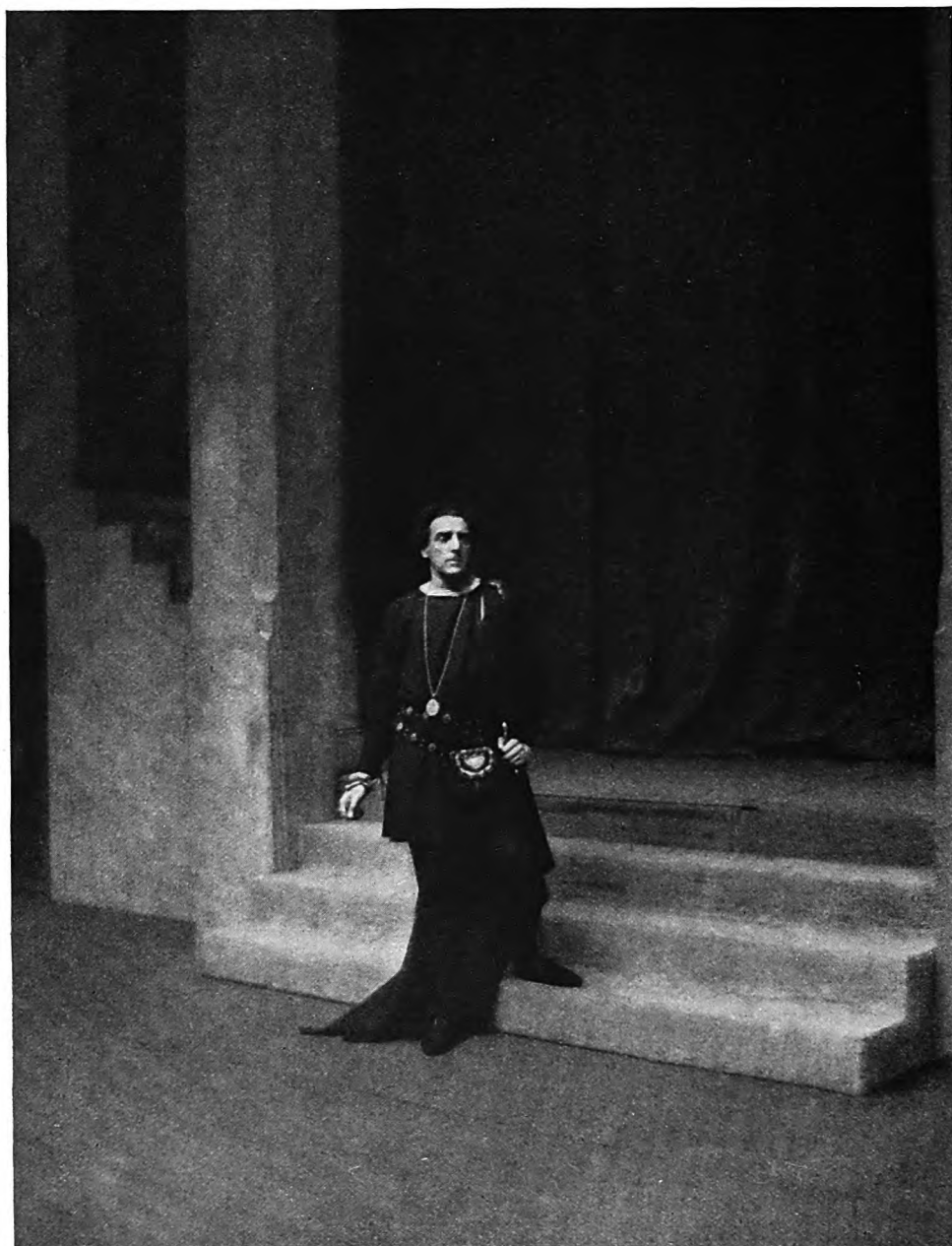
From a Water-color Drawing of St. George's Hall, Liverpool, by the Architect, H. L. Elmes. (R.I.B.A. Collection.)



FOUR ILLUSTRATIONS OF WALTER HAMPDEN'S PRODUCTION OF HAMLET

Settings and Costumes Designed by Claude Bragdon







Architecture and Craftsman

By W. R. B. WILLCOX.

One need not apologize, I suppose, for reflecting upon problems which beset the world today; nor for trying to see what, in his own field, may be done—little though it be—to solve them. One's first difficulty is to see things as they *are*, and not, thoughtlessly or from habit, accept statements and explanations as facts, before subjecting them to all the power of analysis at one's command. Even when conscious that truth evades one, one may be able to detect fallacy.

Men everywhere are aware of the alarming drift of population to cities. The thoughtful realize that this drift must be stopped, if a great calamity to our country is to be prevented. We may not know the causes, or remedies, for that drift, but what shall we say of the patriotism of cities, which, through Chambers of Commerce and municipal organizations, make studied efforts to increase their populations—to entice more and still more industries to locate in them and the people to man them? What of the lusty, metaphorical cheers which arise from cities which, with each recurring census, show unprecedented growth?

Not many months ago, we were everywhere assailed by the admonition, that unless there were greater production, the country would soon face a serious situation; it was suffering from dangerous *under*-production. Yet, today, we learn that our difficulties arise from a surplus of goods. Labor, whose inefficiency was complained of as the cause of *under*-production, three short months ago, is now unemployed because of *over*-production.

Need we know the truth as to these conditions, three months apart, to be convinced, that if, three months ago, we were suffering from *under*-production, due to the inefficiency of labor, we are not now burdened with a surplus? Can *inefficient* labor, in so short a time, become efficient enough to change a condition of perilous want, into one of terrible plenty? And in times of plenty, should people suffer want? Also, if labor, by producing a superfluity of goods has, thereby, brought on a shocking state of *unemployment*, what more seemingly logical conclusion for it to reach, than that *inefficiency* and *under*-production are more to be desired than what engineers and economists term "efficiency" and "over-production"? When supposedly sane men accept, without analysis, reiterated statements as statements of fact, simply because they appear to emanate from some fount of wisdom, and base conclusions thereon, how shall reason prevail?

A friend likens this too prevalent habit to the experiences of babyhood, when the inarticulate youngster finally responds to the often repeated entreaty, "Say Papa! Say Papa!" and continues to say "Papa," without knowing what it means. I imagine that we grown-ups are too often brought to confusion, by thoughtlessly saying "Papa" to reiterated suggestions.

In our own field we are facing problems of changing relationships with respect to contractors, engineers, owners, our fellow-architects and workmen. Are we sure that we are not saying "Papa," in connection with some of them? What, for instance, is our attitude toward the "labor" problem? The most frequent comment today about

workmen in the building industries, as elsewhere, is that they are inefficient. Our individual experiences seem to warrant it. It seems hard to get good craftsmen. We complain that workmen lack skill, or fail to use what they have. We repeat it, with the implication that the workman is to blame, without cause. Labor unions, with their rules governing the amount to be accepted as a day's work, the length of the working day, apprentice restrictions, and wage rates, have come to be regarded as organized means to demoralize production; they, therefore, must be crushed. While we hold that verdict in abeyance, as a "punishment to fit the crime," let us examine our condemnations to see, if, perchance, we are carelessly saying "Papa."

At the close of the fifteenth century, under the Guilds of England,—as Thorold Rogers records,—labor reached, *coincidentally*, a degree of skill and material prosperity unsurpassed in all the subsequent years. While it would be unwise to assume, that this was due to the existence of the guild system, it does suggest that workmen's attitudes vary greatly with circumstances, and that they must be examined fearlessly, if we would hope to formulate a basic remedy for present evils. There must be discoverable causes for these attitudes of workmen, as there are causes for the attitudes of business and of professions. Can we discover them?

Workmen are human beings, subject to wants and desires not unlike those of architects; nor do their moral and ethical qualities differ from them greatly, if at all. The first incentive to labor,—common to all people,—is the desire for things which minister to physical wants, but that is an annoying prelude to real enjoyment of life. People, generally, do not live to eat, nor to wear clothes; they do these things in order that they may engage in activities which give zest to life, which stimulate the imagination, which awaken the creative faculties, which win satisfactions in the sense of accomplishment,—in the sense of having performed to the best of one's abilities.

In our own work, as architects, we know that happiness and contentment are measured, chiefly, by the nearness of approach we make to our ideals. If annoyed by repetition of hackneyed problems, our sole compensation is a material reward, devoid of any gratification of creative enthusiasms. In fact, the less interesting the task, the more importance we attach to material rewards. It is on that basis that, for a long time, we have established our charges. Greater returns for the less interesting jobs are expected to yield an average, which, when the more inviting opportunities come, shall permit us to indulge a natural wish to test our skill, without concern for material wants. Many an artist, many a craftsman, has endured want, that he might respond to this finer impulse. It is the opportunity to develop and to demonstrate the best that is in him, that calls forth the greatest strength of purpose, the higher qualities,—the reward for which is sense of accomplishment, of personal power, of *individuality*. Thus, life yields a joy, for which material rewards but cheaply compensate. How exasperating, how dispiriting, then, a life where one's daily task strikes no spark of mental, emotional, or spiritual elation!

That, however, is the situation with respect to the vast majority of workmen in the building industries, under

ARCHITECTURE AND CRAFTSMAN

conditions of employment in force today. What incentive to production, then, exists for him? Just one. To "get the money,"—the same, single motive that inspires all business. If wage increase be thwarted, then shorter hours, or continuous employment secured by reduction in the number of available workmen, is striven for. Under the system of "business for profit," the workman certainly has not received more and more consideration as a human being. He has come to be seen solely in the light of an instrument of production,—a machine. If he is skillful and *quick*, well and good, but quick he must be, because slowness saps profits.

For a generation, I have been an interested observer of the evolution of the contract system. Under that of "day's work," as it was called, contractors sought, certainly, to accomplish their tasks at the least possible cost, consistent with good work. But as owners expected to pay the necessary costs of producing *good work*, a high standard of workmanship,—not low production cost,—was the *sine qua non*, in estimating the contractor's capacity. However, upon the more general adoption of the contract system, these attitudes on the part of owners and contractors underwent a gradual change, which became clearly apparent, only after a period of years had made analysis, in the light of experience, possible. As specifications encompassed more and more the quality of work desired, the owner assumed that the latter would be forthcoming, at whatever figure he could get a contractor to undertake the work for,—finally using competitive bids to coerce him.

The contractor, to secure the work, reduced his allowance for profits, which, once the job was initiated, he hoped to recoup by similar competition among sub-contractors and by reduced wages to workmen. The whole emphasis from top to bottom, came to rest upon the item of cost. The architect, from serving as a supervisor of construction,—to see that a building developed in accordance with the design,—became more and more, a superintendent, with responsibility of seeing that the *quality* of the work and materials was as specified. He became a watchman, whose duty it was to see that the owner was not cheated,—a sort of detective of secret economies in violation of the specifications.

I recall how, some years ago, in a school building requiring a large amount of oak panelling, I condemned certain panels three and four times, finding them after one condemnation put into the work elsewhere, which I was able to detect by use of a private mark unknown to the contractor. This contractor was esteemed a reputable, honest man by members of the school board, who were disposed to laugh at what they regarded as a clever piece of business. I am sure, however, that I would have been censured, had I not detected the trick. But, for architects, the depths were sounded, when some unscrupulous owner suggested that the architect cheat the contractor in the owner's interest, by exacting, as final interpreter of the specifications, more than the latter covered.

This low-cost poison penetrated to every corner of every business connected with the building trades; originating in friction, often concealed, between owner and contractor, it affected the sub-contractor, the material dealer, the manufacturer, and at the end of every channel of the industry,

it settled upon the workman. He, through economic necessity, was driven to "speed up," to accept less wages, to work longer hours. The slogan of the whole institution,—which seemed to be to "get by," to "put it over,"—got into *his* blood. Why should his aim be higher? And the costs which the owner thought to save because of a low figure, the architect worked out in his capacity as sleuth. The relations of all parties concerned suffered an appalling change; from those of mutual trust and cooperation, to those of distrust and antagonism,—the latter, where possible, concealed under cover of simulated good-fellowship.

What was the workman's reaction to this state of affairs? To those above him, there was open the chance of repairing contingent losses at the expense of the next in order below. But with the workman, the end of the series was reached. There were none upon whom he could shift a loss. His alternative was to fight back. That he proceeded to do. Where there were unions, he tried to enlarge and strengthen them; where lacking, he organized them. Periodic spasms of strikes and lockouts occurred. At no time in later years, have the building industries been free from their demoralizing consequences.

Had the unions made their fight against the real cause of the trouble, instead of against its obvious effects,—if they had been wise enough, and able, to attack the *inefficiency* of the system, a system which, from its very nature, degraded both work and men,—they might have gone far toward correcting its defects, or having it "ditched" altogether. Instead of that, they chose, or were forced, to accept battle on the low ground of seemingly selfish interest—*increase of wages and shorter hours*, with which to gratify what is generally believed to be a naturally lazy nature.

It is just such selfish interest which today is said—and often seems—to actuate the unions. The public has accepted the ground of their choice as the real ground of contention, and, in consequence, as a general thing has given them little sympathy and less unprejudiced consideration. With what result? A generation of workmen has been educated in the vicious school of "business for profit," where, by example and by word of mouth, they have been taught every trick of inefficiency and irresponsibility, and every mood of despair.

There comes to mind the case of a Belgian ironworker. An architect, in quest of a man able to execute some delicate wrought iron ornament, having heard of his skill, called upon him at his shop. Laying the design before him, he asked the man if he could do the job. With an indifferent glance at the drawings, he returned a casual, "Yes, when do you want it?" and went on with the work in hand. His manner was so unpromising that the architect said: "Well, see here! I was sent to you because you could do good work and took an interest in what you did, but I confess, you don't seem to take much interest in this. I want the best job I can get,—you can take all the time you need to do the job, to satisfy yourself it is the best you can do. Nobody is going to make anything out of it and the owner is going to pay you himself,—the only stipulation is that you make the work as beautiful as you can."

The man had stopped his work and was looking at the

architect as if he didn't believe his ears,—then he half exclaimed, half inquired: "Do you *mean* it?" Reassured, he passed his hand over his brow, as if to brush away an idle dream and ejaculated: "My God! It's always, 'How soon can you have it? How much will it cost? Hurry, hurry, hurry! Make it cheap!'"

He did the work. He wrought as lovely a bit of iron work as came from the anvils of the Renaissance. You may be astonished to hear,—though I doubt it,—that his curt indifference, his nervous impatience, changed, while he worked at it, to flaming enthusiasm and radiant joy. Days, nights and Sundays were alike to him. He had, again, become an individual.

What, then, is to be done about the matter? Is the fight between labor unions and employers to continue forever? By such measures shall we develop real craftsmen, real artists,—when all interest and ambition to do good work is sucked out of them in the vortex of this terrible current of modern business, and leaves them devoid of that most precious thing—INDIVIDUALITY?

I do not presume to offer a remedy; the case is not so simple as these unqualified remarks might make it appear. But I am confident that before we can even make a start to find it, we must, with the utmost patience, tolerance and earnestness, quit saying "Papa" and *think*; quit battling the windmills of symptoms and give serious consideration to the ultimate forces that make them go round.

Who Discovered the Rules of Perspective?¹

By BEN J. LUBSCHEZ.

The observation and study of the natural phenomena of perspective date back to ancient times; the understanding of the graphic processes of perspective as known today dates back about two hundred years although some of these processes were understood a century earlier. Much earlier than this, for in the scratchings and drawings on bones of the Later Paleolithic period—35,000 to 15,000 years ago, we find evidence of some cognizance of the simpler perspective phenomena. So the first observation of perspective effect is lost in the dim obscurity of a very remote past. It is as old as attempts to draw from nature.

The fundamental phenomenon of perspective is the formation of the image of an object on a real or imaginary transparent screen, the picture plane, by points where it is pierced by lines from the eye to the various points on the object when it is looked at through the screen. In fact, early investigations of perspective, such as Dürer's, were made by drawing on a sheet of glass or other transparent screen, what could be seen through it. The word "perspective," meaning literally to see or look through, is derived from this phenomenon, which was recognized in the fifth century B. C.

In the introduction to Book VII of Vitruvius, we find that:

"Agatharcus, at the time when Aeschylus taught at Athens the rules of tragic poetry, was the first who contrived scenery, upon which subject he left a treatise. This led Democritus and Anaxagorus, who wrote thereon, to explain how the points of sight and distance ought to guide the lines, as in nature, to a centre; so that by means

of pictorial deception, the real appearances of buildings appear on the scene, which, painted on a flat vertical surface, seem, nevertheless, to advance and recede."

Vitruvius is not clear as to whether the scenery itself or the treatise of Agatharcus inspired the Greek philosopher, Anaxagorus, to write of perspective, but the latter is quoted as writing that, ". . . in drawing, the lines ought to be made to correspond, according to a natural proportion, to the figure which would be traced out on an imaginary intervening plane by a pencil of rays proceeding from the eye, as a fixed point of sight, to the several points of the object viewed." Thus it is seen that the basic phenomenon of perspective was clearly understood.

As far as we know, the treatise of Agatharcus referred to by Vitruvius was the first investigation of the mathematics of perspective and the scene which Agatharcus painted for the tragedies of Aeschylus in the fifth century before Christ, were the first perspective drawings, that is, the first drawings laid out according to rules of perspective rather than merely copied from nature.

We are quite sure that these scenes were in parallel perspective and it is quite easy to see why even if anything about angular perspective were known, which is doubtful, it would not be wanted for these scenes. Being viewed from different parts of a theatre—from different points of station rather widely separated, parallel perspective offers less distortion, the planes parallel to the picture plane showing as well from one station point as from another.

Little about the theory of angular or two-point perspective was developed in the twenty-two centuries after Agatharcus (5th century B. C. through the 17th century A. D.), although several elaborate treatises on parallel or one-point perspective appeared. Many paintings of the Renaissance, however, show a keen observation of angular perspective in nature. A notable attempt to analyze the theory of angular perspective was made by Albrecht Dürer, the famous engraver, in 1525. His attempt, as well as others of the period, as well illustrated in a book by a successor of Dürer's, Jan Vredeman de Vries published in 1630, was a scheme to lay out angular perspective on an elaborate network of squares drawn in parallel perspective, an elaborate scheme of plotting or craticulation. Jan Vredeman de Vries, however, employs an assumed horizon and gives the rule for finding vanishing points.

Parallel or one-point perspective was well understood by the Romans. The wall paintings of Pompeii (first century A. D.), were certainly not drawn directly from nature and were laid out in reasonably accurate one-point perspective. It is mystifying to think that the great painters and architects of the Renaissance in Italy did not evolve the rules of angular perspective; that the great mind of Leonardo da Vinci, who understood the phenomena of perspective well and who also realized that perspective was a mathematical as well as graphic process, did not discover any rules for drawing in angular or two-point perspective. Leonardo had great regard for perspective. In the preamble to his discourse on the subject, he says:²

¹ Chapter XIII of "Perspective" published by D. Van Nostrand Co. New edition now in press.
² "Leonardo da Vinci's Note Books," McCurdy's translation, Chas. Scribner's Sons.

CORRESPONDENCE

"Perspective is the bridle and rudder of painting." Again later that: "Perspective is a rational demonstration whereby experience confirms how all things transmit their images to the eye by pyramidal lines. By pyrimidal lines I mean those which start from the extremities of the surface of bodies and by gradually converging from a distance arrive at the same point; the said point being, as I shall show, in this particular case located in the eye, which is the universal judge of all objects." Leonardo da Vinci's notes were made early in the sixteenth century. Other masters of the Renaissance wrote on and taught the subject, but all their theories were based on one-point perspective. In 1693, Andrea Pozzo wrote a profound treatise in Latin, elaborately and beautifully illustrated, but covering the theory of parallel perspective only. Pozzo's book was translated into English by John Stuart in 1807, and even the translation is a delightful book to peruse. Some of the illustrations, parallel perspectives of the undersides of domes projected on horizontal picture planes are really amazing.

The Renaissance brought forth many treatises on perspective by Italian, French, Dutch and other artists, but it remained for an English *mathematician*, Dr. Brook Taylor, a follower and ardent admirer of Sir Isaac Newton, to lay down concisely in 1715, *all* the fundamental rules upon which the science of perspective is based. Dr. Taylor's treatise in its first edition contained only 42 pages, 12mo. and 18 small plates. It may be interesting, perhaps, to quote the heading and preface of Dr. Taylor's book: "*Linear Perspective or, a New Method of Representing justly all manner of objects as they appear to the Eye in all Situations.*"

"In this Treatise I have endeavour'd to render the Art of Perspective more general, and more easy, than has yet been done. In order to do this, I find it necessary to lay aside the common Terms of Art, which have hitherto been used, such as Horizontal Line, Points of Distance, etc., and to use new ones of my own; such as seem to be more significant of the Things they express, and more agreeable to the General Notion I have formed to my self of this Subject.

"Thus much I thought necessary to say by way of Preface; because it always needs an Apology to change Terms of Art, or any way to go out of the common Road. But I shall add no more, because the shortness of the Treatise itself makes it needless to trouble the Reader with a more particular Account of it."

Dr. Taylor evidently seemed to think that he wrote a treatise on art, but his book is a collection of clean-cut mathematical theorems, brief and general and not wasting itself over minor or easily deducible details. For this reason the book was criticized as too brief and too obscure, and it is easily conceived how dry and difficult it must have been to those who needed its lessons most,—painters and draftsmen. Soon lengthy expositions based on Taylor's fundamentals began to appear. Indirectly based on these fundamentals, they are still appearing, for every text-book on perspective published in nearly two centuries is a descendant of Taylor's "Essay on Linear Perspective." A most interesting elucidation of Taylor's book was published in England in 1774 by Thomas Malton. Instead of the original 42-12mo. pages, Malton's book

contained 350 quarto pages and goes into minute details. Interesting indeed are the engraved illustrations, many of which have flaps so pasted that they may be folded up to make actual models of the planes involved.

From the time of Taylor and Malton to the present day, there have appeared many score treatises on perspective, in all civilized countries, in different languages, and of varying scope and value. Conspicuous among modern books are the French treatise of M. Joseph Adhémar published in 1846 and the American book by Prof. William R. Ware, first published in 1883.

Correspondence

TO THE EDITOR OF THE JOURNAL:

Under the column headed "Correspondence" in the May issue of THE JOURNAL there appeared a letter from Mr. Atterbury which was referred to by an editorial comment, in which it was stated that Mr. Atterbury hoped that it might lead to discussion.

In summarizing his statement which has to do primarily with the curtailment of output, Mr. Atterbury concludes with: "The truth is that in the present so-called 'housing hold-up'—in which the capitalistic owner is usually picked as the object of attack—it is really the laboring man's pocket that is being picked and the problem is to clearly demonstrate who is doing it." But the preceding statement ran to show that the curtailment of output was due primarily to the action of organized labor.

So that one may be pardoned, therefore, for presenting evidence which runs to indicate that the condition of which Mr. Atterbury complains springs from the action of others as well. As bearing upon this point, an editorial in the New York Globe of May 17, 1921, may prove illuminating:

"SOMEBODY PROFITEERED"

"Nineteen dealers in masons' materials pleaded guilty two weeks ago to conspiracy to violate the Donnelly anti-trust law. Judge Davis sentenced them yesterday to pay a fine of \$500 each. The penalty was light—in fact, was no penalty at all if the operations carried on by the nineteen men were even moderately successful—because, as Judge Davis explained, there was no evidence that the accused had practiced oppressive methods or had profiteered."

"Wright D. Goss, president of the Empire Brick and Supply Company, who was one of the men fined, had been charged, in testimony before the Lockwood committee, with controlling the price of brick in the metropolitan area. If the court says that he didn't profiteer he probably didn't, but this does not alter the fact that at some stage in the transference of brick from the producer to the consumer there has been scandalous profiteering by someone. Before the war brick was sold on the New York docks for \$5.75 a thousand. Last fall, when the housing shortage was literally a public menace, the same grade of brick was sold for \$25 a thousand. During the same period the cost of brickyard labor increased (on the showing of Mr. Goss himself) from 83 cents a thousand to \$2 a thousand, and the total cost of manufacture, freight, unloading, lumber, fuel, towing, etc., from \$3.06 a thousand to \$7.60 a thousand.

"The pre-war margin above these costs was \$2.69 a thousand whereas the margin last fall was \$17.40. When brick in New York City at the job site was \$31 a ton it was \$22 in Pittsburgh, \$20 in Indianapolis, \$18 in San Francisco, \$17 in Denver, and \$16 in Chicago. If Mr. Goss and his associates did not profiteer, some one else did, and in doing so they did an injury to every resident in Greater New York who has bought a house or paid rent during the last twelve months."

To the point, also, is a graph published in the New York Times of May 1st showing the curve traced by prices of building and labor.

But it is at best a gratuitous activity to engage in matching examples of charging all that the traffic will bear so long as this practise underlies our system of production and distribution. What should interest us—and what might serve our purpose—is an understanding of how the modern industrial system works as a whole.

Concerning both cause and remedy Mr. Atterbury's statement expresses the concensus of opinion among the "best minds." Let it be granted that trade union tactics, as they bear upon the processes of production and distribution, work out in a restriction of output and higher prices. But before we may deal with this phase of the matter we must find out whether or not trade union tactics are peculiar to the Trade Unionist. The point of immediate concern is: Has he adopted a peculiar outlook and a peculiar technique which differentiates him from his fellows?

So let us take a look at what is going on in the world of business. Scan the columns of the daily press or the financial journals; what serves as the center of interest and the point of concern? Is it privation and need, or is it the matter of price? We refer to privation and need as a matter to be deplored; but there is no serious thought of relieving the situation except by action which will render it financially profitable so to do. That is to say, our technological ability to produce and distribute a sufficient quantity of needed goods has nothing to do with the (modern) case. It is altogether a matter of price.

For do we not read that "the world supply of cotton (or what not) hangs on price?" Meaning, of course, that if for any reason the price falls a smaller acreage will be planted and that, as a consequence, the world will be short of cotton and cotton goods. Which is to say, it is not what the world requires that determines the volume of production; it is the matter of price. In order to sustain prices we may have to hold our supplies in storage—and we may have to reduce the acreage planted. The organized (business) technique of accomplishing this is to issue (e. g.) credit against cotton in storage; or not to pick the cotton. To insure favorable price conditions in the future the planters are advised that credit will be advanced with respect to next year's crop only upon conditions that a smaller acreage be planted.

At the present time the farmers in the wheat growing area are endeavoring to secure credit so that wheat may be held in storage in order to bring about a reduction of the supply upon the market and thus to sustain prices. How to control, by a concerted move, the acreage planted in order to sustain prices is, at the present time, a matter of greater concern than the common welfare in Christendom.

A rumor to the effect that there is likely to be a fall of prices throws the brick yards, the coke ovens, the blast furnaces, the lumber mills, the cotton mills and so on upon a part-time basis, or closes them down altogether. The dairymen and the distributors of milk get together and arrange for decreased production in order to sustain prices. It is better to turn the milk into the streams or to feed it to the pigs, though there be not enough to drink, than to allow prices to fall. Sometimes it is a good business move to plow in the crops and to let the harvest rot on the ground.

That such is the common practise is not to be denied; the daily news items tell us all about it. And it all goes to show that under the regime of money and price economy the modern community is utterly unable to turn its knowledge (technological) to account for a living except at such times and in so far as the course of prices insures a differential advantage to the owners of the material equipment. It is always the question of advantageous (ordinarily rising) prices, as viewed by the owners of the capital goods, which is made to decide the matter of livelihood for the rest of the Community.

Within the field of financial business and investment, who cares about the matter of producing what the community needs? Does any one about to invest in an industrial enterprise inquire how much of this or that will be produced? Not as a rule; it is the return percent which concerns him. Does the lender of money lend only to those who promise to produce the largest volume of goods to sell at the lowest price? Does the demand for houses

lead to the lending of money at lower rates of interest? Does it lead to the advancement upon loan of a higher percentage in relation to the price evaluation of the property? Does a strong demand for building loans operate to reduce the bonus required? Does a shortage of houses stimulate building? Only in the event that the building of them promises higher pecuniary rewards than is to be secured by doing something else.

What Mr. Atterbury proposes is that those who work for wages should somehow detach themselves completely from the existing industrial system which is completely controlled by the exigencies of the quest for gain in terms of *p. e.* He proposes that labor should go to its work under the guidance of a workmanship impulse while the rest of us go on after the almighty dollar. Possibly labor may be induced to take such a stand.

In his pursuit of the matter Mr. Atterbury picks up a trail which takes him away from reality and leads on to the land of dreams. For he remarks that—"The situation is fundamentally unchanged since the pioneer built his own cabin." It would seem from this that the development of the machine, involving specialization of work and process; that our system of banking, providing unlimited credit expansion; that the capitalization of intangible assets and prospective earnings; that the world market—it would seem, according to Mr. Atterbury, that all this has no bearing in the case of the modern workman. But to leave all this out of account is to leave out of account the reasons why it is that whereas the pioneer built his *own* cabin, now the workman may on condition, build a slum, a part of which he may rent.

All this may appear to have but slight bearing upon what had best be done. Yet, it may be of some value merely to suggest that it would be more to the point to examine our system of production and distribution *as a whole*—find out how it operates under the (modern) regime of money and price economy. Mr. Atterbury has contributed by indicating how labor acts to restrict output with a view of securing higher prices for what it has to sell. But who, among those who engage in business, which controls production, does not so act? Is not the restriction of output characteristic, or more accurately, necessary action under the regime of capital? The signs certainly so indicate.

FREDERICK L. ACKERMAN.

Kitchens on the Farm

Mr. Rudolph Weaver of the Institute and of the Agricultural College at Pullman, Washington, in speaking to the Washington State Chapter about farm buildings, said:

Two hundred and eighty-eight plans for farm houses were submitted in a competition for Farm Homes conducted by his department and that of Home Economics at Pullman, but that the best product of the competition was the inauguration of cooperative relations with the Washington State Chapter.

He stated that from their experience in the competition, his committee on Farm Buildings had learned to approach the farm house problem from the kitchen for the reason that the life of the farm house is largely affected by the efficiency of the kitchen arrangements. He found that the correspondence from farmers' wives was very interesting indeed and that much valuable information which his committee was tabulating was received from this source.

Mr. Weaver insisted that the Architect must get the farmers point of view before he can even hope to approach the farm house problem.

New Members Elected

CLEVELAND: M. E. Harpster, *Akron*. ILLINOIS: Lincoln N. Hall, *Chicago*. NEW YORK: Henry Stern Churchill, Raymond McCormick Kennedy, Arthur E. Misslehurst, *New York City*. PHILADELPHIA: Frank R. Fish. SOUTHERN CALIFORNIA: Roy C. Mitchell, *Los Angeles*.

SHAKESPEARE'S HALFWAY HOUSE

Jurisdictional Awards

The following resolution is from the report of the representative of the Institute on the Board of Jurisdictional Awards:

"On account of the reports which have reached Members of the Board, the following self-explanatory resolution was adopted:

"Whereas, It has come to the attention of the National Board of Jurisdictional Awards in the Building Industry that advertisements, contributions or subscriptions are being or have been solicited, ostensibly for the purpose of defraying the expenses of the Board incidental to the publication of its decisions, although no such solicitation has at any time been authorized by said Board;

"Resolved, That this Board hereby disclaims and repudiates any such action and declares that the use of advertisements in connection with the publication of any of its decisions is not only extremely distasteful but positively contrary to its wishes; and

"Resolved, That to prevent unauthorized or improper publication, decisions, rules and other records of the Board be copyrighted whenever published; and

"Resolved, That in addition to the use of the usual official channels for the dissemination of such information by the organizations members of the Board, all decisions, rules or other records that should come to the attention of the public be promulgated through an official edition in pamphlet form, without advertisement, under the auspices of the Board, at the joint expense of the several organizations represented on the Board without contribution from any other sources; and

"Resolved, That the widest publicity be given to the Board's sentiments with respect to this matter."

Shakespeare's Halfway House

The village of Grendon Underwood, in Buckinghamshire, straggles at haphazard along the road which used to be the main highway from Stratford-on-Avon to London. On this road Shakespeare used to come, and there is an old and fixed tradition that he spent the night at the Shippe Inn at least once, if not oftener. Aubrey, who wrote a biography of him in about 1630, and could only find fifty-seven lines to say about him altogether, states it as a "fact" that he spent the night at Grendon and took the characters of Dogberry and Verges from two village worthies who treated him roughly in the porch of the church, and also that here he found the scene for "A Midsummer Night's Dream" on the fringe of the village looking towards the woods. The estate is now being sold, and that highway is now a muddy lane, so muddy that a rhyme has been made, "Grendon Underwood, the dirtiest village that ever stood." It is far from railways and high roads now. The houses are scattered at random for almost a mile. Some are old, some are very new. Thatched roofs, well trimmed and neat, are side by side with red tiles and plaster walls. But the thatch and the green moss under the eaves and the rambling lichen are gradually being displaced by modernity, and at one end of the village a house is being built entirely of yellow bricks and slate. On each side of the

road, wherever there are no buildings, is a double hedge in blossom, with white sprays and shoots, and on the grass bank between the hedges are cowslips and primroses.

The house of tradition, "Shakespeare's Farm," lies at the other end of the village from the new building near the church. A later house has been added to the old "Shippe Inn," though even the later one is old enough to have magnificent oak beams, axe-hewn, and oak floors which slope and curve, and low, narrow doors and huge cupboards. The porch is surmounted with carved stone-work and a simple coat-of-arms on a tablet. Small windows are let into the tiled roof. The Shippe Inn itself is tall and square and shaped like a dovecote with a pyramid roof. The narrow red bricks of the walls are divided into triangles and oblongs by the blackened beams which support them. Three windows are let into the front, one above the other, and the highest in the pyramid is oval in shape. And it is in this room with the oval windows that Shakespeare slept.

On the door of one of the rooms is fixed a heavy bolt of old and ponderous workmanship, perhaps as old as the house. Except for this there is nothing left but the staircase, and in a few years there will be little left at all of the Shippe Inn, for the walls are beginning to tumble outwards, especially at the back, where there is said to have been another part of the house. The cracks in the plaster have recently disclosed another tiny room next to Shakespeare's into which there is no apparent entry. Who knows that he may not have thrown away scraps of manuscript into it?

Beyond the farm lies the church where Shakespeare is said to have fallen asleep and been rudely roused by the village constable. The gravestones in the churchyard, many of them leaning over in a melancholy attitude of dejection, have long since been covered with moss and weeds. The grass grows luxuriantly among them and over them, and the lettering of many is quite illegible. There is no porch as in the days of Dogberry, and the glass in the church windows is very new.

Inside all is crumbling to dust. Gaping cracks are tearing the bricks apart, and already a large hole has been made by wind and time. The floors are patched in places, and in others a deep wait for the unwary. The stair is dark, but a lantern illuminates the wonderful carved oak of the staircase that appears strangely out of place in that ruin and decay round it.

The room under the sloping roof is small and dingy. At one side there is a curiously shaped fireplace with a wide chimney; on another the oval window which looks across the green fields and meadows to Grendon Woods and the glimpses of water beneath the hedges and the wild flowers.

A. G. M. in the *Manchester Guardian*.

THE JOURNAL desires to make its columns valuable as a medium for an exchange of thought on all matters relating to the profession of architecture. All such expressions, whether in editorials, or otherwise, must obviously be accepted as expressions of individual opinion. Contributions are invited, all articles to be signed by the name or initials of the writer in acknowledgement of their source and the writer's responsibility.

The Last Convention

Comment on the Convention is making its appearance, here and there. Says J. L. L. in the Boston Society of Architects Bulletin:

"Last year, if my memory does not fail me, it was the sense of the Convention that less time be taken for routine matters and that more time be devoted to Architecture and the Fine Arts in a broad sense. Why, oh why must we spend dreary hours juggling words, phrases and paragraphs of the By-Laws, at a time when we might be learning something of the work and ideals of fellow architects in different parts of the country and by a frank discussion of these works and ideals stimulate the spirit of a great profession. In this connection, however, one must note with admiration the advanced methods of the Illinois Chapter. This year the regular orators of this delegation were constantly relieved by a group of young men, in the flower of their youth, who took the floor whenever one of the veterans showed signs of falling below the average output of words per minute. It was an inspiring example of team-play, and it suggested that the members of this delegation might practice at the bar as well as at the drawing-board."

"Perhaps the session which produced more interest than any other one was that devoted to the report of the Committee on Small Houses, but when Mr. E. H. Brown of Minneapolis starts out to sell an idea, it is all over but the shouting. His unflinching good nature and his ability to explain details under a fire of cross-examination make him a winner."

"The first of the evening sessions, at which the subject of education was discussed, confirmed a growing belief that a four-year course is not long enough to produce an architect. It is interesting to note that in the discussion of the practical side in education, many architects still refer to the time-honored custom of tracing full-size details, which has in the past furnished the principal educational opportunity for the student draughtsman and has kept him out of mischief as long as he was willing to stand for the treatment."

"The Architectural Exhibition inaugurated last year was this year most inadequately hung. In striking contrast to the formal opening last year was the opening this year. Lack of adequate space and the juxtaposition of some of the fixed exhibits of the National Museum, such as stationary gas engines, standard hospital equipment, and a section of trench manned by stuffed figures of dough-boys, with real barbed wire in the foreground, under the title of 'Camouflage Exhibit of the U. S. Engineers,' took away most of the dignity and impressiveness of the exhibition."

"Last year the delegates visited the Lincoln Memorial and the Freer Museum by invitation. Today approaches and setting for the Memorial are not yet finished but some idea may be had of the final result. The great lagoon between the Memorial and the Washington Monument is still without water, although the effect of riding in a Ford on the unfinished roadways is equal to that of a sea voyage. The Freer Museum, which last year seemed on the eve of completion, is still closed and the polite but firm guardian expressed the opinion that it would probably be another year before it is open. I think these operations indicate an advance over the usual American idea that 'speed is of the

essence of the contract,' no matter whether the object to be attained is one of beauty or of commercial value."

"Of course, there were interesting moments, but, as Washington is sometimes called 'the City of Magnificent Distances,' so were the distances between these moments, and after a conscientious attendance for three days and two nights, the writer and all those with whom he exchanged views, were pretty well tired out. This should not be so and I can see no reason why the Conventions of the Institute could not be stimulating rather than wearying. We elect our officers and our Board because we trust them and because we feel that they have the best interests of the profession at heart. The regional distribution of members of the Board should insure a broad point of view. Why should we not make it clear to the governing body that we expect it to consider and settle the general business of the Institute in detail and that we want the Conventions to solidify the profession by great means rather than by small ones."

In reporting to the Illinois Chapter upon his Convention experiences, Mr. Howard Shaw spoke in a not dissimilar vein, as reported in the Bulletin of the Illinois Society of Architects: "Your delegation filled about six per cent of the chairs in the Convention," said Mr. Shaw, "but we occupied about fifty per cent of the floor. I say 'we,' but figuratively I only held the coats of the gladiators while they went to it. I fear I am a hopeless failure as a delegate. I never changed a by-law in my life. In fact, I did not know anybody ever read constitutions, canons, and by-laws; I thought of them as one does of foundations which one cannot see but hopes are there. And yet it seems that the greater part of three days is spent in the exciting business of 'striking out that part of Section 122, Paragraph 3, after the words 'client' and inserting, 'etc., etc.'" Most of the changes are prefaced 'for the protection of the client or public.' I suppose this bunk is due to the proximity of the convention hall to our National Congress.

"The Canons themselves seem to be for the encouragement of honesty among the architects. If a dissatisfied owner wants to get rid of an architect, or an unprincipled confrere tries to get a job away from you, Canons of Ethics are not likely to help you. You will need a sawed-off shotgun. You cannot legislate a gentleman. Watching it tried reminds one of the alchemists of old who spent their lives essaying, by weird incantations, to turn the baser metals into gold. Personally I like to think of the Institute as a time-honored old guild of which Ictinus, Bramante, Brunelleschi, Christopher Wren, Bulfinch, and many other masters were among the early members, and where today one meets the men who are making this a better looking world, and who discuss architecture, not by-laws. I would like to have the Canons graven on old lichen-covered marble. They would be very brief,—about like this: 'Be a gentleman if you can, but for God's sake be an architect.' Time and nature dignify any creed, just as they do any structure, but nowadays we cannot let Constitutions alone, vide the 18th Amendment.

"Had Michael Angelo and Palladio and the rest of them spent their time worrying over a minimum charge, where would the Renaissance have come in? Athens could well have paid Ictinus a thousand percent commission for the

NEWS NOTES

Parthenon! It is about the only thing that has kept modern Greece from sliding off the map. There are notable architects at these conventions, (there would be more if you would emphasize architecture and corral this 'business'), men whose work will go down in history. Why not let them talk of their art and leave the business end to the Board of Directors? The exhibition of contemporary work at recent conventions is a move in the right direction. Possibly a drastic reduction in the size of the delegations would expedite business, but there should be a corresponding encouragement to members to attend, for the inspiration of meeting fellow architects and seeing their work would mean real education. The allotted span of life of seventy years is not very long if the first twenty-five are spent in getting ready and the last fifteen in playing golf. It leaves only about thirty years in which to help make this a better looking world than we found it. Let us not spend that remainder in changing by-laws."

News Notes

WILLIAM Roger Greeley has been admitted to the firm of Kilham, Hopkins, Greeley, Boston.

THE SCHOOL MEDAL of the Institute at the Carnegie Institute of Technology has been awarded to Mr. Luther S. Lashmit.

ANNOUNCEMENT is made of the removal of Charles B. Meyers, from 1 Union Square to 31 Union Square, New York City.

W. R. B. Wilcox, formerly of the Boston Block, Seattle, announces the removal of his office to 358 Empire Building in that city.

WE have been asked to request any reader of THE JOURNAL having knowledge of the whereabouts of Hans (John) Frey, architect, to communicate with his father, S. R. Frey, Pine Bluff, Arkansas, R. R. 6, Box 110.

GEORGE BAINES CUMMINGS announces that as the firm of Lacey, Schenck & Cummings has been dissolved, he will continue the practice of architecture in Binghampton, N. Y.

By formal action of the American Engineering Standards Committee, the American Institute of Architects has been admitted to membership in that body, with the right to one representative.

TENNESSEE has a registration law now in force, the particulars of which will be published in our next issue. Likewise, it is a pleasure to be able to announce that the Competition code of the Institute will govern the selection of an architect for the annex to the Tennessee State Capitol.

THE members of the Michigan Chapter had the pleasure of listening to Mr. Harvey W. Corbett, on May 25, as did also the students in architecture at the University of Michigan. Mr. Corbett spoke in relation to "High Buildings on Narrow Streets." Excerpts from his address at the Convention appeared in our last issue.

REORGANIZATION of the state Government in New York State is urgently demanded by a committee of the American Engineering Council of the Federated American Engineering Societies. Gradually it may dawn upon a nation which has clung tenaciously to the theory that

politicians were competent men, that its real welfare lies in utilizing the almost inexhaustible fund of technical information and knowledge which now goes unused.

WASHINGTON State Chapter has issued the first numbers of its Bulletin, a four page sheet full of news and seasoned with a splash of humor here and there. We hope that it will add fresh laurels to a Chapter which sends its guests away with the most delightful memories and which has a list of useful activities and a roster of members such as the profession may well be grateful for. A long and happy life to the Bulletin!

THE UNIVERSITY of Pennsylvania has conferred the honorary degree of Doctor of Fine Arts on Mr. C. Howard Walker, lecturer on the History of Architecture at the School of Architecture, Harvard University, in connection with the ceremonies held in commemoration of the thirtieth anniversary of the founding of the Department of Architecture and the dedication of the new School of Fine Arts, at the University of Pennsylvania.

QUANTITY SURVEYING received unanimous recommendation from the special committee representing the A. I. A., the Engineering Council, and the A. G. C., in the report made public very recently. Each of the organizations must now act on the report separately. Readers of THE JOURNAL will remember the campaign which it organized for promoting interest in this subject, more than eight years ago, since when the Quantity Survey has made steady progress. It will be used as freely as the contract is used, some day.

ANNOUNCEMENT is requested of the following: The exhibits sent by various schools of architecture and practicing architects to the first Pan American Congress of Architects, Montevideo, Uruguay, were exhibited at the Congress. Subsequently they were transferred by the officials of the Congress to the Central Society of Architects of Buenos Aires for exhibition purposes in that city. The Institute has been advised that the exhibits will be forwarded in due course from Buenos Aires to New York, where arrangements have been made to distribute them direct to the various exhibitors.

SEVEN experts have been named by Secretary Hoover and asked to help in solving the national housing problem. They are Ira Woolson, consulting Engineer; Rudolph P. Miller, engineer in charge of building ordinances, New York City; J. A. Newlin, University of Wisconsin; J. R. Worcester, consulting engineer, Boston; William K. Hatt, Purdue University; Edwin H. Brown, Minneapolis, and Ernest H. Russell, St. Louis, of the American Institute of Architects. In his address at the Convention Mr. Hoover expressed the opinion that the problem was not one in which the Government ought to assist except as it might be able to stimulate private initiative.

ACCORDING to the Manchester *Guardian* local authorities in Great Britain have raised over £44,000,000 for housing purposes. Lancashire and Cheshire lead with a little over £8,000,000, and the Metropolitan area of London comes next about £7,500,000. Mr. Christopher Addison, of the Ministry of Health and in charge of housing has been succeeded by Sir Charles Ruthen, a well known English architect. Everywhere the hope is expressed that he will be

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able to extricate the nation from the slough into which its housing schemes have fallen. The lowering of standards is well exemplified in the address of Sir Lawrence Weaver. Speaking of the housing program for ex-service men as undertaken by the Ministry of Agriculture, he told how "the descent had been slow and steady until the minimum of decency was reached." Unfortunately, this is largely true of all housing movements, due, as Sir Lawrence puts it, to "economic conditions."

A TESTIMONIAL dinner was given by the Philadelphia Chapter, on April 11 last, in honor of the fiftieth anniversary of the election of Mr. William D. Hewitt to membership in the Philadelphia Chapter. The decorations of the room were reminiscent of the early days of architectural practice, and it is said that the students who volunteered to act as waiters, were garbed as pirates! The members of the Philadelphia Chapter eagerly seized upon the occasion to testify their regard and affection for Mr. Hewitt, eloquently expressed in the last of the verses composed in honor of the occasion by Professor Laird, which was as follows:

*"And so we greet you here tonight
To praise your work with all good will;
But even more to show delight
Because through times both good and ill
You've been our friend and brother still;
And well we love you, Uncle Bill."*

COLUMBIA University announces a course in City Planning and Civic Art with Mr. George Herbert Gray as instructor. The prospectus states that the object is "to train men in a comprehensive knowledge of the general subject of city planning and the special subject of civic art, so that they may ultimately take their place either as cooperating specialists or as the directing head of city planning projects." Special direction in studies may be arranged for and the course will be presented through lectures, field, and drafting room work. Students will have the advantages of the equipment of the School of Architecture, including access to the Avery Library. Admission is based upon a schooling equivalent to two years of collegiate work in a recognized college, and training in design in a school of architecture or landscape architecture equal to three years' work, or an equivalent in office training. For further information, address the Secretary of the University, New York City.

THE Association of Collegiate Schools of Architecture held its annual meeting immediately preceding the convention of the American Institute of Architects, thus making it possible to correlate the work of the Association with that of the Committee on Education of the Institute. As a consequence the report on education required very little discussion of fundamentals when presented at the special evening meeting devoted to education. The Association gave as usual considerable time to the discussion of content of the curriculum and methods of teaching. The relation between cultural and the various technical courses, particularly the relation between design and construction courses, was discussed, the aim being not to over-stress one subject at the expense of others. The objective of the Association is to have its schools produce

potential architects, since specialization is hardly possible in a four-year course. Any tendency to over-emphasize one subject at the expense of others cannot but react unfavorably on the profession.

The members of the Association have for some years felt that four years are not enough for both cultural and technical instruction. This year they took definite action recommending that the schools belonging to the Association publish at the earliest possible moment five year courses parallel with the present four year courses, with a view to withdrawing ultimately the present four year courses. It will thus be possible to give students more comprehensive cultural and more thorough technical training with greater emphasis on fundamentals.

The Architectural School of Yale University was admitted to membership. Officers were elected as follows: President: Emil Lorch, University of Michigan. Vice-President: William Emerson, Massachusetts Institute of Technology. Secretary-Treasurer: Clarence A. Martin, Cornell University.

The National Council of Architectural Registration Boards at one of its meetings held just prior to the Convention, discussed the standards of examination and education. The indications are that the Council will adopt an educational standard on a par with that discussed by the Collegiate Association and the Institute. It is thus proving possible to bring together all those interested in architectural education, something that has been very much needed for many years.

CONSIDERABLE discussion is going on in England as to the advisability of revising the building regulations in order to permit very high buildings. Some accounts of the question have already appeared in these columns. Recently, Mr. T. C. Horsfall, in a letter to the *Manchester Guardian*, presents some conclusions which have to deal with more deep-seated causes and effects than usually come to light in discussion. He says:

"I am sure that if many English people knew what has been the effect on the life of the inhabitants of large towns in France and Germany of the permission granted to the owners of land to build blocks of dwellings of five or six stories there would be a general determination not only that skyscrapers shall not be allowed in our towns, but also that tall tenement-houses shall not be allowed.

"Everyone knows that the price of land is decided by the amount of rent which its owners can obtain for it, and that therefore if owners of land are allowed to build and let houses of five or six stories their land will sell for much more than if they might only build houses of two stories, but few English people know how very great is the difference of price in the two cases. Mr. Pohlmann, who has studied the conditions of German and English towns, says that in German towns, including Berlin, the price of land before the war was eight or ten times as high as that of land in corresponding positions in English towns of about the same population. The high price of land makes rents extremely high, and the greater part of the population, except the richest class, therefore suffers much from lack of houseroom. In Berlin, which in 1905 had 2,040,148 inhabitants, 550,629 persons in that year lived in dwellings in every room of which there were from four to thirteen persons. As in many of the tall tenement blocks the

INSTITUTE COMMITTEES—1921-22

ground floor of that part of the building which adjoins the street is used for shops, a large proportion of the dwellings look into courts. In 1910 45 per cent of all Berlin dwellings were back dwellings.

"Overcrowding, due to the excessive dearness of dwellings, and insufficiency of air and light have results which are said by several serious writers to be "terrifying." In proportion to the population there had been before the war a much larger influx of healthy country people into Berlin than into London since 1870, yet London had about 30

per cent less deaths of persons from 15 to 25 years of age than had Berlin, and in Berlin the percentage of deaths from tuberculosis was half as great again as the rate in London.

"The senior vaccinating doctor in Chemnitz said some years ago that hardly any child brought to a doctor for first vaccination in a large German town is free from indications of rickets.

"It is to be hoped that owners of building land will not be allowed to Berlinize London and our other large towns."

Institute Committees--1921-22

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Structural Service Department

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In connection with the work of the Committee on Structural Service of the American Institute of Architects and in collaboration with other professional societies and organized bodies having the same objective—improvement in building materials and methods and better shelter for humanity in all its manifold vocations and avocations.

Abstracts

It is the purpose of the Structural Service Committee and THE JOURNAL jointly to give in this division each month, brief abstracts of all publications by the Government Departments and Bureaus, University and other research laboratories, States and Associations, which contain fresh information in regard to materials or methods employed in construction and thus afford architects and others a convenient means of keeping themselves conversant with rapidly expanding knowledge in the technique of construction.

Uniform Specifications for Portland Cement. (321)—The American Engineering Standards Committee has approved the revised specifications for portland cement which were agreed upon by Committee C-1 of the A. S. T. M. and the Government Departmental Committee on Cement. Only minor changes were necessary in order to eliminate slight but long standing discrepancies which had existed between these two specifications. There is now one specification covering both commercial and governmental use.

Community Buildings. (3529)—(*U. S. Dept. of Agriculture, Farmers Bulletin 1173. "Plans of Rural Community Buildings" by W. C. Mason, Assistant in Rural Organization. 38 pages 6" x 9".*) This bulletin is devoted mainly to photographs, plans and brief descriptions of rural community buildings in various sections of the country and designed to meet a wide range of conditions and needs. It also contains a brief general discussion of the main requirements for this type of building.

Identification of Oak Woods. (191a)—(*Technical Note No. 125. Forest Products Laboratory.*) Over fifty species of native oaks assume the proportions of trees, and about twenty-five are used for lumber. After the oaks are cut into lumber, there is no means known to the United States Forest Products Laboratory by which they can be identified as to exact species. By examination of the wood alone, however, it is easy to separate the oaks into two groups—the white oaks and the red oaks; and for most purposes, fortunately, it is not necessary to classify them any further. The oaks all average about the same in strength, but those in the white oak group are much more durable under conditions favorable to decay than those in the red oak group.

The white oak group includes true white oak, swamp oak, bur oak, cow oak, post oak, overcup oak, and chestnut oak. The red oak group includes true red oak, yellow or black oak, scarlet oak, Spanish oak, Texan oak, black jack, water oak, willow oak, and laurel oak.

The color of the wood is a ready but not absolutely reliable means of distinguishing the white oaks from the red oaks. Red oaks usually have a distinctly reddish tinge, especially near the knots. The wood of the white oaks is generally a grayish brown; but occasionally a reddish tinge is found in white oak lumber.

For more accurate identification it is necessary to examine the pores of the wood. These will be found as tiny holes on a smoothly-cut end surface, the largest being visible to the unaided eye. They are not of uniform size throughout each growth ring, but are considerably larger in the wood formed in the spring, decreasing in size rather abruptly towards the summer-wood. The

large pores in the spring-wood of the heart-wood and inner sap-wood of the white oaks are usually plugged up with a frothlike growth called tyloses, and those of the red oaks are open. This feature, however, is not so reliable for classification as the character of the much smaller pores in the summer-wood.

To tell for a certainty whether a piece of oak belongs to the white or red oak group, cut the end grain smoothly with a sharp knife across several growth rings of average width. With the aid of a hand lens examine the small pores in the dense summer-wood. If the pores in this part of the growth ring are plainly visible as minute rounded openings, and are not so crowded but that they can readily be counted, the wood belongs to the red oak group. If the pores in the summer-wood are very small, somewhat angular, and so numerous that it would be exceedingly difficult to count them, the wood belongs to the white oak group.

Insulation of Buildings from Heat and Cold. (19g)—(*Revised from letter of Dr. Charles F. Brooks, Associate Professor of Meteorology and Climatology, Clark University, Worcester, Massachusetts.*)

Cold Floors.—The ground floor of a cellarless house is usually cold in winter. If, however, the space under the house is tightly enclosed with a thick outer wall, and if the floor is quilted or otherwise protected against rapid conduction of heat through it, the floor should be nearly as warm as the air immediately above it, and there would be no updrafts of cold air, characteristic of unquilted floors over foundations of open construction. Nevertheless, the floor would undoubtedly feel cold, for the air in contact with it is the coldest in the room. The temperature of the air under the house would tend to be about that of the ground, which is close to the mean annual temperature (about 52° F. at New York City). In cold, windy weather, the air temperature under the house would probably be lower than in calm weather, when it is warmed to some extent by radiation and conduction of heat from the warmer floor.

Attics.—The attic question is different in summer from in winter, particularly in that the undesirable condition is next to the roof in summer and next to the attic floor in winter. With efficient outlet in summer, the need for large attic space to provide against overheating of the rooms below, would be dispensed with. In winter, the larger space would be of questionable value, for the coldest air settles to the floor anyway. The specific heat of air is so small that the temperature of a large body of air in the attic would probably be about as low as that of a small body, and would change almost as fast.

Insulating attic floors.—Since attics are usually either too hot or too cold, it becomes desirable to provide effective insulation between the attic floors and the ceiling of the room below. Quilting an attic floor would probably be more worth while than quilting the ceiling below, for this would provide an insulating space of more or less dead air between the floor and the ceiling below.

Is Quilting the best insulator?—When quilting is used between boards or walls, it is bound to be compressed to such an extent that much of its value as an insulator is lost, though its effectiveness as a preventive of draught is not diminished. Air is notoriously a poor conductor of heat; therefore, the more air can be used as an insulator, the better. But air readily circulates when warmed below or cooled above, and to use its thermal conductivity most effectively, the range through which such convection must

take place must be confined to as small compartments as practicable; as for example, in different degrees, in Balsa wood, pumice stone, surface cooled lava, and foam of any kind. For the best heat insulation, therefore, air spaces divided into cells with but small vertical dimensions are necessary; *e. g.*, honeycomb on a side, cardboard or paper tubing laid horizontally, or even well-mussed but not crushed newspapers.

Heating of Roofs.—The heating and cooling of an attic in clear, calm weather is due almost wholly to the heating and cooling of the roof by radiation, the efficiency of a surface as a radiator being about the same as its action as an absorber. Authoritative data on the relative heating qualities, in bright sunshine, of the various roofing materials and of paints of different colors, would be valuable to architects. For example, at Davos, Switzerland (altitude about 1 mile) the order of temperatures in boxes of different colors was from lowest to highest as follows: White, pink, yellow, green, red and black.¹ Painted steel blocks in Panama showed an order of temperature as follows: White, pink, red, yellow, green, and black.² Blue was not tried in either place.

Double Windows vs. Weather Strips.—Much of the loss of heat from houses in winter comes from conduction through windows. The air coming in contact with the windowpane is cooled, and becoming denser, falls to the floor while other warm air takes its place. Thus there is usually a continuous stream of cold air down from windows in cold weather, which no amount of weather-stripping can prevent. The value of weather strips is evident only in windy weather. Double windows, however, are as good as weather strips against strong winds, and always prevent the excessive cooling of air in contact with the inside window panes.

Orientation of Houses.—Wherever feasible, architects would do well to depart from the usual practice of making houses face directly one of the cardinal points. If the house is made to face one of the four intermediate points, SW., say, the sun will shine into all the rooms on clear days practically throughout the year, instead of only six months of the year, if it faced a cardinal point. Another consideration in laying out the house, in the eastern United States at least, is that the living room should be on the southeast side; the kitchen on the northeast, and bed rooms on the northwest and southwest. Thus, the morning sun, in winter, will heat the living room; the cold winds of winter will blow against the kitchen, which usually tends to be too warm; the afternoon sun will warm the bed rooms shortly before the time of their occupancy, and cold winds from the northwest need not be met with excessive effort to keep these rooms warm. During the hottest days of summer, the southwest winds, which usually accompany hot spells in most localities, will blow into the bed rooms. If there is a choice about the position of the longest roof slope, it will be found worth while, in regions of much snowfall in the East, to have it southeasterly. Most of the snow comes with northeasterly or easterly winds, which tend to sweep this side of the roof, and after the snowstorm, the melting of the snow would begin shortly after sunrise before the air temperature rose above freezing, and continue probably all day by virtue of the higher air temperature in the afternoon in spite of weaker sunshine on this slope.

Lime—Tentative Specifications for Masons' Hydrated Lime. (3c3)—(*Circular of the Bureau of Standards, No. 106. "Lime—Definitions and Specifications." Fifteen pages, 7" x 10".*) The following tentative specification issued by the A. S. T. M. as No. C6-19T, is recommended by the Bureau of Standards, pending the issue of a revised specification which is now being developed. For an abstract of Bureau of Standards Circular No. 30, "Lime: Its Properties and Uses," see the December, 1920, JOURNAL.

1. *Definition.*—Masons' hydrated lime is a dry, flocculent powder resulting from the hydration of quicklime.

¹ *Monthly Weather Review*, June, 1920, vol. 48, p. 351.
² *Ibid.*, July, 1920, vol. 48, pp. 403, 404 diagram.

2. *Uses.*—Masons' hydrated lime may be used for making lime mortar, for scratch or brown coat of plaster, or for addition to Portland cement mortar or concrete.

I. Chemical Properties and Tests.

3. *Sampling.*—The sample shall be a fair average of the shipment. Three per cent of the packages shall be sampled. The sample shall be taken from the surface to the center of the package. A 2-pound sample to be sent to the laboratory shall immediately be transferred to an air-tight container, in which the unused portion shall be stored until the shipment has been finally accepted or rejected by the purchaser.

4. *Chemical Properties.* (a)—The chemical composition of the hydrated lime shall be determined by standard methods of chemical analysis.

(b) *Impurities.*—The sum of the silica (SiO₂), ferric oxide (Fe₂O₃) and alumina (Al₂O₃) expressed on the sample as received shall not exceed 5 per cent.

(c) *Carbon Dioxide.*—Carbon dioxide in the sample as received shall not exceed 3 per cent.

(d) *Calcium and Magnesium Oxides.*—Calcium and magnesium oxides shall constitute not less than 90 per cent of the nonvolatile portion.

II. Physical Properties and Tests.

5. *Fineness.* (a)—A 100-g sample shall leave not more than 0.5 per cent of its weight on a standard 30-mesh sieve, and not more than 15 per cent of its weight on a standard 200-mesh sieve. (b) The fineness test shall be made as specified in section 12.

6. *Constancy of Volume.* (a)—A pat of mortar, covered with a skim coat of neat paste shall be subjected to the action of steam. If the steam has no visible effect on the pat, the sample shall be reported as being "sound." If the pat disintegrates, the sample shall be reported "unsound" and the shipment rejected. If the sample cracks, pops, or shows other minor defects, it shall not be reported as either sound or unsound but its behavior shall be noted. (b) The constancy of volume test shall be made as specified in section 13.

III. Packing and Marking.

7. *Packing.* (a)—*Kind of Package.*—The hydrated lime shall be packed in either cloth or paper bags. (b) *Size of Package.*—The cloth package shall contain 100 pounds, net weight of hydrated lime. The paper package shall contain 50 pounds, net weight, of hydrated lime.

8. *Marking.*—Each package shall be clearly marked to show the net weight of hydrated lime contained in the package, the name of the manufacturer, and the name of the brand, if any.

IV. Inspection and Rejection.

9. *Inspection.* (a)—All hydrated lime shall be subject to inspection. (b) Hydrated lime may be inspected either at the place of manufacture or the point of delivery, as arranged at the time of purchase. (c) The manufacturer shall furnish the inspector all reasonable facilities for inspection and sampling, which shall be so conducted as not to interfere with the operation of the works. (d) The purchaser may make the tests to govern the acceptance or rejection of the hydrated lime in his own laboratory or elsewhere. Such tests, however, shall be made at the expense of the purchaser.

10. *Rejection.*—Unless otherwise specified, any rejection based on failure to pass tests prescribed in these specifications shall be reported with in 5 working days from the taking of samples.

11. *Rehearing.*—Samples which represent rejected hydrated lime shall be preserved in air-tight containers for 5 days from the date of the test report. In case of dissatisfaction with the results of the tests, the manufacturer may make claim for a rehearing within that time.

STRUCTURAL SERVICE DEPARTMENT

V. Methods of Test.

12. *Method for Determining Fineness.*—Fineness of hydrated lime shall be determined as follows:

Place 100-g of the sample as received on a standard 30-mesh sieve having openings averaging 0.0198 inch. This sieve shall be nested above a standard 200-mesh sieve having openings averaging 0.0029 inch. Wash the material by means of a stream of water from a faucet. A small piece of rubber tubing attached to a water faucet will be found convenient. The velocity of the stream of water can be increased by pinching the tubing, but it should not be sufficient to cause any danger of splashing the sample over the sides of the sieve. Continue the washing until the water coming through the sieve is clear. Then dry the residue upon the 30-mesh sieve to constant weight in a drying oven whose temperature is maintained between 100 and 120 degrees C. in an atmosphere free from carbon dioxide. Calculate the weight of this residue as percentage of the original sample. Then wash the material which has passed the 30-mesh sieve and remained on the 200-mesh sieve through the latter as described above. Treat the residue on this sieve in the same manner as described above for the 30-mesh sieve and add the percentage retained to the percentage residue on the 30-mesh sieve. The sum of these two shall be reported as the residue on the 200-mesh sieve.

13. *Methods for Determining Constancy of Volume.*—Constancy of volume shall be determined as follows:

To 20 g. of the sample add 100 g. of clean, washed, graded sand which shall all pass the No. 20 sieve and which shall all be retained on the No. 100 sieve. Mix thoroughly and add enough water to make a good plastic mortar of a rather dry consistency. Spread out on a clean glass plate, to form a layer about one-eighth inch thick by about 4 inches square. The pat shall be of even thickness throughout, and not tapering at the edges. If the mortar is too dry to work well, add more water. Place this pat in a closet to set for 24 hours. The temperature in the closet should be between 65 and 75 degrees F., and there should be free circulation of air in the closet, without allowing any direct draft to hit the pat. At the end of 24 hours remove the pat from the closet and soak it in water, until a film of water stand unabsorbed on the surface of the pat. Examine the pat carefully for cracks. If any are found, too much water was used in making the pat, and it should be discarded and a new one made.

Mix 20 g. of the sample with enough water to form a thick cream. Spread this out in a thin layer on the surface of the pat. Let it stand for 15 minutes to permit possible air bubbles to form. Trowel to a smooth, even surface, making this skim coat as thin as possible without allowing the sand to show through. Put the pat back in the closet for another 24 hours, so that the skim coat can set. Examine carefully to insure the absence of any cracks or pops. Provide a vessel partially filled with cold water and having a perforated cover. Suspend the pat in this vessel in such a way that the water can boil without touching it. Gradually bring the water to a boil, and keep it boiling gently for 5 hours, the pat being surrounded by steam during this time. Turn out the fire and permit the water to cool for at least 12 hours before the cover is removed from the vessel. The pat is then removed and examined for cracking, popping, or disintegration.

Specifications for Building Brick. (3g)—(*American Society for Testing Material Specification C 21-20*).

I. *Standard Size.*—1. The standard size of building brick shall be $2\frac{1}{4} \times 3\frac{3}{4} \times 8$ inches.

II. *Sampling.*—2. For the purpose of tests, bricks shall be selected by an experienced person so as to represent the commercial product. All bricks shall be carefully examined and their condition noted before being subjected to any kind of test. For the purpose of the tests 10 bricks will be required; they shall be

thoroughly dried to constant weight in a suitable oven at a temperature of from 225 degrees F. (107 degrees C.) to 250 degrees F. (121 degrees C.).

III. *Physical Tests.*—3. Absorption. (a) At least five dry bricks shall be weighed and completely submerged in water at a temperature between 60 and 80 degrees F., the water heated to boiling within one hour, boiled continuously for five hours, and then allowed to cool in the water to a temperature between 60 and 80 degrees F. They shall then be removed, the surface water wiped off with a damp cloth, and the brick quickly weighed.

(b) The percentage of absorption shall be computed on the dry weight, according to the relation:

$$\text{Percentage of absorption} = \frac{100(B-A)}{A}$$

where A = weight of dry brick, and B = weight of saturated brick.

4. *Compression Tests.* (a) Compression tests shall be made on at least five half bricks, previously dried, each taken from a different brick. The half brick shall be prepared either by sawing or cutting upon a yielding bed with a sharp mason's chisel, which shall be the full width of the brick. The specimen shall be tested on edge. To secure a uniform bearing in the testing machine the edge surfaces shall be bedded in a thin coat of plaster of Paris spread upon plate glass previously coated with a film of oil. Before applying the plaster of Paris, the bearing surface of the brick shall receive a coating of shellac. The brick shall be pressed firmly upon the surface, making the layer as thin as possible, and remain undisturbed until set. The depression of recessed or paneled bricks shall be filled with neat Portland-cement mortar, which shall stand at least 24 hours before testing.

(b) The machine used for the compression tests shall be equipped with a spherical bearing block kept thoroughly lubricated to insure accurate adjustment, which should be made by hand under a small initial load. During the test the beam of the testing machine shall be kept constantly in a floating position.

(c) The breaking load shall be divided by the area in compression and the results reported in pounds per square inch.

5. *Transverse Tests.*—(a) At least five bricks, previously dried, shall be tested, laid flatwise, with a span of 7 inches, and with the load applied at midspan. The knife-edges shall be slightly curved in the direction of their length. Steel bearing plates, about $\frac{1}{4}$ inch thick by $1\frac{1}{2}$ inches wide, may be placed between the knife-edges and the brick. The use of a wooden base block, slightly rounded transversely across its top, upon which to rest the lower knife-edges, or the form of lower knife-edge shown in Fig. 2, is recommended. If the knife-edges shown in Fig. 2 are used, they should rest upon smooth-plane blocks of wood at least 2 inches thick.

(b) The modulus of rupture shall be computed in pounds per square inch by the following formula:

$$R = \frac{3Wl}{2bd^2}$$

in which l = the distance between supports in inches, b = the breadth and d = depth of the brick in inches, and W = the load in pounds at which the brick failed.

6. *Record of Test Results.* In recording the results of the test the type of brick shall be defined, whether stiff mud, soft mud, dry pressed, repressed, sand-lime, or other types. It is recommended that the data obtained be recorded as indicated on the accompanying "Laboratory Record."

IV. *Classification of Bricks.*—7. (a) According to the results of the physical tests, the bricks shall be classified as vitrified, hard, medium, and soft bricks, on the basis of the following requirement:

Name of grade.	Absorption limits.		Compressive strength (on edge).		Modulus of rupture.	
	Mean of 5 tests.	Individual maximum.	Mean of 5 tests.	Individual minimum.	Mean of 5 tests.	Individual minimum.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Lbs./in.²</i>	<i>Lbs./in.²</i>	<i>Lbs./in.²</i>	<i>Lbs./in.²</i>
Vitrified brick.....	5 or less	6.0	5000 or over	4000	1200 or over	800
Hard brick.....	5 to 12	15.0	3500 or over	2500	600 or over	400
Medium brick.....	12 to 20	24.0	2000 or over	1500	450 or over	300
Soft brick.....	20 or over	no limit	1000 or over	800	300 or over	200

(2) The standing of any set of bricks shall be determined by that one of the three requirements in which it is lowest.

Welded Steel Connections. (13b)—(*Technologic Paper of the Bureau of Standards No. 179, "Electric-Arc Welding of Steel: I. Properties of the Arc-Fused Metal,"* by Henry S. Rawdon, Physicist; Edward C. Groesbeck, Physical Chemist; and Louis Jordan, Associate Chemist.)

The daily advances in the variety and number of applications of electric welding bespeak the continually increasing industrial importance of this method of joining and repairing metals. Of the two forms of electric welding in common industrial use, the arc-fusion method is of far more general application than is electrical-resistance welding; arc welding, as is evident from its nature, can be applied in a multitude of ways to as many different welding projects, while the second method, which depends upon the contact resistance of the two parts which are to be joined together, finds its greatest applications in "repeat" welding.

Resistance welding is closely related to the familiar weld of the smith's forge in that the two surfaces to be joined are heated to the welding temperature, the electric current being the source of the necessary heat, and then pressed into intimate contact while hot. The principle of arc welding, however, is very different; the two parts are joined together by fusion, the fused metal being supplied from an outside source rather than from the parts which are to be welded. Often the addition of a very considerable amount of metal is necessary, which metal is supplied by the fusion accomplished by means of the heat of the electric arc. A layer of considerable thickness often exists between the two parts joined together.

The results of the investigation relate principally to the nature and characteristic properties of the weld, and in particular those of the "fused-in" metal. Since the metal of any weld produced by the electric arc-fusion is essentially a casting, it is apparent that the efficiency of the weld is dependent upon the properties of this arc-fused metal. Hence a knowledge of its properties is of fundamental importance in the study of electric-arc welds.

While the weld is essentially a casting, the conditions for its production are very different from those ordinarily employed in the making of steel castings. The metal loses many of the properties it possesses when in wrought form, and hence it is not to be expected that a fusion weld made by any process whatever will have all the properties that metal of the same composition would have when in the forged or rolled condition.

The peculiar conditions under which the fusion took place also render the metal of the weld quite different from similar metal melted and cast in the usual manner. It is seemingly impossible to fuse the metal without serious imperfections. The mechanical properties of the metal are dependent, therefore, to an astonishing degree upon the skill, care and patience of the welding operator.

In arc-fusion welds in general, the mass of weld metal is in intimate contact with the parts which are being welded, so that it is claimed by many that because of the diffusion and intermingling of the metal under repair with that of the weld the properties of

the latter are somewhat improved. A comparison of some of the results of tests somewhat support this claim.

It appears from the results obtained that the two types of electrodes used—that is, "pure" iron and low-carbon steel, should give very similar results in practical welding. This is due to the changes which occur during the melting, so that the resulting fusions are essentially of the same composition. The use of a slight coating on the electrodes does not appear to be of any material advantage so far as the properties of the resulting fused metal are concerned. It also appears that any difference in results obtained with direct current apparently depends upon the relative ease of manipulation during welding rather than any intrinsic effect of the current upon properties of the metal.

Fence Posts. (19)—(*Technical Note No. 135, Forest Products Laboratory.*) A split fence post is as durable as a round post provided the amount of heart wood is the same in both. Posts of spruce, hemlock, or any of the true firs are exceptions to this rule, because their heartwood and sapwood are about equally durable.

When posts are to be treated with creosote or other preservative, a round post is preferable to a split post, because of the comparative ease with which the sapwood can be treated. The heart faces on split posts do not, as a rule, absorb preservative well. Split red-oak posts will take treatment, because the wood is very porous, but the heart faces of split posts of many other species, notably white oak, red gum, and Douglas fir, resist the penetration of preservative, even under heavy pressures.

Nails and Nailing. (27a)—(*Technical Note No. 134, Forest Products Laboratory.*) Nails driven in holes slightly (1-32 to 1-16 inch) smaller than their diameter have considerably more resistance both to direct pull and to shear than nails driven without holes. Cement coated nails are superior to uncoated nails. Length of nails should be somewhat more than twice the thickness of the member holding the heads. Slender nails are likely to hold better than thick nails under the repeated shocks and constant weaving action to which crates are subjected, because the slender nail bends near the surface of the pieces joined without loosening the friction grip towards the point.

Physical Properties of Materials. (15)—(*Bureau of Standards Circular No. 101. Fifty-two pages. Size 7" x 10".*) In this circular is assembled data relative to the physical properties of material that heretofore has not been conveniently accessible in any one publication. The numerical values given represent a testing engineer's selection of the most probable of the values given by various authorities.

Tables are given of the tensile strength, elongation, reduction of area, hardness, composition, compressive strength, density, ductility, modulus of elasticity, strength in shear and transverse strength of iron and iron alloys and similar tables for carbon steels, alloy steels, steel wire, steel wire rope, aluminum, aluminum alloys, copper, copper alloys, copper wire, and various miscellaneous metals and alloys.

THE
JOURNAL
OF
**THE AMERICAN INSTITUTE OF
ARCHITECTS**

The Kansas City Memorial Competition

Artist and Artisan
WILLIAM ADAMS DELANO

Production via Curtailment
FREDERICK L. ACKERMAN

Working on Cost Plus Professional Charges
ROBERT D. KOHN

Four Recollections of Old Spain
E. H. LOWBER

Fellows and Fellowships
REPORT OF THE SPECIAL COMMITTEE

Jurisdictional Disputes

The Gold Medal

Structural Service Department

AUGUST
1921

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JOURNAL OF THE AMERICAN INSTITUTE OF ARCHITECTS

Volume IX

AUGUST, 1921

Number 8

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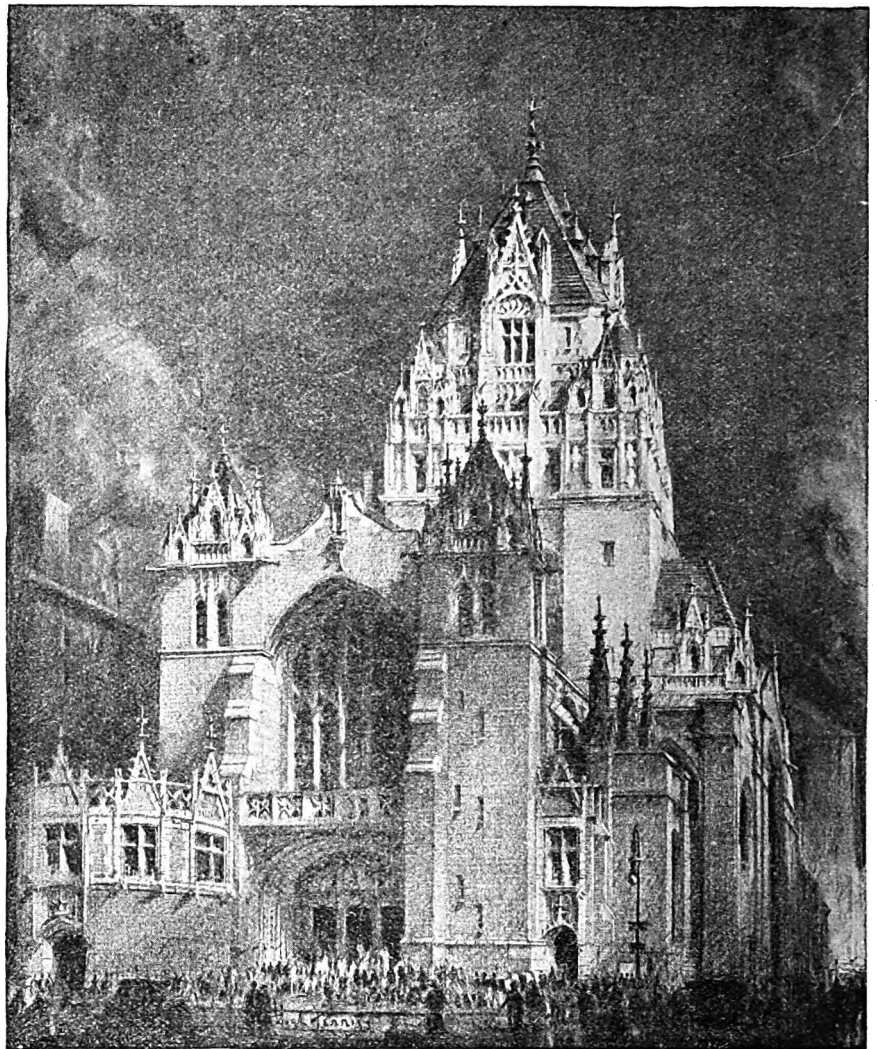
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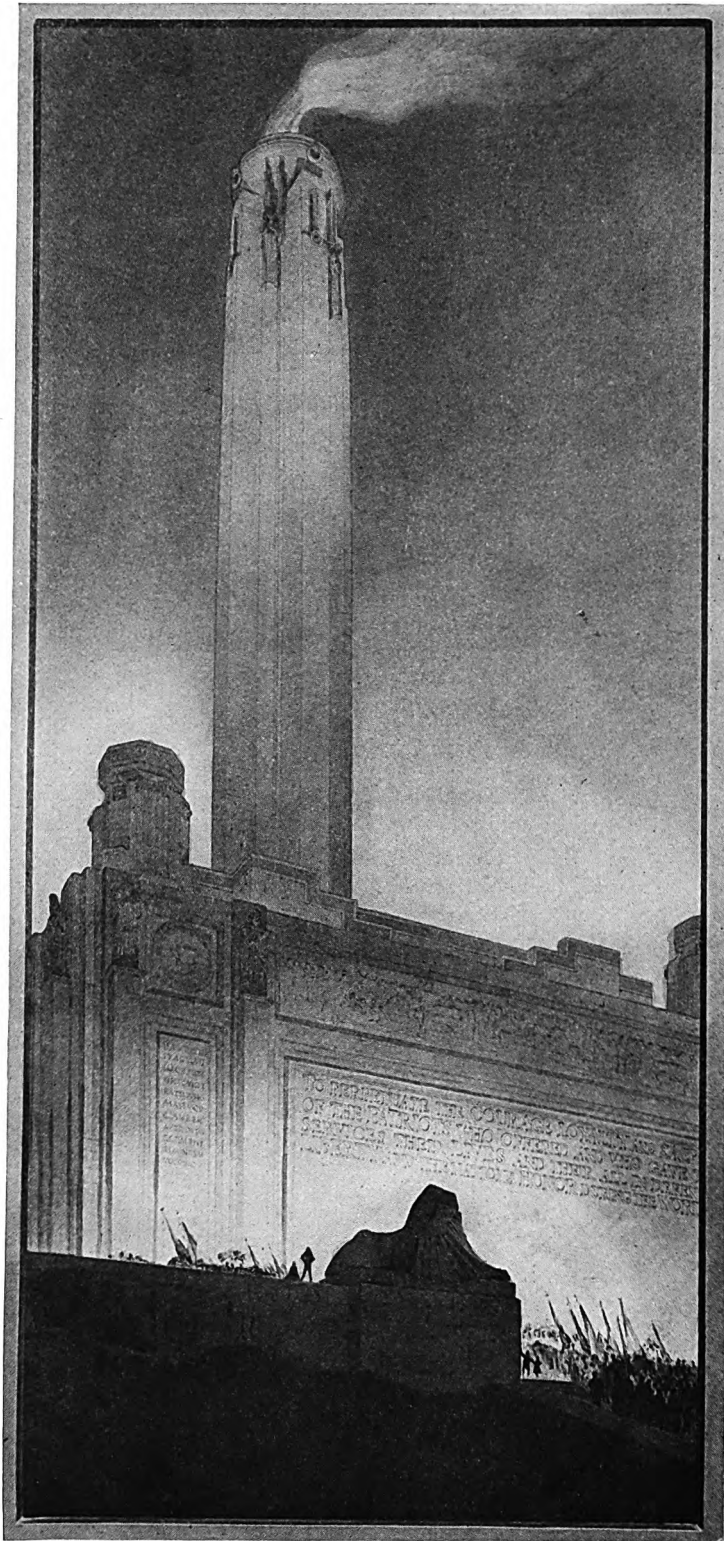
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Shadows and Straws

KANSAS CITY comes to the very forefront of architectural interest, as is told elsewhere in this issue. Likewise, the ancient subject of competitions takes on, to many, a new and engrossing interest. That there are disagreements over the second competition to be held under the form of program elaborated by Mr. Kimball, goes without saying. It is too much to expect that any kind of a competition could win unanimous approval. But without entering into the delicate moot questions of technique, from a judicial point of view, is it too much to venture the prophecy that the two competitions in question,—the Nebraska State Capitol and the Kansas City Memorial,—may at some not far distant date be scanned by the historians of American architecture with something akin to the belief that they will have to take rank as turning points or landmarks? The basis for such a prophecy has its roots deep in that soil whence springs the unsuspected,—the new thing, the very newness of which is its own challenge to the old,—the fruit that has been germinating beyond the ken of men,—the cry of genius as it springs, a wayward child, into the staid circle of conventions and traditions, carrying consternation into the tents of one group, and making for great reveling in the army across the way.

Mr. Goodhue's tower may or may not be a turning point. Mr. Magonigle's tower may or may not mark the beginning of a new path. None can tell. The final answer must be delivered by the buildings. To him who would essay a prophecy, however, the two winning designs in these two competitions under consideration, the programs for which are likewise a challenge, offer a tempting peg upon which to hang a none too timid prediction. He would, belike, wax eloquent, and record his conviction that the art of architecture in America had made a momentous stride. He might be very wrong, of course. Fifty years, more or less, may pass ere the verdict is known. The risk to the prophet is, after all, very little.

IN THE KANSAS CITY MEMORIAL Mr. Magonigle has risen to the heights of genius. He has achieved a masterly handling of a problem with which it might

be said that there have been few to compare in modern architecture. It is one of the advantages, surely, that a public work of this scope is not conceived as a matter of investment. Financial business keeps its hands off. The architect ought, therefore, to enjoy unusual freedom, but this, alas, is too often taken away from him by a competition program which, instead of being designed to set free his powers to their full limit, has the effect of turning his ability and energy into a sort of game in which he plays nervously with a worried eye on the jury. Indeed, it is curious that in all discussions of competitions, architecture seems never to be mentioned. There is much emphasis on the architect and some more or less pretentious and gratuitous reference to the client, but when and where have competitions been discussed in relation to their effect on the art of architecture? On the contrary, is it not true that the whole competition code of the Institute is a business document designed to facilitate a business procedure?

The two competition programs developed by Mr. Kimball are conceived in terms of architecture,—they seek to discover and liberate all the architectural genius possessed by the competitors. Whatever criticisms there may be of the form of these programs, there can be none of the purpose sought. It is ideal. It is a sincere effort to restore to architecture a part of the freedom once possessed by the master builders who dealt not with business questions, but with those of technique and esthetics,—who were allowed to approach their problems in a spirit of contemplation, unhampered by any arbitrary set of factors as prescribed by a professional adviser, and worried over the personnel and the predilections of a jury.

Yes, the eyes of architects may well be turned toward Lincoln and Kansas City during the next decade, for there, under the guidance of Mr. Goodhue and Mr. Magonigle, and under the influence of the two competitions that constitute a radical departure from precedent,—since the professional adviser has kept his ideas out of the program entirely,—architecture may once again blazon her message to an apathetic people—and that is an end greatly to be desired.

Artist and Artisan¹

By WILLIAM ADAMS DELANO.

AT the end of my Sophomore year I began to look about, as the custom then was—happily long since discontinued—for “snap courses,” when my eye fell on free-hand and water-color drawing. Thanks to a mother’s perseverance I had a certain facility with pencil and brush, so I elected those courses without hesitation. No Freshman ever came to Yale possessed of less artistic sense than I. First, guided by the gentle hand of Professor Niemeyer, afterwards by that most delightful of all gentlemen and artists, Professor Weir, I began to realize that art meant something more than to draw a man that looked like a man or a tree that could be recognized as such. From that moment the desire to learn more of this mystery took possession of me and I have spent the intervening years in trying to find out something about it.

Before we can go very far we shall have to determine upon a definition of our subject. I am not bold enough to attempt it, but the dictionary, which has no soul and consequently cannot object to being quoted, says that art is “the harmonious expression of human emotions.” This definition comes very close to the mark, if it does not actually hit it. If you are willing to accept it, as I am, it presupposes three things: First, an emotion; second, the power to express it; and third, the ability to do so harmoniously. If we leave out any one of the three we have something but we have not art. By the same definition the artist is the person, who, possessing the emotions, has the ability to impart them to his public in harmonious form. If he has the power to express himself harmoniously but has no emotions to transfer, he is an artisan, to my way of thinking, but not an artist. And lastly, if he has emotions but no power of expression, I don’t know what he is,—a nuisance, perhaps, but certainly not an artist nor an artisan. To state it a little differently, an artist is the artisan who has learned his trade and who in addition has something to tell his public, and my contention is that if there were more artisans today there would be more art and more artists.

At the risk of being placed at the outset in the “Oh! Tempora, Oh! Mores” category, I believe that the times, as far as art is concerned, are “topsy turvy” and, furthermore, that in a very large measure the art schools, the conservatories of music, clubs for the fostering of the fine arts, newspaper criticism and all the many devices of the present day for encouraging them are the cause of this loss of equilibrium.

Until the last century, how did the youth who wanted to become an artist set about it? He apprenticed himself to some artist of repute for whose work

there was a demand, and in whose workshop he performed the most menial services, but where he learnt from the ground up the technique of his trade. If he apprenticed himself to a painter, for example, he learnt how to make his colors; he learnt to draw; he learnt how to prepare his grounds and put on his paint. As he became more skillful, the master allowed him to do more on the pictures themselves, until finally if he had the emotions to express he began to express them for himself and was fully equipped to do so by long and arduous training. If he did not have the emotions, he labored on as a good artisan, performing a useful function in the community, and if he showed no adaptability at all for his chosen trade he was thrown out bodily by his master and told to seek some other form of employment.

But this is what I want to bring out clearly: All the time he was working in his master’s shop, he was helping to produce something which the community wanted; he was in close touch with the needs of his day and adding to the wealth of his time, nor was he above undertaking the most humble work.

What happens today? Young men and women, feeling that they are fired by the divine spark and encouraged by clubs and art schools which must maintain a membership or fail, enter a school; they sit together in a studio drawing from a cast or model, encouraged too often by occasional criticism varying in intensity as the pupil shows interest or not, and thus work day after day upon something utterly unrelated to what is going on in the world outside. Of course these pupils are told that they must learn to draw before they can paint, but is it to be wondered at that in ninety-nine cases out of a hundred they weary of their task and rush ill-prepared as they are for a paint box?

According to the word which has been passed about in the younger art circles, one does not need to know how to draw; one needs only express one’s emotions, not necessarily harmoniously. It is a far more interesting and exciting occupation, I grant you, to see if you can produce the effect on a beholder of a nude falling downstairs by an ingenious arrangement of prisms and cubes than to toil laboriously over a charcoal drawing seeking to reduce to simplest form all the subtleties of light and shade. So these budding geniuses begin to flood the market with their paintings, the critics to talk about them, the exhibitors to hang their pictures and they to damn the public for not appreciating and buying their works.

Why is all this? For that it is as I have described it is a certainty. My explanation is that these artists—for many of them by temperament are real artists—are far behind the times, although they flatter themselves

¹From a speech delivered at the anniversary exercises of the Yale School of Fine Arts.

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and the critics encourage them to believe that they are in the very van of progress, far ahead of an unappreciative generation. They have not waked up to the fact that times have changed; that people today do not want the kind of thing they have to sell—at least not in the quantity in which it is produced. They insist upon painting easel pictures, many of which must be looked at from a distance to convey to the beholder all that the painter wishes to express, and yet few people have rooms large enough to get away the required distance. Or, they have theories of color perhaps beautiful in themselves but which do not harmonize with other furnishings. In short, the only place for their handiwork seems to be a museum—and museum space is limited.

I never go into a company where painters and sculptors are present that they do not attack the architects because we do not design our buildings so that painters can decorate the walls or sculptors fill niches with colossal groups. Architects are not over modest men, in my observations, but they do not believe that they are capable of changing the drift of civilization, as the painters and sculptors would have them believe; they build for people and have always built what people want, using their imagination, and suggesting, if they are worthy of their calling, something far better than their client imagined. But if the civilization in which they work wants office buildings, architects cannot make that civilization build cathedrals; if their civilization wants a simple form of house to live in, architects cannot make it live in Roman or Florentine palaces. The artist in every generation has had to meet the needs of his time and in so far as he has met them with love, devotion and sincerity he has fulfilled his function. But the painters and sculptors today do not believe that; they think that the public is wrong because it will not follow them through all the phases of their emotional endeavors.

I am not an economist, but I know enough of the science and so do you to know that there must be an approximate balance between supply and demand, and that where there is an oversupply of a commodity that commodity becomes cheap. In times past practically all of the work that the painter and sculptor turned out was done for some particular person or place. Today I doubt if more than a small fraction of the great mass of work produced is done to order. The old masters bought today so greedily by the rich (a habit very annoying to living artists) are works of art, executed for the most part by order of someone in days gone by—a portrait perhaps, or a decoration for a certain church or shrine or palace or garden. Am I wrong in thinking that there must be a real difference in the attitude of mind of one who is working to please a patron and one who is working solely to please himself? Does not the first fit into the economic order of

the day in a way that the second does not? Is not the second in the same logical position that I would be in if I sat in my office and drew plans for beautiful buildings which no one wanted to build, and then criticized the public for not appreciating them enough to put up the necessary money? I think there must be a relationship between what the artist is able and willing to do and what the public wants.

Now the architects, not from superior intelligence, I feel certain, but by the force of circumstances, have kept abreast of the times in a way that the painters and sculptors have not. They are solving modern problems by modern methods, and architecture today is a live art. I must admit that fortune has favored them for she has given them a new element—steel—and by its aid they are overcoming the law of gravity in a new way (there are only a limited number of ways). The Greeks knew one and their architecture was determined by the length of the stones they could quarry to span between two columns. The Romans discovered or adopted a second, the arch, so that the space between the points of support could be widened almost indefinitely. The Gothic builders perfected a still more ingenious and economical method, by making the ribs and buttresses do all the work and filling in between with curtain walls and vaults. Today, with steel, we have almost limitless possibilities, and the Woolworth and Bush Terminal buildings stand as monuments to the skill of their designers and the times. I venture to say that these buildings, expressions of modern problems, have awakened as many emotions in the hearts of the beholders as most cathedrals. Haven't you been thrilled by them as you beheld them soaring into space, whether in broad daylight or as twilight gathered or as night fell? I know I have. One may criticize this detail or that and one may criticize the commercial system that produced them, but the lofty beauty of these buildings stands.

All this has been accomplished in less than forty years. To accomplish it, the architects have availed themselves of all the mechanical equipment of their age; high speed elevators, elaborate heating and ventilating devices, telephones and electric light and power have had a share in perfecting them. What have the painters and sculptors been doing meanwhile? Have they availed themselves of the mechanical inventions of the day? Have they been helping to produce what the great business corporations want and what the homes demand? I am afraid not, in most cases. They have been hard at work in their studios painting pictures and modeling statues and wondering why the public is so benighted as not to clamor for their wares. The public does not clamor, I believe, not because the love of beauty is dead; there is just as much craving for it today as there ever was but the demand has taken another form, one which the painters and sculptors have

ARTIST AND ARTISAN

been slow to recognize either because it did not interest them or because it was too remote from their traditions or because it involved too much dull technical work.

I repeat—architects, painters and sculptors can beautify and enoble by their imagination, if they have the training, what the civilization of their day demands, but they cannot change the demand. I am not entering a discussion as to which civilization is the higher—the one where religion and things spiritual were in the ascendant, as in the Middle Ages, or the one where the commercial spirit is dominant, as it is today; I shall leave that for a distinguished Gothic architect—but I am certain that the artists of the Middle Ages solved their problems skillfully and I am equally sure that the artists of today could solve their problems equally skillfully if they would only recognize that times have changed and that their problems are not those of six hundred years ago. Then the Church—and by the Church I mean the religious life of the community—called largely upon the artists. The courts of Europe did the same. Today the courts have passed away and the Church, in which the form of worship has greatly changed, no longer asks in the same measure. But instead, the great commercial enterprises call aloud for help. They need advertisements, bill-boards, designs for their fabrics, a thousand and one things; but theirs is a voice crying in the wilderness because the artist will not tackle the humble problems of his time. So the great business enterprises are forced to content themselves with ill-trained talent.

Never before in the history of the world have artists been so deaf to the real demands of their day and generation. I hold no brief for the present system; in many respects it is appalling. All I say is that it exists and if artists and artisans would listen to its call, we should not have to fatigue ourselves perennially with such awful exhibitions as take place in all the great cities of the world, but we should have a daily exhibition along our road sides, in our theatres, in our moving-picture palaces, in our books and magazines, which would go far towards improving the artistic standards of our people.

Have I made myself clear? Please do not gain the impression that I have made a plea for lowering artistic standards—that is far from my thought—I have only been maintaining that art will be in demand in so far as it meets the needs of its day, and these needs cannot be too humble for the real artist.

Why has this unfortunate distinction between the artist and the artisan grown up in recent days? In times past the artist was the artisan, and vice versa, and the very wonderful works of art which have come down to us are the result of the joint labor of well trained artisans and artists who performed their tasks with love. I have reluctantly formed the conclusion that the system of training is at fault, that the apprentice

system eliminated the unfit and trained the fit to perform what their day and generation demanded in a way that the art school of today does not. The latter, assisted by the art clubs and art critics, encourage the young student to believe that he is in a class apart; that he should be free from and superior to the economic life of his day. The talk about "self-expression," "art for art's sake," and all the patter which we know so well, puts, it seems to me, a false point of view into the mind of the student and tends to increase the gap between the artist and the artisan instead of teaching him to feel that he is a part of a system which exists, and always has existed, since the day when some primitive man, more skillful than others, first decorated his neighbor's weapons and pottery and wigwam.

I am not saying that the art school is any more slipshod than any of the other professional schools, but after a student graduates from one of the others he serves an apprenticeship, in reality, if not in name,—the draughtsman in an architect's office, the lawyer in a law office, the doctor in a hospital, but the poor painter and sculptor is thrown on his own at once. Furthermore, the art school is an attempt at a short cut, and I believe there is no shorter cut to success in art than in any other profession or business.

Some years ago when I first came back from Paris and the Beaux Arts, I taught architecture at Columbia. The men in the class were always trying to solve their problems by some novel or ingenious method (an admirable ambition at the proper time) but I said to them then what I still believe to be true, that what they were there for was not to invent an alphabet but to learn the Spencerian method of forming their letters; to learn the proportions of the orders; the accepted ways of designing doors and windows and pediments; that once having mastered these so that they could draw them backwards in their sleep they were free to let their own personality have sway and their hand-writing might become long and flowing, upright, round or banckhand, as the case might be, but the chances were that it would at least be legible. But this is a long and tedious process, just as distasteful to the art student as it is to my small boy to have to learn to form his letters; yet unless the student of architecture learns them, unless the painters and sculptors really become proficient draughtsmen, unless the author has a vocabulary and knows about the construction of sentences, unless the musician masters the technique of his instrument, what chance have they to express themselves harmoniously to their public, to produce works of art? They must *all* become trained artisans first; later some of them *may* become artists.

I am almost ashamed of what I have been saying; it sounds so platitudinous. I have had in mind no particular school or country. My platitudes apply equally to the Ecole des Beaux Arts in France or any school of

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Fine Arts in this country. But may I, before I close, be permitted to apply what I have said to the school of my own university, in New Haven, for just now I believe it is the hope to develop in a larger way a department of architecture in connection with the School of The Fine Arts.

What I said a short time ago about architecture being a live art in this country, abreast of the times and related to our civilization is borne out, I think, by the fact that while we hear of no university in this country trying to develop a school for the training of painters and sculptors, almost every university feels that it *must* have a school for the training of architects. Now this would not be true if the painters and sculptors were playing in the civilization of our times the same role that the architects are. Every university would then feel it as essential to have a school of painting as a school of chemistry or physics. Yale has a School of Fine Arts; it has a building more or less adapted to its purposes; it has a fairly good collection of paintings (an excellent one as representing one particular period); and the devoted service of many well-trained and distinguished artists. What is to be its aim? It seems to me that this must be clearly determined. Is it to be to teach a polite acquaintance with the fine arts, as the college does with the classics, to give a man or woman a smattering of technique and a bowing acquaintance with the masters of the past, so that upon graduation they will be in a measure intelligent critics of other men's work, able to say this is a good or this a bad piece of workmanship, for this or that well recognized quality? Or is it to become a school where men and women will go because they can learn there better than elsewhere the technique of their chosen art? For my part I believe that either one is a legitimate aim, but I would not allow them to become confused either in the minds of the public or in the ambition of the teachers. Either I would say in the prospectus:

"All that the Yale School of Fine Arts proposes to accomplish is to give to the young men and women who come to it a general knowledge of art in all its phases so that they will be able to recognize the different schools and periods of architecture, painting, sculpture and furnishings, and take an intelligent part in the perennial discussion that goes on on the subject of art." Or I would say in the announcement:

"This school is designed to teach men and women, as far as a school possibly can, the technique of architecture, painting and sculpture. It is designed to turn out well-trained artisans in each of these arts. In addition it will make them thoroughly conversant with the history of each branch and it will attempt as far as possible to bring them in contact with great works of art and with men who are artists. It will not guar-

antee to do this in two years or four years, but as a student becomes proficient in each step he will be allowed to put his foot on the next; and when he leaves with a diploma, this diploma will mean that he is a thoroughly trained artisan with every chance that education can give him to become an artist if God has given him the rest."

If the Corporation of Yale University takes the first view of what an art school connected with a great university should be (a perfectly sound point of view, I believe) it has practically achieved it already or could with slight minor additions. If it takes the second, the Yale School of Fine Arts, hand in hand with every other art school in the world, has a long way to travel. It must reach a position where by some means or other there is injected into the school the spirit of the old apprentice system, by which a youth was taught his trade from the bottom up and at the same time made to feel that his trade had a practical relation to the demands of his day. I would be in favor of either but I would not take a half way course.

I have spoken emphatically because I feel strongly. I am conscious that I have ridden rough shod over the sensibilities of many who will not agree at all with what I have said, but I think that even those who disagree most strenuously will feel that there is at least a grain of truth in what I have said, and to plant this grain deep enough one must use emphasis. I know, too, that I have only touched on one side of this vast question, but one cannot do more in the limited time.

I take a position second to none in admiration of the real artist, the sincere follower after truth, and I know how many of them there are today among the painters and sculptors and architects. The dignity of their profession is as sacred to me as to anyone, but I believe that there is a dignity in service quite as great if not greater than the dignity of independence, and it is this dignity which I sometimes feel is in jeopardy because we do not take a sufficiently humble point of view about our duties and responsibilities as artists.

During the last hours of a long problem, when everybody was thoroughly fatigued, the Frenchmen in the Ateliers in Paris used to chant by the hour and with varying inflections the monotonous refrain, "L'Architecture est une maitresse tres dure." It was sung in jest but years have taught me that there was more truth than humor in the refrain. She is a hard mistress and so is Painting and Sculpture and Music—each and every one of the Arts. It is well to recognize this fact and not enter the holy state of matrimony lightly or inadvisedly. If one is prepared to make the sacrifice no devotion is more richly rewarded, but to enjoy these rewards to the full one must be a good artisan.

Production Via Curtailment

By FREDERICK L. ACKERMAN

Spring brought the return of Mr. Untermyer. He came with some added authority to pry further into the Building Business with particular reference to the financial side of it. This authority has been reluctantly granted by a new State Legislature acting under the pressure of banks and fire insurance companies protesting in the open. But there is ground for doubt concerning how much he will discover; for his authority is limited. It is very much like a privilege to peer through a key hole at a three ring circus. However, Mr. Untermyer can see a great deal more than most men under such conditions.

While the work of preparing for this new phase of the inquiry has been going on, Mr. Untermyer busied himself with discovering more and still larger combinations, associations and pools of material men and fabricators, thus swelling the list of the presumptively guilty. Indictments continue to accumulate; a constantly increasing number of ever diminishing fines and lighter sentences are being imposed. To this extent, at least, has the much heralded process of deflation taken effect.

Toward the end of May Mr. Untermyer is observed in the attitude of surveying his past effort. He remarks: "I am no alarmist, but my great fear is that the country either does not sufficiently realize or has become callous to the perils that lurk in the social unrest that is being accentuated by the greed and piracy of these combinations that infest the land from end to end. They are all-powerful. It is still possible to reach the little fellows, but the biggest and most dangerous of them apparently are already above and beyond the law as it now stands."

Which draws from the New York World this editorial comment:

"If this is true, one of two things must happen. Either the Government will demonstrate its ability to control the rings of corporations and individuals that are at present beyond the reach of the law, or the people of the country must go to the trouble of establishing a Government which can and will do the job. A state that is less powerful than certain organizations within its own borders has already lost its sovereignty."

Again this puzzles the reporter. In the face of this comment and his own remark, Mr. Untermyer projects programs of legislative reform which will put an end to such practices as have been revealed by his inquiry. If, as Mr. Untermyer suggests, these large groups, "apparently are above and beyond the law as it now stands"—and the action of the courts so indicates—it is certainly to the point to ask: Of what possible avail will be further legislative enactments? For a full generation we have been a-trust-busting with nothing more to show for it than an ever-increasing number of combinations, associations, and pools.

To the reporter this does not appear as a case calling for more legislation when the sort demanded has so notoriously failed. Nor does it appear as the World would have it as precisely a case of loss of sovereignty. The cry has been loud for "a business administration;" for a "government by business men;" for carrying on the affairs of state according to the rules of "business." The evidence goes to show that

this is what we are getting. But the investigation has has not been concluded; talk about remedies is a little premature.

The last few days of May were devoted to the methods of the fire insurance companies. The first of June witnessed a change, in that attention was focused upon certain institutions engaged largely in making building loans. Resort is again had to captions in the daily press to tell the story. The New York Times, May 27th, puts it thus: "*Sees \$150,000,000 Insurance Burden Added to Housing—Untermyer Finds Huge Reserve Fund Income Goes to Stockholders, not Policy Holders. Could Reduce Premiums—Outsiders Barred by Four New York Exchanges Making Insurance More Expensive—Enormous Profits Shown—Expert Admits State Laws are Inadequate. Remedial Legislature Favored.*" Some fire insurance companies, it appeared, earned as much as 50% annually upon this capital stock. Looks like a good investment! Rated upon the basis of *business* such a return should be set down as a praiseworthy accomplishment. Something to the same effect may be said of the competitive methods in vogue in New York State by the four insurance exchanges. The company members of the New York Fire Insurance Exchange, organized under the stock plan, bar membership fire insurance companies, *organized under the mutual plan, because these companies return to their policy holders part of their premium, generally from 25 to 50 per cent, but in some instances as much as 95 per cent.* Why do we find fault with action on the part of an individual or a group of individuals who seek to gain the advantage of another individual or another group? Such action falls within the frontiers of legitimate action under the competitive system. Such action runs true to form; not so to act would be to cooperate. And cooperative action is what we do not want as evidence a plenty runs to show.

But the inquiry into the doings of fire insurance companies came to an abrupt (possibly a temporary) close when it was announced that these companies were going to "reform." For the time being we may as well leave this matter with the optimists.

June first saw the spot light turned upon the lending institutions; what was revealed recalled certain scenes in the Merchant of Venice. Inquiry into this phase of the production of houses is no doubt of value in focusing attention upon what is well known. But to discover what constitute the usual procedure here is about as difficult as discovering the Woolworth Building while coming up the Bay on a brilliant morning. What was discovered may be illustrated by a single sample drawn from the evidence. One man asks a \$15,000 loan. It is granted with a few conditions attached. The broker in the case deducts a \$5000 bonus. Title examination costs \$150. Another broker comes in for \$300 for something or other. Then the balance is paid in Liberty Bonds at face value, meaning further loss of around \$500. So he gets \$9050 for \$15,000 and pays 6% interest on the full \$15,000. No wonder that a day given over to this sort of thing led Mr. Untermyer to say to a retiring witness: "People who want to borrow

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money cannot get it unless they buy suburban lots they don't want, unless they buy run down tenements, unless they buy Liberty Bonds at par, unless they pay huge discounts—and these exactions are made by persons with respectable sounding names, are they not?"

The New York Times of June 3rd carried the news covering what had been revealed under the caption, "*Money Lenders took 20 to 50% toll on real estate loans. Lockwood hearing shows general system of bonuses and commissions. Borrowers are Mulcted—Banks, Insurance Companies and Mortgage Brokers involved. Vacant lots palmed off.*" Concerning this evidence the N. Y. World, June 3d, stated editorially: "Through how many distinctive elements of cost in building construction and maintenance the Lockwood inquiry has now extended, we cannot at the moment count up, so great is the number. But has one of them, from the various classes of labor involved to the numerous classes of trade in materials and supplies and other necessities of the industry, so far failed to reveal organized or prevalent extortion and gouging and profiteering and all manner of monopolistic oppression?" And the New York Times of the same dates made this extremely significant observation: (*italics mine*) "Wonder at the precision with which Mr. Untermyer places his finger upon fraud and graft is fast giving way to an even greater wonder whether there is any spot in the business world which can stand searching investigation. Nor is the remedy as simple as it once seemed. Hettrick is in jail, but many another offender is at large, having suffered only a small fine and a sense of shame, which, if it exists at all, is probably microscopic. . . . In the fullness of time Mr. Untermyer will perhaps put forward some plan by which business may purge itself."

From the captions and editorial comments and from the remark of Mr. Untermyer quoted at the outset, one gains the distinct impression that doubt is arising concerning our ability to deal with the situation. The common welfare of Christendom has fallen into a precarious state, a state which furnishes the topic for most of our news items. Very reluctantly and only here and there do we find that this conditions of affairs is treated as having any connection with the particular economic system which stands to characterize the last one hundred and fifty years.

Now the need for doing something about it looms large. There is the Sovereign State: Why not call upon the power of State authority to correct the conditions of maladjustment by the enactment of regulating measures? But the futility of such action should be apparent when it is recalled that what is proposed is precisely what has been done in the past, viz., require by legislative enactment that the state act to thwart the operation of that system which, we still maintain, constitutes the only conceivable way of producing goods and rendering services. That is to say, we propose that the state shall limit and thwart the competitive system—set a curb upon the rights of absentee ownership—while we continue to act under the rules of competition and to maintain the so-called rights of ownership. In the face of worldwide sabotage enforced by the price system we continue firm in our belief that production may be animated solely by the prospect of gain in terms of price.

We ignore the significant change which has taken place in modern times with respect to the motives which animate the production of goods. Nowadays we do not go to our work in the morning with a view of producing such

goods as we feel we need; nor do we go with a view of producing goods which we may exchange for other goods that we feel we need. We go with a view of gaining the greatest possible pecuniary reward, that is to say, of selling our labor or what not for the highest price. The matter of the volume of goods produced has become a completely subordinate matter; and to us individually and to us, organized into groups of laborers, manufacturers, etc., the day's work may advantageously be given over entirely to retarding production or the distribution of goods. We must not overlook the fact that under the regime of money (or credit) economy the gains of the business man—this term may include the laborer and the farmer—are secured by so maneuvering as to gain a differential advantage which may be realized by himself or by his group in terms of price.

It is no wonder, when one takes into account how completely we have fallen under the price system and how firmly it is established in our mind that the quest of gain is alone that which will stimulate effort, that the Times, the World, and Mr. Untermyer grow dubious concerning the ultimate value of the inquiry and any legislative action likely to follow as a consequence. And what Mr. Hoovers special committee of the American Engineering Council has to say, in its recent report as to the sources of and the magnitude of waste in production, injects little hope into the situation. For the gist of the recommendation of this Committee is that we should continue to carry on production for a profit competitively, but we should be guided by the spirit of cooperation. Thus we will eliminate the present 50% waste. Such a suggestion has about the same promise as the Times, expression of hope that Mr. Untermyer would "put forward some plan by which business may purge itself." Neither the Times nor the committee of the Engineering Council takes into account the *fact that "Business is Business"*—that is to say, Business as such is a matter which *stands apart and distinct from the production of goods*, as the direct statements of more than one of the Untermyer witnesses bear out.

The modern technological processes of production, carried on through large specialized units—units interdependent, all of a necessity moving together under conditions of balanced loads, cannot be carried on in the same way as when technology was limited to the ways and means of handicraft. But it was out of the ways and means of handicraft and petty trade that we came by the principles (habits of thought) which we refer to as the competitive system. The technological ways and means of production have changed—but the institutional structure of the days of handicraft and petty trade remains.

What stands in the way of operating the existing industrial plant to capacity is that such a procedure would be most disastrous to the absentee owners of the plant. It is absentee ownership which imposes the policy of sabotage—the curtailment of output—on the part of every one who engages in business. Hence it appears that the problem of releasing industry from a constant curtailment of output involves a sweeping change in the institution of ownership. But since there is no evidence to indicate that the matter is likely to be viewed in this light, it follows, of course, that we are likely to pass through a period of chaos while this bit of institutional furniture is being remodeled to conform with the modern material facts.

A Memorial

AT

Kansas City, Missouri

“To perpetuate the courage, loyalty, and sacrifice of the patriots who offered and who gave their services, their lives and their all, in defense of Liberty and the Nation’s honor during the World War.”

This courage and loyalty so splendidly shown, this honor for which these patriots sacrificed their lives and their material interests—it is the memory of these which must be our inspiration for life in the new world revealed to us by the World War. Therefore, this design signifies—The Flame of Inspiration, guarded by the Spirits of Courage, Honor, Patriotism and Sacrifice, burning forever upon an altar high-erected in the skies, a pillar of cloud by day, a pillar of fire by night.

The scale of the composition toward the Station Plaza is commensurate with this large area and with the distance of the Memorial from the points in the Plaza at which it is first completely visible.

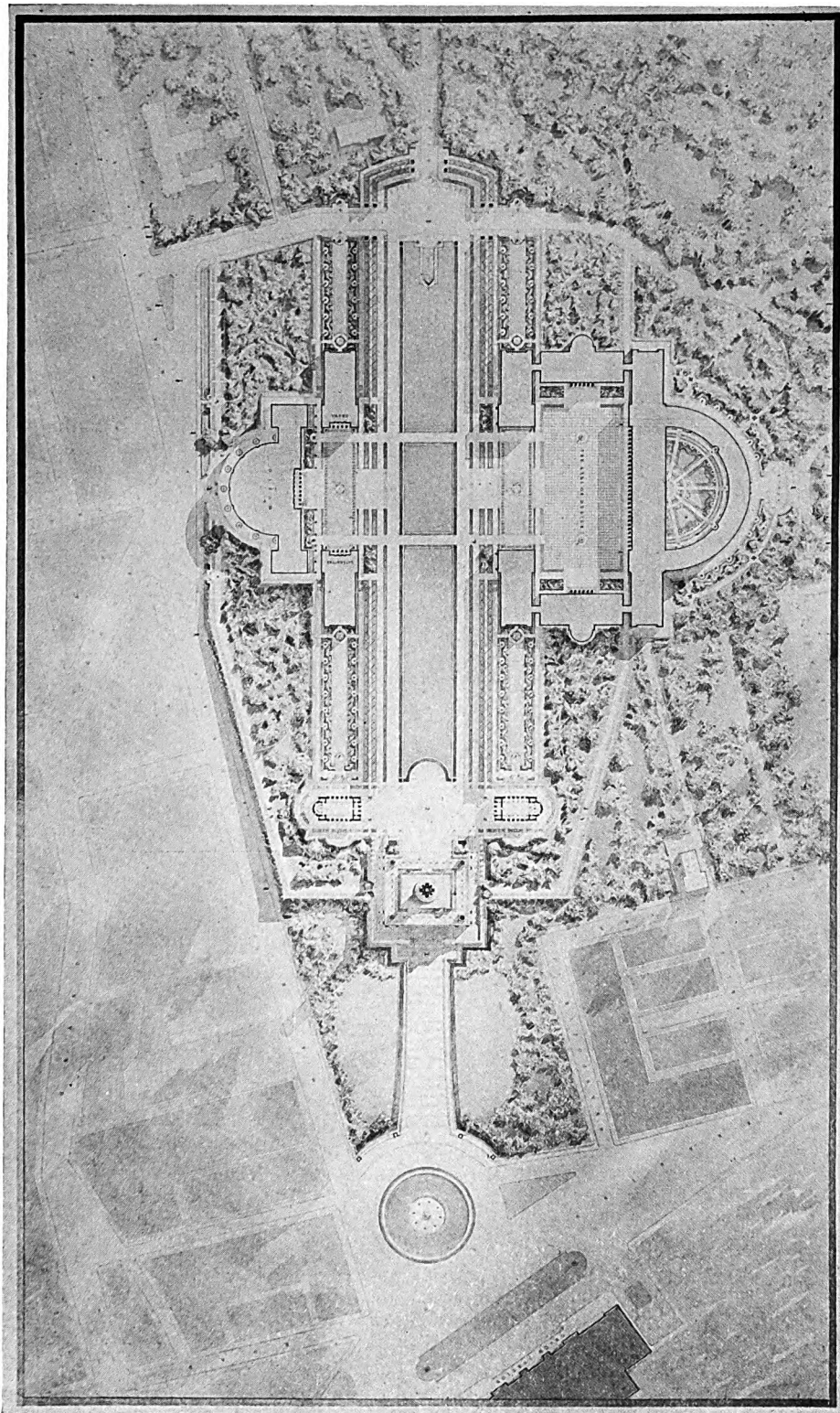
The direction of the main axis was determined by these factors: It follows that line on each side of which cut and fill may be most readily equalized and the fall of the ground utilized for lighting the lower stories of the buildings—as for example in the Art Building which is intended to have, to the West, two full stories below the main floor level: It unites very naturally two points of approach—the meeting point of the park roads on the top of the hill to the South, with the end of the Main Street Bridge to the North: And it creates available areas on the easterly side of the axis for some of the future buildings.

A commodious two-level subway, the upper level for pedestrians, the lower for service vehicles, service conduits and the like, would connect and serve all the future buildings on both sides of the Mall. The vehicular subway would be entered by way of the service road which continues the line of Central Street or from the Park drive. The subway entrance for pedestrians would be under the Music Building from Main Street and from the westerly side of the Art Museum, and would be (like the subway for service vehicles) connected by elevators with all stories of the buildings above, sparing the climb to the upper level in bad weather or on those occasions when the object of the visit is special and not for the general purpose of enjoying the beauty of the terraced and shaded setting of the Memorial.

This great esthetic centre, serenely poised on its hill in the heart of the City’s daily life, with the Memorial standing at its Gates will be a constant reminder of the dominance of the things of the spirit.

H. VAN BUREN MAGONIGLE.

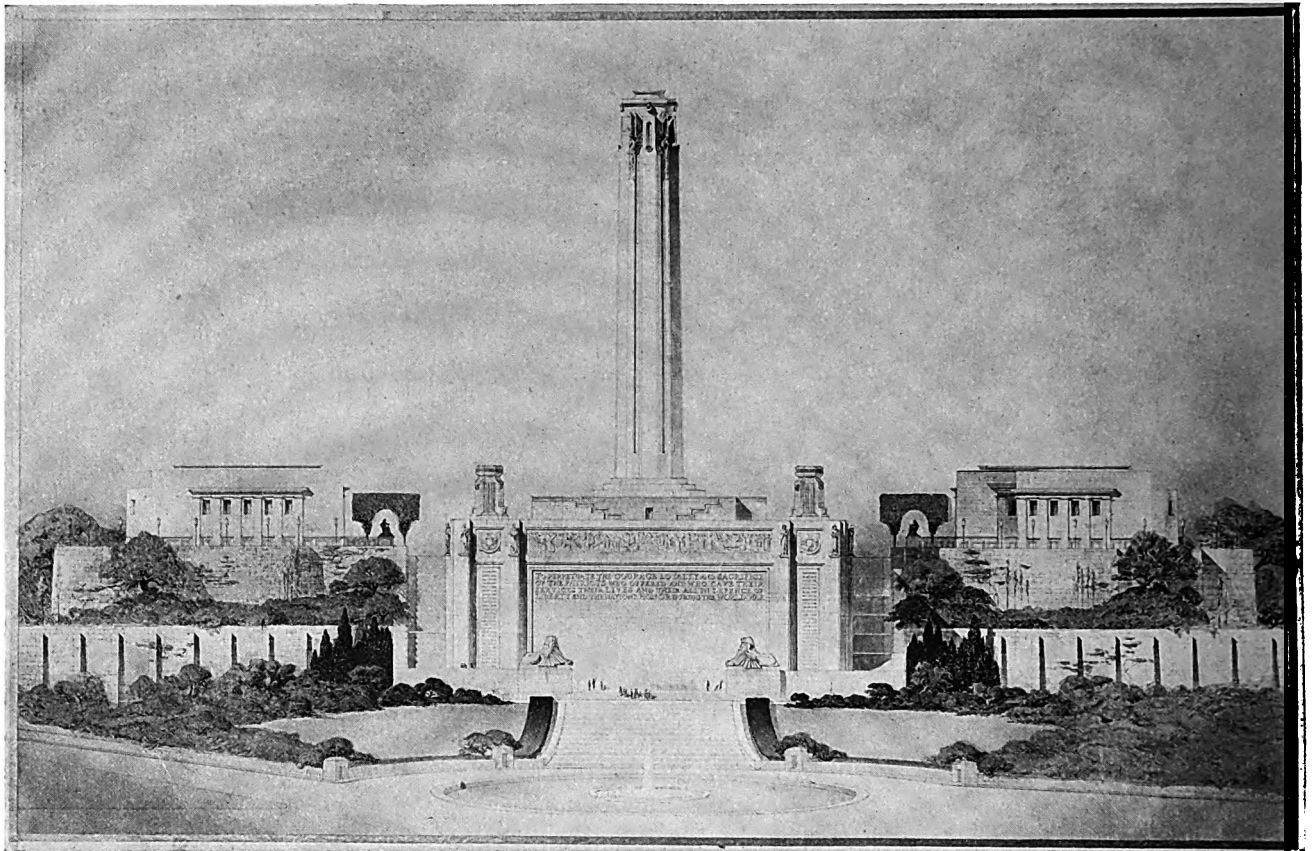
May 7, 1921.



General Plan.

KANSAS CITY MEMORIAL COMPETITION.

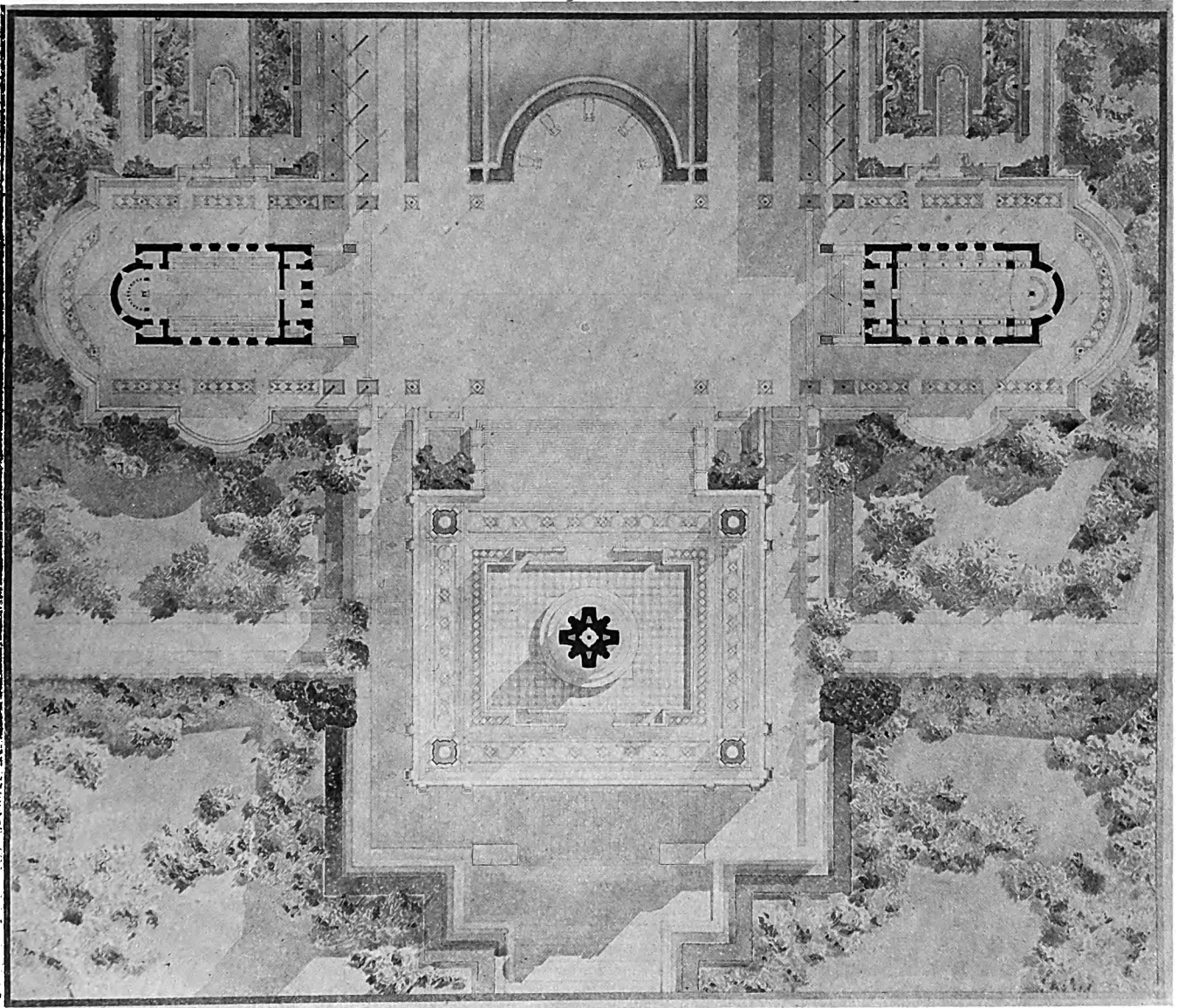
H. Van Buren Magonigle, Architect.



Main Elevation.

KANSAS CITY MEMORIAL COMPETITION.

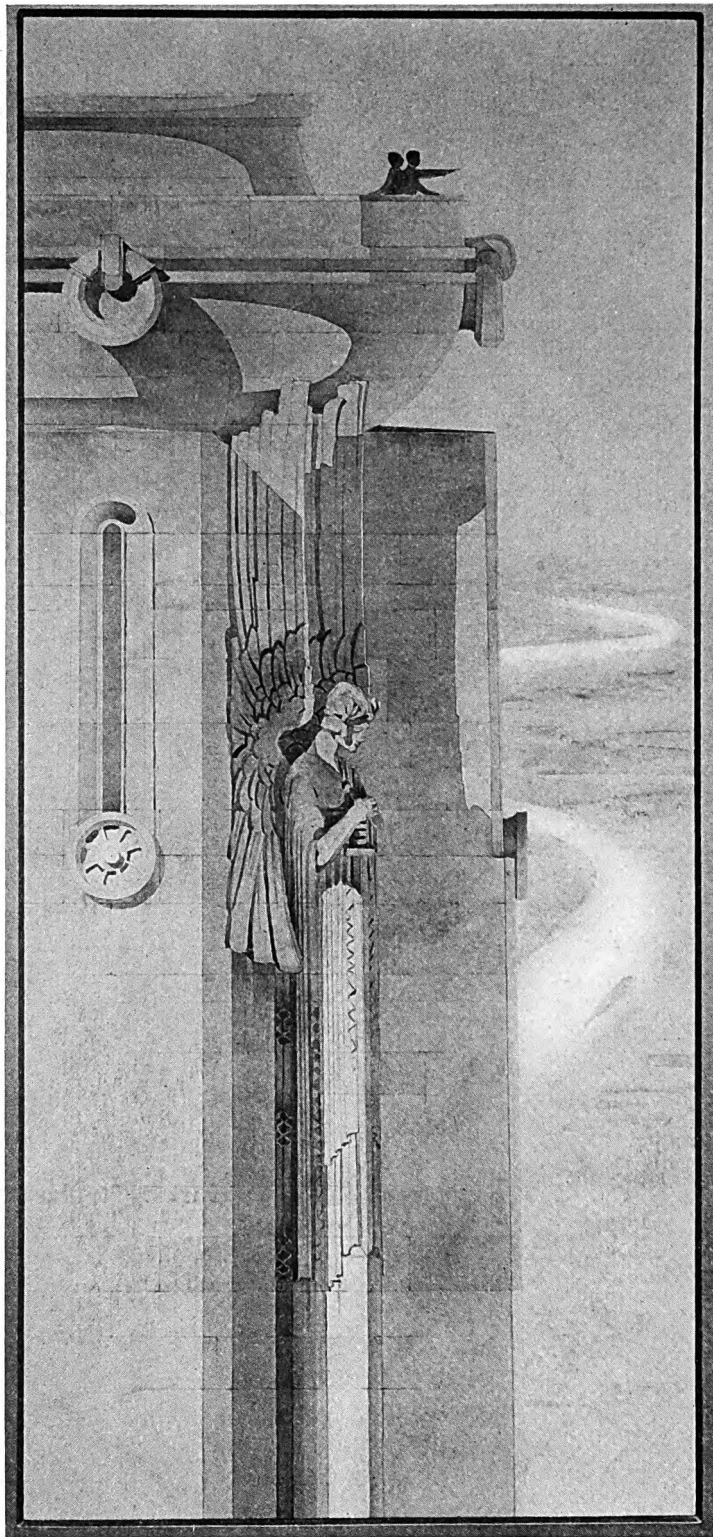
H. Van Buren Magonigle, Architect.



Detail of Plan.

KANSAS CITY MEMORIAL COMPETITION.

H. Van Buren Magonigle, Architect.



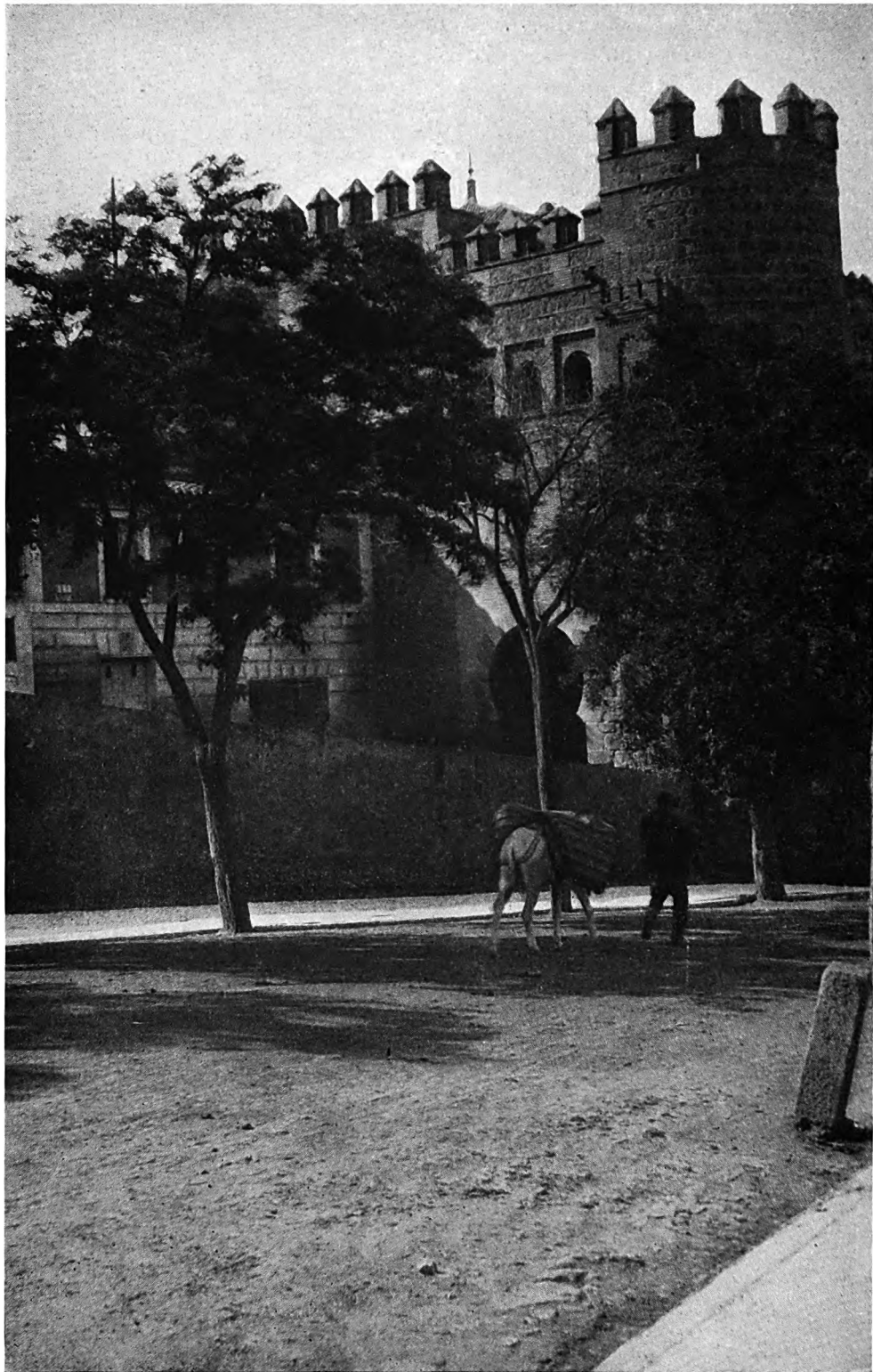
KANSAS CITY MEMORIAL COMPETITION.
Detail of Tower. H. Van Buren Magonigle, Architect.



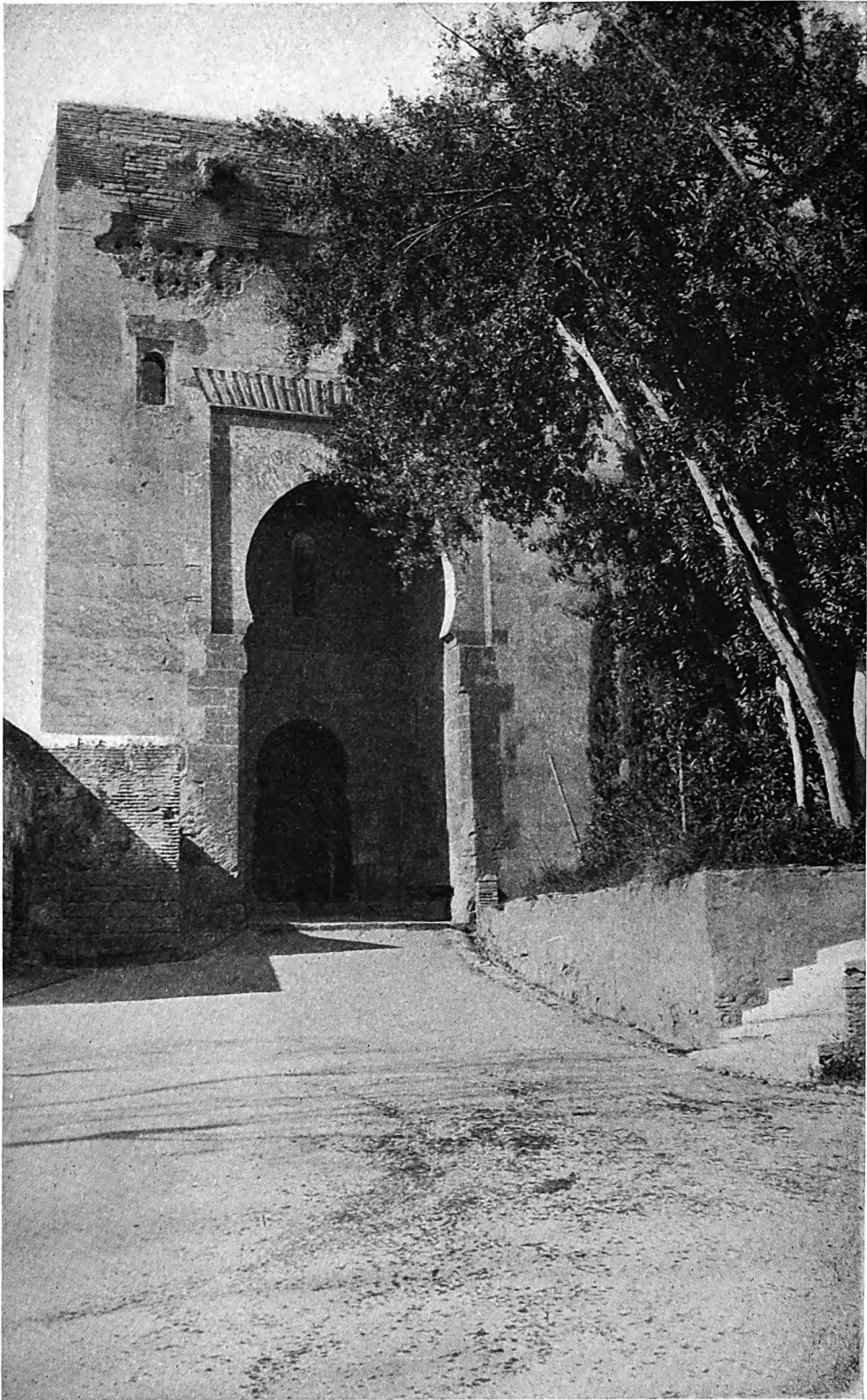
I. ON THE EDGE OF CASTILE—Guadamur.

Four Recollections of Old Spain, by E. H. Lowber.

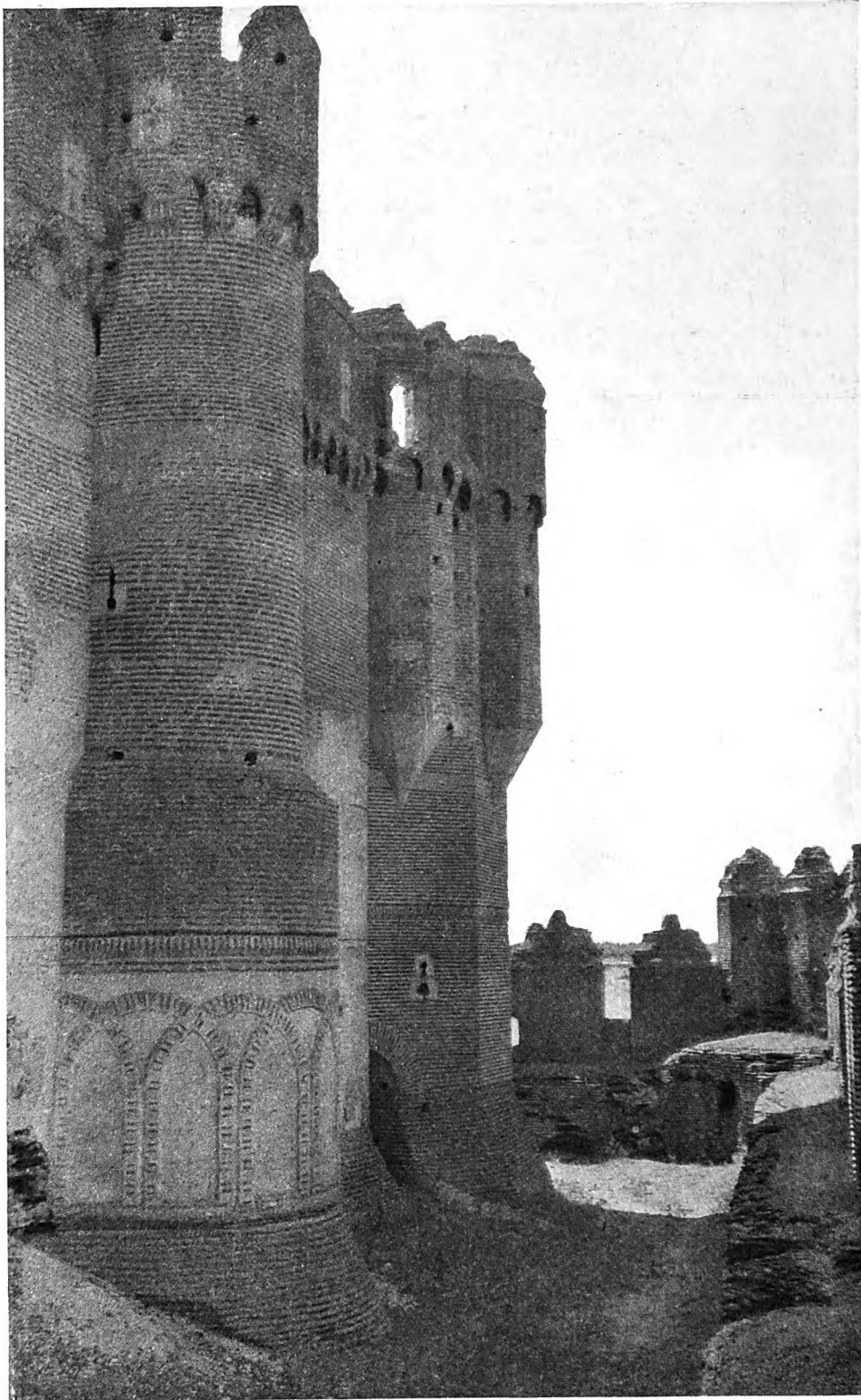
By permission of the Hispanic-American Society.



II. THE END OF THE DAY—Toledo.



III. THE GATE OF ISLAM—Granada.



IV. DEEP ROSE AND PURPLISH BROWN—Mudejar Building, Coca.

Working on Cost Plus Professional Charges¹

By ROBERT D. KOHN

THE "Cost Plus" scheme of professional charges, in use in our office during the past two years, has been in effect long enough to show results on two or three buildings actually completed and upon which a comparison can be made between what would have been the percentage charge and that under our present system. I feel satisfied that the new scheme is the better one, not only in theory but in practice, although I would like to know the views of other architects who have had a longer experience with it.

The proposal that we have been making recently to our clients, which is an evolution from certain earlier proposals, reads about as follows:

"Gentlemen:

"In accordance with the suggestions made on the occasion of our first interview, we present herewith an agreement for our professional services in connection with the new building which you have been good enough to ask us to undertake.

"As you know, it is the usual practice of architects to charge a fee based on a certain percentage of the cost of the work as executed. This has worked fairly equitably in the past, but many architects now consider that in view of the changing prices and other conditions it may not always work equitably now for both owner and architect. We have therefore recently proposed a plan to our clients which bases the payments to be made to us as architects entirely on the actual cost of the work we do plus overhead and a reasonable profit.

"We protect the owner against any excessive cost by placing an upset maximum price. The owners pay us monthly for the amount of work done for them in the previous month. If the work goes along smoothly and no extraordinary complications arise he is likely to pay for our services a lesser total sum than would be involved under the old percentage rate of charge. If, on the other hand, the work is complicated or delayed by unusual conditions that arise, or changes have to be made which involve additional drawings, the cost may be more, but there is never any question as to what the amount charged should be, since the whole matter is based on actual expenditures in our office. The scheme which we propose as applied to your building is as outlined in the following paragraph.

"We are to give full professional services including all the usual plans, details, specifications, and superintendence for this work, and we are to receive in compensation therefor the direct costs incurred by our office in the carrying on of your work (which includes our own time charged for on a salary basis) plus one and one quarter times the amount of such costs to cover overhead and profit. We hereby agree that the total amount which you will thus be required to pay us will not exceed the basic rate of percent (%) of the cost of the proposed building work, as a basic fee of that amount would be calculated

¹These notes were dictated by Mr. Kohn as a means of publicly answering many questions that have been asked him about the Cost Plus method of charging, both in private discussions and in Chapter meetings.

under the normal conditions of practice mentioned in the latest Schedule of the American Institute of Architects. The conditions of the printed document attached hereto are part of this agreement except as to those changes noted in ink and the items crossed out in red.

"We should be glad to explain this further should you so desire. If this arrangement is satisfactory to you as it is, will you kindly sign the enclosed duplicate of this letter and return it to us?"

Very truly yours,

By

Accepted.....1921.
.....Owner."

The printed document attached to this proposal is the second page of the Standard Form of Agreement between Owner and Architect, 2nd edition, A. I. A. 1917, in which Article 2 is changed to read:

"The fee payable by the Owner to the Architect for the performance of the above services is not to exceed the percentage defined in the letter as the basic rate, computed upon the cost of the work in respect of which such services have been performed, subject, however, to any modifications growing out of these Conditions of Agreement."

Article 6 is also changed to read as follows:

"Whether the work be executed or whether its execution be suspended or abandoned in part or whole payments to the Architect on his fee are subject to the provisions of Article 5, to be made as per accompanying letter.

"Payments to the Architect, other than those on his fee fall due from time to time as his work is done or as costs are incurred.

"No deduction shall be made from the Architect's fee on account of penalty, liquidated damages, or other sums withheld from payments to contractors."

* * * * *

Perhaps the best approach to a discussion of this proposal is to begin by an explanation of certain questions naturally raised by the document just quoted. We have often been asked if we were not in fact lowering the standard of professional charges by our proposal, or if there is not danger that such might be the result of our scheme.

My answer to this is that two years' use of this method have shown that in some cases the total charge for services was actually less than it might be under the scheme of percentage charge, but on the other hand, in a number of other cases the charge has been more than the normal percentage would have been.

The Guaranteed Upset Price

The second point that should be explained is that the guaranteed or upset price mentioned in the proposal is in general placed at one percent more than the usual percentage charge would be. In other words, it has been our custom to insert 6% as the guaranteed upset percentage if the usual charge for such work might reasonably be 5%, as in the case of work of great magnitude where there

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is a great deal of repetition; 7% is mentioned in the contract if the job is one where 6% would be the charge on a percentage basis. On the other hand, in alteration work or interior decorative work or in either classes of professional services where the office service is mainly a personal one no upset guaranteed percentage is mentioned as a maximum, and the actual resultant cost to the owner has proved, in a number of cases, to be considerably more than it would be possible to mention if a percentage were fixed.

Salaries and Time Records

At a number of meetings where this subject has been discussed architects have asked us how we kept a record of our own time and what our salaries were. The scheme as defined in the contract, it will be noted, includes in the cost of production time spent by the principals in the office calculated on some salary rate which has been determined. We have found no difficulty on this point. None of our clients has ever asked us what salary we pay ourselves. If they did, they would be satisfied, I think, with the amount which is in our opinion reasonable. It is as a matter of fact a little more than double the salary of the best draftsman in the office, which surely is not excessive for a principal. Each of the group of associated architects on a particular job keep a separate time slip record just as do each of the draftsmen. The time is charged up on the books at so much an hour, just as in the case of the draftsmen. To be sure, it is impossible for me to find more than about half of my actual working time that can be directly entered on the time slip. This is due to the fact that it is impractical to charge up time spent in telephone conversation, dictation and general office supervision. A careful record kept for the better part of a year shows that the average directly assignable time is just about one half of the number of working hours. That being the case I load my own time with a 100% overhead. If 4 hours is on my time slip for any particular week, chargeable to one job, it is entered as 8 hours on the assumption that all of the jobs in the office consume for general supervision, about the same percentage of the lost time as they bear to directly assignable time. The salary is charged to the job complete month by month.

Overhead

Another question frequently asked is "how do we get the one and one quarter time scheme?" We arrived at this by finding that our average overhead in the office for rent, stenographers, materials, telephones, telephone operator, office boys, printing, etc., etc., averaged for a number of years about 66 2/3% of the amount expended in the same years for salaries of draftsmen and superintendents. To be sure, during busy periods the overhead is less than that, but at other times it has been more. We have therefore felt it legitimate to take the average of a number of years as a constant to be applied to every job in figuring the overhead. If in one particular year the overhead runs a great deal less than there will be a surplus accumulated under this heading to be retained in a reserve fund to meet deficiencies of another year. As a matter of fact that has actually occurred in our office, and a considerable sum is supposed to be set aside for future contingencies under this category.

Profit

Aside from the overhead an item of profit is determined on. What is fair to charge as such profit in an architect's office has caused considerable discussion. It was quite customary for architects to assume formerly that something like 40% of the total fees collected would be profit; the profit being the total amount which the architect himself was supposed to retain clear of all expenses. Some architects claim that half of their total fees were profit, but we assumed that it was more common in the general run of work that the expenses of a job amounted to 60% and the profit 40%. If this same rate were maintained then it might be claimed that the ratio of 40% of profit to 60% of expenses in any fee makes the profit 65% of the cost but in the scheme that we have under consideration the profit is calculated on a cost which includes the architect's salary. After considerable calculation and discussion we reached the conclusion that 33 1/3% would be a more reasonable profit item based on this inclusive cost.

With these two factors then determined it is easy to figure that if \$100 is expended by the office on any particular job (including salaries of draftsmen, superintendents, and the architect himself) if we add 66 2/3% for overhead this will give \$166.66 and if we add to that 33 1/3% profit, this makes \$222.21, or just about two and a quarter times the original cost. It is for this reason, in order to simplify matters, instead of charging office costs plus 66 2/3%, plus 33 1/3, we merely mention that we are going to add to the cost of the work one and one quarters times that amount to cover overhead and profit.

Waste and Carelessness

There are now two or three considerations of considerable importance. The first is, that any waste in the office, neglect on the part of draftsmen, or carelessness in duplicating the work, are naturally to the detriment of the client, just as waste is in a cost plus contract. Though the owner is protected by the upset percentage fee it might be claimed that there is still leeway enough for considerable waste. This criticism is valid. It is unquestionably up to the office to guard most carefully against waste, and we have found in our own experience that it was necessary on one or more occasions to credit an account with the salaries of men who had for one reason or another neglected their work or failed to produce drawings that were of value to the client. Such items are charged against the profit of the office, as to overhead we only charge amounts paid to correct errors in construction work due to carrying out of defective drawings. In every such case the men in the office are informed of the items so that they realize that this is a charge against their share of the profits.

Profit Sharing

The scheme of charging a distinct item for profit sets aside a certain fund which can be divided under a profit sharing scheme with the whole office force. As the architect himself has been paid a salary which gives him some return for his services, even if not an entirely adequate one, it is simple to work out a profit sharing scheme in

WORKING ON COST PLUS PROFESSIONAL CHARGES

which the workers can share in a reasonable ratio to the amount of profit.

The Monthly Settlement

The next important point is that the architect does not benefit by receiving an enormous fee on work that is simple or repetitious, or where a client makes few demands, but he does not lose large amounts where the client is difficult and the work complicated, as is the case with residential work for instance. A New York architect, criticising this scheme, said to me, "Your plan may be all right, but you can never make a killing," to which I replied, "I do not have to make a killing since under my scheme I can make no loss on any job." As a matter of fact the Cost Plus scheme has the advantage in that the architect does not profit inordinately on one job and give away his work on another. The client pays for exactly what he gets. Another advantage is that on the first of the month a bill is rendered for the expenditures of the previous month, plus overhead and profit. With hardly a single exception our clients have become accustomed to this scheme and pay these bills promptly and the whole financial health of the office thereby has been immensely improved. The old habit of borrowing money from the bank to carry on large jobs is gone, I trust for good. Incidentally it would be well if the whole architectural profession adopted the habit of sending monthly bills, whatever their method of charges. At the beginning of a job a client is always comparatively flush and is ready to pay bills. Under the old plan, the architect was the last one to be paid. Under the scheme of monthly bills the majority of the architect's fee is paid in the usual manner of good business.

Actual Cases

As I said in the first place the real test comes from an analysis of the results of the scheme. I cite a few cases:

(1) A 12 story fire-proof loft building, costing \$750,000; all the floors from the 2nd to the 12th were alike; the building was constructed last year at a period when costs of construction were almost at the peak. If we had fixed a percentage rate under the old scheme of charge, we should have felt that 6% would certainly be excessive, and 4½% more nearly right, since there were practically no details to be made, and the volume of repetition was almost as great as in a large industrial plant. The percentage scheme moreover would have caused great difficulties because the scheme for the building was changed a number of times and different sets of drawings were made; the making of a charge for the new drawings would doubtless have raised a question that would have been unpleasant to settle between owner and architect. As a matter of fact, the total amount billed at the close of the job was just short of 5%.

As an interesting illustration of the value of this scheme in connection with this particular job, it may be noted that when the plans of the 12 story building were practically completed and the contract for the steel had actually been let and its fabrication was already under way, the clients gave orders that the building was to be only 4 stories high and our office was notified to change the drawings accord-

ingly and cancel the surplus steel. Had we been working on the old percentage basis it would have been very difficult at that time to ask for a payment in full for the work done on the 12-story building; the office would have been legally entitled to it, but the client who felt a financial pinch at that time would have been unpleasantly affected by the demand. As it was, this client had already paid for all of the work done up to that time and no question was raised about the charge for the larger building when only a small one was to be built. (It might be noted here that the 12-story building was finally constructed anyhow, but the value of the plan of charging under such circumstances was none the less evidenced.)

(2) A very large floor area was to be sub-divided into a series of salons for the display of fine interior furnishings. The job was one in which the design took a great amount of time and the construction of the rooms required a large amount of personal supervision on the part of the staff. Every room was different and the material costs were very low because the whole effect was produced by rough plaster and a treatment of inexpensive woods. On our cost plus basis the professional charges, if figured up as a percentage of the cost of construction, would have seemed excessive if mentioned in advance. My recollection is that it actually ran up around 18 or 20%. But the client had received his monthly bills of charge and realized that they were not unreasonable for the amount of work that was put upon the job by the office.

(3) This was an addition to an existing plant that we built 6 years ago. The original construction plans included a 12-story fire-proof extension about 75 by 125 feet, and certain other additions which were not then built. When orders were received in 1919 to go ahead with this wing it was only necessary to take up our old plans, make certain unimportant changes, develop the working drawings, and let the contract. The construction cost was just short of \$800,000. There were certain additions and power plant equipment for which it would have been very difficult to fix a fair percentage rate of charge. There were practically no details, as every detail of the original building was used over again. There were no interiors, and as the work was executed by the best contractors in the country on a cost plus basis there was practically little supervision for the office. The total amount charged by this office under our scheme turned out to be about 3¾% of the cost. There were a great many consultations with the owners on matters not directly connected with the construction of the building—consultations about the location of machinery and the best method of constructing certain apparatus. In all of these things there was no actual expenditures of money going through the architect's office. Under our scheme the time spent on this sort of thing was a charge against the client. On one occasion the owners of this building insisted that they wanted my own personal attention every day. I protested that this was an unnecessary expense to them, since every one of my visits cost them a considerable sum and those of the general office superintendent were quite adequate for daily inspections. Their reply was that while they realized they were paying for it, they desired none the less to have the personal attention. Under these

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circumstances compliance with their request was perhaps a waste, but none the less not a hardship upon the architect.

Difficult Clients Pay the Cost of Being Difficult

After citing these cases, it is also interesting to note the illumination thrown on certain features of the old percentage basis. As it happened, we had in the office during the past year a contract made at the owner's request (a corporation) on the flat percentage fee scheme. We kept the same kind of a record of time that we now do on the cost plus basis. We found that we spent so much time on fussy details that we should really have received two or three thousand dollars more than the actual fee, and this mainly because the job required so much attention of the architect himself. It is in this feature that the new scheme is so much better than the old; it repays the actual time and effort when the client is difficult, and benefits the client when excessive demands on the architect's own time are not made.

Fair Pay All Around

The question has been asked a number of times if this scheme would work out in the practice of an architect dealing with small buildings. This I cannot say. It is likely that if the volume of work is small the architect might not be able to pay himself an adequate salary. I shall have to leave it to others to work this out. What particularly interests us is that we seem to be in the way, through the cost plus scheme of charges, of treating our clients in the way in which professional men ought to treat clients; namely, charge them for actual demands they make upon him and upon his staff and not upon a purely accidental cost of construction. It eliminates moreover that amusing but painful type of case cited by Sidney Webb. Meeting a prominent architect—a friend—one evening, he inquired why he looked so fagged out. The architect replied that he had been working all day cutting down the cost of a building, the designs for which he had just completed, and the estimates for which were too high. He said that he managed by his day's work to save his client a thousand pounds and as a reward, his (the architect's) fee would be fifty pounds less.

Institute Business

Report of the Committee on Fellowships

The Report of the Committee on Fellowships was received but not printed at the time of the Convention, and is printed herewith for the information of the Members, who will also receive it as part of the Proceedings. The Board of Directors reported, as follows, to the Convention on the subject matter of this report, outlining the action taken by it in connection therewith:

The question of Fellowships has been under consideration for the past two years by a special committee. Its report suggests a revised method for making awards if the practice is continued but raises strong question of the desirability of doing so.

Neither the Committee nor the Board is unanimous on this point. The Committee tends to favor the abolishment of the

Fellowship distinction. The Board believes that the objections are principally due to unsatisfactory methods of administration which can be cured or at least sufficiently improved to warrant the perpetuation of the grade of Fellows which it also believes is desirable.

In order to carry its opinion into effect, and to permit the Board to resume the awards that are provided for by our By-laws, it has voted to refer the matter to the Jury of Fellows, or those members of the Board who are Fellows, for immediate consideration of the revised procedure suggested by the special Committee with a view to reporting to the August Executive Committee meeting if possible and in any event to the November Board meeting the best practicable method it can devise to the end that awards on such basis may be made at the Fifty-fifth Convention.

In making this disposition of the matter, the Board wishes to acknowledge the constructive service of the special Committee which has presented a definite method of procedure which should form the basis of a workable and satisfactory solution of the problem.

The matter is now therefore in the hands of the Jury of Fellows for determination of action to be taken, looking to the nomination of certain members as Fellows at the coming Convention.

Very truly yours,
WILLIAM STANLEY PARKER,
Secretary.

Report of the committee on Fellowship and Honorary Membership Selection

To the Board of Directors,
American Institute of Architects,
Washington, D. C.

Gentlemen:

The above named committee begs to submit the following report.

Consideration of the subject since report to the Board dated April 21st, 1920, has resulted in no change in the recommendations of the committee, as to amendments to the By-laws governing selection of candidates for Fellowship. It is pertinent, therefore, to restate the considerations upon which those recommendations are based, as follows:

1. *Significance of the Fellowship.*

The Fellowship should be an honor, to the worthiness of which all should have opportunity to testify. It should be a prize available to the Architect of modest practice and limited professional acquaintance, as well as so him who who may be widely known, is politically active, or has a reputation as author of costly work. It should, thus, be an incentive to serious *personal* effort in the activities of the profession, as well as to fair dealing, and to a character meriting the generous esteem and respect of his brother-architects and the public.

It should be a true measure of worth among those who know a man best, coming of necessity unsought,—except by emulation of high artistic and professional qualities. It should be response to genuine impulse on the part of his *equals*, impossible of interpretation as a favor bestowed by superiors,—a real tribute, not merely a decoration,—a recognition fostering humility rather than false pride.

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2. *Certain Principles Involved in Determination of Provisions for Fellowship Award.*

The award of Fellowship should be conducted throughout, and be brought to the attention of the entire membership of the Institute, as an event of some solemnity, to be considered in a reverent, not a perfunctory spirit.

It should be lifted, so far as may be, above possibility or suspicion of undue influence, ulterior motive, or self-seeking. It should be taken out of the range of invidious comparisons which tend to poison the atmosphere of the Institute and bring the latter's authority into contempt, or disparagement, both of its own members and the public.

3. *New York Chapter's Consideration of the Subject and Outcome.*

"A better method of selection of Fellows" was advocated by the New York Chapter as long ago as 1911, when it was voted to submit the recommendations of its special committee on the subject to the next Institute convention.

The most important of the recommendations were that, "nominations would be made either by the Executive Committee of the Chapters, by their Nominating Committees, or by special committees appointed by the Chapters," and that, "That names of the candidates would not be announced to the Chapters by these committees, but would be forwarded to the jury in whose hands the final selection rests."

They arose from a belief that, "the Chapters are in a better position than the Board of Directors to know which of their members are doing the kind of work that would entitle them to this honor. There are many quiet men who are doing work of real value to the profession who, by their modesty or retiring disposition, or by the force of circumstances might never come to the attention of the Board of Directors."

The interesting discussion of these recommendations—which may be found in the published proceedings of the 45th Institute convention—closed with reference of the matter to the Board of Directors, for further consideration and a definite "scheme for presentation at the next (46th) convention in the form of an amendment."

Circumstances prevented consideration of the subject at the 46th convention and at the 47th convention, after some discussion, it was tabled.

4. *Draft of Pertinent Amendments to the By-laws.*

Article II, Section 1. General Conditions of Fellowship.

Fellowship in the American Institute of Architects is conferred upon a member who is a citizen of the United States, evidence of whose noteworthy contributions to the advancement of the profession in design, construction, education, literature, or public service relating to architecture, is attested by the Board of Directors and whose election, by vote of the Convention, follows.

Article II, Section 2, Method of Selection of Fellows.

On a given date each year, the Secretary of each Chapter shall send to members of his Chapter who are not Fellows, a blank ballot addressed to the Board of Directors of the Institute, made up in the following form:

Board of Directors,
American Institute of Architects,
Washington, D. C.

Gentlemen:

Recognizing the fact that election to Fellowship in the

American Institute of Architects is justified only in the case of such architects as are likely to uphold, or enhance its prestige, it is my well-considered and conscientious judgment that among those who are not Fellows, the following members of the (blank) Chapter—because of unusual accomplishments in design, construction, education, literature, or public service relating to architecture, together with evidence of scrupulous regard for the dignity of the profession of architecture—merit the award of that distinguished honor.

I therefore recommend as candidates for Fellowship—
(Space left for names and statement of qualifications.)

Note: If, in your opinion there appears to be *no* member of the Chapter—not a Fellow—whose accomplishments in the fields above enumerated are of so marked a character as to suggest the propriety of his receiving the special recognition which election to Fellowship is intended to, and should, confer, *please sign and return this ballot without recommendations.*

Signed—Member of (blank) Chapter
American Institute of Architects.

Date.

These ballots, sealed, shall be returned to the Secretary of the Chapter, who shall count them, *unopened*, in the presence of the Executive Committee and shall enter upon the Chapter records the number of non-Fellows entitled to vote and the number of ballots received.

If the ballots received number less than 85% of the non-Fellows of the Chapter, they shall be destroyed unseen; if equal to, or in excess of 85%, they shall be forwarded *unopened*, to the Secretary of the Institute, who shall canvass them in the presence of the Board of Directors or its Executive Committee.

If it shall be disclosed that the name of any individual, or individuals, appears on not less than 90% of the ballots, said individual, or individuals, shall, presumptively, be qualified for candidacy.

The names of such individuals shall then be submitted to the Fellows of their own Chapter for privileged communications, and unless the latter reveal that, *in the judgment of the Board of Directors, or its Executive Committee*, there may be valid objections, they shall be presented to the following convention as candidates for Fellowship. Validity of objections offered, *or suggested*, in privileged communications shall rest with the Board, or its Executive Committee and if sustained, the latter may withhold from presentation to the convention the name of the individual against whom objection is raised. Decision in the case of an individual whose name is thus withheld may be held in abeyance for three years.

If within that time no reason appears for a change in view, the name of said individual shall not receive consideration again for a period of two years, and then only after submission in accordance with the above prescribed order.

FURTHERMORE, It shall be the privilege of any Member of the Institute to suggest to the Board of Directors, as candidate for Fellowship, any member of the Institute *not a member of his own Chapter*, whose accomplishments as enumerated above, or whose reputation for the same, seem to him to *call* for such recognition.

Upon receipt of such suggestion, the Board of Directors shall submit the name of the proposed candidate to the Members of the latter's Chapter for privileged communi-

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cations, and from the information thus obtained, as well as upon the result of independent investigation, the Board may, *by unanimous vote*, present his name for election to Fellowship to the following convention, or may hold said name in abeyance as above prescribed.

At the annual convention following decision as to candidates, a printed list of the names shall be submitted and a vote of the Delegates taken by Australian ballot. The polls shall be open under such rules as the Board of Directors may prescribe.

All candidates who do not receive five or more negative votes shall be read to the convention and shall be declared elected Fellows of the American Institute of Architects.

Rejected candidates may be presented at the next convention in the discretion of the Board of Directors.

(A jury chosen by the Board may be substituted for the Board, to make selection of candidates, where the Board is indicated in the above suggested amendments.)

5. *Discontinuance of Fellowship.*

Since submission to the Executive Committee of the Board of Directors, at its meetings of March 5th, 1921, of a report in substance the same as the above, a suggestion was broached that nominations might well originate with Fellows and non-Fellows and thus do away with part of the machinery indicated in the amendments—(that part requiring submission of names of candidates to the Fellows of his Chapter for privileged communications, after having been proposed by the non-Fellows of the Chapter)—it is conceded, apparently, that the reason for the machinery proposed in the amendment is ample, as set forth in the last paragraph of (1) "SIGNIFICANCE OF THE FELLOWSHIP," as above; the idea being that when a man has attained standing and won esteem of men of his *own rank*, to such an extent that they voluntarily wish to raise him *above themselves*, he must be, it would seem, worthy of the honor to be conferred. Other influences are very likely to enter if such an honor can, by any chance, be obtained by political or personal favoritism, or by activities of the recipient directed to that end. There is evidence of all these influences having been at work in the past.

The Report of the Committee above mentioned, which was before the Board's Executive Committee March 5th, while substantially the same as hereinbefore set forth, so far as a method of choosing Fellows is concerned, raised the question of the advisability of discontinuing the Fellowship grade if some *practicable method of doing so could be devised*. With a view to obtaining information which might be helpful in the consideration of that question, assent of the Board was sought to a referendum vote of the Institute membership on the general subject of the constructive value, to the Institute and the profession of the Fellowship grade.

The Executive Committee of the Board at the March 5th meeting was of the opinion that such a referendum be submitted accompanied by a foreword "explaining the situation and the conditions which brought about the appointment of the Committee on Fellowships."

Since this information has been in the hands of the Committee members, one has written to the Chairman opposing the referendum on the ground that it "is the poorest

imaginable way of attempting to settle a question that is worth settling at all." Since the idea of the referendum was to gain information, not to "settle a question," lack of further objection to the referendum by committee members probably indicates their belief in its usefulness, to the extent intended.

Final communications from the Chairman were dated April 20th, 1921, asking that any further discussion be in his hands not later than May 2nd. The only letter received is enclosed (in copy) herewith in which Mr. Fenner asks to be "recorded as opposed to the report of the Committee" as submitted to the Executive Committee. Since this report is the same to all intents and purposes to that referred to, I assume Mr. Fenner's opposition would extend to this report, also, of which the Chairman asks the Board to take cognizance.

The Committee has failed to act in connection with the question of Honorary Membership selection.

Respectfully submitted,

Affirmative:

WILLIAM B. FAVILLE

R. CLIPSTON STURGIS

EDWARD B. GREEN

WILLIAM STEELE

W. R. B. WILLCOX, *Chairman.*

Dissenting:

BURT L. FENNER.

Mr. Fenner's letter, dissenting, was as follows:

New York City, *April 26th, 1921.*

W. R. B. Willcox, Esq.,
400 Boston Block,
Seattle, Wash.

Dear Willcox:

I have been negligent in not taking a more active part in the work of the Committee on Fellowships. I have no good excuse to offer for the fact is that I have realized that two or three of us old fossils in the East are in a hopeless minority in the Committee and, therefore, I have not been able to develop any great interest in the question. I still believe that the grade of fellowship is highly prized by most of those who hold it, and is looked forward to by many who have not received it. I agree with those who hold that the method of making the award has been faulty, but judging from my own experience on the Board, I am satisfied that the fault has been as much with the method as with its application.

While I was on the Board, I took the matter seriously and gave a good deal of time in advance of Board meetings to the attempt to select worthy recipients, but I found in the Board others who not only opposed the award of Fellowships, but by their attitude at Board meetings made it impossible for the Board to consider the subject seriously. I deeply resented the attitude of some of these members, and I believed then, as I do now, that they were grossly delinquent in their duties.

The grade of Fellowship exists by action of the Convention. If the members of the Board were out of sympathy with the idea, it was their duty to fight for a change, both in the Board meetings and at conventions, but until the

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Convention had authorized a change, it was their duty to give serious study to the award of Fellowships.

In the two or three years that have elapsed since my term on the Board expired, I have seen no reason to change my mind in any respect. I do not care to submit a minority report for I am convinced that it would be useless, but I would like to be recorded as opposed to the report of the Committee, as you have submitted it.

(Signed) BURT L. FENNER.

The following letter was also received after completion of the report:

Boston, *April 28, 1921.*

Dear Mr. Willcox:

I have your letter of the 20th of April, and the enclosed copy of letter to Parker. As you put it, there seem to be good reasons for eliminating altogether any degrees of distinction in the Institute, and I am prepared to vote with the majority of the Committee, but I do not altogether share your views about Fellowship. It has generally been awarded with care. It has, I believe, rarely if ever been awarded to one unworthy of the honor, but of course there are many worthy to be Fellows who have not received it.

Personally the Institute and its ways have too long been a part of my life for me to give up willingly what I have looked upon as an established custom, but that is no argument in favor of the retention of any custom if it has outlived its usefulness or no longer represents the original intention. (Signed) R. CLIPSTON STURGIS.

The Gold Medal

The following correspondence has passed between President Kendall and Monsieur Laloux.

WASHINGTON, *May 17, 1921.*

MY DEAR M. LALOUX:

It can be no new thing for you to know that in the hearts of many Architects, former students under your direction, there exists a lively affection and an appreciation of your instruction and guidance which time and distance only increase.

What you have done for individuals has become a benefit to the whole profession in America and in recognition of this invaluable contribution to our art and Architecture, the American Institute of Architects, by a unanimous rising vote, taken at its Convention held in Washington, May 11th to 13th, confers upon you the Gold Medal of the Institute; a gift by which the Institute honors itself as well as the recipient.

Suitable arrangements for the presentation of the medal will be made later in conference with yourself. It affords me great pleasure to be privileged to advise you of this well merited honor and I am happy to subscribe myself, with every consideration of honor and appreciation,

Very respectfully, HENRY H. KENDALL, *President.*

PARIS, *June 2, 1921.*

DEAR SIR AND MR. PRESIDENT:

I am deeply touched with the affectionate esteem evidenced by the American Architects in awarding me the gold medal of the Institute, and I also feel too much all

the grandeur of the tribute which you pay to my services not to be proud of such an honor.

I beg of you, Mr. President, please to convey to the American Institute of Architects my most deeply felt thankfulness. Also permit me, my dear President, to thank you for your flattering letter which brought to me the announcement of the distinction bestowed on me, the inestimable value of which I highly appreciate.

Please accept, my dear Sir and President, the assurance of my high consideration, and the expression of my most devoted brotherly regards.—LALOUX.

Important Notice—Jurisdictional Awards

To the Members of THE AMERICAN INSTITUTE OF ARCHITECTS:

The following decision, identical in substance with the official document of the Board of Jurisdictional Awards, is hereby officially transmitted to the members of the American Institute of Architects, on whom they are binding.

School Seats, Setting Of

Subject of dispute between the Amalgamated Sheet Metal Workers International Alliance, United Brotherhood of Carpenters and Joiners and International Association of Bridge and Structural Iron workers.)

DECISION, rendered March 12, 1921.—In the matter of the controversy between the Amalgamated Sheet Metal Workers' International Alliance, United Brotherhood of Carpenters and Joiners and International Association of Bridge and Structural Iron Workers relative to the setting of school seats, it is decided that the work in question be awarded to the Carpenters.

WILLIAM STANLEY PARKER,
Secretary.

Obituary

Frederick Baumann

A Memorial read at the Annual Meeting of the Illinois Chapter of the American Institute of Architects:

Frederick Baumann, Fellow of the American Institute of Architects and an Honorary Member of the Illinois Chapter died March 18th, 1921, at the age of ninety-five years. In his passing, each member of this Chapter lost an elder friend for whom he felt the deepest affectionate regard.

Mr. Baumann was born in Germany in 1826 and there received his education and his preparation for the practice of architecture. He was of that noble revolutionary stock of 1848 which has furnished such valuable citizenship in our American democracy. It was Germany's loss and our gain when, in 1850, he left the Fatherland to take up his life and work in the United States. His life of seventy years in Chicago has fulfilled the promise of his youth. The revolutionary in Germany became the constructive pioneer and progressive citizen. He was a leader in design and construction in his active manhood and became the discriminating and appreciative friend and inspirer of his juniors in the later years of his life.

Those of us whose memory of Chicago buildings antedates the advent of steel construction will remember the Bryan Block, the Marine Building, the first Ashland Block,

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the Crosby Opera House, the Union National and the old City National Bank buildings, and the Metropolitan Block as evidences of his skill. His ability was shown conspicuously and generously given during the strenuous reconstructive period after the Chicago fire of 1871.

Our profession and the public were quick to profit by the proposal to construct separate pier foundations brought forth by him in a treatise on that subject in 1874, and this, with his suggestions for skeleton construction which were shown in the competitive drawings for a prominent Chicago office building, gave much impetus and direction to high building construction.

His interests were not confined to structural and executive matters. He loved the art of architecture and always encouraged progressive and original design. Most of the distinctive changes in building design in Chicago have appeared since he retired from active practice, but his frequent visits to the offices of his younger friends, his ready perception and appreciative expression when some new thought appeared in the design of their buildings and his unfailing and cheerful, even jolly interest in the affairs of this Chapter, endeared him to all who knew him and made his influence for all that was good and free in our work both strong and constant. His friendship was more than cordial, it was active and alert and it will live in our memories for years to come. Neither his mind nor his heart ever grew old.

By unanimous vote of the Illinois Chapter, this memorial was ordered spread upon the minutes and a copy inscribed and given to Mr. Baumann's family.

Henry Lord Gay

Elected to the Institute as a Fellow in 1874

Died at Oceanside, California, June 10, 1921

Mr. Gay was a native of Baltimore, where he was born in 1854. He took up the study of architecture at New Haven and later went to Italy to pursue his studies, winning a royal medal for his monument of Victor Emanuel which was later brought to the United States and presented to the University of Illinois.

He practiced Architecture in Chicago for many years and also published the *Building Budget*, an architectural paper in that city.

Mr. Gay had been a resident of San Diego for the last twelve years. Two years ago he suffered a stroke of paralysis and was unable to continue professional practice.

News Notes

In presenting the Royal Gold Medal of the R. I. B. A. to Sir Edwin Landseer Lutyens, the president, Mr. John W. Simpson said there was no reward so precious to an artist as the approval and admiration of those who practise his own craft. When his art is that of an architect that fact was specially true. The architect's work appeals less practically to popular emotion than does that of a man of letters, of a musician, a painter or a sculptor. So it is always to his own folk that the architect turns for some knowledge and test of the qualities of his own work; it is to them he turns for appreciation and encouragement, and he does it with a very confident assurance. It was due to his brother architects to say that admiration for fine work

is never withheld by them. There was no profession so little affected by jealousy; none in which the success of another of the fraternity is welcomed with such honest pleasure as their own. The great compensation to men following a strenuous calling in which honours are comparatively rare is the certain knowledge that their rivals will be the first to acknowledge merit. No profession is so united, so loyal to its chiefs, so generously appreciative as that of architecture. In the case of Sir Edwin Lutyens it was not very difficult to understand why they were very proud of him. His genius had brought him into great prominence, and architects feel he has carried them all forward with himself—each shines a little brighter in the glory reflected from Sir Edwin. He had asserted the supremacy of the art they loved, and he had taught the public to understand it.

And they congratulated themselves on being able to add the name of Sir Edwin Lutyens to the roll of great men who had preceded him, with Charles Robert Cockerell, Sir Charles Barry, George Edmund Street, Sir G. Gilbert Scott, Joseph Louis Duc, Charles Garnier. And to Sir Edwin it would be especially gratifying to stand beside his veteran master Sir Ernest George.

THE petition for a charter for a new Chapter of the Institute in Erie, Pennsylvania, signed by C. Paxton Cody, Karl E. Morrison, J. Howard Hicks, Frank A. Shutts, Clement S. Kirby and Armin Schette, was duly granted by the Executive Committee at its meeting in July. The Institute now has 47 Chapters and a membership of about 2,300, including the latest elections.

GRAVE problems confront the growing parent body. In discussing the cost of holding conventions, the Executive Committee was somewhat dismayed to find that a Convention on the Pacific Coast, for example, would involve an expenditure of \$59,000 for railroad fares alone. To meet in Colorado would involve an outlay of \$40,000, and the total outlay to the profession, might well run to double those figures in both cases, when the final bill was paid. These figures are based on full delegations, of course, and they seem to suggest that the time has come when not only for reasons of expense but also for sake of procedure, a reduction of delegations may become imperative. At present, a Convention in Washington costs no less than \$23,000 for transportation alone.

"THE plans prepared by the Philadelphia Chapter," says the *Public Ledger*, "without cost to the city, have had the unstinted approval and support of the societies rightly concerned." The contract has been awarded for the restoration of the old City Hall, Congress Hall having been already restored by the Chapter.

VIRGINIA seems to order things peculiarly. The Chapter there is struggling to prevent what seems a rather obvious mistake, at least from the point of view of public policy, and is endeavoring to prevent a contract for a memorial, the terms of which are that it is to be built on a cost plus basis, the contractor to be a guide and counsellor in the selection of an architect. And the contract to be signed before a line is drawn or the project discussed publicly! It hardly seems possible that the people of Virginia really mean to adopt such a plan for the erection of a war memorial.

Structural Service Department

SULLIVAN W. JONES, *Associate Editor*
LEROY E. KERN, *Assistant*

In connection with the work of the Committee on Structural Service of the American Institute of Architects and in collaboration with other professional societies and organized bodies having the same objective—improvement in building materials and methods and better shelter for humanity in all its manifold vocations and avocations.

Abstracts

It is the purpose of the Structural Service Committee and THE JOURNAL jointly to give in this division each month, brief abstracts of all publications by the Government Departments and Bureaus, University and other research laboratories, States and Associations, which contain fresh information in regard to materials or methods employed in construction and thus afford architects and others a convenient means of keeping themselves conversant with rapidly expanding knowledge in the technique of construction.

Temperature and Humidity. (30d). (*“Operating a Home Heating Plant”* by A. M. Daniels. *Farmers Bulletin 1194*. U. S. Dept. of Agriculture. Pages 28. Size 6x9 inches). This Bulletin contains, in addition to the subject of humidity, a practical discussion of chimney flues; selection, installation and operation of heating equipment; insulation and ventilation.

It is now recognized that in addition to maintaining the proper temperature in an artificially heated house, another factor of great importance is humidity, or the moisture that is present in the air. It is not believed that any investigations have proved definitely what are the best conditions as to temperature and moisture for our dwellings. Seventy degrees F. is generally taken, however, as the standard temperature for living and other rooms in which the occupants are inactive, excepting sleeping rooms. It is thought that for this temperature a humidity between 40 and 50 per cent should be maintained. It should not be less than 30 per cent, whereas it is probable that were the humidity in our houses tested it would be found usually to be 20 per cent or lower. That is as dry as desert air and predisposes persons that breathe it to throat and nose irritations. A dry-bulb temperature of about 70° F. and a relative humidity approximating 20 per cent corresponds to a wet-bulb temperature of 50½° F. and according to Mr. O. W. Armspach (author of *The Relation of Wet Bulb Temperature to Health* published in THE JOURNAL of the American Society of Heating and Ventilating Engineers for May, 1920) increases the death rate about 6 per cent above what it would be if the wet-bulb temperature were 57° F.

Moisture Required. For an average-sized house containing a family of five persons there will be required for each person 1,800 cubic foot of air per hour, or a total of 9,000 cubic feet. If air at 0° F. and 70 per cent relative humidity is introduced into a house and heated to 70° F. and during the temperature rise no moisture is added the relative humidity will decrease to 4.09 per cent. In order to have maintained a temperature of 70° F. and a relative humidity of 40 per cent there would have been required an evaporation every hour of almost one-half gallon of water.

It is estimated that 25 per cent of the cost of heating is expended in raising the temperature within a house from 60° to 70°. If the conclusions of Mr. Armspach that the best temperature for physical health lies between 57° and 61° (wet bulb) with a relative humidity between 65 and 75 per cent are correct, it is then possible to save fuel and yet

be comfortable at a temperature below that commonly thought to be required.

Supplying Moisture to the Air. There are several methods by which moisture may be added to the air supply of a warm-air furnace-heating system, although it is doubtful whether any at present are capable of supplying sufficient vapor to maintain high enough relative humidity to permit a room temperature much below 70°. The common practice of placing a small cast-iron receptacle, called the water pan, in the side of the furnace casing is but a feeble effort in the right direction. It is seldom, if ever, large enough or has sufficient surface, while in many cases the pot is so placed that no appreciable amount of water can be added to the passing air. A small water pan set low down in the furnace has practically no effect. It should have a large area and be set well up into the warm-air space, so as to make evaporation as rapid as possible. A supply pipe with ball stopcock and an overflow pipe make it easy to keep the pan filled with water. With a pressure water system automatic control is possible; the quantity of water evaporated increases with the quantity and temperature of the air passing through the furnace, so that the humidifying apparatus to some extent is self-regulating.

If there is a cold-air chamber a satisfactory humidifier may be provided by building a galvanized iron and wire rack with two or three sloping shelves to hold crushed coke. Insert a perforated pipe so that small streams of water will play upon the coke on the top shelf and trickle down through the ones below, thus keeping the coke continually wet. A drip pan at the bottom connected with an over-flow pipe leading to a drain completes the apparatus. Another method is to spray the incoming air by means of several small atomizers arranged in the cold-air duct with a proper outlet for the overflow. Moist air absorbs heat better than dry air; otherwise it makes little difference whether the air is moistened before or after it is heated. Several commercial humidifiers for spraying the heated air as it leaves the furnace are also obtainable. Very satisfactory humidification has been secured with the better types.

So far as known no one has yet devised a satisfactory method of moistening air in houses heated by hot water. Pans which hang on the back of the radiator are obtainable, but they do not have a large surface, and as they are not highly heated they are not very effective. With steam heat the water pans are but little more effective.

How to Determine Humidity. The relative humidity of the air in a room may be fairly accurately determined with two thermometers in the following manner: Use thermometers that have their bulbs completely exposed. Around the bulb of one tie a small piece of cheesecloth or other porous fabric and thoroughly saturate it with water. Whirl this wet-bulb thermometer around on the end of a string 12 to 15 inches long. The height of the mercury in this thermometer will fall rapidly, owing to the evaporation of the water from the little sack surrounding the bulb. The drier the air the faster the mercury will fall. After two or three minutes, the wet-bulb temperature will become stationary. A reading should be taken instantly to obtain the low point. The dry-bulb thermometer reading should be taken

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simultaneously. Subtract the wet-bulb reading from the dry-bulb reading and refer to the accompanying table, from which a value for the relative humidity may be obtained.

The experiment can be performed with one thermometer by taking the average room temperature before using it as a wet-bulb thermometer.

Reading of dry bulb thermometer (degrees F.).	Difference between dry and wet bulb (degrees F.)																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	Relative humidity (per cent.).																				
60.....	94	89	83	78	73	68	63	58	53	48	43	39	34	30	26	21	17	13	9	5	1
61.....	94	89	84	78	73	68	63	58	54	49	44	40	35	31	27	22	18	14	10	7	3
62.....	94	89	84	79	74	69	64	59	54	50	45	41	36	32	28	24	20	16	12	8	4
63.....	95	89	84	79	74	69	64	60	55	50	46	42	37	33	29	25	21	17	13	10	6
64.....	95	90	84	79	74	70	65	60	56	51	47	43	38	34	30	26	22	18	15	11	7
65.....	95	90	85	80	75	70	66	61	56	52	48	44	39	35	31	27	24	20	16	12	9
66.....	95	90	85	80	75	71	66	61	57	53	48	44	40	36	32	29	25	21	17	14	10
67.....	95	90	85	80	75	71	66	62	58	53	49	45	41	37	33	30	26	22	19	15	12
68.....	95	90	85	80	76	71	67	62	58	54	50	46	42	38	34	31	27	23	20	16	13
69.....	95	90	85	81	76	72	67	63	59	55	51	47	43	39	35	32	28	24	21	18	14
70.....	95	90	86	81	77	72	68	64	59	55	51	48	44	40	36	33	29	25	22	19	15
71.....	95	90	86	81	77	72	68	64	60	56	52	48	45	41	37	33	30	27	23	20	17
72.....	95	91	86	82	77	73	69	65	61	57	53	49	45	42	38	34	31	28	24	21	18
73.....	95	91	86	82	78	73	69	65	61	57	53	50	46	42	39	35	32	29	25	22	19
74.....	95	91	86	82	78	74	69	65	61	58	54	50	47	43	39	36	33	29	26	23	20
75.....	96	91	86	82	78	74	70	66	62	58	54	51	47	44	40	37	34	30	27	24	21
76.....	96	91	87	82	78	74	70	66	62	59	55	51	48	44	41	38	34	31	28	25	22
77.....	96	91	87	83	79	74	71	67	63	59	56	52	48	45	42	39	35	32	29	26	23
78.....	96	91	87	83	79	75	71	67	63	60	56	53	49	46	43	39	36	33	30	27	24

(Table based on 30 inches barometric pressure.)

The White Lead Question.—The International Labor Office has issued a reply to the recently published letter of Lord Askwith in which he criticised the questionnaire sent out by them in relation to the use of white lead in painting. Their reply was as follows:

1. After referring to the danger of "bureaucratic tendencies" on the part of the International Labor Office, he (Lord Askwith) says: "The International Labor Office has seen fit to fasten upon its use (white lead) in painting, and, instead of instituting an inquiry into the whole hygiene of the painter's calling and into ways and means of improving it, goes bald-headed for the prohibition of the use of white lead in painting." In the first place, it was not the International Labor Office which decided to put "the prohibition of the use of white lead in painting" on the agenda for the October conference. The decision was taken by the Governing Body, which consists of the representatives of twelve Governments, six representatives of the employers and an equal number of workers' representatives. Sir Allan Smith, president of the National Confederation of Employers' Organizations, represented the British employers at the meeting at which the decision was taken. The Governing Body was mainly guided by the report of the Commission on Unhealthy Industries, which was adopted by the first International Labor Conference held at Washington. In the course of the report Dr. T. M. Legge, senior medical inspector of factories at the Home Office, who acted as president, made the following statement: "I express the general feeling of the Commission in pointing out the importance of the subject (the prohibition of the use of white lead in house-painting operations), and saying how action has already been taken in certain countries and the subject been studied in others. Consequently the Commission was of opinion that the subject should be referred to the International Labor Office, to be placed on the agenda at the next conference."

2. Lord Askwith goes on to state that scientific investigations "have shown that the mischief from which painters suffer come, in large part, from causes quite other than the use of white lead, which other causes the proposed prohibition would leave un-

touched." The studies of the effects of lead and its compounds which have been made in various countries for a number of years have shown conclusively that they do produce a specific malady, which is commonly known as lead poisoning, and that this malady is quite another form of poisoning from those which other constituents used in the manufacture of paint may produce.

3. Lord Askwith denies the statement made in the *questionnaire* that "it is now technically possible to replace white lead in painting by efficient substitutes." In this connection the following facts may be noted:

(i) In Great Britain the majority of the British Departmental Committee on the use of lead in painting of buildings, consisting of seven out of its eight members, recommended in 1915 that the importation, manufacture, or sale of any paint material containing more than 5 per cent of soluble lead compound should be prohibited. They indicated that in their opinion satisfactory substitutes were available.

(ii) In France a law was passed in 1909 prohibiting the use of white lead in all painting operations in building, which came into effect after the war. The Commission which inquired into the matter reported that the use of leadless paints is practicable.

(iii) In Austria the use of white lead paints for interior painting was forbidden in 1909.

(iv) In Holland the Committee which inquired into the matter concluded that leadless paints could be used with satisfactory results in some cases, but not in all.

(v) In Switzerland a number of municipal authorities do not permit white lead paints to be used for public buildings.

4. Lord Askwith suggests that the action of the International Labor Office in the matter has been, wittingly or unwittingly, at the suggestion of the Governments of certain countries where the manufacture of zinc white is a leading industry, and he seems to indicate that he has Germany in his mind. The answer to this suggestion is already contained in the statement given above as to the circumstances in which the question came to be included in the agenda for the forthcoming conference. It may, however, be further noted:

(a) That Germany was not represented at the Washington Conference, where the proposal to deal with the question was first made;

(b) That the question was first mooted there by the representative of the French workers;

(c) That white lead paints are extensively manufactured and used in Germany, and that the German employers are at present engaged in waging an active campaign against its prohibition.

STRUCTURAL SERVICE DEPARTMENT

How to Distinguish Longleaf from Shortleaf and Loblolly Pine. (19a). (*Technical Note No. 141. Forest Products Laboratory.*) With a sharp knife carefully smooth the end surface of the pith and surrounding wood. If the pith or second annual ring is not clear, moisten the smoothed surface. If knots are present near the pith, satisfactory measurements can not be made, and the other end of the timber should be inspected.

If the pith is about the size of the lead in the ordinary lead pencil or smaller, the specimen is not longleaf, and no further measurement is necessary.

If the pith is plainly over 0.1 inch in diameter and the growth rings surrounding it very narrow, the specimen is longleaf.

If in doubt as to the species, carefully measure the average diameter of the pith, not including small projections, using a rule graduated in twenty-fifths or fiftieths of an inch. A reading glass or other small lens is helpful but not essential in making these measurements. Then measure the diameter of the second annual ring in tenths of an inch. The first and second rings are usually very distinct, but in some pieces the first annual ring is rather faint, and care must be taken not to mistake the third annual ring for the second. Sometimes false rings are present, but these can always be recognized by the fact that they are not prominent all the way around, and their outer limit is not defined by a sharp line.

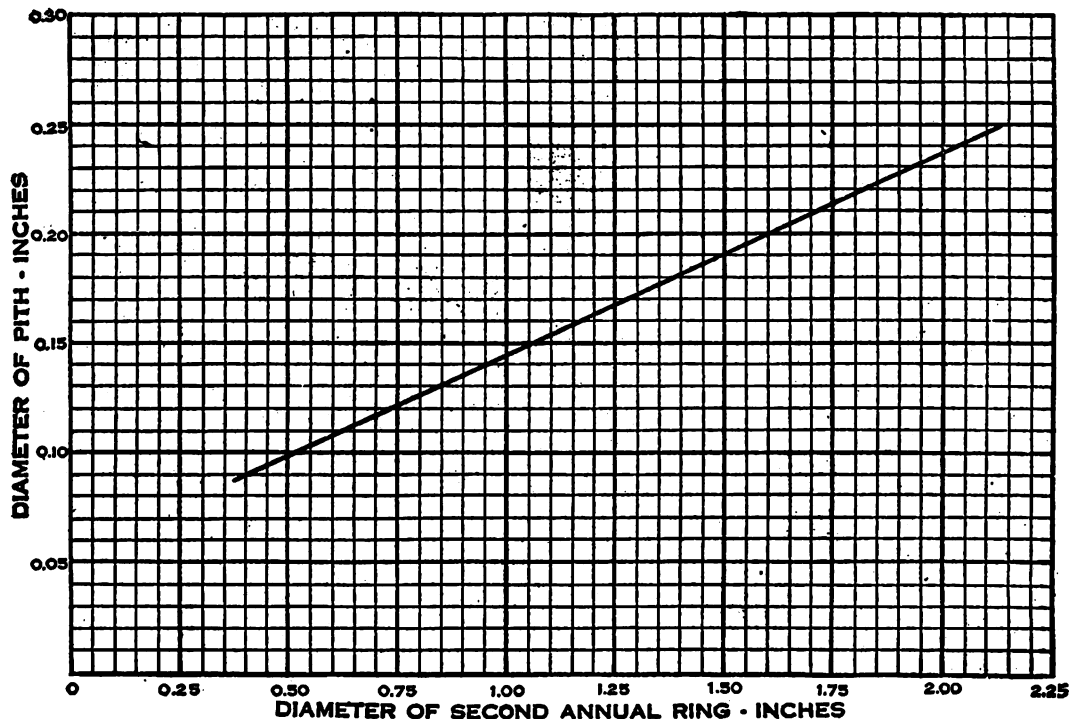
On the diagram find the point where the vertical line which indicates the diameter of the pith intersects the horizontal line which indicates the diameter of the second annual ring.

If the point of intersection falls above the diagonal line in the diagram, the specimen is longleaf, or in rare instances slash or pond pine. If it falls below the line, the specimen is not longleaf, but is short leaf, loblolly, or some other of the minor southern pines.

Hardened Copper. (15b). (*Bureau of Standards. Technical News Bulletin No. 47.*) There is nothing new or mysterious about hardened copper. It is not one of the lost arts; immense quantities are in commercial use and added uses for it are being found every day. There are two well-known methods of hardening copper; the first being by means of mechanical working, while the second is to alloy it with a certain amount of another metal and in some cases with more than one metal. As examples of the first kind of hardened copper, we may consider hard drawn copper wire and cold drawn tubing. The wire used for everyday trolley systems is a good example of one of these classes. Copper hardened by the second method is not usually referred to as copper but as brass and bronze. Many persons apparently ignorant of the fact that hardened copper is in use every day have so manipulated the melting of copper in their experiments that the resulting melt is impregnated with oxide. Cuprous oxide is soluble in molten copper and alloys with it in exactly the same sense as the metals mentioned above. Copper treated in this way is considerably harder than the pure metal but is unsuited for most commercial purposes.

Safety Codes. (40b1). (*National Electrical Safety Code. Third edition. Handbook Series of the Bureau of Standards No. 3. Pages 366, size 5x7¼ inches.*) In addition to two introductory sections giving definitions of terms and rules for the grounding of apparatus and circuits, the code consists of four principal parts as follows:

(1) Rules for the installation of machinery, switchboard, and wiring in central stations and sub-stations; (2) rules for the construction of overhead and underground lines for the transmission and distribution of electrical energy and intelligence; (3) rules for the installation of electrical apparatus and wiring in factories, residences, and wherever



Relation of diameter of pith to diameter of second annual ring.

electricity is utilized for light, heat, or power; (4) rules for safeguarding employees when working near electrical machines or lines.

Committee Activities

Standardization in a New Light. (33a.) The Sectional Committee of Standardization of Elevators, created under the procedure of the American Engineering Standards Committee and under the Joint Sponsorship of the A. S. M. E., the A. I. E. E., and the A. I. A. is breaking new ground.

This Committee's sub-committee on plan and scope, in its report has given definitions for the words "Standard" and "Standardization" which are significant because they reveal the Committee's approach to its problems, and because they sound the keynote to which the Committee's thought and work is tuned. They also remind us of the popular distortions of the meanings of the terms we use to express our thoughts, a distortion which is carried to the point often where the original and acquired meanings have little resemblance.

The word "Standard" the Committee says is derived from the old French word "estandard" meaning literally "that to which one turns." In its proper use, the word means the physical representation or symbol of the ideals for which a group or Nation is striving. Thus, the National emblem when referred to as a Standard is the physical representation of the ideals for which the Nation stands. A Standard may be entirely beyond possible practical application to everyday problems, but, without it, as a sanction, we would fail to achieve even a fraction of its meaning.

The report continues—"once having established a Standard—even though it necessarily be largely an ideal—it represents the things we ought to do, and if it be based on fundamental characteristics, and is the logical and reasonable development of them, it necessarily becomes acceptable. A Standard thus set up makes a direct appeal to everyone to so conduct himself that in his life's activities at least some part or character of the Standard will be embodied. This, in reality, is the process of "turning to the Standard."

The Committee is composed largely of engineers. Even the representatives of the manufacturers associations are primarily engineers and secondarily business men. It sees its problem, therefore, broadly as an engineering problem, but more specifically as a problem in human engineering which is the engineering of service.

It has had the wisdom to begin at the beginning of its problem and to avoid the usual blunder of taking things as they are and attempting to effect a workable but unsatisfactory compromise between conflicting interests, which are largely commercial. It seems to have reached the conviction that standards, to find general acceptability must be developed out of considerations of service requirements, not cost.

The declared purpose of the Committee's work is to "improve the elevator as an instrumentality for service." It states that consideration of cost does not enter into the Standards it is seeking to set up "for the same reason that the cost does not determine the efficiency of an electric motor." The importance of the work of this Committee will be better understood in the light of the fact that the 12,000 passenger elevators in buildings on Manhattan Island transport daily approximately 12,000,000 people or twice as many as are carried by all the horizontal means of transit.

The Committee discussions have thrown much light on the reasons for the vast number of unsuitable elevator equipments in existing buildings throughout the country. The statistical and other information collected and being collected is turning up many interesting facts hitherto unknown. The truth is that there has been very little available data on

service requirements and on the physiological factors entering into the problem of elevator design. Some of this data is illuminating and well worth noting.

It has for a long time been known that in most buildings the peak of the elevator traffic has come in the morning at the time the occupants of the building go to work. In some cases, of course, the maximum traffic load is due to inter-floor traffic. In many buildings where observations have been made recently, it has been discovered that the traffic peak has shifted since the war from the morning arrival period to the evening departure period. As one building manager expressed it,—"the will to quit work seems now to be much stronger than the will to go to work." This change in conditions has created a very serious problem. Arrival traffic can be controlled by the starter on the main floor, but departure traffic cannot be controlled.

In some commercial buildings in New York, it has been determined that between 15 per cent and 20 per cent of the working population is women, and that every woman in the building visits the toilet on an average of once an hour. When the women's toilets are centralized as they often are for control and placed in one of the mid-floors, there results a very inter-floor traffic which has not been provided for. Every trip to the toilet means two trips in the elevators; one to and one from. When 15 per cent of the occupants so use the elevators it means that 30 per cent of the building population rides in the elevators every hour.

The traffic or "car interval" is another important consideration. The proper interval is determined not only by the traffic density, but also by the character of the tenants. The latter varies in buildings of different classes of occupancy, and also geographically. Temperament seems to have much to do with it. In some cities, people seem to be willing to wait longer for an elevator than in others. An amusing story was related at one of the Committee meetings of the President of a large Corporation—presumably a very important personage—who was obliged to wait 45 seconds for an elevator, and wrote to the management of the building, complaining in no uncertain terms that this delay had made it necessary for him to run through the streets "in a most undignified manner" in order to catch his ferry. -

In one large high class office building, which, since the day its doors were opened has presented a very difficult problem in elevator service, it was found necessary to control the flow of people into the building in order to regulate the traffic load on the elevators. After a thorough study of conditions, revolving doors were installed on all ground floor entrances to act as throttle valves on the traffic flow. And the interesting fact is that the same people who raise a hob if they have to wait a minute in a corridor or elevator, will find no fault when they are obliged to wait much longer periods on the sidewalk.

It has been found that when women were substituted for men operators on elevators during the war, the power consumption increased in some cases as much as 60 per cent. The traffic capacity of the elevators also decreased. It is not at all unusual to find the excess power consumption where women operate the cars as high, even now, as 30 per cent or 40 per cent. This condition is accounted for by the large number of "false stops" at landings. But the Committee got down to the practical realities of life when it received a communication from the National Association of Funeral Directors requesting that car platform sizes, especially in hotels and apartment houses, be made such that a casket can be transported without standing it on end.

The preliminary outline of service requirements and their calculation as proposed by the Committee will be published in a later issue of THE JOURNAL.

THE
JOURNAL
OF
**THE AMERICAN INSTITUTE OF
ARCHITECTS**

Castles in Spain
GEORGIANA GODDARD KING

The British Building Guild's New Program
G. D. H. COLE

American Architects and the Paris Salon

Around the Secretary's Table
BY THE SECRETARY

The first of a series of imaginary conversations
about the Institute and its affairs

SEPTEMBER
1921

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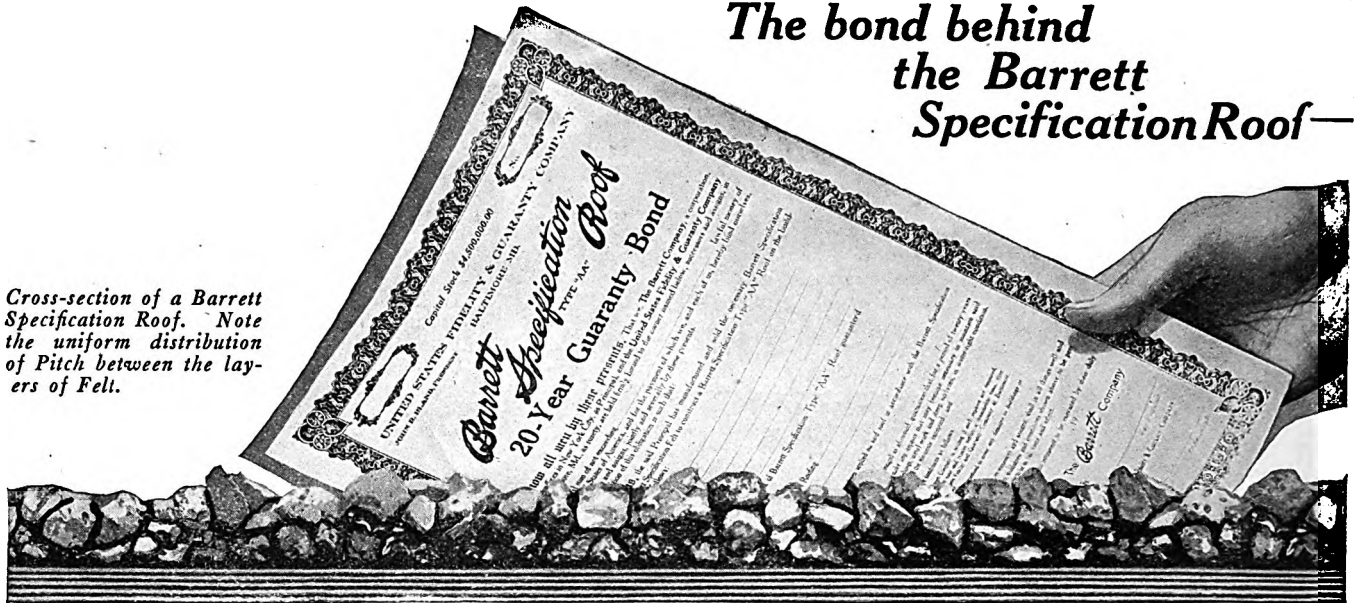
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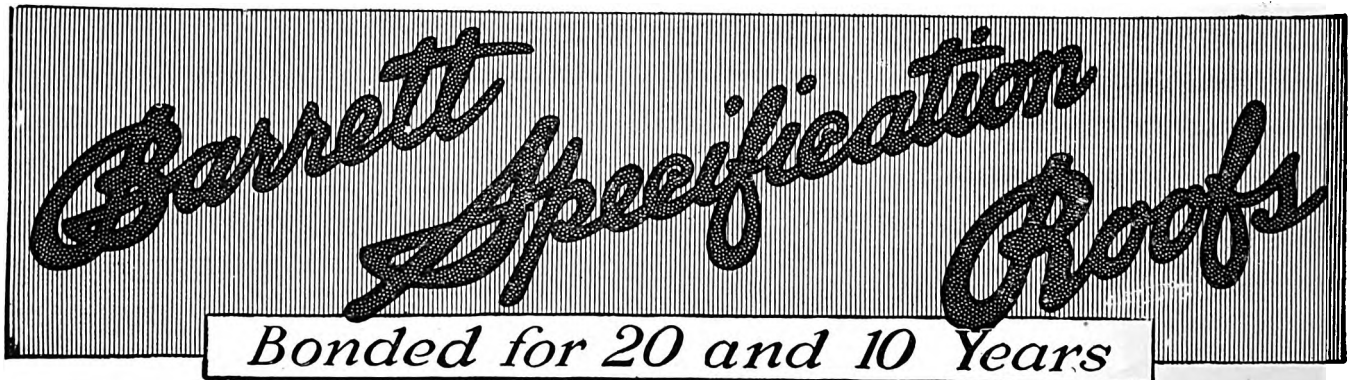
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Shadows and Straws

AROUND THE SECRETARY'S Table is a delightful place to gather, as those of us know who have had that good fortune. That the Secretary has invented, or discovered, a manner of widely extending his hospitality and of more frequently brightening some of our dull moments with his cheerful optimism, his genial conversation and his sound reasoning, is an event in the life of the JOURNAL. It is our hope, and his as well, that there will be a cordial willingness to participate in the conversation which he has entrusted to us for this issue, and of which there is to be more. Surely, so keen and lively and genuine an interest in the welfare of the Institute cannot and will not go unrequited and without response. No further invitation is necessary. No members of the Institute, and indeed no readers of the JOURNAL, will be unwelcomed at the board. And smoking, unhappily prohibited at the last Convention, will be permitted *ad lib.*

THE ABANDONMENT by the British Government of its much discussed and widely proclaimed housing program is a matter of the profoundest significance. To architects it carries a meaning they will do well to study. To the building industry it carries a message they will do well to heed. To the peoples of the world it bears tidings that are not encouraging, for it indicates only too clearly that the resources of Government are inadequate to requite, in peace, the sacrifices asked in war. This is an unhappy truth. In England it means that hundreds of thousands of people are to be thrown back upon a housing standard probably worse than that which existed before the war. The fact that Sir Alfred Mond, Minister of Health, was charged with the task of suppressing the great drains upon the English Treasury, and of discouraging the great Guild movement which menaces the entrenched contracting industry, need not blind us to the facts even though he was careful to explain that in his considered opinion, the housing problem "probably never would be solved." Such an admission is of tremendous import, coming from the lips of an officer high in the counsels of one of the great governments of the world, and its ultimate

effect cannot now be judged. The fact is that all state aid has been withdrawn from housing, as Mr. Cole narrates in this issue, and that the whole vast comprehensive scheme for making a "better England" has crumbled before the assaults of what for the moment one cannot but call "other interests."

HISTORIANS of a not too far distant century may chronicle the tale in about these words:

"The early years of the twentieth century witnessed, throughout a great portion of the world, acute recurrences of those symptoms which had so long passed unnoticed or as mere indications of a temporary affliction. Their recognition was greatly obscured by determined efforts to prevent it. Governments and their sybarites were almost unanimous in the suppression of any diagnosis which did not suit the ideals and aims of the statemanship of the day, which, in its turn, was no more than a reflection of the gigantic conflict which had arisen over questions of industry, commerce, and the production and distribution of the necessities (and luxuries) of life.

"Among these symptoms was the world-wide shortage of shelter. It is estimated from documents still preserved to us that among the whole populations of the states which were classed as civilized, no less than a third of the people were deprived of the comforts, conveniences, and hygienic surroundings necessary to the decent preservation of life, while their daily occupations were carried on under an incredible regime which is dealt with later on under the chapters devoted to Transportation and Centralized Industry. To the dispassionate observer of the twenty-fifth century, it is difficult to differentiate between the savage and barbaric ages of the thousand preceding years and those of the twentieth century. One is almost forced to the conclusion that much of what passed as civilization was no more than an extremely refined savagery, even more cruel than that of the ages described generally as barbarous, since it condemned millions of people to slow torture rather than to a sudden or early death. Life, as late as the first quarter of the twentieth century, was

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nothing more than a desperate and precarious foothold upon earth for tens of millions of people. Poverty, the fear of starvation, of a penniless old-age, hung everywhere like a torturing shadow such as it is perhaps impossible for us of the present day to realize.

"Why, in the midst of an abundance of natural resources such as we have not—thanks to the incredible waste of the industrial or machine age—and with a state of knowledge and mechanical equipment which indicate an intelligence of no low order, the peoples of those days were unable to produce and distribute the benefits and bounties of the earthly store which had been bequeathed to them, has never been the subject of any profound disagreement among our modern historians. Under a land system where a payment in "money"—an article to be discussed in another chapter—had to be made to some citizen before the land could be used for any purpose, was set up a barrier against which all struggles toward the common welfare were effectually checked. Combined with this, and under the influence of a method of exchange based upon coins and bits of paper, there obtained a method of creating, by mere entries in writing in large books, of fictitious values upon which further payments for use were privately levied. Thus, all of these payments were made to expand with an unfailing regularity; while the ratio of exchange value possessed by the bits of metal and pieces of paper was constantly diminishing, the ratio of payments demanded was constantly mounting. Thus, in order to insure these payments, the whole method of production and distribution became based not at all upon the needs of humans, but upon a queer set of arbitrary rules which had grown up around the medium of exchange, and the fetish of "book-keeping."

"The efforts made to cure the dreadful social maladies caused by so inhuman a system, seem ludicrous, as we look back upon them. They are not at all in keeping with the developments which had taken place in the fields of scientific observation and invention. Yet, while there is still a difference of opinion as to whether the land system in itself was a prime cause of the system of exchange called "currency," the fact remains and is no longer disputed, we believe—that this inconceivably misguided arrangement of life was the final and precipitating cause of that minor skirmish which occurred in the years 1914-18, and which was later followed by the black decades of the period we shall presently consider.

"How strange a state had developed. Here were great peoples, gathered into nations it is true, and thus often in enmity and hatred over questions affecting their business life, yet possessing an architectural, engineering, and agricultural knowledge of

the most advanced order, which they could not use. It is indeed notorious that the architects of that time sought earnestly for means whereby their employment might be increased in volume, an effort, to which they were spurred by reason of the steadily increasing ugliness of the great central towns,—while others, more socially-minded, made repeated efforts to the end that their profession might become a great factor in socially serving their fellow-men, and especially in ameliorating the suffering and contumely inflicted by the housing crisis to which we have referred. Yet they were everywhere defeated by the land and currency systems, for these, and not art and science, had been allowed to acquire the control, inexorably and ineluctably, of the common welfare. Architects and engineers could thus function only so far as these systems permitted. Such a situation is perhaps incomprehensible to us, for our methods being based upon the premise that art and science shall be the controlling factors governing the common welfare is the direct antithesis of that of the age of which we write. We turn to our scientists and our artists for guidance in every step affecting the production and distribution of the needs of man, and it seems safe to assume that never again will any people surrender this leadership in favor of bits of metal and pieces of paper.

"Naturally, under such a system, there grew up a class of beneficiaries. These were frequently reviled and pilloried by agitators and reformers, whereas there is nothing to show in the records available, that the system existed except because it was unanimously approved. Those who were the fortunate beneficiaries were naturally intent upon the preservation of their benefits, while those who were deprived of the very barest comforts of life, tolerated and endured the situation because of their hope that ultimately they might become a beneficiary instead of a sufferer. These classes were frequently referred to as "capital" and "labor," yet their aims and objects were generally identical and differed only in the means employed to attain them. Everywhere there was a ruthless sacrifice of the Common Welfare, so deeply had the spirit of acquisition permeated the race. Indeed, to our mind, we should not characterize the period as Industrial or Machine, but as the culminating epoch of the Acquisitive Age.

"We cannot conceive its recurrence. It bred hatred and fear, poverty and riches, luxury and want; it made education a means of hiding truth, it slowly suppressed all personal liberty, and it prostituted government to the basest ends; and all by a people who stood upon the very threshold of the state of civilization we now enjoy,—who were possessed of all the means to make it possible,—and who, to their shame be it said, for they professed to love their children, shirked the moral responsibility

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involved and threw society forward into the succession of cataclysms from which historians shrink, and yet which it is now our plain task to record."

"WHETHER men make better artists than women or women than men," says H. J. M. in *The Athenaeum*, (London), "is one of those highly delicate subjects so envenomed by complacency and prejudice on the part of men, and by ambition and ignorance on the part of women, that I shall be well advised, in discussing it, to walk close in the shadow of Havelock Ellis's remarkable 'Man and Woman.'" So walking, he points out that "men have kept their supremacy in the arts," perhaps because "the history of genius is not exactly one of fertile opportunity." And then, man is more variable. "Women stay and preserve; men change and progress—here is a law as stable as the feminine constitution."

FINALLY, he concludes with this very interesting observation: "Now, as man progresses, he approaches more closely to the student type (itself closer to the child and the feminine) and away from the militant

type. Civilization has tended to become altogether more feminine, and the development in equal freedom both of the masculine and the feminine, which is the hope of the future, will be not because women are becoming more like men, but men more like women, who 'bear the special characteristics of humanity in a higher degree than man.' Men, that is to say, are beginning to return to Nature through women, on a higher turn of the spirit and with their humanity intensified. A great deal of the sexual magnetism of women for the worthless energy of men is because they are 'the human embodiment of the restful responsiveness of Nature,' and here perhaps is the explanation of the inferiority of women in artistic creation. It is because they are so much more than men works of art in themselves, and they make better actors and dancers than men—exceptions to the general rule of man's creative supremacy in the arts—because, as is the way of Nature, they are creating and recreating themselves: for man, the conscious, imaginative projection of himself into a work of art; for woman, the realization of a cosmic, aesthetic harmony in herself." C. H. W.

The British Building Guild—An Important Development of Policy

By G. D. H. COLE.

THE Building Guild movement in Great Britain, so far from being snuffed out by the Government's sudden abandonment of its housing policy, has entered on an important new phase of development. The provisional central body which has hitherto directed the movement from Manchester has given place to a fully constituted National Building Guild, and all the local and regional bodies already in existence have fallen into their places as part of the larger whole. Moreover, the Guild movement has lost no time in adapting the methods and organization to the changed conditions created by the scrapping of the State-aided house building programme, and new forms of contract and methods of working have been devised to meet the needs of the private purchaser.

These and other developments took place at a national conference, held in Manchester on 23 July, and attended by delegates from the local Guild Committees which, to the number of more than a hundred, have sprung into existence in most of the important centers in England, Scotland, and Wales. The London Guild of Builders which has hitherto preserved its independence of the movement centered in Manchester, was represented at the conference and was a party to the decisions taken. The reorganization scheme includes the grouping of the Local Guild Committees in Regional Councils completely covering the whole country,

and the London Guild, while completing its existing public contracts under the present separate arrangement, will act in future as the London Regional Council of the National Building Guild.

Preparations for the reorganization have been in progress for some time, and a Reconstruction Committee, representative of the London Guild as well as of all the other centers, has been at work, and is responsible for the plan now being carried into effect. The change in Government policy plainly necessitated the carrying through of the scheme at the earliest possible moment; and, but for the mining dispute which made a National Conference for the time impossible, it would have been completed sooner. As matters stand, however, everything has been made ready in advance for the change and there is nothing to prevent its immediate execution.

The End of State Aid to Housing

The new housing policy announced by Sir Alfred Mond in July meant practically the withdrawal of all State aid from local authorities. Contracts on which work is actually in progress with Government sanction can be completed, and in these cases grants will be paid; but everything possible is being done even in these cases to persuade the local authorities to reduce their present commitments, even at the cost of buying off, cash down, contractors with whom they have entered

into agreement. A very small annual sum is promised to aid in the clearance of the worst slum areas; but beyond this mite there will be nothing at all from the State in aid of housing, although considerably less than one fifth of the houses urgently required have been built or are even in hand. The local authorities, impoverished by other demands and faced with insistent claims for a lowering of local taxation, cannot afford to build without State assistance. It is therefore clear that, so far as publicly organized building is concerned, housing has come to a dead stop, except in a few areas where a determined local authority finds itself able to proceed.

From the standpoint of the housing reformer, this is an appalling condition of affairs; it means that, for some time at least, Great Britain is bound to be driven back upon a standard of accommodation considerably worse than the pre-war standard, and that, whatever new houses may still be built, the ordinary worker will certainly not be able to pay, out of his reduced wages, anything like the "economic rents" that will be charged. The Building Guildsmen, who are as much interested in the provision of good houses as in the development of the new form of democratic industrial service for which they stand, have entered a vigorous protest against the British Government's breach of all pledges about "houses for heroes" which it gave lavishly during the period when it was still the fashion to speak of "reconstruction." Nowadays, the word has vanished from the language, save as an archaic survival, and the word "economy" has taken its place as the governing maxim of political wisdom.

The New Future for the Guilds

These changes mean that the Building Guild has to think in the future, not so much of big public contracts as of "jobbing" work for private purchasers. Hitherto, although the Guilds have done a certain amount of private work—the Manchester Guild, for example, has recently carried out £10,000 of plumbing work in small contracts—their attention has been mainly and deliberately concentrated on work for public authorities. They have regarded the erection of workingmen's houses by the community as the most pressing problem of the building industry, and they have postponed any quest for other forms of work, though they have accepted when they have come their way and could be done without interfering with work on public contracts.

The basis of the standard contract entered into more than a year ago between the Building Guilds and the Ministry of Health, was that the Guilds would charge the purchaser cost-price, including a small fixed percentage for administration, and a lump sum of £40 per house to cover the cost of "industrial maintenance,"—that is, of the full-time pay to all Guild workers, irrespective of weather conditions or time lost through

causes not under the workers' control, terms on which they have throughout insisted.

This form of contract, under which all the public work has so far been carried out, means that under no circumstances can the Guild make a surplus, or distribute to its members or to anyone else any sum in excess of the guaranteed standard rates of wages or salaries. The Guild gives an estimate of anticipated cost to the purchaser. If the actual cost works out at less than this, the purchaser is only called upon to pay the smaller sum. If it works out at more,—a contingency which has never arisen, although Guild estimates have been uniformly far below contractor's figures, the purchaser pays the higher price, subject to a reference to arbitration if it is alleged that the excess is due to any fault on the part of the Guild.

This form of contract, as soon as the *bona fides* and efficiency of the Guilds were seriously established, was admirably suited to the execution of big public contracts; and it has given complete satisfaction, and resulted in big savings to the public, whenever it has been adopted. The satisfaction is not surprising; for the actual cost has always worked out at considerably less than the estimate. A cost price contract has, however, a big advantage from the standpoint of the private purchaser, who is approaching the Guild for the first time, and does not understand either its methods or its principles. As the Guilds have found already in case after case, the first thing that such a purchaser wants to know is *maximum liability*. He wants to be absolutely certain that the job which he is asking the Guild to undertake will not, under any circumstances, cost him more than so much. Under the cost price form of contract, the Guild cannot tell him this. Its representatives may be absolutely certain in their own minds that the estimate which they give, although no competitive private builder will be able to get near it, will not be exceeded; but they have not been in a position to give the purchaser a firm guarantee on this point.

There were two possible ways out of this dilemma. In the first place, the Guild could have adopted the method of the private builder and quoted a fixed "lump sum" price for the job, pocketing the surplus if the actual cost worked out at less than the estimate, or standing the loss in the very unlikely event of the estimate being exceeded. I say "unlikely event" because there has been so big a margin between contractor's costs and Guild costs that the Guilds have been able to put their estimates at a safe height without risk of being insolvent.

This course was rejected, without a single voice being raised in its favor, for the simple and sufficient reason that its adoption would have reduced the Building Guild to the level of a profit making concern, and would thus have constituted an utter abandonment of the principles for which the Guild movement stands.

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"Profit" and "loss" are both ideas which have no place under the Guild system.

The New Contract

The alternative course, which has not been adopted nationally by the Guild movement, is essentially simple. Instead of giving a mere estimate, which may be exceeded, the Guild will in future quote for any job a *maximum price*, and will charge no more than this, whatever the actual cost of the job may be. In order to cover the risk of loss, in case the cost exceeds this price, an insurance fund has been started, and will be financed by a very small percentage charge which will be added to the estimated cost of the job in arriving at the maximum price. The sum quoted will thus include this charge covering the Guild's risk; but if the actual cost, including the insurance charge, works out at less than the maximum sum estimated, the purchaser will only be called upon to pay the smaller amount. The principle of cost price service without any element of profit is thus preserved, and at the same time the purchaser's desire to know his maximum liability before entering into the contract is fully satisfied. There is the further safeguard that, if the percentage charged for insurance and administration, or the sums allowed for "industrial maintenance" turn out to be too high, no surplus resulting from them can be used for any other purpose than the improvement of the efficiency of the service rendered, or the reduction of its cost.

A further form of contract has also been approved in principle, and may be adopted in cases where the purchaser desired to supply his own material, or where there is a risk that the Guild may be boycotted by the rings which control the materials required for building work. This is the "Labour Contract," under which the materials, and in some cases the plant, are supplied by the purchaser, the Guild supplying and organizing the whole of the labour, including supervision, administration, and technical ability. This form of contract, however, is only expected to be used in special cases; the "Maximum Sum Contract" described above is likely to be the normal form for future Guild operations.

Armed with its improved organization and with these new forms of contract, the National Building Guild, and its Regional Councils and Local Committees throughout the country, will now enter seriously into competition with the private builder for ordinary work of every kind—including repairs and alterations as well as the erection of every type of structure. In order to provide for the acquisition of further plants, and for the rapid expansion of the movement on its new lines, a special Trade Union loan is being raised, and steps are being taken to acquire additional yards, joinery and other works, equipped with the most up-to-date machinery and equipment. Both London and Manchester have already acquired works and plants of

their own; but far more will be required for the coming expansion to other areas. All large contracts will in future be made by the National Guild itself, under the supervision of its special staff of technicians; but Regional Councils will have authority to enter into smaller contracts, and the Local Committees will be able to undertake small jobs without external sanction.

Opportunely, just before this big reorganization, comes the first full Report, from an important source, on the work hitherto carried out by the Guilds in various parts of the country. This is an investigation conducted by the Garden Cities and Town Planning Association, a non-party body, most of whose leaders are by no means anti-capitalist in outlook. The result is an entire vindication of Guild methods, and an exceedingly favorable report on both the quantity and quality of the work done. Mr. Selley, the author of the Report, lays especial stress on the new spirit which animates the Guildsmen at their work. "There is," he says, "a notable absence of the lethargic movements which we are accustomed to see on all kinds of building work. Everybody appears to be working with a will * * * . As a workman put it, 'It is a question of honour with the men, they want to do their best' * * * ." "Another man remarked, 'You wont find any swinging on this job. The work goes on just the same whether the foreman is about or not.' I corroborated this for myself." Mr. Selley then goes on to describe how "in the joineryshop all the men were working away at top speed. I discovered that the shop foreman was 'away queer.'"

Sceptics do not dispute these facts, in face of the volume of evidence from Borough Surveys, Ministry of Health Inspectors, and other sources clearly not biased in favor of Guild methods; but they usually suggest that this high standard of work, which is as well vouched for in respect of quality as of quantity, is due to the enthusiasm of a new idea, and will not be maintained when the workers have grown used to the new conditions. Of course, none can prove this wrong; but the results surveyed over a full year and more have been so remarkable that we Guildsmen at least may be pardoned for believing that we have really hit on the truth, and that, if men are given good cause to work well, and a sense of freedom and service in their work, the results will be vastly different from those secured by ordinary capitalist methods. There has not yet been time for a complete proof of our contention; but, within the limits set by time, the fullest possible confirmation of our attitude has been obtained. The more varied conditions under which the Building Guild, and the other Guilds which are just beginning to spring up in related industries, will be working in future should afford the opportunity for a still more convincing demonstration of the superiority of free service to wage labor as a means both to higher production and to better craftsmanship and to coordination of the work of hand and brain.

The Exhibit by American Architects at the Salon of French Artists

For the first time, American architects have been represented at the Paris Salon. The gracious invitation, the details of which have been duly recorded in these pages, inspired the special committee of the Institute to do a heroic piece of work in assembling, within a comparatively short time, one of the most difficult exhibits to be imagined. If we may judge from what the French journals are saying, the work was well done, although one notes that, almost without exception, the French critics express some measure of regret at the absence of plans.

We reprint the criticism of Monsieur Léandre Vaillat, which was published in *Le Temps*, unchanged from the original except as we have, in notation, rectified certain proper names and added others. Under the title of "Architecture in the United States of America," Monsieur Vaillat says:

"What especially pleases me is that this exposition, in its retrospective character, goes back no farther than the last thirty years. It gives little encouragement to our unwholesome leaning toward the Past. It adjures us, and the advice is not superfluous, to live in the Present—which does not forbid our becoming properly moved in viewing the work of the good old times.

"By way of an exception, it shows us the plan of the city of Washington drawn in 1792 by Major Lenfant, a French officer of engineers whom General Washington brought over to America. It is interesting, doubtless, as being the work of a Frenchman, and also because it sets forth two conflicting schemes of urbanism, one which lays out checkerboard plans, the other which prefers its lines more complex, more flexible, better adapted to the needs of circulation. On the checkerboard groundwork which was offered him, Major Lenfant ingeniously superposed a diagonal system, grouping on two axes the public monuments, the Capitol and the White House, which make that city of Washington on the Potomac the civic center of the United States, the spot where America's heart beats, where those resolutions were taken whose memory stirs us still.

"You will see at the Grand Palais but few of those edifices which give Americans the illusion that they also have a past, *their* past, such as to warrant the existence in Philadelphia or in Boston, in Baltimore or in Richmond, in Florida or in Texas, of archeological societies similar to those of Old Paris. In the cities ranged on the coast of Canada and the United States as far as Georgia, therefore in those first founded by English colonists, one may still find many examples of the English style called "colonial," which is simply an offshoot from the style known as "Georgian" or "Adam." It is characterized by plain brick of a fine red tone which stands out well from its decorative detail in wood painted white, and from the verdure skilfully massed about the house; the woodwork is carefully studied, with a profusion of slender columns; often an advance-guard of columns stands before the main building, with an effect of hospitable dignity. In the regions of the west and south, Florida and Texas, which were subjected to Spanish influence, we perceive a different architecture,

created by the Catholic missions sent from Spanish colonies and therefore called the Mission style. The Exposition does not extend back to those early periods.

"Midway of the nineteenth century, Richardson, affected by Romanesque art, applied its principles to churches, to city halls, villas and schools, achieving here and there some logical expression not devoid of a certain ruggedness. Finally in 1893, Burnham, forming the ensemble of the Chicago Exposition, turned the eyes of the younger architects toward ancient Rome. Since then, Americans sojourn in England to study domestic architecture, and in Italy, through dilettantism; but they learn their trade at the National School of Fine Arts in Paris, and it is piquant to record how highly this school, so depreciated among us, is esteemed in other lands. The architecture of today, that which is shown to us at the Grand Palais, reflects these divers tendencies. But one cannot fail to observe in the Americans a knowledge of the ancient styles in their initial purity and not in their successive distortions; a brave maintaining of their simplicity; a superior taste which reconciles to sacrifices; a trick of presenting to the eye great bare surfaces in order to enhance some charming, exceptional motif; a naïf sensibility which teaches to approach monuments of the past with, as it were, new eyes; in short, an art 'pruned down,' brought back to its primal simplicity and capable of appearing *modern* to us, so unused as we are to interpreting its true spirit.

"Look, I beg you, at the Massachusetts Institute of Technology, by the architects Welles and Bolsworth¹ [sic]; here we return to the impressive severity of the Doric; we forget how the Doric has been heaped with innumerable complexities. That may be noticed in the work of a Frenchman, Paul Cret, established over there and a professor of the University of Pennsylvania. Compare the Bureau of American Republics which he built in Washington at the beginning of his stay, with his more recent Library of Indianapolis; the first example, while it is inspired with a certain American regionalism and recalls markedly, in its interior, the buildings of Yucatan and the Aztecs, yet reflects the teachings of the Paris school whence he came; in the second case, his style deteriorates under the influence of what he sees around him.²

"But we are talking of *style*, and in architecture one should first of all talk of *plan*. Of this there is none to be seen at the Exposition in question. Because here the public is considered; plans, cuts, elevations endlessly strung out on the walls, weary it; it must be amused, enticed, led to the truth by paths of persuasion; photographs and models alone can lay hold on it. The Americans were wise in showing us the reduction to six meters in height of an immense building fifty-six stories high; they were still more so in proposing to us, not projects which excite a smile, but realizations which convince, photographed with skill, with taste, with intelligence. Besides, one may see, in the

¹Meaning Mr. Welles Bosworth.

²American readers will remember that Mr. Cret was associated with Albert Kelsey in the design of the Pan-American Building, and with Zantinger, Borie and Medary, in the Indianapolis library.

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fine work just published by M. Gréber in support of this exhibition, on "Architecture in the United States of America," the plans which are in a way the abstract or key to the photographs.

"Let not cleverness nor desire to please lead us to neglect the object of our study. Let us not forget that the plan translates the programme. So M. Gréber has acted wisely in arranging the chapters of his book, not according to styles but according to programmes. Thus he invites us to visit in this order the Exposition at the Grand Palais.

"The first problem, the most difficult and urgent for man, is that of housing. We shall see how the Americans have solved it: country house, private hotel, city apartment house, garden-cities, factory-cities, farmhouses, hotels, clubs—each has found its exact formula, suited to social life, reflecting the passing fashion, literary or sentimental. Charles Platt, specialist in villas, has created some delightful ones in the suburbs of Chicago, in Italian style, or "Adam" or Georgian. McGoodwin keeps to the inspiration of the English cottage; Walker and Gillette to that of the Tudor or else of the Sienese style; Hunt, in California, to the Mission style; the latter formula also claims the preference of Carrère and Hastings. The hotel Ponce de Leon, built in 1887, gives us the most ancient date of this modern retrospect, if I may so express it; here are blended harmoniously the Spanish style and the American execution. Delano and Aldrich, former pupils of our school, have a weakness for the colonial—not indeed the primitive, which consists in houses entirely of wood, whose white-painted sidings are laid as in the baraquas Adrian—but the more striking and inspired style of Adam. They have given a happy example of this at Long Island, notably in their "colony club," of which we must offer some explanation. Imagine that the members of a Paris club, at a loss how to pass their summer without each other, should decide to create a "vacation colony" in the country, and you have the *Colony Club*, of which there is not yet the equivalent among us. There is a like arrangement for university students, in the shape of Field Club-house by architects Day and Klauder, who in their various villas give preference to the spicy Anglo-Norman style with stucco walls. Trowbridge and Ackerman favor the Colonial; Goodhue fancies the Spanish.

"So we have, in this rapid survey, as it were a faithful mirror giving back a picture of what the American likes. He gladly withdraws at nightfall to the country, such a contrast for him to the enormous structure where he handles his business during the day. He there pours out his heart, his soul, his poetry; and nothing could be more touching, from this point of view, than the house which the millionaire Stillman built in the fields, and which resembles a grange hidden among the flowers. Do not regard this as an example of artificial, trumped-up sentimentalism, such as pervades the hamlet of the Petit Trianon; but rather as a strong and imperative reaction from intensive turmoil, an expression of that *leisure* which has vanished from western civilisation, and which it were well that the Orientals should teach us again. Add to this a meditative touch: the American looks upon his dwelling as on the church; there is a sort of mysticism about it which equally illumines his conception of buildings fitted to the various needs of social life.

"Consider in this spirit the garden-city of Yorkship, with its 1,700 houses capable of holding 12,000 occupants, built during the war, in the style of the old quarters of London, with plain brick and white woodwork. Even the building, the sky-scraper which is so much abused because it is not known except through early and unskilled illustration, has its beauty, with its vertical lines revealing the structure of metal uprights to which is secured the outer shell of granite, brick or terra-cotta. The Woolworth Building, by Cass Gilbert at New York City, groups wonderfully with the old city hall built in 1803 by a Frenchman, Joseph Mangin. I might say the same of the building designed by Corbett in the same city for a novelty shop, which has this peculiarity that nothing is sold there but samples of merchandise from the huge warehouses found in the outskirts of town. York and Sawyer specialize in banks, as do Hewitt and Brown; in these we note, indeed, a practical feeling combined with a stately aspect as of an easily-carried distinction. We regret that Mr. Whitney Warren did not exhibit his remarkable New York railway station.

"After business life comes student life with its universities; Boston represented by Kilham; Baltimore by Parker, Thomas and Rice who happily illustrate the colonial style; Princeton, recalling the old colleges of Oxford; schools, spacious and light, with their auditoriums, playgrounds, summer camps, open to Nature; museums, such as that of Cleveland, where all else is sacrificed to the enhancement and preservation of the objects displayed; theaters, mostly grouped in the same quarter at New York, of questionable decoration but with good entrances and seats whence one sees and hears perfectly; libraries, like that of New York by Carrère and Hastings, or that of the University Club which recalls the palaces of Siena; religious edifices, like the Masonic Temple of Washington, by Pope, which is a work of pure archeology—or a certain California church by Hunt which adheres to the Mission style—or a particular New York church of Gothic inspiration.

"Administrative architecture figures here with the White House alterations in the nineteenth century, the old City Hall of New York, the vestibule of the Post Office in that city, the Missouri Capitol, the Court house at Washington. Urbanism is represented by Major Lenfant's plans of Washington, by the plans of Hastings for the Buffalo Exposition of 1901; by the laying out of grounds for the San Diego Exposition near San Francisco, forecasting the extension of the city, done by Cram, Goodhue and Ferguson—this showing a utilization of the land, a turning to account of the mountain scenery, a picturesque approach to the palaces by a great viaduct crossing the ravine, of striking and almost theatric effect. Finally, the monument¹ raised to President McKinley at his birthplace embodies the reverence with which Americans are wont to commemorate the great events of history.

"True comprehension of the ancient styles; adaptation to contemporary life; minute, free and broad study of the most diverse programmes—such is the lesson offered by this exhibition. We must congratulate those who have given it to us, who have arranged its details and have shown by their efforts the continuance of the French influence in the United States which was inaugurated by Major Lenfant, that old comrade of Washington."

¹By H. V. B. Magonigle of New York.

Castles in Spain

BY GEORGIANA GODDARD KING

¹ PHOTOGRAPHS BY E. H. LOWBER

THE CASTLES of Spain have been but little studied, it would seem; Street saw hardly any of them, Lampérez restricted his great *corpus* to religious architecture. Though he has published a few studies, like that of Belmonte near Cuenca, and though the brilliant essay of Torres Campos y Balbas on Zorita de los Canes is fortunately not unique, yet the reader has, probably, no such impressions to fall back on when he encounters the name of Guadamur or of Alcalá de Guadeira, as exist in the case of Loches or Coucy-le-Château, of Richmond or Caerphilly or Ashby-de-la-Zouche. Yet more castles stand on the line of the Duero than a man could learn to know in a month, and other memories are laid up at Simancas than those tied up with tape in packets of dusty papers. It seems advisable then to present first the pictures and some notion of the history of a certain number of Spanish castles, before proceeding to a brief discussion of their general character or a comparison with the French and English types.

Turégano is a famous instance of the so-called castle-church; this and that of Loarre in Aragon are not in the least of the sort of fortified church you find at Béziers or Riom or Albi, nor, on the other hand, a chapel, magnified, but otherwise like that of the Tower of London, or the circular church in the middle ward at Ludlow, but actually consists of a church which is embedded in castle walls with keep and barbican, which is complete and so to speak residential.

The great transitional church, here, has a nave and two aisles, with plain pointed arches between them and good Romanesque capitals, of about the epoch and type of Fromistá and S. Pedro de las Dueñas; three apses, and a western gallery of later addition. The entrance door in the south aisle is flanked without by a complicated and delightful portal-composition which belongs to a later reconstruction; between the north aisle wall and the north curtain-wall of the castle run mural passages, and the apses are imbedded in the eastern fabric. The dark chambers over them are accessible only by ladders from above, two windows or more looking into the central apse, and a squint enabling the occupant of one to see the elevation of the Host. The Guardian is sure that these are prison cells, and can tell over the great names of those who languished decades and scores of years in them; but the Guardian, though this is a National Monument, is hardly sound in his history. His

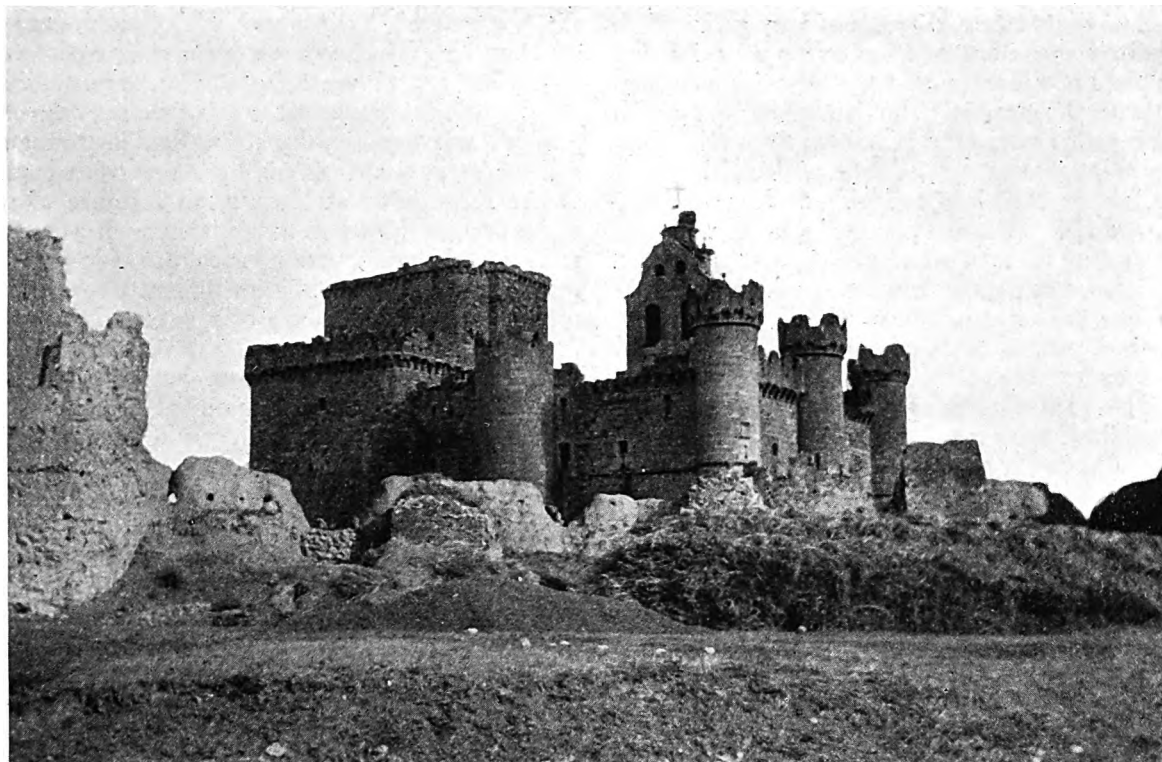
¹ Photographs by permission of the Hispanic Society of America.

account of the church is as fine a bit of developing folk-lore as you would come upon in a summer day's tramp; it was built, he says, for the Queen Doña Urraca [reigned in Castile and Leon 1109-26] the wife of D. Alfonso el Batallador [reigned in Aragon 1104-34] by the Count Fernán González [9th century] the first Constable of Castile, called also the Great Captain [*el Gran Capitan*, Gonzalo Fernández de Córdoba, 16th century]. The real significance of this amazing statement is two-fold; on the one hand it shows how the tribal hero, Fernan González, here in Castile draws everything up into his own incarnation; on the other, how even the ignorant old cobbler entrusted with the keys in an out-of-the-way town far from railways or main lines of travel, has a vague but vivid apprehension of all the splendours of Spanish history.

The keep at Turégano is built above and around the eastern end of the church and is therefore subsequent to it; the main staircase winds up through the southeast tower, and there is a noble hall, high up, and a complicated series of chambers, and the block of buildings adjacent to this, connected and contemporary, reaches out beyond the north curtain wall; it has few windows, a flat roof of stone, and battlements now nibbled away or overthrown. For the rest, the general plan of the inner ward is to set round towers at the corners and half-way in between; the outer line of walls, (which in Spain is called *barbacan*) had both square and circular towers, of stone less beautifully cut and laid. It reached out so far that it has been pulled down, long since some of it, and some quite recently, and the plough has encroached on its confines, and where the moat lay can only be divined—probably below the steep ascent, where now the post-road runs. The town still enjoys a fair in early September.

It belonged to the Bishop of Segovia from 1123. It was a favourite residence of Bishop Lope de Barrientos, King John's adviser, he who burnt the books of the warlock Marquis of Villena "knowing no more thereof than the Dean of Ciudad Rodrigo." In the latter part of the fifteenth century when the King Enrique IV, who loved Segovia well, was living there as his favourite seat, rebuilding the Alcázar bit by bit into a dream-palace from an Arabian tale, and the Canons were still content with their Romanesque cathedral hard by, on the cliff's edge, the Bishop D. Juan Arias Dávila withdrew permanently from the city, and living here at Turégano, rebuilt and beautified. It is easy to see why he preferred another

CASTLES IN SPAIN



THE CASTLE-CHURCH OF TURÉGANO

residence than the see, for he was never a friend of the King's or the King's friends, and wanted a strong one, for Segovia was occupied by Pachecos and Girones, as Masters of Calatrava and Santiago, and D. Beltran de la Cueva, for awhile Master of Santiago, became thereafter Lord of Cuellar, that lies only seven or eight leagues to the northeast, double-walled and castle-crowned.

The Bishop rebuilt thoroughly. Though neither the twelfth-century church nor its sixteenth-century portal may be credited to him, he respected the one and made a place for the other. At this door the flanking towers are polygonal below, passing afterwards into round, the line of the battlements is continued across over the door, under an open arch, so as to give a sort of loggia; the style is graceful Renaissance and the open belfry-arcades above are additions later yet, improper but picturesque. The shield over the doorway bears, unluckily for the historian, the arms of the see and not those of the builder. But the walls of the inner and probably the outer ward are Arias Dávila's, for he lived in the last great age of castle-building. With the domination of the Catholic Kings the great nobility were to lose their power and privilege both, even where they kept their prestige, and Richelieu and Mazarin were no keener in pulling down than Mendoza and Cisneros.

There is one scene in the history of the castle

too pretty to be passed over; here it was that in 1428 the young King John II met his favourite D. Álvaro de Luna returning from exile. He rode out thither from Segovia accompanied by many good knights, among whom the principal were Garci Álvarez de Toledo, Lord of Oropesa, and Lope Vázquez de Acuña, Lord of Buendía and Aceun, who came well arrayed in his own person and his pages', wearing garments of grey and mulberry livery and the sleeves bordered with goldwork. To meet the Constable D. Álvaro de Luna, sallied forth the King of Navarre and the Prince D. Henry, and all the other grandees of Spain who lay there, and, so accompanied, he came to do reverence to the King, who received him with great gladness. So the court lay certain days in Turégano. But if you would fill out the tale of splendours that crowded the grey castle and crammed the huddled brown town at its foot, and know what brilliant colouring and jewelled costume lighted the dim chambers, and what strange beasts were stabled under the round towers and in the long-since crumbled out-buildings, if in short you would evoke the courtly world of the early fifteenth century, read of the gifts that not many years before the King and his uncle the the Infant Ferdinand had exchanged with the King of France. The unhappy Charles VI had sent to the six-year-old King John a very rich collar that weighed ten marks of gold with

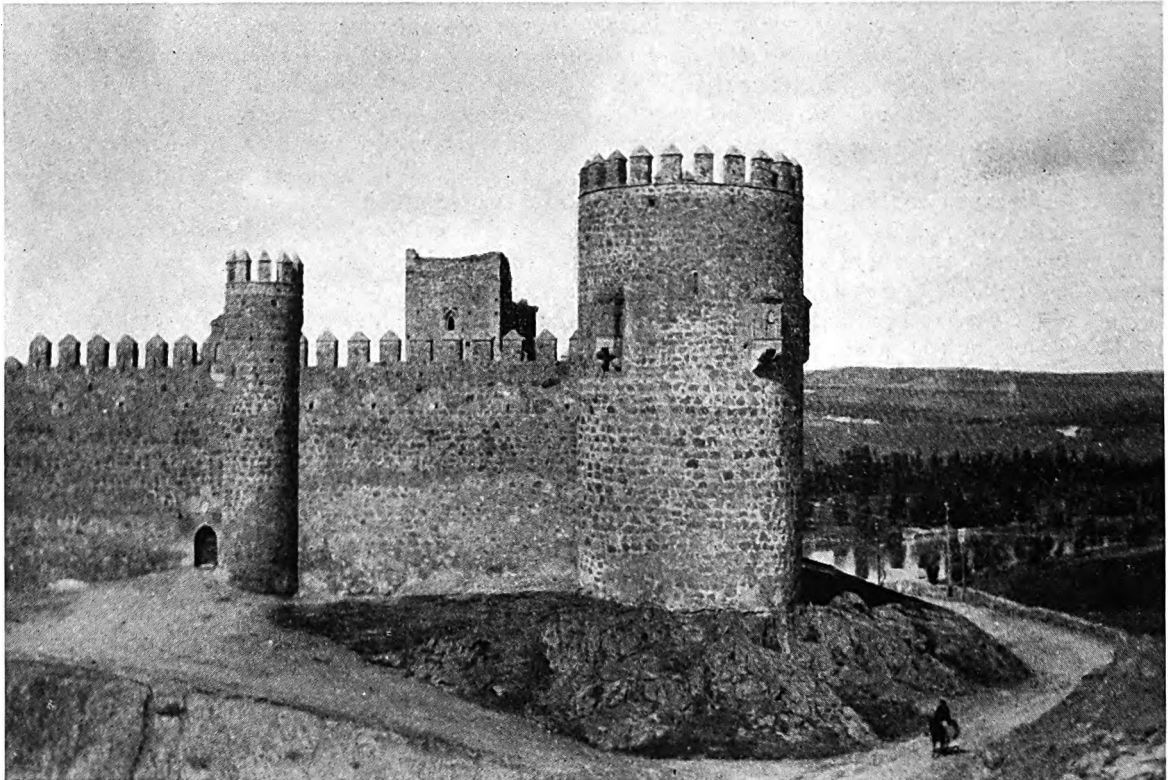
rubies and diamonds and pearls of very great price; but to the Prince Regent he had sent a very rich Pax and a piece of French stuff very rich with gold, historied with the story of Palm Sunday. Four months thereafter gifts were sent in return; from the King, twenty riding-horses saddled and bridled richly, and twelve falcons, their hoods garnished with pearls and rubies and their bells and jesses of gold, of very fine workmanship; he sent many pieces of stamped and gilded leather, and many carpets, for these are something they have not in France; he sent a lion and lioness with rich golden collars, and two ostriches, and two elephants' tusks the biggest that ever man saw, the King of Tunis's gift. And from the Infant were twelve riding-horses very large and very fair, saddled and bridled richly, and ten greyhounds and two bitches with collars of gold and coats of silk fairly worked. The creatures of race and the creations of the goldsmith's art are alike described with the appreciation of a gentleman and a connoisseur.

Exactly contemporary with Bishop Arias Dávila's building is Coca; yet as the exquisite, fantastic pile rises above the Eresma in a region of grand pine woods, you could hardly find a thing more unlike in history, associations, or aspect. The town is Roman, and is claimed as the birthplace of Theodosius the Great; it is named by Archbishop Roderick among

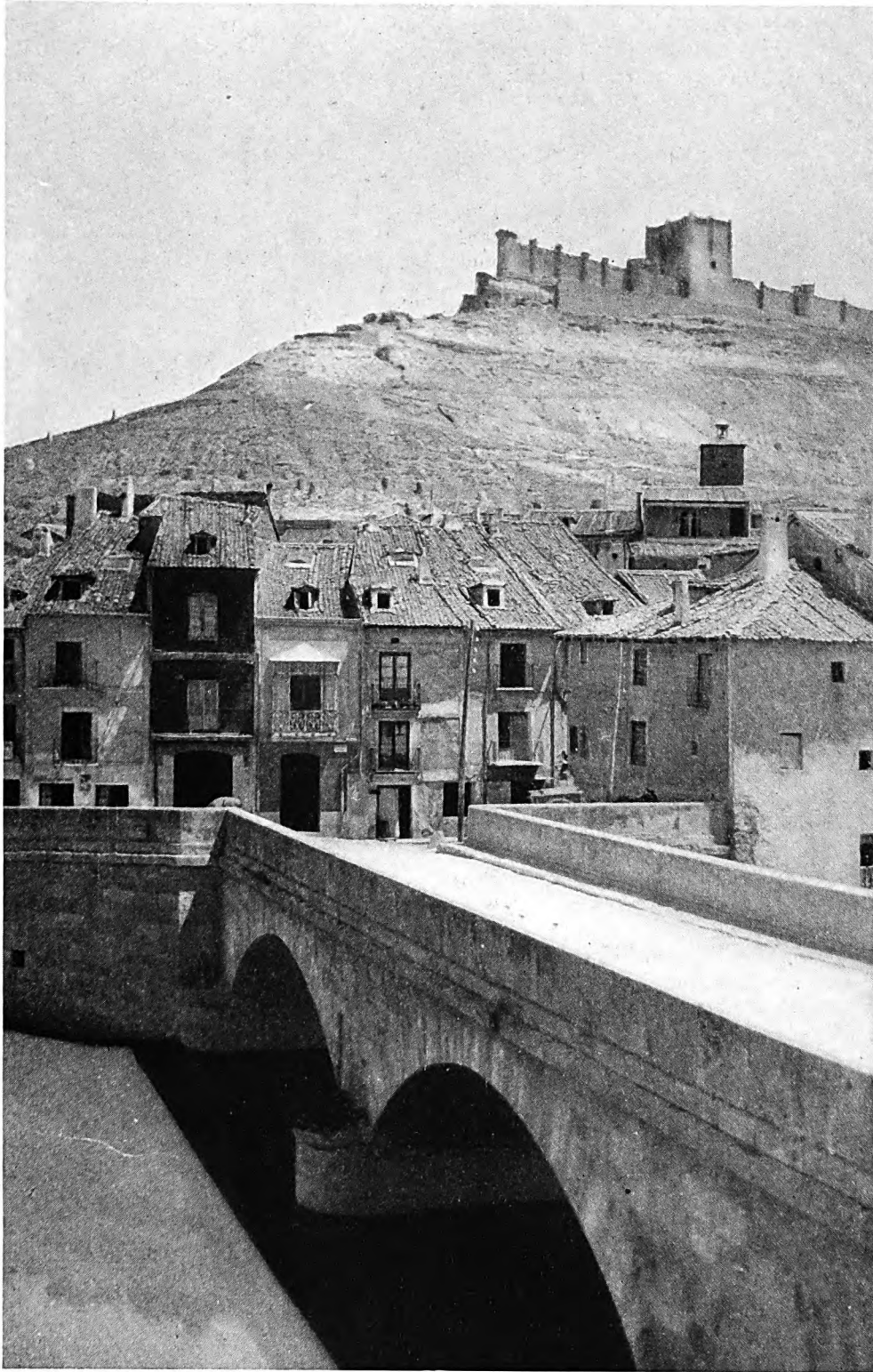
those recovered by Alfonso VI: already may be seen how long it had contact, or the chance of it, with Byzantine and Saracenic art. The large parochial church of S. Maria wears the air of having been once fortified: it is ample, with a strong flanking tower and a low central one; it offers, by a surprising caprice of the late-Gothic architect's, an instance of two types peculiarly rare in Spain, that with a western apse, and the transverse tri-apsidal. If it were not too big, too completely of its own time, one would like to associate the peculiarity of apse-ended transepts, that unusual and eastern form, with the alleged nativity of the Eastern Emperor, and the possibility of eastern intercourse and an earlier church.

It is ennobled, in the sanctuary and transepts, with the four famous Fonseca tombs; these are Florentine in their decoration of *putti* and wreaths and cherub-heads, declining in the north transept into something quaintly provincial while laboriously reminiscent; but the Bishops of Seville and Burgos, uncle and nephew, lie on top with hands folded as at the *Oremus* with a right Spanish dignity.

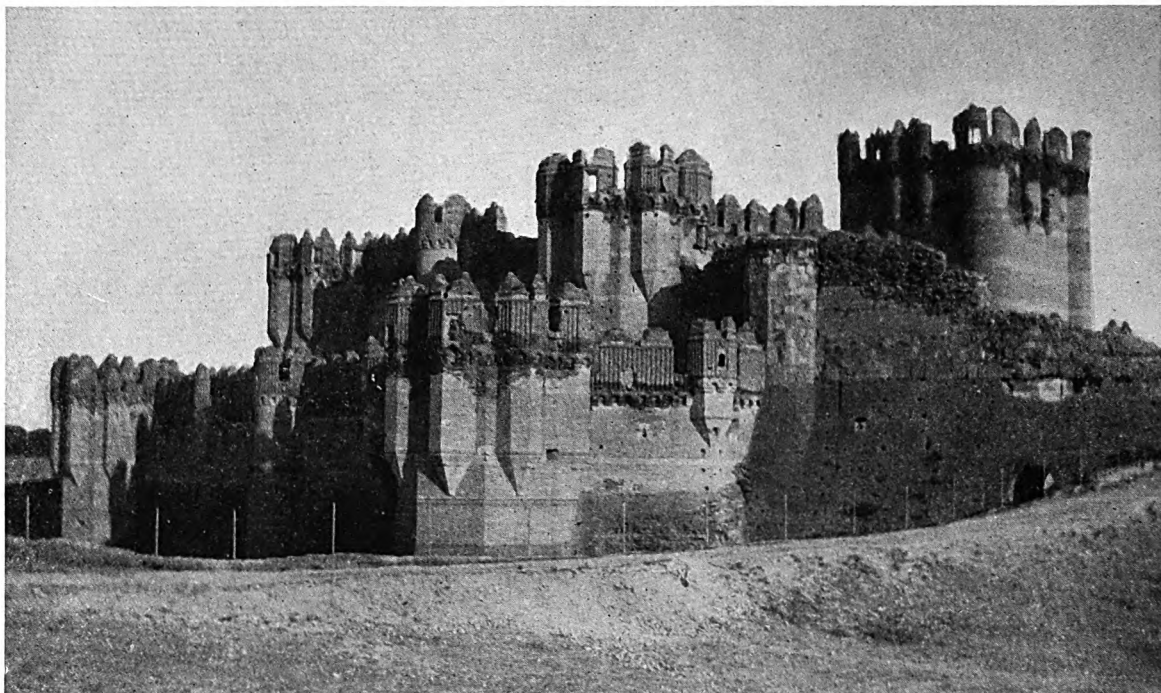
Early in the fifteenth century a certain D. Peter who had, it would seem, no other name, though he was the grandson of the King D. Peter, presented such an example of filial piety as Bernardo del Carpio in the romances, and like him released his father from a long



THE KEEP, S. SERVANDO, TOLEDO



PEÑAFIEL, THAT GUARDS THE DUERO VALLEY



LIKE A FLAWED RUBY: THE RUIN OF COCA

imprisonment. The good knight, D. Diego, for no offense but being a great king's bastard, had lain for fifty-five years in the castle of Curiel; D. Pedro married Beatriz de Fonseca and with her family's help and that of his sister's husband, Gómez Carrillo de Acuña, the poor gentleman was released in 1434. He stayed at Coca, and might ride a-hunting in the land of that town and return thither, and might not go away thence without leave; and there he lived (perhaps a little wearily) till he died, says the historian. It was not, however, in this castle now standing, for that was built, it is certain, by the brother of Doña Beatriz, D. Alonso de Fonseca, the great Archbishop of Seville, who erected the property into a *mayorazgo* or entailed estate, and dying in 1473 left it to his nephews. Of these D. John, the Bishop of Burgos, was once characterized as a very heavy-handed Christian and a quite unbridled prelate, but no one ever said he was not a man of taste.

It is, in its own kind, the most beautiful ruin in Spain; all of Mudéjar brickwork that shades from deep rose to purplish brown, adorned with interlacing arches about the lower part and with rippled mouldings upon the cornice that make the mighty cresting seem to heave and flutter like drapery, as you look from a turret landing-platform along the curtain wall.

Mudéjar is a dangerous word, easier to use than to account for. It implies brickwork often, and plaster, being addicted to those forms of art where the

material is contemptible and perishing, and the work is the more utterly priceless; it implies cusping always, and usually an interlance of forms, and horse-shoe arches where practicable. The character is apparent in the coloured tile and cut plaster and inlaid wood of King Peter's building at Tordesillas and in the Alcázar at Seville; in the modified flamboyant of King Henry's building in the region of Segovia, even to the strange fleeting and restlessly-recurrent yet baffling designs of the vault in the Cathedral there; in the brick towers and apses at Toledo and Calatayud. When and wherever it was executed it bears the sign that a different and non-European imagination was at work; in the use of the colour, in the invention of the composition, and in the very shape of the curves and angles. It is visibly unlike to other things, as *art-nouveau* is, and steel structure. It can hardly be defined more exactly; it is not Semitic, for the latter Moors were all African, and not Islamic, and the workmen were probably baptized; but it can be recognized. It gives always a special pleasure, of delicacy, intricacy, subtlety, incredible elusive refinement. Like other things that came out of the East, it is always a little intoxicating.

It is perhaps a gain for the unity of impression that the whole Renaissance centre should be gone out of the castle of Coca, where still in the eighteenth century "marble columns of Corinthian and composite form" stood about a two-storied *patio*, and painted tiled the walls and covered the floors; but the gi-

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ALCALÁ DE GUADAIRA: CURTAIN-WALL AND BARBACAN

gantic keep in the north corner is perfect still, with round towers at the angles and round turrets in between, and in the noblest chamber there, a richly decorated vaulting remains perfect.

At the angles of the inner ward octagonal towers carry on their external faces octagonal turrets, these dwindling on diminishing lines of brickwork below to a point; the outer barbican repeats the whole motive, great angle-towers turretted, drum-towers in the middle of the curtain, and lesser circular towers intermediate. The lower wall batters steeply from the depth of the grass-grown moat to above the level of the ground. A pair of great towers in the south wall flank the mighty portal and drawbridge, and a small postern opposite opens toward the country and the river-gorge: everywhere within are staircases going up through towers and others going down into the dark: and passages in the thick of the walls and others reputed to run far underground; the allure or *chemin de ronde* is still passable within the shelter of the strange high cornice, wavy and dizzying as you look along; and stone balls, once cannon-shot, lie all about.

There are traces of stucco on the brickwork, painted outside in diapers and interlaces like the patterns on Arab doors. The keep connected once with the city walls, but the isolated tower at which travellers marvel rising from a meadow near at hand belongs to the long-destroyed church of S. Nicholas,

and on it they may trace the builder's pleasure in arches recurrent and repeated.

The castle is not venerable, it has no look of age; it is altogether lovely. The peculiar charm of Coca is that it should be so all of a piece, built after a single intention; magical, in strange changing colours, and strange wavering reduplicated forms, like a play of living fire burning out there on the short hot-smelling turf of the plain, in the pungent resinous bright air.

The turrets, loop-holed for early gun-fire, have been misunderstood and admired. They are not perhaps so curious really as the oriels with Mudéjar window-cusping corbelled out on the walls of S. Servando, that old, old castle which guards the bridge at Toledo, where My Cid Ruy Diaz prayed all night, perhaps for grace to keep his temper next day, and at dawn tied up his beard and rode into town to meet the Infants of Carrion.

The white stone burns in the sun where Peñafiel crowns a steep hill-top above a thriving town; it would seem that the whole place was one fortress once, and town counted as a part of castle, for we read that King John II in 1431 bade dismantle the fortress of Peñafiel, "and it was not slow in the doing, for it was given over to the townsfolk and those thereabout who relished it mightily for they had borne great wrong by reason of that fortress." Again in 1445, when, after the exile of the Con-



THE KEEP AND THE GATE-HOUSE AT PEÑAFIEL

stable D. Álvaro de Luna, it was taken by assault, he gave it the next year with other towns thereabouts to the Prince D. Henry on condition that the fortress should not be built up, and the stone should be given to the townfolk and be counted as a grace and a grant of the King's.

Notwithstanding, the white castle lies there still, older by testimony of the eyes than the grey walls of Turégano or the flushed bartizans of Coca. The long castle yet crowns the hill, 210 metres long by about 20 broad at the widest part. The great rectangular keep of 20 metres by 14 spans the enclosed space from side to side; at the south it comes to a point; at the north it is drawn in slightly but squarish, like the poop of a ship. The outer circuit of walls is standing, though disbattlemented, and from it a deep bartizan and gate-house holds a level dark space with grass. Everywhere else the white and crumbling hill is so steep, so rain-scarped, so gullied and slippery that it is all but inaccessible except to little boys.

Torre del Homenaje is the Spanish term for a keep or donjon. Inside that, here, are two great vaulted rooms, and corbels, with marks upon the stone, to show where a timber floor once crossed between the two. A circular stair goes up through a corner tower to a flat roof of slabs, and turrets hang out at the corners and midway the sides. The long curtain walls are planned with many of the circular towers

called in Spanish *cubos*, great ones at the three angles and about the portal, and other intermediate lesser ones, projecting just half their diameter, along the curtain, in regular alternation.

As the traveller sits in the *Torre del Homenaje*, looking out toward the prow, along the triangle of the grass-grown ward, and into the darkness of casemates and cavernous openings, he is reminded irresistibly of the Grecian stronghold builded as long before Chr'st as this was after, on the edge of the hill-country of Argos, the castle of Tiryns. In shape and in idea the two citadels are curiously alike, and though Tiryns nowadays is only a low hillock in the rich alluvial plain, and the mount of Peñafiel suffers steeper denudation in every decade, the same need and somewhat the same situation may have formed and determined the two.

The storehouses are contrived here in the thickness of the walls; the granaries are underground among subterranean passages that lead down towards the town and out into the country; likewise an *aljibe* or cistern for the storage of water. These cisterns are perhaps peculiar to Spain: the present writer was admitted to see one still in use, of Moorish building, in a private house at Cáceres. The party entered by an outside door in the house-wall and descended a flight of stone steps that ran into water so transparent it was hardly to be seen; a servant meanwhile, opening a trap-door in the vaulted ceiling from some where

CASTLES IN SPAIN

within the house, dropped, a flare of burning newspaper that revealed the white horseshoe arches and their redoubled reflections before it hissed and died. In Trujillo the new cistern, in the ancient upper town, that supplies all the city, is planned on the same principle except that the arches are round, and the roof of timber; admiring it one day with the Mayor and the Commissioner of Monuments, one thought of that other cistern, named from its thousand and one columns and famed for its early vaults, once built by Justinian to supply a part of Byzance.

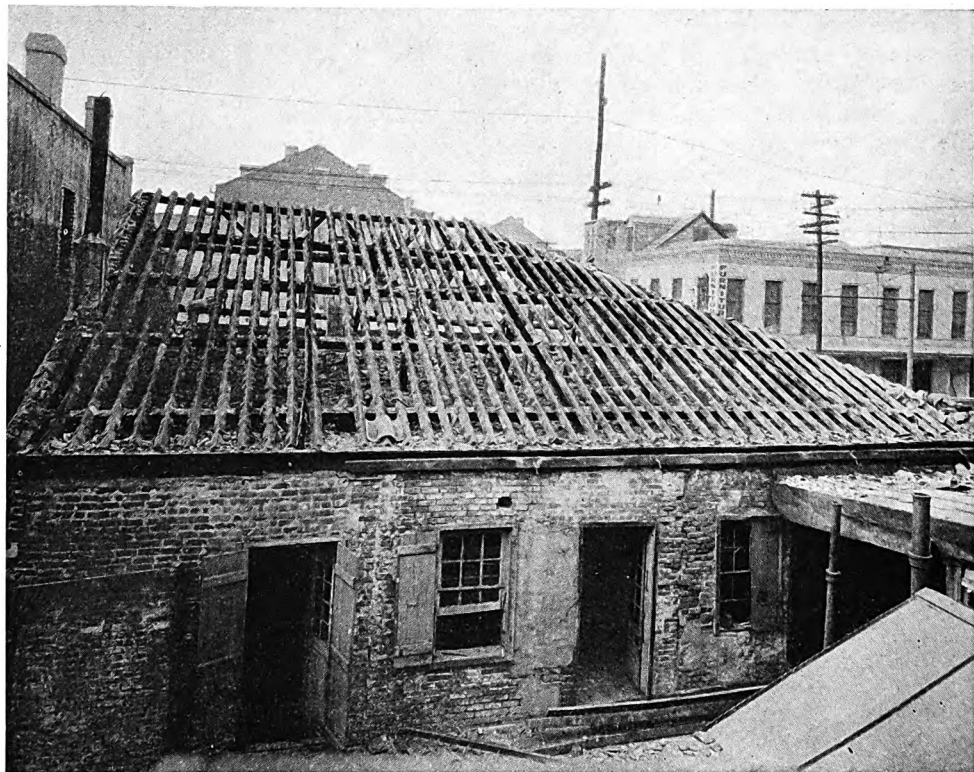
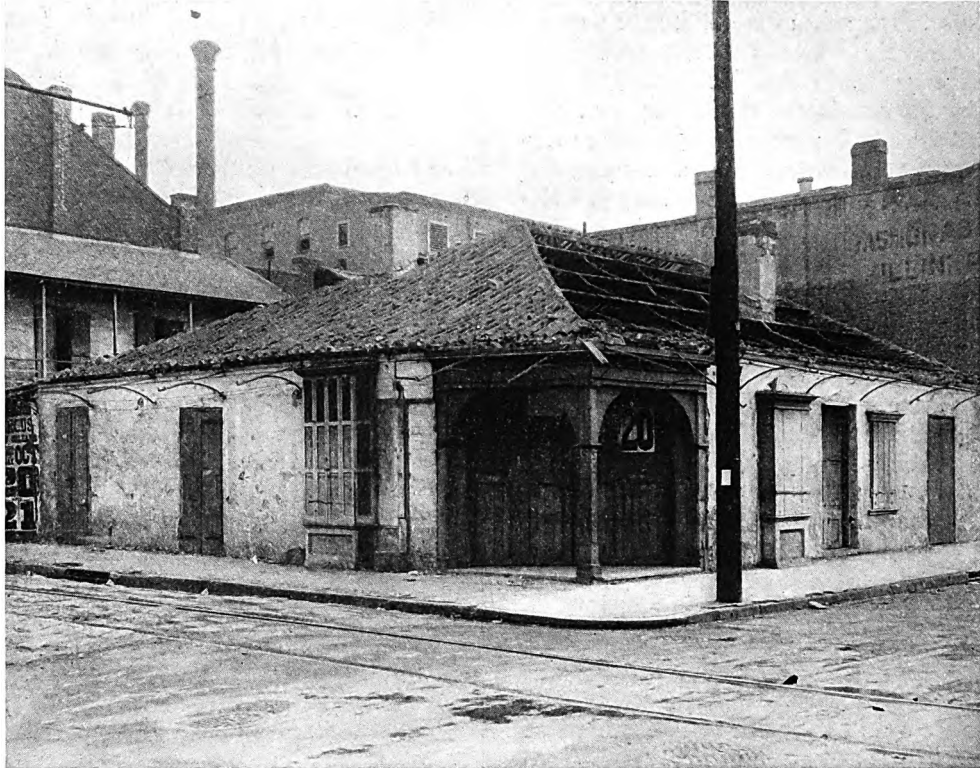
The history of Peñafiel is traditional and is glorious; this rock and that of Sepúlveda were the two keys of the Duero valley, delivered from Moorish hold once by Fernán González and his companions-in-arms in the ninth century, and again by the Count D. Sancho Garcia, he who gave the good laws, early in the eleventh; visited by the King S. Ferdinand in 1222, and by the Emperor Charles V in 1528. In 1282 it was given by Alfonso X as a christening gift to his nephew and godson D. Juan Manuel, who in 1324 began to build his castle, and rebuilt in 1345. Throughout the best of the fourteenth century it was the court of a king's brother who kept his state there, and who, while not aloof from politics, having married his children into the four kingdoms and dipped into the factional turbulence of long reigns and short as deeply as a loyal gentleman might but not deeper, yet lived always like a scholar and a courtier. Here he composed the book of samples called *Count Lucanor*, a story-book admirable in temper and vivacity. He wrote another called *The Knight and the Squire*, and a third which he named, if I forget not, the *Book of the Cats*, devoting it to the wiles of women; treatises on hunting, moreover, and on ways of loving. In short, his interests were those of the man of action who is a statesman and a philosopher. He will have walked with the wind on these ramparts, between chill and sun, to ponder those *Counsels to a Son* which are flavoured with acrid anecdote and ripe amusement, and that treatise on Poetics of which we know only the title. The gallantest sword of his century was his, the prettiest pen.

After he died the castle returned to royal hands: King John I when he erected it into a Duchy for his son Ferdinand, crowned him with a garland of pearls as he gave possession; later it gave title to a Marquisate. When in the family of the Girones,

whose arms are set on the *Torre del Homenaje*, it was the scene of that extraordinary first marriage of Isabel the Catholic, whose troth was plight against her will to the Master of Calatrava D. Pedro Giron, and who was delivered from her ill-liked wedlock, when he had gone down to the castle of the Order in Almagro, by the Act of God or of some faithful friend. The Master died very suddenly; "it is strange," says the contemporary historian, "that his death was currently reported in Castile, three days before he died." So Isabel was free to marry Ferdinand of Aragon.



A MODERN ALJIBE AT TRUJILLO



AN OLD SHOP IN NEW ORLEANS

An Old Shop in New Orleans

The old shops and business houses of New Orleans were ordinarily of two classes. In one class the proprietor and his family lived over his place of business, which in this case might be either two stories or two stories and a half high. This was the more dignified establishment, such as the house of the banker or professional man. Many of this type, now put to other uses, remain in the French quarter of the city, forming, with their quaint courtyards and often elegant suites of rooms, most interesting subjects for study. The other class were single-story shops where the proprietor, if he were humble, lived in the upper story of a wing overlooking the rear court, or if he happened to be more consequential, locked his door at night and went off to an independent residence.

The accompanying photographs of a typical one-story shop of the period of which we are speaking were made a few years ago at the instance of the Conservation of Historic Architecture Committee of the Louisiana Chapter. This little building stood at the corner of Chartres and Ursulines Streets just opposite the Archbishopric. Strenuous efforts were made to save it from demolition but without avail, and this is now to be regretted the more since so few buildings of like nature remain standing.

Apart from the generally picturesque nature of the subject—of which it should be noted that color forms a very large part—attention centers on the unique construction of the tile roof—unique in present-day practice but quite the usual practice in New Orleans one hundred or more years ago. It will be observed that the tiles, which are of the characteristic Spanish pattern, rested directly on beveled rafters, thereby becoming an intergral part of the roof-construction and consequently an intergral part of the building as a whole. The valley-tiles were cradled on the rafters while the ridge-tiles were laid over them in mortar. The low pitch of the roof, the mortar-bond and the slight taper of the tiles themselves obviated any tendency of the roof-coverings to slide over the eaves. No metal or other fastenings were used or seemed necessary.

How far we are today from such direct practice in tile-roof making! And yet this seems an extraordinarily sensible way to lay tiles; at least for a residence of moderate size in the Spanish style in its natural habitat. Our habitual practice is to board over the rafters as if we intended to lay a metal roof afterwards tacking-on strips to give the necessary bearings.

Some will object that sheathing rafters is necessary in order to hold them up to a perfect plane; that these old direct methods of building produced slight undulations in the roof; that the walls themselves were frequently slightly out of plane; that the tiles, being made by hand, were not all exactly alike in size nor of the same color or texture. Happily there are not a few who realize that exact precision in line or plane is not demanded by the Spanish style; that on the contrary our modern architecture generally risks being dry and monotonous by reason of habitual false and indirect use of materials in construction, and that herein lies much of the difference between the artifice of the present-day and the artistry of our predecessors.

N. C. CURTIS.

Waste in the Building Industry

Evidence accumulates concerning the magnitude of waste in modern industry. It is occasioned by bad, or rather by no community planning, by the lack of standardization of an endless variety of things and processes which enter into building, by the disregard of fire prevention, by duplication of effort in estimating and bidding, by unemployment and so on. All this is set forth in an extremely interesting statement by David Knickerbacker Boyd in the Journal of the Engineers Club of Philadelphia for June.

With the exception of the last named waste—unemployment in the building trades—the statement is general rather than specific. What Mr. Boyd has to say on the head of unemployment may best be indicated by reproducing one of the charts which accompanied the article. These charts¹ are presented as tentative since they were based upon incomplete data secured in Philadelphia. As Mr. Boyd suggests, a more exhaustive effort would no doubt result in corrections here and there but that would not materially change the picture as a whole. Therefore, pending the time when accurate data can be drawn upon for making revised graphs, these may well serve the purpose of revealing how the waste in but one sector of the modern industrial system amounts to nearly half, if not half of our possible capacity to produce goods.

Surely on the face of this showing we may draw an indictment and render a verdict. But the black areas represent much more than so much idleness or so much less products or so many days of uncertainty for the worker. The significance of these black areas is that they may be looked upon as a standing invitation to the worker to curtail output. For, if one third or one half of the year is spent without work because there is no work to do; the accomplishment of so much less per day might conceivably be viewed as a way of keeping busy the year round.

Such a view of the matter is not to be escaped. So that the white spaces do not even count as representing effective productive effort. They represent merely that period of time during the year when the workman is permitted to engage in production, or that period during which the worker may attempt to stretch his job over the black area.

But what are we going to do about it? As part of the caption to a graph entitled, "Monthly and Yearly Distribution of Bricklayer's Time," in the same article one finds: "Cooperation between Employers and Public will Eliminate Unemployment; Burden now carried by Workers." And Mr. Boyd suggests that we should create a "tribunal" which would schedule the building requirements of a given area so that public and private work, new work and alterations could be so prosecuted as to insure continuous employment of all those engaged in the building industry.

Which, of course, is a perfectly reasonable suggestion when the matter is viewed from the standpoint of technology. But it is hardly a reasonable suggestion to throw at competitive Business Traffic. For, we must not overlook the major fact in the case, namely, that Business Traffic is a totally different matter from the technological production of goods. Business Traffic is concerned with

¹ See next page.

Monthly and Yearly Distribution of Bricklayer's Time

Cooperation Between Employer and Public Will Eliminate Unemployment Burden Now Carried by Worker

= Total Possible Effective Working Time
 = Average Effective Working Time
 = Part of Effective Time Lost or Waste to be Eliminated
 = Sundays
 = Holidays



AROUND THE SECRETARY'S TABLE

pecuniary profits and not with materially productive work running toward the production of goods. The gains of Business Traffic are, of course, pecuniary gains and they are to be secured most certainly by so maneuvering as to interrupt the flow of goods; or by so regulating and retarding production as to insure that prices shall not fall.

Under the influence of the Business viewpoint we speak of a "normal condition" as one in which there is a surplus of labor; and we say that "business is good" when an actual shortage of goods exists. And Business Traffic is forced by the very nature of it to attempt to secure these ends.

To propose that the Public and the Producers should actually cooperate in the production and the distribution of goods and services, is, of course, to propose that we scrap the existing industrial system which rests on competitive methods and charging all that the traffic will bear. That is to say, it is to propose a revolutionary change so far as the matter relates to Business Traffic.

For the pecuniary gains of Business Traffic arise out of differentials secured by action which works to prevent cooperative effort as between the producers of goods and

the consumers of the same. To wipe out by cooperative effort the possibility of securing these pecuniary gains is to wipe out Business Traffic. So, taking into account the present attitude toward Business Traffic and the drift of things in general, it is quite safe to predict that any immediate change will run in the direction of increasing rather than diminishing the waste which now occurs in the production and in the distribution of goods.

Which is to say that the exigencies of Business Traffic are likely to continue to dominate the situation; the common welfare may wait as now. There is not the slightest reason why the various proposals which are now before us looking toward the elimination of waste need be taken seriously. For they all run with the hope that Business Traffic will soon "pick up." If Business Traffic "picks up" it will do so by reason of some maneuver which will insure a greater differential to be secured by those engaged in Business Traffic. For the time being about all that the most apprehensive may do is to "run with the hares and hunt with the hounds," which is not saying much for what one may do.

FREDERICK L. ACKERMAN.

Around the Secretary's Table

By THE SECRETARY

Anything can happen nowadays. Time and distance are quite obliterated. You have a thought on some subject, and pick up the evening paper only to read that Mr. X of Portland, Oregon, (or if you are a West Coast man it would be Portland, Maine) disagrees with you for specific reasons. This long distance communion with a thousand other minds is so constant and complete that it is difficult to determine sometimes that it is not all the result of personal contact and discussion.

I am, of necessity, so involved in Convention procedure that I have taken a keen interest in all expressions of opinion that have reached me about recent Conventions. They have come from so many different sources, some by word of mouth, some in print, some by hearsay, that I find it difficult now to separate them, and they come to mind like memories of personal conversations.

In order to further this desirable consideration of Convention Procedure, I have ventured to set down what seems to be my memory of a sort of round-table discussion. I have, of course, named the men who were present to the best of my memory, just as I have recorded as faithfully as I am able my memory of what each one said. Some of the statements made by a Mr. Shaw seem to be strikingly similar to statements made by Mr. H. Van Doren Shaw in his report to the Illinois Chapter as printed in the Illinois Society Bulletin. This makes me wonder whether I may not be confusing what I seem to remember hearing a "Mr. Shaw" say with what I have read that Mr. H. Van Doren Shaw said in Chicago. Similarly with remarks by a "Mr. Little," so very like some statements in the written report by Mr. J. Lovell Little in the Bulletin of the Boston Society of Architects.

It is just possible too that they were not so clearly convinced by the various arguments of "The Secretary" as he seemed to feel; and if any of those who were present find

that I have not reported them correctly or can now think, at their leisure, of those convincing retorts which so frequently do not come readily to one's tongue in the midst of conversations (especially of this kind), I sincerely hope they will add their further statements to this discussion for the benefit of the Directors who will soon be arranging the details of the 55th Convention.

Memory is a fickle jade and I trust I will be pardoned if she has led me astray from the straight and narrow path of accurate quotation.

MR. LITTLE: As I was saying, we want the Conventions to solidify the profession by great means rather than by small ones.

MR. SHAW: Hear, Hear!

THE SECRETARY: And by that you mean —?

MR. LITTLE: We elect our officers and the Board because we trust them, and because we feel that they have the best interest of the profession at heart. They should consider and settle the details of the business of the Institute, and save the time of the Convention for broader discussions.

MR. STEELE: Yes, by all means do this and so make the Conventions more inspiring and less technical.

MR. LITTLE: Why, oh why must we spend dreary hours juggling words, phrases and paragraphs of By-Laws, when we might be learning something of the work and ideals of fellow architects in different parts of the country.

THE SECRETARY: Well, one reason, I suppose, is that Chapter delegates don't always approve of the decisions of the all-wise Board of Directors whom you would have so autocratic. The Board, for instance, reported against any material changes in the Schedule of Charges but the Illinois Chapter felt their suggested changes were important and very properly insisted on their being discussed from the floor of the Convention.

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MR. DAVIDSON: I believe they are important and should have been acted on by the Convention, but as usual the "buck" was passed back to the Board.

THE SECRETARY: Who, according to Mr. Little, ought to settle it anyway.

MR. LITTLE: Exactly, and save the time of the Conventions.

THE SECRETARY: The same should, of course, hold true for the other institute documents, I assume.

MR. LITTLE: Well — of course—

THE SECRETARY: I had in mind the Competition Code.

MR. SHAW: The proposed Boston Bay Window on the Competition Parthenon put in its annual appearance.

MR. LITTLE: The motion and the discussion served the purpose, however, of keeping this idea before the Chapters and some day we may hope to see it favorably acted on.

THE SECRETARY: Just a minute: I want to be sure I get your point of view correctly. I understood you to say some moments ago that you thought the Board ought to settle all details of Schedule of Charges and so forth without reference to the Convention.

MR. LITTLE: But the Competition Code matter is different. That affects a fundamental relationship between Architect and Client.

MR. DAVIDSON: So do the proposed changes in the Schedule of Charges—what services shall be rendered under the standard fee—that's pretty fundamental, it seems to me.

THE SECRETARY: But, Mr. Davidson, you see Mr. Little is interested in the Competition Code revision and isn't particularly interested in the revision of the Schedule of Charges, and I suppose that makes a difference.

MR. LITTLE: Yes, I guess you're right, it does.

THE SECRETARY: But it leaves the problem of arranging the Convention about where it was at the start, doesn't it.

MR. SHAW: Yes; I suppose we shall go on as we did this year spending the better part of three days in the exciting business of striking out that part of Section 122 paragraph 3, after the word "client" and inserting, etc., etc.

THE SECRETARY: Unless you can get Mr. Davidson's agreement to let the "buck" stay permanently with the Board of Directors, by and with the consent of Mr. Little.

But did you say "the better part of three days" was so spent?

MR. SHAW: I certainly did.

THE SECRETARY: Here is a copy of the proceedings. Let's see just how much time was so spent. Here we are—page 5, Wednesday Morning Session, let me see—no there was nothing that session. Wednesday Afternoon,—there seems to have been about half an hour spent on Canons of Ethics and Schedule of Charges. Wednesday Evening—nothing. Thursday Morning—nothing. Thursday afternoon, let me see, h-m—no, nothing. Thursday Evening, Hoover. No we didn't waste *his* time that way, anyway. Friday Morning—as, here we have about an hour and a half, mostly on Competition Code; and Friday afternoon about half an hour on various items, principally By-Laws relating to dues. Altogether two and one half hours, it seems, or somewhat less than one session out of eight. That makes about 10% of the time, doesn't it, Mr. Shaw, or am I off in my figures?

MR. SHAW: You shouldn't take my generalizations too seriously.

THE SECRETARY: Oh, I didn't. But you see I thought possibly some others might.

MR. SHAW: Perhaps, like the reputed age of married men, it only *seemed* as long as that.

MR. LITTLE: The general prohibition atmosphere was fatal. No smoke, no windows to look out of,—

THE SECRETARY: And no trouble with ventilation, so that we missed our Treasurer's usual hygienic resolution that "we now stand up for a moment while some one opens the windows" A much needed resolution in past years.

MR. HUBBY: As a matter of fact I think the lack of smoking was a distinct advantage in comfort.

THE SECRETARY: It certainly was to non-smokers, and I assume that is a considerable percentage, although probably a minority. There is no question that the psychological effect of the hall and its size played a very considerable part in the Convention. It is not designed to accommodate speakers from the floor and being fully twice as large as necessary, it always gave the appearance of a small scattered group even when there were two hundred present.

MR. DAVIDSON: Why did we go there?

THE SECRETARY: It seemed to be the only building where we could accommodate both the Convention and the Exhibition. The Corcoran galleries unfortunately were not available this year. But even so with the larger number of delegates the Hemicycle of the Corcoran would have been pretty crowded. The Museum Hall, however, was too large, and was, of course, subject to their very natural rules regarding smoking.

MR. BERGSTROM: That may be one of the reasons for the frequently small attendance, several items being acted upon without any quorum present.

THE SECRETARY: I don't remember any time when there wasn't a quorum present. What session have you in mind?

MR. BERGSTROM: I am thinking particularly of Thursday Afternoon during the parallel sessions when most of the delegates adjourned to the lectures by Howe and Klauder in the adjacent hall, leaving only a handful in the main Convention hall.

THE SECRETARY: Towards the end of the afternoon some delegates and guests had left, it is true, but I was interested to count those present at the beginning of the parallel session period, and it seemed to show just about an even division. At all events there were over a hundred in the hall.

MR. BERGSTROM: But when action was taken on the question of Jurisdictional Awards, there was according to my count a total of seventy including guests. Of course the action was illegal for lack of a quorum, but it doubtless expressed the sentiment of the majority of the delegates.

THE SECRETARY: I think you have forgotten the clause which provides that twenty-five delegates constitutes a quorum for transaction of ordinary business.

MR. BERGSTROM: Is that the provision?

THE SECRETARY: Yes, Article VIII, Section 2 of the By-Laws.

NEWS NOTES

MR. BERGSTROM: The question of legality is all right then, but it seems unfortunate that an important matter should have been acted on without all delegates having an opportunity to join in the discussion and action.

THE SECRETARY: I entirely agree, and in arranging to try out the scheme of parallel sessions we selected a time when apparently no matters would come up for definite action. The general subject of the Congress of the Building Industry, on which Mr. Kohn was to report, involved merely a report of progress, and Mr. Hammond's paper it was hoped would lead to general discussion. The question of Jurisdictional Awards naturally fell into this session, and it was not until after plans were all made that a definite vote was found to be involved. I personally did not consider this serious as it was merely a question of reaffirming previous action, and was not a matter of new business. Nevertheless I entirely agree that it would have been better if all delegates could have been present.

MR. HUBBY: The parallel session was certainly an interesting experiment.

MR. DAVIDSON: But not a success. It was indeed unfortunate that the Thursday afternoon session was so divided.

MR. HOLSMAN: I think it was very unfortunate that it was placed parallel with a topic of such importance as that of the economic problems of the Building Industry.

THE SECRETARY: It was frankly an experiment in an effort to add somewhat to the time available for discussion of "aesthetic" subjects, and as it could not well be put at a time when Institute matters were to be voted on, it seemed inevitable that it should come in conjunction with a general subject leading to discussion but not requiring action. It would be interesting to have some general expression of opinion in the Institute as to whether it is a desirable feature for future Conventions, as was ordered by vote of the Convention.

MR. BERGSTROM: We were a little amused at the argument in the Board's report that a drastic change in procedure was impossible and undesirable when this innovation was already being arranged for.

THE SECRETARY: Perhaps there is some justice in that feeling, but the Board doesn't look on the parallel session as a very drastic change. The routine procedure of the Convention was carried out just as before except for this one session, which was doubled up to furnish a little added time within the usual three days.

MR. HAYS: Well there certainly were more hours devoted to aesthetic subjects, and the result was highly satisfactory.

THE SECRETARY: About the average, I think, of the last four Conventions.

MR. HAYS: No more than that?

THE SECRETARY: Somewhat more than last year when an entire evening was given up to the opening of the Exhibit which this year was combined with our evening meeting on the Department of Public Works and general cooperation between the profession and the Government, so notably signalized by Secretary Hoover's presence and address. There was I think somewhat less time so spent than at the Nashville Convention when special accent was placed on the Interprofessional Conference and the Post War Committee discussions. While these did not deal

with the aesthetics of the profession, they were broad subjects apart from our general routine, and fall under the same general classification as subjects from a Convention program.

MR. DAVIDSON: These subjects, however, Mr. Secretary, should be arranged so as to permit general discussion. Mr. Hammond's paper was placed at the end of the afternoon with no time left for any consideration of it whatever.

THE SECRETARY: It was a regret to me and all the other delegates, I am sure, that this was so, but it was the result of many conditions beyond our control. I had allotted about half an hour in the morning session for Mr. Brown's report on Small Houses, not anticipating any active opposition. This developed from the Illinois delegates and several others to such an extent that all the rest of the morning session was used up, putting off the Structural Service Committee report to the afternoon, and forcing our invited guest, Mr. Muldaur, to hurry through an abbreviated statement on the Underwriter's Laboratories, which he was not able even to begin until after the normal hour of adjournment for lunch.

The drenching rain delayed the lunch hour, and the concentration of the delegates on voting after lunch forced a further delay in starting the afternoon session. As a result Mr. Hammond's paper, which was scheduled for the middle of the afternoon, was unfortunately delayed until the very end of the session.

MR. DAVIDSON: I didn't appreciate that. Then there was the representative of the Building Trades Council of Philadelphia prepared to tell the Convention of the inspired effect of their cooperation, but he went back unheard as the Convention had no time even to grant him the courtesy of the floor for a brief five minutes to tell his story.

(To be continued.)

News Notes

The Society of Little Gardens of Philadelphia announces a competition in the design of a garden treatment for the typical suburban "back-yard". The competition is open to all professions, and to all lovers of gardens, and is held under the approval of the Committee on Competitions of the Philadelphia Chapter. The usual regulations thus apply and there are honorariums of \$150, \$100 and \$75 respectively. The members of the Jury are Messrs. Wilson Eyre, Jr., Warren P. Laird, and Horace Wells Sellers. Copies of the program will be sent to those who signify their intention of entering the competition only, all requests to be addressed to Mrs. Charles Davis Clark, President, 2215 Spruce Street, Philadelphia. The competition closes on 15 October.

THE PROCEEDINGS of the last Convention have been printed and distributed, and we are requested to announce that copies will be forwarded to any library desiring a copy.

A DEPARTMENT of Architecture is to be established at the University of Porto Rico, the courses to begin with the current year. The work will be under the direction of Dean Frederick W. Revels of the School of Architecture of Syracuse University, who has been given leave of absence for a year and who is now in Porto Rico.

MR. PAUL WATERHOUSE, recently elected President of the R. I. B. A. is the son of the late Alfred Waterhouse who was also one-time President of the Royal Institute. The new President was born at Manchester in 1861, and was educated at Eton and at Balliol College, Oxford. His pupilage was served with his father who died in 1905. His range of work covers a wide field and he has been greatly devoted to the work of architectural education in England.

PRESIDENT HARDING, following the example of his two predecessors, has issued the following Executive Order:

"It is hereby ordered that essential matters relating to the design of medals, insignia and coins, produced by the executive departments, also the designs of statues, fountains and monuments, and all important plans for parks and all public buildings, constructed by executive departments or the District of Columbia, which in any essential way affect the appearance of the City of Washington, shall be submitted to the Commission of Fine Arts for advice as to the merits of such designs before the executive officer having charge of same shall approve thereof."

The Congress of the Building Industry—A Program

Members of the Congress, including the Secretary of the Institute, after a preliminary conference with Director Stratton of the Bureau of Standards, have conferred with Secretary Hoover in respect to the situation in the Building Industry, and have, at his request, formulated the outline of a program which, perhaps with some modifications or additions, it is expected will form the basis of an effort to bring the various elements of the industry together in local groups such as have already rendered so effective a service in Boston and New York, an effort with which Secretary Hoover is heartily in sympathy and which, it is confidently believed, will receive the active support of the Department of Commerce, and be correlated with the activities of the Bureau of Standards.

The tentative program submitted to Secretary Hoover is as follows:

Draft of Program for the Improvement of the Building and Construction Industry

There are many problems facing the Building Industry for solution. Each one is of primary importance to one or another of the various functional elements of the industry, but its solution affects in varying degrees all the other elements. Only by the united thought and action of all the elements of the industry, cooperating in each locality, can these problems be wisely solved. No solution can be complete if any of the elements are eliminated nor if the local conditions are not taken into consideration. The industry must render adequate and economic service to the community if it would itself be prosperous. This can only be accomplished by the united efforts of the men who work in the industry.

It is highly desirable, therefore, that there should be created in the various building centers of the country, groups representing all these elements for the purpose of studying the problems and discovering their solutions. These local groups should be united through a national committee that can coordinate and assist the various local activities, and form a point of contact for cooperation with governmental agencies.

The elements of the industry may be broadly described according to the dominant characteristics of the service they render, as follows:

1. **BUILDING INVESTMENT:** Real estate operators and financiers concerned with the temporary financing of

building operations as well as the permanent ownership and operation of properties.

2. **DESIGN:** Architects and Engineers concerned with the planning of structures.

3. **MANAGEMENT:** General Contractors and sub-contractors concerned with the handling of labor and materials for buildings.

4. **LABOR:** Wage workers, both skilled and unskilled.

5. **MATERIAL SUPPLY:** Manufacturers and dealers concerned with the production and distribution of materials.

6. **RELATED INTERESTS:** Public authorities charged with building matters, building press representatives, and others related to the industry.

The present stagnant condition of the industry is by no means entirely within its own control, and present discussions cannot be expected to cure it. They can however, contribute to such cure, and, what is more important, help to create a more effective operation of the industry in its future years of activity by the elimination of those wasteful or vicious practices which are hurtful to the best interests of the industry as a whole.

To this end the groups suggested should set to work to:

1. Determine the facts contributing to disorganization and waste within the industry, which lead to its ineffective service to the community.

2. Ascertain ways and means for correcting such conditions.

3. Arrange for securing effective action by the cooperation of the existing organized agencies in the industry and where necessary the creation of new agencies.

The following specific subjects are suggested for immediate solution for the purpose not only of bringing about the indicated improvements, but also of pointing to definite action about which to organize the local groups:

1. **BUILDING INVESTMENT:** The terms upon which mortgage money may be obtained for essential housing operations.

2. **DESIGN:** A study of economic standards in use of materials with a view to local improvement through elimination of excessive requirements of local building codes.

3. **MANAGEMENT:** Elimination of waste in estimating for competitive bidding.

4. **LABOR:** Seasonal and intermittent employment.

5. **MATERIAL SUPPLY:** Elimination of waste in the common brick industry.

Structural Service Department

SULLIVAN W. JONES, *Associate Editor*
LEROY E. KERN, *Assistant*

In connection with the work of the Committee on Structural Service of the American Institute of Architects and in collaboration with other professional societies and organized bodies having the same objective—improvement in building materials and methods and better shelter for humanity in all its manifold vocations and avocations.

Committee Activities

Elevator Standardization.¹ *In the preliminary report of the Sub-Committee on "Fundamentals of Passenger Elevator Engineering" of the Sectional Committee, A. E. S. C. on Elevator Standardization, there is in brief and incomplete outline, a method for the determination of elevator equipments. The following is an excerpt from the report in question.*

Calculations: The passenger elevator problem divides itself into three elements. The first element A is the determination of the *traffic rate* that must be handled, and its sub-division. The second element B is the *interval* between car *departures*. With the traffic rate determined and a selection of interval between departures or between cars, the best car *capacity* may be determined. The size of the car and its working load are established by the number of passengers that can be loaded during the interval. The third element C is the selection of equipment.

The character of the traffic is determined by several factors, all of which must receive due consideration. The traffic density is determined, not only by the total number of passengers that must be carried, but also by the promptness with which tenants arrive and depart on schedule time—in other words, traffic density is a function both of the total population of the building served and of the working habits of the population. The more imperative is the necessity for prompt arrival or departure on the part of the tenants the more marked will be the traffic peaks.

The morning *Arrival Traffic* peak is usually, but not always, the controlling traffic factor. In some buildings the *Inter-floor Traffic* determines the elevator equipment. There are cases where elevator equipments, otherwise of sufficient capacity have proven entirely inadequate for the inter-floor traffic.²

The locations of clubs, restaurants, locker rooms, toilets, etc., have much to do with the character of the traffic, its density and its distribution. The placing of clubs, lunch rooms, or rest rooms in the center of the building may entirely throttle the service.

The ease of access to the elevator landing doors also controls the traffic, in any given class of service. This leads to a consideration of sizes and arrangement of corridors, and to access doors to these corridors, even to the doors giving access to main or ground floor corridors from the street. It is useless to provide otherwise adequate and expensive elevator equipment unless the passengers can get readily to and from the cars. In some cases even the character of the surrounding streets may effect the elevator traffic, particularly the proximity to the building of transit stations, ferry terminals and the like. In other words the means for vertical transportation in a building must be co-ordinated with the connected means of horizontal transportation in and to the building.

Still further, in determining the probable traffic flow in the building to which the elevator equipment must be adapted,

the future must be considered. It is necessary to decide what the future of real estate development in the vicinity may be. For a change in such conditions may bring about a change in the character or density of population or both. Because one or all of these factors has not been taken into consideration, the elevator equipment in many existing buildings has proved to be either inadequate or excessive.

In high class service, the permissible interval between cars is frequently determined solely by passenger psychology—by the maximum time a passenger can be expected to wait for a car without becoming impatient. In any one geographical district the satisfactory interval will vary with class of tenancy, but for the same class of tenancy the satisfactory interval will vary geographically.

Thus in making the first and most important steps in the calculation of elevator service due consideration must be given to the use to which the building is put, to the class of tenancy, and to the geographical location of the building.

The determination of car size from traffic and interval data is an important step in the solution. If the car is too small for the number of passengers that can be loaded in the desirable interval, the equipment will be inadequate. If the car is larger than is required by the number of passengers that can be taken on in the desirable interval, then the equipment will be inefficient. The cars will travel only partly loaded. Crowding in cars, like crowding in corridors will greatly retard the service. There must be ease of passenger movement in getting into and out of the cars. Again the shape of the car largely controls the rapidity with which passengers can enter or leave the car. Narrow deep cars or narrow landing door openings restrict movement and slow down the traffic. Thus, the question as to proper car platform size is not merely one of area, it is equally a question of how this area is arranged.

For a given traffic density and interval, cars of a fixed size are essential and hoistways of the proper size to take these cars and none other must be provided. The building construction must be arranged accordingly. Consequently, in buildings where elevator service is of importance the determination of the size and number of cars required and their clearances should be one of the first steps in building planning. The too common practice of first planning a building—even of first ordering the structural parts—and then trying to fit an elevator equipment into it should be abandoned.

One other apparently common mistake that requires emphasis at this point is the altogether arbitrary method of determining elevator equipment on the basis of the ratio of total elevator platform area to total rentable area or any other similar method of ratios. Such ratios hold only for nearly identical buildings and for the same classes of tenancy. Otherwise they may lead to serious errors.

The next division, B, of the problem, is the determination of the number of cars required, in order that the desired interval may be maintained. This step in the solution requires a selection of velocity and acceleration in order that the *round trip time* of each car may be established. But the round trip time or the time between the successive departures of a car from any landing is constituted of *running*

¹For a discussion on the significance of the work of the Sectional Committee on Standardization of Elevators see the July issue of THE JOURNAL.

²See "Elevator Standardization," July, 1921, JOURNAL.

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time, standing time and lost time. Running time is the total time a car is in motion during the round trip time. Standing time is the total time a car is at rest during the round trip time. Running time is determined by the acceleration time, retardation time and maximum velocity that can be attained over the *jumps* made by the car between stops. Standing time is determined by the number of stops made in the round trip, the number of passengers carried, the rapidity with which passengers enter and leave the car and the rapidity of gate and landing door operation. Lost time is determined principally by false stops and by time consumed in maintaining the interval between cars.

Thus, into this phase of the problem enter all questions as to general type and operating characteristics of equipment used. But having thus determined the desirable round trip time, merely dividing by the interval gives the number of cars required to handle the traffic as set forth under A above.

The last subdivision of the solution, C, is the actual selection of the equipment required to meet the conditions set by A and B.

Of course all determinations of the data required, and its use, must be in terms of averages. Many accidental factors enter into the operation of every elevator equipment, and the averages must be taken over time periods sufficiently long to iron out the immediate effect of such variables. But the period must not be so long as to result in ignoring important variables that may cause congestion or vexatious delays.

Thus, the traffic flow is never a constant, and in many cases may attain a marked peak over an interval of time long enough to cause prolonged congestion unless such peak be taken into consideration. It is difficult to quickly re-establish an elevator schedule if it be seriously upset. At the same time, if short time peaks be taken into account in determining the equipment, the number of cars and the cost of the installation may be unduly increased.

This is a subject that requires application of the most careful judgment for from it results the adequacy or inadequacy of the equipment, together with reasonableness of its first cost and operating costs. Furthermore, in many types of buildings, the adequacy of the elevator service is an important element in the tenant service, and thus, in a measure controls rent values.

Summary of Steps in the Calculation. The general method of calculation outlined above indicates the following steps, the details of which are worked out later in a numerical example.

A. Traffic determination:

- a. Geographical location of building.
- b. Class of tenancy.
- c. Population to be served.
- d. Traffic flow, average and peak.
- e. Corridor arrangement.
- f. Interval.
- g. Number of departures.
- h. Number of passengers per departure.
- i. Car size, platform area and plan, door openings.
- j. Working load.

B. Number of Cars—Round trip time ÷ Interval.

Round trip time is sum of running time, standing time (including interval) and lost time.

1. Running time, determined from—
 - a. Travel.
 - b. Average number of stops per trip from which average jump or average distance between stops is obtained.
 - c. Time consumed per jump start to stop.
2. Standing time, determined from—
 - d. Average number of passengers entering or leaving car per stop.

- e. Average time required per passenger to enter or leave car.

- f. Time required to open and close gates and landing doors.

3. Lost time—

- g. Average number of false stops.

- h. Average time consumed per false stop.

- i. Time required to synchronize service.

- j. Slow down at limit stops.

C. Selection of Equipment:

1. Duty—

- a. Working load given in A-i.

- b. Rated maximum velocity and acceleration to be determined from B-lb.

2. Type of Hoisting Engine to be determined by C-la and b.

A Numerical Illustration: The following numerical example deals only with arrival traffic, which, of course, does not wholly determine the elevator plant. Similar calculations on departure and inter-floor traffic must be made.

To indicate the actual progress of the calculations above outlined the outline of a numerical solution of an actual case will serve. The building is assumed to be an average office building containing 300,000 square feet of rentable area. It is to be located in the financial district of New York and is occupied by bankers, brokers, and lawyers who, quite generally, have large clerical staffs. The population density may be taken at 100 square feet rentable area per person. Then, the population will approximate 3,000 persons.

The morning *arrival traffic* peak may be taken at 33 1/3 per cent of the population in 15 minutes or 1,000 persons in this period.

The interval between departures for this high class service, we shall take at 20 seconds. In each bank, then, 900 seconds (15 minutes) ÷ (20 seconds interval) = 45 cars must leave the ground floor in 15 minutes.

Deducting from the interval the time required to open and close gates and doors *with interlocks*, 7 seconds, leaves 13 seconds loading time. Assuming good corridor design and wide landing door openings 13 passengers can be loaded in 13 seconds provided the car is not crowded and an efficient starter is employed. Therefore, we shall use a 16 passenger car. The working load for this car at 13 passengers plus operator is 2,100 pounds. The rated load at 75 pounds per square foot platform area is 2,600 pounds which, when attained, if ever, can be carried at somewhat reduced speed. To maintain service during the rush, the starter should limit the load to 13 passengers. More will crowd the car and slow down the service inordinately. The car will actually carry less passengers in a given time due to the increased standing time. The required car area is 35 square feet or, say, a car 6 feet, 6 inches wide and 5 feet, 6 inches deep net. Add to this the area occupied by cab construction and hoistway clearances and the necessary hoistway clear dimensions are obtained.

Since 45 such cars in each bank leave the ground floor every 15 minutes, they will carry 45 × 13 passengers = 585 passengers—about half the total to be carried. Therefore two such banks will be required.

Suppose one bank feeds the lower 11 floors, the hoist being 150 feet. Assume that for such service observation shows that the equivalent stops are 0.8 of the landings on the up motion and none on the down motion. Then on up motion each car will stop at 0.8 of the 10 floors above the ground floor or 8 stops. The average *jump* is 150/8 = 18.7 ft.

The character of the building warrants high speed snappy service with quick acceleration. The average jump is so short that the car will only reach a small fraction of its rated

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velocity. Therefore rapid acceleration is imperative. Let us assume a rated velocity of 600 f. p. m. attained in 5 seconds. The car will travel from start to stop approximately 66 feet in 9.5 seconds on the up motion fully loaded and just attain the maximum rated velocity if the hoisting engine be a gearless traction type with magnet resistance control.

If the hoisting engine be of the worm gear type with 1:1 roping rated at 450 feet per minute 7 second acceleration, under the same conditions the car will travel 47 feet in 9.5 seconds.

We shall assume that the gearless traction type is used.

The car will then make the 18.7 foot jump start to stop, balanced or average load in about 3.7 seconds. We use balanced load data because the car starts on its trip with full load and ends its trip with no load. The average load during the trip is used. There are 8 such jumps, consuming 29.6 seconds running time up motion.

On the down motion the car makes no stops. Acceleration and retardation consume 9.5 seconds and cover 66 feet. (The time-speed data for down motion light load are assumed to be about the same as up motion full load.) The remaining 84 feet of the hoist is covered at full speed in 8.4 seconds. So the running time down is $9.5+8.4=17.9$ seconds.

The total running time is $29.6+17.9=47.5$ seconds with no allowances for false stops.

The standing time is .8 landing doors and gates at 7.0 sec = 56 seconds, to which is to be added the time consumed by the 13 passengers in leaving the car at, say 1.25 seconds each. The total time so consumed is $13 \times 1.25 = 16.3$ seconds. Adding the interval of 20 seconds or the time the car is standing at the ground floor, and 5 seconds standing at the top floor to synchronize service, we obtain for the total standing time and lost time, $56+16.3+20+5=97.3$ seconds.

The total round trip time is $47.6+98.3=144.9$ seconds.

The number of cars required in the bank is $144.9 \div 20 = 7.2$ cars. We may either make it 7 cars and shave the service, or make it 8 cars and be somewhat on the safe side.

Granting the accuracy of the data used, the result cannot be very far out.

The report then proceeds to state that if the method of calculation is sound, it leads directly to the elements from which standardization of equipment should develop.

Thus, if a standard grading of intervals can be established, then for any predetermined time consumed in operating car gates, car doors and interlocks, there follows a definite grading of platform areas and working loads. Attention is drawn to the large percentage of round trip time consumed by car gate and landing door operation with the commonly used types of equipment. It has a material effect on the number of cars required for a given traffic flow.

This report recommends that specifications and test requirements be drawn with relation to the method of computation used and not, as is the present common practice, with relation to some arbitrary standard having little or nothing to do with the actual function of the equipment or its ability to handle the actual traffic.

The Experience Pool

Under this caption, the Committee on Structural Service will record from time to time, statements of experience received in connection with investigations conducted for the purpose of answering inquiries addressed to the Committee.

Specification for Scagliola. (21b4). *Several architects to whom application was made for data on specifying Scagliola referred to Mr. H. A. Cousins as an authority on the subject. The following is a summary of the information furnished by Mr. Cousins.*

Scagliola was originally made from plaster, the setting of which was retarded by glue and the result, as compared with the artificial marble of today, was crude and unsatisfactory. The invention of Keene's Cement made it possible more closely to reproduce the natural effects of marble, and at the same time produce a material practically as hard as the marble itself.

The chief requisite, aside from skill and experience, in making artificial marble is the kind and quality of the cement used. Keene's Cement (alumed sulphate of lime), while produced in different localities, from materials and by methods which are seemingly identical, is a product of varying quality according to the place of its origin. That made from rock deposits found in America is whiter and in some cases finer than the imported English cement. It is excellent for fine castings and plastering, but due to its tendency to warp, to effloresce and to effect colors it is not the equal of the imported for artificial marble work. It is claimed that American manufacturers have made many serious attempts to produce a Keene's cement entirely satisfactory for this particular use, but their efforts have not yet been entirely successful. The imported cement is very expensive as compared with that made in this country and since the war has been, at times, difficult to obtain.

Specification. All artificial marble shall be manufactured from Imported English Keene's Cement, Cafferata brand, the face of "superfine," colored with pigments of proved permanency. The body or backing shall be composed of course Keene's Cement of the same brand without admixture with any other material, except in the case of grounds of columns or other work constructed in situ, in such work the cement shall be mixed with marble dust, or sharp bank sand in equal proportions. The combined backing and finishing coat shall be not less than $\frac{3}{4}$ -inch thick and shall be jointed as for natural marble.

The coloring and veining must not merely resemble but must imitate the natural marble in every detail. The color or marble coat for columns shall not be less than $\frac{3}{16}$ -inch thick and shall be applied to the prepared grounds before the cement of grounds is set so as to secure perfect adhesion. There shall be no visible joints where sections are joined together. The surface shall be rubbed down perfectly true as though produced on a polishing lathe. All work shall be brought to a polish by means of abrasive stones and friction as in the case of natural marble. Polishing with varnish, gum, wax, or similar materials will not be permitted.

In the case of pilasters the veining shall be continued around face and returns without a break to reproduce the cubic character of a monolith. All cast work shall be securely anchored with approved metal anchors, backed up with plaster and joints properly filled.

Note. The specification should state whether dull, semi-polish, or high gloss polish is desired and also the kind of marble to be imitated. The veining of some marbles, such as some of the breccias, is more expensive to reproduce than the veining of marbles with simpler markings.

The consensus of opinion seems to be that a satisfactory result is more dependent on the skill of the artisan than on either the accuracy of the specification or careful supervision. Until the work is completed it is practically impossible to foresee with what degree of accuracy and skill a particular kind of marble has been imitated.

Balsa Wood. (32b2). *In reply to an inquiry relative to the suitability of balsa wood for insulating rooms when the ceiling is close to the rafters the following data was collected.*

Balsa wood has about the same insulating value as cork. It weighs about one half as much as cork installed and roughly speaking has about one half the strength of spruce.

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It is therefore structurally self supporting. It is a Central American wood and in its natural state is too susceptible to rot to be of much commercial value. A process or treatment, has, however, been developed which counteracts this tendency to decay. By this treatment the wood is impregnated with a substance that renders it water-resisting and at the same time does not materially increase its weight or change the appearance of the finished lumber. This wood is white, soft and easy to work. The cell walls are extremely thin and there are practically no woody fibers. The cellular structure is such that about 92 per cent of the total volume of the wood is "dead" air.

Until comparatively recently practically the entire supply of treated balsa was used for life preservers and similar equipments and for the insulation of refrigerators, refrigerator cars, and cold storage insulation. There is a supply of the wood now available, however, for such uses as the insulation of buildings, especially for floors over open porches, ceilings near rafters, and for lining floors, walls and ceilings of cold pantries.

Several months ago the American Balsa Company consulted with the Structural Service Committee as to the most effective means of developing the proper use and avoiding the mis-use of balsa in building construction. It was decided that the most effective means would be for the company to conduct an extensive investigation of these possible uses, and before advertising the product, to prepare a technical bulletin, describing in detail the proper uses, results to be expected, methods of installation and treatments of the finished surfaces when exposed. Much of this data has been collected and it is thought that in a short time this booklet will be ready for distribution.

Treated balsa, as manufactured for general commercial use, is cut into strips from about 2 inches to 4 inches wide. These strips are dovetailed and glued together into panels from eight to ten feet long. The maximum width of the panel is 27 inches. The usual commercial width is 24 inches. The panels are manufactured in the following finished thicknesses: 1 inch, 1½ inches, 2 inches and three inches.

The edges of the panels are made straight for butt joints, rebated for shiplap joints or splined. The spline, however, is not recommended for use in connection with a panel thinner than 1½ inches. The weight of commercial balsa wood varies from about 6 to 15 lbs. per cubic foot. The lighter weights have the greater insulating value, and the heavier weights the greater strength. For such uses as the insulation of ceilings, the 15 lb. balsa would be the best, since the slight loss in insulating value would be more than offset by the advantages of the increased strength. For general refrigeration purposes, 10 lbs. is usual. For special refrigeration, and where strength is relatively unimportant, weights as low as six lbs. are used.

Where the panels are to be attached directly to wood studs or joists, slender, flat-head nails should be used. The use of cement-coated nails¹ is strongly recommended. There is no danger of the wood splitting, but since the unpainted wood is comparatively soft, care must be taken not to allow the hammer to dent the finished surface. A nail set should be used for driving the nails home, and if the finished surface is to be left exposed or painted, the nail-holes should be puttied. The panels may also be secured in position by covering the joints between the panels with a wood mold, and securely nailing the mold to the framing.

Balsa may be painted or enamelled, and any paint or enamel suitable for use on white pine may be used. Painting or enamelling materially hardens the surface, and thereby increases its resistance to denting. For the inside walls

¹ See Kidder's Handbook, 16th Edition, page 1444.

of refrigerators, where a cement finish is required, dovetail channels are cut on the face of the panels, to form a key for the cement mortar. It is possible that a similar construction might be developed for plastered walls and ceilings, it is understood, however, that the use of balsa panels as a base for plaster is as yet largely in an experimental stage. The price of balsa wood in a recent quotation is given at fifteen to twenty cents per board foot f. o. b. plant. The fifteen pound wood is cheaper than the lighter woods.

It would appear from the data collected that for the insulation of a ceiling, such as described, the proper kind of balsa to use would be 24 inches wide, 1 inch thick, shiplap panels of the 15 lb. wood.

Balsa should not be left exposed to the weather before use. Since it has been especially dried and prepared for insulating purposes, it should be stored under cover and protected the same as cork board or any other insulating material.

Effect of Salt Air on Plaster. (21). *The following inquiry was received from South India: "What will prevent the salt in the air affecting lime and cement plaster causing it to crumble and fall off in flakes?"*

A number of authorities were consulted on this subject and the consensus of opinion seems to be that the trouble described is not due to salt air.

The National Lime Association states that it is their opinion that the trouble is probably due to improper workmanship such as too much troweling or by too sudden drying of the plaster after application.

The Portland Cement Association writes as follows: "If cement plaster is porous so that moisture can penetrate it, there might be danger of frost action in northern latitudes but that danger would hardly seem to exist in South India and would not exist in any location if care had been taken to secure a dense impermeable plaster. In the case of good plaster work the presence of moisture or salt spray in the air should not affect the plaster in any way. Sometimes when salt water is used in mixing the plaster, salt crystals may be formed at or near the surface of the plaster as it hardens. On foggy, moist days these salt crystals absorb moisture from the atmosphere giving the walls a wet streaked appearance. In the course of time there might be a slight amount of flaking from the walls, but the writer does not know of any case where it has been serious. This trouble will not exist if fresh water is used in mixing the plaster and care is taken to use sand and other materials in the plaster that are free from salt."

The Aberthaw Construction Co. furnished the following report: "There is no data in our files indicative of any deleterious effect produced by action of salt air on plaster. It would seem doubtful that any disintegration would be produced by this cause alone. Of course, if the plaster were applied to a wire mesh of plain black iron, it is quite probable that salt air or any other condition of dampness would corrode the metal and, through removal of the supporting system, cause the ultimate failure of the plaster. It seems also clearly proved that Portland cement in direct contact with salt water is affected chemically. Hence it is possible that salt air may, where the exposure is great, affect similarly a plaster in which Portland cement is an ingredient."

Mr. Emley of the Bureau of Standards states that he cannot see how the flaking of lime or cement could be caused by salt in the air. That these materials have frequently been used in locations in this country where they are called upon to resist the action of salt air and as far as he knows have given satisfactory results. From the nature of the failure it is suspected that the base coats or the masonry base were not sufficiently wet.

Matters done

THE
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Planning
Regional—Community—City

THOMAS ADAMS
GEORGE HERBERT GRAY
BENTON MACKAYE
HENRY WRIGHT

Around the Secretary's Table
THE SECRETARY

The Courts Settle It
F. L. ACKERMAN

Next Convention—Chicago—1922
Date in Spring to be announced later

OCTOBER
1921

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Number 10

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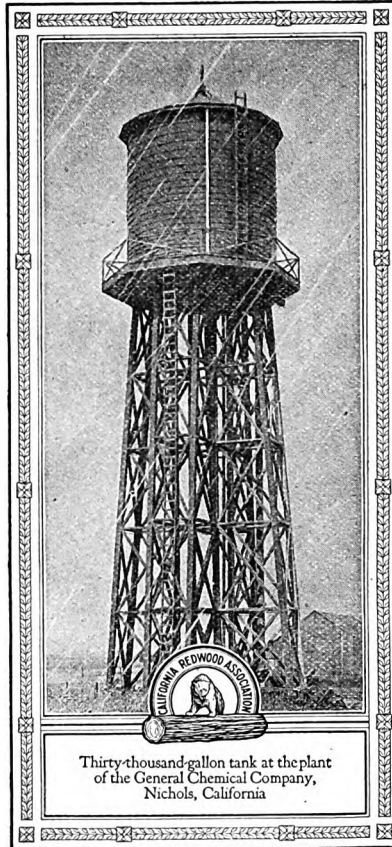
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GEO. HANDEL

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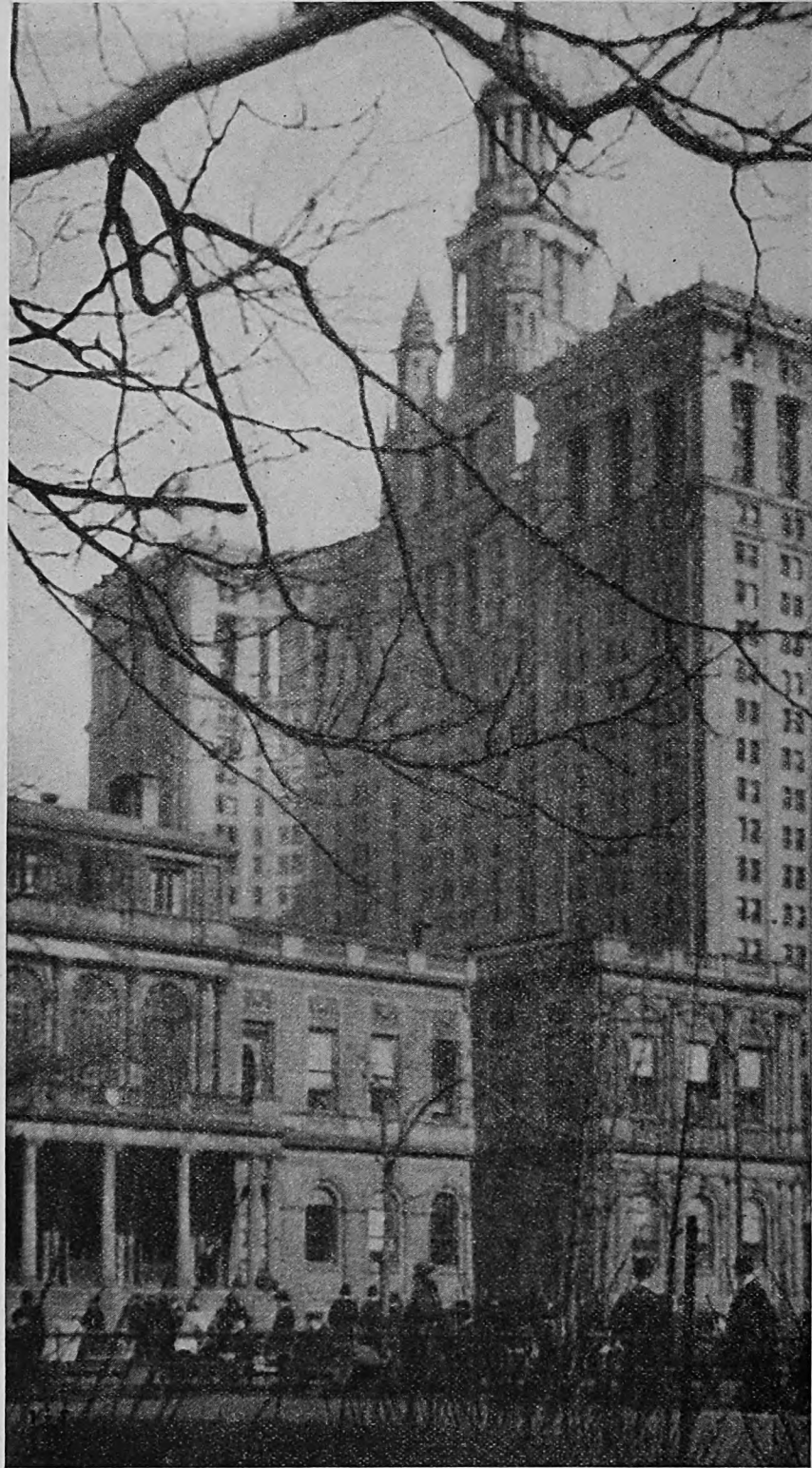
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After the photograph by Ben J. Lubschez

MUNICIPAL BUILDING, NEW YORK CITY

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Shadows and Straws

SOMEHOW OR OTHER, the art or science or business of making a plan seems a very fundamental thing. Logic defends it with ease. Reason seeks vainly a method of challenge. To make a plan—before beginning anything—what could be more direct, more in line with the teachings and traditions of the evolution of man? One does not always want a plan. The unplanned event teaches us the joy of escape from the clock and the calendar, but the lack of a plan, in the general scheme of growing, has likewise taught us the dire consequences of our folly. We live mostly in an unplanned world. Certain general physical characteristics of the earth, such as the sea and its harbors, the rivers, the valleys, the arable plains, have been the determining factors in the building up of what we are pleased to call our civilization. We have seized upon these general characteristics as fundamental bases and on them we have builded a good deal of our economic philosophy, such as it is. We do not, as a race or as a nation, indicate, as yet, any very strong tendency to tolerate interference with the rights of men to regard natural phenomena and characteristics as exploitable areas. It may be oil, or coal; diamonds, or gold. Or it may be land for any particular purpose. If any discussion of these things is attempted, it is not yet likely to receive that distinguished consideration which philosophers accord to the social and economic aspects of the universe.

At the moment, for example, we are torn into dissension and strife by what we regard as the rights of "capital" and "labor." The philosopher who points out that "capital" is nothing but labor which has been accumulated and stored, gets a scant audience, but this fact merely serves to indicate our remarkable propensity for dealing with names and not things. We divide ourselves into classes over a horde of names, and care not a whit for what the names really mean. The fact that the control of the world by one class has led to an almost cataclysmic situation, is used as a peg upon which to hang the theory of class struggle. It is the workers, we are told, who are now striving for control, and we divide on the issue, although the division is into a large

majority against, and a small minority for. The real issue is lost to sight. The third party, the man, the consumer, the living being dependent upon the earth and its resources, passes into insignificance. Over Rights we quarrel, while Needs are forgotten. And each stage of this sort of strife leaves us worse off than before, for hatred flames anew, and the vision that we saw through tears and the sacrifice of ten million youth, becomes stained and grimed and lost. We are back again on the war plain of individual Rights,—which is what we call Peace.

Briefly, and if it is possible to sum up anything in general terms, that is the essence of the world struggle. It is the Needs of Man against the Rights of Property. Yet how to lift the discussion to such a plane, no one knows. The city planner, for example, can only give to a community that degree of improvement which will be permitted by the Rights of Property. It is idle to pretend more, only the issue cannot be lifted from its environment of class. It divides, at once, on the issue of the Ownership of Property, and there it gets stuck. Property is one thing—Ownership is another. The philosophical answer as to what relation Ownership should bear to Property, in the common interest of mankind, is the question before us, when we deal or attempt to deal with our problems of production and distribution. At present we have a form of ownership which dictates the control of industry. We have a form of ownership which dictates the growth of communities, the kind of houses that people live in. No one in his senses pretends that we are incapable, technically and scientifically, of providing better things. We cannot provide them, however, because of this question of ownership, and because we have assigned to that ownership certain rights. Merely to admit these things is too great an effort for most men, and it is only true that our whole institutionalized life is concentrated upon a denial of these very self-evident facts.

WHAT TO DO about it is a question of really small moment, until we are fairly unanimously convinced that something ought to be done about it. We may elect to go on as we are. Possibly the system in use

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is the best one that can be devised. Some think it is. Others say that it is not. But the point is that Planning, as an art or a science or a business, can proceed only over such paths as we have already worn. One writer, for example, in his article in this issue, professes his faith that city planning can function successfully without radically changing our present concept of the Rights of Property. This is, in truth, the point of departure of those who profess to practice that kind of planning. They could not practice at all if they began by stating that it would be necessary to upset our theories of Ownership and Property, and yet, mark you, they quite unconsciously fall back upon such things as Zoning, or Excess Condemnation, even though these legal interferences with things as they are constitute a direct challenge to that concept of the Rights of Property which is most sacred.

THESE ARE PURELY philosophical reflections. They are not offered by way of inciting anybody to do anything except Think, straightforwardly and honestly and fearlessly. There is no hope for any state of civilization, except through courageous Thought. But in view of the increasing attention that is being given to the problems of community growth, this issue of the JOURNAL is largely given over to a consideration of that particular problem. It is an experiment upon directing attention toward fundamental things, and after a good many years of thinking and reading, it hardly seems possible to the writer of these lines that any more fundamental problem confronts us than that of how to use land in the common interest. City Planning has lifted us a step on the way, even though its results have been meager and for the most part barren. It is a puny infant among the vocations—it is not even a profession—it is very, very far from being a science—it is, in reality, nothing more than a sub-conscious challenge to things as they are and have been. But it is full of promise, for it is helping to direct attention to the follies in which we have been engaged. The dangers that lurk in its attempted application are the common ones of quackery, and the lure of gain. But these are ever-present, in all callings.

TO PURSUE THE LAND QUESTION a little farther, it might be observed that generally speaking there are four principal groups, representing four different attitudes toward the question of land use and tenure. There are, 1, Those who believe in unrestricted ownership rights: 2, Those who believe in limited ownership rights: 3, Those who believe in the application of a scheme of taxation such as will safeguard ownership but reduce it to a harmless institution: 4, Those who believe in the abolition of individual ownership and the nationalisation of all land. The majority will, of course, be found in the first two groups, although they are, in essence, divided only on the question of abridgements. For example, there are probably very few who

now believe in the absolute unabridged right of an owner of land to do with it as he pleases. A moment's reflection will recall any of the police regulations, as they are known, which abridge the rights of land ownership. These may be no more than simple sanitary precautions, or the more rigid prohibitions against wooden buildings, for example, in certain limits. The second group therefore differs only from the first in that it is more conscious of facts and willing to tolerate still further encroachments on the right of land ownership. Its members are alive to the larger social implications involved in community planning, urban growth, industrial centralization, and the generally unregulated and unplanned process by which land passes from no use, or from agricultural use, into sites for buildings. They believe in Zoning, Excess Condemnation, and some go so far as to advocate municipal or community ownership of raw land adjacent to and in line with urban growth, so that the control of its development may be absolute and in the interest of the common welfare—at least as far as is possible under our political system. These advanced few might be called the Left of the Second Group.

The Third Group believes that land ownership as it at present stands permits and encourages a form of monopoly which has the power to charge a wholly anti-social rent for the use of land and all its resources, and that the owners of land appropriate increments of value which rightfully belong to the community. The first two groups would perhaps diverge slightly on this point; number one would admit it rather reluctantly and justify the practice as a legitimate reward for good business sense, or a far-seeing eye in the direction of land needs. Number Two would rather unanimously admit the evil, but would cure it by police or legislative regulation such as Zoning, for example. Group Three would deny that the evil could be cured by anything save a system of taxation such as would effectively prohibit land monopoly, the levying of land tribute, or the appropriation of commercially created land values.

Group Four will argue—and it is probably more numerous, the world over, than Group Three—that the individual ownership of land is essentially anti-social, and that the evils attending upon it can only be eradicated, by the abolition of such ownership. A more moderate section of this group would insist upon the disallowance of absentee ownership only, retaining the right to ownership of such land as could be used by any one individual with some safeguard against monopoly or any anti-social form of speculation.

Roughly speaking this makes a picture of the general difference of opinion on the land question. The first group is largely composed—and this is said with no intent to disparage that particular point of view—of the unthinking. Its members wax indignant the moment they sniff any suggestion that the "Rights of

SHADOWS AND STRAWS

Property" are in question, although, as has been pointed out, "Rights" have been considerably abridged, and "Property" is of many and various kinds. Black men were once property, as were also white women, it might be remembered, but we do not, in the mob sense, progress by remembering but by completely forgetting. The mob, or the herd, does not Think.

THE IMPORTANCE of the question is slowly being perceived. Very reluctantly, however, is the problem being faced. It is so much easier to deal with names than with things! Yet the number of architects who understand the relation of our present land system to the building business—and to the art of architecture—is not by any means small. They see the analogy between the towering gothic, springing skyward in the crowded confines of a medieval city and surrounded by fortifications, and the modern sky-scraper, rising in profusion amid the congestion of our towns. Outside the walls of the fortified medieval cities was the ownerless No Man's land of feudal baron and professional soldier, preventing occupancy and use. Outside and inside our congested areas is the owned No Man's Land, equally preventing full and free use, and compelling developments which are so anti-social that even the most confirmed member of Group One would admit that something ought to be done about it if it did not change or effect any of the present phenomena of institutionalized property and ownership. Groups Two, Three and Four admit all the anti-social evils, or at least most of them, and differ only as to the cure to be applied.

Outside of these groups, or interfused at least with Groups Three and Four are the other groups which, while recognizing the basic nature of the land question, also envisage the commercial and industrial systems which have developed. To them no method of dealing with the land question will alone correct the evils of Poverty, War, Disease, Unemployment, and the incidental maladies of Society. And these outside groups go far—even to the point of seeing nothing to be done except by a regeneration of mankind. The system of Price and Profit they say, has forced and must continue to force a declining production. The method of creating a supply of capital to be privately invested for profit, must end in a world bankruptcy—and thus it is plain to be seen that the land question is not the only one. Yet it is a good place to begin that kind of thinking which alone has the power to solve problems. For man is a land animal. He cannot live without it. The supply of it is fixed.

A GREAT DEAL of comment has been aroused by Mr. Price's article in the September *Century* on tendencies in American architecture. It is unusual, one takes it, for any magazine to essay an effort to lift architecture into the realm of things worth while, and

the *Century* is certainly to be well praised for the effort. And no doubt the article carries quite a different message to the layman. The architect reads it with a critical eye. The illustrations annoy him, or at least some of them, because they distort. He does not mind the atmosphere of a Whistler lithograph, such as the interior of the Cunard building, but he protests at the pseudo-tragic quality of the Piranesian exteriors, or the fantastic attempts at the effect of the wood-block. Yet very likely these are the ways by which the apathetic public may be inspired to look at architecture. Satiated, as it is, with an endless appeal in which drama is piled upon drama, it cannot be expected to respond to the small and timid voice. It cannot yet see buildings—except in pictures of them. Everything has to be dramatized for it! Probably it is for this reason that Mr. Price feels called upon to assume the role of Authority. He knows very well that it is idle to speak with the voice of Humility. And if, for really cultured people his article is thus spoiled and rendered banal, it no doubt gets its message across to the crowd. And yet, it seems hardly fair to say so many wise things as Mr. Price does and still to leave to the reader that unpleasant feeling of being told what is good and what is bad.

Likewise, those of a psychoanalytical turn of mind, have remarked that it seems rather strange that Mr. Price should have skipped so boldly from Washington to Sioux City. They seem to trace a complex! And they find ground for their conviction in what Mr. Price has to say about the new capitol to be built at Lincoln. How can any critic pretend to express an opinion of a building that has not yet been built, they say, and of which no one—not even its architect—is sure how it will look when it is built. Aside from the questionable taste involved in the procedure, they maintain that the only test of a building is the building—and Time! Tendencies, of course, are a delicate question, and no doubt Mr. Goodhue's capitol does exhibit a tendency, but to consider that tendency, or the tendency expressed in the Court House at Sioux City, without a consideration of the economic aspects of the problem, is not to trace tendencies but to exhibit predilections!

These questions are perhaps not particularly important beside the larger issue. We applaud the *Century* for its effort, and we hope the next one will go farther and leave no issue for criticism. We would like, for example, to see architecture treated, even from the aesthetic point of view alone, in the spirit of Humility and not in that of Authority. Good architecture is its own authority. It will survive all the criticisms that may be heaped upon it, all the applause, all the worship of its admirers. Contemporary critics, essaying authority, ought to remember this in approaching any work of art.

C. H. W.

Reserving Productive Areas Within and Around Cities

A PROPOSAL TO SUBSTITUTE AGRICULTURAL WEDGES FOR ZONES.

By THOMAS ADAMS.

THE PRINCIPLE put forward by Mr. Ebenezer Howard in 1898 that a city should have an agricultural zone around it has been given a new application and meaning as a result of the report of Mr. John Irwin Bright, published in the April number of THE JOURNAL OF THE AMERICAN INSTITUTE OF ARCHITECTS. Mr. Howard did not attempt to apply the principle to the existing city, but he put it forward as an essential part of the garden city scheme, the advocacy of which is the main purpose of his book.

Mr. Bright's plan for Coconut Grove brings prominently to the front the question of how far the agricultural or productive belt can be obtained as part of an existing city. It is of special interest to observe that the merit of putting forward a new interpretation of Mr. Howard's scheme rests with an architect, who is primarily concerned in building, rather than with a landscape architect or surveyor whose duties are more directly concerned with the land.

Mr. Bright has not only made a valuable contribution to the science and theory of city planning, but has shown us how desirable it is that the architect should consider the problems of land development in relation to the structural problems of city growth.

The new aspect given to Mr. Howard's theory by Mr. Bright has stimulated the writer to put forward the suggestion that, both in the existing and in the new city, we should seek to develop agricultural and manufacturing wedges radiating from central city areas instead of belts or zones around them. Before coming to that proposal, I shall refer briefly to the scheme put forward by Mr. Howard for having an agricultural belt around his garden city as carried out at Letchworth.

Combination of Town and Country

Mr. Howard showed that the solution of the twin problems of rural isolation and city congestion lay not in trying to promote rural growth or to arrest city growth by artificial means, but in taking the attractions of the country into the city and spreading the attractions of the city into the country. He said it was fallacious to accept crowded, unhealthy cities as the last word in economic science or to admit that the sharp lines that divide agriculture and manufacture were enduring ones. He sought to find some method of combining active town life with the beauty of the country by seeking as an objective the town-country in which the beauty of nature would be blended with social opportunity. With the scheme of Mr. Bright and others before us, can we develop a school of thought which will accept this ideal of Mr. Howard for extension of existing cities as well as for new cities? As has been so often pointed out, the difficulty in getting such an ideal accepted arises from the difficulties inherent in the land systems. How to overcome that difficulty will be a great political problem of the future, but if it is to be overcome, much of

the basic work will have to be done by architects and landscape architects having a proper view of their professional responsibility and capable of a regard for the necessary inter-dependence of structural and natural beauty, of building and field, of manufacture and agriculture.

Mr. Howard did not attempt to deal with the complex problem of applying the principle of town-country growth to existing cities and concentrated very properly on his scheme of creating a new city as a model in which town and country would be blended together. The site for his model was to consist of 6,000 acres of which 1,000 were to be given up to the city and 5,000 were to consist of the surrounding zone of agricultural land. The accompanying diagram (No. 1) gives a general idea of his proposal. Mr. Howard did not claim that he originated the principle of combining town and country and explained that his scheme was a combination of proposals of previous writers—Wakefield, Marshall, Spence and Buckingham.

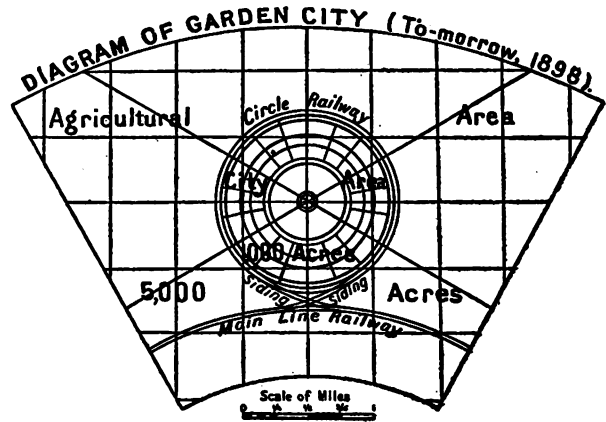


Diagram 1.

To those of us who are still pleading for a more scientific system of town development, it is interesting to recall Wakefield's theory of colonization which is described by J. S. Mill in his "Elements of Political Economy," Book I, Chap. 8, p. 3, where he says that it consisted of arrangements for securing that each colony should have from the first a town population bearing due proportion to agriculture. Thomas Spence and Henry George by different methods suggested that the solution of the problems of poverty and slums lay in securing for the benefit of the community the increment of the value of the land, by different processes. While basing his scheme on certain principles put forward by Wakefield, Spence and Buckingham,—Howard saw the weakness that lay in the socialistic elements of these projects. His proposal, therefore, did not suggest undue interference with the freedom of the individual or with healthy forms of competition. He did not object to changing the land system or controlling the land. Indeed, his scheme is fundamentally a scheme of

RESERVING PRODUCTIVE AREAS WITHIN AND AROUND CITIES

land control, but he did not seek to achieve that object by punishing those who legitimately owned the land.

Social Cities

One of Mr. Howard's objects in fixing 1,000 acres as the area for his town and 5,000 acres as an agricultural belt was to artificially restrict the growth of the town. He realized that if manufacture and agriculture were to be combined it was necessary to have an area restricted to agricultural purposes, not too far removed from any part of the urban area. He conceived a population of 32,000 on 1,000 acres as a model-sized community and proposed that if the city grew beyond this size it should "leap" over the agricultural belt. He recognized, however, that growth could not be stopped and that if the agricultural belt were privately owned it would be built up as it became "ripe" for building purposes.

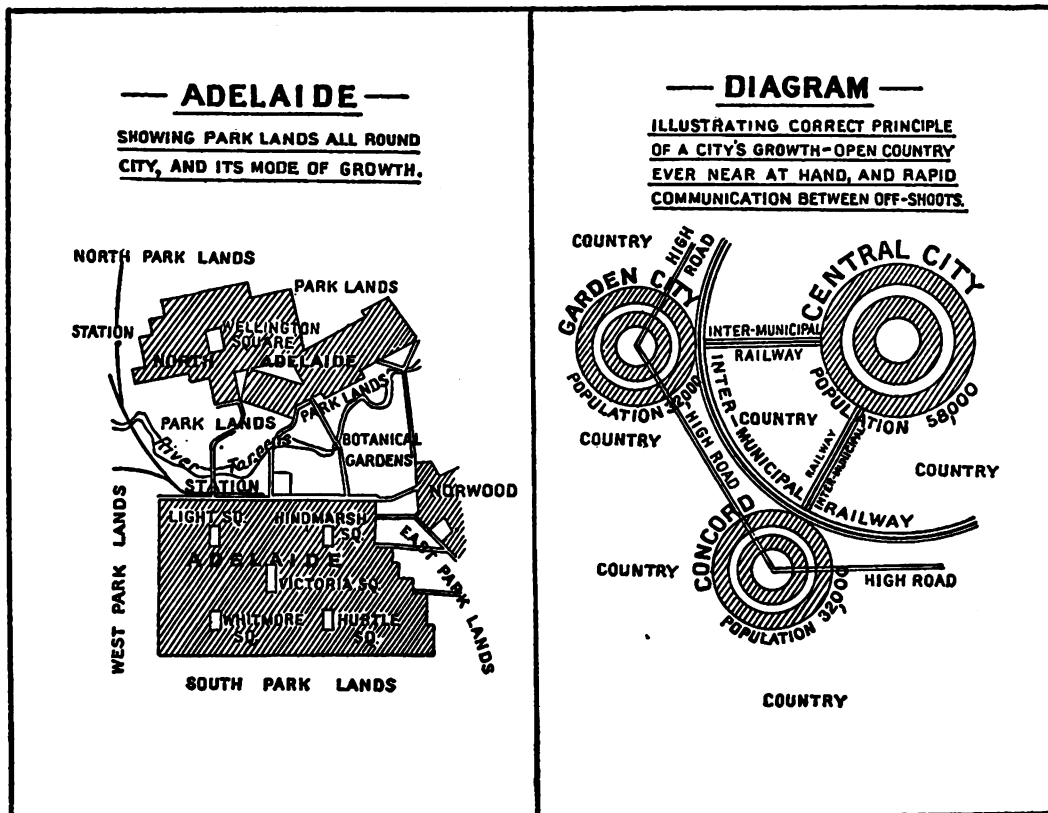
If Howard's object was to prevent the Garden City from growing beyond 32,000 his scheme would have been unsound. Growth is the law of nature and a stationary city will in time become a dead city. He did not, however, wish to stop growth but only to prevent the agricultural zone being built upon. His proposal, therefore, was to extend the Garden City on the same principle of growth as the city of Adelaide in Australia has grown round its parks, by building new cities and towns in close proximity to each other and with intervening agricultural areas. (Diagram 2).

Nevertheless, to have the agricultural areas in the form of belts or zones would have the effect of hampering growth. In an entirely new country the building of Garden Cities would appear to be easier than in old countries. Mr. Howard refers to this fact on p. 133 of the revised edition of *To-morrow* and he points out in reply to criticism that there is ample land even in old established countries to build clusters of cities and that the old cities are not necessarily permanent and should gradually be replaced.

In a final chapter dealing with the future of London he anticipates the gradual falling off of ground values in the metropolis as a result of the migration of the population to new garden cities in which industry can be carried on more economically and living conditions be more healthy.

London, he says, must be transformed. "Elsewhere the town is invading the country; here the country must invade the town."

"The time for the complete reconstruction of London—which will eventually take place on a far more comprehensive scale than that now exhibited in Paris, Berlin, Glasgow, Birmingham, or Vienna—has, however, not yet come. A simpler problem must first be solved. One small Garden City must be built as a working model, and then a group of cities. These tasks done, and done well, the reconstruction of London must inevitably follow, and the power of vested interests to block the way will have been almost, if not entirely, removed."



From Garden Cities of To-morrow

Diagram 2.

Coconut Grove Scheme

In Mr. Bright's proposal, we have the principle on which we may attempt to reconstruct existing cities such as London if we are to save them from gradual disintegration. He introduces a hopeful way of preserving and perpetuating the life and growth of the city and also reorganizing even the unwieldy industrial aggregations which are the result of modern systems of growth. The use of the term "productive park" in itself reveals a new meaning to the principle of Howard and others. Mr. Bright recognizes a limitation in both Howard's scheme and his own and he says it is one thing to determine a certain theoretical size and quite another thing to find a practical way of realizing the ideal. He proposed to surround the town of Coconut Grove with a productive strip of land and on the map of accompanying his plans he shows the idea of the productive belt in diagrammatic form. This belt is suggested to consist of about 1,354 acres out of a total of 2,500 acres.

Agricultural Wedges Instead of Agricultural Zones

It has always seemed to me a defect in the proposal for agricultural belts that they completely enclose the town from any opening for expansion in any direction. As we have seen Mr. Howard proposed to overcome this objection by leaping over the agricultural belt and creating new cities as sort of satellites of the first city.

The artificial restriction of town growth by means of an agricultural belt or zone seems to bind the city too much in a straight-jacket. It does not give advantages any greater than could be obtained by reserving equally extensive and wider areas for farming purposes, having occasional inter-sections of urban extensions radiating between them.

If we examine the historical growth of villages, towns and cities, we find that the tendency is not for them to grow within compact circles or squares. They start from a central point, and spread out in a series of wedges or arms along the main means of communication or in sympathy with some natural feature which influences industrial and residential expansion. Going back to the old feudal village, one sees that the site of the village is created by water plus locomotion and that then the expansion takes place lineally along the highways and not radially around the centers.¹ Without attempting to follow the evolution of the city from the village, if we glance at the development of an old English city like Hereford (diagram No. 3), we find that the main body of the city lies in a compact circular area but that its expansion took place in the form of a series of spreading tentacles along the railways and highways.

Around most cities there are large areas of land that can be more profitably used for agricultural than for building purposes but they are in irregular blocks. Low-lying land which cannot be properly drained at a reasonable cost lies between wedges of high land that can be economically drained. The land least suitable for building on is often the most fertile for farming. There are also ravines and hills adjacent to many cities which can not be used profitably if all the factors in development are taken into

¹ Some English villages—including one near Letchworth—are from half a mile to over a mile long, and only two lots wide.

account. If we had proper control of the land and a system of assessment so adjusted as to encourage the reservation of agricultural areas within or near cities, there should be no difficulty in introducing the garden city principle into all existing cities. Natural conditions are such, however, that this can best be done in the form of wedges and not in circular zones.

Diagram No. 4 shows the application of the principle of the wedge form of industrial and agricultural development as it would apply to Letchworth. From an examination of this diagram, it will be seen that the present urban area of Letchworth touches or nearly touches the boundary of the estate at three points. While the agricultural area is regarded as a zone, it is only of satisfactory width around perhaps one-half of the town. Around the other half, it is too close to the boundary of the Letchworth Estate to give an adequate belt of land between the urban area and the private property outside the Estate boundaries. It is obvious that when Letchworth is completely built, land towards Hitchin and Baldock, unless previously purchased by the Garden City Company, will be developed for building so close to Letchworth that the agricultural belt will be almost invisible. In actual practice it is

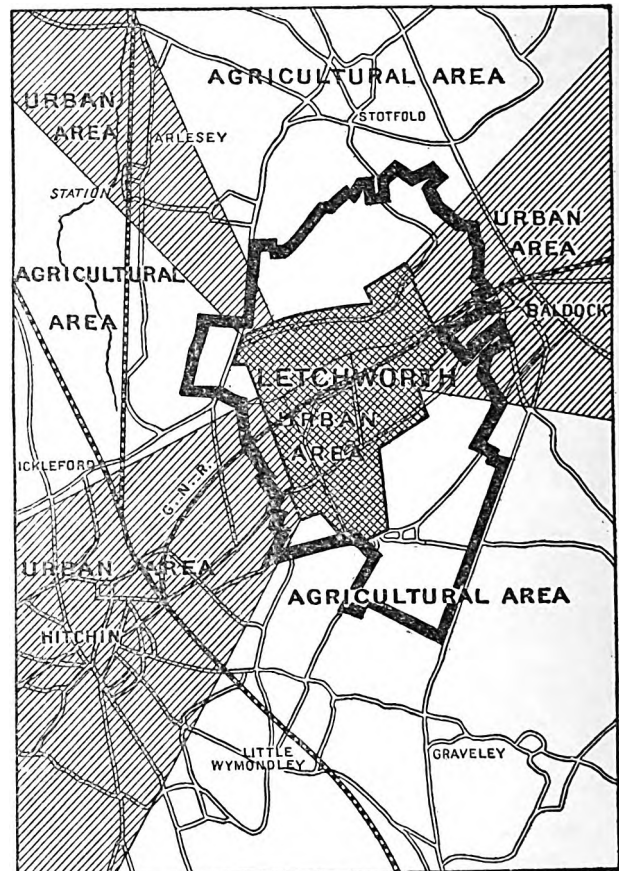


DIAGRAM
SHOWING APPLICATION OF PRINCIPLE OF RADIAL
URBAN AREAS IN WEDGES EXTENDING FROM
LEITCHWORTH GARDEN CITY.
(4)

INSTITUTE BUSINESS

found difficult to obtain the ratio between urban and agricultural land and a sufficiently deep belt of open land on all sides of the urban area to conform to Mr. Howard's ideal. This is quite natural as the land suitable for a city would in hardly any case be likely to be exactly in the center of any estate that may be purchased.

The radial areas leading out from Letchworth shown on diagram 5 seem to me to represent the proper method of extension of Letchworth. Following the main railway line which runs through the city, there would be two industrial areas, one connecting up Letchworth with Hitchin and the other with Baldock and extending beyond both these towns. Towards the northwest, there is an area occupied by brick works and other industrial plants at Arlesey. Here there could be another wedge. The idea would be to intersect these urban areas with main means of railway and highway communication. On the other hand, around the village of Stotfold on the north towards Ickleford on the west, and Graveley on the southeast, there are areas of land which are best adapted for agricultural purposes. The drawing is just a diagram and the wedges might be narrower or differently placed in actual practice. The object in presenting it is merely to indicate the principle on which it is suggested future productive areas should be reserved. I believe that a great deal of such objections as there are to the agricultural belt in garden cities would

be overcome by the acceptance of the wedge instead of the zone and certainly it would make the principle of reserving productive areas more easily adaptable to existing cities. The suggested change in form for productive areas has been previously put forward in connection with public parks. Professor Eberstadt of Berlin proposed that park systems should be developed in wedges instead of circular areas around cities. His contention was that wedges of park enabled the city to preserve open lungs into the surrounding country and also made the park areas more accessible to the citizens than circular areas.

In the application of schemes to reserve productive park areas adjacent to and intersecting cities, the choice of the areas least adaptable for building and best suited for agriculture, would be a matter of importance. Having made this choice the system of assessment and taxation would have to be adjusted so as to make it profitable for the owner of the land proposed to be reserved for agriculture to keep it for that purpose. The cost of the public services needed for building purposes should be charged entirely against the building land, and the relief thus given to the agricultural land coupled with the saving in excessive cost of development in the case of low-lying or hilly land, would be a sufficient incentive to many owners to permit a permanent restriction to be placed on the use of their land to prevent its use for building purposes.

Institute Business

New Members Elected

ALABAMA: Harrington Barlow, *Auburn*. BOSTON: Roland Webster Baldrey, *Arlington*; Lewis B. Abbott, Gordon Allen, Neils Hjalmar Larsen, Winthrop Parker, George E. Parsons, Roger G. Rand, James H. Ritchie, *Boston*; John Pickering Thomas, *Portland, Maine*. BROOKLYN: Henry C. Jackson, Ralph Marion Rice, John William Tummbridge, *Brooklyn*; William George MacFarnaghan, *New York City*; Anthony D. Zinck, *Nyack*. BUFFALO: Oliver Richard Johnson, *Jamestown*. CENTRAL NEW YORK: Merton Elwood Granger, *Syracuse*; Edward J. Berg, *Utica*. COLUMBUS: Richard Z. Dawson, H. H. Hiestand, J. Edgar Outcalt, Wilfred A. Paine, Edward A. Ramsey, Wilbert Cathmore Ronan. CONNECTICUT: J. Frederick Kelly, *New Haven*. FLORIDA: Leslie N. Iredell, *Tampa*. ILLINOIS: Walter G. Kohfeldt, Frederick J. Teich, *Chicago*. KANSAS CITY: Leon B. Senter, *Okmulgee, Oklahoma*. MINNESOTA: Francis H. Hafey, John Jager, Oscar T. Lang, *Minneapolis*. NEW JERSEY, Clifford C. Wendehack, *Montclair*. OREGON: E. F. Gilstrap, Charles Dearman James, *Portland*. PHILA-

DELPHIA: Roger Milton Dickhut, *Chester*; E. Nelson Edwards, Charles Joseph Mitchell, Stuart Raymond Smith, William C. Stanton, John Howard Taylor. PITTSBURGH: W. J. Carpenter, *St. Petersburg, Florida*. SAN FRANCISCO: A. J. Bryan, *Chico*; Hart Wood, *Honolulu, Hawaii*; W. H. Crim, Jr., Julia Morgan, *San Francisco*; Arthur Bridgman Clark, *Leland Stanford University*; Frank Veach Mayo, *Stockton*. SOUTHERN CALIFORNIA: John Frederic Murphy, *Santa Barbara*. ST. LOUIS: Austin E. Fitch, *St. Louis*. TENNESSEE: George Awsumb, *Memphis*; George D. Waller, *Nashville*. TOLEDO: Otto H. Hohly. UTAH: Fred W. Hodgson, *Logan*. VIRGINIA: George Van Leeuwen, *Norfolk*. WISCONSIN: Henry William Carr, *Green Bay*; Frederick Rubens Clas, Walter F. Neumann, Urban F. Peacock, John S. Shepherd, *Milwaukee*. NEW YORK: Edward J. Smith, *New Rochelle*; Edwin Augustus Acker, John Taylor Arms, F. Burnham Chapman, Samuel Adams Clark, Henry A. O. Erdmann, Victor C. Farrar, Henry Charles Hahn, Arthur C. Holden, Joseph Theophile Mohn, C. Frederick Mosle, George Nordham, Kenneth W. Nosker, F. DeLancey Robinson, Francis S. Swales, *New York City*.

Shall We Community Plan?

By HENRY WRIGHT

Community Planning has a definite and important bearing upon the Housing Problem of which we have had so much recent discussion, and therefore it is to be regretted that the housing which was accomplished as a war emergency while evincing a marked advance in architectural treatment, especially in the relation of the elements comprising the various groups, was largely unproductive of any advance in fundamental methods of allotment. In fact some of the most pleasing of these efforts are open to criticism for the extravagance of their allotment detail.

In his rather prodigious report¹ for the Community Planning Committee the writer attempted to assemble such data and suggestions as might be helpful in a further study of this important phase of the problem.

However, all such studies and conclusions, no matter how obvious their advantages may seem to those of the profession or others who have the ability to formulate them, are received with but scant sympathy by the self-constituted arbiters of our destiny.

With only a very moderate degree of tangible results to show for his very ardent devotion to Community Planning for some years past, the writer feels that he can still recommend such a course of study to his F. A. I. A. (Fellow Architects in Adversity) if only as a pleasant diversion to pass the spare moments while waiting for the wise ones to solve the financial riddle that for the time being is held chiefly responsible for the moratorium in building construction. To this end are here presented a few adventures in Community Planning which may afford some amusement in these circumstances.

Assuming that we shall, under some conditions, continue to subdivide land for the building of individual detached homes of a size most popular in the past, is there any reason why we should not do so in an interesting manner rather than in the old stupid prosaic way of lining up our houses in monotonous rows?

Swastika Grouping

In the "Swastika" Plan is presented a direct, efficient solution of the single house allotment. The approach is direct and simple, instead of the usual contortion of walks and drives to reach front and back entrances and remote garage. The space wasted in the usual meaningless front and narrow side yards, and dismal rear yards, is concentrated directly about the living area of the house. The house plan may be similarly simplified with entrance, service and garage concentrated in one sector, while the remaining space is devoted to living purposes. An optical illusion gives one the impression that there are about half again as many houses in the "Normal" Plan than in the Swastika Grouping.

The eye craves rest and definition and the result, continuous uninterrupted line of house fronts is a mental nausea, just as our physical being would rebel from a continuous diet of baked-beans. This explains in part, at least, the unattractiveness of completely built up neigh-

borhoods causing the previously contented home owners to become restless and seek new and less developed locations. Some more pleasing form of allotment might go far toward correcting the moving evil.

But in such a novel plan our wise ones will find many objections with which to discourage the incipient Community Planner. We would be deprived of the pleasant odors of our neighbors breakfast, floating in from his nearby kitchen, or that occasional glimpse of his ablutions when the Florentined window stands ajar. Nor can "Martha-by-the-day" so readily "holler across" to "Bridget-by-the-week" (an almost extinct species) the gossip of last evenings dance. Enough! It is only for us to dream of such bold and dangerous experiments while the cautious ones continue to "strive to please" and bag the proceeds.

Four Family Dwellings

Allotment costs apart, experience amply demonstrates that a considerable saving in construction cost is found by the grouping of a number of dwellings under one roof. Perhaps the most efficient method of housing in which individuality of use for each family may be preserved, is to be found in the four family flat. In an effort to take advantage of this principle, but at the same time to improve the character and appearance of this type of dwelling the second group of studies were developed. The chief innovation was made in adopting a broad frontage plan. The author's ventures in this field have had the endorsement of the "trade" in that they have already been much appropriated (without thanks). In the building here illustrated, consisting of four rooms, arranged just as they would be in a cottage, it is possible to preserve complete individuality of front and rear entrance, basement, heater and laundry, and independent rear yard for each family.

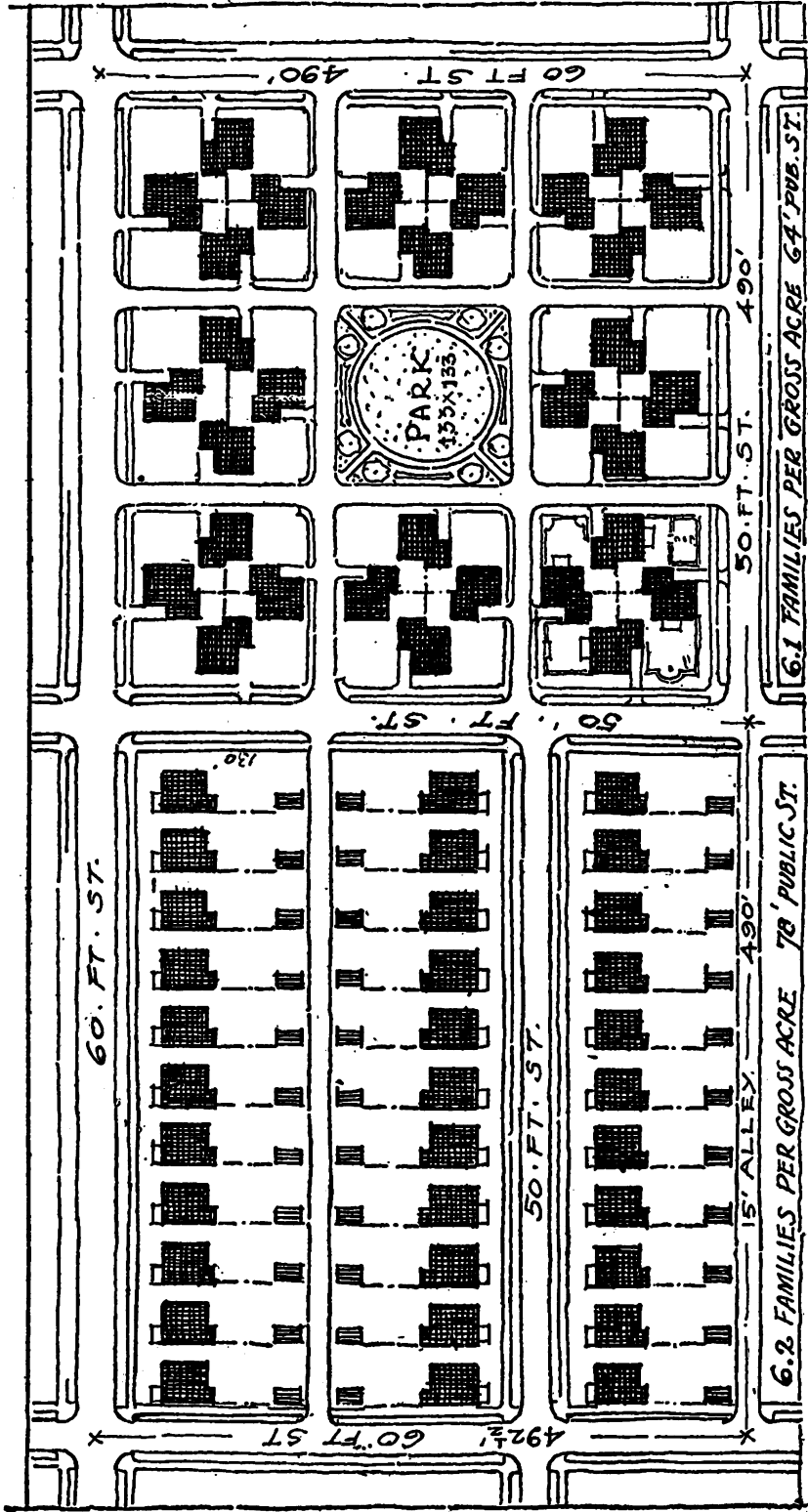
The cost of the building itself is about 25% less per family than a single cottage of similar size, but the difference between the two allotment plans including external accessories is proven by actual experience to be 33% in favor of the newer scheme.

However, the present interest lies in the fact that by a community grouping, the increased frontage can be gained with practically no increase in either land or public street use. Where a free use is made of the benefits of Community Planning every exposure of each unit may be free from any obstruction, and service yards and entrances may be grouped in the least obtrusive manner. A court of three buildings, similar in mass and relative setting, was achieved at Chester, in one of the war housing developments.

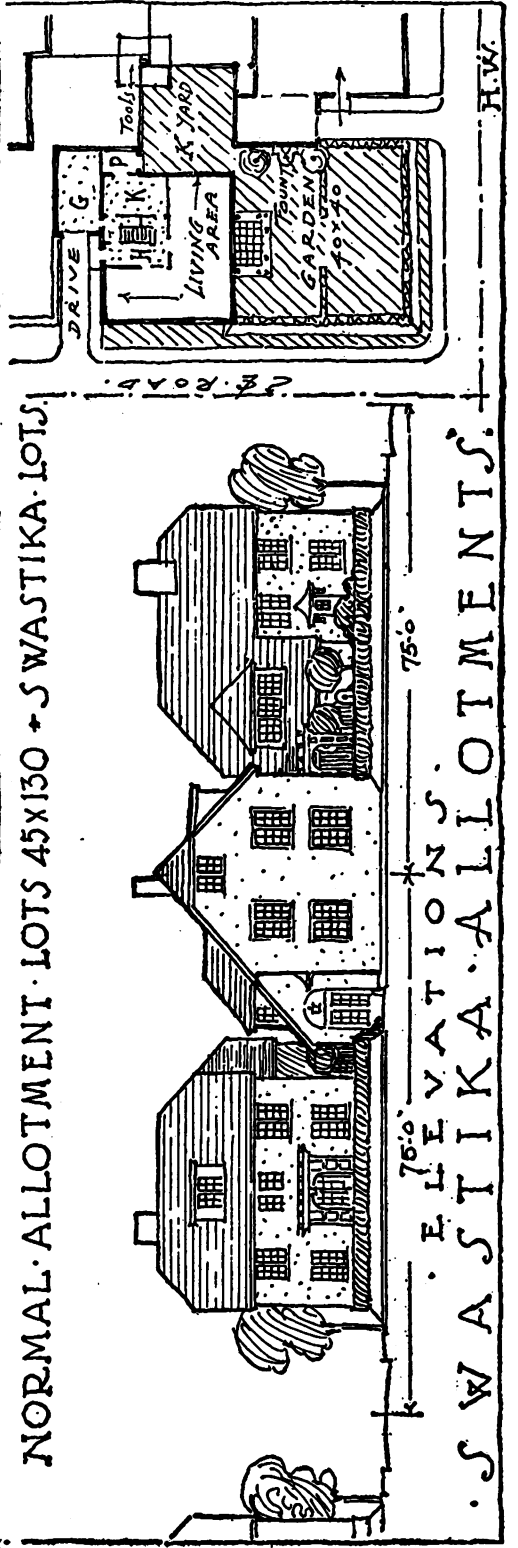
Swastika Cottages

In spite of certain other advantages in the group dwelling such as heating efficiency, it is doubtless desirable to make every possible effort to preserve the individual dwelling, especially for the wage earner (lucky fellow), whose duty it is to have a garden or raise chickens, if only

¹ Issued as a supplement to the Journal, August, 1920.



NORMAL ALLOTMENT LOTS 45X130 + S WASTIKA LOIS.



SHALL WE COMMUNITY PLAN?

to satisfy our civic enthusiasts. But it is the small cottager who is, under the present methods, most grievously ground between the nether mill stones of allotment extravagance and compound interest, to say nothing of the incidental increase in taxes. He, for the most part, is now provided with a narrow 20 ft. city lot, from which he shaves 3 ft. at one side to reach the rear entry. His rear yard resembles a bowling alley, although seldom so well employed.

To cure him of any attachment he may feel towards his attenuated dwelling, our faithful "Swastika" again comes in with a suggested arrangement which according to the good hymn will "Let a little sunshine in." In fact, if he will but forego his intimate association with the street, he can have his own "sure enough" house and a bit of a garden, and stay almost within the limit of the land use of the Four Family Flat, and with even a reduction of street requirement.

Let us realize however, that our highly independent wage earner will consider no such encroachment upon his just prerogatives in civic furnishings. But what a boon this plan might be to the erstwhile home owner, who has been driven by the maidless era into the narrow confines of the apartment. Can we not here install the folding bath tub, the disappearing bed, the breakfast alcove and the kitchenette which will delight the inured apartment dweller, and yet bring him back to earth where he will again forget the feel of the green-sward under his feet and may learn to recognize a rose outside a florist shop.

No doubt we are treading on dangerous ground, but the sense of adventure once aroused the Community Planner knows no bounds in inventing new and untried devices for the confusion of our wise and careful guardians of the proprieties of home building.

Shall we then return to "Normalcy," or—
SHALL WE COMMUNITY PLAN?

Community Planning

The foregoing suggestions may indicate some of the possibilities of Community Planning, not only as a pleasant diversion, but in the improvement of our methods of land allotment and building especially for those communities in which there is sufficient land more or less available for preserving the home as an individual entity directly related to the ground which it may occupy.

The opportunities for the continuation of this type of land use, even in cities of considerable size, is perhaps greater than we might sometimes be led to believe. An analysis, however, of the many underlying factors which must for long time control the operation of home production, will hardly bridge the yawning gap which lies between our present day agencies and that reorganization of society which would be necessary to make possible, even if found desirable, such a development of the entire community, as is suggested in Prof. Kern's recent presentation in the *JOURNAL* of the ideal city. Can we imagine our citizens at any very early period becoming mentally attuned to an existence in home life consisting of a series of living rooms and chambers arranged along interminable corridors, even though every room may have an outlook upon other interminable corridors of light, air and greenery with the principle of "push the button, we do the rest" carried to its final ultimatum?

However, it may be possible to make great strides in the art of home building and domestic economy, if we are prepared to accept two principles, which are already being forced upon a more or less unreceptive public.

First: We may assume that the building of homes must be more or less standardized, i. e., standardized in respect to their working parts, and in their relation to each other and to the community in matters of accessibility, heating, etc., though not necessarily standardized in architectural expression; and further that the operation of house building will be performed by agencies large enough for prompt and efficient production on a large scale.

Second: That the cost and availability of land is most generally a factor of less moment than the cost and manner of its development, and that the latter can be so improved as to still admit of a considerable latitude in the space which may be occupied by the housing units which compose a well ordered community. [What will keep the cost of the adjoining land from rising to such a level that to build at all still further economies of space will have to be practiced, still greater miracles of ingenuity will be demanded of the community planner? Instead of 6.1 families to the gross acre soon there will have to be 8.1 and then 10.1 and so on. Ed.]

Granted these two basic assumptions it is my thought that the city of the future should still afford opportunity for initiative and progression, with such encouragement for group development as may be shown to be advantageous to both the individual and the community. Else why have Architects or even Community Planning? Why not meet at once, decide upon definite final plans for everything and proceed as per schedule. Such was the fallacy of early City Planning, which has now given place to a more progressive method of procedure.

But a word as to the formulation of a City Plan for its residential areas which would encourage group planning and which would preserve the suitable environs of the home while reducing the burden of public maintenance. My conception of the ideal development of residential areas would take the general form of a broad toothed comb. Rather narrow areas of occupancy would be established on either side of a main avenue of service and communication along and adjacent to which would be shops and garages. Laid off at right angles with this would be areas of varying size, based upon natural subdivisions to be taken over as sites for group developments. Between these series of groups and more or less parallel to the line of principal communication, as determined to some extent by topography, would be strands of open territory in close relation to the residential groups. These areas would preserve, as far as possible, the natural landscape, except for providing sites for educational, recreational and community buildings, with playgrounds, and wherever possible including golf courses and other suitable features. Being largely unserved by utilities or other costly improvements, these areas would represent little more than the original land value, and would increase the utility plant only in such measure as might be necessary for lateral communication and circulation.

To offset this enlarged public area, (which however, will be increased less than might be imagined when we consider that from 30 to 40% of the present City is now devoted to

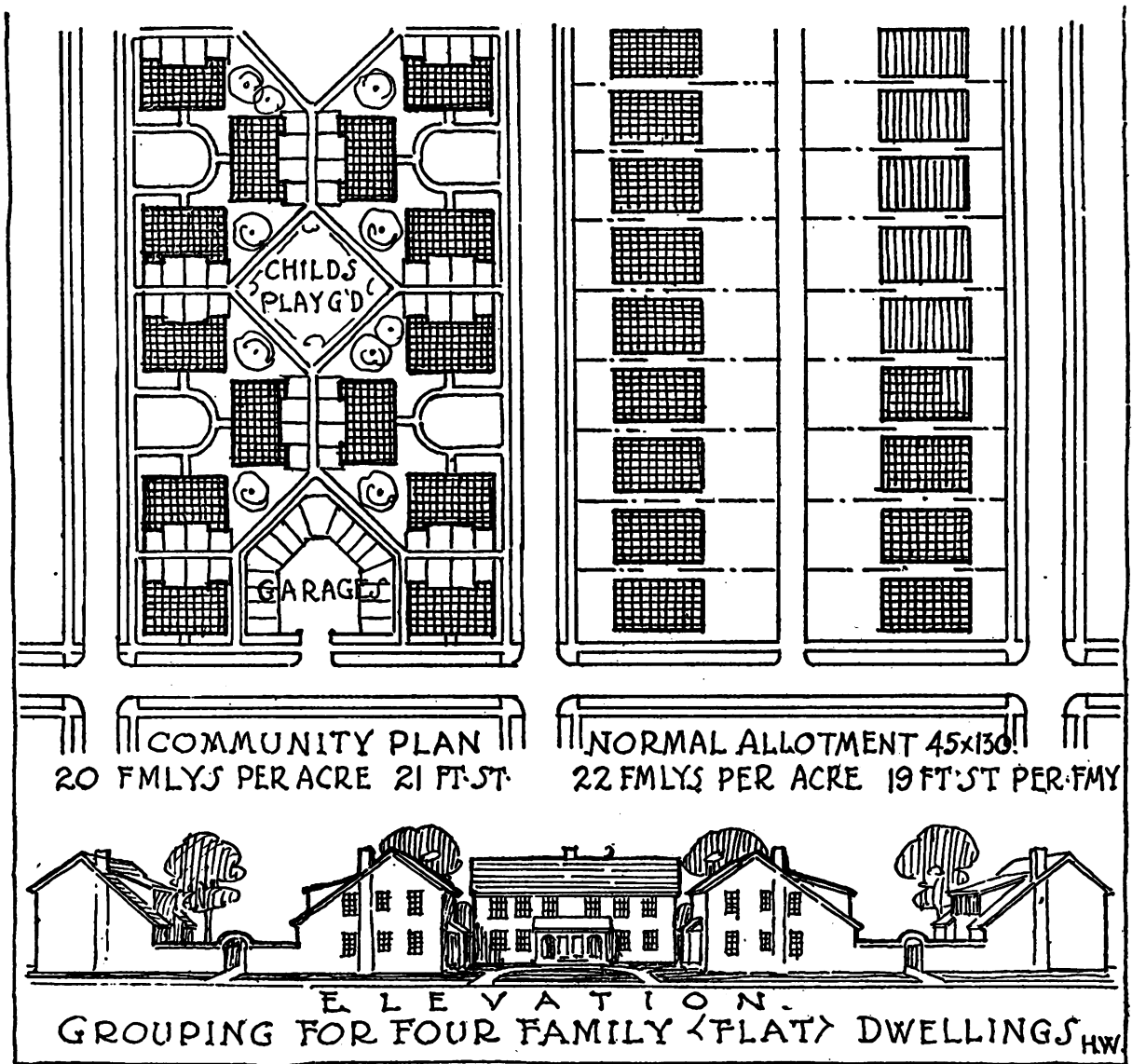
THE JOURNAL OF THE AMERICAN INSTITUTE OF ARCHITECTS

street space, a factor much reduced in the proposed plan), it would follow that the individual house units of any given class would be somewhat reduced in gross area occupied, by such means as have been illustrated in this article, and to whatever extent may be found compatible with ample light, air and outlook.

Such plans would necessarily require the adjustment of our present inequitable laws relating to the assessment of cost for street pavement and maintenance. But there

would remain a wholesome rivalry between those responsible for the advancement and desirability of the various residential groups the development of which would then maintain a degree of human interest and adaptability in the natural evolution of succeeding periods.

These rather desolatory ideas may, I trust, suggest something of the use and possibilities of Community Planning as an outlet for the Architect's responsibility to a public now groping in the dark reaches of our Housing Chaos.



An Appalachian Trail

A Project in Regional Planning

By BENTON MACKAYE

SOMETHING has been going on in this country during the past few strenuous years which, in the din of war and general upheaval, has been somewhat lost from the public mind. It is the slow quiet development of a special type of community—the recreation camp. It is something neither urban nor rural. It escapes the hecticness of the one, the loneliness of the other. And it escapes also the common curse of both—the high powered tension of the economic scramble. All communities face an “economic” problem, but in different ways. The camp faces it through co-operation and mutual helpfulness, the others through competition and mutual fleecing.

We civilized ones also, whether urban or rural, are potentially as helpless as canaries in a cage. The ability to cope with nature directly—unshielded by the weakening wall of civilization—is one of the admitted needs of modern times. It is the goal of the “scouting” movement. Not that we want to return to the plights of our Paleolithic ancestors. We want the strength of progress without its puniness. We want its conveniences without its fopperies. The ability to sleep and cook in the open is a good step forward. But “scouting” should not stop there. This is but a faint step from our canary bird existence. It should strike far deeper than this. We should seek the ability not only to cook food but to raise food with less aid—and less hindrance—from the complexities of commerce. And this is becoming daily of increasing practical importance. Scouting, then, has its vital connection with the problem of living.

A New Approach to the Problem of Living

The problem of living is at bottom an economic one. And this alone is bad enough, even in a period of so-called “normalcy.” But living has been considerably complicated of late in various ways—by war, by questions of personal liberty, and by “menaces” of one kind or another. There have been created bitter antagonisms. We are undergoing also the bad combination of high prices and unemployment. This situation is world wide—the result of a world-wide war.

It is no purpose of this little article to indulge in coping with any of these big questions. The nearest we come to such effrontery is to suggest more comfortable seats and more fresh air for those who have to consider them. A great professor once said that “optimism is oxygen.” Are we getting all the “oxygen” we might for the big tasks before us?

“Let us wait,” we are told, “till we solve this cussed labor problem. Then we’ll have the leisure to do great things.”

But suppose that while we wait the chance for doing them is passed?

It goes without saying we should work upon the labor problem. Not just the matter of “capital and labor” but the *real* labor problem—how to reduce the day’s

drudgery. The toil and chore of life should, as labor saving devices increase, form a diminishing proportion of the average day and year. Leisure and the higher pursuits will thereby come to form an increasing proportion of our lives.

But will leisure mean something “higher”? Here is a question indeed. The coming of leisure in itself will create its own problem. As the problem of labor “solves,” that of leisure arises. There seems to be no escape from problems. We have neglected to improve the leisure which should be ours as a result of replacing stone and bronze with iron and steam. Very likely we have been cheated out of the bulk of this leisure. The efficiency of modern industry has been placed at 25 per cent of its reasonable possibilities. This may be too low or too high. But the leisure that we do succeed in getting—is this developed to an efficiency much higher?

The customary approach to the problem of living relates to work rather than play. Can we increase the efficiency of our *working* time? Can we solve the problem of labor? If so we can widen the opportunities for leisure. The new approach reverses this mental process. Can we increase the efficiency of our *spare* time? Can we develop opportunities for leisure as an aid in solving the problem of labor?

An Undeveloped Power—Our Spare Time

How much spare time have we, and how much power does it represent?

The great body of working people—the industrial workers, the farmers, and the housewives—have no allotted spare time or “vacations.” The business clerk usually gets two weeks’ leave, with pay, each year. The U. S. Government clerk gets thirty days. The business man is likely to give himself two weeks or a month. Farmers can get off for a week or more at a time by doubling up on one another’s chores. Housewives might do likewise.

As to the industrial worker—in mine or factory—his average “vacation” is all too long. For it is “leave of absence *without* pay.” According to recent official figures the average industrial worker in the United States, during normal times, is employed in industry about four fifths of the time—say 42 weeks in the year. The other ten weeks he is employed in seeking employment.

The proportionate time for true leisure of the average adult American appears, then, to be meagre indeed. But a goodly portion have (or take) about two weeks in the year. The industrial worker during the estimated ten weeks between jobs must of course go on eating and living. His savings may enable him to do this without undue worry. He could, if he felt he could spare the time from job hunting, and if suitable facilities were provided, take two weeks of his ten on a real vacation. In one way or another, therefore, the average adult in this country could

devote each year a period of about two weeks in doing the things of his own choice.

Here is enormous undeveloped power—the spare time of our population. Suppose just one percent of it were focused upon one particular job, such as increasing the facilities for the outdoor community life. This would be more than a million people, representing over two million weeks a year. It would be equivalent to 40,000 persons steadily on the job.

A Strategic Camping Base—The Appalachian Skyline

Where might this imposing force lay out its camping ground?

Camping grounds, of course, require wild lands. These in America are fortunately still available. They are in every main region of the country. They are the undeveloped or under-developed areas. Except in the Central States the wild lands now remaining are for the most part among the mountain ranges—the Sierras, the Cascades, and Rocky Mountains of the West and the Appalachian Mountains of the East.

Extensive national playgrounds have been reserved in various parts of the country for use by the people for camping and kindred purposes. Most of these are in the West where Uncle Sam's public lands were located. They are in the Yosemite, the Yellowstone, and many other National Parks—covering about six million acres in all. Splendid work has been accomplished in fitting these Parks for use. The National Forests, covering about 130 million acres—chiefly in the West—are also equipped for public recreation purposes.

A great public service has been started in these Parks and Forests in the field of outdoor life. They have been called "playgrounds of the people." This they are for the Western people—and for those in the East who can afford time and funds for an extended trip in a Pullman car. But camping grounds to be of the most use to the people should be as near as possible to the center of population. And this is in the East.

It fortunately happens that we have throughout the most densely populated portion of the United States a fairly continuous belt of under-developed lands. These are contained in the several ranges which form the Appalachian chain of mountains. Several National Forests have been purchased in this belt. These mountains, in several ways rivalling the western scenery, are within a day's ride from centers containing more than half the population of the United States. The region spans the climates of New England and the cotton belt; it contains the crops and the people of the North and of the South.

The skyline along the top of the main divides and ridges of the Appalachians would overlook a mighty part of the nation's activities. The rugged lands of this skyline would form a camping base strategic in the country's work and play.

Seen from the Skyline

Let us assume the existence of a giant standing high on the skyline along these mountain ridges, his head just scraping the floating clouds. What would he see from this skyline as he strode along its length from north to south?

Starting out from Mt. Washington, the highest point in the northeast, his horizon takes in one of the original happy hunting grounds of America—the "Northwoods," a country of pointed firs extending from the lakes and rivers of northern Maine to those of the Adirondacks. Stepping across the Green Mountains and the Berkshires to the Catskills he gets his first view of the crowded east—a chain of smoky bee-hive cities extending from Boston to Washington and containing a third of the population of the Appalachian drained area. Bridging the Delaware Water Gap and the Susquehanna on the picturesque Allegheny folds across Pennsylvania he notes more smoky columns—the big plants between Scranton and Pittsburgh that get out the basic stuff of modern industry—iron and coal. In relieving contrast he steps across the Potomac near Harpers Ferry and pushes through into the wooded wilderness of the Southern Appalachians where he finds preserved much of the primal aspects of the days of Daniel Boone. Here he finds, over on the Monongahela side, the black coal of bituminous and the white coal of water power. He proceeds along the great divide of the upper Ohio and sees flowing to waste, sometimes in terrifying floods, waters capable of generating untold hydro-electric energy and of bringing navigation to many a lower stream. He looks over the Natural Bridge and out across the battle fields around Appomattox. He finds himself finally in the midst of the great Carolina hardwood belt. Resting now on the top of Mt. Mitchell, highest point east of the Rockies, he counts up on his big long fingers the opportunities which yet await development along the skyline he has passed.

First he notes the opportunities for recreation. Throughout the Southern Appalachians, throughout the Northwoods, and even through the Alleghenies that wind their way among the smoky industrial towns of Pennsylvania, he recollects vast areas of secluded forests, pastoral lands, and water courses, which, with proper facilities and protection, could be made to serve as the breath of a real life for the toilers in the bee-hive cities along the Atlantic seaboard and elsewhere.

Second, he notes the possibilities for health and recuperation. The oxygen in the mountain air along the Appalachian skyline is a natural resource (and a national resource) that radiates to the heavens its enormous health-giving powers with only a fraction of a percent utilized for human rehabilitation. Here is a resource that could save thousands of lives. The sufferers from tuberculosis, anemia, and insanity go through the whole strata of human society. Most of them are helpless, even those economically well off. They occur in the cities and right in the skyline belt. For the farmers, and especially the wives of farmers, are by no means escaping the grinding-down process of our modern life.

Most sanitariums now established are perfectly useless to those afflicted with mental disease—the most terrible, usually, of any disease. Many of these sufferers could be cured. But not merely by "treatment." They need comprehensive provision made for them. They need acres not medicine. Thousands of acres of this mountain land should be devoted to them with whole communities planned and equipped for their cure.

Next after the opportunities for recreation and recuperation our giant counts off, as a third big resource, the op-

AN APPALACHIAN TRAIL

portunities in the Appalachian belt for employment on the land. This brings up a need that is becoming urgent—the redistribution of our population, which grows more and more top heavy.

The rural population of the United States, and of the Eastern States adjacent to the Appalachians, has now dipped below the urban. For the whole country it has fallen from 60 per cent of the total in 1900 to 49 per cent in 1920; for the Eastern States it has fallen, during this period, from 55 per cent to 45 per cent. Meantime the per capita area of improved farm land has dropped, in the Eastern States, from 3.35 acres to 2.43 acres. This is a shrinkage of nearly 18 percent in 20 years; in the States from Maine to Pennsylvania the shrinkage has been 40 per cent.

There are in the Appalachian belt probably 25 million acres of grazing and agricultural land awaiting development. Here is room for a whole new rural population. Here is an opportunity—if only the way can be found—for that counter migration from city to country that has so long been prayed for. But our giant in pondering on this resource is discerning enough to know that its utilization is going to depend upon some new deal in our agricultural system. This he knows if he has ever stooped down and gazed in the sunken eyes either of the Carolina “cracker” or of the Green Mountain “hayseed.”

Forest land as well as agricultural might prove an opportunity for steady employment in the open. But this again depends upon a new deal. Forestry must replace timber devastation and its consequent hap-hazard employment. And this the giant knows if he has looked into the rugged face of the homeless “don’t care a damn” lumberjack of the Northwoods.

Such are the outlooks—such the opportunities—seen by a discerning spirit from the Appalachian skyline.

Possibilities in the New Approach

Let’s put up now to the wise and trained observer the particular question before us. What are the possibilities in the new approach to the problem of living? Would the development of the outdoor community life—as an offset and relief from the various shackles of commercial civilization—be practicable and worth while? From the experience of observations and thoughts along the sky-line here is a possible answer:

There are several possible gains from such an approach.

First there would be the “oxygen” that makes for a sensible optimism. Two weeks spent in the real open—right now, this year and next—would be a little real living for thousands of people which they would be sure of getting before they died. They would get a little fun as they went along regardless of problems being “solved.” This would not damage the problems and it would help the folks.

Next there would be perspective. Life for two weeks on the mountain top would show up many things about life during the other fifty weeks down below. The latter could be viewed as a whole—away from its heat, and sweat, and irritations. There would be a chance to catch a breath, to study the dynamic forces of nature and the possibilities of shifting to them the burdens now carried on the backs of men. The reposeful study of these forces should provide a broad gauged enlightened approach to the problems of

industry. Industry would come to be seen in its true perspective—as a means in life and not as an end in itself. The actual partaking of the recreative and non-industrial life—systematically by the people and not spasmodically by a few—should emphasize the distinction between it and the industrial life. It should stimulate the quest for enlarging the one and reducing the other. It should put new zest in the labor movement. Life and study of this kind should emphasize the need of going to the roots of industrial questions and of avoiding superficial thinking and rash action. The problems of the farmer, the coal miner, and the lumberjack could be studied intimately and with minimum partiality. Such an approach should bring the poise that goes with understanding.

Finally there would be new clues to constructive solutions. The organization of the cooperative camping life would tend to draw people out of the cities. Coming as visitors they would be loath to return. They would become desirous of settling down in the country—to *work* in the open as well as *play*. The various camps would require food. Why not raise food, as well as consume it, on the cooperative plan? Food and farm camps should come about as a natural sequence. Timber also is required. Permanent small scale operations could be encouraged in the various Appalachian National Forests. The government now claims this as a part of its forest policy. The camping life would stimulate forestry as well as a better agriculture. Employment in both would tend to become enlarged.

How far these tendencies would go the wisest observer of course can not tell. They would have to be worked out step by step. But the tendencies at least would be established. They would be cutting channels leading to constructive achievement in the problem of living: they would be cutting across those now leading to destructive blindness.

A Project for Development

It looks, then, as if it might be worth while to devote some energy at least to working out a better utilization of our spare time. The spare time for one per cent of our population would be equivalent, as above reckoned, to the continuous activity of some 40,000 persons. If these people were on the skyline, and kept their eyes open, they would see the things that the giant could see. Indeed this force of 40,000 would be a giant in itself. It could walk the skyline and develop its varied opportunities. And this is the job that we propose: a project to develop the opportunities—for recreation, recuperation, and employment—in the region of the Appalachian skyline.

The project is one for a series of recreational communities throughout the Appalachian chain of mountains from New England to Georgia, these to be connected by a walking trail. Its purpose is to establish a base for a more extensive and systematic development of outdoor community life. It is a project in housing and community architecture.

No scheme is proposed in this particular article for organizing or financing this project. Organizing is a matter of detail to be carefully worked out. Financing depends upon local public interest in the various localities affected.

Features of Project

There are four chief features of the Appalachian project:

1. *The Trail*—

The beginnings of an Appalachian trail already exist. They have been established for several years—in various localities along the line. Specially good work in trail building has been accomplished by the Appalachian Mountain Club in the White Mountains of New Hampshire and by the Green Mountain Club in Vermont. The latter association has built the “Long Trail” for 210 miles through the Green Mountains—four fifths of the distance from the Massachusetts line to the Canadian. Here is a project that will logically be extended. What the Green Mountains are to Vermont the Appalachians are to eastern United States. What is suggested, therefore, is a “long trail” over the full length of the Appalachian skyline, from the highest peak in the north to the highest peak in the south—from Mt. Washington to Mt. Mitchell.

The trail should be divided into sections, each consisting preferably of the portion lying in a given State, or subdivision thereof. Each section should be in the immediate charge of a local group of people. Difficulties might arise over the use of private property—especially that amid agricultural lands on the crossovers between ranges. It might sometimes be necessary to obtain a State franchise for the use of rights of way. These matters could readily be adjusted, provided there is sufficient local public interest in the project as a whole. The various sections should be under some form of general federated control, but no suggestions regarding this form are made in this article.

Not all of the trail within a section could, of course, be built at once. It would be a matter of several years. As far as possible the work undertaken for any one season should complete some definite usable link—as up or across one peak. Once completed it should be immediately opened for local use and not wait on the completion of other portions. Each portion built should, of course, be rigorously maintained and not allowed to revert to disuse. A trail is as serviceable as its poorest link.

The trail could be made, at each stage of its construction, of immediate strategic value in preventing and fighting forest fires. Lookout stations could be located at intervals along the way. A forest fire service could be organized in each section which should tie in with the services of the Federal and State Governments. The trail would become immediately a battle line against fire.

A suggestion for the location of the trail and its main branches is shown on the accompanying map.

2. *Shelter Camps*—

These are the usual accompaniments of the trails which have been built in the White and Green Mountains. They are the trail's equipment for use. They should be located at convenient distances so as to allow a comfortable day's walk between each. They should be equipped always for sleeping and certain of them for serving meals—after the fashion of the Swiss chalets. Strict regulation is essential to provide that equipment is used and not abused. As far as possible the blazing and constructing of the trail and building of camps should be done by volunteer workers. For volunteer “work” is really “play.” The spirit of

cooperation, as usual in such enterprises, should be stimulated throughout. The enterprise should, of course, be conducted without profit. The trail must be well guarded—against the yegg-man, and against the profiteer.

3. *Community Camps*—

These would grow naturally out of the shelter camps and inns. Each would consist of a little community on or near the trail (perhaps on a neighboring lake) where people could live in private domiciles. Such a community might occupy a substantial area—perhaps a hundred acres or more. This should be bought and owned as a part of the project. No separate lots should be sold therefrom. Each camp should be a self-owning community and not a real estate venture. The use of the separate domiciles, like all other features of the project, should be available without profit.

These community camps should be carefully planned in advance. They should not be allowed to become too populous and thereby defeat the very purpose for which they are created. Greater numbers should be accommodated by *more* communities, not *larger* ones. There is room, without crowding, in the Appalachian region for a very large camping population. The location of these community camps would form a main part of the regional planning and architecture.

These communities would be used for various kinds of non-industrial activity. They might eventually be organized for special purposes—for recreation, for recuperation, and for study. Summer schools or seasonal field courses could be established and scientific travel courses organized and accommodated in the different communities along the trail. The community camp should become something more than a mere “playground”; it should stimulate every possible line of outdoor non-industrial endeavor.

4. *Food and Farm Camps*

These might not be organized at first. They would come as a later development. The farm camp is the natural supplement of the community camp. Here in the same spirit of cooperation and well ordered action the food and crops consumed in the outdoor living would as far as practicable be sown and harvested.

Food and farm camps could be established as special communities in adjoining valleys. Or they might be combined with the community camps by the inclusion of surrounding farm lands. Their development would provide tangible opportunity for working out by actual experiment a fundamental matter in the problem of living. It would provide one definite avenue of experiment in getting “back to the land.” It would provide an opportunity for those anxious to settle down in the country; it would open up a possible source for new, and needed, employment. Communities of this type are illustrated by the Hudson Guild Farm in New Jersey.

Fuelwood, logs, and lumber are other basic needs of the camps and communities along the trail. These also might be grown and forested as part of the camp activity, rather than bought in the lumber market. The nucleus of such an enterprise has already been started at Camp Tamiment, Pennsylvania, on a lake not far from the proposed route of the Appalachian trail. This camp has been established

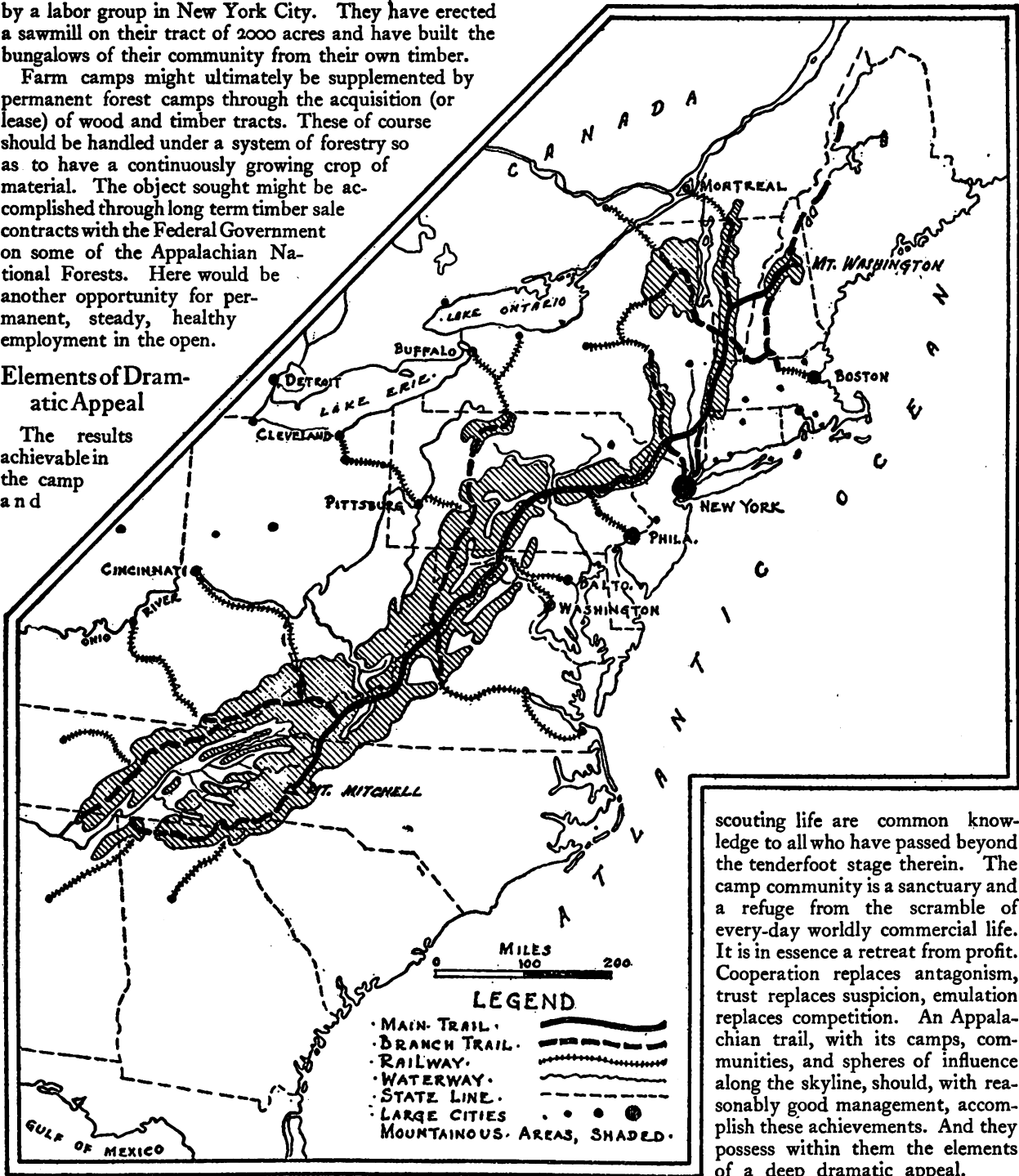
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by a labor group in New York City. They have erected a sawmill on their tract of 2000 acres and have built the bungalows of their community from their own timber.

Farm camps might ultimately be supplemented by permanent forest camps through the acquisition (or lease) of wood and timber tracts. These of course should be handled under a system of forestry so as to have a continuously growing crop of material. The object sought might be accomplished through long term timber sale contracts with the Federal Government on some of the Appalachian National Forests. Here would be another opportunity for permanent, steady, healthy employment in the open.

Elements of Dramatic Appeal

The results achievable in the camp and



scouting life are common knowledge to all who have passed beyond the tenderfoot stage therein. The camp community is a sanctuary and a refuge from the scramble of every-day worldly commercial life. It is in essence a retreat from profit. Cooperation replaces antagonism, trust replaces suspicion, emulation replaces competition. An Appalachian trail, with its camps, communities, and spheres of influence along the skyline, should, with reasonably good management, accomplish these achievements. And they possess within them the elements of a deep dramatic appeal.

SUGGESTED LOCATION OF APPALACHIAN TRAIL

Main line from Mt. Washington to Mt. Mitchell. Large cities are tapped through branch lines and certain railways. Area shown contains more than half the population of the United States and over one third the population of Canada. Cities shown comprise all metropolitan centers over 100,000, relative population being indicated by size of dot. Thirty six of these centers, including a third of the area's population, are from one to eight hours ride from the trail system. Centers named are those of more than 400,000.

Indeed the lure of the scouting life can be made the most formidable enemy of the lure of militarism (a thing with which this country is menaced along with all others). It comes the nearest perhaps, of things thus far projected, to supplying what Professor James once called a "moral equivalent of war." It appeals to the primal instincts of a fighting heroism, of volunteer service and of work in a common cause.

These instincts are pent up forces in every human and they demand their outlet. This is the avowed object of the boy scout and girl scout movement, but it should not be limited to juveniles.

The building and protection of an Appalachian trail, with its various communities, interests, and possibilities, would form at least one outlet. Here is a job for 40,000 souls. This trail could be made to be, in a very literal sense, a battle line against fire and flood—and even against disease. Such battles—against the common enemies of man—still lack, it is true, the "punch" of man vs. man. There is but one reason—publicity. Militarism has been made colorful in a world of drab. But the care of the country side, which the scouting life instills, is vital in any real protection of "home and country." Already basic it can be made spectacular. Here is something to be dramatized.

The Land Question as Related to City Planning and Housing

By GEORGE HERBERT GRAY

AT THE recent Convention of the American Institute of Architects in Washington and the Conference of City Planners at Pittsburgh the discussions at many points turned on the land question in its relation to City Planning. Conspicuous among these discussions was one on the possible public ownership or control of city land, the promulgation of proper standards for the limitation of density of population in the residential districts of cities, and on the limitation of the height of buildings as related to the traffic capacity of the streets. All these discussions bear on the one question of the economic use of all the land within the confines of our cities, that used for streets, parks and other open spaces, and that used for buildings and other structures. This article is an attempt at reconciling apparently divergent opinions by considering the limitations of the application of the various ideas advanced in the discussions cited.

Communities begin first with the land and then with the buildings. It was said not many years ago, and generally accepted as true, that the street system is the crux and the starting point of city planning. That is almost true as stated, but I think the time has come when it should be emphasized that the street system forms the logical point of departure for City Planning only to the extent that the streets define the built-up areas and to the extent that the streets are in logical proportion to the density of the population of the built-up areas which they enclose. In other words, that the proper use of built-up areas constitutes the original point of departure for City Planning. Stated in a different form, it may be said that our cities are made up, physically speaking, of groups of buildings used for specialized purposes, with thorough-fares serving as connections between them. The buildings exist to house the various activities of the people in commercial life and in the home life, which activities are the "raison d'être" of the community. The land of the city has its value because of its location and has ceased to have value because of its productivity. Buildings are not built for the purpose of completing the functions of the street, but the streets are projected in advance of the buildings and in anticipation of the natural growth of the population and activities to be housed. Therefore thorough-fares exist primarily to afford means of communication between

buildings and other developments on the land, and the disposition of the land for the proper functioning of the buildings becomes the fundamental consideration in planning. The thoroughfares must be proportioned to the uses exacted by the buildings. The determination of the proper type and disposition of buildings should be the great contribution to City Planning by the architectural profession.

Land and its Values

Land has its greatest value, generally speaking, when available for purposes commercial, and land for purposes residential increases in value in proportion to its proximity to commerce, except when the commerce is such as to be in the nature of a nuisance, either because of noise, smells, smoke, shutting off of air and light, the interference with privacy, or for other similar reasons. In other words there is ordinarily in and about cities a limited supply of favorably located land which is more sought after than the general supply and the law of supply and demand operates to advance the price of the limited supply. This is elementary and well enough so far as it goes. Complications arise, however, when the growth of the community separates by appreciable distances one part of the town from another, and when the time approaches that a limited supply of land for special purposes is about to be exhausted and some new areas must be developed to supply this demand. In this latter case certain individuals, blessed with more perspicacity and less conscience than others, corner the remaining small supply and put up the price to artificial heights, while certain others develop, for the purposes in question, land heretofore used for less profitable purposes. Also with growth the village streets become inadequate for the city and seriously congested; and are used intensely to avoid moving to more distant places.

Even under the existing adverse conditions, in most of our cities, the cost of land in residential districts is but a small portion of the total cost of the property development. Real estate men recognize that the grounds and the developed utilities in connection therewith (streets, sewers, water, lights) should, for good investment, ordinarily be about one-fifth of the value of the complete development of

LAND QUESTION AS RELATED TO CITY PLANNING AND HOUSING

grounds, houses and all the other improvements.¹ Under favorable conditions of planning the developed ground is divided between the raw ground and the developed utilities in a proportion of from 55 to 60% for the raw ground, to 45 or 40% for utilities. Under less favorable conditions of development the proportion of the improvements is higher and that of the land is less; for convenience we may put the average as high as 50%, or one-half.² Rent includes not only the capitalization of the ground and building themselves, but general maintenance, insurance, obsolescence, commonly figured at about 40%, leaving 60% for the cost of building and ground. These figures give the following results:

Rent = 100%
Proportion of Rent due to cost of building and grounds = (Less maintenance, etc.) 60%
Land and utilities = 1-5 of Building and Grounds, or 12%
Raw Land = 1-2 of Land and Utilities, or 6%

These are only approximate average figures but close enough to make it evident that the raw land is not, under normal conditions, a factor of major importance in residential properties.

In commercial developments, the proximity of the harbor, rail, trucking highways and the local markets determine the location of industries and have a direct bearing on the cost of buying, marketing and selling the finished product. Therefore, the proportion of investment which any enterprise may be warranted in putting into land is not subject to easy generalization. Retail commerce, including the occupants of the office buildings, seeks locations convenient to wholesale business and to the residential district. Hotels and apartment houses have similar ties and limitations in their locations. In Manhattan some of the site values run as high as 60% of the investment, but since the day when this land was used for agricultural purposes, the amount of taxes which have gone into the highly complicated municipal development and upkeep is largely responsible for the existing advantages of the location and has a bearing on present conditions. Residential areas which are being encroached upon by commercial interests will be considered later in connection with "transitional" areas.

General Means of Control

The procedure of forcing prices is obviously not a constructive one and puts on the occupants an unnecessary burden of rent. It is equally obvious that the procedure of throwing new areas into the market is logical and constructive in its essential features, but, unfortunately, it is usually handled in an uneconomical manner. The cure for the procedure of forcing prices lies in the opening up of new areas under proper control, thus increasing the supply. This control is in some cases adequately furnished by Zoning³ alone and in some cases it calls for modifications and extensions of the street plan and of traffic facilities.

¹The operation of this principle is well stated by Brigham in the *Atlantic Monthly*, Mar. 1921.

²Henry Wright makes an interesting analysis of this subject in "Platting City Areas for Small Houses"—Supplement to *Journal Amer. Inst. Architects*, August, 1920.

³Zoning, as commonly practiced in this country, consists of subdividing the area of the city or other community into districts or neighborhoods and prohibiting in any of those districts further building or other improvements which would be to the detriment of existing improvements.

The control of City planning may be made operative as follows: When a shortage of space for certain uses develops in a community, one of several things may happen. (A) If a very progressive City Planning policy has been adopted, new centers in outlying districts may be developed for the use in question, thus supplying a greater amount of land under economical conditions. (B) If the street system and the city's development are radial in disposition, the Zoning Districts may take the form of sectors, so that they may expand without encroachment upon districts already set aside for other uses. (C) If the Zoning Districts are in the nature of geometrical zones then the expansion of one means an encroachment upon others, commerce encroaching upon residential districts, with the outlying residential districts encroaching upon the agricultural area, transitional areas and the blight of transition resulting. Under these circumstances Zoning can lessen the extent of the blight due to transition, and also its duration, by modifying the Zoning regulations so as to affect at any one time only areas of such extent as can be quickly absorbed by the new use, thus protecting a greater area for a longer period in its original use. These methods of control we will now take up separately.

First we will consider the control of the transformation of agricultural land, or raw land, to urban land. Chiefly from necessity and partly from choice, the great mass of the urban population seek a residential location as close to their work as possible. This creates a special demand for land in certain favored localities. So all who own agricultural land adjoining the city are looking for the favorable opportunity to develop it and supply the increasing demand for residential sites or for industrial expansion. In the competition to get in the market ahead of their neighbors such owners commonly stake off their land and cease to use it for agricultural purposes faster than it can be absorbed for its destined purposes and, as a rule, in a most unintelligent manner. This competition in meeting the demand for land has the effect of keeping the price at a low figure; but on the other hand, as has already been stated, the years of idleness must be charged into the ultimate price of the land and in many cases this accumulation becomes a very appreciable figure. For this situation there has as yet been put into effect no remedy which is complete, but a partial and very practical remedy, not as common as it should be, is found where an official city plan is established, projected well out into the future territory of the city, with the understanding that only streets conforming to this plan will be accepted by the City and provided with utilities, such as sewers, water, light and with protection by the Police and Fire Departments, and further that the Zoning ordinance will permit residential buildings only in certain areas. Under such control much property which is unsuitable but would otherwise come into the market is kept out and remains in use for agricultural purposes. This method of control is capable of wide application and may be made to relieve much of the present trouble. Such control tends to encourage permanent development companies to undertake large projects planned in harmony with the City's plan and on an economical and rational basis. When beyond the corporate limits of the City they can even construct

their own public utilities and this can be done in such a manner that they can be taken over by the City when the time arrives. Such development of large areas on scientific lines by private enterprise constitutes a second means of overcoming uneconomical development. Co-operative ownership of such development tends still further to eliminate the element of speculation and may be counted as a third means of reducing the price to the ultimate owner.

The transformation of land within the city from one use to another is typified by the example found in "Greenwich Village", New York, which by the Zoning Law has been protected from the threatened blight of commercial encroachment, and owners are now with confidence improving their houses for the residential purpose for which they were built and no speculative price is added to the land due to prospective change to commercial use. The price is based on what it will yield today in a market of open competition. The same is true in "Turtle Bay" and other districts, formerly with an uncertain but speculative future. If on Manhattan Island, the most congested urban district in the western civilized world, such control is operative, we must admit the efficacy of the method by which it is brought about, so that even where there is a strong tendency against the operation of the normal proportion between the raw land and the total investment, control may be had which will reduce, if not entirely overcome, the abnormal tendency.

As on the outskirts of the City transitional use of property brings about uneconomic results, when enlightened private enterprise and City Planning (through Zoning and the Street Plan) do not enter to control, so in the older section of the City transitional uses are largely responsible for overcrowding, which can be cured only by changes in the traffic facilities and the city plan itself. Such neighborhoods as are in a period of transition are not, economically speaking, residential neighborhoods. In such neighborhoods, because of the surroundings that have grown up about them, spacious private residences having long since paid for the original investment, are abandoned by their original occupants and, pending developments for commercial purposes, are remodelled to provide an increased number of rooms. The changes represent a small investment of capital. Although the price of the land may be high compared with the cost of the buildings, the more intensive use of the land often makes it possible to obtain a reasonable return on the assessed valuation. These transitional "improvements" fall into the class often styled "tax-payers." The investment is particularly good when we take into consideration the probability of the increased value of land in the future. Even in the slum districts it is at times possible to erect, on a paying basis, new tenement buildings and provide a sinking fund to take care of their obsolescence in a relatively short transitional period. How can this be done in competition with tenements erected on cheaper ground in the outlying districts? Because the old neighborhood is near the places of work and the new one separated by a distance which represents time and carfare. The situation can be relieved (a) by a change in the location of the places of work or industrial centers, or (b) by increased transportation facilities between house and place of work.

Industrial centers may also shift automatically, but it is important that adequate control be exercised in connection with the shift. Today many workmen are making their daily journey to and from their homes in New York and their work on Long Island. Many of the factories there located developed after the beginning of the war in Europe when the high cost of building prohibited house building, and mayhap some of their workers are those who are temporarily out of employment in their New York factories and are, in the interim, working on the Long Island truck-farms. In any event it is safe to say that it is but a temporary situation which will find its solution in the erection of workmen's homes on Long Island so soon as the building market permits. In that a new industrial center, by the automatic working of the law of supply and demand, has been created the residential element will follow to complete a "Satellite City." These must ultimately have all the elements of a City. Then why crowd up so close to New York? For the purely accidental reason that official New York has not adequately mapped out her future growth and given publicity to this knowledge for the guidance of all concerned. The failure will lead to future congestion and speculative values.

What is true of the cheaper and average residential districts is also true of higher priced residential districts—proximity to business accounts for a saving of time, money, and all the nervous wear and tear incident to commuting. In proportion as the supply is limited, property for private residences brings higher prices and, other things being equal, the more intensive the use the higher the price. In New York City there are tendencies conspicuously at work which are automatically operating to check the continuous rise of prices. First the automobile is leading an increasing proportion of the wealthier element of the population to develop all-the-year-round country places. Secondly, apartment houses in the suburbs are reducing the terrors of the suburban servant question, and the local picture shows make the servant more content to be there. The auto, added to other transportation facilities, is making the suburbs more available, and more than that, the lure of the auto for itself is leading many with limited income to the suburbs where the prohibitive price of the city garage does not exist. In other words, a far greater residential area is being brought within easy distance of the commercial districts.

Developments in commercial districts are even more obvious than in residential districts. The extreme conditions in New York also afford an excellent opportunity to study the relation between property values, thoroughfares and congestion. The first sky-scraper district of New York grew up about the focal center of the surface-car, the ferries, the Brooklyn Bridge and the West Side and East Side elevated roads. From the start it is evident that the nearer the building to the focal center of traffic, the greater the possible number of tenants available for any given office building. All too slowly it has become evident that those coming in from Jersey on the lower ferries, or from Harlem, on the West Side "L" have little or nothing to gain by crowding in toward the focal center, leaving undeveloped those properties with unobstructed outlook over the western water front. The same is true to a less

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degree of the eastern water front. It is interesting to note the shifting of the skyscrapers to the west as the opening of the Hudson Tube shifted the focal center of traffic in that direction. This is diagrammatically illustrated in Figure I.

These new rapid transit lines made lower Manhattan convenient to larger residential areas. Indefinite increase in congestion was checked by the opening of the Pennsylvania Railroad Terminal connecting upper Manhattan with the great existing and potential districts of New Jersey and Long Island and by the development of the

Grand Central Terminal, facilitating access from the north. These terminals permanently established the hotel district, which carried with it the shopping and the theater districts, and branches of the great banks, Office buildings naturally followed and finally, with the increasing activities of this center, even the headquarters of great financial houses are beginning to locate there. The zoning of the city gave further stability to the character of the district.

But before this check on the rapid development of lower Manhattan property set in, an interesting situation had

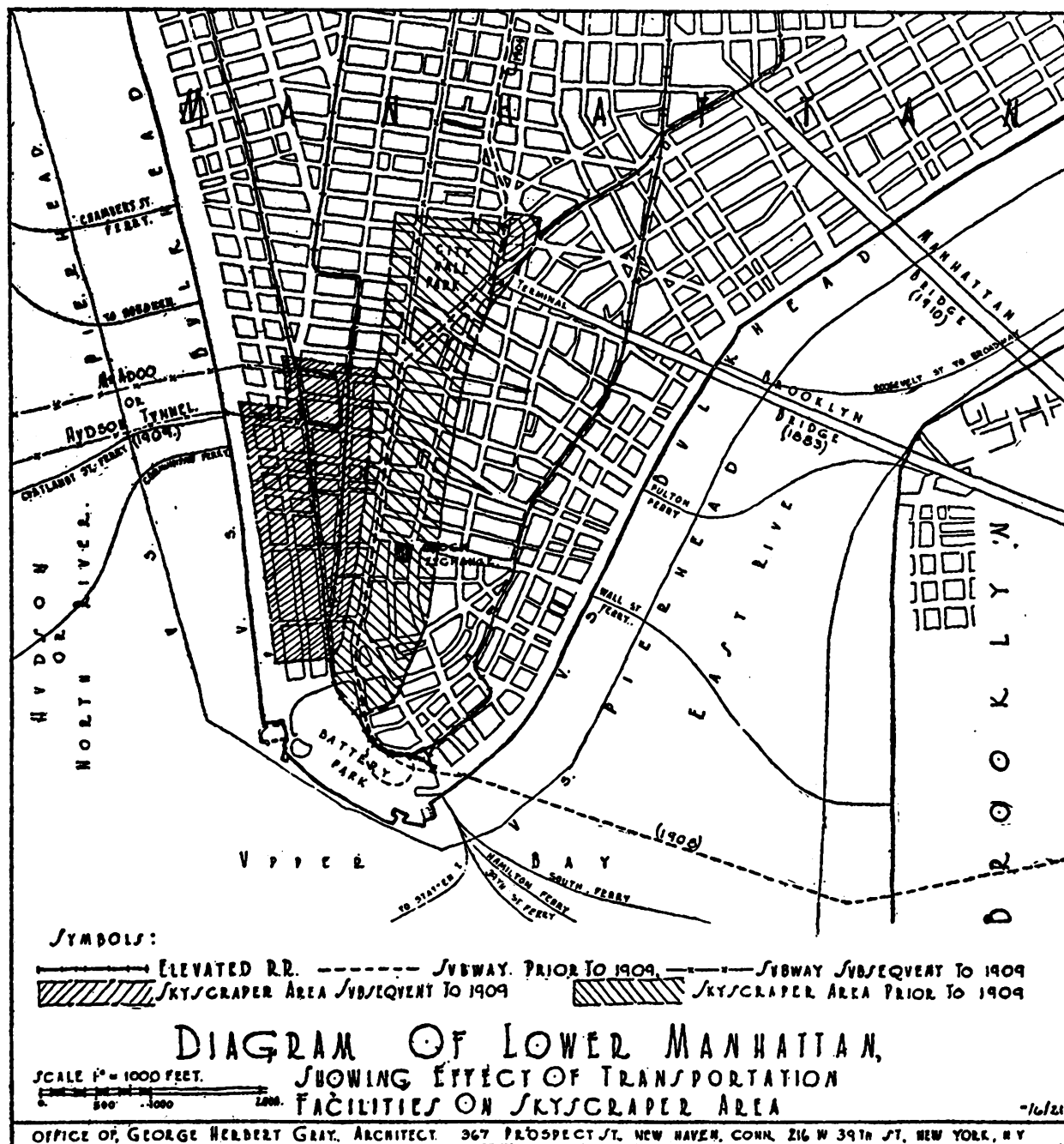


FIGURE I

arisen. The skyscraper had reached and even passed its economic development as to height. In their effort to establish a reasonable regulation for limiting the height of office buildings, the Zoning Commission gathered together an enormous amount of data bearing on the economic height as indicated by the cost and maintenance of the buildings, and the returns. This evidence showed a startlingly low return on the tall buildings, an average of about 2½% net. It appeared that [there was a marked tendency to vacate lower floors on account of the darkness and lack of air, so that they could not be rented on a profitable basis and had to be supported financially by the upper floors; which floors also represent a larger cost in operation as well as construction. In ordinary mid-block locations, where a large portion of the lots was occupied by tall buildings, eighteen floors was shown to be the economic limit.¹ Similar evidence in St. Louis showed twelve stories to be the economic limit. When it is generally known that eighteen stories, or any other number of stories, is the economic limit in a given district then there will be an immediate limit placed on the land value as gauged by possible rental returns. So we see that in buildings as well as in crops there is a natural law tending to make overcrowding uneconomical.

The Intensity of Land Use

We have stated that the proper type and disposition of buildings with their accessories and surrounding, is a field for fruitful study, particularly as related to their functions, most of all the function of securing adequate air and light in all buildings, and in residential buildings in securing in addition privacy and recreational space. It is here accepted as axiomatic that the limit of intensity of use is not an arbitrary and artificial one but a natural one which is set either by the direct financial returns on the investment or by the indirect financial loss accruing from risk to life, health and morals which result from excess intensity of use and the overcrowding of people. By way of indicating the lines on which such studies might be made we will cite examples of several types of development: the office building district, the shopping district, the suburban residential district and a tenement district.

The recognition of an economic limit to the height of commercial buildings just cited has come about through the internal causes bearing on the efficient use and the functioning of the building itself. Obviously the greater the height of a building of given plan the greater the number of occupants. The exact bearing of this on the traffic capacity of the street is a matter on which we cannot so easily generalize, since the speed of the flow of traffic is as important a factor as the width of the street, and the flow is in part controlled by the size of the adjoining streets which serve as outlets to the street in question. If we had exclusively office building streets from which all vehicular traffic was prohibited the problem would become simple, as will be seen.

In lower Manhattan such conditions are approached. Under these conditions a proportion between floor area and street area can be arrived at which would be operative in event of a panic which might cause all the occupants of the buildings in any block to seek the street at the same

time. By crowding so tightly that no individual can budge, people can be packed in a confined area to the extent of one square foot per person, while at 1.5 square foot per person individuals can elbow through. On the latter basis a street 60 feet wide can accommodate 4000 persons per 100 feet of length. We may safely take as a proportion between the floor area and the number of occupants of any office building, one person per 100 square feet of gross floor area.² If we take a building of 100 feet front and an average depth of 100 feet we have 10,000 square feet, or 100 persons per floor. Measured to the center of the street, the capacity of the street in front of the building is 2000 people. Therefore such a building could be 20 stories high so far as the panic capacity of the street is concerned. Thus—

Street area 100x60 ft.	= 60,000 sq. ft.
Street 100 ft.x30 ft. to center	= 30,000 sq. ft.
Street capacity @ 1.5 sq. ft. per person	= 2,000
Building 100x100	= 10,000 sq. ft. per floor
Building capacity @ 100 sq. ft. per person	= 100 persons per floor
At 100 persons per floor, 20 stories	= The street capacity of 2000

Twenty stories on a basis of 12 feet for story heights would mean 240 feet for the height of buildings. These figures apply only where there are no vehicles in the street. Let us compare this with the height permitted by Zoning regulations in the skyscraper district of New York. The allowable height of the building at the building line is 2½ times the width of the street, and higher as the buildings set back; so in case of our 60 ft. street we have 60 ft. by 2½ equals 150 ft. for the height at the building line, plus the height of the set-backs. When we take into consideration the relatively small number of vehicles in the district and relatively shallow lots, the panic capacity of the street seems to approximate the capacity of the buildings as determined by the Zoning regulations. In all other districts in New York where vehicular traffic is greater, the permissible height of the building is less. In the Fifth Avenue shopping district private automobiles are an advantage to trade, as are ample sidewalk spaces and abundance of light for the display in the shop windows. Here the Zoning regulations keep the height as low as 1¼ times the width of the street. This low standard of height was set by request of the property owners. As in the case of office buildings, we see here also that the economic use of city land sets a natural limit on the intensity to which it may be used.

Why should not the population in the residential districts be determined by methods similar to those we have been discussing for commercial buildings? This leads us to a consideration of the essential elements in a residential district—air, light, recreational space and a reasonable degree of quiet and privacy—but in what amounts? On even casual reflection it will become evident that what the occupants can afford is a determining factor. The mini-

¹ Mr. G. B. Ford, Consultant to the Zoning Commission, is the authority for this data.

² The precise figure would be determined by the cubic feet of air allowed per person, the possible cross-draft and the lighting of the working space. For the designing of passenger elevators 1 person per 125 sq. ft. is a figure commonly used.

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mums permissible, however, may well be discussed, and this brings us to those quarters of the unskilled mechanics and the laborer which are built in rows.

For suburban districts such standards were set by the U. S. Housing Corporation as the result of a conference of experts. While the opinion may be advanced that these standards do not in all respects get quite as close to fundamentals as they might, they serve as an accepted standard for comparison. They lay down the internal requirements as well as such distance between buildings as is necessary for air and privacy as between next-door neighbors. This takes care of all but the recreational space. Experience has proven that the average workman's family in America does not care for a vegetable garden, either as a matter of economy or as a matter of recreation, and the housewife cares for flower gardens of limited extent only. Therefore the vegetable garden space may be placed where it may be allotted as demanded. An average of 400 square feet for about every fourth family suffices in most communities such as we are considering, and the twenty feet of grounds between sidewalk and house-line, which gives privacy to the ground floors, will also suffice for the flower gardens. A rear yard twenty feet in depth is adequate for sunning the laundry.

Recreational Space

The standards in regard to recreational space are undergoing a change. It is fast coming to be recognized that the district recreation grounds are not close enough to the home for the very little ones and for their very busy parents. The majority of our traffic casualties are due to children in the residential districts who use the street for their playground. As children under eight years of age cannot generally be counted on to traverse the streets without loitering on their way to and from district playgrounds, it seems most reasonable to have playgrounds within the block where the parents may have better control over their own children and even enjoy the grounds them-

selves in the evening, or at other spare time. This idea is already gaining favor and we will here assume it to be a correct one.

As for the houses themselves we will consider them as reduced to a minimum of compactness which can be accomplished in the space indicated on pages 154 and 155 of Vol. I of the Report of the U. S. Housing Corporation. We have indicated in Figure 2 a possible grouping of such houses. It will be noted that the houses on the end of the block are semi-detached, so that with the orientation indicated, even the rooms on the north side of the house may receive the sun from windows on the east and west.

From the diagram it will be seen that there are in the block 48 families, and if we allow 60 sq. feet per child¹ for the high average of 1½ children of the small playground age per family we have 72 children for whom to provide playground space, and 16 families more or less for whom to provide vegetable garden space, all of which is accomplished in the space indicated in the diagram and in accordance with the U. S. Housing Corporation's standards.

In the U. S. Housing Corporation's various developments the average for row developments was 18 families per gross acre and for semi-detached houses 9 families. The arrangement we are considering happens to result in a density of population of 22.1 families per acre measured from the center of the sheets. But another arrangement might be possible whereby, without in any way sacrificing the living standards, a greater density of population would result. Or a lot of less favorable proportions might result in a lower density, without in any way improving the living conditions. Furthermore, larger families would result in more rooms and larger houses and consequently fewer families in the same area. The bed space provided for would be a more logical measure of the intensity of population. In any case it is evident that any standard of population per acre is based on averages and is an accidental

¹This figure is low, but is used as a minimum on the assumption that only about half the children would be using the ground at any one time.

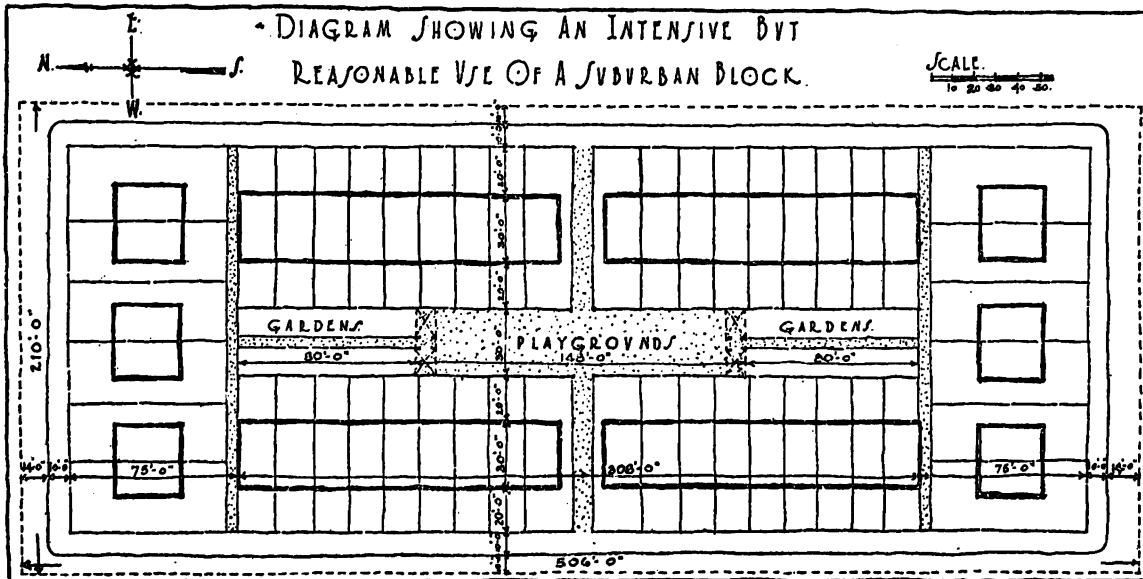


FIGURE 2

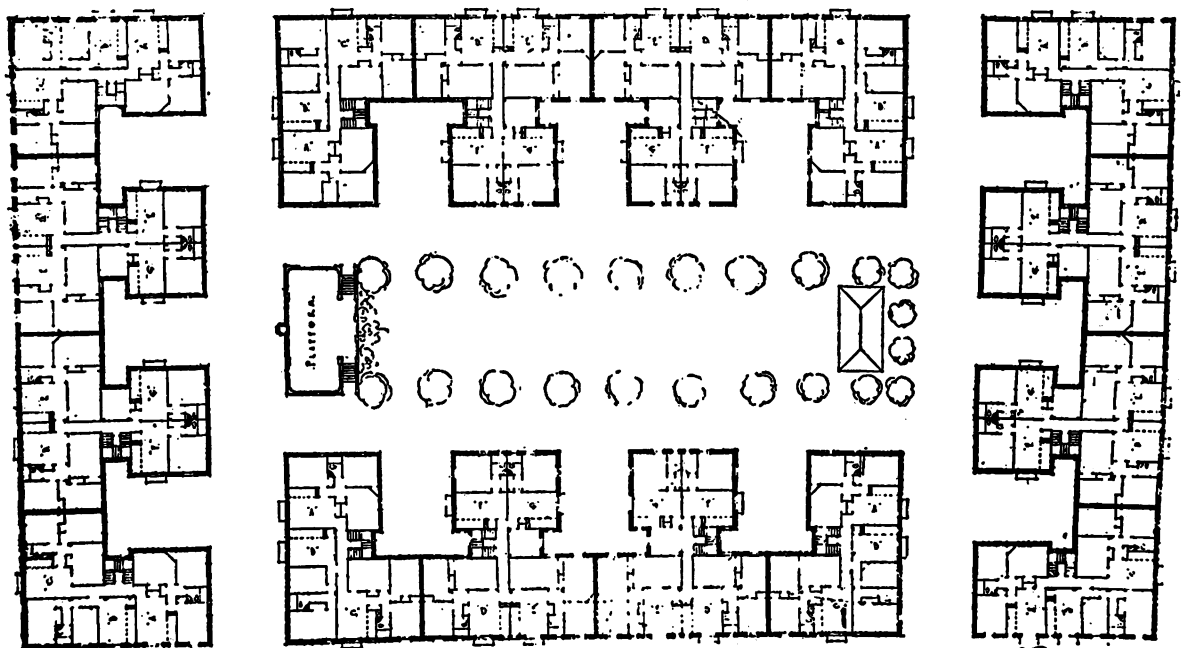
result of certain fundamental determining factors of planning and should not be accepted as a final test of the possible intensity of the use of any particular block. As a rule of thumb in forecasting the possible population in any given tract, it has its place. So much for the case of standards for extreme intensity of use in the outlying districts.

Tenements

As standard for the extreme limit of intensity of use of land in the heart of the city we will consider an old New York tenement block on which we have quite complete data as to present living conditions—that block bounded by Madison, Rutgers, Monroe and Jefferson. The survey made by the New York Reconstruction Committee showed a population of 2421 in a variety of old run-down buildings, with small and foul light court and shafts, with many rooms with no outside windows, no place to play but on the street, and there was no adequate access to the rear of the property for police and fire protection. There were 493 family apartments, which, for the acre measured on the center of the street was at the rate of 186 families, averaging 4.9 persons per family. Some of the buildings were spacious old residences altered to suit apartment needs and those especially built as apartments were on narrow lots. According to the report: "Most of the owners of the old houses has slight, if any, return from the money invested. Rentals were low." The assessed valuation of the land was \$836,000.00. Obviously these values were not based on the actual earning capacity but on some estimated future value.

The conditions cited do not, however, form a clue to the limit of intensity of use of the land, for the simple reason that the land is not intelligently developed. It is developed in the usual hodge-podge fashion, each small land owner having from time to time planned for his own little piece of property. In the competition held by the Reconstruction Committee, plans for this block were produced providing for the alteration to the existing buildings, many of which are six stories high. Such was the prize plan, which, with a provision of 1481 rooms, it was estimated could be put on a profitable basis. Mr. A. J. Thomas has worked out a plan, based on the New York Tenement Laws, which, gauged by the bed accommodations, would result in an appreciably greater density but afford living conditions far more sanitary and wholesome.¹ I have worked out a possible development of this area, based on standards even higher than those of the Housing Corporation, which in turn are higher than those of the New York Tenement Law, in which bed accommodations are provided for 328 persons per floor.² This would mean 1640 persons on five floors, appreciably more than indicated on the Thomas plan. Without materially increasing the rate of rent over that now paid, this would put the property on a paying basis, even with the present land valuation (less the playground and minor thorough-fare which could well be taken over by the City). The economy is brought about by planning for the block as a whole so as to segregate large areas for recreational and other community uses, and by considering each member of the household as a unit, and building up from these individual unit

¹ Architectural Record. November, 1920.
² See Figure 3.



TYPICAL FLOOR PLAN
 SCALE FOR THE DEVELOPMENT OF A
 NEW YORK CITY TENEMENT BLOCK

J. H. Thompson

FIGURE 3

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requirements, supplying the necessities generously and eliminating such things as do not properly pertain to the life of the people who occupy the tenement districts. The point may well be raised that even five stories are too many as a reasonable and decent standard for a "walk-up." If so, the indications are that the assessed value on the land is too high for its present uses. It would seem that it should either be reduced or the block turned over for business purposes.

Conclusions

From the foregoing we make the following summary:

1st. That portion of excess housing cost which is chargeable to raw land is relatively small and this excess can be eliminated in the case of newly laid out areas by skillful platting as aided and encouraged by (A) various phases of city planning, (B) by development of the land in large units, (C) by co-operative building and owning methods.

2nd. That portion of excess land cost accruing from years of temporary unproductiveness can be greatly reduced by various phases of city planning, (A) as regards agricultural land which is transformed for residential or other urban uses, (B) as regards residential land which is transformed for commercial uses.

3rd. Experience has demonstrated: (A) That there is an economic limit to the intensity of the use of land for commercial uses, based on the direct financial returns. (B)

That there is an economic limit to the intensity of use of land for residential purposes, based on the direct financial returns, but before this limit is reached it commonly happens that we have passed the economic limit as determined by the health, morals and general well-being of the occupants.

4th. (A) That population per acre is an inaccurate measure of the limit of intensity of use as it does not take into consideration either the different possibilities resulting from skillful and unskillful planning, nor the different possibilities as affected by the physical attributes of the land such as shape, surroundings and communicating thorough-fares, topography and climatic exposures. (B) That standards for determining the limit of intensity of use of land for commercial purposes should be based on an adequate supply of air, light and adequate means of egress from the building and from the district in case of panic. (C) That standards for the limit of intensity of use of land for residential purposes should be based on an adequate supply of air, light, privacy and recreational space; (D) That more complete fundamental standards, based on existing achievements, are desirable.

5th. If the above conclusions are correct it further follows that the evils of land congestion can be adequately remedied by various phases of city planning, without recourse to general public ownership and control, or without radical changes in the rights of the private property owner.

Around the Secretary's Table¹

By THE SECRETARY

THE SECRETARY: When we were interrupted just now by the printer you were speaking, Mr. Davidson, about the representative of the Building Trades Council of Philadelphia, who had come to the Convention to tell about their cooperative measures.

MR. DAVIDSON: Yes. The Convention had no time to grant him even five minutes to tell his story.

THE SECRETARY: True, and the President was sorry to have to refuse him the privilege, but you see his presence was unexpected, as was also the presence of Mr. Stewart of the Department of Labour. Mr. Boyd had arranged for their attendance, and it put the president in rather an awkward position to have them announced from the floor quite unexpectedly. Mr. Stewart's official position seemed to make it imperative to give him a brief opportunity to speak, but being so far behind our schedule it was necessary to draw the line somewhere in order to get Mr. Hammond's paper in at all.

MR. PFEIFFER: That brings up a point I have in mind. I believe that for future Conventions, the President should at the opening session, appoint a strong Committee on resolutions, and motions not previously considered by the Board should be referred to it, and no resolution or motion relating to new business should be considered by the Convention without the approval of such Committee.

THE SECRETARY: To this Committee might also be delegated the authority to pass on suggestions for addresses by non-delegates other than those officially invited by the

Board. If delegates could bring in guests to address the Convention without warning, the program would get seriously disarranged. As a matter of fact, however, there are generally very few new resolutions that are presented, and they come at the end of the Convention under New Business, and the Convention I think generally disposes of them wisely, referring them to the Board when they are of such nature as to preclude adequate consideration by the Convention.

MR. DAVIDSON: I am glad Mr. Boyd was able to say even a few hurried words about the intelligent attitude of building mechanics in Philadelphia in their attempt to aid in placing the building industry on a higher plane. He showed some charts, and presented some statistics concerning unemployment and waste never before compiled. It, however, required a formal motion and vote of the Convention to order that the statistics submitted be printed in the proceedings.

THE SECRETARY: But don't you think such action wise in any event. I was glad that you made the motion to print as you did, but I think the Secretary would be taking a chance to spend money for printing documents not actually presented to the Convention, without specific instructions, even though they be as interesting and valuable as Mr. Boyd's paper.

MR. DAVIDSON: Well perhaps you're right. This work of Boyd's is a sample of local activity that should be more

¹Continued from September 1921, JOURNAL.

THE JOURNAL OF THE AMERICAN INSTITUTE OF ARCHITECTS

general. Every Architect should take to heart the message of President Kendall in his opening address, in which he again specifically calls the attention of the profession to the fact that in their various territories the local Chapters of the Institute are the American Institute of Architects, and that as such they should assume the leadership in all professional matter that is rightfully theirs.

THE SECRETARY: Yes. That was strongly accented in the Board's report a year ago, and is a fact that Chapters ought to realize more fully.

MR. TAYLOR: If all Chapters of the Institute would only emulate the interest in Institute affairs, and could approximate the team work of the Illinois Chapter, future Conventions would be notable.

MR. DAVIDSON. As a matter of fact a careful reading of the numerous reports made to the Convention and a check of the proceedings of the Convention itself disclose the fact that approximately not more than three Chapters of the Institute during the preceding year devoted thought or study to the big questions affecting the profession as a whole.

MR. SHAW: Look out Davidson or the Secretary will prove that you have slightly exaggerated too.

THE SECRETARY: It would have been interesting to count those who remained in their seats at the Convention if Mr. Davidson had moved that the delegates of the three Chapters that had, during the year, given consideration to the larger problems of the profession were requested to stand. I suspect we would have seen somewhat more than three delegations arise. But I am in entire agreement with Mr. Taylor. If we could get in more Chapters the sort of organized attention to Institute business that the Illinois Chapter gives we would accomplish much more and discussions at Conventions would be more active and effective.

MR. DUNNING: The work of the Illinois Chapter is surely effective. One difficulty is that it is physically impossible for the Board of Directors to give all the matters referred to it that degree of deliberation that should be given to all matters considered. I believe there should be a new officer of the Institute whose duty it should be to take all of the suggestions from the various Chapters and members, and thoroughly study them, and pass them on to the Board or to the Convention for action.

MR. SAXE: I question the wisdom of that policy. I agree that at present the Board of Directors has too much work to do, and that condition is without doubt its own fault. I suggest that at future Conventions one representative from each Chapter be appointed to sit with the Board to take care of and act on Institute business.

THE SECRETARY: Those two suggestions are certainly decidedly opposed to each other, and I confess to much doubt as to the wisdom of either, speaking quite frankly, as we all are.

MR. DUNNING: Why wouldn't my suggested new officer be of help to the Board?

THE SECRETARY: If he merely served to digest matters in advance, or rather to "chew them over" so that the Board might digest them more readily, he might be of service. He would, of course, in that event merely duplicate the normal work of the Secretary, plus a considerable amount of Committee work.

There are few matters that come to the Board that do not logically fall within the scope of one of the Standing or special Committees to which it is generally referred for consideration and action, so that it eventually comes to the Board with a definite recommendation from the Committee. This seems to me safer than the recommendation of any one mind. To have this new officer pass matters directly to the Convention for action without prior consideration by the Board, which is also suggested, seems to me a quite impossible procedure.

MR. SAXE: What objection do you see to my suggestion?

THE SECRETARY: I am not quite sure I understand the power you intend such delegation of Chapter representatives to have. If it is merely to discuss matters and prepare them for presentation to the Convention, then they would only hinder and make more difficult the work of the Board. The smaller the group, the quicker the action. Our Executive Committee of five can always act more expeditiously than the full Board.

If the group is to have power, together with the Board, to settle matters, it becomes a small preliminary Convention, as a matter of fact not very much smaller than our reduced Convention in Philadelphia during the war at which there were some sixty delegates. There would seem to be little excuse left for the Convention itself, and the preliminary meeting would take at least three full days, for the Board sits for two full days including evening sessions as it is now.

It would seem to approach the pre-Convention meetings suggested by the N. J. Chapter.

To my mind these suggestions seem to complicate procedure rather than simplify it.

The present machinery seems to me adequate. The Institute Committees give the various suggestions detailed consideration, and report their advice to the Board. The Board, from a somewhat broader view point, decides how far action should be taken by the Institute, and so reports to the Convention. The Convention, representing by delegates all the Chapters, ought, in my opinion, to consider and act upon all these matters, either supporting the Board or taking action more or less at variance according to majority sentiment.

MR. LITTLE: Well, Mr. Shaw, it doesn't look as if our point of view was shared by the Secretary.

THE SECRETARY: On the contrary, I have much sympathy with it. I would much rather listen to such talks as Mr. Corbett's, than to listen to long debates, and then count the ayes and noes. The fact is that being the filter through which all suggestions have to pass on their way to the Board, I have an opportunity to compare them all, to see how they conflict, and how some fail to pass through the screen of practicability, that first process of elimination.

Underlying many of the suggestions, I think, lies the fact that when all is said and done most of us are particularly interested in certain phases of our profession, and very few are equally interested in all phases. The result is that at Conventions every one has to listen, perhaps half the time, to discussions on subjects of little personal interest, which therefore seem of proportionately little importance and annoyingly boresome.

You, Mr. Little, would like to see the Board settle these

THE COURT SETTLES IT

dull items, and so would others; but we can't all agree as to which *are* the dull items. There are always some delegates interested to discuss each subject before the Convention, and the President was reminded at the last Convention by Mr. Holsman that it was not proper to shut off debates merely because the question was called for.

MR. SAXE: It seems to me that regardless of just how the Conventions are handled, there should be some publicity given to their actions. This year there was a lack of any general publicity relating to the work of the Convention.

THE SECRETARY: I think you are not aware of the steps now taken in this regard. This year, as last year also, Mr. Kemper sent a copy of the Convention Program to 220 newspaper representatives in Washington with a special letter inviting them to attend the afternoon sessions of Wednesday and Thursday, and the evening session of Thursday. Invitations to the exhibition were also sent to this list, and representatives of the four Washington papers were specially invited, both to the Convention and the Exhibition.

There was a special Committee on duty to render public information service to the Press during the sessions and the Editors of the leading Architectural Magazines were as usual invited to be present, and I believe were so.

MR. SAXE: I did not realize that these steps had been taken.

THE SECRETARY: You will find this action now reported in detail in your copy of the Minutes of the Pre-Convention Board Meeting on Page 5.

I noticed good accounts of the Convention every day in the Washington papers. To what extent the reporters sent news items to other cities, I do not know.

(To be continued.)

The Courts Settle It

"A Reasonable Rent is Ten Per cent, Court Finds": So runs the caption in the New York Times of September 1st in reference to the decision laid down by the Appellate Division of the Supreme Court in Brooklyn. In this ruling the following is given as the method to be used in determining what is a fair rent in any given case:

"1. Determine the present fair market value of the premises. This may be done by offering opinion evidence as to both fee and rental value or by introducing other competent evidence.

"2. Determine the gross rentals demanded by the landlord.

"3. Determine the allowable operating expenses for the last year. These ordinarily consist of payment for taxes, water rates, insurance, janitor services, necessary legal expenses made by the landlord incidental to maintaining his right to possession and necessary expenses actually paid out for collecting rents; also payments for necessary supplies incident to the use of the premises, such as coal, gas and electricity; also necessary current repairs for the year. Allowance should also be made for loss of rents by reason of vacancies or tenants failing to pay; allowance for annual depreciation, if established by fair proof, should be made upon the fair market value of the buildings.

"4. Deduct from the gross rentals the operating expenses and this will give the net rental.

"5. If this net rental does not exceed 10 per cent of the present value of the property, then the rent demanded is not unreasonable. The reasonableness of a rent charge may vary under changing financial conditions. Upon the proof in this record (the case at

bar) showing the return upon other well recognized and generally accepted forms of investment, we think that 10 per cent as a net return to an owner of real property is not unreasonable, but such a percentage might be excessive if the evidence showed a different situation regarding other investments."

Clearly the question is not disposed of by this ruling. The item of rent is in question; the court says that rent depends upon the "value" of a property. But the value of a property, again recalling the words of the court, "depends upon evidence as to both fee and rental value or by introducing other competent evidence."

To put this in other words, it is the value of property which hangs upon the income to be derived from it. The income to be derived from it is settled by the operation of the so-called law of supply and demand; but the working out of the law of supply and demand is a matter of charging all that the traffic will bear. "Charging all that the traffic will bear" is not here used in a derogatory sense, nor with a view of suggesting that those who so act are to be regarded as acting in other than in an entirely exemplary manner, as things go. What this court ruling amounts to is to return the entire question of the fixing of rents to the field of business traffic. For the court sweeps aside as of no consequence whatsoever the question of the cost of producing houses, for the court says: "The evidence shows that at the present time one can buy, with reasonable safety, first mortgage coupon bonds that are producing income at 8% to 8½%. The investor in real estate, if building is to be encouraged, should get at least as much income from real property, with its dependent worries, as the investor in mortgages and franchises."

So it would seem that by this judicial decision we return to the former situation. Those who live in houses must bid among themselves for the privilege and they must also, as a group, bid against the field of other enterprises for the use of materials, services and money. Failure to bid high enough carries the usual consequences. But what of it? The N. Y. Tribune of recent date in a caption tells of a man who "solves rent problem by living in hole in ground." One must be resourceful to get on these days. This is no doubt as it should be under the price system.

But while the judges in Brooklyn were deciding that, in the case of the landlords it was best to turn back to the practice of business traffic and charging what the traffic would bear, Judge Landis, in Chicago, was deciding that in the case of labor the practices of business traffic and charging what the traffic would bear was not to be tolerated. For he ruled in the arbitration case involving forty-seven building trade crafts in Chicago that there must be drastic cuts in wages. The basis of this ruling, if the reporter understands correctly, was not in the relation of wages to the cost and the standard of living, but that trade union regulations had operated to increase the cost and curtail the production of buildings. A smaller wage is to be the penalty. Labor is to pay for having organized to effect ways and means of selling its effort at a high price.

The gist of these two rulings is this: We propose, in order to stimulate the production of buildings, that the returns from investment be increased and that the pay for materially productive work be diminished.

But what is proposed is puzzling when viewed in relation to what has happened to cotton. In the case of cotton it

may be stated that there has been no "over production" of cotton during the last five years. But owing to the financial transactions involved in its production, the holdings of stocks in storage, and the inability of the consuming world to buy at the inflated price, it was seen a year ago that if the financial world was to get out whole, it was imperative that a smaller crop be harvested in 1921. When the government report of September disclosed that the crop would amount to less than half the normal, the work of those who had brought about this shortage was looked upon as "constructive." Prices would rise.

In financial circles, in commercial journals, in press editorials, we learn that for the good of business traffic it is better to have a shortage of 7,000,000 bales of cotton than that prices should stand at a pre-war level to which they recently fell. Of this shortage in cotton it may be said that it was an "act of good," or that it was a "voluntary" effort on the part of producers. But the *N. Y. Journal of Commerce* disclosed in its news items during the past year, without the slightest attempt to conceal, just what measures had been resorted to by those engaged in business traffic to sabotage the cotton crop of 1921 to half the normal.

The Brooklyn judges in the case of the landlords recognize that under the price system, sabotage is blameless. The Press, for the most part, in the case of the landlords and universally in the case of cotton, also recognized that sabotage is blameless under the price system. But neither the Court nor the Press acknowledged that sabotage on the

part of labor falls within the category of blameless action.

It is not enough in trying to account for these divergent views of the same thing to say that it is all a matter of bias or due to self regarding interests. Trade unionism is not looked upon as falling within the frame of the present institutional scheme: it is looked upon as alien. But trade unionism is quite as much a part of capitalism as the organization of financial interests, the trusts, and big business. And in its outlook, at least for the most part it is thoroughly capitalistic and it resorts to a capitalistic method to secure its gains. This is necessarily so under the price system, for no one is free to act except it be with a view of controlling output. Not to control output; not to seek to sell at the highest price; not to charge all that the traffic will bear—in a word, not to place the consideration of price above product is for the individual or the group to invite defeat.

Our ways are the ways of sabotage. We are not producing: Europe is not producing. Hundreds of thousands of freight cars are idle; thousands of locomotives are idle. There are millions of men without employment; they are selling them on Boston Common. And Mr. Hoover says of the grand sabotage of cotton: "Happily there is a short crop of cotton this year."

And in the face of this shame, confusion, and defeat, we go right on trusting that we can substitute earnings upon investment and financial business for materially productive work. I think the courts have not settled it.

FREDERICK L. ACKERMAN.

News Notes

CHICAGO has been selected as the meeting place of the next Convention of the Institute. The time has been fixed, according to custom, for the Spring of 1922, but the exact date is now under consideration and will probably be announced in our next issue.

MEMBERS of the Institute write us in protest at the practice of manufacturers and agents who address an increasing number of inquiries of a more or less general nature, to architects, without the enclosure of a stamp or stamped envelope for reply. Those who write say that those guilty of the practice ought not to be surprised at the small number of answers received.

THE first Chapter to take action on the question of reducing the number of delegates to conventions of the Institute, a subject latterly discussed in our own columns, is that of Wisconsin. At its last meeting the Chapter voted to recommend that the basis for delegate representation be changed to that of one delegate for each twenty Institute members in the Chapter, it being understood, of course, that the initial number of two delegates per Chapter, independent of the per capita compilation, remain as at present. The Executive Committee of the Illinois Chapter has likewise recommended the same basis to the Chapter itself. The recommendation very likely may have been acted upon ere these lines are read by our subscribers.

PROPOSALS for the building of "Dormitory Towns" in Wales involve what seems to be a new terminology only. A special Government Committee has been at work considering the pretty desperate living conditions of the Welsh miners, and has, in its report, recommended the building of new towns quite away from the mines. "The phrase dormitory towns," comments the *Manchester Guardian*, "is perhaps not altogether happy; after all, there is nothing unusual in a miner or any other kind of worker making a train journey to his work, and in Lancashire it is com-

mon among both miners and cotton operatives. The importance of the South Wales scheme lies in its suggestion to create afresh residential centres for a great industrial population. This is proposed because South Wales presents a very different problem from any other area. The coalfields and the mining villages are in deep narrow valleys, often wide enough only to give room for river, road, and railway to run together. A map showing rivers and railways makes the district look like a gridiron. Nowhere perhaps is the life of the worker so much conditioned by his physical surroundings. Much of the industrial unrest, the extreme forms of political opinion, the self-centred outlook which one finds among the South Wales workers come from the narrowness and joylessness of their life. They are crowded in miserable houses on the steep sides of mountains, experiencing little contact with the outside world, without the civic institutions and social interests which even in the most congested industrial towns of the North develop the sense of community. The segregation of the miner from other classes of the population is one reason why he seems slow to recognize how his industry is bound up with other industries, and why he acts with so little regard for broader considerations. In South Wales this segregation has gone farthest. The Committee's scheme recognizes clearly that these conditions produce discontent and unrest. Their solution is the housing of the miners in the fertile southern plain at the mouth of the mining valleys. Here in fifteen centres new towns can be built up with all the amenities of modern town-planning and public services. As a start they suggest the development experimentally of two centres. The main objection will be that of finance, and they rely for financial assistance from the State. Still, if as they propose there is a rearrangement of the local government system of South Wales, the scheme could be carried out as part of the housing plans of the mining areas and should not involve any great additional outlay."

THE
JOURNAL
OF
THE AMERICAN INSTITUTE OF
ARCHITECTS

The Labor Situation and the Landis Agreements
HENRY K. HOLSMAN

The Construction Industries as a Part of the
Conference on Unemployment

Towered Cities
GEORGIANA GODDARD KING

Housing and Finance in New York City

Structural Service Department

NOVEMBER
1921

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the Metropolitan Life Insurance ^{Co's} Building
at Madison Square, New York, will be
recognized. His experiences will be found
full of interest.*

*To younger students and practitioners his
experiences and deductions should prove of
lasting value. — The editor.*



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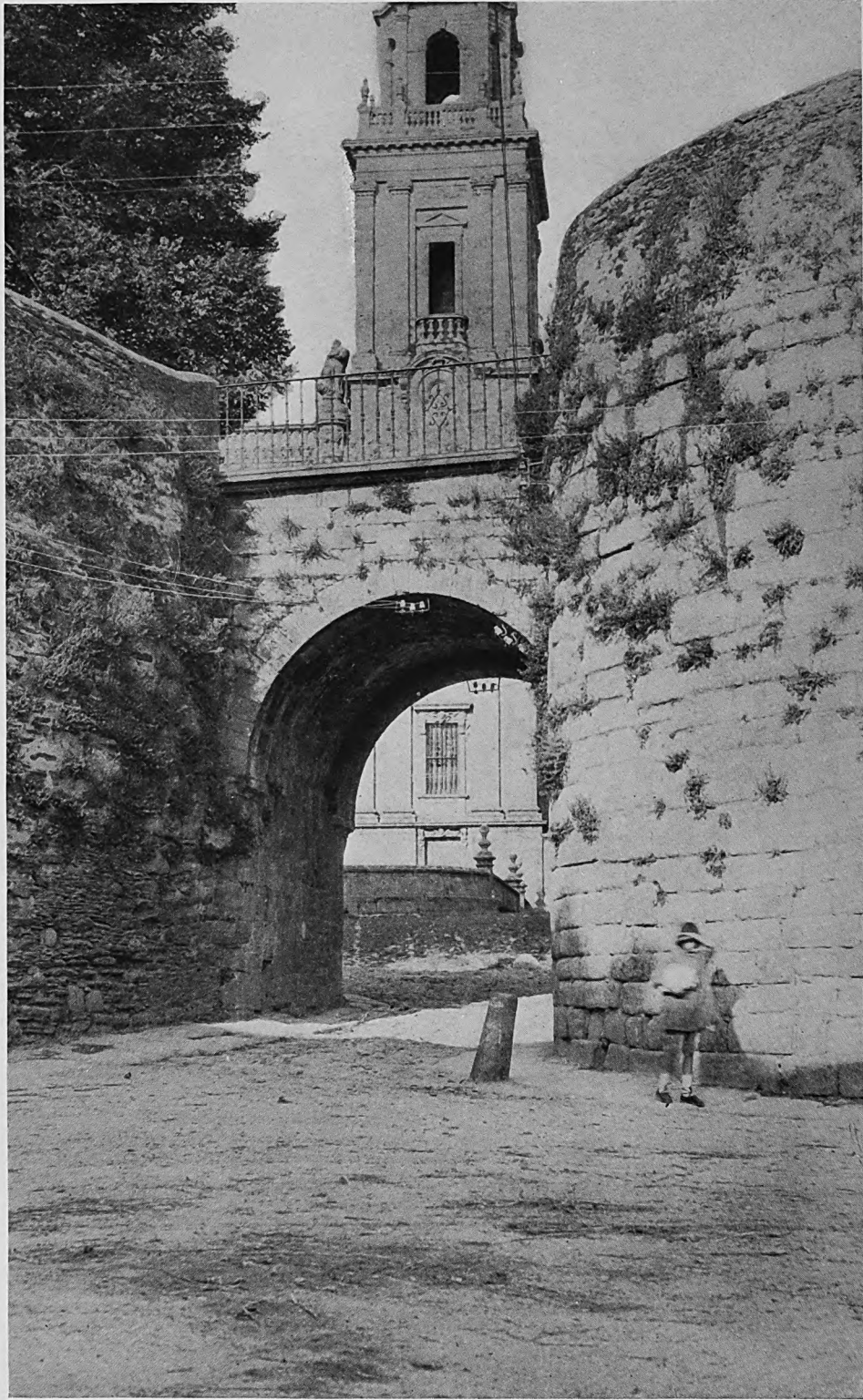
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After the photograph by E. H. Lowber

Lugo—At the Cathedral Gate.

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Shadows and Straws

SOMEWHERE about eight years ago, Mr. G. Alexander Wright, a member of the Institute in the San Francisco Chapter, besought the interest of the JOURNAL in the subject of Quantity Surveying. He was a pioneer in an unreceptive land. And now that he is no more and, like many another, did not live to see his long devotion bear any great fruit, let it not be forgotten that he was a pioneer and that because of the interview in question the subject of Quantity Surveying was never lost to sight again, so far as the Institute was concerned. We are proud of our share in the document which has been sponsored by the Institute, the Engineering Council, and the Associated General Contractors of America. It recommends the Quantity Survey to every owner, and very properly reminds him that he should not "pay a Contractor an overhead charge which includes any other costs than belong to his own project," and likewise that an Owner should pay for the preparation of an itemized list of quantities whether he proceeds with the contemplated project or not. Assuredly he should, and assuredly some owner does pay for them several times over, under the present system. The only man who gets anything free is the man who never builds, because all the expenses of nursing him through the preliminary approaches are saddled upon someone else. The overhead borne by the Building Industry, because of the supposed free service rendered, is no small item. Any man proposing to spend a considerable sum of money in building should insist on a Quantity Survey, as one of the most certain means of economy that he can employ.

PROFESSOR REILLY, of the Department of Architecture in Liverpool University, says things about Fifth Avenue, in the Liverpool *Daily Post and Mercury*, which are as picturesquely phrased as they are cleverly analytical.

"Fifth Avenue," he says, "is the most exciting street in the most exciting city in the world. I think if one imagines a deep, dark, strongly-flowing river, gliding swiftly and silently between great white cliffs of varying height, one will come near to it. The surface of the water is black

with occasional spots of green. The black is due to endless streams of sleek, satin motorcars, eight abreast, in four lines either way, which all glide along at the same pace. The green is due to the motor-omnibuses, free from all advertisements, which dot the black river surface, that flows on for the five miles or so of the street, and has an occasional rock in the center of it. These rocks, which are really wooden towers from which the traffic is directed, are placed on the crest of the slight rises in the undulating surface of the street—I am afraid my metaphor is failing. In them a big green or red light shows night and day, and with its appearance the whole five miles of river suddenly stops or, equally suddenly, flows on again. When it stops, the waters divide, and vast crowds, mostly Israelities as of old, pass over dry-shod. Only those who inhabit the land of the free and the brave would allow themselves to be so strictly regulated in this and other matters. But let us examine now the perpendicular cliffs and the shore on either side.

"The cliffs in the early part of the street are more even in height. They begin with some old residences, but very soon are chiefly inhabited by agents for dry goods. By Twentieth Street, however, hotels and big stores begin, and the street loses such continuity of skyline as it ever possessed. From there onwards it is a series of strongly competing buildings which rarely extend even across a whole block. The effect, therefore, against the sky is very ragged, like an ill-grown set of giant teeth. No long cornice lines run through. There are no continuous roofs—indeed, very few roofs at all—to be seen. In a sense, therefore, it is not a street at all, only a collection of buildings, just as a checker-board town is not really a town at all, but only a collection of city buildings over ten stories high, for which no European precedent exists. But a true American type is beginning to emerge. Roughly, it consists of a rich group of stories near the ground, and an equally rich group near the top with a plain stalk between.

"With Central Park the character of the street entirely alters. One cliff disappears, and in its place you have the small trees, grass, and taxi-cab race-tracks of the park. On the other you have individual houses, a few very vulgar, most of them very restrained and elegant. The park itself, though, is a failure. Its winding drives and small hummocks of hills cannot hide its rectangular shape, which the increasing height of the buildings is every day making more evident. It should all be levelled into terraces and re-laid out in a formal manner. Fifth Avenue prac-

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tically ends where the park ends at 110th Street, and before then begins to degenerate. But out of its five miles of length it has maintained its standard of fine, if competing, architecture, for three miles, and I know no other street of which that could be said."

THE REPORT of the Committee on Construction Industries as presented to the Unemployment Conference in Washington, is an historic, but not a remarkable document, save that it embodies what cannot be construed as other than an official Governmental pronouncement. In that sense it is indeed remarkable to find an industry so frankly and summarily dissected. The application of this particular scalpel reveals nothing new, indeed. We are no further on than before, except that the government has said that so and so is so and so, which is what others have said.

In the suggestions contained in the report there are two major recommendations. The Committee declares that the affairs of the Building Industry must be corrected by local representatives, and that "unfair practices" must be discontinued. If local groups can be persuaded to study their problems much more deeply but just as frankly as the report does, then perhaps they may arrive at that point which the report carefully refrains from attempting to reach. It is one thing to say that "unfair practices" must be discontinued, but quite another thing to tell how to get rid of them. Mr. Samuel Untermyer, for example, who has been instrumental in dragging a goodly number of "unfair practices" into the light, says that they cannot be done away with until from 500 to 1,000 prominent business men have been put behind prison bars.¹ We do not know whether lawyers are classed as business men, but as it is noteworthy that lawyers have materially contributed toward making "unfair practices" as safe as possible, one assumes that Mr. Untermyer's desire for a wholesale jailing is not limited to a narrow field: However, who can imagine that it is possible to jail a thousand prominent business men? Who can imagine that it would do any good?

A graver question is challenging society? The challenge is being avoided, mostly, and yet here and there, among the Guildsmen of England and among certain labor and ethical organizations in this country, a steady inquiry is being directed at discovering whether Business for Profit can be carried on without "unfair practices." That is the point toward which it will be wisdom to direct our steps, for we cannot declare what is unfair until we are sure what is fair,—and in the element of profit, is there yet any rule as to what is fair?

¹From a press report of a speech delivered to the New York State Association of Real Estate Exchanges at Syracuse, October 7.

Perhaps the Congress of the Building Industry, the local groups of which have anteceded the recommendations of the Unemployment Conference, may be stimulated now to a further and deeper inquiry. Let us by all means find out what is fair practice in business, and it will not suffice merely to affirm the Golden Rule. What is fair practice when it is translated into dollars and cents?

What is historic in the report in question is that a Governmental Conference has ended by recognizing that few emergency measures are of avail and that an industry is faced with a problem which has too long gone unrecognized and which will now require to be dealt with by first studying the facts. Therefore the permanent body proposed is at least an auspicious sign.

Consider this report in connection with Mr. Holsman's analysis of the Landis Agreements, so-called, and much becomes clear. Mr. Holsman writes from intimate experience since he represented the American Institute of Architects and the Illinois Society of Architects at the Arbitration proceedings. He has prefaced his analysis of the Agreements with an explanation of his own economic concept, in which he contends that there is a public interest and concern in all buildings. This is indisputable. The sooner we get to recognize it, the better for all concerned.

Students of esthetic questions will at once concur in this theory. So will students of economics, we believe, even though they might take exceptions to his theory of the distribution of the products of industry. Many would assert, at once, that his theory takes no account of Economic Rent, or the money now paid, in many ways, for no service rendered whatever, but we commend his study of the labor situation and the Landis Agreements to the careful study of all architects. Whether they like it or not, the affairs of the building industry are becoming their vital concern, and the fact that Mr. Holsman participated in the arbitration proceedings at Chicago, that Mr. Edwin H. Brown, a former Director of the Institute, was a member of the Committee on Construction Industries at the Unemployment Conference, that Mr. E. H. Russell, a director of the Institute is Chairman of the National Board of Jurisdictional Awards, that a Vice-President of the Institute, Mr. Robert D. Kohn, is Chairman of the Congress of the Building Industry, and that any number of Institute members are participating in the local branches of the Congress, is an indication of the changing attitude of architects. They are realizing that the architect is a part of the building industry, that he cannot escape the obligations thus imposed, and that in architecture the art is likely to be bettered through a conscientious assumption of these obligations rather than through preachments and persuasions.

C. H. W.

The Labor Situation and the Landis Building Trades Agreements

By HENRY K. HOLSMAN, A. I. A.

I. The Labor Situation

"All building construction is burdened with public interest," begins Judge Landis's statement in support of his demand for a revision of labor agreements and "working rules" so that the service rendered under the rules would justify high wages and inspire public confidence in the integrity and economic soundness of the building industry in Chicago. Private buildings are of public interest and the labor conditions and principles involved in the building trades agreements negotiated under the guidance of Judge Landis are filled with vital interest and public concern.

We have heard much of the virtues of the propagandist's high-sounding phrase "collective bargaining." Collectively bargained agreements are faulty if they provide only for increasing profits or wages and advantages and fail to provide means for lowering costs, or otherwise disregard public interest or public economy. Union laborers have been misled into the belief that little production and much waste, coupled with enforced monopoly and high wages would somehow inure to their advantage. The Landis agreements vitalize the principle that wages, salaries and profits depend not on the cost of living, or overhead expense or attempted monopoly, but on the value of the service to society. Economic problems are not solved by lamenting that greed and avarice are increasing; it may seem so because the power to manifest them is more widespread. It is of little use to rail about the land question or decry our fundamental institutions for the division of labor, distribution of profits, or Capitalism. The main difficulty lies in a universal misunderstanding and neglect of the fundamental ethical and economic principles involved.

When the building trades employers' associations, parties of the first part, and the corresponding trades unions, parties of the second part, asked Judge Kensaw M. Landis to arbitrate the main difference between them and to fix a wage to go into their collectively bargained agreements, the validity of the whole structure of associations and unions, and their practices and policies went on trial. It was stipulated that the arbiter would have nothing to say about the terms of the agreements or the working rules unless the parties could not agree on any particular clause, when that clause would be referred to him as umpire.

After two or three days of consideration, finding that a reduction of 20 per cent in wages would make only about six per cent reduction in building costs, whereas the waste and inefficiency lurking within the rules and regulations governing the workmen, if eliminated, would amount to a reduction of from 15 to 25 per cent in building costs, the arbiter announced to the parties in the arbitration that he was unable to fix a just wage without examining the agreements and working rules involved, whereupon the proposed agreements and working rules were submitted to

him for examination. Under such circumstances it is probably inevitable that several questions should arise.

What of the moral and legal aspects of agreements to which a judge may be a party by affixing the wage clause. The public is much concerned with the bargaining of one organized group of society with another parcel of citizens when their respective interests so nearly coincide that an agreement on wages and working rules may be virtually a conspiracy respecting wages and prices for a quality and quantity of production or service to be charged to the public, and enforced by organization and power so derived, upon all citizens, as a law or decree in the making of which they had no voice and gave no voluntary consent. Associations of employees and employers may have a right to make agreements on wages and regulations of skill and productivity involving the price of ordinary commodities, wherein the public may take or leave the product, but buildings are a quasi-public property differing from ordinary commodities in both the method and purpose of production and having a more fundamental influence on society. Every private building is of public interest. Whatever the disposition of the immediate owner may be, his building will be regarded by the public as beautiful or ugly, as useful or a nuisance. The disposition of any building will eventually be of supreme concern to the public, and the value of every building and its cost, relative to other products, may be a community asset or liability and of moral benefit or detriment to society.

Builders and building craftsmen are, in a very vital and immediate sense, servants of society endowed with great responsibility for its future welfare, and may have no right arbitrarily to agree among themselves to fix prices or place a limit on skill or quality and quantity of production that they will, by force of allied organizations or virtual mob rule, impose upon the public. Individual initiative in house building is a public benefit. Every additional building owner makes an additional credit possibility, creates an additional property security to the nation's wealth and an additional urge for all forms of public improvement and induces additional interest in the welfare of the community, state and nation. All unnecessary hindrances and hazards to the building instinct are public calamities.

Good buildings have a very wholesome influence on all who see them or use them. The farsighted, patriotic, cultured citizens of high integrity of character enjoy work well done and would build the best buildings; but citizens of that character abhor connivance in monopolistic price fixing or curtailment of skill or productivity. The existence of strikes and lockouts, with their attendant system of intimidation, graft and frightfulness in the building industry, deters the best of us from engaging in building or owning buildings stained by such a hellish spirit of war. Only those who can not work well and prefer to cheat or who enjoy a fight or who are willing to spend much of their time at destructive and subversive practices

and little at increasing skill and facility, will eventually be engaged in any industry conducted in such a manner.

The preamble of the Landis "Uniform Agreement" states the purpose of the agreement to be "for preventing strikes and lockouts and other waste and unnecessary and avoidable expense, annoyance or delays, making building costs as low, stable and certain as possible consistent with fair wage rates and for the advancement of labor and management in skill and productivity." Surely if agreements and working rules providing for a periodical adjustment of wages and embodying such purposes in a practicable manner could be solemnly entered into between associations and unions and faithfully carried out they would command the respect and support of the public, and unionism could be firmly established as an economic institution. But can any collectively bargained contract for wages be enforced? In the building trades, for any community, it involves a uniform agreement with all trades directly or remotely connected with building operations, for, if any one trade,—the teamsters, for example,—have not made an agreement similar to the other trades, that one trade could be used as a cat's paw for any or all of the other trades and thus defeat the purpose of all the agreements and cause the collective contract to fail.

An agreement on working rules regarding skill and productivity, elimination of waste and an economic division of labor and management can be agreed upon through collective bargaining and should be enforced by law; but an attempt in such an agreement to hold wages high or low in opposition to natural laws of supply and demand will probably fail and thus weaken the moral force of the whole agreement, because in the building industry a collective bargain must result in a collective contract covering a considerable period of time and commodity prices may easily fluctuate within that period to such an extent that any fair contract for wages for one period may be wholly unfair at another within the life of the agreement. Moreover, a fundamental principle is thoroughly established in America that a contract for human labor can not be enforced to the detriment of the laborer. Either that fundamental principle in respect to labor must be abandoned, even to the extent of slavery or serfdom, or collective bargaining for wages as it is now promulgated must fail. If organized labor could make a bargain with employers respecting wages in such a manner that the monetary part of the agreement would hold throughout the contract period and the necessary fluctuations would be taken care of by the organization itself in a profit and loss account, that kind of a contract might be made valid and enforceable by law, but it would not be a collectively bargained contract in the prevailing sense.

It is reported that when Chicago contractors began to hire non-union carpenters under that clause of the Landis agreement providing that if after 48 hours notice the union fails to supply a sufficient number of men, then the contractor may hire non-union men who shall by that fact be entitled to a permit to work until such time as the union supplies sufficient men to take their places, the carpenters' union allowed union carpenters to work as non-union men at \$1.00 per hour, the wage awarded, to prevent the real non-union men from working, promising to pay them the balance of their claim for \$1.25 an hour out of the union

treasury. While that act follows the spirit of the above suggestion in a measure, it is quite impracticable, assuming the money paid to the members was to be obtained from the same members in the form of dues and assessments. When the leaders of Labor unions declare and enforce the edict that wages must not be reduced, they cause much confusion and incalculable suffering, and they place unionism on a false foundation that will eventually bring down the house.

The idea that labor can "beat Capital," in any way is equally fallacious. Capital is what is left over from production or saved after consumption. The man who permanently saves a dollar is of the salt of the earth. If he deposits it in a savings bank or invests it in permanent property it becomes capital-property or common wealth and he is a capitalist to that extent. Labor (of hand and brain) and capital are both necessary to carry on industry. Capital must have a share in the returns sufficient to replace the losses and expenses incidental to handling it in order that capital-property or common wealth may be saved. Labor must have a share in returns sufficient to cover losses, expenses, and the well being of the worker so that the laborer's capital-property may remain unimpaired and his savings be increased.

Since labor takes its share of returns first and before the productive process is complete, if the wage taken in the enterprise is in the end in excess of the laborer's proper share and he wastes or loses this excess by idleness or otherwise, then capital or the common wealth in which all participate is wasted, or consumption is greater than production. A continued waste or consumption of our common capital-wealth of this sort would land us back in barbarism in a short time. It is said that the Russian people have wasted in three years what it took them 300 years to gain. Such waste continually indulged in is commonly manifested first in a panic, and the accompanying efforts to adjust wages so as to effect a proper balance in continued productivity is spoken of as hard times.

Some complaint is made that labor does not get its fair share of production, but as long as labor takes its share in money at the beginning of the process and capital risks getting its share at the end of the process, and as long as our monetary system, good as it is, is so bad that the value of money fluctuates, the laborer's wage share in production may prove to be either too much, so that he could buy more than he produced, or too little, so that he could not buy enough. If money value and produce value or prices remained constant, or if their fluctuations were relatively in the same direction, instead of in the opposite direction as they are, periodical adjustment of wages might not be necessary. In the cotton producing industry within a year the price of the product went so low that the money paid for the labor of raising a crop was enough to buy it and the labor cost of picking it in some instances was more than the value of the product. Thus labor took a wage share that proved to be twice what it produced or all of the product and all of Capital's share and as much from the common capital account, that is, consumption was more than two times production in that case. As long as the price of commodities fluctuates it is foolish to attempt rigidly to fix wages high or low by contract or by collective bargaining, or by any other means.

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When a general reduction of prices takes place on the products from which labor has already taken its share, then, if productivity is to be continued, Labor's wage-share must be reduced in order to save the common wealth or capital involved. Labor being the producer and original holder of Capital can not "beat Capital" without first beating itself. A proper readjustment between production and consumption can be accomplished in only two ways;—by adjusting the wage, leaving the rate of production as it was; or by leaving the wage as it was and adjusting the rate of production. A mere elimination of the waste incidental to productive processes may produce enough to restore the necessary balance between production and consumption without reducing wages. This is what a faithful execution of the Landis Agreements would tend to do. If the unions had a mind to do all they could to increase productivity and reduce the cost of building, then their friend, the arbiter, would be justified in fixing their wages at the next appointed time, February 1st, 1922, far above the average, but unfortunately their minds and resources are being directed in the opposite direction. If the resources now used in strife by labor unions could be used in producing skill and quantity, their services might rise to a bidding value and be quoted on the market the same as interest rates and produce.

What is said of unions may be said of employer's associations except as to wages. They constitute one party to labor agreements but the interests of both parties some times so coincide that they become as one either for or against the public. The true interest of employer associations lies in skill of management and increase of productivity. Any continued disregard of public interests or sound ethical or economic public policies spells disaster. Disarmament among the associations and unions is as vital to peace and prosperity as disarmament among the nations. Nothing is so fundamental to the economic adjustment of labor problems as that the rank and file of the labor element should be well and truly informed as to the fundamental principles that involve them in their necessary strife for a fair share in the returns from common productivity. Good associations and unions would be a blessing, but bad ones are a terrible curse upon society.

II. The Landis Agreements

In the Landis Arbitration the court room was transformed into a school full of unwilling pupils. Twenty-eight or thirty trade agreements were submitted. Most of the agreements were headed with several pages of general conditions consisting of two so-called uniform agreements—one of the Building Construction Employers' Association, applicable to all trades under its jurisdiction—and the other, differing from it in some respects, applicable to all trades represented by the Associated Builders. The preamble of these agreements stated the purpose to be to "prevent strikes and lockouts and provide means for a peaceful adjustment of disputes." The first paragraph of the first article of one of them stated, "there shall be no strikes or lockouts," and the second paragraph of the same article gave any one the right to strike for violation of the agreement or working rules, leaving the striker to be the sole judge of what violation

had occurred. Another article provided that no man should leave his work because non-union men in some other line of work were employed in any building or job, and then inserted a clause in parenthesis,—“excepting new buildings and alterations of old buildings,” thus nullifying the whole article and “giving the lie to the whole agreement.”

Both of the uniform agreements contained the eight so-called cardinal principles, “as an absolute basis for their joint agreement and working rules.” These eight principles had been in the agreements for 21 years, but the agreements were so self-nullifying that they were of little or no nominal effect and they had never been literally compiled with in fact by any trade. Is it any wonder that the sanctity of agreements should be lightly held when the agreement in question is self-contradictory and to violate any clause it is only necessary to stand on some other phase of the same agreement?

The arbiter began the work of cleaning up the agreements and working rules upon which a just wage could be predicated by announcing the following principles as a warning that the nature of the revised agreements would affect the wage scale:

Principles Governing the Consideration of Agreements and Working Rules Affecting a Just Wage Scale

ARTICLE 1. Monopolistic elements of associations or unions are intolerable unless,

- (1) The public is served more economically with them than without them.
- (2) Unless any one qualified may join them without hindrance or discrimination.
- (3) Unless they serve any one on demand without discrimination.
- (4) Unless sufficient apprentices be taught to supply enough skillful managers and workers.
- (5) Unless working rules and conditions eliminate waste of time, effort and material; increase quality and quantity of product; encourage improved methods, materials and appliances; produce increased skill and contentment of the workers; and help to preserve peace in the community.

ARTICLE 2. Other things being equal, trades should have higher wages, or wages above the average,

- (1) If the work is more hazardous.
- (2) If greater skill is required.
- (3) If a longer term of apprenticeship is required to become proficient.
- (4) If the work is intermittent or unsteady due to weather or seasonable demand.

ARTICLE 3. Other things being equal, trades having rules or conditions that produce or permit waste should have a lower wage, or a wage lower than the average rate.

- (1) Rules that limit or curtail in any way the amount of work per man, consistent with reasonable comfort and well-being.
- (2) Rules that require ordinary travel to or from the job to be on employers' time, or otherwise waste time paid for.
- (3) Rules requiring skilled men or high-rate men to do work that less skilled or lower-rate men could do, or that other trades could do more economically.

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- (4) Rules that expressly or by inference interfere with the manager or foreman in the dispatch of the work or the use of new or improved methods, materials or appliances.
- (5) Rules that require work to be done by hand that could be done better or more economically by machinery, tools or other improved methods.
- (6) Rules that require work to be done on the building that could be done better or more economically in the shop.
- (7) Rules requiring excessive rates for overtime, or overtime rates for shift work.
- (8) Rules requiring unnecessary foremen, shop or job stewards or pay for men or the time of men who do not render corresponding services.
- (9) Rules requiring unnecessary helpers or assistants.
- (10) Rules that limit the number of members in the associations or unions, or unreasonably limit apprenticeships.

These principles have been referred to as "The Five Beatitudes and Ten Commandments," "The New Magna Carta," and so forth. Not one objection was made or argument proposed attacking the validity of these principles; but it is too much to expect that all officials of associations or unions, whose minds had been working for years on conditions and working rules with a view of taking all that could be taken without regard to the public welfare, would suddenly reverse their attitude and realize that no clause that violated sound economic principles and the public good could stand or be enforced. Each side in many trades contended that their rules did not violate any of the principles, a fair construction of the English language to the contrary notwithstanding.

All agreements were examined and a copy of the principles and suggestions for the elimination or revision of all parts of all agreements violating the principles or contrary to the preamble of the agreements above quoted were handed to the representatives of each trade. A battle royal of wits ensued between the minds of the leaders of the building trades, familiar with all the minutiae connected with building operations, on the one hand, and the mind of the judge, on the other hand, who professed to know nothing about building, but who was keen to discern the unexpressed purpose and intent in the minds of the men before him. The arbiter had no power to dictate the terms of the agreements and could only make suggestions, but it was only necessary for either side to withhold assent to any provision in order to put it into the hands of the arbiter for elimination or correction. Were it not that the supposed interest of both parties often coincided, or that the contractors were willing to give to the unions one advantage over the public in exchange for another advantage to themselves this policy might have eliminated from the agreements more waste and might have resulted in higher wages.

The handwriting on the wall was plain and it was being interpreted by an able and conscientious friend of labor. Alas, there are some men who easily get drunk with power, who will not take counsel and are willing to bring down and destroy the most cherished institutions of their fellows rather than to depart from a habitual evil course of blind egoism or give up some fancied selfish goal. The proceedings plainly showed that neither trades unions nor employers' associations are free from such deadly perils. A

few examples out of hundreds will suffice to show the process by which, during three months of hard work of education and negotiation, most of the agreements were finally made sufficiently clean to enable the arbiter to affix a just wage in accordance with the principles he had announced.

The arbiter suggested that all agreements should contain the clause: "nothing in this agreement shall prohibit an employer, contractor, or one member of a firm of contractors, from working on their own jobs on any building," and added, "if you do not put this clause into your agreement give me the number of employers and employees that would be engaged in your trade assuming all to be busy." While but few of the agreements originally had in them anything directly prohibiting an employer from working it was surprising to find that nearly all trades had been prohibiting such labor. Testimony was given to show that if a contractor visiting his job found a little work had been overlooked by the craftsmen who had gone from the job, he dared not pick up a tool and do the five minute task himself, under penalty, if caught, of being fined or his men taken away. He could not measure for a piece of needed pipe and bring it out with him ready for the workmen in the morning, because the rules provided that all measurements must be taken by the journeymen. Contractors opposed this "working employer" clause, arguing that they, with their office expense and organization, could not compete with the small contractor who "carried his office in his hat," if the unions permitted the contractor to work; that many journeymen would leave the unions and start up as contractors themselves; that these men would do the work in a slipshod manner, would be unreliable, and so on ad nauseam.

In one trade, union leaders contended that if contractors were allowed to work 50 per cent of their men would be thrown out of employment, arguing that only one or at most two men were required in this trade on the average building, and as their employers could do the work themselves in each case in a few hours, probably before or after regular hours at that, there would be no need of the journeymen taking the trouble to go to the building at all, in most cases. Manifestly if this were true, to balance the waste occasioned, the wage in that trade would be around 50 per cent of the normal.

The glaziers' union stoutly declared that if glass were permitted to be set in sash or doors at the shop instead of at the building, "95 per cent of the men would be thrown on the street without any means of making a living for their families." The representative of the five great glass houses, parties of the first part to the agreement, argued that they could not compete with the small contractors if the mills and painters and employers generally were allowed to set glass and their great businesses would be irreparably injured. The judge evidently discounted the big jobbers' statement, but promptly replied to the union: "If the life of your union depends on the enforcement of such a rule, you ought to disband before sundown." Evidently the two wasteful provisions agreed upon and stoutly adhered to by both employers and employees in the glazing trade were too much for the arbiter to equalize by any calculation according to the principles he had announced and he handed back the agreement, saying "I

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will have nothing to do with it." They tried hard to stay in the arbitration, presumably to keep the public confidence, or was it in order to hoodwink the public? But as neither the employers nor the employees, in their repeated pleas for consideration, would consent to eliminate the wasteful or monopolistic elements, he could not be party to such an agreement by affixing a wage thereto. Perhaps he knew of the report that the Dailey Legislative Committee had revealed the fact that this same business agent of the Glaziers' union had been continuously carried on the pay roll of the man now representing the employers' association, and posing as his adversary, for no service, whatever that could be mentioned "by advice of counsel," etc. Whether he knew it or not, the rules themselves were sufficient to justify his act.

A curious contrast was shown in the attitude of unions toward helpers. The tile setters required one helper to every journeyman, regardless of the size or nature of the job, or whether any or one or more helpers were needed, but they promptly adopted the arbiter's suggestion that the number and use of helpers should be left to the judgment and discretion of the employer, in the interests of economy, rather than have the wage reduced to balance the waste occasioned in cases where the helper would have nothing to do.

In the pipe trades that attitude was reversed. These unions demanded a reduction of the number of helpers in proportion to the journeymen, or no helpers at all. Manifestly if a skilled mechanic insists that he must do the pure labor of carrying the materials and appliances from the sidewalk into the building and distributing them throughout the building, even though in some cases laborers could do it just as well, leaving him meanwhile to attend to the skillful work he alone could do, he would be entitled only to laborer's pay for the common labor work he claimed and thus obtained against the interest of his fellow laborer and the public by union methods of force. A contracting concern in these trades estimated that if the rules be revised permitting them to thread pipe in the shop and permitting them to use their judgment in the use of helpers and apprentices for the fetch and carry and assistant work it would make $17\frac{1}{2}$ per cent less labor cost and they made an affidavit to the effect that the difference would be faithfully carried into all their bids.

In the agreements of all the trades in the Landis arbitration many of the old rules permitting or producing waste are conspicuously absent. In most of them all wasteful and restrictive rules have been eliminated and the arbiter in his decision announced that if the unions of any trade having any such rules, would announce a willingness to eliminate them from their agreements, and do so before the first of November, 1921, he would revise the wage accordingly. Of course each union knows whether it has insisted on such rules or not, and it is safe to assume that if those whose agreements are in accord with the principles announced will go along and carry out their agreements, the other tradesmen will get tired of helping to pay for the waste their rules occasion or by a discount on their daily wage, and demand clean economic rules and a justly higher wage.

The differential situation presents the most difficulty in carrying out the wage award and was doubtless the most

difficult problem for the arbiter. Two years ago when the demand for labor was great and men were scarce, a horizontal wage was given all trades regardless of the usual differential due to skill, hazard, or the intermittent character of the work. This and the subsequent raise to \$1.25 per hour for all trades and \$1.00 per hour for labor was conceded by the contractors, probably on the theory, then discussed, that it would stop building and force an equitable adjustment or bring about the open shop. That it did greatly contribute to building stagnation and much unemployment and that it did nearly bring the open shop, is undeniable. It is unfortunate that this error had to be corrected at the same time the cherished "make-work" rules had to be abandoned and the wage reduced, because the application of the usual differential and the $12\frac{1}{2}$ per cent reduction together bore heavily on those trades which had been getting too much in proportion to their sister trades.

That a bricklayer or plasterer should get a certain percentage more than a carpenter or painter is indisputably just. If the wages in cities and towns throughout the country, where the law of supply and demand is more or less free to operate, be averaged, a natural differential between the wages paid the several trades will appear. This natural differential is about the same as that shown in the Landis award, barring the wages lower than they would have been if the working rules had been free from "make-work" or wasteful provisions. Some idea of the viciousness that can find its way into written and printed union agreements, not to mention unwritten rules that may be enforced, is shown by quoting the text of the arbiter's award on the plasterers' agreement;

"In it are many provisions designed to produce waste, increase cost and monopolize the business. The foreman is made subject to union rules; rules are laid down to be obeyed by property owners contracting with plastering contractors; it assumes to extend the plasterers' jurisdiction beyond the fair limits of the trade; it requires an employing plasterer to register with the union semi-annually and a union man may work for no contractor not thus registered. The effect of the foregoing is (that the employing plasterers' association permits the union) to subject the public to union rules apparently in exchange for the power of the unions to force 'all plastering, regardless of the nature of the structure' into the employing plasterers' hands."

"The foreman is required to ascertain whether employees are in good standing in the union and to collect fines and dues for the union by withholding money for wages due for work. Over-time is fixed at double the regular rate, or \$2.50 per hour, and the agreement provides that continuous over-time (apparently shift time) shall be given to those not regularly employed. The agreement limits to union men the right to use tools, thus prohibiting any employer from even doing patch work on his own job. It is required that all cast work except in limited amount shall be done at the building by members of a sister union. It is also required that ornamental plastering shall be contracted for by the employing plain plasterer, under penalty; that a plasterer will not work on the building where the ornamental plastering is let to another contractor; that the original contractor must finish (do all plastering on) the job or any part thereof (in any building) for which he may have a contract; that no plasterer will work on such a job for anyone except the original contractor, etc., etc."

Some of the new provisions of the Landis Agreements are:

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"Each separate trade agreement expressly adopts the Uniform Agreement and provides that it shall control as against any conflicting working rule, * * * This Uniform Agreement provides for the peaceful adjustment of disputes by arbitration, subject to appeal to the National Board for Jurisdictional Awards, under whose decisions all parties agree to comply; that men will not stop work individually or collectively under penalties prescribed except only when an owner attempts to construct a building with non-union men (in violation of the agreement) while putting up another building on which union men are employed, and when the employer fails to pay employees for work done; and in case of scarcity of help non-union men may work with union men until such time as union men may be obtained; that any journeyman may use in his work the tools of any other trade; that small tasks of not over thirty minutes' duration in any one day belonging to any trade may be performed by any other trade at the discretion of the employer; that over-time work over two and one-half hours beyond the regular working day shall be compensated at one and one half times the regular wage; that over-time work beyond this and over-time work performed Saturday afternoons and holidays shall be paid at double the regular rate; that shift work shall be paid at the regular day rate; that contractors not affiliated with these associations may avail themselves of all benefits of these agreements by either joining the associations or paying the regular dues and fees that members pay; that the union will provide men to any contractor whether a party to any agreement or not, under the rules and at the wage provided in these agreements."

"It is expressly agreed and stipulated that there shall be no restriction as to the amount of work a man may do, nor against the use of machinery, methods or appliances nor against any raw or manufactured materials except prison made. Employers may employ or discharge whomsoever of the union they please, and employees may work for whomsoever they see fit, and the foreman is to be exclusively the agent of the employer."

Twenty or more trades agree that nothing shall prohibit an employer or one member of a firm of contractors from working on his or their own jobs.

A particularly important change was made in all agreements regarding the work covered by the agreement. Formerly this clause was in the form of a jurisdictional claim and usually enumerated a long list of things, including things that were claimed by other unions or that might be done by other trades or that might be done in non-union shops and this jurisdictional clause has in the past caused many disputes between trades and many strikes that had to be settled before buildings could proceed. All trades of the Landis agreement have eliminated this jurisdictional matter by providing that all work undertaken by the parties of the first part (employers) shall be done by parties of the second part (the employees) subject to the decision of the National Board for Jurisdictional Awards, thus making the employer responsible for the kind of work he may contract to do, and placing on him the initiative for settling disputes between unions as to the kind of labor they shall perform, according to the provisions of the uniform agreement and reference to the National Board for Jurisdictional Awards.

Formerly if a contractor undertook to do certain work on a building, his tradesmen would no sooner attempt it than another union claiming it would "strike the job." Then the contractor absolved himself by a strike clause in

his contract and shifted the settlement of the dispute to the owner. Under the new rule the contractor, party to these agreements, assumes the burden of taking or rejecting the work his tradesmen can or can not do. This responsibility will require him to ascertain if he can perform the work before he undertakes it or make reference to the National Board for jurisdiction or be liable for damages for breach of contract.

"The Building Industry," says Judge Landis in his noted decision, "had gotten into bad repute." "There was a general disposition to keep away from it as a thing diseased; capital avoided it; the wise dollar preferred almost any other form of activity, or no activity, and this applied to the whole range of building construction from the cottage to the sky-scraper." Bankers intrusted with the investment of our common capital, investigating the building industry found 70 or 80 per cent of the cost, from the mine and forest to the building, is labor at a very high rate, and they found this high cost to be increased by all sorts of costly delays, annoyances and graft, and worst of all, found among 47 or more associations and unions, rules and regulations of waste and inefficiency taking great monkey and parrot bites out of the little remaining cheese available for sustaining the life of the building industry, and they called a halt on the capital side.

Thus the great building industry, the largest single industry in any city, was virtually stopped and everybody suffered. If the price of ordinary commodities becomes too high the public may decline to buy and substitute something else. Buildings are entirely different and there is no substitute. The cost of buildings or the rent of buildings in which all articles of commerce are made or stored or sold and the rent of the buildings in which persons engaged in such commerce live, is accumulated and added to the price of every commodity and every service. If the cost of ordinary commodities rises too high the damage is comparatively temporary, but buildings endure. If buildings cost too much, or only a few of them cost too much, the excessive rent of all of them must be paid by all of us over and over again in the price of everything we buy.

Building tradesmen have by some process been misled into the belief that rules and regulations permitting or producing waste, curtailing production or monopolizing industry would in some way inure to their advantage, but obviously such temporary advantage spells permanent detriment to them in common with all their fellows. Thus builders and craftsmen are in a very real sense public servants. We are confronted with a condition, not a theory. What will the unions do about it?

If in Chicago they faithfully carry out the agreements they have entered into and signed before Judge Landis, unionism will deserve and should receive the hearty support of the public. If the leaders are so blind to the workmen's interests or so faithless to their pledge to the public as finally to treat those agreements as mere scraps of paper, building trades unions and associations are doomed in that city. In either event the wisdom shown by Judge Landis and his fidelity to the laboring man and to the public will be of lasting benefit to the whole nation.

Towered Cities

By GEORGIANA GODDARD KING

Photographs by E. H. Lowber¹

OF THE ancient East we read how the rulers sat to judge at the gates of cities; there the incidents of a thousand tales befell. A part of Spain's mysterious relation to the immemorial East may be felt in this, that the city gate should play so great a part in history, in legend, and in the memory of travellers. It is typical of a score of instances that in the old romance of *The Death of the Master D. Fadrique*, as the doomed and unconscious Prince reaches the entrance to the city where he is to die, a warning meets him:

"At the gate called Macarena hard by I met a clerk."

It was in a sunny corner outside the Meadow-Gate of Valladolid that the two hospital dogs of Cervantes' tale used to lie, Scipio and Berganza, who held their famous *Colloquy* one winter night. Indeed the inn and the city gate supply between them the only two scenes necessary for all romantic narrative, an interior and an exterior; anything may happen there. In Spain, thanks to the *octroi*, there is still an arrest, with incident, at the entering into a city, and thanks to the diligence there is still in the roadside house a hearth, or a counter with cooled water and wine and fruit-syrups, to which all the diverse and unacquainted company descends. The traveler today still feels the breath of romance blowing, as he enters the wayside tavern or passes through the city gate.

The walls are yet standing that engirdle many a city in Spain, from Lugo to Utrera and from Morella to Ciudad Rodrigo; nowhere perhaps more impressive than at Lugo. Where the Romans walled their garrison town the successive centuries have but repaired and restored, and today you can walk all the way around, crossing the grey vistas of the principal streets on ancient granite archways, now facing the Greco-Roman façade of the Romanesque cathedral, again looking down on the city side into gardens fragrant with climbing rose and slender magnolia, or on the outside, at the potters' market, studying the exquisite antique forms of water-jars and cooking-pots, nowhere so classical as at Lugo, and dark and ringing like bronze. The view embraces a wide reach of golden plain, with mist-blue mountains lifting along the edge, and a deep green sinuous line where the clear brown Miño winds, while in the immense pale dome above, that comes down below the level where a man is walking, the white white clouds sail and sail; while voices of children and dogs come up from the still hot city, and from

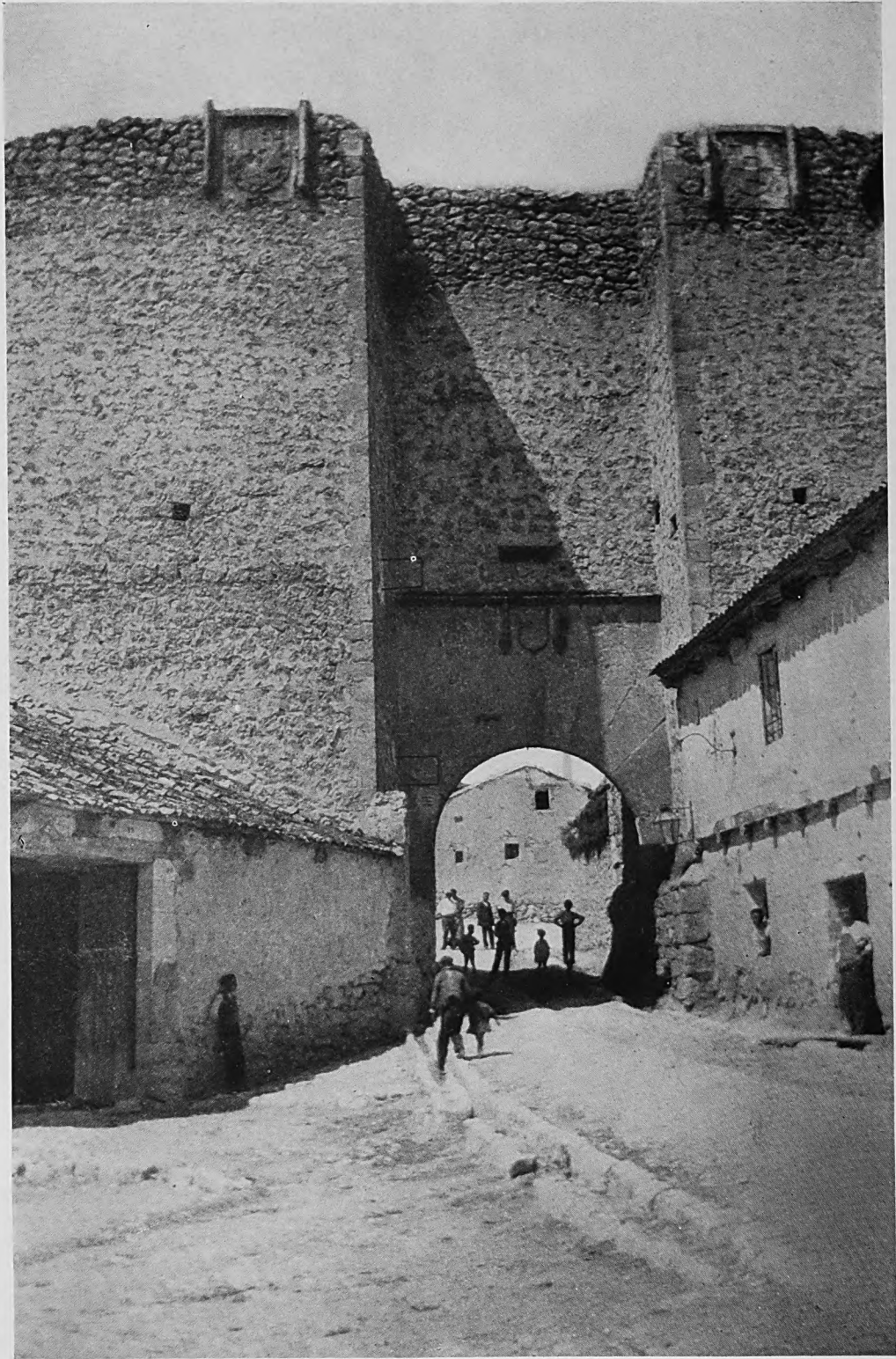


TOLEDO—The Old Visagra Gate, long disused.

the shady walk outside, the rustle and murmur of leafage in the untiring wind.

Lugo is very old, with an immemorial civilization, and the walls still ring her around in every memory. In other cities another memory may survive capriciously. At Toledo, though the *Puerta Visagra* is work of the ninth century, yet the traveller forgets everything but the Cathedral, and faces the horse-shoe arches with a sort of imaginative distrust. At Saragossa the only gate which remains belongs to the eighteenth century and the traveller seeks it out sedulously through long hot well-paved avenues, or through dust and flies, re-reads his Byron and looks

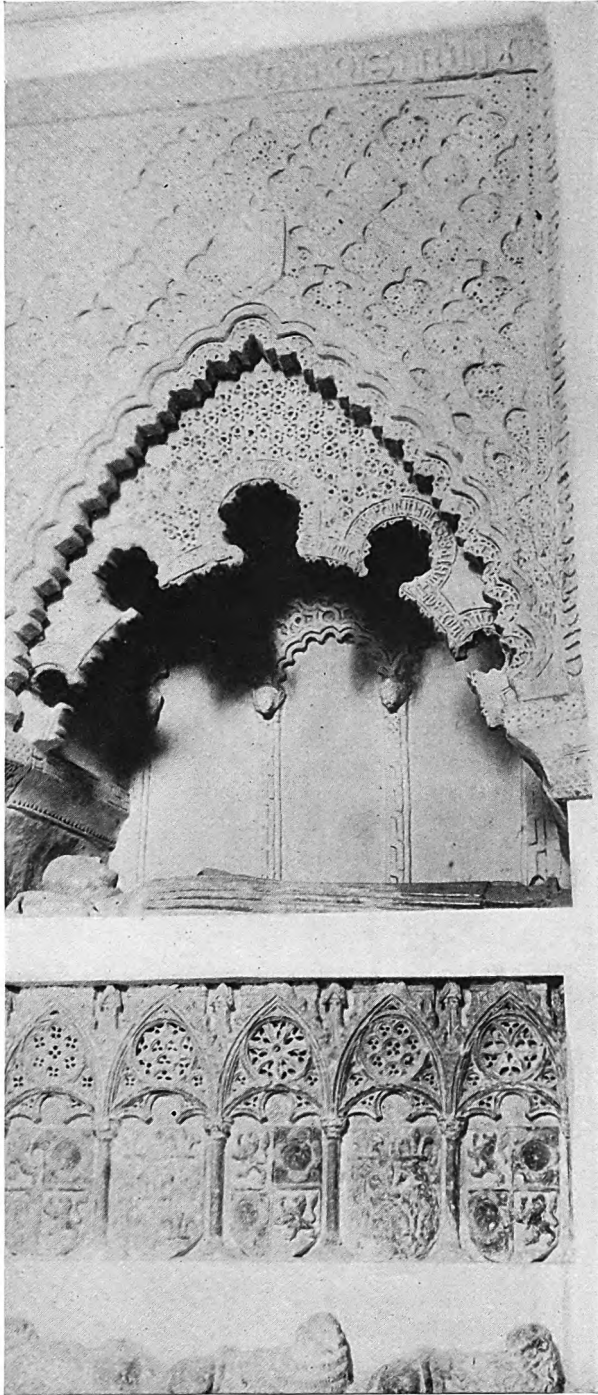
¹Photographs by permission of the Hispanic Society of America.



CUELLAR—A Gate in the Second Circuit of Walls.



Lugo—Under the City Walls.



CUELLAR—Pierced Stone and Moulded Plaster Tomb.

up at it long, reflecting that the love of liberty is not yet extinct in Aragon.

Three little cities there be, however, which lie far from the traveler's way, and two of them accessible only by diligence, Cuellar and Daroca and Madrigal de las Altas Torres; so enchanting, so ripe in their mellow *picaresque* atmosphere, that the present

authors are loth to reveal how easy it were to come upon them.

We set out at six after waiting awhile on wicker chairs in a neglected garden, in the fragrant freshness of a summer sunrise among the cabbage-roses; the little mail-coach that held six inside, was full when it passed, we climbed to the places beside the driver and for hours and again for hours moved between golden miles of level stubble, barred with tall pine-groves, sun-shot, aromatic, and clear of undergrowth. We crossed the frontier into another province and found the horizons different; there had been mountains on the rim, but now the horizon curled up like a wave. Once a castle rose as suddenly out of the plain as a startled rabbit might have reared himself up to look. The villages bore magical names, straight out of a romance, like Bracamonte de Mosén Rubin, and when Madrigal finally lifted far to the left and we turned, we heard the church-towers ringing already for Mass.

It is hard to say why Madrigal looks so lowly, for all its great memories and its romantic name; the low houses, the wide ways, the level horizons all count for something, perhaps. The walls have been broken down for the most part, except where hovels built against portions now support what once sustained them, and though the gates are there, the gate-towers, like those of Valencia and Cagliari, and those of Avignon and other south-of-France strongholds, are unwall'd and hollow on the inner side. All is the same warm, friendly pinkish brown of the regional brick-work, and the streets are dazzling with fresh whitewash. The town is of brick architecture entirely, except for one façade of grey stone, very hard, carved in low relief late in the sixteenth century, a humble dwelling built into it, like a stork's nest into a temple in Egypt.

At S. Nicholas, the principal church, the Mass had just begun; we stepped in softly and knelt at a bench where good townfolk in mantilla moved up to yield room. In the sanctuary we could see, indistinctly, two splendid marble tombs of the early Renaissance; in the choir behind us, delicious eighteenth-century painted woodwork, pale willow-green and rose-color and gilding, and above, a little rococo organ of pale olive gold that whimpered and sang and seemed to take most kindly to motets and gavottes, as it filled the pauses of the office. But the marvel of all was the ceiling, a superb *artesonado* of three bays that curved downwards to the columns of the nave and swept up again to repeat *da capo*, with, over the entrance to the sanctuary, an octagonal dome that corresponded. The dark and sumptuous woodwork drank up the light so that we never got a proper photograph; nor, so far as I know did any one else ever, so that it must remain like a summer sunset

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and a rose-garden and a moonrise over the sea, a memory simply, but a memory of the most purely beautiful ceiling in Spain, with its intricate interlace of fleeting polygons overlying and interpenetrating the deep, rich tri-dimensional space-enclosure that fairly pulsed and withdrew in its modulation of the ascending forms. There must have been such another in the aisle, which has gone now; probably it decayed and was taken down to save the expense of repairs. Indeed the whole of the church has somewhat decayed, though even into the nineteenth century it kept collegiate rank and maintained six or seven chaplains.

All about on the floor were set the *hacheras*,¹ little racks of lighted candles that are memorials of the dead; under each was spread (and this oriental bit of ritual we had not remarked elsewhere) a true prayer-rug, though for the poorest it might be only a square of white linen edged with pillow-lace; and there the women knelt. Hither came, after Mass, to each in turn, the junior *cura*, and for a bit of money put into his *beretta* said a prayer or two for the dead, ending with a blessing. Though we had no candles lit there, yet we too remembered our dead, and the priest as well; we dropped a peseta into the cap when it came near, and the prayers were long.

¹The curious reader will find a discussion of these *hacheras* or *sepultados* in *The Way of S. James*, vol. II, p. 151.

Anon we wandered into a little café, where the landlord invited us to take possession of our house; he knew how to touch the strings cunningly, and one of his little daughters had a gift to sing *coplas*; another danced, and the slavey danced with her and danced better; and we remarked what differences exist among stringed instruments, between guitar and *laud* and *pandera*.

A bishop of Burgos gave rights to the townsfolk here; Alfonso VIII confirmed them in 1168. Here King John II was married to Isabel of Portugal. The palace-nunnery where their child Isabel the Catholic was born, looked like the Sleeping Beauty's castle, embowered in tree tops, with the window-lattices of tiles, the flat tile-like brick that they make hereabouts, as Romans made them before. There are many associations with Madrigal besides those of the good queen Isabella; I think that here was born the great humanist Tostado, whose exquisite tomb is the chief jewel on the brow of Avila cathedral, and here was buried the scholar, poet and mystic, Fray Luis de León, whose name is fragrant in the halls of Salamanca University. In this wide and arid land they understand the value of green fluttering leafage, which here is chiefly of acacia and poplar and musical like the sound of running water; and the fountain is pure and sweet and musical beyond comparison; it is like an oasis in the desert, like a



MADRIGAL DE LAS ALTAS TORRES—The Fountain by the Gate.



DAROCA—The Walls and Towers.

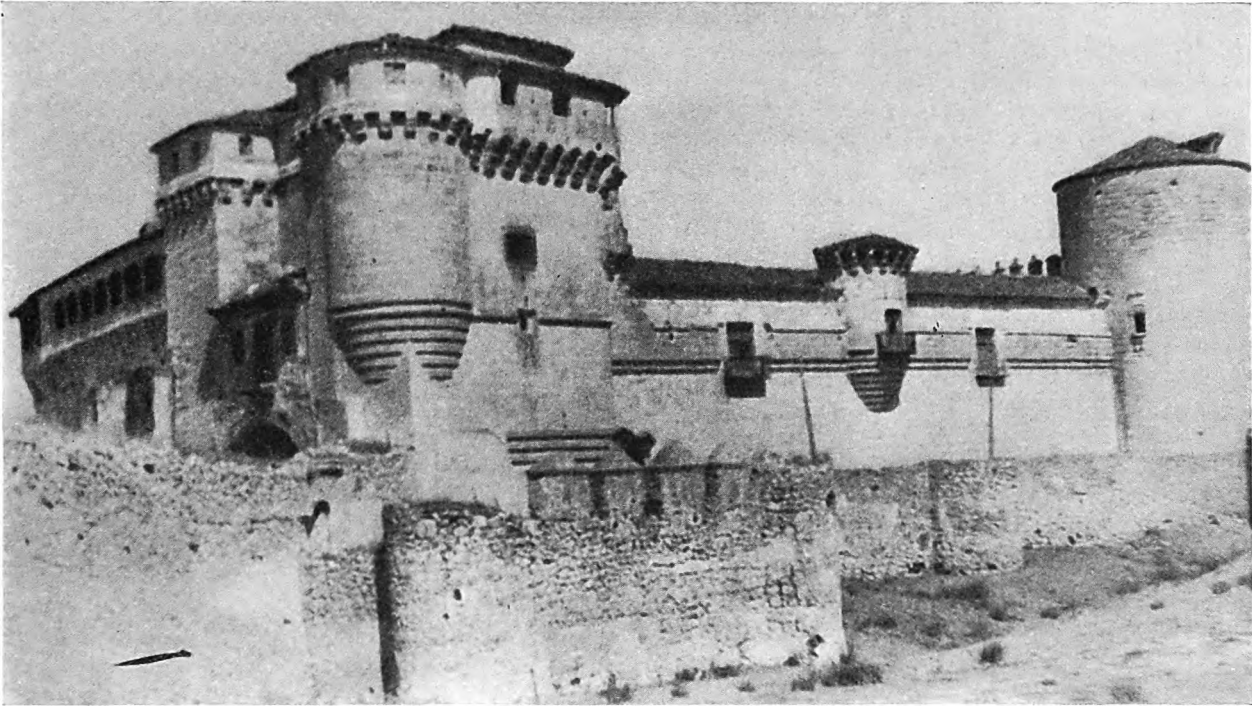
song in a city room, like the syllables of the name itself, *Madrigal de las Altas Torres*.

Madrigal, by virtue perhaps of the Catholic queen and a pretty hospital that bore the date of 1447, albeit the *patio* was set round with Doric columns of granite, remains in memory at the fifteenth century, even though the tombs of the *collegiata* were dated 1559, and the ceiling was contemporary with them. Cuellar on the other hand, high-seated and princely, remains forever and immutably Renaissance. The churches are of all ages; one huge in the Square remodelled in the solemn seventeenth century; one showing such clumsy flying buttresses as S. Francesco at Bologna, and like it no more fit to fly than a penguin; one, whereof the local name might be rendered S. Mary in Steep-street, boasting a Romanesque doorway opening on the cemetery. S. Francis was built in the sixteenth century and is now utterly destroyed. The nuns of S. Clare have apse-buttresses united by deep and high arcading that recalls the churches about Trani. The ten parish churches nearly all still exist, and nearly all are brick-built: S. Salvador and S. Andrés, S. Estéban, S. Miguel, S. Martin, and many another, set their multiplied arcades about façade and flank and apse, while pointed arches yield to round-headed and then to square compartments, and the shallow scalloped cornice and pointed band with sharp triangular

shadows that bricks make being set diagonally, recall the North of Italy to such as know not Sahagún or Calatayud. S. Andrés, extra-mural and high-up, over against the castle, has a round-arched western door (now blocked) where a beautifully moulded torus alternates with a square order, a couple of sharply carved capitals top the jambshafts, and five stubby brick ones the mouldings of a gigantic multiple arch, slightly pointed, that soars from the red soil almost to the wide eaves and marks the vaulting lines within. The tower rises behind a flanking apse.

When S. Francisco, within the citadel, was destroyed, the great tombs disappeared, and none may say where lies D. Beltran de la Cueva, the lover of Queen Joan and reputed father of the poor princess whom Isabella the Catholic supplanted. On his sepulchre of alabaster in the middle of the choir once he lay, and his second wife and his third on either hand; but his first wife, Doña Mencia de Mendoza, and his brother D. Gutierre de la Cueva, who was Bishop of Palencia, with other fragments of the princely sculpture of alabaster, and a later tomb of a noble descendant and his spouse, are safely housed after their wanderings in the Collection of the Hispanic Society in New York. In S. Estéban there are still four tombs in the wall-recesses of the sanctuary, dated 1509, which are partly, I think, of

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CUELLAR—The Castle, Mainly Sixteenth Century.

moulded plaster and partly of stone-work carved and pierced, and all whitewashed alike. At any rate, the style is that especial variety of late *Mudéjar* which we associate with Enrique IV and the city and region of Segovia. Like all brick building, these churches mostly had timber roofs.

The city is very ancient, Roman at the least. The Archbishop D. Rodrigo names it among the towns reconquered by Alfonso VI; at the dawn of the twelfth century it was an organized municipality, by the middle of the thirteenth it had its charter or *fueros*. Here the King D. Peter made his fantastic experiment, after divorce, in matrimony with Doña Juana de Castro. It came to D. Beltran at the same time with his title of Duke of Albuquerque; in that house still it remains. The site is of great importance, commanding a gap in a long spine of clayey hill and overlooking the approach to the Guadarrama, with the Douro valley behind.

The walls are complete, both the inner and the outer circuit, and the gate towers are as well-enclosed on the inner as the outer face, tall and well fortified. The town long since spread far beyond the walls, nor has it shrunken since. Along the steep street, now mud, now dust, that skirts the town, climb low-browed houses, but among these the Magdalen Hospital lifts an exquisite late-Gothic portal of grey stone carved and moulded. If you would see the Square, with town-church and town-hall and *soportales* like the Rows in Chester, and all that goes to

make a self-respecting little burgh, you must turn sheer to the left up one of the steep little streets that mount toward where the castle crowns the incline, but stop short at a wall or wind deviously seeking a gate, and there in the narrow paven ways you may make out the ancient armouries over the doors of timber-and-plaster houses, or, over the gate-towers, now the cauldron of the great House and again the horse's head which is the badge of the City.

That the Castle seemed to Ponz one of the finest things in the world, even apart from the collection of armour and weapons and of trophies of the chase which in his day furnished it, is no marvel; empty and dismantled, so it still seemed to us. Built in the middle of the sixteenth century, when the Duke was serving in Flanders fields, it kept for a window here and there some of the vanishing Arab grace, and incorporated all the new and Italianate loveliness, adding thereto a touch of the substantiality which only maturity knows, and which Titian and Palma can make so enchanting. Around the central court runs a double cloister of flattened arches, above which loggias open; the great stair mounts up from one corner, storey by storey; from the highest, another gallery, facing outward, looks abroad, mile beyond mile, across the brown town that falls away steeply to town-fountain and stream-side washing-places, across the steep edges of the primal clay plateau, across dense pine woods and the burning gold of stubble, till it would seem you could see a

shield flash on the ramparts of Turégano, or catch a beacon flare from the churchtower of Sepúlveda, or a smoke-signal from the very walls of Segovia. The huge and circular keep, probably the oldest part, occupies the outer angle of castle and wall, being barely tangential where the two coincide, and sheltering under its vast flank a threshing-plain in the grain-field. Diagonally opposite another circular tower commands the gate house along-side; turrets rise on concentric rings of corbelling that make a pleasant pattern of sun and shadow; and the battlements long since were built up and roofed over for chambers sweet with sun and air.

The Castle dominated the town in truth as in the traveler's memory.

The inn at Madrigal had been typical of its own place and estate in the humbled town of the Castilian uplands; approaching, over a half-door you looked into the *zaguán*, floored with flints and ceiled with blackened beams. The mules clattered across this to the stable that opened on the right, and the brick-built mangers that stretched back into darkness. If a traveler came in after them he might mount by a staircase on the left to two big rooms from which opened alcoves, each with a clean bed and a washing-stand; three alcoves from one and two from the other, and the rooms were like private sitting-rooms

with a centre-table and a red table-cloth and comfortable chairs. But downstairs, under these and behind the *zaguán*, opened a humbler dining-room with the invariable provision for washing before meat. Hereabouts was the kitchen, where a fire of chaff whispered and winked under the chimney-hood, and kept the *puchero* at a low simmer. And the well, and the cellar where wine and water were cool, were situated in the *zaguán*, before and behind the staircase respectively, and there was also a little counter and den, for the sale of cool drinks to all comers, not unlike the glass cage to be seen in old-fashioned English inns. The entire plan, with possibly a few modifications, might be recommended for a road-house here, in the Adirondacks or on the Atlantic shore, where many motors pass, some stop for meals, and a few travelers want to sleep,—as cool, convenient, compact yet airy, democratic yet sufficiently reserved.

The inn at Daroca was more pretentious, like a scene from Cervantes or Dickens. Under a wide archway the motor-bus rattled into a huge court yard, surrounded by stables, hay-lofts, and magazines of all sorts, including one to keep the travelers' heavy luggage under lock and key. From beneath the archway a monumental staircase mounted, with wide landings to bed-rooms above; and on the inter-



SARAGOSSA—The Only Remaining Gateway.

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mediate floor, looking over the street were the public rooms and some state apartments cut off by a baize door. I never quite understood why we in America, with the habit of tall buildings and the accommodation of a lift, still set so much of our occupancy on the ground floor, amid the dust of the street and the curiosity of passers-by. Further along were the kitchens, and the family quarters over the entrance arch looking into the yard. Your Spanish landlord lodges his wife and daughters usually a little better than his guests, even though he lets them serve you; here there was black old furniture, a piano, a book-case, and old china under glass, and, as always, the woven table-cover and the long bent-wood rocking chair. In the next room the raised hearth under a hood and the flanking benches on it, were disused, for all the cooking went on somewhere beyond at a modern charcoal range; but here stood also the green-glazed Forty-Thieves jars that stored water for washing and cooking, while on a shelf outside, in the shade, cooling, sat brown water-jars fetched dripping from the fountain.

That fountain at Daroca lay beyond the gate at the town's foot; there from eight worn lions' heads the water perpetually rushed into a marble trough and ran away in a long stream, tree-bordered, to join the brook beyond. The single wide High Street swept through the town from gate to gate in a single curve, and on one side little alleys climbed up steep steps to the crumbling red walls, but on the other the town stretched out its warm-coloured flanks like a tortoise-shell cat in the sun. Above, a ruinous castle crowned so steep a hill that we never ascended, and the ancient circuit of the walls enclosed green gardens and vine-garths and orchards and threshing-floors; noble churches rose unexpectedly around a corner, or streets ran through their towers. *Casas solariegas*; the abodes of old families unforgetful of their honour, reared multitudinous quarterings and unfamiliar armouries, with here an *ajimez* window and there a Renaissance cornice and yonder a cottage half-door and beyond a pedimental portal.

To the latter history of the Reconquest and the age of D. Jaime I *el Conquistador*, the story of Daroca belongs; but the collegiate church is of that admirable fifteenth-century Gothic, lofty and spacious, which is so apt for a city's needs, noble, serene, and comfortable. It is rich with adornments of all the centuries, for it enshrines and commemorates a very precious miracle, and all the gifts are not incongruous in their splendours, no, not the baroque high-altar, not the pseudo-classical flavour of the west front.

Two of the side chapels are crammed with early paintings, the remains of retables by many hands; one of these presents in the central panel, under a canopy, the figure of the apostle S. Thomas, the

patron of all architects and builders, and in six flanking compartments the story of his journey to India, and the House not made with hands, of his building there. Near by, in sharp contrast with the hard blues and the dry ugly forms of this, glows a superb¹ altar-piece of S. Michael, with twenty-five or thirty scenes from the legend of the Archangel and the life of S. Mary. By its style I take this to be conceivably the first identified work of that mysterious master Lorenç Zaragoza. Sure it is that the school of Valencia and the school of the brothers Jaime and Pere Serra here meet and mingle in rich and romantic colour, delicately-modelled gold relief, and a tender and gracious personal beauty not to be missed by those who know the altar-pieces of Manresa, S. Cugat, and Segorbe. Some pretty and curious wall-painting in a church further up the hill, shows traits more French, but all this work at Daroca constitutes a school of its own, where Catalan and Valencian are interfused and interwoven like gold and silk in the brocade of a cloth of honour.

The chapel of the Corporals is all of the most flame-like and exotic flamboyant Gothic. An open screen, a play of shadow and little twinkling lights, make magic there. The precious reliquary itself, which was shown at the Saragossa Exhibition in 1904 and photographed by Emile Bertaux, is enclosed within a great shrine of the fifteenth century and invisible except on special days.

The shrine of Daroca, like that of Orvieto, was constructed for a Miracle of the Host; it is one of those evoked by the founding of the Feast of Corpus Christi. A parchment of the year 1340 is still preserved² (as I understand) in the archives of the *collegiata*, sealed with three leaden seals still pendent, relating what happened at the castle of Luchente or Chiu, wherein the Alcaide, the *cura* of the church, and the Justice and Council of the place, testify to their knowledge of what happened there ninety years or more ago.

When the kingdom of Valencia was peopled by Moors, D. Berenguer Dentuça with troops of Calatayud and Daroca and Teruel and other places, raided the kingdom of Valencia and captured cattle and Moors; the Moors watched the Port of Chiva (or Chiu), caught him there as he was returning and cut him off. There was not a chance. Then D. Berenguer ordered a clerk of Daroca to say Mass, and the troopers to confess to one another; and when the clerk began to say Mass and to consecrate the wafer which is the Body of Jesus Christ and laid It

¹The style of the work is closely approximate to the Catalan altar-piece of S. Andrew in the Metropolitan Museum, wrongly attributed to Borassá.

²I take this account, with verbal condensations, from an article by the late Rev. D. Roque Chabas, Canon of Valencia cathedral.

on the linen cloths—the Corporals—It turned to real blood. Then the said Mass-priest, vested in a very fair tabard of scarlet and mounted on a white mule, rode forward bearing the Miracle and went ahead of the troopers, and the Moors fled, and they killed many. All the Communes there represented wanted the blood-stained Corporals; thrice they drew lots and Daroca won three times, but the others were not satisfied; finally the white mule of the clerk of Daroca being allowed to go freely where he would, went to S. Marcho near Daroca and knelt down there. So the Corporals belonged to Daroca and a church was built and then a more splendid one, and there they were laid up and there they are still. The Moorish king meanwhile had built a castle in the Port of Chiva and the King D. Jaime when he took Valencia gave it to D. Berenguer Dentuça who raised a chapel to S. Mary and many pilgrims come. And at night in that chapel singing is heard and lights are seen and lamps are found lit that were left unlighted, and the singing is in praise of the Blessed Mary, Mother of Our Lord Jesus Christ.

Canon Chabas inclines to think that the miracle happened after the chapel was built; it matters little except to those technically interested in hagiography. What matters is that the legend enshrines two pretty things; the chapel with lights and singing as though the Grail were there and Sir Percival or Sir Galahad were soon to pass thereby, or this were Monserrat, which lies indeed not two hundred miles to the north-east; and the picture of the Mass-priest all white and scarlet, on the gentle white beast, holding up the blood-stained linen cloths before the host.

Arbitration and Some Questions.

THE FACTS: An Owner engaged an Architect to prepare plans for a country residence, having in view a cost of \$30,000. The Architect wrote a letter to the Owner in which he advised him that his full charge for services as Architect would be 8% plus traveling expenses and that in case the Owner concluded to abandon the proposed erection of the house, the rule of the American Institute of Architects would prevail.

Five sets of preliminary drawings were prepared by the Architect all of which indicated skill and good taste. The final set were pleasing to the Owner; in fact all the drawings led to the perfecting of the ideas of Owner and Architect and indicated an intelligent approach to the final coming together of minds.

The Owner did not reply to the Architect's letter which set forth his charges for professional services but continued his services and on examination acknowledged the receipt of the Architect's Communication. In due time the Owner was called upon to pay the Architect \$500.00 for the preliminary drawings; he called at the office of another Architect and was informed that he could have preliminary drawings prepared for \$150.00; still another

Architect offered to prepare the drawings for \$100.00. Both of these intervening Architects stated that the proper fee for the whole work was 6% and not 8%. The Owner concluded that he had been imposed upon, refused to pay the \$500.00 for preliminary sketches and to continue a contract calling for a fee of 8%.

THE SEQUEL: Both parties agreed to arbitration and finally selected an Arbitrator (an Architect) personally unknown to either; the agreement for arbitration involved an abandonment of all right to Judicial review.

The Arbitrator was accorded great liberty in examination and placed on record the education of the Architect, which proved to be as follows: He prepared in academic schooling to the extent that he was admitted to the School of Architecture of one of our great Universities; he studied Architecture in this school for some years, learned to draw well and to acquire hopes that will probably never be realized; inspired by this hope he went to Paris and spent four years in study at the Ecole des Beaux Arts. He then returned to this country and practiced for six or more years. Some of his clients confirm him in his opinion that he is qualified to plan a neat, artistic, comfortable and sensible kind of a country house.

The Architect spent 120 hours of his life on the particular work in question; a well paid draftsman spent 40 hours in the same occupation.

The Architect had to eradicate the ideas usual to the Owner who in this case had an excellent wife also with ideas.

The Arbitrator brought all of the Architect's history and training to the attention of the Owner by testimony and proof, and asked the Owner to present his version if it were in any way contradictory.

The response of the Owner was prompt; he insisted upon paying the \$500.00, apologized with humility to the Architect, promised further employment when conditions permitted and insisted that it was his obligation to pay the fee of the Arbitrator; he stated that the life history of an Architect was intensely interesting and enlightening to him but characterized the business sense of those engaging in such a profession in far from complimentary terms.

The Arbitrator remains disturbed because certain questions are not answered and will intrude:

1st. How many preliminary drawings constitute "preliminary drawings"?

2nd. Did the Architects who expected to get \$100.00 or \$150.00 intend to place any time limit on their services for such sums?

3rd. Can an Owner be compelled to pay for "any old" preliminary drawings or possibly for sketches approved by the Architect as his idea of what the Owner must have?

4th. Is an Architect face to face with the possibility of being compelled to spend his entire life on a set or sets of preliminary drawings or abandon his claim for \$100.00 compensation?

The Owner in this case seemed to be a just man, but suppose that he declared that the preliminary drawings were entirely unsatisfactory to him, and suppose that the Arbitrator had reason to believe that the Owner was intelligent in his opinions? Truly there should be some light on the question of preliminary drawings.

Communicated.

President's Conference on Unemployment

Department of Commerce

Report of the Committee on Construction Industries.

The Senate Committee on Reconstruction and Production estimated in March of this year, the total construction shortage in the country at between \$10,000,000,000 and \$20,000,000,000.

During the World War, private construction and construction of every nature not contributing to War purposes, was prohibited. After the signing of the Armistice high costs prevented the resumption of genuine construction activities. The investing public in this field has not had confidence in the stability of values; they have not been able to determine if and when the cost of construction reached a point warranting their investment. A RETURN OF CONFIDENCE IN VALUES IN CONSTRUCTION will assure MORE EMPLOYMENT than in any other area. Considering all branches of the construction industry, more than 2,000,000 people could be employed if construction would be resumed.

To Secure Confidence: There are three outstanding factors in the building and construction situation, which have the greatest bearing on the resumption of construction activities. They are FINANCING, MATERIAL COSTS, and LABOR COSTS.

These factors present questions which can not be settled in a national way; they must be investigated by those interested, in each community for itself. The questions are:

- (a) Can the prospective investor finance the operation at a reasonable cost?
- (b) Does the cost of construction materials to the prospective investor, properly represent the reduction which has been made in the wholesale prices?
- (c) Is labor in the particular locality working at fair rates and giving fair value in the quantity and quality of work done?

If local conditions prove satisfactory, there is no reason why work should not proceed immediately. This is especially true of persons contemplating the building of their own homes who are now paying rentals based on inflated values. That this fact is being realized is shown by current statistics. During the month of September of this year, residential building amounted to 39 per cent of the total valuation of contracts awarded in that portion of the country north of the Ohio and east of the Mississippi Rivers.

Financing: Money must be made available on reasonable terms and in reasonable volume and free from demands for bonuses and commissions of a questionable character.

The Savings Deposits of the people are the natural economic source of loans for home building. The aggregate is ample for this purpose, even though a portion is protected by adequate investment in more liquid securities to meet withdrawals. There would be no difficulty in the Financing of Homes if the fundamental principle of the

use of long-term deposits for home loan and long term purposes were generally followed.

In every section of the country owners have declined to start new projects on account of the financing charges, both the interest rate and the commissions and premiums paid for floating loans being discouragingly high. Commissions and premiums varying between 10 and 20 per cent have been charged in addition to from 7 to 8 per cent interest. For example, before the first work of construction was begun the owners of an apartment house were required to pay for the million and a quarter involved, an interest rate of 7 per cent, and a bond premium of 1½ per cent, and a floating charge of 10 per cent, making a total financing charge of 18½ per cent. The financing charge of a subsequent loan of \$250,000 for the same structure was \$75,000. This is a charge of 30 per cent. It is doubtful whether the margins received by the architect, the contractor, and by all the producers in the basic industries involved aggregated a sum equivalent to these financing charges.

When an owner must pay such a sum before construction work even starts, many projects have necessarily been abandoned in the face of a continual need and demand for building.

While excessive financing charges for building have not been exceptional, many savings banks, trust companies, and insurance companies have maintained a conservative loaning policy with regard to real estate and home building and the building and loan associations of the United States with their two and a half billion dollars of assets, have been conducted with exceptional efficiency. Underlying the whole matter of the financing of construction there is, however, the sound banking principle that long-term deposits and the savings accounts of the people, should primarily be used for long-term purposes and should not be intermingled with speculative and commercial business.

Material Costs: Many construction materials have been substantially reduced. Some may have been reduced to a point which is retarding production. It is apparent, however, that other construction materials have not yet been reduced in keeping with the trend of wholesale prices on other commodities. Manufacturers of such materials should be urged to promptly make their readjustments to a reasonable basis. They must realize that failure on their part to do so is not only limiting their own business but it is also interfering with the production and sale of other construction materials; it is interfering with greater employment; in a word, it is a contributing factor to holding back the progress of the entire industry.

In many instances retailers of construction materials have not yet followed the reduction of manufacturers and wholesalers in their resale prices. This is an important subject to be taken up locally in each community. The retailers must be shown the necessity of bringing their prices to local buyers down to a point consistent with the reductions made in wholesale prices after taking into consideration increases in freight rates or legitimate increases in cost which exist in other directions.

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Labor Costs: This can not be regulated by national action. The cost of living, rentals, and working conditions differ in various communities. Where fair wage adjustments have not been made, construction is held up. Such conditions should be dealt with fairly and frankly between employer and workmen and reasonable readjustments promptly made.

Approaching this subject, we believe that the employer should not permit the wage of his workmen to go below that point at which it not only provides sufficient to take care of the necessities of life but also enough to enable the family to educate the children properly; to provide reasonable comforts and conveniences and to permit systematic savings even though small. In the comparison of wages for building artisans with those of other industries, due allowance should be made for seasonal unemployment.

The workman, on the other hand, should deliver maximum production with proper interest in the welfare of the business out of which his wages are paid, and should eliminate restrictions and measures which tend to interfere with his production or with the production of others. Stoppage of work through jurisdictional controversies in the construction industry should be permanently abandoned as measures detrimental to the public welfare.

As a factor contributing to the necessarily high costs in some localities, is the continuation of unfair practices.

Unfair Practices: Notwithstanding the improvements which have taken place in some instances, with respect to the practices in the industry, it is apparent that there still exist trade abuses, waste, and unnecessary expense. It is a first essential of the proper development of the construction industry on a sound basis that all practices which unnecessarily retard the work or add to its cost should be immediately discountenanced and abandoned, if the confidence of the public is to be fully restored.

There are certain restrictions or limitations which were placed upon the industry during or since the War, which should be removed.

Reduction of Freight Rates: This group recognizing that transportation problems are not within its peculiar province desires, nevertheless, to express the conviction that every reasonable step should be taken, necessary to enable the railroads to resume their customary activities, and to reestablish efficiency, economy, and regularity in transportation service.

Readjustments of, and reductions in freight rates on construction materials are essential to a sustained revival of building activity. Increases in rates on construction materials imposed during the war left the construction industry under a relatively heavier handicap of increased transportation costs than had been imposed on most other commodities.

To this war-time increase in freight rates has since been added an increase of 25 to 40 per cent, thus perpetuating and even magnifying the effect of the war-time policy of restricting general construction activity.

The construction industry can not effectively function under a freight rate fabric artificially distorted by the continuation of restrictive war measures. A great economic waste would be incurred if, because of failure to reduce and readjust freight rates existing plants for the production of construction materials had to be abandoned

and a new alignment of producing facilities established in accordance with the present rates, a fabric originally designed, in the public interest, to discourage the very thing which, in the public interest, the Government now desires to encourage; that is, the normal operation of industry. The financial burden of such a readjustment of plants would have to rest ultimately upon the public; and its necessary effect would be to curtail existing competition and to limit the radius of distribution of many of the construction materials.

In addition to such readjustment of freight rates on construction materials as will permit construction activity, freed from unnecessary artificial restriction; it is urged that such inequalities as may after such general readjustment, exist in the rates on various construction materials be investigated and removed by the Interstate Commerce Commission. We suggest the consideration of the practicability of encouraging during winter months the transportation of materials used in road and other construction work thus utilizing transportation equipment which might perhaps otherwise remain idle.

Transportation Priorities: The development of the art of building through the adoption of new and economical scientific methods of construction is retarded throughout the country by the building codes of the various municipalities, which differ flagrantly as to floor loads, wall thicknesses, and other elementary requirements which should be comparatively uniform, climatic conditions excepted. It is the opinion of competent authorities that as much as 20 per cent would be saved in certain cities by the adoption of building codes based upon modern scientific knowledge. The codes of nearly 40 of the cities and municipalities are now in the process of revision. The Secretary of Commerce has appointed a committee of recognized experts to study the principles upon which the building codes may be standardized, which committee is cooperating with the building officials in the various municipalities. A material saving in the yearly expense of city building may be hoped for through investigation and cooperation along these lines.

Statistics: There is a definite need for statistics properly coordinated, accurately prepared, and furnished promptly—affecting production, capacity, and distribution of basic materials in the construction industry. The present confusion and limited information through handling by several departments is causing unnecessary expense to the Government without giving complete data and service to the public. Arrangements should be made as promptly as possible, so that such statistics can be furnished by the proper department.

Recommendations: It is recognized that the construction industry is a key industry, that there is a vast amount of construction needed and that this construction work would afford employment to a large number of men directly and indirectly, and would result in the creation of permanent and useful wealth, translating wasting labor into earning capital.

To meet the present unemployment emergency and to make renewed activities in the construction field possible does not require special concessions to the industry. But it does require a complete and prompt removal of unnecessary handicaps, restrictions and limitations, both direct and indirect, these including credit, freight rates,

COMMUNITY PLANNING AND HOUSING

priorities, undue costs in relation to labor and materials, wasteful building codes, and the like.

In the resolutions adopted at the Conference on Friday, September 30, 1921, the Governors of the several States were requested to summon representative committees with the cooperation of the Mayors or otherwise, to—

(a) Determine facts.

(b) Organize community action to secure adjustments in costs, including removal of freight discriminations, and clean-out campaigns against combinations, restrictions of effort and unsound practices where they exist—to the end that building may be resumed.

It is recognized that this request of the Governors must be followed up by suggestions of a practical, workable nature, which will enable the administrative officer in each State to carry out the suggestion promptly and in the most satisfactory manner. It is recognized, also, that to secure the elimination of restrictions and limitations which have been placed on the industry, as previously referred to, that intelligent and sustained effort must be put into the situation. It is therefore recommended that Secretary Hoover, in continuation of the policy of the creation of local organizations inaugurated by the Department of Commerce, the National Federation of Construction Indus-

tries, the U. S. Chamber of Commerce, and others, appoint a committee selected from the various elements interested in construction, such as financiers, labor, engineers, architects, contractors, material manufacturers, and others to be known as the Committee on Construction Development, which will be charged with the responsibility of preparing and making effective plans for—

(a) Cooperation with the Governors and Mayors in the several States in carrying on community conferences on construction, to the end that local restrictions may be eliminated, abuses done away with, and proper local attention given to the efficient planning and development of construction work, as it is only through such community conferences that the local situation can be properly appraised.

(b) The prompt removal of unnecessary or inequitable limitations and restrictions which have retarded real constructions activity.

Such committee to use agencies and to adopt such plans for conducting its work as may seem to it best, in cooperation with the Secretary of Commerce. The work of such local committees as have already been organized in the country has had a profound value in readjusting the construction situation and the time is ripe for their more definite and extensive organization.

Community Planning and Housing

CLARENCE S. STEIN, Chairman of the Committee on Community Planning, *Associate Editor.*

CLIMBING THE GREASED POLE

By *Frederick L. Ackerman*

THE WRITER has previously observed that under the present system the gains made by architect or engineer in the matter of designing more adequate buildings are immediately capitalized in terms of price and that this capitalization of purely technological gains amounts to the same thing, from the standpoint of the common welfare, as would have been the case had the architect done nothing at all to advance the art of building.

Now comes added evidence of this in such shape as to dispel any doubt as to the validity of the assertion, if one stops long enough to think about it. And what is more, this evidence runs to show how it is that financial business—business traffic—stands squarely across the path and blocks technological advances.

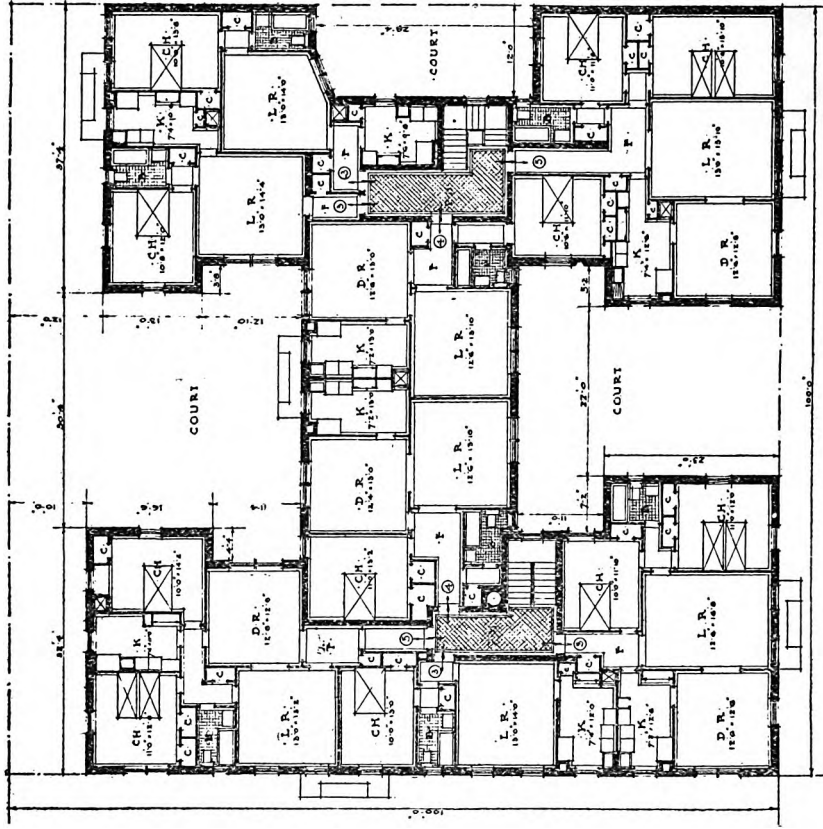
To put the matter briefly: an architect, Mr. A. J. Thomas, has recently developed designs for a tenement house upon a plot 100x100, which is approximately 25 per cent less in volume than the stereotyped tenement house usually built by speculative builders and investors upon plots of this size. But the buildings of this new design contain exactly the same number of rooms and the same number of apartments of the same or of greater size—far superior as to arrangement, with all rooms adequately lighted with large courts, and with no un-

sightly fire escapes. The superiority of this new design is so obvious, particularly with respect to the large courts and adequate lighting, that it requires no argument or demonstration to persuade the layman of its merits.

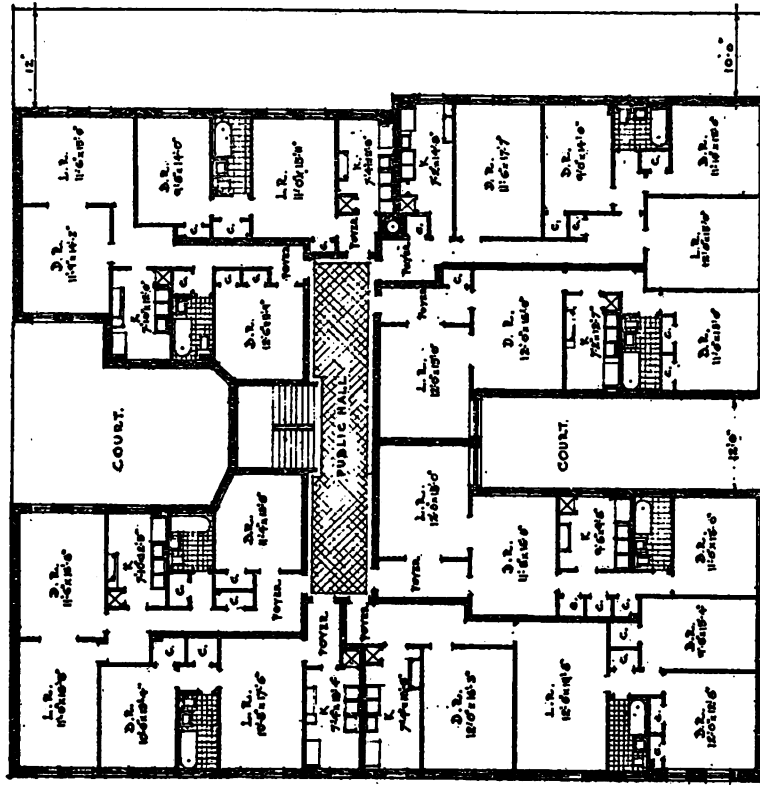
So one might assume that the speculative builder would jump at the chance of erecting buildings from this design. For, one may argue, if it is possible to make a saving of 25 per cent in volume with something like a corresponding per cent in price, if the building is in all respects superior, surely the same or even a greater rental may be obtained from it. And no one can deny this argument and no one denies that the net returns from such a building would be greater by a considerable margin.

But the speculative builder or the investor ordinarily requires a loan. And loans in the case of this kind of property are ordinarily a fixed percentage of the product obtained by multiplying the volume of the building by the going price per cubic foot. So that it is obvious that the maximum loan which may be obtained upon a building of this superior sort, insuring the same net return, will be less than in the case of a building of the same capacity but much larger in volume.

Now one might assume that this condition would not



Improved Plan, Same Type, Same Number and Size of Rooms, but Occupying only 67% of lot area. The plan referred to in Mr. Ackerman's accompanying article embodies still further improvements, greater outside exposure, allowing space for large garden, with same number and size of rooms, and covering but 62% of lot area. *Andrew J. Thomas, Architect.*



Stereotyped Apartment House Plan, Walk-up Type, New York City. Corner Lot 100 x 100. Percentage of lot occupied by building: 79. Rooms per floor: 32.

AROUND THE SECRETARY'S TABLE

stand to restrain the speculative builder or the investor from erecting buildings of this type. Surely the equity required would be less and the return upon equity correspondingly greater. But it happens, strange as it may seem, that the basis upon which the speculative builder and the investor rates a plan or the work of the architect is not the matter of planning or the matter of volume or even the net return from his investment. Builders of tenement houses have come to judge the plans they "buy" from the architect by the magnitude of the loan which will be advanced by the lender. Ordinarily, the greater the loan advanced upon a building upon a given plot, the higher the plan is rated. By this standard is the architect judged.

So that as it works out, the speculative builder says: "What you say, Mr. Architect, about giving me the same number of better apartments for a smaller price may be very true; but that is not the way the lenders look upon the matter. I cannot get as big a loan on your superior set of plans."

Of course, all this sounds rather fishy; but if anyone has doubts let him try, say, one of the plans recently developed by Mr. Thomas upon a speculative builder and let the speculative builder proceed to secure a loan. The result of this experiment will, I am sure, dispel all doubt. The speculative builder will return and say: "With that other plan covering a greater percentage of the plot I can get a very much larger loan. It therefore is a superior building after all; so let me have it."

Apparently we are confronted with this condition: if one designs a better building and if that building be erected, it will be sold or it will be rented at a better price, though it may cost less to build. But the chances are that such buildings will not be erected. For buildings are built through the use of loans, and loans are based upon the magnitude of the building and not upon

its quality as regards arrangement. Superiority—those qualities which go to reduce the cost of construction and provide adequate light and air count negatively—that is to say, they count merely to reduce the chances of the superior building being erected.

One may overlook the error of judgment on the part of the speculative builder who stands somewhat in awe of the lender of money. But it is not so easy to overlook the attitude of the lender, notwithstanding the condition that his business is the capitalization of gains in terms of price. His refusal to take into account the all important factor of design—the economic use of material and labor—that is not to be passed over lightly.

For it is not to be denied, as the work of Thomas has conclusively shown, that a greater profit may be had from more adequate structures. This observation is made not with a view to lending support to a policy of making adequate structures the means to greater profits; it is no more than a businesslike observation.

Of course, the point of all this is that the community might have far more adequate structures under the existing system if the lenders of money would give some slight consideration to the technical side of the matter with which they have to deal. But giving consideration to the technical side of building is a technical matter, and not a matter of business traffic. To proceed to the building of our communities with a view of making the most of the technological knowledge and ways and means available would be to proceed to dispense with business traffic. So one must conclude, taking all things into account, that Mr. Thomas and those who would now produce more adequate structures if they but had the opportunity are somewhat ahead of their time. As yet the technician is engaged in what has all the appearance of an attempt to climb a greased pole.

Around the Secretary's Table¹

By THE SECRETARY

MR. DAVIDSON: One of our best means of local advertising in Washington is the Octagon, and if it is to worthily represent the Institute, and be indeed the "shrine" for the profession, the Directors should attempt to arrange, in some manner, for sufficient funds to repair it properly.

MR. POND: I quite agree. The old relics, pictures, scrap books and the old records seem to have been placed in storage or destroyed. At least they have disappeared and the Octagon instead of being a shrine that should be visited by every member of the Institute has been transformed into a bleak, rather dismal, inadequately furnished office building.

THE SECRETARY: I believe the Directors feel just the same way.

MR. DAVIDSON: Then why don't they do something about it?

¹Continued from October JOURNAL.

THE SECRETARY: So far as funds have been at their disposal they have done what seemed to them the necessary items for repair, and as a matter of fact a good deal has been done, take it all in all, during the past few years. You all remember the decision of the Minneapolis Convention to create a fund to develop the Octagon property and establish it as a memorial to McKim.

MR. LITTLE: How much has been secured?

THE SECRETARY: The war years that followed hard on that Convention and the post-war period of depression has prevented any accomplishment of the sort. It was only possible to do the necessary work of repair and wait for a better time in which to carry forward the large undertaking. Even much interior repair work was delayed by the occupation of the Drawing Room by the Government for a year or more during the war. Indeed at one time we were threatened with the possibility of

THE JOURNAL OF THE AMERICAN INSTITUTE OF ARCHITECTS

having a temporary building erected in the garden, but this danger was happily avoided.

However, much has been done during the last few years. The exterior and interior have been painted, exterior stone work repaired and the roof painted, the heating plant repaired, and a sprinkler system installed in the basement.

MR. DONN: Then there was the retaining wall along our lot line adjoining the Lemon Building that was built last year. That is the first step towards the rehabilitation of the garden.

MR. DAVIDSON: As for the Octagon House itself, it seems to me that if we can't afford to rehabilitate it, we should erect a proper office building on the 18th Street property, or elsewhere in Washington, and then turn the Octagon over to the people to be maintained by the nation as an historical monument.

I think such a plan would appeal to many members of the Institute as being more practicable than any attempt to rehabilitate the present Octagon building, which is really not suitable for use as a modern office building or for the working headquarters of such a body as the American Institute of Architects.

THE SECRETARY: Well, you may be right, for there are two opinions about most things, but for one I don't believe, in this case, that you are.

MR. DAVIDSON: Why not?

THE SECRETARY: Well in the first place, to take your last point first, it seems to me the Octagon House is admirably, indeed ideally, fitted to the uses of the Institute's headquarters. There is certainly room enough. We only use two rooms regularly, and they are ample for the small but effective office force with which Mr. Kemper is able to do his work. Doubtless we may sometime, soon perhaps, need more space but we can then take over the other two rooms on the second floor that used to be the office of the JOURNAL. Now that the JOURNAL headquarters are in New York, we can use these rooms, and more than double the space for our clerical force.

The round room over the front entrance remains ample for the office of the Executive Secretary, and the drawing room downstairs is in every way adequate and dignified, if properly furnished, as a Directors' Room.

Even with this enlargement of our quarters we could still provide space for the American Federation of Art, and our other tenants.

MR. KOHN: I quite agree with the Secretary as to the adequacy of the space available and I believe that we can furnish the drawing room so that it can adapt itself to the demands of a Directors' meeting, and still at other times retain something of its original character as a Drawing Room.

This can be done by finding suitable old pieces of furniture for it rather than by equipping it completely anew. I am glad the Directors have approved this policy.

THE SECRETARY: As to your other suggestion, Mr. Davidson, I confess that I would much rather think of the Octagon peopled by our Institute forces, serving as a shelter and a home still, and so alive and functioning according to its natural purpose, than to think of it as a monument, set apart from living things, just to be gazed at. And what modern office building could possibly be built that would give so dignified, so gracious, and so fitting a home for an American Institute of Architects.

However, the resolution of this Minneapolis Convention contemplated the construction of a separate building on the rear of this property for our offices, or if this is followed your wish will be realized.

MR. LITTLE: If I remember rightly I saw something in the Minutes of the recent Executive Committee Meeting about the progress of the Building Committee's program for developing the property.

THE SECRETARY: Yes. Mr. Waid reported that conferences had been held in Chicago, New York and Boston and much interest shown in the development of a plan for the rehabilitation of the Octagon property. The Committee has prepared complete surveys and is laying plans for raising a large sum of money which shall serve as an endowment or maintenance fund for the whole property. A more complete report is expected at the November Board Meeting.

MR. KOHN: There is one point about our Conventions that hasn't been mentioned and which, in my opinion, should be given attention. That is the opportunity for personal contact among the delegates. Except for our final dinner, there was no chance for the delegates to meet and get to know each other.

MR. WAID: I quite agree. And the ladies of the Convention too were sadly neglected and left to their own devices.

THE SECRETARY: That is very true. I think it is due partly to our feeling of being at home, when we have a Convention in Washington. When Conventions are held in other cities, it is naturally a rare occasion that the local Chapter is glad to signalize by sight-seeing events and social activities which seem less called for in Washington. Of course, the Washington Chapter cannot be expected to carry the burden of such activities, year after year, but I believe the Convention Committee should be asked to make arrangements for some such activities each year.

MR. KOHN: Well, I think some other methods might be tried too. The formal business, of course, has to be carried out, but we might perhaps try the experiment of two or three round table sessions. One could be held the evening before the Convention assembles, at the Octagon, for instance. Ask everybody to be there and have two or three rooms devoted to groups of men discussing practical architectural problems, with a leader designated for each group.

THE SECRETARY: That would be using the Convention eve for a somewhat different purpose than the Treasurer and I were planning the other day to use it for.

MR. KOHN: What scheme were you two concocting?

THE SECRETARY: Merely a social evening without any set fireworks at all.

I think your round-table scheme is a good one, and could be extended perhaps, but of course in a way it has really been in operation for several years through the Pre-Convention Meetings. This year there was one on Education by the Institute Education Committee and the Association of Collegiate Schools of Architecture. Then there was one on Registration, and another on the Small House Service Bureau scheme. All delegates interested were invited to attend these conferences, and I believe quite a number did so.

The Treasurer and I felt that there was so much shop-

talk due for the three Convention days, it would be a good scheme to omit it entirely on the evening before, and just have an opportunity for delegates to meet each other and get better acquainted.

THE TREASURER: And perhaps have a little dancing too.

THE SECRETARY: I knew he had that in mind.

MR. KOHN: Possibly that might be a better scheme for that evening. If delegates arrive in time we might try some additional round-table conferences during the afternoon.

But in any event I think there ought to be special luncheon places designated on every day of the Convention. Much could be made of these luncheon meetings.

THE SECRETARY: I am sure you are right about that. And we ought to try to make it an accepted rule that delegates should not lunch with other delegates from their home town, unless for some special reason. Too often you can notice little groups of Boston, or New York, or Chicago men lunching together. These are the best opportunities to meet and get to know men in distant parts of the Country, and they ought not to be wasted by lunching with our fellow delegates from home.

MR. KOHN: Quite true. And perhaps these lunch groups might be formed around certain subjects on which the luncheon discussion could center.

THE SECRETARY: Yes, that is quite possible. For my part, however, I think three sessions a day of concentration on particular business is about all I can or at least want to stand. I think we will be fresher minded at the afternoon session if we relax somewhat at lunch and enjoy hap-hazard conversation with our table companions. We Boston men can get refreshed with a glimpse of California or Seattle or Minneapolis, and the western men can get a whiff of Boston East Wind or the equally individual breezes of Lake Michigan, and both be the better for it.

MR. KOHN: Of course there are many different ways of accomplishing the purpose on which apparently we are both agreed, and I wish we might get some suggestions from others to help us in developing it.

The truth is, however, that until we can get a meeting place of our own, right next to the Octagon, the Washington Conventions are going to be less popular than those away from Washington.

THE SECRETARY: This year, with the Convention to be held in Chicago, we can rely on them to help in the development of these schemes. And, of course, these various possibilities of round-table discussions, luncheons, and so on, are equally applicable to Conventions away from Washington.

Correspondence

"The Secretary's Table."

To the Editor of the JOURNAL:

SIR: Since we have been so courteously invited to join "Around the Secretary's Table," a contribution on the following points may not be amiss.

The wails of the slaves to tobacco smoke are truly pathetic. Still, just to keep the historic record straight it may be well to call attention to the fact that President Kendall distinctly stated from the chair, that there was a

rest or lounging room near the entrance in which smoking was permitted, and some of the delegates did use it; so, it was not necessary to leave the building to enjoy a cigar.

As there were attendants at the convention who do not use tobacco, it might at least be comforting to nicotine worshipers to remember that their loss was a pleasurable gain to those who do not enjoy sitting in a tobacco smoke-clouded atmosphere. There is never loss without gain and surely a minority of the delegates were glad of the respite from tobacco fumes, for one out of many conventions.

Like all conventions a minority of the delegates occupy the floor and carry on the discussions, a majority saying little and some absolutely nothing publicly. President Kendall certainly presided in a charming manner and steered away from threatening discords tactfully, no doubt. But should not more voices be heard, and new ones encouraged to take part? Certain ones did attempt to get a word in edgeways at times but the monopolists clamored for recognition, no matter how many times they had before talked voluminously of perhaps every question discussed.

The modest, though possibly just as wise but never heard member, failed to be accorded a hearing and kept silent and perhaps lost heart and interest.

Would it not be a wise plan to establish a rule limiting speakers, and insuring recognition by the chair of the seldom or never heard man who does overcome his timidity and tries to take part?

Surely the chairman can see opportunity to draw out and encourage, even inviting these inexperienced and diffident ones, by curbing the ones who are so enthusiastic to hear themselves talk or think they are themselves the only wise ones who must be heard and decide the cases. By all means widen the range of discussion and condense the speeches, diversify the contributions to the consideration that every chapter may be heard, and somewhere near equally if possible.

EUGENE H. TAYLOR.

Secretary Hoover and the Small House Service Bureau

The following letter has been received by President Kendall:

DEPARTMENT OF COMMERCE
OFFICE OF THE SECRETARY
WASHINGTON

October 11, 1921.

MR. HENRY H. KENDALL, President,
American Institute of Architects,
The Octagon, Washington, D. C.

DEAR MR. KENDALL:

I have looked into the work of the Architects' Small House Service Bureau of the United States, with its divisions and branches, and have examined its organization and incorporation papers. The complete plans, specifications, documents and bills of materials, with the designs worked out for local conditions and to use stock materials and eliminate waste, materially simplify home-building

problems. The form of control by the American Institute of Architects should guarantee a high standard of service.

It gives me pleasure to endorse this work, and to assure you that the Department of Commerce will do all it can to cooperate with the Institute and the Bureau.

Yours faithfully,
(Signed) HERBERT HOOVER.

Important Notice—Jurisdictional Awards

To the Members of THE AMERICAN INSTITUTE OF ARCHITECTS:

The following decisions, identical in substance with the official document of the Board of Jurisdictional Awards, are hereby officially transmitted to the members of the American Institute of Architects, on whom they are binding.

Hollow Metal Doors and Trim

DECISION, rendered March 12, 1921.—In the matter of the controversy between the International Association of Bridge and Structural Iron Workers and the Amalgamated Sheet Metal Workers' International Alliance relative to Hollow Metal Doors and Trim, it is decided that the erection of hollow metal doors, made entirely of ten gauge metal or lighter, except for local reinforcement, and the installation of the door frames and trim in direct connection with such doors is the work of the Sheet Metal Workers; except that in the case of sliding doors, street entrance and vestibule doors, elevator, shipping room and freight doors, and doors used exclusively for fire purposes, the work is that of the Iron Workers. Kalamein or other wood-core doors are not covered by this decision.

Hollow Sheet Metal Window Frames and Sash

DECISION, rendered March 12, 1921.—In the matter of the controversy between the Amalgamated Sheet Metal Workers' International Alliance and International Association of Bridge and Structural Iron Workers over Hollow Sheet Metal Window Frames and Sash, it is decided that the setting of hollow metal window frames and the hanging of hollow metal sash, when such frames and sash are made of No. 10 gauge metal or lighter, is the work of the Sheet Metal Workers. The Campbell Window and Sash not being of hollow metal, its erection is awarded to the Iron Workers.

School and Theatre Seats, Setting of

DECISION, rendered March 12, 1921.—In the matter of the controversy between the Amalgamated Sheet Metal Workers' International Alliance, United Brotherhood of Carpenters and Joiners and International Association of Bridge and Structural Iron Workers relative to the setting of school and theatre seats, it is decided that the work in question be awarded to the Carpenters.

Registration in Pennsylvania

The next regular examination for the registration of architects in Pennsylvania will be held December 28th to 31st, 1921, inclusive. Information relative to the examination may be had by applying to the Secretary, M. I. Kast, 222 Market St., Harrisburg, Pa. The formal application must be in the hands of the State Board of Examiners not less than ten days prior to the examination.

New Members Elected

BOSTON: Horatio W. Beal. COLORADO: William W. Stickney, *Pueblo*. FLORIDA: H. George Fink, *Miami*; Agnes Ballard, *West Palm Beach*. COLUMBUS: Herbert S. Jones, *Mansfield*. ILLINOIS: John I. Rinaker, *Springfield*. KANSAS CITY: William Percy Lodge. MINNESOTA: Edward S. Stebbins, *Minneapolis*. NEBRASKA: Frank J. Ellert, Matthew J. Lahr, *Omaha*. NEW JERSEY: George F. Bial, *Wood Ridge*. PHILADELPHIA: Thomas E. Ash, Irwin Thornton Catharine, Henry S. Harvey, Herrmann B. Tobias, William A. Young. SAN FRANCISCO: William Greenfield Corlett, Walter D. Reed, *Oakland*; Norton Ellsworth Wood, *San Francisco*; Wm. J. Wilkinson, *Piedmont*. SOUTHERN CALIFORNIA: Philip Hubert Frohman, *Boston, Massachusetts*; T. Beverley Keim, Jr., *Los Angeles*. SOUTHERN PENNSYLVANIA: Julian Millard, *Altoona*. TEXAS: Robert Titus Gidley, Ernest Palmer Giles, *San Antonio*. WASHINGTON, D.C.: L. Justement. WASHINGTON STATE: B. Marcus Priteca, Howard H. Riley, *Seattle*.

News Notes

THE Cleveland Chapter of the American Institute of Architects, believing that instruction in the theory and practice of architecture should be available in Cleveland, is now co-operating with The Cleveland School of Art in establishing an Architectural Department as the first step toward the foundation of a School of Architecture of the highest possible efficiency.

A FULL meeting of the Board of Directors will be held at Indianapolis on November 11-12, an account of which will appear in our next issue.

Coincident with the meeting, the Executive Committee has invited the prominent producers of building materials to meet with it at Indianapolis on 10 November, the day preceding the Board meeting, for a discussion of "Better Advertising Literature for Architects". It is hoped that steps may in some way be taken toward eliminating the waste in this field.

THE following resolution was presented by the President of the Illinois Chapter at its October meeting, with the recommendation of the Executive Committee that it be passed, which was done:

"Whereas, the Landis agreements have been signed by most building trades with the stated purpose of preventing annoyance and avoidable expense and the advancement of labor and management in skill and productivity in the building trades; And since the faithful carrying out of these agreements will tend to bring about such desirable results;

Therefore, we the American Institute of Architects, Illinois Chapter, at a regular meeting by final vote, ask all our members and all other architects to write a clause into all their contract specifications for work in Cook County, Ill., to the following effect, to wit: All work contemplated herein shall be carried out according to the agreements, principles and terms of the wage award of Hon. K. M. Landis of Sept. 7, 1921."

Structural Service Department

SULLIVAN W. JONES, *Associate Editor*
LEROY E. KERN, *Assistant*

In connection with the work of the Committee on Structural Service of the American Institute of Architects and in collaboration with other professional societies and organized bodies having the same objective—improvement in building materials and methods and better shelter for humanity in all its manifold vocations and avocations.

Committee Activities

Conduit in Cinders. (31b1)—A special sub-committee of the N. F. P. A. Electrical Committee was designated last Spring to investigate the corrosion of electrical conduit in cinder fill, to report its findings and make such recommendations for code provisions as might seem desirable.

The sub-committee was composed of one representative each of the N. A. E. C. & D., Associated Manufacturers of Electrical Supplies and the American Institute of Architects. The committee prepared a questionnaire designed to secure a national record of experience with conduit imbedded in cinder fill or cinder concrete floor fill and in cinder concrete. The questionnaire was sent to 111 electrical contractors, consulting electrical engineers and architects selected with respect to the class of work handled and geographical distribution. The questionnaire brought a 40% response and a fund of valuable opinion based upon experience and research.

The sub-committee made its report to the Standing Committee late in August. Portions of this report are quoted below as being of direct interest to architects. It should be borne in mind, however, that the report has not been acted upon by the Electrical Committee and the recommendations made are matters for further discussion and future action. They may or may not find their way into the national electrical code. Nevertheless the report furnishes food for thought and investigation by the individual architect.

"The replies to this questionnaire indicate the national experience with pipe conduit imbedded in cinder concrete floor fill (cinder concrete floor fill being usually a very lean mixture of portland cement and cinders or clinker, the residue from the combustion of either anthracite or bituminous coal) to be that where moisture is present, the conduit corrodes very rapidly. Moreover, it appears that the rate of corrosion is little affected by the character of the protective coating on the conduit.

Enamelled, galvanized and sheradized conduits have all failed in periods ranging from $\frac{3}{4}$ of a year to 7 years, depending upon the amount of moisture present. The explanation of this condition is that all cinders contain sulphur in varying amounts, which, by the admixture of moisture is converted into sulphurous acid. This acid attacks not only conduit, but also water, gas, steam and other ferrous pipe with which it comes in contact.

Chemically speaking, the enamelled coating should protect the conduit from attack by acid. But this coating is easily abraded and destroyed by traffic abuse after the conduit is installed and before the concrete is placed. Any one familiar with construction, knows how difficult it is to control such destructive traffic in unfinished buildings. Conduit for branch circuit work usually is cut and threaded on the job and the scores in the coating made by the teeth of the vise on the cutting bench, and threads exposed at couplings are points at which the acid reaches the steel and corrosion begins, spreading under the protective coating, no matter what its character.

It appears that when the proportion of portland cement in the cinder concrete is relatively large, or say one part of cement to 5 or 7 parts of cinders, corrosion of the conduit, even when moisture is present, is not a serious matter. The explanation of this phenomenon is that the cement, in hydrating, gives off free lime which has a neutralizing effect upon the acid.

If it were possible to prohibit the placing of pipe conduit in cinder concrete, except where the concrete contained a certain minimum proportion of cement, and if it were possible to enforce the rule, the placing of conduit in such cinder concrete might safely be permitted. But such control cannot be made effective through the electrical code and electrical inspection, and indeed it is doubtful whether such control would be effective even if adequate provision were made in building codes generally.

The plain fact is that cinder concrete should not be used in buildings where it comes in contact, not alone with conduit, but also with ferrous pipes of any kind. The Electrical Committee, through the various and suitable national bodies affiliated in the N. F. P. A. should undertake an educational campaign among architects and engineers to convince them of the desirability of avoiding the use of cinders and cinder concrete when they may come in contact with ferrous pipe.

There are various protective measures, which, if adopted and thoroughly executed, would prevent the corrosion of conduit. The conduit might be given a heavy coating of asphalt paint after installation and before the cinder concrete is placed. Small defects in this coating, however, would render it valueless, and there is no assurance that such a coating would be so applied as to be free from defects.

Adequate protection to the conduit might be secured through placing about it an envelope, not less than 1" thick, of portland cement and sand mortar. The cost of such protection, however, would probably be prohibitive; and if it became general practice, it would doubtless raise a question of trade jurisdiction.

The special Committee realizes the futility of making any definite recommendations that cannot be made effective through the electrical code, since that code is the only thing with which we are concerned and through which we have any jurisdiction.

Experience leaves no room for argument to controvert the assertion that conduit and cinders should not be allowed to come in contact. We cannot prohibit the use of cinders under the electrical code, but we can prohibit the placing of conduit in cinders or cinder concrete, and that is the Committee's recommendation.

The inclusion of such a prohibitory clause in the code might at first seem to impose an unreasonable hardship upon those who design and construct buildings. But the Committee is fully persuaded that such is not the case. With a little thought and the application of a little knowledge and ingenuity, it will be found wholly feasible and highly desirable to adopt a new practice in the matter of locating horizontal branch circuit work. It should be borne in mind that there are very large areas in the country where cinders are not available for structural purposes, and architects and engineers in such regions have solved the problem satisfactorily. In still other places where cinders are commonly used, certain architects and engineers, profiting by past experience, consistently prohibited their use. So the Committee does not feel that it is recommending a step that is radical or that will result in hardship."

Abstracts

Automatic Control of Humidity in Shops. (30f1). (*Technical Notes No. 121. Forest Products Laboratory, Madison, Wis.*) Devices for controlling humidity in shops are of three types. The first are makeshifts, such as wet sawdust

strewn on the floor, troughs of running water at the sides of the room, or simply an ordinary sprinkling can. Such crude devices are not in any sense self-regulating, and the results are haphazard. The sprinkling-can type of humidifier has been in use for hundreds of years and is of interest chiefly because it shows that the need for air-conditioning apparatus in many industrial plants has been recognized for a long time. A second class of humidifiers includes those that are capable of increasing the moisture in the air up to the point for which they are set, but cannot decrease it. When the weather forces the humidity above the desired point, such instruments remain inactive. Few instruments of this type attempt any control of the temperature. A third type of conditioning apparatus is that which is able to hold the atmosphere in a room at a constant temperature and humidity irrespective of outside conditions.

One of the few instruments which absolutely control both the temperature and the humidity of the air is that developed at the Forest Products Laboratory, Madison, Wisconsin. For several years this apparatus has maintained in the laboratory wood-parts storage rooms the typical climatic conditions found in various parts of the United States, ranging from the hot, moist climate of the South to the cold, dry climate found in the mountain regions. The same type of instrument also keeps the wood-working rooms at the laboratory at uniform temperature and humidity year in and year out, with the result that the wooden articles manufactured there give the minimum amount of trouble afterwards from warping and checking, and the shop conditions are healthful and comfortable to the highest degree. These instruments have required very little personal attention since they were installed.

The principle upon which the laboratory automatic humidity-control apparatus works is that of cooling the air to the dewpoint temperature for the desired atmospheric condition, saturating it with moisture at that point, and then heating it without addition of moisture to the required room temperature. For any given room temperature it is possible to get any humidity desired, simply by choosing the temperature at which the air is saturated.

The apparatus consists of a small cabinet, or chamber, through which the air is drawn as often as it needs to be conditioned. The conditioning chamber contains water sprays whose temperature is kept constant by a mixing valve. These sprays suck in the air by their own action, cool it to the temperature at which it should be saturated, and give it all the moisture it can hold. As the air leaves the chamber it is heated to room temperature by coils, whose steam supply is controlled by a thermostat located in the outlet. Thus when the air is drawn into the chamber, it may be too hot or too cold, too moist or too dry, but the apparatus automatically humidifies or dehumidifies it and brings it to the correct temperature before allowing it to pass again into the room. Both in the storage rooms, where the air needs conditioning very infrequently, and in the workrooms, where it is completely changed every ten minutes, the recording instruments show that the atmospheric conditions have varied to only a slight extent throughout a three-year period.

This method of air conditioning was developed primarily for woodworking shops and wood gluing, finishing, and drying rooms. It is adaptable, however, to numerous other industrial plants, including textile mills and chemical, food-stuff, and tobacco factories, in which close control of atmospheric conditions would be beneficial to both the material being manufactured and the health of the employees. It is practicable wherever there is a supply of cold water and steam heat.

Drawings of the apparatus and further details concerning

its installation and operation may be had on application to the Forest Products Laboratory.

Marble. (22a). (*U. S. Geological Survey. Bulletin 632. "Marble Resources of Southeastern Alaska," by Ernest F. Burchard, 118 pages 6x9 inches. Fully illustrated including reproductions in color of many of the marbles and maps showing their distribution.*) This bulletin contains a list of buildings in various parts of the United States in which Alaska marble has been used for interior decoration, also an extended classification of the marbles showing where may be found stone having almost any color or texture.

Since 1904 there has been a steady increase in the marble output of Alaska. The output, however, has practically all come from the Shakan-Calder region of the Ketchikan district. The bulletin presents a complete statement of the present knowledge of the distribution and extent of the deposits in Alaska. It contains in addition a discussion of the physical and chemical properties of marbles and from this discussion the following abstract has been prepared.

True marble is a metamorphic rock as distinguished from sedimentary rocks such as limestone. Metamorphic rocks are sedimentary or igneous rocks that have, in the course of time, become greatly changed in composition and texture. The chief agents that bring about these changes are pressure, heat, and chemical action, generally at considerable depths below the surface of the earth. By metamorphic agencies limestone is transformed into marble. During the transformation the original bedding of the limestone may become nearly or completely obscured and the crystalline texture and folded structure characteristic of marble induced.

Definition of Marble. Marble is a term applied commercially to a granular crystalline limestone or dolomite, and even to other rocks, such as serpentine, that are susceptible of polish and possess attractive colors. Scientifically, marble is a rock composed mainly of granular crystalline calcite or dolomite or of both.

Metamorphism. In the formation of marble from limestone, crystallization has resulted from the effects of heat and pressure, usually aided by the action of water. The calcite or dolomite crystals in a thin section of marble are generally irregular in size, shape and arrangement, and many of them are twinned. Crystallization has probably occurred below the surface of the earth long before the rocks were brought into their present position by crustal elevation and erosion. True marbles are therefore found in regions that have been subjected to metamorphic action, and they are associated with other metamorphosed rocks, and also in zones along the contact of a limestone with an igneous rock. If the original limestone contains silica and other impurities, certain silicate minerals may be developed in the marble.

Chemical Composition. High-calcium limestone and calcite marble contain from 90 to more than 99 per cent calcium carbonate. Pure dolomite, either non-metamorphosed or metamorphosed, consists of approximately 54 per cent calcium carbonate and 46 per cent magnesium carbonate, but in most dolomites the percentages are slightly lower on account of the presence in the rock of foreign minerals or impurities. Marbles that are mixtures of calcite and dolomite may be of intermediate compositions.

Among the common impurities in limestone and marble are varying percentages of silica, alumina, iron oxides and carbonates, iron pyrites and marcasite (iron disulphide), manganese oxides, gypsum, alkalis, and carbonaceous material, including graphite. The impurities in marble are present chiefly as grains of definite minerals, ranging in size from those that are microscopic to those that may be readily seen by the unaided eye. Among the common mineral impurities are quartz, hematite, limonite, pyrite, marcasite,

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graphite, chlorite, hornblende, pyroxene, tourmaline, feldspar, biotite, muscovite, sericite, talc, epidote, tremolite, titanite, wollastonite, and diopside.

Physical Properties. Valuable qualities possessed by most marbles are sufficient hardness, cohesiveness, and strength for the purposes to which they are most adaptable, slight translucence, moderate specific gravity, pleasing textures and colors, and susceptibility to polish. Other properties that must be considered in connection with the use of marble for certain purposes are its rift or grain, solubility, porosity, permeability, elasticity, expansiveness under heat, flexibility, deformation under pressure, thermal conductivity, and sonorosity, but some of these properties are chiefly of scientific interest.

Weathering. On the outcrop and just beneath a cover of residual clay, debris, and soil, limestones and marbles are generally disintegrated, or weathered, and stained to depths depending on the physical and chemical character of the stone and on climatic and atmospheric conditions. Impurities occur in greater proportion in the weathered rock than in the unweathered, because they are less soluble than calcium carbonate.

Types of Alaska Marble Available. Many types of marbles are available in southeastern Alaska. Probably the most common and the one which thus far has been exploited commercially on the largest scale is a fine to medium grained crystalline white to bluish-gray marble with gray to dark-bluish veins, bands, and clouded areas. Other crystalline and schistose marbles that give promise of being developed successfully show handsome contrasting "verde antique" effects and other striking combinations of color, such as green and pink, black and white, and white and yellow. The green color appears to be due to chloritic material and possibly to epidote, the bluish and black veins possibly to graphite, and the pink and yellow shades to iron oxide. Certain marble deposits give promise of affording statuary material. Some dense non-crystalline limestones have attractive colors of pink and chocolate mottled, gray, blue, and black, and are susceptible of receiving a high polish.

Strength of Built-up Southern Yellow Pine Timbers. (19a). (*Tests made at the U. S. Forest Products Laboratory in cooperation with the National Lumber Manufacturers Association.* By G. E. Heck, Engineer in Forest Products).

These tests indicate that from the standpoint of strength there is no marked difference between built-up beams of "dense" material practically free from defects and solid beams of "dense" material with defects limited as in the select structural grade of the Southern Pine Association.

Character of Material Tested. Commercial southern yellow pine planks 2 inch by 12 inch by 16 foot were used. This material had been air-dried and had about 17 per cent moisture content at the time it was tested. The planks were plain sawed and practically free from defects, but about one-half the number contained season checks, some of which opened up considerably after assembly in the beams and before testing. A few of the planks were somewhat cross-grained, but not seriously enough to preclude their use for this series of tests. The solid beams, previously tested, and with which comparison was made, were of the grade known as "select structural."

Construction of Beams. Each built-up beam consisted of five planks bolted together. The planks composing a beam were matched by comparing ends, material of practically the same quality being used in each beam. All bolts and holes were $\frac{1}{2}$ inch in diameter. Bolts were placed in two rows 2 inches from top and bottom and starting 6 inches from ends. Three intermediate bolts spaced 45 inches on centers were used in the top row, and four bolts, staggered with the top row bolts were used in the bottom row. Washers

$1\frac{3}{4}$ inches in diameter were used under the heads and nuts. After the beams were constructed they were surfaced on the top and bottom.

Where Built-up Beams Fail. It has often been thought that when two or more timbers are used together and loaded so as to deflect equally, the stiffer pieces will take the greater load and will, therefore, fail before the less stiff pieces. It is true that the stiffer pieces will take the greater load. Previous tests, however, have demonstrated that dense, stiff pieces usually deflect farther to the elastic limit and to failure than pieces of lower density and stiffness. Beams, therefore, built-up of clear planks will tend to fail in the less stiff rather than in the stiffer planks.

The Forest Products Laboratory has made no tests with defective built-up beams to ascertain if the defects in the component planks can be staggered in the beam and the latter so fastened together that results will be comparable to results on solid beams containing the same number and size defects similarly located. Neither have any tests been made to determine if laminations will act independently as individual beams, each breaking at its particular defect, the net results being practically equivalent to having all the defects at the same point in a solid beam.

"Virgin Growth" and "Second Growth" Timber. (19a). (*Technical Note No. 153. Forest Products Laboratory*). Specifications often call for "virgin growth" or "second growth" timber, yet the terms are without fixed significance, and the material when delivered can not be positively identified as belonging to one class or the other.

"Virgin growth," also called "first growth" or "old growth," means timber which grew up in a standing forest under conditions of active competition for sunlight and moisture.

"Second growth," when applied to a forest stand, usually means timber whose main growing period occurred under conditions of lessened competition, after all or a portion of the original stand had been removed by cutting, fire, wind, or other means. In connection with individual trees, the term is used to mean any whose growing conditions approximated those which would produce a "second growth" stand. To the wood user, "second growth" means material cut from either of these sources. In general, the term is associated with the idea of a second crop of timber, though specific applications may vary.

Virgin growth is generally thought of as slow growing timber, while second growth, due to more favorable conditions, is relatively rapid. A faster rate of growth is evidenced by wider annual rings. These are popularly supposed to indicate stronger and tougher wood in the hardwoods, such as ash, hickory, elm, and oak; and weaker and brashy wood in the conifers, such as pine and fir. Hence, for uses in which strength and toughness are essential, second growth is sought among the hardwoods, whereas in conifers virgin growth is desired.

As a second growth forest attains maturity, the rate of growth slows up, and the annual rings may be no wider than in virgin growth timber of the same size. On the other hand, when a slow-growing suppressed forest tree is freed by removing the neighboring trees, it may grow rapidly for a long period. Therefore it is possible to have some wood with the characteristics of virgin growth and some with those of second growth in the same tree. Furthermore, individual trees in a virgin growth forest may have the characteristics of second growth throughout and vice versa.

Instead of broadly specifying "second growth" or "virgin growth" or depending upon requirement on the width of annual rings to secure good material, the Forest Products Laboratory considers it advisable to disregard rate of growth and rely upon density as a guide to quality.

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Sand-Lime Brick. (3g3). (*Circular of the Bureau of Standards No. 109 "Sand-Lime Brick-Description and Specification." Nine pages 7x10 inches.*)

Definition. Sand-lime brick is a brick composed of grains of sand bound together by a hydrated calcium silicate.

Manufacturing Process. Sand-lime brick is made by mixing sand with slaked lime, pressing the mixture into brick form, and curing it in steam. The steam brings about a chemical reaction between the lime and the sand, forming the "hydrated calcium silicate" which is the bonding material of the brick.

Any good clean siliceous sand may be used, provided only that it contains enough fine material to combine with the lime, say, about 15 per cent through a No. 100 sieve. The lime must be nearly pure and must be thoroughly slaked. The proportions of materials used are 90 per cent sand to 10 per cent slaked lime. Enough water is added to make the mixture damp enough to hold its shape when pressed. The mixture is then run through a press, where it is molded into brick form, using a pressure of 5,000 to 10,000 pounds per square inch. The green bricks are piled on small cars, holding about 1,000 bricks each. When a car is loaded it is run into the hardening cylinder. This is a long horizontal cylinder made of boiler plate. It is large enough to hold a day's run from one press, say, 10 cars of 1,000 bricks each. At night, when the cylinder is full, the front end is bolted in place, and live steam is turned in. The steam pressure in the cylinder is brought up to about 120 pounds and is held there all night. In the morning the cylinder is opened and the brick removed. They are ready for market immediately.

While the above is a description of a typical process of manufacture, it must be understood that each plant has introduced special modifications to meet its particular conditions.

Properties of the Brick. Most sand-lime bricks on the market today will qualify as "medium," some few as "hard." This classification defines the strength of the brick and its ability to absorb water. (See May, 1920, JOURNAL.)

Sand-lime brick are regular in shape, the edges are straight, the sides parallel and nearly smooth, the angles are true and the individual bricks are uniform in size. Most sand-lime bricks are nearly white. Occasionally the use of a crushed colored sandstone instead of sand results in the production of a colored brick. Attempts to make colored brick by the addition of pigments have been fairly successful. Buff, red, and gray sand-lime bricks have been on the market, but the tendency of the times is opposed to such specialties. The addition of portland cement, or some other ingredient, to give certain properties to the brick has been tried commercially, but the use of such materials has been pretty generally abandoned, usually for economic reasons. The satisfactory use of sand-lime brick, especially in northern latitudes, over a period of years, is a definite indication of its ability to withstand the action of the weather. Sand-lime brick is not in any sense a refractory material and while sometimes used for building chimneys for small houses, it should not be used in places where it may be subjected to a red heat.

Specifications. To get sand-lime brick suitable for general purposes, specify "sand-lime brick, medium grade, according to A. S. T. M. specification C 21-20.

Difference Between Moulds and Wood Destroyers (19a31). (*Technical Note No. 133. Forest Products Laboratory.*) Not all fungi which live upon wood impair its strength, but conditions which promote the growth of molds, blue-stain fungus, and other non-injurious fungi are usually favorable to the growth of the wood destroyers, and these may be active on the same wood bearing the molds. Hence,

the presence of mold on timbers intended for any structural purpose should cause them to be looked on with suspicion.

In the early stages of their growth the molds and the wood-destroying fungi sometimes have a very similar appearance, and there is no simple means known to the U. S. Forest Product Laboratory by which lumbermen and wood users can separate them at sight. The surface growth of molds is generally cottony or felty in appearance, the mycelium of fine mold threads are interwoven, never compacted into membranous sheets or strands. The mycelium of wood destroyers may be fluffy and glistening, but more usually are compacted into strands or fan-shaped patches.

The characteristic feature of mold growth on wood is the fact that the minute threads which enter the wood do not bore into the wood fibers or dissolve them away. They pass through the spaces between the fibers or enter them through the natural openings, called pits, which are found in the walls of certain cells. Starches, sugars, and other contents of wood cells constitute the food of the molds.

The wood destroying fungi are able to send their threads right through the wood fibers, breaking down the cell walls and utilizing portions of this decomposed material as food. This action very markedly weakens the wood, making it crumbly, stringy or spongy,—in other words, producing rot or decay. The presence of wood-destroying fungi in an advanced stage of growth is evidenced by fruiting bodies, commonly called mushrooms, toadstools, conchs, or brackets.

The principal economic loss caused by molds is through the staining or discoloration of the wood. No greater injury may be caused by the wood destroyers in their early stages; but their work will continue and finally result in the destruction of the wood if favorable moisture and temperature conditions prevail.

Lumber Value of Trees not Affected by Turpentineing. (19a). (*Technical Note No. 158. Forest Products Laboratory.*) The crude turpentine is not drained from a store in the tree, but is manufactured under the stimulus of the wound by living cells in the sapwood immediately adjacent to the cut on the trunk. No turpentine is produced by the heartwood because all of its cells are dead. The heartwood may be saturated in places with pitch but this does not readily flow out as does the resin freshly formed in the sapwood. The major part of the tree is not appreciably affected, and the loss due to death of trees or to a reduction or degrading of lumber is very small when the proper method of turpentineing is followed.

Artificial Stone. (8c). (*Reprint by the U. S. Geological Survey. "Concrete Stone and Concrete Blocks in 1919," by G. F. Loughlin and M. E. McCaslin. Six pages, 6x9 inches.*) This report gives an account of the conditions in the industry and tables of quantity production of architectural stone, concrete blocks, concrete brick and silo blocks and staves. The physical characteristics of these products are not discussed in any detail.

Community Tile Drainage Construction. (36d). (*Year-book of the Department of Agriculture Separate No. 822. By John R. Haswell, Senior Drainage Engineer.*) This 6x9 inch eight page reprint describes the advantages and need for cooperative tile drainage construction; results that have been accomplished; costs and value of tile drainage.

Sand and Gravel. (3). (*U. S. Geological Survey, "Sand and Gravel in 1919," by R. W. Stone. Pages 13, size 6x9 inches.*) This booklet is devoted entirely to data on the production and value of glass sand, building sand, moulding sand, grinding and polishing sand, fire or furnace sand and engine sand. Neither the qualities nor uses of sand are discussed.

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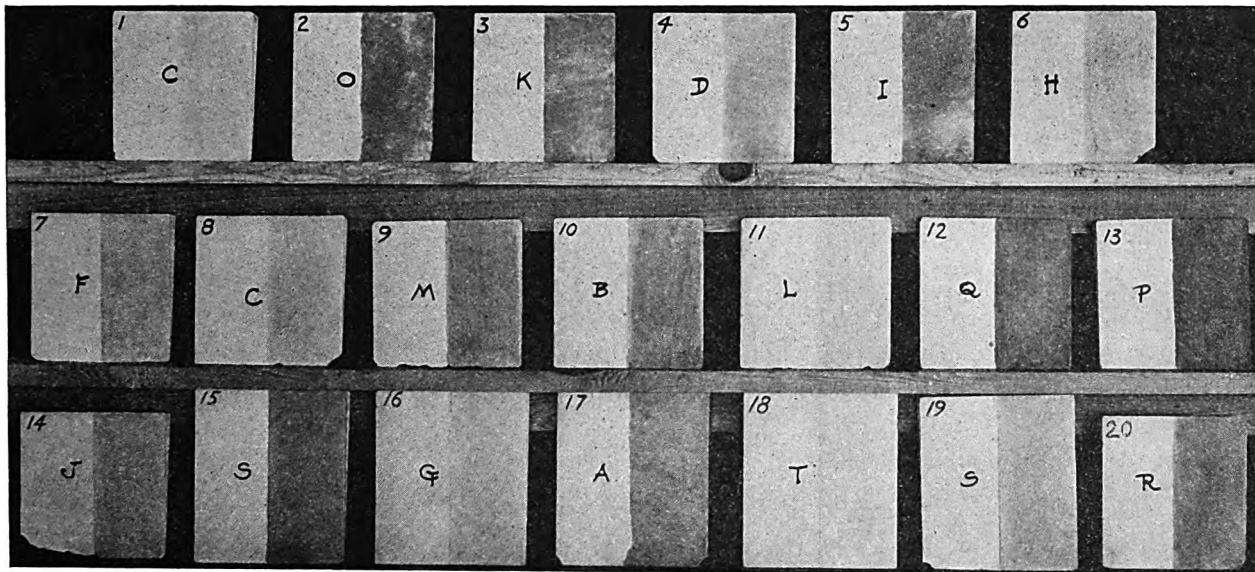


TABLE I

Colorless Waterproofing Materials. (7b21) (by D. W. Kessler, Associate Engineer Physicist, Bureau of Standards).¹ Numerous inquiries from engineers and architects for information concerning the merits of various colorless waterproofing materials have led to a study of the relative value of several such compounds. The utility of these materials is as follows: (1) To prevent water from penetrating the walls and causing dampness on the interior (2) to prevent the decay of exposed masonry by frost action. Many materials used in masonry construction are porous enough to allow a small amount of water to go through and cause dampness on the interior of the walls. In most cases of this kind a waterproofing is desired that will overcome the difficulty without altering the appearance of the masonry.

To prevent frost action it is necessary to prevent the absorption of water. Since the decay from frost action is a rather slow process, the problem is, in most cases, to decide whether it is economical to keep the exposed walls coated with a waterproofing material. In order to do this one must know for what period the coating is effective or how often a new coat will have to be applied. The solution of this problem has been undertaken by a long and tedious process, viz., actual absorption tests on treated specimens exposed to the weather for a period long enough to show the life of the treatments.

Description of the Materials and Methods of Application.—The materials are described under reference letters and the trade names are listed separately. The relation between the reference letters and the trade names is withheld from publication.² All the waterproofing materials except two were furnished by the producers. These two were treatment T which is non-proprietary and treatment R which consisted of paraffin.

Material A.—A thin liquid of clear yellow color consisting mainly of china wood oil dissolved in a petroleum distillate. The non-volatile is approximately 27%. Two or three applications were specified for porous and one for dense stones like marble. Where more than one is applied an interval of 24 hours is allowed between applications. The limestone specimens treated for the tests described were given three liberal coats 24 hours apart.

Material B.—A very thin liquid of clear yellow color containing approximately 67% of volatile matter. The non-volatile consists of equal part of paraffin and a fatty oil. Two coats were

specified for rough surfaces and one for cut stone. The specimens were given two coats at an interval of 24 hours.

Material C.—A thin liquid slightly brown in color, containing about 96% of volatile matter. The non-volatile consists of an aluminum soap and the solvent is mineral spirits. One application was recommended in which the surface should be brushed over until thoroughly saturated. The test specimens were treated in accordance with this recommendation.

Material D.—A thin liquid, light yellow in color, having a china wood oil odor. The volatile is about 90% which is mineral spirits. The non-volatile is a fatty oil. The recommendations for application were two coats applied with a bristle brush 24 hours apart. The specimens were given three coats since they did not appear to be saturated by the second.

Material E.—A 15% aqueous solution of magnesium fluosilicate. This material was applied to the specimens in three coats of the following dilutions:

- 1st. 1 part solution to two parts water.
- 2nd. 1 part solution to one part water.
- 3rd. 2 parts solution to one part water.

Material F.—A thin liquid of milky color and ammonia odor. The volatile amounts to about 97% which is water, and the solid matter is sodium-ammonium soap. The recommendations for application were two coats for ordinary materials and three for unusually porous materials, applied with a brush or spray. The specimens were given three coats with a brush.

Material G.—A thin liquid having a nitro-benzol odor. The volatile amounts to about 88%, which is a petroleum distillate. The non-volatile appears to be a heavy petroleum distillate. The recommendations for application require two or more coats at intervals of 24 hours. The specimens were given three coats.

Material H.—A milky liquid consisting mainly of a 6% aqueous solution of casein glue. The producers recommend not less than two coats, the second to be applied immediately after the first is absorbed. Two coats were applied to the specimens under tests.

Material I.—A thin liquid of light amber color. The volatile amounts to about 62% which is petroleum distillate. The non-volatile is a mixture of fatty oil and paraffin. The manufacturers recommend that the material be applied until the stone is saturated, which will usually not require more than two coats. The specimens were given three coats.

Material J.—A clear yellowish liquid about the consistency of syrup and having the odor of fusel oil. The volatile amounts to about 92% which is ethyl acetate, acetone, etc. The non-

¹The complete report may be secured upon request from the U. S. Bureau of Standards, Washington, D. C.

²Some of these preparations are proprietary and some are not, and in some cases further information can be furnished by the Structural Service Committee.

volatile is mainly cellulose nitrate. The producers recommend that this material be thinned for use on Indiana limestone with 5% of amyl acetate. The specimens treated were given one liberal coat in accordance with this recommendation.

Material K.—A thin liquid of yellowish brown color and coal tar naphtha odor. The volatile amounts to about 62% which is solvent naphtha and the solid matter is coal tar resin. The producers recommend this for alkaline conditions such as are found along the sea shore. The specimens were given two coats at an interval of 24 hours.

Material M.—A clear liquid with an odor of mineral spirits. The volatile amounts to about 86% which is a petroleum distillate. The solid matter is paraffin. The producers recommend one coat applied with a brush or by dipping. The specimens were given one liberal coat with a brush.

Material O.—A thin liquid of amber color and varnish odor. The volatile amounts to about 60% which is mainly mineral spirits. The solids are oils and resins. The producers recommend two coats. The specimens were given two coats at an interval of 24 hours.

Material P.—A thin liquid of amber color and varnish odor. The volatile amounts to about 62% which is mainly mineral spirits. The non-volatile consists of oils and resins. The producers recommend two coats. The specimens were given two at an interval of 24 hours.

Material Q.—A thin liquid of amber color and varnish odor. The volatile amounts to about 68% which is mainly mineral spirits. The non-volatile consists of oils and resins. This material and the two preceding are thin varnishes. The specimens were treated with two coats.

Material R.—This treatment consists of a liberal application of molten paraffin which is afterwards heated with a flame to drive the wax into the pores of the stone. The specimens were first heated in the drying oven to 110° C. and heated again with the flame of the Bunsen burner after the application.

Material S.—A thin cloudy liquid having an odor of mineral spirits. The volatile amounts to about 93% which is mainly mineral spirits. The solid matter is paraffin. The producers specify two applications with a brush for stones of ordinary porosity or three for very porous ones. Two coats were given.

Material T.—This is a non-proprietary treatment known as Sylvester's process. It consists of ¼ lb. of soft soap dissolved in 1 gal. of water, and ½ lb. of alum dissolved in 4 gal. of water. The soap solution is applied and shortly afterwards the alum solution is applied. The action that takes place results in the deposition of an insoluble soap in the pores of the stone. The specimens treated by this process were given three applications.

Trade Names and Producers of Materials

- Lithol. The Arabol Mfg. Co.
- Minwax. The Minwax Co.
- Transparent Drival. The Billings-Chapin Co.
- G. F. No. 100. The General Fireproofing Co.
- G. F. No. 145. The General Fireproofing Co.
- Ceresitol. The Ceresit Waterproofing Co.
- Aquabar No. 2. The Aquabar Co.
- Kemisol. The Morene Products Co.
- Dehydratine No. 2. A. C. Horn Co.
- Dehydratine No. 22. A. C. Horn Co.
- Dehydratine No. 222. A. C. Horn Co.
- Colorless Waterproofing. Northwestern Waterproofing Co.
- Gliddens Colorless Waterproofing. The Glidden Varnish Co.
- Anhydrosol. Toch Bros.
- Toxloxpore. Toch Bros.
- Reduced 1017. Toch Bros.
- Caffall's Process. The Obelisk Waterproofing Co.
- Porseal. The Truscon Laboratories.
- Sylvesters Process. Non-proprietary.

Description of Stone Specimens.—Two types of stone were used viz., Indiana limestone and a light colored sandstone from New Mexico. Specimens were prepared from four samples of the limestone representing the products of different localities. The different stones are described in the following table:

Mark	Type of stone	Color	Texture	% water absorption in 30 min.	% water absorption in 7 days.
No. 1	Ind. Limestone	Buff	Fine Gr.	4.49	5.52
No. 2	"	"	"	3.16	5.18
No. 3	"	"	Medium	5.44	5.87
No. 4	"	"	Coarse	5.59	6.43
No. 5	N. M. Sandstone	Gray	Fine gr.	1.94	3.24

Description of Tests.—The finished stone specimens were dried in the electric oven at 110° C. before the treatments were applied. All proprietary treatments were applied in accordance with the recommendations of the producers. Special care was taken to obtain a thorough penetration and it is believed that better results were obtained on the specimens than could be obtained on a structure. The uniformity of the results obtained from the different specimens treated with the same material indicate that the treatments were properly applied.

After the treatments appeared to be dry the specimens were weighed and put on a roof where they were freely exposed to the rain and sunshine. Each month they were weighed, immersed in water for 30 minutes and weighed again after drying the surface with a towel. A rain shortly before the time of weighing caused a considerable increase in the weights, but a few dry days preceding the weighings would bring the weights, in most cases, back near the original. A few of the materials allowed a considerable absorption of water which was retained in the specimens. Such materials would probably be harmful where exposed to frost action. Results for the following materials have not been included in this report due to the fact that they have not been under test long enough to justify it: H, J, L, O, and S.

Fig. 1 shows the appearance of the materials on slabs of Indiana limestone. The half of each slab to the right is treated, and the left half shows the original stone. All of these treatments alter the original appearance of the stone. Many mar the appearance so much as to be objectionable on the exposed walls of buildings. Those that alter the appearance of Indiana limestone least are G, T, L, and C. Those that mar the appearance of the stone are O, K, I, Q, P, and R. The appearance of the others would probably be considered objectionable in some cases and not in others. While they change the appearance of the stone considerably, the effect is probably not as great as that due to a year's exposure to the soot and smoke of manufacturing districts.

In the following list the materials have been placed in accordance with their value in reducing the water absorption. The numbers opposite the materials were obtained by dividing the maximum percentage of absorption of the treated specimens during the tests by the percentage absorbed by untreated specimens of the same stone during seven days immersion.

On Indiana Limestone.		Results		On New Mexico Sandstone.	
Material I.....	.01	Material T....	.43	Material C.....	.47
" B.....	.03	" F....	.69	" R.....	.60
" C.....	.05	" D....	.72	" T.....	.66
" M.....	.13	" Q....	.75		
" A.....	.21	" P....	.76		
" G.....	.33	" E....	.99		

The results given in the list above are for the worst conditions that occurred during the tests. A significant feature of some of the curves plotted in connection with the tests is that they show in many cases a large absorption from rains, and a gradual deterioration of the waterproofing material with the period of exposure. The intention is to continue these tests long enough to determine the period of effectiveness of all the materials.

THE
JOURNAL
OF
**THE AMERICAN INSTITUTE OF
ARCHITECTS**

Five Etchings by William Walcott

Thatch--I

CHARLES G. HARPER

American Architecture in Europe

A New Type of Astronomical Observatory

Working on Cost Plus Professional Charges

R. CLIPSTON STURGIS

A Program for Town Planning

Better Advertising for Architects

DECEMBER
1921

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JOURNAL OF THE AMERICAN INSTITUTE OF ARCHITECTS

Volume IX

DECEMBER, 1921

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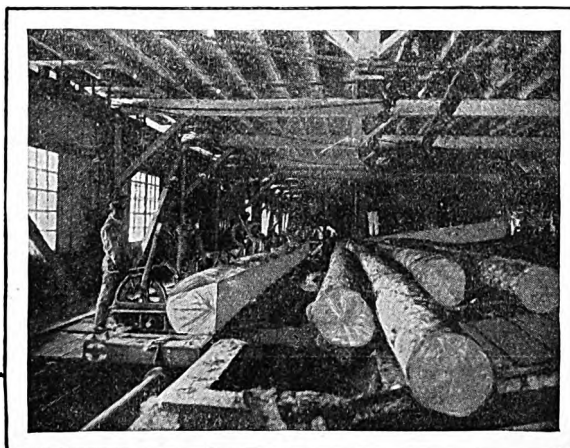
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JOURNAL OF THE AMERICAN INSTITUTE OF ARCHITECTS

Vol. IX

DECEMBER, 1921

No. 12

Shadows and Straws

THOSE who interest themselves in the hard work of the Institute, as represented by the deliberations of its Board of Directors, will find it worth while to read the minutes which are distributed as a supplement to this issue. Comment on them is unnecessary, yet it may be opportune to point out that a census of Chapter opinion in regard to the question of reducing the size of delegations to the Institute confirms our previously expressed belief that a smaller convention would carry the day. The Board now recommends a basis of representation based upon two delegates for each Chapter plus one delegate for each twenty members, plus another delegate for any fraction of twenty equaling or exceeding three-fourths. Thus, a Chapter of 56 members would have five delegates, while a Chapter of 54 would have but four. The next Convention at Chicago is to be held on the basis outlined, a request to be addressed to each Chapter for its consent to the changes, and the equalization of delegates' expenses will be upon the basis of the new method of representation. The Convention will then be asked to affirm an amendment to the by-laws embodying the change.

The new basis is thought adequately to meet the need for sparing the Chapters the heavy expenses involved in sending a full delegation under the old method, while keeping the proportionate basis fair and equitable. Likewise it is true that the larger delegations tend to make a less workable and enjoyable convention, and while it is patent that the reduction does prevent more men from going to Conventions and reaping the benefit of a common and intimate association, it is felt that the item of expense is at present quite sufficient to justify the reduction in the size of Chapter delegations.

In other respects the work of the Board gave clear evidence of the forward march of Institute participation in the affairs of the building industry. The subjects discussed and the opinion expressed reflected the growing desire of architects to know more of the industry of which they are a part and from the burdens and difficulties of which they can not escape.

THE ADVERTISING CONFERENCE, held the day before the Board meeting, was one of the most interesting movements which the Institute has inaugurated. Responding to an invitation from President Kendall, some seventy or eighty of the leading producers of building materials sent representatives to discuss, with the Board of Directors, the question of putting an end to some of the waste involved in the present methods of advertising and distributing information. It was, so far as we know, the first conference of its kind. It was a meeting of minds, in a frank and straightforward manner. On the one hand were the producers desiring to learn how best to satisfy the needs of architects for information about their products, and on the other hand were the architects, not consumers, but as the trustees of their clients, who are the actual consumers.

The conference lasted for two days and laid the foundation for a permanent organization which is destined to have a very considerable influence upon the advertising of building materials. It seemed to be clearly brought out, in the discussions, that the architect is, after all, the one agency that stands between the manufacturer of reliable products and the competitor who relies upon cheaper imitations or substitutions. The client is unable to detect the difference. He can not possess the knowledge whereby to discriminate safely. If price is made the guide, he is most likely to choose the cheaper. Thus the architect, whatever his defects and shortcomings may be, is the trustee of both client and the honorable manufacturer. The best evidence of this is in the constantly growing stream of inquiry which is flowing into the Committee on Structural Service. Hardly a day now goes by but what its counsel or advice is sought by architects.

To repeat, those who interest themselves in the expanding activities of the Institute as it grapples with the new problems thrust upon its attention, will find it worth while to read about the Advertising Conference. It is reported in the Structural Service Department.

READING Mr. Charles Moore's life of D. H. Burn-

ham, just issued from the press, and soon to be reviewed in these columns, impresses one anew with certain aspects of public architecture which are worth consideration. Mr. Moore narrates the passage of the Tarsney Act and its repeal, and concludes his observations by expressing the opinion that the "apparent rock of offence is the fee." He explains very clearly the point of view held by Congress—which is of course that the government should never pay the fees paid in private—and suggests certain methods whereby it might be possible to work out an arrangement for using architects in Government work, always bearing in mind the complexities and difficulties inherent in our political system and its discouraging influence on the use of skilled professional service.

He does not mention, however, that the repeal of the Tarsney Act was coincident with the discovery, by Treasury officials, of great abuses. These consisted in large increases over original appropriations, and that practice has been, in the eyes of competent observers, quite as much of an obstacle to the employment of architects by the Government as any question of fees. The fees under the Tarsney Act were acceptable, and it is possible that no controversy would have arisen had it not been for the practice to which we have referred. Many, many, times, in the history of Government public building work, architects have consciously or unconsciously, lent themselves to a practice which can not be championed by any fair-minded person. It is very frequently the custom for a group of ardent apostles to appeal to Congress for an appropriation far less than that which will be required to complete the project they have in mind. When the money is gone, a fresh appropriation is granted. This is sound reasoning by the apostles, of course, since the Government can hardly do more than complete the structure.

But when an architect enters into the question and participates in extra commissions as a part of the extra appropriations, he has placed himself in a position from which he has no escape, except the plea of ignorance. He can not betray the apostles who got him the job. And this has happened not once but many times. The history of Government work is the tale of extra appropriations and extra commissions. And on the word of a prominent Treasury official, it was a piece of work of this kind which finally broke the back of the Tarsney Act. It hardly seems possible that Mr. Moore could not have known of these things. Rather we prefer to believe that he means to be kind. But his great labors on behalf of Washington have given him an acquaintance with men and things architectural such as will make his book a conspicuous contribution to the history of American architecture. C. H. W.

Music and Architecture

"Mr. G. K. Chesterton told the Architects' Association the other day," says Mr. Ernest Newman, the eminent English musical critic, "that architecture is the only sane art left. As he pointed out, though in other words, you cannot jazz or otherwise play the fool with architecture; for it is connected with building, and if you go too far along the way of nonsense your building will come toppling about your ears.

"Mr. Chesterton is right; but perhaps there is another side to the question. May not this fixity to physical law be not only a strength to architecture but a weakness? Architecture is the least human of the arts—that is to say, after the architect has conceived the idea of a building he has practically no power over the material. He *must* do what physical forces tell him to do with regard to supports and balances and strains. He cannot indulge any fancies. In a word, he is denied that supreme charm of music—rubato. A wall or a ceiling is a wall or a ceiling; it cannot be twenty feet long at one moment and nineteen or twenty-one at the next. When we *do* get a sort of a rubate architecture, as in some cubist designs, we feel a breath of the madhouse about us: we know it would not be safe to walk along the streets in such a world as that.

"Architecture, then, is, as Mr. Chesterton says, the sanest of the arts. It is the good man made perfect of art. But, like the good man made perfect, it attains virtue at the expense of variety of interest. A great deal of the charm of a piece of music comes from the fact that it is never twice the same thing: every interpreter of it can give a touch of difference to it. We all know this; but do we realize often enough, or *per contra*, how much charm there may be in strict adherence to the norm?

"I had a striking illustration of this when adjudicating at the Edinburgh Festival last week. The test-piece for the basses in the folk-song class was 'Ho-ro, my nut-brown maiden.' All the competitors but one put the usual 'expression' into the various verses. We saw no objection to this until a bass came along who, so far as tempo was concerned, might have been a splendid machine; and we soon saw that he was right. This man sang all six verses of the song and its recurring refrain-verse in the most absolutely strict measure imaginable. I cannot remember ever having heard before a whole song sung without the slightest deviation from the regular pendulum-beat. The audience felt at once that it was right—that the soundest of instincts in the singer had dictated this inexorable uniformity. The melody is one of those rare ones that are spoiled by a flexible handling of the rhythm. But apart from that, it is probable that a great deal of our pleasure came from our getting back to a sort of architectural norm of rhythm after the million departures from it that we meet with in the ordinary way of our concert-going. Just as a famous diplomatist once outwitted his colleagues by the simple but somewhat unexpected device of telling them the bare truth, so we at Edinburgh were captivated by the bare truth of a rhythm as we have rarely been by the most cunning embroideries upon it."

Manchester Guardian.

Working on Cost Plus Professional Charges

By R. CLIPSTON STURGIS

Mr. Kohn, in his very interesting¹ paper on "working on cost plus professional charges" asks for the "views of other architects who have had a longer experience with it." My office has worked on this basis for some fifteen years, during which time it has been tested on every kind of work which goes through an architect's office, from a brass tablet costing twenty dollars to buildings costing three millions, and all varieties from domestic to purely commercial work.

The system in use in my office differs from Mr. Kohn's largely in the matter of profit, or as it is considered in my office, the fee for the personal service of the architect.

Without rehearsing the tentative steps which led to the method now in use, it may be stated that the salary is fixed arbitrarily by the consideration of three things: first, the character of the service; second, its duration; third, the proposed expenditure. In the first case it is obvious that the architect's service is quite different in a house, for example, where his personal service is completed only when the owner is at home (and not always then) and a commercial structure where the personal service may be said to be complete when plan and design are definitely determined. The second factor can generally be determined with some accuracy, especially when the agreement includes a provision for suspension of service. The third is normally a subject for fairly accurate estimate provided the problem is stated with some definiteness. Here again the agreement makes provision for any radical change, but also states clearly that no market change in cost will affect the fee.

On a careful consideration of all these, my fees have been fixed, and as a proof of the pudding is in the eating, it is perhaps enough to say that the fees so proposed have without exception been accepted as proposed to the satisfaction of owner and architect.

The experience of my office on overhead is that it is double, and often more than double the draughting. This relation must be determined by the actual figures in each office. When the office is busy, and every board occupied, draughting and overhead are 50-50; but with any empty boards or any slacking in work which puts a draughtsman on work charged to office, the overhead, constant in its rent and general charges, exceeds the draughting.

However, double the draughting is the rule, and the fees are not always velvet. The system has proved very simple, very adaptable to every kind of work and eminently fair.

It may be interesting to note that on work of an average character and medium cost, e. g., a school or hospital of \$100,000 to \$200,000, the result is generally about six per cent on the cost. On buildings of \$500,000 and over, it is generally under six per cent. On complicated work of small cost, it bears no relation to the cost, and in such cases it ought not to. If you told a client you would charge him fifty per cent for making a design for a tablet

¹See the Journal for August 192

filled with lettering and ornament which would cost \$200 to execute, he would be shocked, but if you told him you would charge him \$75 to make this design and \$25 to make the office record of it, he would compare your charge with that of the man who designed a bookplate for him.

To sum up, it seems far simpler to fix a salary in this way than to fix your value on an hour basis, and then try to keep time for yourself, and then double it for what you've been unable to find. One works at all times and in all places designing, planning, working our problems, considering and overcoming difficulties. Quite apart from these obvious objections to Mr. Kohn's method, it seems to me simpler, more straightforward, and more dignified to say to the owner that your service for a year and a half is worth such and such a salary. The great majority of people work on salaries, and he has an immediate grasp of the subject. If you want \$4,000 a year for such of your time as he will get, he can judge readily whether it is fair or not.

The agreement in use in my office differs somewhat from the Institute document, but it represents the result of a long series of tests in actual service. Briefly it includes monthly payments from the time the work begins. These cover all the expense, but, of the fee, 20% is retained for a final payment, and the remainder divided into monthly payments covering the period named in the agreement. It includes provisions for the suspension of service; monthly payments stop, and are resumed when work is resumed, and for the termination, which can be made at any time by the payment of the amount due for the month and the 20% reserved. This is a simple and satisfactory way of terminating work. The owner decides not to build and he closes the whole matter by paying this fifth of the fee.

(Note. Mr. Sturgis has very kindly given us permission to reprint the form of Agreement in use in his office, which follows below. Editor.)

ARCHITECT'S AGREEMENT.

Agreement made this _____ day of _____ 192-, between _____, hereinafter referred to as the Owner, and R. Clipston Sturgis, hereinafter referred to as the Architect, as follows:

(1) *The Work Contemplated:*

The work for which the Architect is to render professional services under this agreement consist of the planning and construction of _____, estimated by the Architect to cost about _____. This agreement, however, will not be affected by any change in the final actual cost of the building, unless it is due to a substantial increase in the requirements.

(2) *Scope of Professional Service to be Rendered:*

(a) The Architect shall render complete professional services, consisting of such conferences, preliminary studies, working drawings, specifications, large scale and full size detail drawings as may be necessary, together with the supervision of the letting of the work. The charges noted below under "Architect's Salary," are for the personal professional services of the Architect. The expense of draughting, engineers incidentals and superin-

THE JOURNAL OF THE AMERICAN INSTITUTE OF ARCHITECTS

tendence will be paid by the Owner in addition to such salary, as noted below under "Additional Charges." The Architect will furnish ten typewritten copies of the specifications or copy for the printer, if printed.

(b) The Architect shall in person, or by representatives give such superintendence to the work during construction as may be required to insure the work being executed in general conformity with the plans and specifications, and such further instructions as may be given from time to time. This superintendence cannot prevent poor workmanship or the use of poor materials, but can require the making good of such defects as appear in the work, so far as practicable.

(3) Architect's Salary:

(a) If the work as contemplated at this time is carried on steadily to completion, it is estimated that the Architect's services will terminate in _____ months from _____. On this basis the Architect shall receive a total salary of _____. The amount shall be paid as follows: _____ a month for _____ months, payments beginning _____ 192-, final balance of _____ to be paid on issuance of final certificate to the contractor.

(b) If for reasons beyond the control of the Architect, the work is delayed so as to extend over a period materially in excess of that contemplated, as noted above, and so as to entail additional service on his part, then the total amount of the Architect's salary shall be increased by an amount to be mutually agreed upon by the Owner and Architect.

(c) The Owner may at any time abandon or suspend the work and the employment of the Architect shall thereupon terminate if the work is abandoned, and be suspended, if the work is suspended.

(d) If the undertaking is abandoned and the employment of the Architect consequently terminated, he shall be paid in addition to this salary to the date of such termination, the unpaid balance of _____ due at completion.

(e) If the work is suspended at any time so as to suspend also the work of the Architect, the Owner shall be at liberty to suspend payments on the Architect's salary until his work is resumed, without affecting otherwise the terms of this agreement.

(4) Additional Charges:

In addition to the Architect's salary determined above, there will be the following items of expense to be paid by the Owner through the Architect:

(a) Draughting: Strict account shall be kept by the Architect of the cost of draughting, such cost to be the total of the salaries paid to draughtsmen engaged on the drawings, or in superintendence, including time so spent in writing specifications, but no charge is to be made for time so spent by the Architect, and all expense of stenographic work on specifications or otherwise, done in the Architect's office, are to be considered as "regular office expense." No charge shall be made for superintendence on the part of the Architect. The total amount of such draughting expense shall be multiplied by two to cover the proportionate share of regular office expenses, and this resulting amount shall be paid monthly on statements in detail from the Architect. The total expense under this item is estimated at _____.

(b) Engineers: The services of structural, domestic and sanitary engineers shall be paid for through the Architect at cost. Expense under this item is estimated as follows:

Structural Engineers,
Domestic Engineers,
Total,

(c) Incidentals: Incidental expenses in connection with the work such as blueprinting, travelling expenses, models, long-distance telephone, telegraph, express and other miscellaneous

charges directly applicable to this work including printing of specifications, if they be printed, shall be paid at cost on monthly statements from the Architect. Total expense under this item is estimated at _____.

(d) Clerk of the Works: A clerk of the works satisfactory to the Architect shall be employed by the Owner if he deems it desirable, and paid for through the Architect at cost. The clerk of the works shall be the representative of the Owner and of the Architect, and shall report to the Owner through the Architect as directed by him. If a clerk of the works is employed the total expense under this item is estimated at _____.

(5) Survey Borings and Tests:

The Owner shall furnish the Architect with a complete and accurate survey of the building site, giving the grades and lines of streets, pavements, and adjoining properties; the rights, restrictions, boundaries and contours of the building site, and full information as to sewer, water, gas and electrical service. The Owner is to pay for test borings or pits and for chemical, mechanical or other tests when required.

(6) Preliminary Estimates:

When requested to do so, the Architect will make or procure preliminary estimates on the cost of the work and he will endeavor to keep the actual cost of the work as low as may be consistent with the purpose of the building and with proper workmanship and material, but no such estimate can be regarded as other than an approximation.

(7) Ownership of Documents:

Drawings and specifications as instruments of service are the property of the Architect whether the work for which they are made be executed or not.

(8) Successors and Assignment:

The Owner and the Architect, each binds himself, his successors, executors, administrators, and assigns to the other party to this agreement, and to the successors, executors, administrators, and assigns of such other party in respect of all the covenants of this Agreement.

The Architect shall have the right to join with him in the performance of this agreement, any architect or architects with whom he may in good faith enter into partnership relations. In case of the death or disability of one or more partners, the rights and duties of the Architect, if a firm, shall devolve upon the reby him or them, and he, they or it, shall be recognized as the "successor" of the Architect, and so on until the service covered by the agreement has been performed. The Owner shall have the same rights, but in his case no limitation as to the vocation of those admitted to partnership is imposed. Except as above neither the Owner nor the Architect shall assign, sublet or transfer his interest in this agreement without the written consent of the other.

(9) Summary:

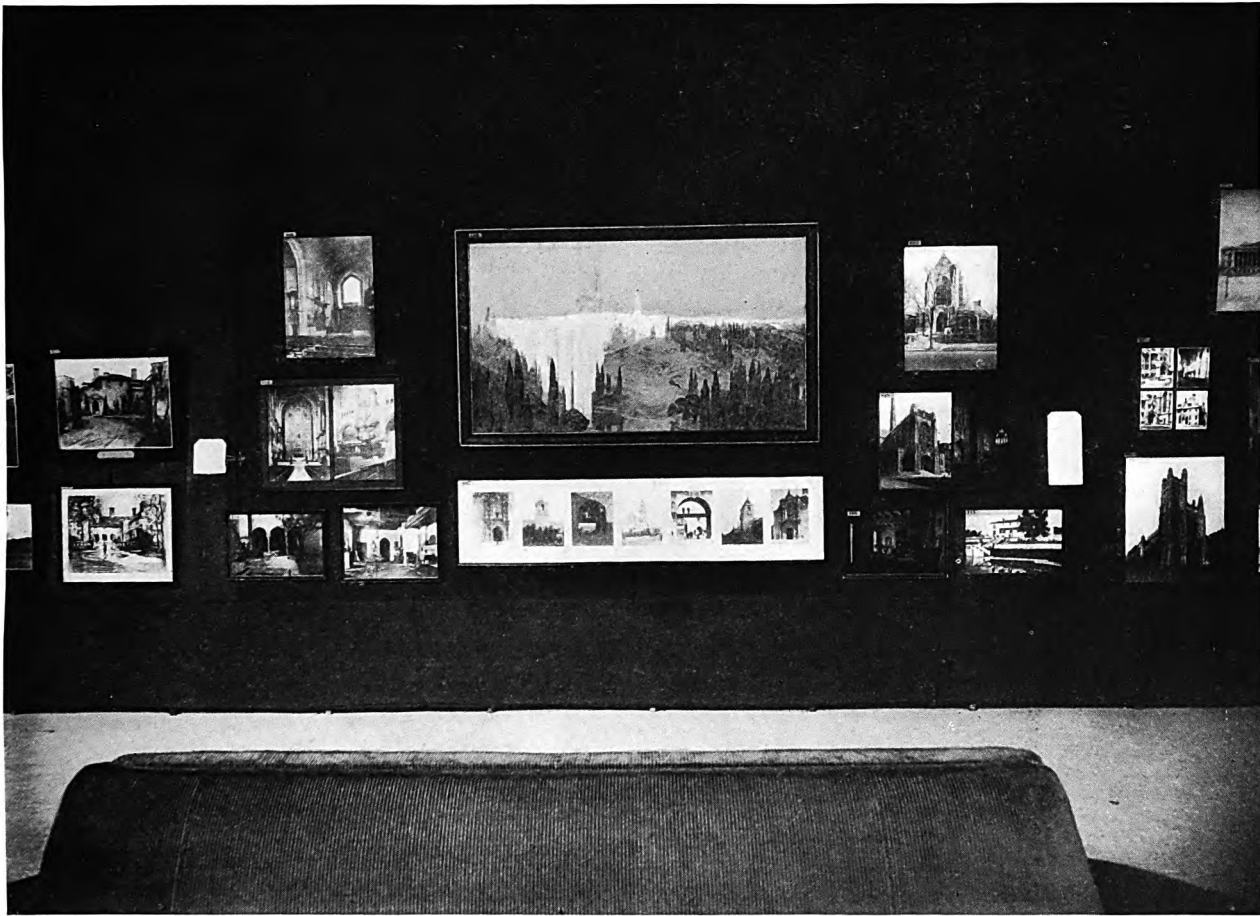
The summary of the items as above is as follows:

- (3) Salary
- (4) (a) Draughting
- (b) Engineers
- (c) Incidentals
- (d) Clerks of the works

IN WITNESS of the above the parties hereto have duly signed this instrument the _____ day of _____, 192 .

..... Owner
..... Architect

AMERICAN ARCHITECTURE IN EUROPE



THE EXHIBIT OF AMERICAN ARCHITECTURE AT THE PARIS SALON—1921
Panel C

American Architecture in Europe

The report of the Institute Committee on Foreign Building Co-operation, as presented at the Board meeting in Indianapolis, concerns itself chiefly with an account of the exhibition of the works of American architects at the Salon in Paris this year, an event with which readers of *THE JOURNAL* are now quite familiar.

It seems worthy of note that for the first time in the history of the Salon a section was given up entirely to the work of artists from another country. The exhibit prepared under the auspices of the Committee was placed quite by itself, as the accompanying illustrations show. It was for this reason that there were no individual awards. The exhibit was accepted as a unit. Eighty-eight architects or firms were represented by 299 exhibits.

The committee expresses its warm appreciation of the great courtesy extended to it by the Ministry of Fine Arts, the Société des Artistes Français, and by the officers of the French architectural societies. A public conference on American architecture, illustrated by lantern slides, was given by Monsieur Gréber, and was largely attended. After the conference, Monsieur Gréber and Mr. Levi,

Secretary of the Committee, explained many of the exhibits and replied to numerous questions.

Much space was given to the exhibit by the French press, and may be accepted as evidence of the exceeding interest aroused. Criticisms and compliments vie with each other, yet it was interesting to note that the American country house seemed to be the center of attraction. The Committee records the quite remarkable and significant fact that the French public is unaccustomed to an exhibit of architecture in which no plans are shown, as was the case in the American exhibit; thus, the Committee believes the exhibit would have been better understood if this element had been included. But the Committee worked under great difficulties, had little time at its disposal, not much space in proportion to the amount of work thought to be worthy, and the exhibit was therefore largely restricted to photographs and drawings of exteriors.

Yet the exhibit was the subject of great interest outside France. The Royal Institute of British Architects wished to transfer the exhibit to its own halls in London, and this has been done, the exhibit being shown in the months of November and December. Other requests were also received by the Committee, but because of the difficulties



EXHIBIT OF AMERICAN ARCHITECTURE AT THE PARIS SALON—1921
General View—Salle des Conférences

attendant upon transport and the customs nuisance at our own gates, in the event that the exhibit became divided, the Committee felt that it could not carry out further projects.

The event certainly marks an interesting occasion in the history of the Institute and in the chronicles of American architecture. There seems little doubt but what similar exhibits will be sent abroad, and it is equally and greatly to be desired that we shall arrange for an American view of the work of many of our European confreres.

Is Architecture Worth While?

In the first of his lectures at the University of Manchester, on "The Art of Building," in the course arranged jointly by the University, the Institute of Builders, and the Manchester Society of Architects, Mr. Paul Waterhouse took as his text the phrase "Is architecture worth while?" and said (we quote from a press report):

"Accepting, for the sake of argument, the definition of an architect as 'an organising person who pre-arranges the use of materials,' he said it could be shown that architec-

ture was worth while in so far as it prevented materials being handled in a costly and wasteful manner. But he refused to accept the definition as complete, or as an adequate answer to his question. The mere preliminary arrangement of the use of material was not architecture at all. But the moment a larger definition was suggested architecture was described as a luxury. It was very dangerous, however, to talk of luxuries and necessities, because no one could draw the line between the two. After all, the absolute necessities of mankind were very few, and the whole tendency of civilisation had been to increase human wants. Personally, he was surprised that the public had abandoned itself to the idea that the lithographed types of houses issued by the Government were the only types available.

"Architecture was not a luxury, it was not an addition to building. It was a matter of national importance. A country which had no architecture was like a man without a decent suit of clothes. Architecture was a question of tidiness and decency that it was not good to overlook. Civilisation tended to make people tidy and decent instead of savage. 'You can administer justice in a building of iron with plain concrete walls,' he said, 'but you

A NEW TYPE OF ASTRONOMICAL OBSERVATORY

don't, any more than a judge administers justice in a dressing gown and slippers. If you turned a builder loose to put up courts of justice he would not give you a mere building; he would perhaps pick some iron castings out of a catalogue and try to work them in.'

"The lecturer attributed a good deal of the bad architecture seen today to the Gothic revival. In the eighteenth century the tradition of design in the classical form had permeated the workshops, and there was building by 'a vernacular method' which we admired today. When the Gothic revival began a race of designers sprang up who said: 'The public is getting to like free art. Very well; we can be as free as anybody else.' 'And that,' said Mr. Waterhouse, 'is the origin of a great deal of poor architecture that we see in London, Manchester, and Liverpool. It is the unholy product of a holy movement.'"

A New Type of Astronomical Observatory

By HOWARD J. SAVAGE

There has recently been completed for Mr. Henry C. Gibson at Fairy Hill, Jenkintown, Pennsylvania, an astronomical observatory in which the conventional revolving dome has been replaced by a hand-operated sliding roof. Though at first sight such a departure from the accepted housing for a rather large refracting telescope might seem impractical, the new construction has the advantage of lower cost of erection, sightliness, and the fact that it obviates the necessity of moving a dome in preparation for an evening's work or during observation. The cost of the observatory complete was less than that of a suitable dome alone.

One objection to such a construction might seem to be that impact of air currents striking the exposed tube of the telescope, which in most observatories is protected from the wind by the dome, might cause the instrument to vibrate or alter the speed of the driving clock; but the expected defect does not appear in operation, in that in these latitudes high winds and high visibility do not occur at the same time. It is true, however, that during daytime observation the heat of the sun's rays upon the exposed tube causes heat-waves to some extent, but most observing is done at night.

The building was designed and its principles developed by Mr. George Howard Bickley, of DeArmond, Ashmead and Bickley, architects, Philadelphia.

The observatory consists essentially of two parts: the instrument chamber, and the workrooms. The instrument chamber is in form a true octagon, 9 feet 6½ inches on a side, and it houses amply the 12-inch refracting telescope. From this chamber the roof rolls back to a point of rest over the work-rooms, affording an unobstructed view of the heavens except about 20 degrees at the North, instead of that usually obtained through the narrow slit of a dome. The workrooms are two in number; a study 18 feet by 10, and a darkroom, 10 by 7 feet, equipped for the development of photographic plates.

The sliding roof, which constitutes the unique feature of the building, consists of a steel *chassis*, the wooden frame, and the painted tin covering. The *chassis* moves upon a track of 3-inch steel I-beams, 50 feet long, which extends



the length of the structure, along the slag roof of the work-rooms, and which is supported by the ten Doric columns and the four pilasters. The *chassis* consists of a steel frame of 6-inch I-beams and channels, which rolls along the track on six wheels, three on the east side and three on the west. The center wheels on both sides are fitted with 9" cog-wheels, which are geared to 4" cog-wheels on a 2" shaft, running across the observing chamber through the truss of the roof. This shaft is operated by a 24" chain wheel outside the building on the west side. A slight pull on the chain outside the building will serve to start the roof rolling easily and gently back upon the track over the workrooms. The roof can be removed in 30 seconds, and it can be pulled back without the slightest fatigue to the operator in a minute and ten seconds. A system of steel stops prevents its traveling too far in either direction. The weight of the roof, complete with the *chassis*, is about five tons, and it is so constructed that it will carry 15 tons of snow. In the closed position a strong steel clamp locks it from within and prevents movement by the wind or by meddlers, and the chain outside is provided with a padlock.

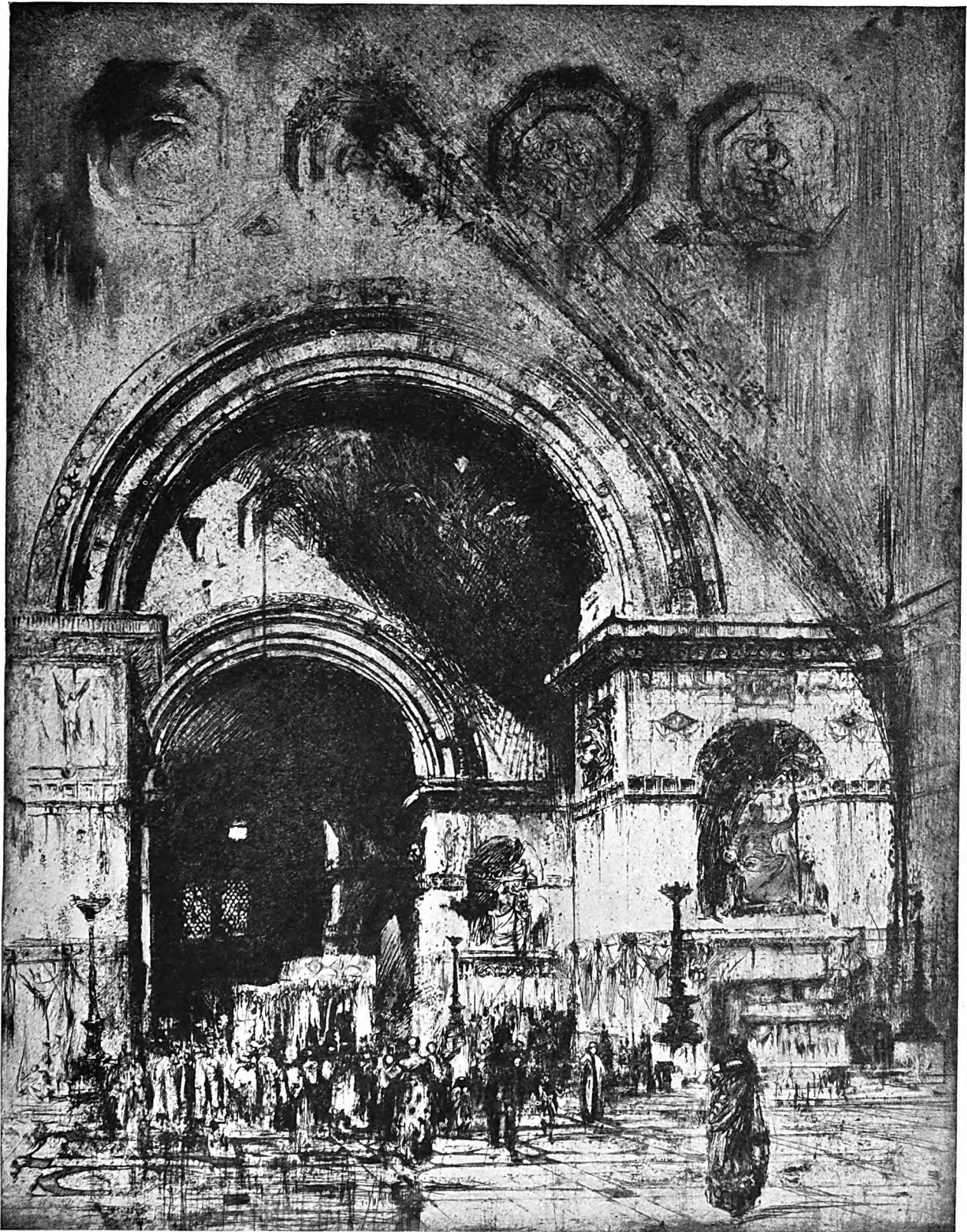
In installing a telescope of this size, the usual method is to pass it through the narrow slit of the dome, not over two feet in width, but the unusual construction of the observing chamber and the roof in this building enabled workmen by the use of a gin-pole to complete the installation much more readily. They simply removed the roof and, raising the sections until they cleared the walls of the chamber, lowered them into place ready for erection. The heaviest single part was a section of the base with a weight of about 1½ tons. The total weight of the instrument as installed is about 5 tons.

Le Brun Scholarship Competition

IT IS DESIRED to call the especial attention of architects to the announcement of the Le Brun Scholarship competition shortly to be held, with the request that the printed circular sent out by the Scholarship Committee be prominently displayed in the offices and that architects generally interest themselves in drawing attention to the scholarship for 1922. This is the only traveling scholarship, we believe, which does not require any course of study in a school, it being intended that the scholarship shall supplement an office training. The competitors must, in all cases, be nominated by members of the Institute.

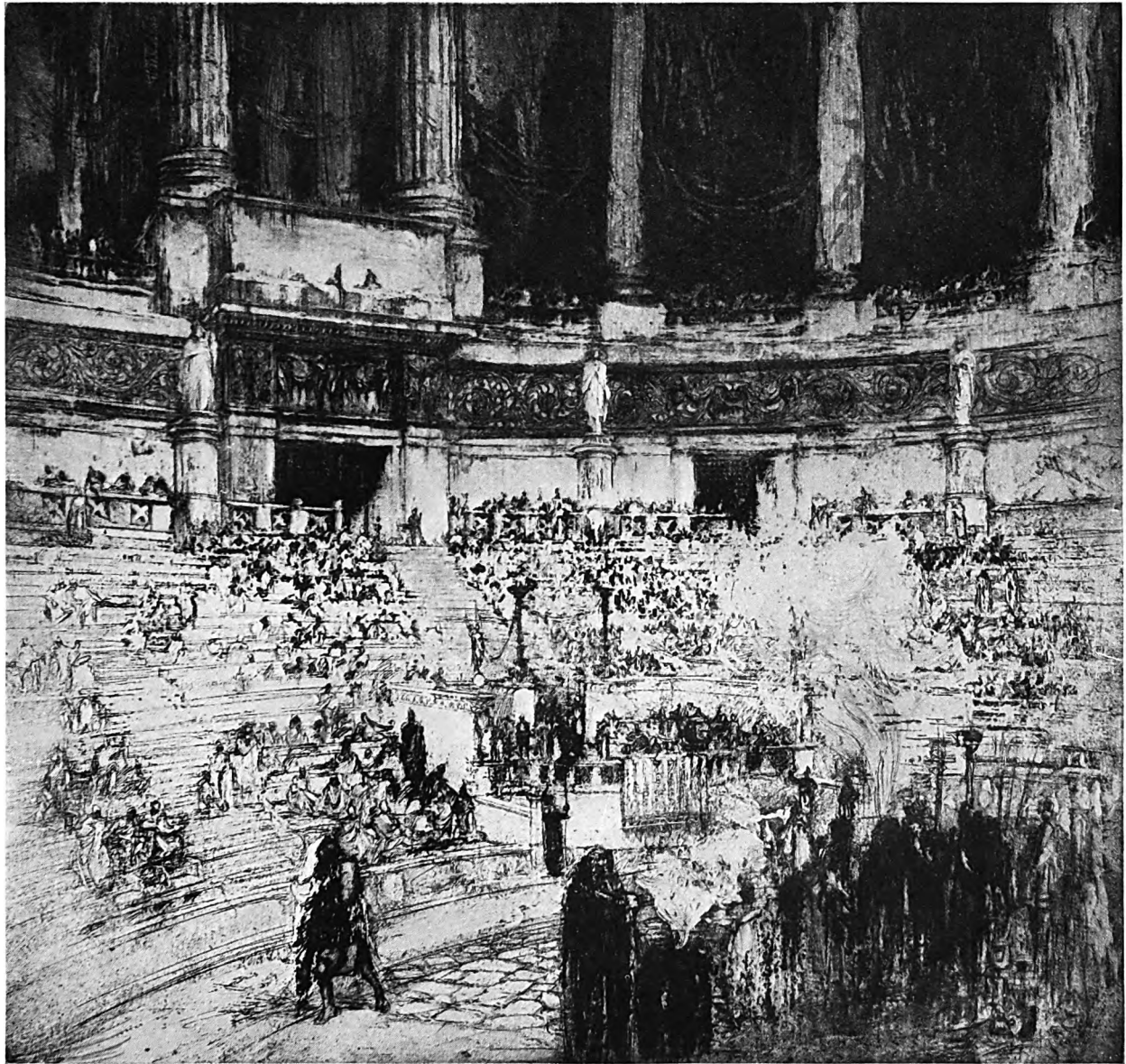
Five Etchings by William Walcot

It is our happy privilege to pay a long deferred tribute to the work of William Walcot, an English etcher whose plates have lifted the art of architecture to an eminence rarely attained by those who seek to interpret rather than to build. A consummate master of line, he brings to his plates a power of imagery that lends itself in a superlative degree to those vivid re-creations of a past to which the world is never tired of turning. Those who are the joyful possessors of one or more of his etchings will realize the difficulties besetting any attempt to do them justice by modern printing methods. Etching in itself is one of the reproductive processes and ought, perhaps, never to be made the object of any effort at translation, yet we have the courage to make the attempt, so great is the interest in Walcot's work and so few are they who have one of his prints as a companion. The five subjects selected (including the frontispiece), are here reproduced by the courtesy of the publishers, Messrs. A. C. and H. W. Dickins, of London and New York.

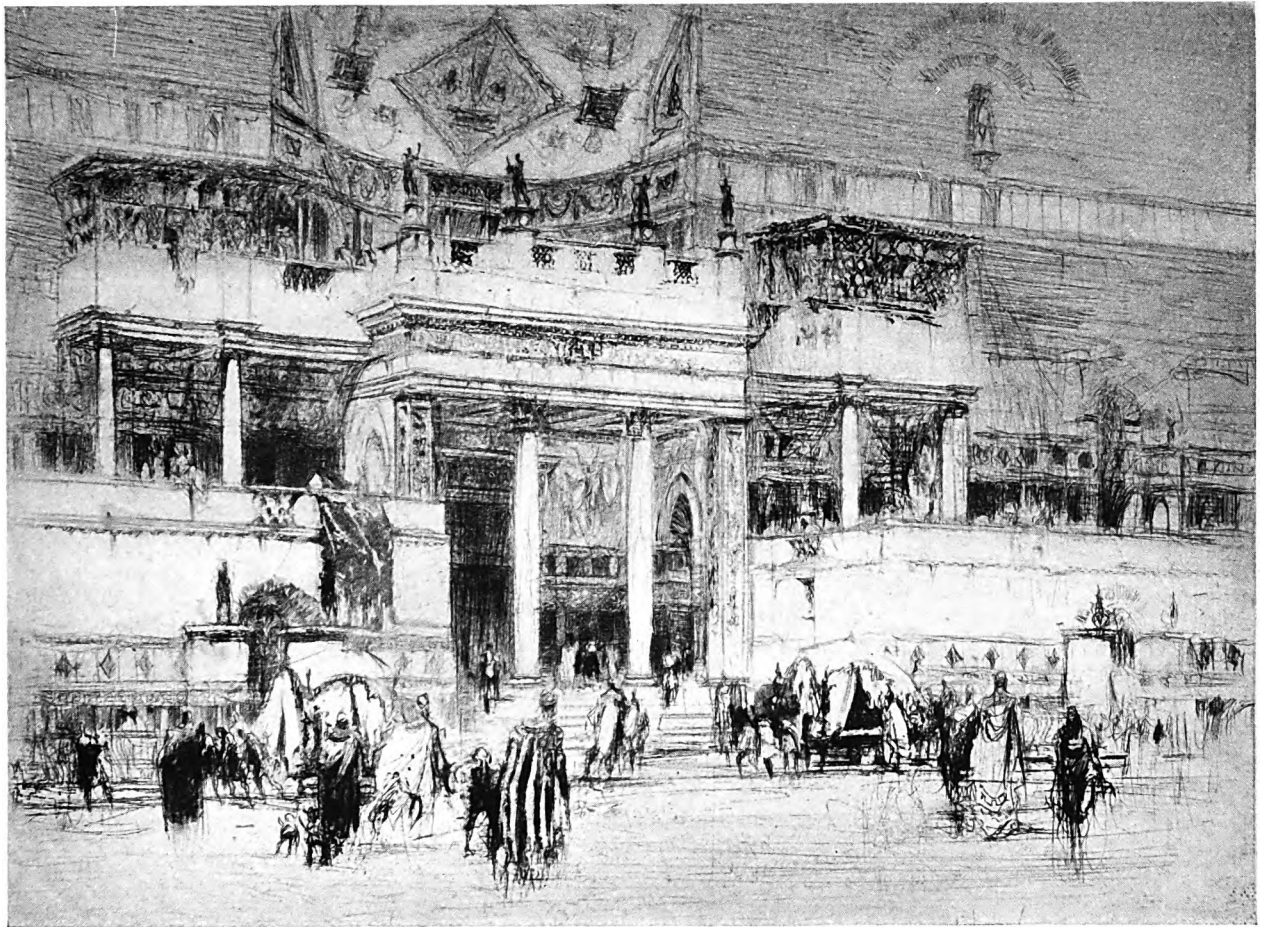


A COURT OF JUSTICE—ROME.
William Walcot.
(25½x19¾)

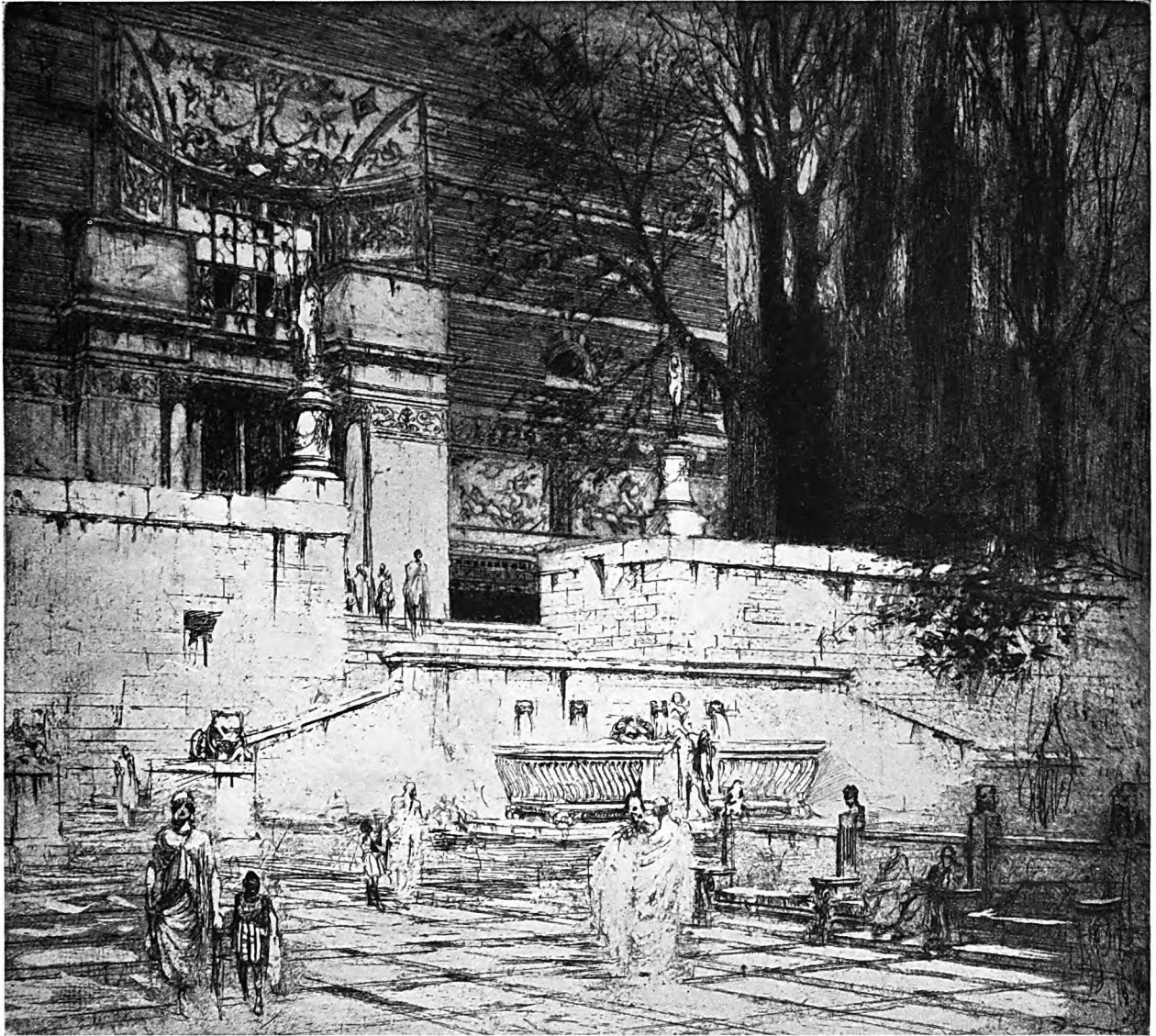
1900



PERFORMANCE OF SOPHOCLES' "ŒDIPUS REX"
BEFORE THE EMPEROR HADRIAN.
William Walcot.
(17¼*18¼)



THE HOUSE OF SALLUST.
William Walcot.
(5¾x7¾)



THE HOUSE OF A ROMAN PATRICIAN.
William Walcot.
(16x16)

Thatch—I

By CHARLES G. HARPER

WE HAVE in our day come to see the revival of many excellent things, found good in the accumulated wisdom, the result of centuries of experience, of our forefathers—things discarded during the last two or three generations in favour of what old countryfolk call “new-fangled” methods. Among those things set aside and regarded with disfavour in the industrial developments of modern times was what we may well style the “home-made” cottage. There was a time when it was easily within the competence of the average villager or countryman to build his own home, and he took a pride in the doing of it, putting into the work that individuality which was far more artistic than the best efforts of professionals. Thus

becoming surely covered with odious little rows of dwellings, designed on the model of the suburbs. The appearance of these in the most unlikely situations was infinitely saddening to the lover of the countryside.

Economic, perhaps, rather than any other reasons, are now leading to more liberal views on this subject. Also it has been found that the countryman does not love the “hygienic” type of cottage built for him. Nor does he enjoy living in a row of houses, herded with other people. The type of cottage officially blessed leaves him cold, in more than one sense of the word. Or, more exactly, he is not warm in enthusiasm about it; while he finds it that terrible reversion from the ancient ideal which experience attained—“warm in



THE “SHIP” INN—Porlock

came into being those cottage homes of England which are the delight of the eye and the quest of the artist. It may readily be allowed that neglect often brought them into a dilapidated and an insanitary condition, but so much, under the like circumstances, will happen to the most technically perfect modern cottages, given time. And, we are tempted to add, not so much time, either.

Until recent times of stress, modern Housing Acts and Local Government Building Orders frowned down the rustic cottage and imposed a townsman’s ideal upon the country, with the result that rural England was

winter, cool in summer.” Instead of that domestic comfort, the model thin-walled cottage with slate roof is all too often apt to be “cold in winter, hot in summer”: a hot-house in July, a refrigerator in December. The kind and the quantities of building materials both enter into this question, and cost; but a great factor of the olden “cool in summer, warm in winter” comfort was that cottages and farmhouses mostly were thatched. There is a little town in Essex—Thaxted—whose very name tells us that anciently it was wholly a town of thatch.

In these latter days, now that the odious Noah’s



"CAT AND FIDDLE INN"—Hinton Admiral

Arks of Ministry of Health cottages are rising all over the country, the hideous developments of economic pressure and a haste to overtake the housing shortage, it is good to adventure awhile into those rural byways where the heritage left us by our forefathers in the way of ancient villages and isolated cottages may be found. The finding of them will lead to mixed reflections, it is true. In Hampshire river valleys, where such old villages of thatch as Over Wallop will be discovered (somewhat qualified by a modern but not unpleasing church tower, with the unusual feature of a saddle-back roof), it will readily be perceived that the rural village-makers of old would have little to learn from those of today. Indeed, they could teach the builders (for instance) of a certain eyesore block of cottages no further away than Holmwood Common, in Surrey, beyond Dorking, a good deal in the manner of "how not to do it."

I should like to explain, almost to apologise for, the names of Over, Middle, and Nether Wallop. They take them from their situation on the Wallop chalk stream, which "wells up" (Anglo-Saxon "weallan," to well or bubble) here.

I hold no brief for thatch. I find it interesting to the artistic eye, and it has all the advantages already claimed; but, in their own place, I do not find that Cumberland slates or Collyweston slabs are less admirable, given suitable conditions. And Horsham stone roofing is even more a desirable material if you can afford the heavy timbering to support its weight.

Nor should we hasten to condemn without reservation all the housing activities now in progress. There are other besides Noah's Arks building; and at the present time I notice that even in Middlesex housing schemes the unusual sight of a new thatched roof is to be observed.

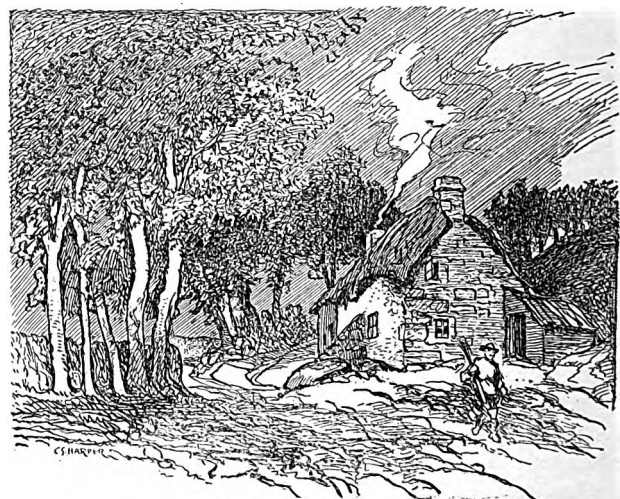
We need not labour the point of the picturesque quality of thatch. It is evident. It confers a suavity of skyline not to be matched by other methods. That is why the old barns and rickyards of Dorset form such

excellent motives for the artist. I did not make the accompanying drawing of Dole's Ash for the purpose of demonstrating the contrasting rigid line of a tiled or slated house with the artistic quality of the skyline of thatch; but I perceive, now it is done, that it aptly illustrates the argument.

I should like to see thatched churches in other regions than where they are exclusively to be found. They are so common in Norfolk and Suffolk that, although they seem strange to visitors from other parts, they excite no comment locally. I made some years since a list, which I think is fairly comprehensive, of the thatched churches in England, as follows: Norfolk—Acle, Ashby St. Mary, Betton, Bramfield, Burgh St. Margaret, Burgh St. Peter, Billockby, Eaton, Filby, Hales, Ingworth, Ixworth Thorpe, Little Melton, Little Ormesby, Marlingford, Mautby, Paston, Salhouse, Stokesby, Swafeld (nave only), Thurgarton, Tivetshall St. Margaret's (chancel), Trimington, Upton, Ustead, West Somerton, Suffolk, Barnby, Coney Weston, North Cove, South Cove, Eriswell, Herringfleet (nave only), Heston St. Mary, Hopton St. Margaret, Icklingham All Saints, Icklingham St. James, Kessingland, Leiston, Lound, Middleton, Pakefield, Ringsfield, Rushmore St. Michael, Sapiston, Theberton, Thelnetham, Thornham Parva, near Eye (with tower thatched as well), Westleton, Woodbastick. Cambridgeshire—Coveney, Long Stanton, St. Michael. Lincolnshire—Markby.

Thus we have more than fifty thatched churches: unless, indeed (which seems unlikely), some of these have been re-covered with other materials.

In these our times we look upon such thatched churches with interest and appreciation, and do not necessarily consider the thatch to be a deplorable makeshift. It is a local condition, just as much as was the black flint that, knapped or not dressed, goes so greatly towards the construction of churches and other build-



COTTAGE AT PENBERTH COVE



OLD THATCHED COTTAGE—Bere Regis



BOAT LANE—Welford-on-Avon



"TEAPOT HALL"

ings throughout East Anglia; so that indeed that "city of churches," Norwich, and the many-churched town and picturesque port of Ipswich exhibit scarcely any other kind of walling.

But, a hundred years or so ago, it is evident that thatched churches, at least, were regarded as evidences of needy conditions; for we find Robert Bloomfield, the Suffolk rural poet of the last years of the eighteenth century, referring in his "Farmer's Boy" to autumn and to the thatched church of the village, writing in this vein of criticism:—

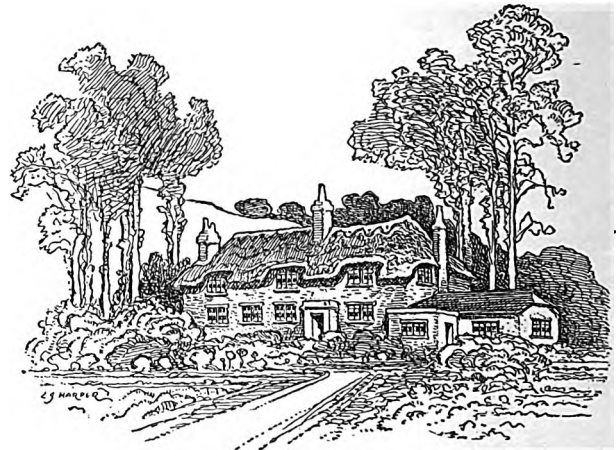
"The rude inelegance of poverty
Reigns here; else why that roof of straw?"



BIRTHPLACE OF THOMAS HARDY
Upper Beckhampton, near Dorchester (rear view)

But not always straw, especially in East Anglia, where furze, heather, and reeds are often employed. Heather is used chiefly for very humble cottages or out-houses, and cattle-sheds. It also forms a quaint material for roofing "rustic" garden-houses. The heather harvest is a gipsy employment, for the most part. "Hoop-chips," a material not so well known, are obtained from districts where there is much copse-ware industry, such as barrel-making. They are hazel and alder cuttings. Most thatchers would find them refractory to work, but the life of such a thatch is long, and it is obviously less exposed to the danger of fire than any other material. Fancy thatching, in ornamental patterns, could not well be produced by using hoop-chips.

Reed thatch is more particularly the East Anglian variety, for the obvious reason that there is yet so much



BIRTHPLACE OF THOMAS HARDY—Upper Beckhampton

reed grown in the Broads district. It is not so easily fired as straw, for reeds are not readily set alight. Thus, when Charles Kingsley wrote in his "Hereward the Wake" of that hero firing the reeds of Ely against the Normans, he is exercising his imagination against the facts of nature. The fenland reeds refuse to burn, outside the pages of fiction.

The reed-layer of thatch would scarcely see eye to eye with the thatcher in straw. The methods used are wholly different. While with his "legget" the reed-layer methodically and with deliberation "knocks up" his pliable, more than yard-long reeds (reeds, indeed, often attain a growth of nine feet) on the rafters before tying down with hazel "sways," the straw-thatcher combs his surface smoothly down. Briefly, reed-thatch, under present conditions, having regard to the saving on the lighter roof-timbers necessary, against the heavier required in the case of tiles, is cheaper by about 60 per cent. The life of reed thatch is very long. Kept in repair, a roofing of this material may be re-



BERE REGIS



A FARM ON EGDON HEATH



FIDDELTOWN



THE "WHITE HART INN"—Sturminster Newton

garded as much of a permanency as anything in tile or slate.

A further variety of thatch, mostly for sheds in the Broads region, is from rushes, called locally "boulders."

Straw-thatch may be said to have a life of thirty years, although it is evident to any observant person that many straw-thatched roofs have a greater age than that. But they are long past their prime. Winter and summer have weathered them until the silica, the natural protective gloss of the straw, Nature's own waterproofing, has gone, letting in the damp, or in dry weather exposing holes into which a casual spark from a passing traction-engine may fall, with disastrous results. A roof of steep pitch, with new or well-repaired thatch, is not necessarily inflammable. Rain and sparks or any burning fragments are readily thrown off; but neglect and false economy will often result in fires. Old and decayed thatch is a harbourage for insects, and becomes, with the seeds dropped by birds, or carried in the air, a kind of garden. The famous Anne Hathaway's Cottage, at Shottery, near Stratford-on-Avon, when I sketched it, some years ago, had a rotting thatch, wire-netted and growing a very luxuriant crop of shepherd's purse, groundsel, candy-tuft; and dandelion; while poppies waved their red banners on the roof-ridge.

Not far from Stratford is the very picturesque village of Welford-on-Avon, with much thatch, especially by

the church, in Boat Lane, where is a group of highly-skettable cottages with elaborately-thatched roofs and dormers. On the Oxfordshire and Warwickshire borders, at Long Compton, there is even a thatched lych-gate to the churchyard. An exceptional lych-gate, this, for over it is a cottage inhabited some time since, and possibly yet, by a shoemaker.

A queer example of the very ancient and possibly original type of English cottage is that called "Teapot Hall" beside the road at Dalderby in Lincolnshire, between Woodhall Spa and Horncastle. It is thickly thatched, and, as will be seen by the illustration, its roof is at an exceedingly steep angle. The local legend, to account for the singular outline of this cottage, resembling as it does a curious kind of teapot once in use, is that it was built by the retired captain of one of the Indian tea-clippers, as in some sort reminiscent of his occupation. This, of course, is an idle story, for the cottage is just a survival of the ancient simplest form of timber construction, by placing timbers (or "gavels," as they were styled: hence the word "gable") against each other, like an inverted Λ , or possibly like an X , with the intersecting ends forming a truss for the roof-ridge. An ancient growth of ivy almost wholly obscured one end of this cottage until some five years ago, when it was rightly removed.

We look naturally for thatch in the Dorsetshire of



THE HANGMAN'S COTTAGE—Dorchester



THE "WAGON AND HORSES"—Beckhampton



DOLE'S ASH

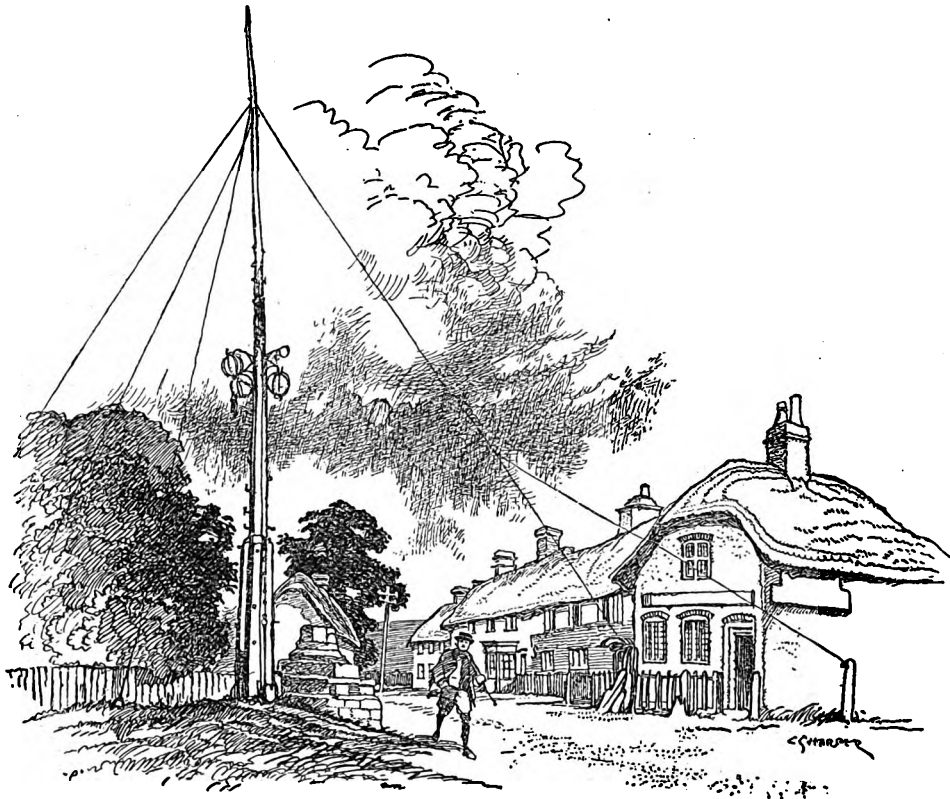


"JOLLY LANE COT"—Hexworthy

Thomas Hardy; nor shall we be disappointed. It is abundantly evident in that integral part of Wessex, the most unchanging agricultural and dairying district in England. The village of Bere Regis is the most completely characteristic, from this point of view, of all the Dorset villages, for its cottages are almost all thatched, and a large proportion of them, it will be found, are built of that compost of sandy earth, chopped straw, and lime which in Devonshire is called "cob." Bere Regis is the place indicated by the novelist in his "Tess of the D'Urbervilles" as "Kingsbere,"

and "Kingsbere-sub-Greenhill." A grim, stark, decaying little village, owing something of its hard-featured look to an almost complete lack of gardens in front of the cottages, which abut directly upon the street. When a cottage at Bere Regis decays, or is burnt (which frequently has happened) it is commonly allowed to remain in ruins; and so, by a natural process, the village is decreasing. Most of the thatch is old and decayed; some of it affording a rich bed for weeds and ox-eyed daisies, and what Dorset folk call "bloody warriors"; meaning the rich red wall-flower.

(To be continued)



SHILLINGSTONE

Around the Secretary's Table¹

By THE SECRETARY

MR. GREELEY: I'm glad to have a chance to join in this discussion, and it seems to me that local meetings as well as Conventions are involved in the problem. It is quite clear from what you have said that at least some of the criticisms of our Convention won't hold water as criticisms, but they do voice a general yearning for something more inspiring and satisfying in professional meetings. There is a need for something more than stated and formal gatherings.

THE SECRETARY: Just what do you have in mind?

MR. GREELEY: The fullest measure of professional fellowship comes I think through the frequent accidental and natural contacts that occur, for instance, in a place like the Great Hall of the Boston Architectural Club at noon.

Every Chapter would benefit by such opportunities.

It is amazing to me that Boston Architects can stay away from the club.

THE SECRETARY: Of course, with some it is less convenient than for others, and it is terribly easy to get into the habit of taking lunch in the place nearest at hand. It is certainly true in my case.

MR. GREELEY: True; but every now and then one could find it convenient. Many of them never come at all. The effect of such absence is a most serious menace to the profession. Now the Chapter has virtually excluded the draughtsmen from its meetings.

THE SECRETARY: Just how do you mean?

MR. GREELEY: I joined the Chapter years ago as a Junior Member with some limited rights as to voting, but with full privileges of attending meetings, and joining in the discussions. That class has now been abolished and, if I remember rightly, it is a case of being a full Institute member or nothing.

THE SECRETARY: Ah, but just a minute; that isn't quite the case. As somebody has said, there are three kinds of things we don't know;—first, the things we have never known, second, the things we know but which aren't so, and third, the things we have known but have forgotten. Of course it's quite natural for some of our rules of procedure and organization to slip out of one's mind. Now in this matter, it is perfectly true that the Junior membership has been abolished, but the Associateship Class has been set up in its place. The only difference is that the Associates agree to join the Institute in three years.

The trouble with our old junior class in the Boston Chapter was that there was no way to pry a man out of it. When we looked into the matter some years ago, we found that most of them were over forty, and ought to have been full Institute members for years, while only about two, I think, were under thirty years old.

MR. GREELEY: Then perhaps the difficulty is that we haven't made as much out of our Associateship Class as we might.

THE SECRETARY: That is very likely true in most Chapters. It is impossible to keep up to pitch on membership matters all the time. Last year we had a campaign for Institute members, successful because all the

Chapters cooperated so wonderfully. The result, of course, was the early election of a lot of associates who normally wouldn't have applied for membership for another year or so.

Wouldn't it be a good idea for Chapters, this year, to make a special effort to secure associates?

MR. GREELEY: Very likely. Of course with the three year limitation it applies only to fairly advanced draughtsmen and still leaves the majority of the younger draughtsmen without contact with the older men in the profession.

THE SECRETARY: Possibly; but there is the further provision in our present Chapter By-Laws under which Chapters are encouraged to make affiliations with other organizations of draughtsmen, or others reasonably related in interest to the profession, for purposes of cooperation or as a recruiting ground.

Under this provision the Chapter might arrange some regular cooperative measures with the Club by which perhaps one joint meeting might be held each year. At other meetings representatives of each organization might be invited to attend a meeting of the other for the purpose of talking over their common interests and letting each know what the other was trying to accomplish.

MR. GREELEY: That seems feasible. Of course the Club has a standing invitation out to all members of the Chapter to come to the Club for lunch. A small group do come frequently, but most of them don't come at all. Now if the Chapter member declines to meet the draughtsman at the latter's table, where he is cordially welcome, the only connection between master and apprentice is the purely business relation in office hours. Anything that can be done to bring about more frequent and friendly intercourse between the two will be well worth while.

THE SECRETARY: The problem of how to form a contact with the graduating students of the Architectural Schools is one phase of the problem you are interested in. The Institute has talked about this at various times. In recent years I think it is true that the schools have given more definite instructions in the purpose and activities of the Institute, so that graduates now generally have a fair idea of the Institute and its relation to the profession, which makes the next step all the easier.

MR. GREELEY: Is there a next step definitely arranged?

THE SECRETARY: The Board has just decided to advise the next Convention to create in the Institute itself a form of Junior membership open to students immediately on graduation, but for a limited number of years. The dues would be nominal.

MR. KEMPER: The point is that we can get these men in direct contact with the Institute quite easily if we do it before they get away from the schools. As soon as they have graduated they scatter to various parts of the country and we cannot locate them. We can certainly count on the faculties of the schools to help.

MR. DUNNING: This I think will be one of the finest steps the Institute has taken. We must get the young draughtsman in touch with the Institute at the very threshold of his career. Let him come to have a personal

¹Continued from November JOURNAL.

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association with the Institute, a knowledge of its professional standards and himself be pledged to uphold them before he comes in contact with the material facts of actual practice. He will then see more clearly the true relation of different practices and will not unwittingly fall into those undesirable methods that prove in the end to be harmful alike to him and his profession.

THE SECRETARY: To supplement this official but somewhat impersonal contact I believe it is equally important to establish a closer relationship as soon as possible.

MR. DUNNING: So do I, and this new membership should carry with it the right to attend the meetings of any Chapter in whose jurisdiction the draughtsman may be located. As soon as this local contact is developed steps should be taken, of course, to have him become an associate of the Chapter, as soon as he is in a position to assume its obligation of future membership in the Institute. Such election would automatically terminate his Junior membership.

THE SECRETARY: The Juniors would of course be subject to discipline and there would doubtless be a definite time limit, either in number of years since election, or according to the age of the Junior, at which a Junior must become an associate or terminate his connection with the Institute entirely.

MR. DUNNING: There are of course many details to be worked out before presentation to the Convention for action, but this marks, in my opinion, a long step forward in the development of the Institute's power for good in the profession.

MR. STEELE: To return to the question of Convention procedure for a moment, this question of personal contact with the students suggests the problem of personal contact at Conventions between our delegates. There should be more than the usual perfunctory reception, especially of the new ones and those from the more outlying districts. A committee of local architects ought to be willing to devote all their time on the opening day to seeing to the comfort of the visitors and especially to getting them acquainted, making them feel as if they "belonged." The Convention at New Orleans was especially successful; it seemed to me Mr. Favrot and his confreres were splendid in the way they took care of this amenity.

THE SECRETARY: This matter is, I am sure, in the minds of the Convention Committee that has just been appointed.

MR. TAYLOR: In the matter of Convention debate, generally a minority of the delegates occupy the floor, a majority saying little, and some absolutely nothing, publicly.

Should not more voices be heard, and new ones encouraged to take part.

THE SECRETARY: That is doubtless true but difficult to bring about.

MR. TAYLOR: Certain ones did attempt to get a word in edgeways at times, but the monopolists demanded recognition no matter how many times they had before talked voluminously of perhaps every question discussed. The modest, the possibly just as wise but never heard member failed to be accorded a hearing and kept silent and perhaps lost heart and interest.

THE SECRETARY: Have you any method to suggest for accomplishing this?

MR. TAYLOR: Would it not be a wise plan to establish a rule limiting speakers and insuring the recognition by the chair of the seldom or never heard man who does overcome his timidity and tries to take part. Surely the Chairman can see opportunities to draw out and encourage, even inviting, these inexperienced and diffident ones by curbing the more enthusiastic talkers. Let us try to widen the range of discussion, condense the speeches, and diversify the contributions so that every Chapter may be heard from and somewhat equally, if possible.

THE SECRETARY: How do you feel on that point Mr. Shaw?

MR. SHAW: In my opinion the Board of Directors is better qualified to dispose of nine-tenths of the business brought up at the Convention than the delegates, swayed by all the influences that go to make up politics, and then too we would be saved listening to men making their first speech or talking "words" for the effect on the Chapter at home.

THE SECRETARY: Again, two rather opposing but legitimate points of view.

MR. SHAW: A benevolent and able oligarchy has it all over democracy for results. It is a delightful feeling—no responsibility yet with the power to impeach hard working Directors who do not please.

I have not started impeachment proceedings.

The Tennessee Joint Registration Bill

The Tennessee Bill to create a "State Board of Architecture and Engineering" is very interesting; its title is certainly comprehensive and no doubt is left in the mind of anyone as to the purpose of the bill if enacted into law. You are not allowed to practice or "offer to practice" architecture or engineering in the state if you are not registered within a period of one year after the passage of the act, or prior to any attempt to practice.

It is a "joint Board act"; three of the members of the Board are to be architects and three are to be engineers. The provisions for appointment are drawn with great care and suggest political sagacity in confining the Governor, in his choice, to certain political sub-divisions of the state, or more properly to prescribed zones. The further limitations which relate to technical acquirement are good.

The Board is granted the right to the services of the Attorney General as a legal advisor; is given full powers of subpoena, certain judicial powers, and the rights usually granted to commissioners such as the right to administer the oath. A quorum of the Board is four, but two of the quorum must be architects and two of them engineers. The Board is to receive no compensation for its services but is generously reimbursed for such expenditures it may make in the proper performance of its duties. The Secretary is required to furnish a surety bond and is allowed its cost. The Chairman and Secretary of the Board issue a joint warrant for requisitions if there is enough money to the account of the Board in the hands of the state Treasurer; this official keeps the Board's money as a separate account. It would appear from a casual reading of the bill that most of the funds would come from the

COMMUNITY PLANNING AND HOUSING

engineers since they are usually a numerous class; this seems desirable.

The purpose of a joint Board, in this case, seems to be based on the idea of compact organization and as architects have nothing to do with the registration of engineers under the proposed act and the engineers have no say as to the competency of the architect who may be an applicant, the law is just to both professions.

Two architects at least have to sit by while the engineers are being examined if there should be only four members of the Board present. From a casual reading it would seem that but two engineers constituting one-third of the Board, can grant a certificate; this condition seems to apply equally to the examination of an architect. The picture is interesting since these two architects or engineers or maybe three of the uninterested are compelled to seek some other diversion if one of the other kind is being passed upon.

The powers of the Board are as usually provided but something seems to happen to the man who had some kind of practice and who cannot prove his competency as an architect or engineer, but who admits that he is one or the other; it seems that he may have to seek a more profitable calling.

There are three engineers on the Board, with but two present on some occasions, who appear to be called upon to pass on the qualifications of Chemical, Civil, Electrical, Mechanical, Mining and Metallurgical and Marine engineers. The Naval architect is mentioned but it is not clear whether he is deemed to be an architect or engineer; however, as there must be two of each present at the Board meeting, it may be reasonably predicted that the Naval architect will be deemed an architect; if there are three architects present, it is a certainty that he will be so elected. Anyway, the engineers on the Board are likely to be very learned men to cover the field required by the bill; other kinds of engineers are granted the right of registration than those specifically mentioned above who will have to pass the tests of the very able representatives of a broad learned profession.

The applicant can get back half of his fee of \$25.00 if he doesn't qualify, so it would appear that every architect and engineer in the state will be called upon to pay something to the good cause. The penalties, renewal clauses and enforcement provisions of the bill leave nothing to the imagination. Dishonesty is penalized to the extent of a \$500.00 fine and possibly three months in prison. It ought to be.

The foreigners (except our neighbors, the Canadians) seem to be entirely shut out. This is not an unusual condition; it prevails in the state of New York which does not extend the friendly hand to the Canadians or in fact to anyone who has not declared his or her intention to become an American citizen or to any one who hasn't a place of business in the state. Tennessee is generous and part way meets a problem which is full of difficulties in the solving. Mexico seems to be forgotten as a neighbor in the provisions of this bill "pero es posible que sea la lengua que prohibe."

The Tennessee bill is a good bill if any bill providing for a joint Board is good; the question involved is whether enforced idleness on the part of one-half of the Board

might lead to indulgence in amusements which the average architect cannot afford. Then there is the Naval architect; his title seems to be pre-historic in origin; long before the French appellation "engineer" (a lowly one) was ever dreamed of. The Tennessee bill furnishes food for reflection and should be fed to the Committee on Registration laws of the A. I. A.

WILLIAM P. BANNISTER.

Community Planning and Housing

CLARENCE S. STEIN, *Associate Editor*

Recommendations in regard to Community Planning as proposed by the Committee on Community Planning and approved by the Directors of the Institute.

At the last annual meeting of the Institute there was offered a series of "Resolutions on Practical Steps for City Planning." These resolutions which were based on recommendations of the National Conference on City Planning were referred by the Convention of the A. I. A. to the Board of Directors for their consideration. The Executive Committee at its July meeting, expressed the opinion that the resolutions do not adequately or correctly state the position of the Institute. It referred the matter to the Committee on Community Planning with a request that it prepare and submit to the November Board meeting a draft of a resolution which the Institute might properly indorse.

The Committee had great difficulty and I might say some reluctance in formulating definite recommendations for a field in which so little scientific knowledge exists. The problems of developing the proper physical environment for improving and carrying on the modern life of communities are tied up with so many of the economic and aesthetic problems of the day that any series of recommendations in regard to them can only be partial and tentative. It is on this basis that the resolutions of the Committee on Community Planning have been prepared.

The object of this Committee is educational. Its purpose is to inform the public and more particularly itself and the other members of the profession of the results of experiments and research in the field of community planning either by its members or others. It is to serve as a basis of such future study that the Committee has formulated these resolutions.

Community Planning Recommendations of The American Institute of Architects

The field of City Planning is so vast and the results of actual experience are so limited that basic recommendations can be no more than tentative guides. In this spirit we offer the following recommendations.

1. Preparation in advance of all schemes for future development of communities and their surrounding areas by the designing of the framework or skeleton of main roads and railroads.
2. The gradual rearrangement of existing districts according to comprehensive plans.
3. The control of their own growth by communities so as to preserve all outlying land for agricultural or recreational uses until it is actually needed for urban purposes.

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4. The permanent control by cities of undeveloped land within their probable future boundaries so as to preserve all increases of values for those who will use the land.

5. The absolute change from the common method of city growth as one mass without sufficient intervening open or rural spaces.

6. The fixing of areas for housing, industrial and other uses, for the purpose of improving the physical condition under which people live, work and play, with adequate safeguards against merely speculative profit and unproductive methods of operation.

7. The placing of industrial districts in as close contact as possible with housing areas in order to reduce the human and financial waste of transportation.

8. The arrangement and grouping of individual units of habitation in such a way as to secure adequate light, air and privacy to their occupants and the ultimate abolition of all existing housing that does not meet these requirements.

9. Comprehensive and adequate plans for recreation.

Secretary Hoover and the Congress of the Building Industry

DEPARTMENT OF COMMERCE
OFFICE OF THE SECRETARY
WASHINGTON

November 5, 1921.

MR. ROBERT D. KOHN,
Chairman, Executive Committee,
National Congress of the
Building and Construction Industry,
New York City.

DEAR MR. KOHN:

As a result of conference held with members of your body, I believe your organization can be of great value in assisting with the formation and conduct of community efforts in various localities to help bring the construction industry back to normal.

I have found your suggestions on this subject helpful, and they were brought to the attention of the Construction Committee of the Unemployed Conference. The Committee on Construction Development, which is recommended in their report, will undoubtedly desire to cooperate with you.

A short statement outlining my views on how the housing problem can be attacked is enclosed as of possible interest to you.

Yours faithfully,
(Signed) HERBERT HOOVER.

Freedom

In a recent number of *The Builder* published in London in an article on "The British Institute of Industrial Art" there is advanced a thought which we in this country may well take to heart, to wit: "The aim of raising the standard of British industry is one of extraordinary importance, coming at a time when life has lost confidence in itself. The chance for England is now no longer that of the old commercial supremacy, but that she shall become the

mother of the arts and industry as well as of rule and government."

The thought of interest in this connection is that the nation which harmonizes properly the arts and industry will have a very good chance of dominating world commerce. Our manufactureres would do well to see to it that their productions are shaped to meet the new competition whose aim is success based on satisfying the higher demands of the human spirit as well as the mere demands of usefulness. European governments have for many years realized the commercial value of such a dual appeal and to this end have maintained and subsidized schools of industrial design. Note the schools in connection with the South Kensington Museums, London, the School of Decorative Art in Paris, and the schools of Germany and Italy. In our country it will probably be necessary for public-spirited citizens to endow such schools for it will take a long time to convince some of the authorities of the value of art training.

In the same article referred to above it states that "we have a long way to travel yet toward that self-knowledge which will present the problem of the freeing of industry by beauty as one extending beyond all others, . . . The old philanthropies have collapsed because they were not founded on a reality which included aesthetics as a part of religion and which sought morality without its realization in the outward." We too have indeed a long way to go, since we have hardly made a start. To be sure, in the public schools of the United States the elements of art are being studied but these are practically lost in the high school system and to such an extent that a very small proportion of the students entering architectural schools have had any high school instruction in free hand drawing. We need to link up the grade school art instruction with all those fields beyond offering joyful and remunerative employment, and particularly in order to enable us to encourage and develop real talent, of which there can be comparatively little, wherever it is found. E. I.

Fellowships

The Jury of Fellows constituted according to the By-Laws of the Institute met at Indianapolis on the 12th of November to consider nominations for Fellowship for election at the coming Convention in May. It was found that only a few of the Chapters of the Institute had complied with the suggestions contained in the circular letter sent out by the Secretary's office with regard to nominations. There were individual scattered nominations from various parts of the country, but no uniformity in the practice and the Jury found it practically impossible to give clear and just consideration to the men throughout the country who were doubtless qualified for the honor, but whose names had not been presented with adequate information, or indeed, in many cases whose names had not been presented at all.

After a lengthy debate, the Jury decided that it was not at the present time in position to nominate in view of the circumstances above recited. A special Committee was therefore created to draw up an entirely new plan of action and this will be presented to the membership of the Insti-

FROM OUR BOOK SHELF—NEWS NOTES

tute sufficiently in advance of the coming convention, so that it may be thoroughly debated on that occasion. Mr. N. Max Dunning of Chicago, is Chairman of this Committee and is now preparing its report, and this report it is hoped we will be able to publish in the next number of *THE JOURNAL*.

President Kendall to Judge Landis

The following letter was addressed to Judge Landis by the President of the Institute:

Boston, October 31, 1921.

JUDGE KENESAW M. LANDIS,
Chicago, Ill.

DEAR SIR:

I have noted with pleasure your findings in the Chicago Building Arbitration Controversy and wish to thank you in the name of the Architects of the Country for the careful study you have given to this subject and the clear statement of principles involved which you made in stating your conclusions.

I believe, as do you, in fair wages and equitable treatment of the worker and that he is equally bound to render to the employer a faithful return free from hampering and conflicting restrictions or rules.

Yours truly,

HENRY H. KENDALL,
President.

From Our Book Shelf

Early English and Scotch Architecture

The early Scottish work had a rugged quality very characteristic of the times and the race, and the comparative isolation of many of its castles has served to preserve them. The National Galleries, and the Institute of Scottish Architects, began the study of these some time before the war. It was resumed again after the war and parts 1 and 2 of the first volume are now published.¹

As the early English Renaissance was a naïf expression of the Italian, so is this Scottish mediaeval fortress type a naïf expression of Gothic, with touches of the Renaissance additions even more quaint than the English. The castle type, small on plan and of many stories, persisted here and we have masses that are modern as compared to the long low rambling English Manor Houses. They have many delightful qualities and especially one likes the broad masses of unrelieved masonry. The plans, although of distinctly mediaeval simplicity, show an economy of space which one might study with advantage. The photographs are beautiful and the measured drawings, although apologized for as the work of students, are clear, accurate and admirable examples of what a measured drawing should be. The two parts cover seven houses with descriptive text and 31 plates, loose in portfolio.

For many years the English *Country Life* has been publishing photographs of English Country Houses, so many, so varied, and so beautiful as to make even those familiar with England wonder how so many houses could be in so small a country. These, however, for the architect were unavailable material, in a way, for they came in no order and it was next to impossible to catalogue or classify the

bulky magazine so as to make its material useful to the student. Now this material, supplemented by news perhaps, is put together chronologically, and with an excellent introduction by H. Avray Tipping, with text to accompany each house.²

The first volume covers the time from 1066-1485, practically the whole period of mediaeval work untouched by the classic revival, and includes twenty-five "Homes," if one can be persuaded to give that precious name to a place like Tattershall or Hedingham. Yet one finds Arundel with its history of continuous habitation since the conqueror, and the last view of it is taken from an aeroplane; so is all brought up, or down, to modern times. The photographs are taken with that excellent judgment shown in all the work of a *Country Life*, and although one (an architect) would like more detail or more measured drawings, there are always key plans which help to make clear the illustrations.

However, these books, like *Country Life* itself, are not primarily for architects, but they provide a wealth of material to stimulate the imagination and encourage one's love of beauty. One looks at these old dwellings of another day as at something which belongs to a past which will never return, and the charm of which is even now threatened with destruction. Whatever the faults of mediaeval life, there were many qualities that we sorely miss today; reverence, respect for authority, a willingness to work, and a real joy in work which alone could have made possible the master-pieces of the mason and the joiner, the carver, the worker in metal and glass.

None but happy, contented and proud workmen could have done such things. If they worked contentedly it may well be taken for granted that they were not ill-used or down-trodden by those who were "above." So that perhaps even the mediaeval fighting, feudal baron was not such a bad fellow after all.

So these old houses, dating back to a rude day, but many of them fitted with modern life, and boasting continuity of homely, happy use, appeal keenly to us today when we wonder if another generation will see remain these monuments of the time that is past.

R. C. S.

¹National Art Survey of Scotland, Volume I. Examples of Scottish Architecture from the 12th to the 17th Century. A series of Reproductions from the National Art Survey Drawings, Published by a Joint Committee of the Board of Trustees for the National Galleries of Scotland and the Institute of Scottish Architects. George Waterston & Sons Limited, Edinburgh. Quarterly parts for the next five years, twenty in all, of which two are now published.

²English Homes: Period I, Volume I. Norman and Plantagenet 1066-1485 by H. Avray Tipping, M. A., F. S. A. London. New York: Charles Scribner's Sons.

News Notes

FOREIGN press dispatches report an interesting discovery made among the ruins of ancient churches in France. Clearing away the wreckage of the largest of these brought to light a number of pottery vessels of great age. It was at first supposed that these had been hidden or lost in the

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crypts, but experts pronounced them to have been "acoustic vases" set in the walls to give greater resonance to the building. It is said that old records of this are extant and that the practice is known to antiquaries.

MASSACHUSETTS Institute of Technology announces the addition to its staff of Albert Ferran, who will assume his duties in the architectural department at the opening of the second term. He will have charge of design. Likewise, the School of Architecture at Harvard announces that the position of professor of design will be filled by Jean Jacques Haffner. Both men are winners of the Grand Prix de Rome, one of the highest honors to which architects aspire. Mr. Ferran was born in San Francisco of French parents and served in the war, as did Mr. Haffner, who is an Alsatian. It seems an auspicious circumstance that two eminent graduates of the French school of training should find themselves in such a neighborly relation in two of our important American schools of architecture.

THE Illinois Chapter has recorded itself as solidly behind the Citizen's Committee which has been formed as an independent organization for bringing about an enforcement of the Landis awards.

THREE new Chapters were authorized at the Board meeting—North Texas, St. Paul, and Central Illinois. Each requires a reapportionment of territory, and the old Texas Chapter will hereafter be known as the North Texas Chapter.

JULIAN Clarence Levi, Chairman of the Le Brun Scholarship Committee, has sent to all Institute members an announcement of the competition shortly to be held for selection of a beneficiary, and members are requested to post the announcement in their draughting-rooms. Particulars also may be had of Mr. Levi at 215 West 57th St., New York City.

PROFESSOR Miller of the Case School of Applied Science, Cleveland, gave a talk on acoustics at the October meeting of the Cleveland Chapter. A great deal of interest is being manifested in this subject at the present time, and THE JOURNAL and the Structural Service Department are frequently asked for information concerning the application of acoustical knowledge in construction.

WE ARE glad to record the fact that the efforts of the Virginia Chapter in the matter of selecting an architect for the Virginia War Memorial have been successful and that a competition under the Institute method of procedure will be carried out, the matter having been placed in the hands of Professor Laird. The original plan of having the contract let before the selection of the architect, whose appointment was to be a part of the contract, was so flagrantly against public policy that the result could hardly have been in doubt, once the facts were made known. The Virginia Chapter responded heroically and has rendered a great service, for, little by little, the citizens of the United States are becoming acquainted with the disinterested position taken by the Institute in its insistence upon a fair method of competition procedure when a competition is desired.

PRESENTATION of the Institute Medal for Craftsmanship was made at the October meeting of the Philadelphia Chapter. The medal was awarded at the last Convention

to Mr. Samuel Yellin "in recognition of his very meritorious work in wrought iron."

AN EXHIBITION of architecture and the allied arts, under the joint auspices of the New Jersey Chapter and the New Jersey Society of Architects was opened at the Montclair Art Museum on 21 November and will continue until 2 January next. The intent of the exhibition is to give emphasis to work executed in the State of New Jersey.

LATEST figures available indicate that British builders have met the Government requirements in the matter of housing subsidies, in the sum of £10,150,400, representing 41,595 houses. Dr. Addison's calculations of a government payment for the first year amounting to £12,000,000, appear to have been pretty sound, since cancellations on 19,867 houses, involving a subsidy of £1,126,814 should be taken into account. It is understood that all housing subsidies have now ceased in Europe, with the exception of Denmark.

CRAM & FERGUSON announce their removal from 15 Beacon Street to 248 Boylston Street, Boston, Mass.

NEBRASKA Chapter is considering the formation of a voluntary cooperative movement along the lines of the Small House Service Bureau, avoiding for the formation the more formal organization. We believe that a North-western Bureau is rapidly taking shape.

WASHINGTON State Chapter's Committee on Education is working to interest the staff of the schools in Seattle in methods for improving the teaching of mechanical drawing and is asking Chapter members to contribute samples of drawings, plans, elevations, and so forth, as well as to contribute duplicate samples so that the students may become familiar with materials. The Chapter is likewise asking the Departments of Architecture in the various universities to establish traveling exhibits of their student work. In November, the Chapter awarded prizes for its draftsmen's competition, and closed a busy meeting with a resolution of appreciation to the Metropolitan Building Company of Seattle, which has had the public spirit to require its tenants to remove all electric signs from their store fronts, arguing that they defeat their own purpose by obscuring each other.

EXAMINATION for the registration of architects in West Virginia was held at Charleston on 12 December.

THROUGH the courtesy of the Munson Steamship Company the members of the New York Chapter were invited to inspect the new steamship "Southern Cross" and to be Mr. Munson's guests at luncheon on 22 November.

New Members Elected

BOSTON: H. Daland Chandler. CLEVELAND: Francis Robert Wragg. COLUMBUS: William L. Althouse, *Mansfield, O.* NEW JERSEY: Leo Feinen, *Jersey City*; Frank Grad, *Newark*. NORTH CAROLINA: Stiles S. Dixon, *Fayetteville*. PHILADELPHIA: J. Fletcher Street. RHODE ISLAND: Albert Harkness, *Providence*. TEXAS: Gustavus A. Trost, *El Paso*. WASHINGTON STATE: William F. Evans, Jr., *Seattle*. WISCONSIN: Marvin Schutte Stephenson, *Green Bay*.

Structural Service Department

SULLIVAN W. JONES, *Associate Editor*
LEROY E. KERN, *Assistant*

In connection with the work of the Committee on Structural Service of the American Institute of Architects and in collaboration with other professional societies and organized bodies having the same objective—improvement in building materials and methods and better shelter for humanity in all its manifold vocations and avocations.

Committee Activities

The Conference on Advertising Literature.—Any one attempting to write the story of the conference on advertising literature called by the Institute and held in Indianapolis on November 10-11, finds himself at once confronted with the difficult task of translating into words the swift enthusiasm and quick eager pulse which distinguished the discussions and the meeting, from most, if not all, gatherings called to consider the problems arising from business practices.

The problem presenting itself to those responsible for the conference was not to get something accomplished, but to keep the conference from committing itself to a half baked program and thereby exposing the whole idea to the risk of failure. The conference seemed to be moved by a feeling that an opportunity was at hand for initiating something big and far-reaching in its beneficial effect upon the marketing of materials used in construction, and that that opportunity must be grasped and made the most of. Some skeptics may have come to the meeting, but it is safe to say that none left it.

The Institute's invitation sent by President Kendall to 270 manufacturers of building materials and devices and national associations of producers stated that, "Producers of building materials are finding that there is a great loss through the failure of their advertising matter to receive the attention it is aimed to secure. . . . The condition is one of long standing and ought not to be. Realizing the manifest need of correcting this situation, if possible, the Executive Committee of the American Institute of Architects proposes a conference . . . for a thorough discussion of the possibilities of better advertising literature for architects. It believes that a great good may come from an intimate meeting of those minds in the building industry between which there seems at present to be so much lost motion, causing in its turn a great economic waste."

The cement, metal lath, paint and varnish, brick, tile, and lumber industries were represented. The elevator manufacturers, producers of electrical apparatus and supplies, plumbing goods, heating devices and fittings, concrete reinforcements, steel doors and trim, marble, limestone and granite, insulation and flooring, were among those who had their spokesmen present. Companies engaged in the manufacture of roofing materials, hardware and specialties, chemical treatments, materials for fire-proofing and other miscellaneous lines were also represented by executives, or in some few cases, by their advertising agencies.

The Institute was represented by all of its officers, the members of its Board of Directors, the Chairman and one member of the Committee on Structural Service, and by others including ex-President Thomas R. Kimball.

President Kendall of the Institute presided at the afternoon and evening sessions on November 10th. After stating the Institute's pleasure at the gratifying response to its invitation by the manufacturers and to its offer of cooperation in eliminating so far as possible, the colossal waste in advertising intended to influence the architect in his choice of materials and methods, he asked Mr. Sullivan Jones, chairman of the Institute's Committee on Structural Service, to present the Institute's point of view. Mr. Jones' statement was followed by statements on the architect's point of view by Messrs. Robert D. Kohn, Mr. Edwin H. Hewitt and D. K. Boyd. Each referred to the mass of printed matter, which, because of its cryptic character, variable size, multiplicity of subjects covered, and dearth of useful information, daily went into the architect's scrap basket. Each emphasized the architect's need for dependable information, and the difficulties he encountered in trying to get it.

Mr. O. C. Harn of the National Lead Co., Mr. T. M. Laist representing the National Lumber Manufacturers Association, Mr. Lyman Clark of the General Electric Co., and others spoke on the manufacturers point of view.

Because of the general and active interest in the subject, nearly everyone present had ideas and suggestions to make and the thought of the meeting quickly got down to bed rock. The architects were criticised by the manufacturers with the same utter but good natured frankness that the architects employed in pointing out the manufacturers' mistakes and shortcomings. The result was that all internal stresses, set up by the usual regard for caution, which put the brake on such proceedings, were quickly removed, and the conference found itself on a firm working foundation of a common understanding of the nature, causes, bigness and importance of the problem; and moreover of the fact that a satisfactory solution could be found only by honest cooperation on the basis, as Mr. Thomas R. Kimball put it, "of the open door policy" on both sides.

At the end of the afternoon session, four Committees were appointed as follows:

On Permanent Organization.

N. Max Dunning, A. I. A. Chairman; Fred Adam of the Frank Adam Electric Co.; T. M. Laist, National Lumber Manufacturers' Association; J. S. Sewell, National Association of Marble Dealers; K. H. Pullen, Southern Pine Association.

Character of Copy.

R. D. Kohn, A. I. A. Chairman; O. A. Bigler, Philip Carey Co.; Lyman Clark, General Electric Co.; J. H. Libberton, General Chemical Co.; W. D. Sargent, Wolff Manufacturing Co.

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Segregation of Subject Matter.

E. H. Hewitt, A. I. A. Chairman; J. E. Freeman, Portland Cement Association; A. M. Lane, Monarch Metal Product Co.; R. C. Sheeler, John Lucas & Co.; American Face Brick Association.

Standard Size and Classification.

S. W. Jones, A. I. A. Chairman; O. C. Harn, National Lead Co.; S. L. Barnes, Armstrong Cork Co.; O. J. McComb, Otis Elevator Co.; F. W. Walker, Pres. Associated Tile Manufacturers.

These Committees met on adjournment of the afternoon session and prepared reports about which the discussions at the evening session crystalized. The Committee on Permanent Organization recommended that the A. I. A. and the manufacturers of building materials and appliances organize a joint conference Committee to study the problems of reducing waste, promoting the efficient distribution and classification of accurate information on building materials and appliances, and their appropriate uses; to draw up a statement clearly defining the general basic requirements as to form, size, classification and character with which advertising literature should comply in order to be of maximum usefulness to architects, and therefore, of maximum value to the manufacturers; to provide for the general distribution of this statement through the advertising trade and architectural press and otherwise; to formulate a program and plan for a permanent conference or organization representative of the manufacturers and the architectural profession which may function as a continuing agency for cooperation between manufacturers and architects in accomplishing the purpose outlined by this conference.

The report further recommended that this Permanent Conference Committee be given the power to enlarge its membership and to appoint sub-committees; that the chairman be the chairman of the A. I. A. Committee on Structural Service, and that a steering or organizing committee be created consisting of the members of the four committees already appointed with the addition of five architects and five manufacturers, to meet as soon as practicable, and decide upon a method and procedure for securing the results recommended.

The report of the Committee on Permanent Organization was accepted and the chairman appointed the following as the additional members of the steering committee:

Architects—H. W. Foltz, D. K. Boyd, T. R. Kimball.

Manufacturers—L. J. Powell, Bostwick Lath Co.; H. S. Brackley, Indiana Limestone Quarrymen's Association; J. A. Cullison, National Fireproofing Co.; G. C. Mars, American Face Brick Association.

The Committee on Character of Advertising Copy recommended;

1. That a stamp of approval as to form be placed by the A. I. A. on all advertising literature.
2. That advertising literature should contain specific data relating to drawing and specifications, illustrating and describing the proper use of materials.
3. That advertising literature should give references relating to the past use of the material, name of the architect specifying and using it, and where practicable, the name of the contractor or owner with their addresses.

4. That advertising literature should contain statements as to the adaptability and non-adaptability of materials for certain uses and under certain conditions.

5. That advertising literature should set forth the physical properties of the material and records of authentic tests.

6. That advertising literature should contain evidence of the stability and integrity of the manufacturer in the form of information on installations, where the product is made and used, and how long the manufacturer has been in business.

7. That advertising literature should contain information on the product and its manufacture disclosed by statements on structure and quality and character of workmanship.

The recommendation regarding a stamp of approval as to the form of advertising literature was discussed at length and finally withdrawn from the report of the Committee considering it. Discussion had of course arisen as to how far approval as to form only was of value either to the manufacturer or the architect, but the subject came up again as is told later.

The Committee on Standard Sizes and Classification made the following recommendations:

1. That a specification be prepared for the proposed filing system, and that the manufacturers of such equipments be requested to consider the production of the system to be sold to architects and others with the approval of the A. I. A.

2. That the Association of National Advertisers and other interested bodies be requested to report to their members the action taken by the conference and endeavor to secure the cooperation of these members in furthering the ends which this conference is seeking to accomplish.

3. That the Committee on Structural Service of the A. I. A. secure, from a limited number of architect offices known to maintain typical filing systems, information on existing systems and suggestion for improving the system and classification adopted as standard by the A. I. A.

4. That the conference adopt temporarily as standard sizes for advertising literature the following:

7 1/2" x 10 5/8" and 5 5/16" x 7 1/2", the 5 5/16" x 7 1/2" to be saddle-stitched so that when opened, it will be of the larger standard size.

The recommendations made in this report were adopted by the conference except the one in regard to standard sizes which was so modified as to recommend advertising literature, exclusive of hand books, ranging in size from 5 5/16" x 7 1/2" to 8 1/2" x 11".

The Committee on Segregation of Subject Matter reported progress and stated its inability to make definite recommendations until such time as a basic classification was finally adopted. It made the general recommendation that so far as practicable each piece of advertising literature should be descriptive of a single product, or a group of products for the same use.

The Permanent Conference Committee held an open meeting on the morning of the 11th; appointed Mr. S. W. Jones, chairman of the A. I. A. Committee on Structural Service as its chairman, and designated his office at 19 W. 44th St., N.Y. City, as its headquarters; it authorized him to

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appoint from the Committee an Executive Committee of five which will prepare the first draft of the plan of organization for the permanent conference and program, and submit both to the larger Committee for approval. When the larger Committee has reached an agreement as to plan and program, it will call a second conference at which the permanent cooperative agency referred to in the report of the Committee on Permanent Organization may be created and adequately financed.

In the course of the conference and Committee discussions, one thought kept coming forward and demanding consideration. It was that the Institute ought to organize or permit the organization of a section or adjunct body in which manufacturers could take membership and which might carry on the work of the permanent conference and arrange for exhibitions of materials and devices in conjunction with the conventions of the Institute. The Committee will keep this suggestion in mind, and possibly incorporate some recommendations regarding it in its final report on plan and scope.

At the Committee meeting on the morning of November 11th the difficult problem of limiting, directing and giving proper character to promotional or "emotion producing" advertising was considered as distinct from advertising of a technical character to be utilized as a vehicle for transmitting information. The Committee recognized the fact that promotional or emotion producing advertising had its place and a distinct value to the manufacturer, at least. The real problem involved is that how to prevent advertising of this character when it is of the "direct-by-mail" class from carrying with it into the scrap basket a large amount of valuable material that should be retained and filed. The Committee felt that while this problem was a difficult one it could doubtless formulate some plan for reducing waste.

In the background of the meeting's mind, evidently there was a dominant conviction which was constantly reflected in the discussions; the conviction that the results sought and being talked about could not be secured without creating some agency commanding the complete confidence of the architectural profession for passing upon the character of advertising and providing for the distribution and retention for reference purposes of such as was approved.

Undoubtedly that conviction prompted the first recommendation made by the Committee on Character of Advertising, a recommendation that was rejected by the conference at the moment. Nor is there much question that the creation of such an agency was the purpose back of the recommendations of the Committee on Permanent Organization. The conference left these matters in the hands of the Standing Committee for further study and recommendation to the next conference.

The really big and worthwhile thing that the conference did was to open the door to the possibility of creating a permanent filter or screen for separating useful from useless advertising and thereby greatly enhancing the value and efficiency of the former, and of creating machinery for promoting a new and increasingly intimate contact between architects and manufacturers. In a word, the conference planted the seed of genuine cooperation between two important and inter-dependent elements in the building industry.

Standards

Recognition of the economic importance of standards is growing, and work on standardization is constantly increasing in volume and covering an ever broadening field of production. Anyone familiar with the rapid progress in standardization made by German industry since the war, and the results in reducing manufacturing and distributing the costs, needs no further argument to convince him of the part that standards are destined to play not only in the struggle for world markets, but also in domestic business.

The American Engineering Standards Committee recently put out a statement on "Industrial Significance of Standardization" which is quoted below:

1. Stabilizes production and employment, since it makes it safe for the manufacturer to accumulate stock during periods of slack orders, which he can not safely do with an unstandardized product.

2. Reduces selling cost. This is generally overlooked. Possibilities of reduced costs are generally even greater in distribution than in production.

3. It enables buyer and seller to speak the same language, and makes it possible to compel competitive sellers to do likewise.

4. In thus putting tenders on an easily comparable basis, it promotes fairness in competition, both in domestic and in foreign trade.

5. It lowers unit costs to the public by making mass production possible, as has been so strikingly shown in the unification of incandescent lamps and automobiles.

6. By simplifying the carrying of stocks, it makes deliveries quicker and prices lower.

7. It decreases litigation and other factors tending to disorganize industry, the burden of which ultimately falls upon the public.

8. It eliminates indecision both in production and utilization—a prolific cause of inefficiency and waste.

9. By concentrating on fewer lines, it enables more thought and energy to be put into designs, so that they will be more efficient and economical.

10. By bringing out the need of new facts in order to determine what is best, and to secure agreement on moot questions, it acts as a powerful stimulus to research and development—and it is thus in decided contrast to crystallization resulting from fixity of mental attitude.

11. It is one of the principal means of getting the results of research and development into actual use in the industries.

12. It helps to eliminate practices which are merely the result of accident or tradition, and which impede development.

13. By concentration on essentials, and the consequent suppression of confusing elements intended merely for sales effect, it helps to base competition squarely upon efficiency in production and distribution and upon intrinsic merit of product.

14. Standardization is increasingly important for the maintenance and development of foreign trade. There is strategy in nationally recognized "American" specifications.

15. The efficiency of competing countries, increasing through national standardization programs, is liable to

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transfer competition from foreign markets to our own shores.

16. Joint effort in bringing about standardization within and between industries almost invariably leads to better understanding and to beneficial cooperation along other lines—a step toward the integration of our industries.

In America where there is no power to enforce standards and where the adoption of standards by producers is purely voluntary, much difficulty has been experienced in securing recognition and adoption of them. There are positive instances of failure to secure the adoption of standards which are highly desirable from the consumer's standpoint, and from the manufacturer's standpoint too, if he could be made to see beyond the seemingly apparent but mythical advantage to him of confusion and misunderstanding.

Generally it is necessary to resort to law and thus penalize the non-compliance with standards incorporated in safety codes, but this can not be done in connection with the products of industry. But the court of last resort on all such matters is an informed public opinion expressing itself through consumer demand.

The architectural profession is in a peculiarly advantageous position to enforce standards by demanding them in the specification and incorporating them in design.

A. S. T. M. Standards for 1921. (*Report of Mr. Thomas Nolan, Institute Representative.*)—The 1921 edition of the "A. S. T. M. Standards" has been issued by the American Society for Testing Materials. It is issued triennially, and this volume contains 160 standard specifications, methods of tests, recommended practices, and standard definitions of terms relating to various building materials. Of these 160 Standards adopted by the Society, 61 relate to steel and wrought pipe; 7 to pig and cast iron, and finished castings; 31 to non-ferrous metals; 18 to cement, lime, gypsum, and clay products; 10 to preservative coatings and lubricants; 19 to road materials; 4 to coal and coke, 6 to timber and timber preservatives; 2 to rubber; and 2 to miscellaneous subjects. It is only necessary to mention to architects the titles of some of these Standards to have their importance and value in specification writing appreciated, as, for example: Standard Specifications and Tests for Portland Cement; for Building Brick; for Gypsum Plaster; for Structural Steel for Buildings; for Cast-Iron Soil Pipe and Fittings; Recommended Practice for Laying Sewer Pipe; Standard Definitions of Terms Relating to Paint Specifications, to Structural Timber, etc.

It seems to the writer that this valuable publication should be better known and more widely used by architects. For several years past he has had the honor of representing the Institute at the meetings of the Society referred to, and is now a member, for the

¹See page 113 of the Proceedings of the Washington Convention of the American Institute of Architects.

Institute, of the A. S. T. M. Committee on Cement, and the Committee on Lime, and has been deeply impressed by the immense amount of study and research, the exhaustive discussions, the conservative judgment, and the trustworthy conclusions that these Standards represent.

It is well worth while for architects to have in their library of books relating to building materials and appliances, a volume of international reputation containing authoritative, useful data.

The purpose of the American Society for Testing Materials, of which the Institute as a body is a member (one of 3002 members on September 1, 1921) is the promotion of knowledge of the materials of engineering and the standardization of specifications and the methods of testing. The adoption of "Standards," including specifications, methods and definitions, and of "Recommended Practice," has become one of the most important functions of the Society. In general, proposed new Standards or proposed revisions in existing Standards are published for one or more years as "Tentative Standards" before taking action towards their final adoption.

The book referred to can be obtained by non-members from the office of the Society, 1315 Spruce St., Philadelphia, Pa., in cloth, or in half-leather binding on payment of the price; members receive the volume without additional charge.

Abstracts

Specifications for Fire Hose. (29e2)—(*Standard Specifications for Cotton Rubber-Lined Fire Hose. Circular of the Bureau of Standards No. 114. Pages 10, Size 7" x 10'.*)—This specification was prepared by the Bureau of Standards in cooperation with technical representatives of leading manufacturers of fire hose, and submitted to and officially endorsed by the Rubber Association of America. It is intended to cover the purchase of hose for fire-protection purposes, and in placing orders the following points should be borne in mind:

Single jacketed hose is for use at fire hydrants, stand pipes, and similar places. It will not withstand frequent service and is not suitable where the fabric will be subjected in service to chafing on rough or sharp surfaces. Double and triple jacketed hose is for use on pumping engines and in places where service conditions require the additional protection against wear afforded by the extra cotton jackets.

The specifications include the requirements for rubber lining, rubber backing, cotton jacket, couplings, and finished hose. Specifications are also given for technical tests, basis of payment and interpretation of specifications.

Gypsum. (3h)—(*U. S. Geological Survey reprint from Mineral Resources of the United States, 1920. "Gypsum in 1920" by Ralph Stone. Pages 10, 6" x 9'.*)—This publication gives tables of production of imports and exports and names and addresses of manufacturers of gypsum plaster, Keene's cement, plaster and wall board, and gypsum blocks and tile. No technical data on the uses or physical properties of gypsum is given.



THE AMERICAN INSTITUTE OF ARCHITECTS
THE OCTAGON HOUSE, WASHINGTON, D. C.

OFFICERS

<i>President</i>	HENRY H. KENDALL, Boston, Mass.
<i>First Vice-President</i>	WM. B. FAVILLE, San Francisco, Calif.
<i>Second Vice-President</i>	ROBERT D. KOHN, New York, N. Y.
<i>Secretary</i>	WM. STANLEY PARKER, Boston, Mass.
<i>Treasurer</i>	D. EVERETT WAID, New York, N. Y.

BOARD OF DIRECTORS

<i>For One Year (1921-22)</i>		<i>For Two Years (1921-23)</i>	
EDWIN H. HEWITT, 1200 2nd Ave. So., Minneapolis, Minn.	CHARLES H. ALDEN, 358 Empire Building, Seattle, Wash.	N. MAX DUNNING, 1210 Kimball Building, Chicago, Ill.	ABRAM GARFIELD, Garfield Building, Cleveland, Ohio.
WM. B. ITTNER, Board of Education Bldg., St. Louis, Mo.			
ERNEST J. RUSSELL, Chemical Building, St. Louis, Mo.			
<i>For Three Years (1921-24)</i>			
EDWIN BERGSTROM, Citizens Nat. Bank Bldg., Los Angeles, Calif.			
CHARLES A. FAVROT, Title Guarantee Bldg., New Orleans, La.			
L. P. WHEAT, JR., 808 17th Street, N. W., Washington, D. C.			

Minutes

Meetings of the Board of Directors and Executive Committee, Held in Washington, D. C.,
May 8, 9, 10 and 14, 1921.

MEETING OF EXECUTIVE COMMITTEE, MAY 8, 1921.

Members Present. The meeting was called to order by President Henry H. Kendall, at the Octagon House, at 8.00 p. m., on May 8, 1921. Others present were the Secretary, Mr. William Stanley Parker; the Treasurer, Mr. D. Everett Waid; Mr. Robert D. Kohn, and Mr. E. J. Russell; and the Executive Secretary, Mr. E. C. Kemper.

Publication of Names of Endorsers of Applicants. A communication of March 9, was presented from the Executive Committee of the Philadelphia Chapter, expressing the opinion that in sending out the names of applicants for membership in the Institute, the names of proposers and seconders should be included for the information of the members.

It was the sense of the Committee that the inclusion of this data in the privileged communication sent to the membership at large would make a lengthy document, in fine type, which would probably defeat the purpose intended.

Resolved, that it be adopted as a Standing Order that hereafter, in transmitting the names of applicants to Chapter Secretaries, the names of the endorsers of each applicant shall be given.

Status Cases. The remainder of the meeting was devoted to consideration and disposition of many routine items involving privileged communications, delinquents and status cases generally.

The meeting adjourned at 9.30 p. m.

MEETING OF THE BOARD OF DIRECTORS, MAY 9 and 10, 1921.

Members Present. The meeting was called to order by President Henry H. Kendall at the Octagon House, at 9.30 a. m., on May 9, 1921. Others present were the First Vice-President, Mr. Charles A. Favrot; the Second Vice-President, Mr. William B. Faville; the Secretary, Mr. William Stanley Parker; the Treasurer, Mr. D. Everett Waid; and Directors Edward W. Donn, Jr., Robert D. Kohn, Richard E. Schmidt, Edwin H. Hewitt, William B. Ittner, Ernest J. Russell, Charles H. Alden, N. Max Dunning, and Abram

Garfield; also the Executive Secretary, Mr. E. C. Kemper.

Minutes Corrected and Approved. The Minutes of the meeting of the Executive Committee, held in New York on March 5, 1921, were presented. A reading was dispensed with and the Minutes were approved without correction.

Committee on Nominations. The President reported that since nominations for all offices to become vacant had not been received through petition, the following

NOTE: There have been omitted from this record a number of items concerning disciplinary matters, status cases of individual members and subjects of a privileged character.

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Committee on Nominations was appointed, on behalf of the Board: Mr. E. J. Russell, Chairman, and Messrs. Charles H. Alden and Abram Garfield, members.

Resolved, that the appointments be confirmed.

Report of the Board of Directors. The Secretary presented a draft of the Report of the Board of Directors to the Fifty-fourth Convention. The various subjects were considered in detail throughout the meeting and after changes in some cases the draft was approved and the resolutions appearing in the report were adopted, in each case on motion duly made and seconded.

The Secretary was instructed at the conclusion of the meeting to present the report to the Convention on behalf of the Board.

Report of the Finance Committee. Mr. William B. Ittner, Chairman of the Finance Committee, made a preliminary report concerning the work of the Committee and its tentative conclusions. He reported conferences with Mr. Morris L. Cooke, Management Engineer, and requested that a time be set at which Mr. Cooke might confer with the Board.

It was agreed that it would be more appropriate to have such a conference at the first meeting of the new Board of Directors following the Convention and the appointment for Mr. Cooke was made accordingly.

Convention Reports of Standing and Special Committees. The Board considered the Convention and Board reports of the following standing and special committees in connection with its own report to the Convention: Contracts, Allied Arts, Public Works, Building, Education, Competitions, Publications and Public Information, Structural Service, Community Planning, Fire Prevention, Registration Laws, Institute Membership, Small House Committee, Foreign Building Cooperation, Engineering Cooperation, State Societies, and Fellowships and Honorary Members.

References to these reports, with the comments, recommendations, or resolutions determined upon by the Board of Directors will be found in full in the Board's Report to the Fifty-fourth Convention as published in the Proceedings. To avoid duplication these recommendations and resolutions are not repeated in these Minutes, but are incorporated herein by the foregoing reference.

Arkansas, Florida and Utah Chapter Charters. The Secretary reported that a referendum, of April 2, 1921, was submitted to the Executive Committee proposing the issuance of charters to groups of Institute members in Arkansas, Florida and Utah. The petition in each case was accompanied by a draft of the Constitution and By-laws, modelled on the standard Institute form. These documents, with minor amendments, have received the approval of the Secretary. By vote of the Executive Committee the three groups were chartered as Institute Chapters, effective in each case, on April 4, 1921. The names of the charter members are as follows:

Arkansas: John P. Almond, Frank M. Blaisdell, Lawson L. Delony, F. J. Ginocchio, Jr., Fred H. Halsey, George R. Mann, Theodore M. Sanders, E. C.

Seibert, Mitchell Selligman, Eugene J. Stern, Charles L. Thompson, Bayard Witt and George H. Wittenberg.

Florida: Franklin O. Adams, Jr., F. S. Barnum, Roy A. Benjamin, B. Clayton Bonfoey, Walter C. DeGarmo, Henrietta C. Dozier, E. A. Ehmann, Louis Albert Fort, Mellen C. Greeley, Martin L. Hampton, Murry S. King, H. J. Klutho, Henry LaPointe, V. Earl Mark, George L. Pfeiffer, Lee Roy Sheftall, James R. Walsh, O. J. Williams and W. D. Willis.

Utah: Harold Burton, Georgius Y. Cannon, Lewis Telle Cannon, Clifford P. Evans, John Fetzer, John F. G. Gunther, Miles E. Miller, Burton E. Morse, Eber F. Piers, Hyrum Pope, A. O. Treganza, Walter E. Ware and Taylor Woolley.

These new Chapters were promptly advised of the favorable action of the Executive Committee, and they will be represented by delegates at the Fifty-fourth Convention, at which time engrossed charters will be presented to the six new Chapters, namely, Arkansas, Florida, Indiana Kansas, Montana and Utah.

Resolved, that the issuance of these charters be confirmed.

Application for Charter—Indiana Chapter. The Secretary presented the petition of Indiana architects for a formal charter of Chapter membership in the Institute, with the State of Indiana as territory.

The names of the petitioners, all of whom are Institute members, are as follows: Ennis R. Austin, Herbert Foltz, Herbert L. Bass, Albert A. Honeywell, Merritt Harrison, Fermor S. Cannon and Robert Frost Daggett.

Attached to the petition was a copy of the proposed Constitution and By-laws for the Indiana Chapter. Formerly there was an Indiana Chapter of the Institute but its charter was surrendered voluntarily some years ago. The Secretary reported the proposed Constitution and By-laws to be in accordance, in principle, with the Institute documents.

A letter of May 6 was read from Mr. Holsman suggesting that the new Chapter be called the American Institute of Architects, Indiana Chapter, in order to distinguish it from the Indiana Society of Architects. He explained that there has been some confusion between the Illinois Chapter and the Illinois Society, which ought to be avoided in Indiana.

Resolved, that a charter be issued to the Indiana Chapter, effective May 9, 1921, and that the State of Indiana be transferred from the territory of the Illinois Chapter to become the territory of the Indiana Chapter; and that the above named Institute members be formally transferred, effective May 9, 1921, from the Illinois to the Indiana Chapter.

Resolved, with reference to the possibility of confusion between the Institute chapter in any state and the State Society of Architects in such state, that the various Chapters of the Institute be authorized to use the title "The American Institute of Architects Chapter," whenever local conditions make this advisable. The Secretary was requested to advise the Chapters to this effect.

MINUTES—MEETINGS OF EXECUTIVE COMMITTEE AND DIRECTORS

Formation of New Chapters. Mr. Garfield requested an expression of opinion on the desirability of organizing new Chapters within the territory of existing Chapters, e. g., a strong group of new Institute members in Akron, which is in the territory of Cleveland, are considering the formation of an Akron Chapter. As this situation will arise in other sections of the country it seemed desirable to have the policy of the Institute clearly stated.

In the extended discussion which followed it was brought out that local organization, in the form of an Institute Chapter, makes for stronger Institute representation before the public than a group of architects affiliated with a Chapter having headquarters in another city. The President spoke of the regional district plan within Chapters, as developed in Tennessee, Washington State, and Minnesota, under which various geographical sections were organized into groups headed by Vice-Presidents of the Institute Chapter controlling. It was the sense of the meeting that the formation of small Institute Chapters is desirable, if there is a sufficiently strong nucleus.

Equalization of Delegates' Expenses. The Treasurer reported that a formal notice, with complete information concerning taxes and refunds, was sent to the President, Secretary and Treasurer of each Chapter of the Institute on April 13. Under the established plan no Chapter's delegates will be permitted to participate in the Convention until the Chapter's tax has been paid.

Convention Matters. The Secretary reported, on behalf of the Convention and Exhibition Committees, and his own office, that arrangements for the Convention and the Exhibitoin were complete.

The various Convention notices to the Membership and to the Chapters concerning proposed amendments to the By-laws and Ethical Documents, equalization of delegates' expenses, and Convention business generally have been distributed within the time limits required in the By-laws. The Convention program was mailed to the entire membership on April 30, 1921, eleven days in advance of the Convention, and several days earlier than heretofore.

The Exhibition Committee cannot report on the success of the exhibition, or its financial status, until after the exhibition has closed. The question of holding the exhibitions annually was discussed. The two objections to an annual exhibition were those of expense, and the difficulty of securing new work from the Chapters. Several Chapters declined to participate in the present exhibition for both of these reasons.

It was agreed that the Board recommend to the Convention that the matter of holding the exhibitions annually should be left to the discretion of the Board.

The President was requested to appoint a jury to make awards of the Exhibition Medals made possible this year through the generous gift of Mr. Waid.

Fellowships. In connection with the report of the Committee on Fellowships and Honorary Members, as covered in the Board's report, the following resolution was adopted:

Resolved, that the present Committee be discharged with the thanks of the Board, and that the Jury of Fellows, as now provided for in the By-laws, shall be for the coming year considered a Committee on Fellowships. It shall as a Committee consider the report and recommendations of the preceding Committee on Fellowships, and in connection with its own conclusions submit a report to the Executive Committee, or to the Board of Directors at the November meeting, under such rules of procedure as they deem practicable for the coming year, in which nominations of Members as Fellows may be proposed for election at the Fifty-fifth Convention. The new Committee is requested to proceed with a clean slate—with reference to the old record of suggestions for Fellowships; and the President is requested to act as Chairman until the Committee is fully organized.

Canons of Ethics. In connection with the Board's report on this subject, the Secretary read a letter from Mr. Rosenheim of the Southern California Chapter concerning the Institute eligibility of an architect who engages in the contracting business, and his reply to Mr. Rosenheim, which was approved.

For further action of the Board relative to the Canons of Ethics, see the Board's Report to the Convention.

Request of Department of Labor For Cooperation. A letter of May 9, 1921, was read, from Secretary James J. Davis, of the Department of Labor, requesting the Institute to name a representative to attend a conference on conditions in the building industry at the Secretary's office on Wednesday afternoon, May 11.

Resolved, that Mr. E. J. Russell be requested to act for the Institute, and that he be given authority to select a confrere if he so desires.

Schedule of Charges. In connection with the Report of the Board on the recommendations of the Committee on Contracts with respect to proposed changes in the Schedule of Charges, it was reported that a recent legal opinion handed down in New York State alleged that the Schedule of Charges of the A. I. A., was in effect mandatory. This question was referred to Institute Counsel for opinion on the possibility of the Institute, as a corporation of New York, coming under the scope of the Donnelly Anti-Trust Act of the State of New York.

The opinion of Counsel was that the Schedule of Charges as current does not come under the provisions of the Act mentioned; and the Board of Directors is of the same opinion.

Quantity Survey Document. Mr. Schmidt, acting for the Committee on Contracts in conference with the Associated General Contractors of America, presented a document prepared by a joint committee representing the Institute; Engineering Council; and the General Contractors, which contained a procedure for the proper use of a system for Quantity Survey and Payment for Estimating. Mr. Schmidt recommended that the Institute formally approve this document, that it be distributed to the Convention Delegates, and that it be

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transmitted to the membership, and the profession at large, with such accompanying explanatory note as may be deemed wise.

Resolved, that such distribution be made, and that the Committee on Contracts be requested to prepare the explanatory note, which should contain a statement that while facilities may not exist in all communities for using the Quantity Survey System, the Institute desires to aid in bringing about its general adoption.

Proposed Amendments to Institute By-laws by Members of the New Jersey Chapter. The Secretary presented a communication of March 29 from ten Institute members of the New Jersey Chapter, proposing a number of fundamental changes in the By-laws of the Institute, with regard to Institute administration and finances. These amendments were distributed to the entire membership thirty days in advance of the Convention, as required in the By-laws. Copies, accompanied by copies of an explanatory report by the New Jersey Chapter, have been furnished to all Directors with a request for prior consideration. The recommendations of the Board concerning them are contained in the Board's Report.

Public Information at Convention. The Chairman of the Committee on Public Information, Mr. Parker, reported that the Convention program had been sent to 220 newspaper representatives in Washington, with a special letter inviting them to attend the afternoon sessions of Wednesday and Thursday, and the evening session of Thursday. Invitations to the Exhibition were also sent to this list; and representatives of the four Washington papers were specially invited to both the Convention and the Exhibition.

Arrangements have been made to render public information service to the Press during the sessions of the Convention; and the editors of the leading architectural magazines have been invited, as before.

Report of the Committee C-1. The report of the Committee C-1, Prof. Thomas C. Nolan, Institute representative before the American Society for Testing Materials, was presented, in which matters of special interest to the architectural profession in connection with the work of the Committee C-1 on Cement were set forth.

Resolved, that the report be received and referred to the Structural Service Committee of the Institute.

Mis-Use of Institute's Name on House Plan Advertisements. Correspondence was read and advertisements shown in connection with the publication of small house plans from the "Own Your Own Home" competition recently held in Chicago, in which captions were used stating that the book of plans was approved by the American Institute of Architects. The Secretary was authorized to obtain from the distributors of this book a retraction of all mis-leading statements concerning Institute approval, and such other amends as he may deem proper on account of the Company's general mis-use of the name of the Institute.

National Council of Architectural Registration Boards. A communication was read from the Secretary of the New York Chapter advising of the action of that Chapter in taking membership in the National

Council of Architectural Registration Boards, and transmitting a recommendation that the Institute approve the work of the Council and assist therein. The Illinois Chapter resolution on this subject was also considered.

These communications were referred to the incoming Committee on Registration Laws.

Work of the Board of Jurisdictional Awards. Two communications of March 23 were presented from the Executive Secretary of the Board of Jurisdictional Awards, one transmitting a resolution stating the intention of the Board to continue its functions and calling on all signatory organizations to rigidly enforce the decisions of the Board; the other transmitting information concerning the procedure followed by the Board in arriving at its decision on metal trim, in favor of the sheet metal workers, which decision has been attacked by the United Brotherhood of Carpenters and Joiners.

Concerning these matters Mr. Russell reported that the whole program of the Jurisdictional Board, and the participation of the carpenters therein would be thrashed out at the Convention of the American Federation of Labor, to be held this summer in Denver, Colorado, after which a more definite report would be made to the Institute Board.

Appointment of Representative on Jurisdictional Board. The President spoke of the expiration of the term of Mr. E. J. Russell, representative of the Institute on the Board of Jurisdictional Awards, and of his inability to find, at Mr. Russell's request, a man to fill his place.

The President requested Mr. Russell to reconsider his decision and to accept appointment again, which Mr. Russell finally agreed to do.

The Building Situation in the United States. In connection with the report of the Board concerning the building situation in the United States, the report of the Senate Committee on Reconstruction and Production, as presented to the Senate on March 2, 1921, was considered with particular reference to the nine bills, and amendments to existing laws, discussed in that report. A copy of S-1152 creating a division of Construction and Housing in the Bureau of Standards was also considered, with confidential data concerning the functions to be exercised by the new division and the attitude of the Department of Commerce officials towards the same. The President stated that he had written on April 18 to the Secretary of Commerce, Mr. Hoover, offering the cooperation of the Institute in connection with the Department's study of the building situation.

Mr. Kohn reported on the Congress of the Building Industry. He stated that in New York the local group were considering an investigation of the Hudson River brick industry and similar movements are under way elsewhere. Mr. Parker reported developments in Boston, where a group of twenty-four are actively at work, with the problem of the seasonal element in the building trades as the first subject under consideration.

Mr. Kohn was asked to review the activities of the Congress at the Thursday afternoon session of the Convention.

MINUTES—MEETINGS OF EXECUTIVE COMMITTEE AND DIRECTORS

Gold Medal of the Institute. A letter was read from Mr. Charles Butler concerning the work of Monsieur Victor Laloux, now President of the Société des Artistes Français, and Honorary Corresponding Member of the Institute, recommending that the gold medal of the Institute be awarded to him.

Resolved, that the Board recommend to the Convention the award of the gold medal to Monsieur Laloux.

Cost of Medals and Dies. The statement of the Medallic Art Company for the medals was submitted by Mr. Kohn, showing a total of \$213.75, covering the cost for the new dies, and the new Mercer medal, in cases; also \$322.50 covering the cost of the six Exhibition medals, and cases, contributed by Mr. Waid.

Resolved, that the Treasurer be authorized to pay both items from any funds available. The Institute is to be reimbursed for the \$322.50 at the convenience of Mr. Waid.

Ship Interiors—Improvement of Design. The following resolution of the Baltimore Chapter was presented: "Resolved, that the Baltimore Chapter recommend to the Institute that it take such action as it thinks best towards calling the attention of the Government to the value of obtaining the proper professional services in the design of the interior of ships."

Mr. Parker reported his correspondence with Mr. Francis B. Ellis of Baltimore in this matter, and urged that the Institute Board present to the Federal Government the desirability of a definite policy which would recognize more adequately the architectural problems involved in the planning and designing of the interiors of Government built steamers.

Resolved, that the Secretary be requested to write to the new Shipping Board expressing appreciation of the quality of architectural work and design in the new passenger ships, and expressing the hope that the policy of the Board shall be to continue competent, artistic service in this respect, with increased recognition.

Location of Botanical Gardens. Mr. Donn, Chairman of the Committee on Cooperation with the Commission of Fine Arts, spoke concerning the proposed removal of the Botanical Gardens and the introduction of legislation in the House, which if enacted, would locate the gardens in Potomac Park rather than at Mt. Hamilton, the latter site has been recommended by the Commission of Fine Arts and is eminently more appropriate than Potomac Park.

Mr. Donn was requested to prepare a statement on this matter for presentation to the Convention.

Resolutions of the Illinois Chapter, concerning Building Codes; A Code of Practice; Amendments to Schedule of Charges; Joint Registration Laws and Cooperation between State Examining Boards; An Amendment to the Code of Ethics; Handbook of Architectural Practice; An Amendment to the Circular of Advice; The Building Industry; Architectural Schools; an Amendment to the Circular of Advice; and National Publicity of the Architectural Profession were presented, and the attitude of the Board with regard thereto is indicated by the Board's Report to the Convention in connection with the specific subjects.

No other action was deemed desirable by the Board.

The meeting adjourned at 1 p. m. (Tuesday.)

EVENING MEETING OF THE BOARD OF DIRECTORS, MAY 10, 1921.

Members Present. The meeting was called to order at 8.30 p. m., by President Henry H. Kendall. Others present were the First Vice-President, Mr. Charles A. Favrot; the Second Vice-President, Mr. Wm. B. Faville; the Secretary, Mr. William Stanley Parker; the Treasurer, Mr. D. Everett Waid; and Messrs. N. Max Dunning, Charles H. Alden, Edwin H. Hewitt and Richard E. Schmidt.

Report of the Treasurer. The Treasurer outlined his report to the Convention, and spoke on the financial condition of the Institute for the year 1920, which in the main he found satisfactory. He also reviewed the financial operations for the first quarter of 1921, which, by comparison, showed some improvement over the first quarter of 1920.

The Treasurer's report was accepted as satisfactory to the Board.

Compilation of Judiciary Decisions. Mr. Faville, Chairman of the Judiciary Committee, spoke of the desirability of having a complete file of disciplinary decisions in recent years which would be invaluable to the disciplinary Committees of the Institute.

Resolved, that such a compilation be made, and copies made available permanently for the use of the Judiciary and Practice Committees.

Expenses of Representative on Jurisdictional Board. Mr. Kohn spoke concerning the many meetings of the Jurisdictional Board which Mr. E. J. Russell had attended as Chairman, at his own expense, during the past two years, and the fact that some reimbursement to cover these expenses, at least in part, should be made to Mr. Russell.

Resolved, that \$1,000.00 be added to the Budget for 1921 towards meeting the expenses of Mr. Russell in connection with the work of the Jurisdictional Board to December 31, 1920.

Safe Deposit Box Authorized. The Treasurer reported the necessity of getting another safe deposit box to care for the securities of the Institute and its various special funds. As a resolution by the Board is necessary to satisfy the requirements of the bank, it was

Resolved, that the Treasurer be authorized to rent an additional safe deposit box in the name of the American Institute of Architects.

The meeting adjourned at 10.00 p. m.

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MEETING OF THE BOARD OF DIRECTORS, MAY 14, 1921.

The meeting was called to order by President Henry H. Kendall, at the Octagon House, at 10.00 a. m., on May 14, 1921. Others present were the President, Mr. Henry H. Kendall; the First Vice-President, Mr. William B. Faville; the Secretary, Mr. William Stanley Parker; the Treasurer, Mr. D. Everett Waid; and Directors Edwin H. Hewitt, William B. Ittner, Ernest J. Russell, Charles H. Alden, N. Max Dunning, Abram Garfield, Charles A. Favrot, L. P. Wheat, Jr., and Edwin Bergstrom; and the Executive Secretary, Mr. E. C. Kemper.

General Instructions to Committees. Resolved, that the general instructions to all Standing and Special Committees for 1921-1922 be as follows: To observe the instructions of the Fifty-fourth Convention; to carry out in connection with Convention instructions the specific instructions of the Board; to make progress reports to the Board of Directors on November 1, 1921, and to observe the appropriations allowed in the Budget of 1921.

Appointment of Committee Personnels. The President spoke of the desirability of engaging new men in Institute work, particularly in connection with the various standing and special committees. Such procedure seemed particularly desirable in view of the large number of new members admitted concerning whose special qualifications no information is available to the national officers, and because there are many of the older members of ability in special lines who are not known to the administration.

A communication was sent by the President on April 22, to the President of each Chapter, asking for a list of Institute members not serving at present on Institute Committees who are qualified for Committee work. The responses have been most gratifying and the valuable suggestions made have been used in many instances, as will appear in the committee personnels. The appointment of new men in place of the older men is in no sense a reflection upon the committeemen who have served the Institute so well in past years, and this was made clear in the President's Address to the Convention.

Executive Committee (Elective—1). An Executive Committee for the year 1921-22 was elected as follows: Personnel: Henry H. Kendall, Boston; William Stanley Parker, Boston; D. Everett Waid, New York; Ernest J. Russell, St. Louis; Robert D. Kohn, New York.

Powers delegated: With reference to the powers of the Executive Committee, it was

Resolved, that the Board delegates to the Executive Committee the power to exercise the functions of the Board, with the exception of any powers involving the discipline of members. These powers delegated to the Executive Committee are effective during intervals of Board meetings in 1921, and until after the adjournment of the Convention of 1922. The Committee is further authorized to supplement the instructions to any of the standing or special committees.

Appointment of Standing and Special Committees. The various Standing and Special Committees were then considered, and after discussion and suggestions the President made tentative appointments, subject to acceptances by the appointees. The full list of committees as finally effected will be found in the Annuary for 1921-1922.

Rehabilitation of the Octagon. With reference to the work of the Building Committee, Mr. Parker reported for Mr. Kohn concerning the furnishing of the drawing room. Mr. Kohn has suggested that old furniture be used rather than new, and he believes that through reliable collectors of antiques, with whom he is acquainted, suitable pieces can be secured and the room completely refurnished. It was the sense of the Board that old furniture would be preferable to new, provided that old furniture suitable for the needs of a Board room can be secured.

Instructions to the Committee were to formulate a plan for the complete rehabilitation of the Octagon and its environs, including a suggestion of the best method of raising the necessary funds throughout the Institute. Such program shall be submitted to the Executive Committee for approval.

The Chairman of the Committee is given power to add members as may be required.

The question of re-hanging the portraits now stored at the Octagon is referred to the Building Committee.

Proposed Committee on Federal Hospitals. The President read a memorandum submitted by Charles Butler concerning the proposed appointment of a committee of architects which would aid the Bureau of War Risk Insurance and the Federal Board for Vocational Education in the rapid designing of new hospitals for the rehabilitation of war veterans. An informal committee of this kind consisting of three Institute members has already conferred with Government officials, and suggested a tentative plan of operation.

It was the sense of the Board that the Institute should commend the appointment of such a committee after the formal appointments have been announced. The matter was referred to the President to write an appropriate letter at that time.

McKim Memorial Fund. With reference to the McKim Memorial Fund Committee, which has been inactive for several years, it was

Resolved, that the resolution of the Fiftieth Convention concerning the McKim Memorial be referred to the Building Committee for consideration and report, and that the McKim Memorial Fund Committee be discontinued.

Conference with Mr. Morris L. Cooke. At the request of the Chairman of the Committee on Survey of Institute Methods, Mr. Morris L. Cooke, Management Engineer, who has aided the Committee in its investigations, reported verbally to the Board. He spoke of the greatly changed conditions of the present over pre-war conditions, and urged that the Institute play a more aggressive part as a national organization. He felt that as an organization the Institute has come to a

MINUTES—MEETINGS OF EXECUTIVE COMMITTEE AND DIRECTORS

turning point. Its future position will be that of a decadent organization with many of its rightful functions usurped by other agencies, or it will become a wide-awake and powerful influence in the country at large. He submitted several tentative recommendations for improvements in methods and policies.

The President thanked Mr. Cooke for his very valuable suggestions, and it was understood that a final report may be expected later from the Committee.

Education Fund. The Treasurer reported generally for the Committee on Education, to the effect that there is not the demand for travelling scholarships that might be supposed. After discussion, it was

Resolved, that the income from the Education Fund shall be devoted to the benefit of students of architecture through lectures and exhibitions under such conditions as may be approved by the Board from time to time until the use of this fund is changed in accordance with the conditions of the deed of gift.

The Board further decided that the Committee on Education be authorized to invite Mr. Charles Z. Klauder to deliver in the season of 1921-22 illustrated lectures to students of such architectural schools and organizations as may be approved by the Committee, and that a sum not to exceed \$1,500.00 be placed at the disposal of Mr. Klauder for the expenses of his work.

Taxes and Refunds of New Chapters. A telegram was read from Mr. Ehmman of the Florida Chapter requesting that special consideration be shown that Chapter with regard to its Delegate's tax. The recent organization of the Chapter prevented the sending of but one delegate, therefore, its tax under the general rule was much in excess of the refund. As a similar situation may exist with regard to other new Chapters, it was

Resolved, that the question of adjusting the taxes and refunds of the five new Chapters be left in the hands of the Treasurer with power.

Expenses of Institute Representatives. With regard to calls made by the Institute upon its members to act as representatives of the architectural profession before Governmental and other agencies, it was

Resolved, that when a member of the Institute is appointed to serve as a representative of the A. I. A. in a capacity involving travelling and subsistence expenses, he shall be reimbursed therefor by the Institute.

It was the sense of the meeting that these requirements should be met by a special appropriation on the Budget of 1922.

Transfer from Reserve to Endowment Fund. The Treasurer was authorized to transfer \$10,000.00 from the Reserve Fund to the Endowment Fund.

Appointment of Institute Counsel. *Resolved*, that Mr. Arthur Peter be re-appointed Institute Counsel for the year beginning January 1, 1921.

Institute Insignia. The desirability of personal insignia denoting Institute membership was considered. A demand for such insignia was reported in many Chapters.

Resolved, that the matter be referred to the Executive Committee with power.

Non-Resident Active Members. With general reference to the present limitation of Section 1, of Article I, of the By-laws, that active members of the Institute

must be residents of the United States, and with particular reference to the desire of Canadian architects to affiliate with the Institute as active members, it was

Resolved, that the Executive Committee be authorized to formulate for presentation at the Fifty-fifth Convention changes in the By-laws to the end that foreign architects may become active members of the Institute, if otherwise eligible.

Portrait of Colonel John Tayloe. This portrait, by St. Memin, showing profile of Colonel John Tayloe, for whom the Octagon House was built by Thornton, and showing coat of arms of the Tayloe family, was presented by the Reverend William Tayloe Snyder.

Resolved, that the portrait be accepted with thanks. The President was requested to make acknowledgment.

St. Paul Chapter Charter. The Secretary presented a letter of May 5, 1921, from Mr. Thomas G. Holyoke, on behalf of nine Institute members resident in St. Paul, transmitting their petition for a charter as the St. Paul Chapter of the American Institute of Architects.

Mr. Hewitt spoke of the general situation in Minnesota and expressed the hope that the Board would take such action on the St. Paul request as would be for the best interests of the Institute in the State and at large. He said that if the petition was granted the St. Paul architects would receive the warmest cooperation from the Minnesota Chapter.

Resolved, that the petition be granted, effective upon the receipt of a formal document with five or more signers, and a draft of Constitution and By-laws satisfactory to the Secretary of the Institute. At that time the Institute members signing the petition are to be transferred to the new Chapter from the Minnesota Chapter.

Regional Districts. A communication of April 30, was presented from the Secretary of the Ohio State Association of Architects protesting against the territorial arrangement of the present regional districts, as made by the Board of Directors; and urging that the principle of regional representation be incorporated in the By-laws.

Resolved, that this matter be referred to Mr. Favrot for report at the November Board meeting.

Preservation of Fine Arts Museum in Chicago. Mr. Waid presented draft of resolution endorsing the action of the Illinois Chapter and the Illinois Society of Architects in endeavoring to save from destruction the Fine Arts Museum located in Jackson Park, Chicago. This resolution was approved in principle by the Convention subject to approval of phraseology by the Board.

The phraseology proposed by Mr. Waid was approved and the resolution will be found in the Proceedings.

Standardization of Institutional Buildings. A letter of May 10, was read, from the Secretary of the Cleveland Chapter, calling attention to procedure developed by the Y. M. C. A. and the Y. W. C. A., under which preliminary sketches, plans and designs are furnished by the national headquarters of these organizations to local architects of their new buildings. This practice was objected to by the Cleveland Chapter on the ground that the national organizations would thereby lose the benefit of the original ideas of the

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local architect who should be unhampered by such specific instructions.

The Chapter strongly urged upon the Board that it investigate fully proposals of this kind, and use its influence accordingly.

Resolved, that the Board of Directors of the American Institute of Architects is of the opinion that the standardization of preliminary studies, plans, and general lay-out of institutional buildings to such an extent that the fullest value cannot be given by the architect to local conditions of site, climate, and to the needs of the community, is detrimental to the best interests of any national organizations using such methods, and is also detrimental to the best interests of the communities concerned.

Place of the Fifty-fifth Convention. With regard to this, and the desire of the Southern California Chap-

ter that the Fifty-fifth Convention be held in Los Angeles, it was pointed out that a Convention in California would impose a heavy financial burden upon the Pacific Coast Chapters, in connection with the equalization of delegate's expenses. A reduced-delegation Convention was suggested to meet this objection; also the desirability of holding the Convention elsewhere and of substituting a session of the Board of Directors, in November or October, in Los Angeles, coincident with the Convention of the Association of General Contractors.

The Secretary was requested to submit data to the Executive Committee on the cost of such meetings.

Meeting of the Executive Committee. The time and place of the next Executive Committee meeting was left in the hands of the President with power.

The meeting adjourned at 5.00 p. m.



THE AMERICAN INSTITUTE OF ARCHITECTS

THE OCTAGON HOUSE, WASHINGTON, D. C.

OFFICERS

<i>President</i>	HENRY H. KENDALL, Boston, Mass.
<i>First Vice-President</i>	WM. B. FAVILLE, San Francisco, Calif.
<i>Second Vice-President</i>	ROBERT D. KOHN, New York, N. Y.
<i>Secretary</i>	WM. STANLEY PARKER, Boston, Mass.
<i>Treasurer</i>	D. EVERETT WAID, New York, N. Y.

BOARD OF DIRECTORS

For One Year (1921-22)		For Two Years (1921-23)	
EDWIN H. HEWITT, 1200 2nd Ave. So., Minneapolis, Minn.	CHARLES H. ALDEN, 358 Empire Building, Seattle, Wash.	N. MAX DUNNING, 1210 Kimball Building, Chicago, Ill.	
WM. B. ITTNER, Board of Education Bldg., St. Louis, Mo.	ERNEST J. RUSSELL, Chemical Building, St. Louis, Mo.	ABRAM GARFIELD, Garfield Building, Cleveland, Ohio.	
For Three Years (1921-24)			
EDWIN BERGSTROM, Citizens Nat. Bank Bldg., Los Angeles, Calif.	CHARLES A. FAVROT, Title Guarantee Bldg., New Orleans, La.	L. P. WHEAT, JR., 808 17th Street, N. W., Washington, D. C.	

Minutes

MEETING OF EXECUTIVE COMMITTEE, JULY 17, 1921.

Members present. The meeting was called to order by President Henry H. Kendall, at the Greenwich Country Club, Conn., at 9:30 A.M., on July 17, 1921. Others present were the Secretary, Mr. William Stanley Parker, the Treasurer, Mr. E. Everett Waid; Mr. Robert D. Kohn, and Mr. E. J. Russell; also the Editor of THE JOURNAL, Mr. C. H. Whitaker, and the Executive Secretary, Mr. E. C. Kemper.

Minutes Corrected and Approved. The Minutes of the meetings of the Executive Committee on May 8, 1921, and of the Board of Directors on May 9, 10, 12 and 14, 1921, were presented. A reading was dispensed with and the Minutes were approved as printed.

Work of the Secretary's Office. The Secretary reported as follows:

The Minutes of the Board and Executive Committee meetings held at the time of the Convention have been prepared and distributed to Officers and Directors, also in bulletin form to the entire Institute membership as a supplement to the JOURNAL.

The Annual for 1921-1922, containing the complete personnels of Standing and Special Committees, has been printed and distributed.

The Proceedings have been edited and will be ready for distribution before the end of July.

The Membership campaign has been carried on quietly and 104 new members, including those who qualify on August 15, have been admitted since the Convention.

With the active and enthusiastic support of Mr. Charles Paxton Cody, of Erie, Pa., the Erie Chapter has been organized. Prospects are good for new Chapters at an early date in Savannah, Georgia, and in West Virginia.

The Monograph containing the ethical documents is in type and will be distributed just as soon as the minor change in the Schedule of Charges, stating the non-mandatory character of the rate, has been authorized.

The sales of the Standard Documents continue satisfactory and there are at present more than 100 active agents in the various cities of the country. The net profit on the documents to the Institute for the current year, up to June 30, has been \$2,356.42.

Reprinted Official Documents. The Secretary submitted the following documents, reprinted in improved typographical form, and in some cases with amendments authorized by the 54th Convention: Standard Form of Constitution and By-laws for Chapters; Institute Constitution and By-laws; Competition Code; Schedule of Charges; Principles of Professional Practice and the Canons of Ethics; Disciplinary Rules.

The Disciplinary Rules and an up-to-date list of Institute documents, with prices, have been distributed to the membership.

Resolved, that the Standard Form of Constitution and By-laws for Chapters as revised, omitting references to existing Chapter members be formally approved; and that general approval be given to the other documents listed, with reference to changes incorporated as a result of Convention action, and with reference to new typography and arrangement.

Virginia War Memorial. A letter of July 6 was presented, from the Secretary of the Virginia Chapter, transmitting the protest of the Chapter to the War Memorial Commission against the award of the contract for the structure to a firm of contractors, without competition,

NOTE: There have been omitted from this record a number of items concerning disciplinary matters, status cases of individual members and subjects of a privileged character.

and prior to the selection of an architect or the preparation of a design. The Chapter desired the assistance of the Institute in making its protest effective, and offered several suggestions to that end.

The Chairman of the Committee on Competitions has designated Mr. Frank Upman, a member of the Committee, to represent the Institute at the meeting of the War Memorial Commission on July 20th.

It was the sense of the meeting that the procedure followed by the Virginia Commission was not the best procedure. The President was requested to address a communication to the Commission pointing out that its action thus far taken constitutes a complete reversal of customary procedure, giving the reasons therefor, and suggesting that more democratic methods might well be adopted.

Report of Committee on Public Works. The President read a letter of June 25 from Mr. L. P. Wheat, Jr., Chairman of the Committee on Public Works. The following paragraphs are quoted therefrom:

(Confidential.) "As you may be aware, the present Congress passed a resolution creating a joint Senate and House Committee on the Reorganization of the Federal Departments. The resolution further provided that the President, and Chief Executive, be represented on this Committee, and Mr. Harding appointed Mr. Walter F. Brown, of Toledo, Ohio, as his representative. Mr. Brown was made Chairman of the Committee.

In furtherance of the Institute's resolution, made and passed at the last Convention, which endorsed the creation of a Department of Public Works, Mr. Kemper arranged for an interview with Mr. Brown.

On June 21 Mr. Kemper and I went to see Mr. Brown and we explained at length the attitude of the Institute in heartily favoring a Department of Public Works, and our desire to cooperate in attaining its creation.

We were given a most satisfactory and interesting interview and Mr. Brown, in confidence, told us of what his Committee had done and would attempt to do in its work of proposing reorganization of various Departments.

In regard to a Department of Public Works, his view was that the Committee, in proposing reorganization of the Department of the Interior, might include in it such a department, but not necessarily following in detail the Jones-Reavis Bill, or the later McCormick Bill for the formation of a Department of Public Works.

Mr. Brown was of the opinion that the name "Interior Department" would be retained even though the Department were reorganized to comply with legislation already introduced in Congress. He seemed to favor the name "Department of Public Domain and Public Works," feeling that all lands now under this Department would be retained in any scheme of reorganization.

In closing the interview, Mr. Brown advised us to wait until the work of his Committee was more fully developed, and to hold ourselves in readiness

to attend any hearings of the Committee, and to exert our influence at the proper time.

Mr. Brown's attention was called to the fact that we personally strongly opposed the Commission of Fine Arts being placed under the jurisdiction of any created Department of Public Works, as proposed in the McCormick Bill, and that we considered it most important that this Commission be held an entity as created by former President Roosevelt."

Subsequent developments in Washington indicate that undoubtedly the public work agencies of the Government will be correlated, under a single agency, probably as a bureau in a reorganized Department of the Interior. The chances of securing a new Department, devoted exclusively to Public Works, are remote.

The report was accepted and the Executive Committee was of the opinion that it would be unwise to force a fight on Congress for a separate Department of Public Works, since the real object, centralization, is to be accomplished under the proposed plan.

The possibility that the Commission of Fine Arts might be deprived of its present independent status was considered, and the following action taken:

Resolved, that the President and Secretary be requested to address a formal communication to President Harding, and to the Chairman of the Congressional Committee on Reorganization of Federal Departments, submitting reasons why, in the opinion of the Institute, the Commission of Fine Arts should not be placed under the jurisdiction of any Federal Department, but should be left to exercise its functions independently.

Architects Small House Service Bureau. Consideration was given to the resolution of the 54th Convention endorsing and approving the program of the Small House Service Bureau of the United States, Inc., and directing the Board to follow the work of the Bureau in detail, and, in its discretion, to take such active part in the management and control of the Bureau as it may deem advisable; and suggesting to the Chapters that they take an active part in the formation of Regional and Branch Bureaus and do all in their power to make the work of the Bureau a complete success.

Resolved, That the action of the Convention in this matter be referred to the Chapters by the Secretary, with a request that they give the Convention resolution immediate and vigorous consideration.

Schedule of Charges—Correction of Mandatory Impression. Consideration was given to the action of the 54th Convention in adopting the recommendation of the Board that the phraseology of the Schedule of Charges be corrected so as to give no impression of a mandatory rate, with the added instruction that the Schedule should contain a clear statement that the rate is not mandatory.

After discussion it was,

Resolved, That a copy of Art. VI of the Constitution of the Institute, which prohibits the issuance of any mandatory schedule, be printed at the end of the Schedule of Charges. The Schedule with this addition which was deemed to meet the instruction of the Convention was ordered printed and distributed.

Powers of the Committee on Competitions. Consideration was given to the resolution offered at the 54th Convention by delegates of the Kansas City Chapter, which requested the Board of Directors to define the latitude of the powers of the Standing Committee on Competitions over programs which differ from the Competition Code.

This resolution was referred to the Board by the Convention for consideration.

Resolved, That the Committee on Competitions be furnished with the record of the Convention discussion, and resolution, and requested to submit a report to the Board.

By-law Amendments Proposed by New Jersey. Consideration was given to By-law amendments proposed at the 54th Convention by the New Jersey Chapter, which were referred to the Board for consideration.

The sense of the meeting with regard to the various proposals is reported seriatim as follows:

Retirement: Retirement age changed from 70 to 65. The older men in the profession are, as a rule, more able to pay than the younger men, and the proposal is not considered desirable.

Initiation Fees: This has been substantially accomplished by the reduction of the Initiation Fee from \$20.00 to \$5.00.

Delegate Representation: The Executive Committee recommends to the Board of Directors that steps be taken looking towards the reduction of present Chapter delegations to the end that more workable Conventions may be secured, and to the end that the expenses of the Chapters may be lessened. A Convention of 200 delegates was considered to be ideal in size.

Journal Distribution: All Members now receive the JOURNAL as part of their annual dues.

Pro-rating of Dues: It is recommended to the Board that a By-law amendment be proposed under which dues shall be pro-rated on a quarterly basis. This will formally authorize practice which has been in effect for more than a year in the Treasurer's office.

Reduction of Dues: In effect the dues have been reduced, through the substantially lessened purchasing value of the dollar and through the distribution of the JOURNAL. No further reduction is deemed feasible.

Special Contributions: Any action on this proposal should await the report of the Committee on Survey of Institute Methods.

Delegates Expenses: The procedure proposed is not found practicable.

New Standing Committees: The procedure proposed is not found practicable.

The Fifty-fourth Convention. The Secretary read an analysis of comments on the 54th Convention from various sources.

A general discussion of Convention program and arrangement followed.

The Secretary was requested to analyze the program from the Proceedings with reference to various criticisms which have been made, and to determine what improvements should be inaugurated next year, and to report to the Board. The Secretary was also authorized to report to the membership through the columns of the JOURNAL if he so desired.

It was the sense of the meeting that the social side of Institute Conventions needed greater emphasis, and this feature is to receive full attention in preparing for the 55th Convention. It was also suggested that identification buttons be furnished to all in attendance.

Reduction of Dues for Members Under 32 Years of Age. Consideration was given to the proposed amendment to the By-laws, offered at the 54th Convention, providing that members under 32 years of age pay annual dues of but \$10.00.

This proposal was referred to the Board by the Convention with power to act.

Resolved, That the Committee on Survey of Institute Methods be requested to consider this proposal in connection with its own report.

Architects and Community Planning. Consideration was given to the resolution offered at the 54th Convention in which the Board of Directors was requested to have printed a special circular pointing out the principal steps necessary to increase the influence of the architects in community planning and pledging the fullest cooperation of the Institute with all agencies working for the advancement of city planning.

This resolution was referred to the Board of Directors for consideration and action.

Resolved, That the Executive Committee is of the opinion that the resolution offered does not adequately or correctly express the position of the Institute. It refers the matter to the Committee on Community Planning, with a request that it prepare and submit to the November Board meeting a draft of resolution that the Institute may properly adopt.

Standard Method For Determining Cubic Contents. Consideration was given to the resolution adopted by the Convention to the effect that if feasible a standard method be developed by the Institute for determining the cubic contents of buildings of various types.

Resolved, That this resolution be referred to the Committee on Contracts with the suggestion that it confer with the Committee on School Building Standards and report to the Board at the November meeting.

State Building Codes. Consideration was given to the resolution offered at the 54th Convention favoring the early adoption by all states of a uniform, simple, direct, and comprehensive state building code to protect the health, life and safety of the people, and suggesting to the Board that it consider the desirability of referring the matter to the Chapters for local activity.

Resolved, that the sense of the resolution be transmitted to the various Chapters. Their attention should be drawn to the work now being done by the Bureau of Standards of the Department of Commerce.

Letter from Monsieur Laloux. The President read a letter which he had received from Monsieur Laloux in grateful acknowledgment of the award to him of the gold medal of the Institute.

The question of presenting the medal was discussed and definite action was withheld until a report is received from Mr. Butler.

The Executive Secretary was instructed to have the medal made. The phraseology of the inscription should be determined in conference with Mr. Butler.

Correction in the 1921 Budget. The Treasurer stated that in preparing final draft of the Budget for 1921 the fifteen per cent (15%) of dues and initiation fees required for the Reserve Fund had been calculated after deducting the JOURNAL subscriptions of \$2.50 from the dues of each member.

The matter has recently been submitted to Counsel for opinion who, in a letter of July 13, stated that the fifteen per cent (15%) should be calculated on the gross income from dues and initiation fees; and that the By-laws should be amended if the method followed in preparing the 1921 Budget is to be adhered to.

Resolved, that the necessary amendment to the By-laws be prepared for submission to the November Board; and that the procedure used in determining Income in the 1921 Budget be submitted to the 55th Convention for ratification.

The Secretary was requested to draft the amendment.

Place of Meeting of 55th Convention and November Board. Consideration was given to the proposal that the 55th Convention be held in Los Angeles, also to the fact that such a Convention would be extremely expensive to the Pacific Coast Chapters and that it has been proposed as a substitute to have the November Board meeting in Los Angeles, and to hold the 55th Convention in some other city.

Complete data was presented showing taxes and refunds for all Chapters for Conventions in Los Angeles and Colorado Springs; also the cost of Board meetings in the two cities.

The sense of the meeting was that the November Board meeting should be held in Los Angeles, and that the Pacific Coast architects generally, without reference to Institute membership, should be invited to attend one or more open forum sessions for the discussion of matters of common interest, provided such arrangement is agreeable to the Southern California Chapter.

It was also the sense of the meeting that the 55th Convention should be held in some central western city, preferably Chicago, provided the idea is agreeable to the Illinois Chapter.

Upon later consideration it was directed that a Referendum on these two questions be submitted to the Board, and that in the Referendum attention be called to the expense involved, and to the increased revenues from new members which seems to make the program feasible.

Report of the Convention Committee. A report was submitted from Mr. Wheat, Chairman of the Convention Committee, concerning the details of the Convention and the financial operations.

Resolved, that the report be accepted with thanks. The Treasurer was authorized to pay the deficit of \$47.30 on the dinner.

Report of Exhibition Committee. A detailed report was submitted from Mr. A. L. Harris, Chairman of the Exhibition Committee, with regard to the Second National Architectural Exhibition.

The successful character of the Exhibition was reported; and the recommendation made that owing to the great expenditure of time and money required the Exhibition be held only once in every three years, and always in Washington. The difficulty of securing new work for an annual exhibition was also mentioned.

A deficit of approximately \$1,000 was shown, of which \$750.00 was in half payment of permanent exhibition screens. Half of the cost was charged against the Exhibition and the screens, which are safely stored at the Octagon, will be available for many years.

Resolved, that the Treasurer be authorized to carry the deficit on the books as a charge against the Architectural Exhibition, on the understanding that it shall be liquidated as balances from future exhibitions permit.

Report of the Building Committee. Mr. Waid, as Chairman of the Building Committee, reported conferences in Chicago, New York and Boston with prominent members of the Institute who expressed great interest in the development of a plan for the rehabilitation of the Octagon. One of these members, who wishes to remain unknown, has contributed \$500.00 for immediate needs at the Octagon.

The Building Committee has prepared complete surveys of the property and proposes to issue an appeal through which it is hoped to raise a large sum of money in the nature of an endowment or maintenance fund.

Resolved, that the tentative program of the Committee be approved and the Committee authorized to study the problem along the lines indicated in its tentative report and to make further recommendations at the November Board meeting.

Resolved, that the sincere thanks of the Executive Committee be extended to the unknown contributor for his generous action.

The furnishing of the Board room was discussed. Mr. Kohn reported a conference with Mr. Henry Irving, noted collector of antiques, whose cooperation is sought; and that a copy of the Monograph was sent to him with the compliments of the Institute.

This action was formally approved.

Mr. Waid requested authority to proceed with the re-furnishing of the Board room as soon as the necessary funds are raised.

Resolved, that the Building Committee be authorized to proceed in the matter without further reporting.

Craftsmanship Medals. Mr. Kohn stated that after conference with members of the Executive Committee he had placed an order with the Medallion Art Company for two gold craftsmanship medals to replace the inappropriate medals already awarded to Mr. Henry C. Mercer, for Distinguished Achievement in Ceramic Art, 1921; and to Mr. Samuel Yellin for Distinguished Achievement in Wrought Iron Craft, 1920. Both medals will be presented through the Philadelphia Chapter.

Resolved, that this action be formally approved and the Treasurer be authorized to make payment.

Institute Insignia. The design and issuance of Institute insignia, suitable for personal wear, was considered and it was

Resolved, that Mr. Kohn be requested to consult with the Medallion Art Company and to submit to the Board designs and prices for lapel and fob styles of insignia.

Donation of Press Bonds to the Institute. The Treasurer reported the donation of the following Press Bonds to the Institute: George G. Bassett, Bond No. 257, \$25.00; B. H. Marshall, Bond No. 258, \$25.00; W. R. Mead, Bond No. 283, \$100.00; E. J. Russell, Bond No. 364, \$100.00.

Resolved, That the gift of these bonds be accepted with the appreciation of the Institute and that the bonds be assigned to the Endowment Fund to become a part thereof. The Endowment Fund is devoted to the maintenance of the Octagon property.

Fellowships. The President reported that acting under the resolution of the Board, adopted at the May meeting, he had formally designated the Jury of Fellows, as constituted by the By-laws, a Committee on Fellowships. This Committee was instructed by the Board to proceed under such rules of procedure as it deems practicable for the coming year and to make nominations to the 55th Convention. In the meantime the report of the previous Committee on Fellowships will be referred to the new Committee. So far the old and extensive record of recommendations for advancement to Fellowship, on file at the Octagon, has not been transmitted to the new Committee.

The members of the Executive Committee, acting on behalf of the complete Jury of Fellows, and subject to the ratification of the complete Jury, adopted the following resolutions:

Resolved, That the Chapters of the Institute be formally invited by the Jury of Fellows to send nominations of members for advancement to Fellowships. Each nomination should be at the Octagon not later than November 1st, and should be accompanied by complete data concerning the nominee and his qualifications for the honor of Fellowship under the conditions prescribed in the By-laws.

It was further directed that:

Nominations of Fellows may also be made to the Jury by any five members of the Institute, provided the nominations are accompanied by complete data concerning qualifications of the nominee. After the formal nominations are made by the Jury of Fellows and submitted to the Chapters, it shall be the privilege of any Institute member in the nominee's Chapter to send in a privileged communication either for or against the advancement.

The Secretary was requested to secure the ratification of the complete Jury on the tentative procedure adopted; and upon such approval to advise the Chapters fully in the matter.

Circular on Functions of the Architect. The proposed Institute Circular on the Functions of the Architect has been under consideration for a long time. The draft last arrived at by Mr. Mauran, in collaboration with Mr. Parker, was submitted.

Resolved, That the circular be approved in principle and issued as a first edition after correction in minor details by the Secretary, in cooperation with the Editor of the JOURNAL. It is to be distributed without cost until further notice.

Development of Structural Standards. The Secretary presented a number of monographs issued by the Structural Service Bureau under the direction of Mr. D. Knickerbacker Boyd. These monographs related particularly to standardization of structural slate.

It was the sense of the meeting that inasmuch as the formation of standards of this type is the principal object of the American Engineering Standards Committee, whose recommendations of national standards will automatically come before the Institute for approval, that it is undesirable for the Executive Committee to formally approve standards arising from other sources.

The Committee appreciated the work being done by Mr. Boyd, and was of the opinion that the Institute's general approval of national standards, and its participation in the work of the A. E. S. C. should be considered as general approval of all efforts towards the standardization of building materials.

Cooperation with National Federation of Construction Industries. A letter was read from Mr. Ernest T. Trigg, President of the National Federation of Construction Industries, in which he expressed a desire to secure the cooperation of the Institute, and requested opportunity to appear personally before the Executive Committee in that connection.

The Secretary was requested to make acknowledgment, and mention the possibility of a conference with the Board or Executive Committee at some future date.

Distribution of Quantity Survey Document. The Board and the Convention approved the distribution of a document on Quantity Survey prepared by a joint committee representing the Institute and the Associated General Contractors of America. The document is to be transmitted with a foreword prepared by the Committee on Contracts, the general character of which has been indicated by the Board.

A question has arisen as to the cost of distribution. The document will be furnished in printed form by the Associated General Contractors. The distribution of 2,200 copies to Institute members can be economically accomplished.

The distribution of approximately 2,000 copies to non-Institute members is another matter. It is estimated that the cost of such distribution would be approximately 2½ cents per copy for postage and envelopes, or a total of approximately \$175.00.

Resolved, That the Secretary's office be directed to proceed with the entire distribution.

Publication of Mr. Mason's Book. The President called attention to the suggestion that the book prepared by Mr. George Mason, containing the history of the early days of the Institute, be republished by the Institute.

The President was requested to advise Mr. Wight, and Mr. Mason, of the inability of the Institute to republish the book at this time.

It was⁷ directed that the volume be referred to the Historian, Mr. Fiske Kimball.

Cooperation with R. I. B. A. It was stated that winners of the Godwin Bursary studentship of the R. I. B. A. frequently came to the United States without letters or information which would put them in touch at the outset with the American Institute.

Resolved, That the Secretary be instructed to write to the Secretary of the R. I. B. A., asking him to advise the Institute of the names of any Godwin Bursar students who are to come to the United States, in order that the Institute may extend its cooperation to them.

Institute Representative on Jurisdictional Board. A letter of July 2 was read from the Secretary of the National Board of Jurisdictional Awards, from which the following paragraph is quoted:

"It is most gratifying indeed to know that the American Institute of Architects has again selected Mr. E. J. Russell to represent your Institute on the National Board for Jurisdictional Awards. His even temperament, unexcelled ability, coupled with his courage and keen conception of the intricate subjects with which he is called upon to deal, makes Mr. Russell a most acceptable member for the position to which you have appointed him."

The members of the Committee congratulated Mr. Russell upon his success in the work of the Jurisdictional Board.

Representative on Committee C-7 on Lime of the A. S. T. M. The President reported his appointment of Professor Thomas Nolan as representative of the Institute on the Committee C-7 on Lime of the American Society for Testing Materials.

This activity is in line with other work being done for the Institute by Professor Nolan and will require no funds this year in addition to those provided in the present appropriation.

Resolved, That the action of the President be approved.

Representative on Gas Safety Code Committee. An invitation of June 24 was read from the Director of Bureau of Standards, Department of Commerce, asking that the Institute appoint a representative to serve on the Sectional Committee on Gas Safety Code, which is to meet in the latter part of the current year.

Resolved, that the request be referred by the Secretary to the Chairman of the Structural Service Committee with power to act.

Application for Charter—Erie Chapter. The Secretary presented the petition of Erie architects for a formal charter of Chapter membership in the Institute, with the following counties in Pennsylvania as territory: Erie, Crawford, Mercer, Venango, Warren, Forest, Clarion, McKean, Elk, Cameron, Jefferson and Potter.

The names of the petitioners, all of whom are Institute members, are as follows: C. Paxton Cody, Karl E. Morrison, J. Howard Hicks, Frank A. Shutte, Clement S. Kirby and Armin Schotte.

Attached to the petition was a copy of the proposed Constitution and By-laws for the Erie Chapter.

The Secretary reported the Constitution and By-laws to be in accordance with the Institute Standard Form.

The Pittsburgh and Southern Pennsylvania Chapters have been advised of the proposed formation of the new Chapter and have made no objection.

Resolved, that a charter be issued to the Erie Chapter of the American Institute of Architects, effective July 18, 1921, and that the counties named in the petition be transferred from the Pittsburgh and Southern Pennsylvania Chapters to become the territory of the Erie Chapter; and that the Institute members signing the petition be formally transferred, effective July 18, 1921, from the Pittsburgh Chapter to the Erie Chapter.

Applications Pending. The Secretary reported twenty-nine pending applications for Institute membership.

Resolved, that the Secretary be requested to cast a favorable ballot for each of the applicants, electing him to membership in the Institute, effective August 15, 1921, subject to the receipt of no unfavorable privileged communications within a period of thirty days after the publication of his name, and subject to the approval of the Board of Examiners.

Members Elected. The Secretary reported the election of the following members to the Institute, by referendum vote of the Executive Committee, effective July 1, 1921:

ALABAMA CHAPTER: Harrington Barlow. BOSTON CHAPTER: Lewis B. Abbott, Gordon Allen, Roland Webster Baldrey, Niels Hjalmar Larsen, Winthrop D. Parker, George E. Parsons, Roger G. Rand, James H. Ritchie, John Pickering Thomas. BROOKLYN CHAPTER: Henry C. Jackson, Wm. George MacTarnaghan, Ralph Marion Rice, John Wm. Tumbridge, Anthony D. Zinck. BUFFALO CHAPTER: Oliver Richard Johnson. CENTRAL NEW YORK CHAPTER: Edward J. Berg, Merton Elwood Granger. COLUMBUS CHAPTER: Richard Z. Dawson, H. H. Hiestand, J. Edgar Outcalt, Wilfred A. Paine, Edward A. Ramsey, Wilbert Cathmore Ronan. CONNECTICUT CHAPTER: J. Frederick Kelly. FLORIDA CHAPTER: Leslie N. Iredell. ILLINOIS CHAPTER: Walter G. Kohfeldt, Frederick J. Teich. KANSAS CITY CHAPTER: Leon B. Senter. MINNESOTA CHAPTER: Francis H. Hafey, John Jager, Oscar T. Lang. NEW JERSEY CHAPTER: Clifford C. Wendehack. NEW YORK CHAPTER: Edwin Augustus Acker, John Taylor Arms, F. Burnham Chapman, Samuel Adams Clark, Henry A. O. Erdmann, Victor C. Farrar, Henry Charles Hahn, Arthur C. Holden, Joseph T. Mohn, C. Frederick Mosle, George Nordham, Kenneth W. Nosker, F. de Lancey Robinson, Edward J. Smith, Francis S. Swales. OREGON CHAPTER: E. F. Gilstrap, Charles Dearman James. PHILADELPHIA CHAPTER: Roger Milton Dickhut, E. Nelson Edwards, Charles Joseph Mitchell, Stuart Raymond Smith, Wm. C. Stanton, John Howard Taylor. PITTSBURGH CHAPTER: W. J. Carpenter. ST. LOUIS CHAPTER: Austin E. Fitch. SAN FRANCISCO CHAPTER: A. J. Bryan, Arthur Bridgman Clark, W. H. Crim, Jr., Frank Veach Mayo, Julia Morgan, Hart Wood. SOUTHERN CALIFORNIA CHAPTER: John Frederic Murphy. TENNESSEE CHAPTER: George Awsumb, George D. Waller. TOLEDO CHAPTER: Otto H. Hohly. UTAH CHAPTER: Fred W. Hodgson. VIRGINIA CHAPTER: George Van Leeuwen. WISCONSIN

CHAPTER: Harry Wm. Carr, Reubens Frederick Clas, Edward John Law, Robert A. Messmer, Walter F. Neumann, Urban F. Peacock, John S. Shepherd.

The following were elected effective July 18, 1921: Charles K. Bryant, Virginia Chapter; Edward J. Law, Wisconsin Chapter; Robert A. Messmer, Wisconsin Chapter.

Senate Bill 634. A letter was read from the Chairman of the Structural Service Committee with regard to S. 634, a bill providing for examination and certification of products by the Bureau of Standards. Mr. Jones was in favor of this proposal and desired to know the position of the Institute with regard to it, before he took any definite action on behalf of the Structural Service Committee.

Resolved, That the proposed legislation be approved in principle.

Structural Service Committee Expenses. At the November Board meeting, when the 1921 Budget was adopted, the expense of the program of the Structural Service Committee was assumed by the JOURNAL. This included \$500.00 for membership in the American Engineering Standards Committee. Mr. Whitaker stated that he was under the impression that the JOURNAL was to be reimbursed for the actual expenses of the Structural Service Committee apart from the JOURNAL work of the Committee if it was found that the JOURNAL was unable to assume them conveniently. The JOURNAL is unable to carry the entire program under the present extraordinary conditions in the industry and the Institute was requested to take over a proper part thereof.

Resolved, That the Executive Committee appropriates not to exceed \$700.00 to the Structural Service Committee, for the balance of the year, of which \$500.00 shall be for membership in the Engineering Standards Committee, and expenses connected therewith. This appropriation is subject to the approval of the Board by Referendum.

Distribution of Illinois Bulletin. Mr. Russell spoke of the very readable and interesting Bulletins of the Illinois Society of Architects and was of the opinion that the Chapters of the Institute would profit by receiving monthly copies of this publication.

Resolved, That the Secretary be requested to communicate with the Editor of the Bulletin, Mr. Davidson, with reference to placing copies each month in the hands of Chapter Presidents and Secretaries.

Department of Labor Conferences. Mr. Russell reported conferences with the Secretary of Labor during the month of May, at which there were present representatives of various elements of the building industry. The Institute is now requested to appoint three representatives to attend a more formal meeting which is to be called shortly by the Secretary of Labor.

The following were appointed as Institute representatives: Mr. Robert D. Kohn, Mr. D. Knickerbacker Boyd, and Mr. N. Max Dunning, with Mr. Stephen Vorhees, alternate. Attendance will be at the expense of the individual.

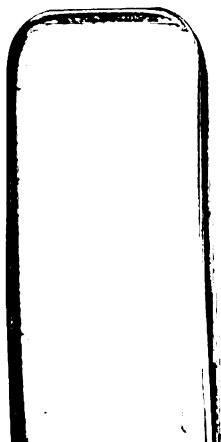
Mr. Russell reported further in connection with his representation of the Institute before the Department of Commerce, and that Mr. Frederick W. Perkins of Chicago had agreed to substitute for him if that should be necessary. Mr. F. T. Miller, Mr. Hoover's Assistant, has been advised of this and is agreeable.

The arrangement was acceptable to the Executive Committee.

Work of the Jurisdictional Board. In connection with the work of the Board of Jurisdictional Awards, the Secretary called attention to the decision with regard to Best-wall, and the application of the product by plasterers. He felt that the award was unsound and harmful in effect. This has been true in Boston and has caused considerable increase in the cost of building in at least one project. Mr. Parker was of the opinion that awards should be based solely on the craftsmanship required for the work involved, and on no other considerations. He suggested that the Institute ask for a review of this particular award.

Mr. Russell stated the Board would welcome suggestions of this sort from its member organizations. After discussion it was agreed that the Institute should address the Board concerning the adoption of the above principle as a basis for its awards. The Secretary was ordered so to do.

The meeting adjourned at 6 p. m.



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