

NEW! THE GREATEST ACHIEVEMENT IN BUILDING CONSTRUCTION

ENTERLOCKING FABRICATED BUILDING LUMBER

Builders, Carpenters, Architects, Realtors, Contractors, Lumber Dealers, Home Loan Agencies:—

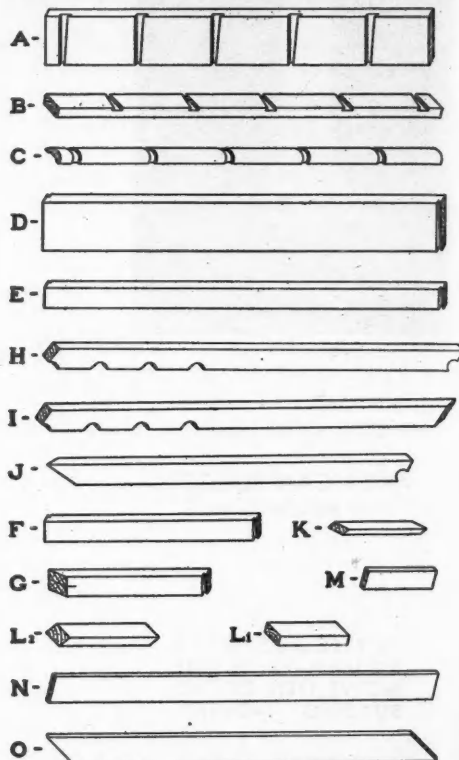
Here's the biggest building construction news in a century of progress in lumber manufacture!

Enterlocking Fabricated Building Lumber is now ready for universal use to give greater value for your building dollars and to maintain the supremacy of wood as the ideal economical building material. Read these fourteen points of advantage—and then use the coupon below for the more complete story of this remarkable new construction system.



1. Enterlocking Fabricated Building Lumber comes to the job *pre-fabricated*, ready for carpenters to put into place quickly and easily. No numbered pieces. No sorting to fit. Impossible to use any piece in the wrong way.
2. Its use *unlimited* for any type or design of building. Not to be confused with any "ready-cut" system. Equally adaptable for mansion or cottage.
3. Ready for use in more than three-fourths of the lumber construction entering into the building.
4. Only *ten* basic framing members; only *nine* lengths of square-end board stock; only *six* lengths of diagonal-end sheathing.
5. All pieces precision cut in volume at the plant with unfailing accuracy and graded for the purpose intended.
6. There is but one grade of this material—the *right one for the particular use*.
7. Joists, sills, studs and plates go together with an *enterlocking joint* (patented) made possible by a machine-made, wedge-shaped dovetail—a modern adaptation of the old-time sturdy mortised and tenoned building.
8. Limitless number of pitches and spans obtained with nine rafter lengths.
9. *Reduces* "in place in the building" cost because it eliminates waste lumber and freight paid for waste lumber.
10. Selected quality lumber of grades best for the particular use and the enterlocking joint assure the sturdiest of construction.
11. Buildings command *greater loan confidence* because of the high quality of the lumber and the unusual permanence of sturdy construction. A minimum of repair and upkeep.
12. Builders, Carpenters, Architects and Lumber Dealers especially appreciate the elimination of the possibility of mistakes in sizes and grades for specific parts of the building.
13. The standardization of pieces simplifies the hazard of figuring the job and ordering of lumber; eliminates multiplicity of grades; reduces lumber dealers' inventories.
14. Enterlocking Fabricated Building Lumber is manufactured of *durable Douglas Fir* at Longview, Washington, under the Laughlin patents, a system of production of standard parts on especially designed machines which give high precision. It is distributed only thru the regular, established channel for distribution of building material—the *retail lumber dealer*.

A MANSION OR A COTTAGE FROM THESE SIMPLE PIECES



(A) Joist Headers. (B) Stud Plates or Sills. (C) Rafter Plate—Half Round. (D) Floor and Ceiling Joists (E) Studs. (F) Window and Door Header. (G) Gable and Dormer Studs. (H) Rafters. (I) Hip Jack Rafters. (J) Valley Jack Rafters. (K) Bridging. (L1) Fire Stop—Square End. (L2) Fire Stop—Mitered. (M) Fillet. (N) Square End Board Stock. (O) Diagonal End Sheathing.

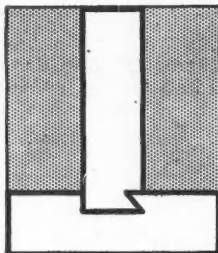
YOU CAN ORDER THE LUMBER FOR A SINGLE BUILDING

Ask your lumber dealer about this new Enterlocking Fabricated Building Lumber. If he is not yet stocked with it, he can order for an individual building shipped with mixed cars of yard lumber. Shipped from Longview, Washington, only.

LONG-BELL Lumber Sales Corporation

LONGVIEW, WASH. Lumbermen Since 1875 KANSAS CITY, MO.

USE THIS COUPON TODAY FOR THE AMAZING STORY OF THIS NEW LUMBER



LONG-BELL LUMBER SALES CORPORATION
KANSAS CITY, MO.

A1 Gentlemen: Please send me free and without obligation additional information about Enterlocking Fabricated Building Lumber.

Name _____

Address _____

City _____ State _____

Builder Architect Real Estate Dealer

Carpenter Lumber Dealer Home Loan Agency

AMERICAN BUILDER AND BUILDING AGE

Reduce Local Taxes to Improve Market for Home Building

THE GREATEST obstacle to a revival of home building is the excessive and confiscatory taxes which have been assessed against real estate, especially homes. Today, in most places, it is cheaper to rent than to own; in fact, the annual tax bill levied against many home owners equals or exceeds a fair annual cash rental for the property, leaving nothing for upkeep and interest on the investment.

Such a situation discourages home ownership and puts a premium on the abandonment of homes to mortgage foreclosure.

The men of the building industry in every community are the victims of this exorbitant tax situation; they see their market killed and their business ruined by such penalties assessed against home ownership. They see the home owning public not only weighted down by the terrible tax load, but also disgruntled and disgusted because of the inequality and unfairness of the system that piles 80 per cent of the costs of local government onto real estate constituting only 20 per cent of the community's wealth.

Laboring under such burdens, is it any wonder that home ownership is decreasing, and that renters are slow to exchange their freedom for such tax slavery?

The building industry faces this obstacle. Lower taxes on real estate, especially homes, must be secured. Drastic reduction of taxes is essential to building revival and general business revival.

Fortunately the tax on real estate is almost entirely a local tax. It is largely within the power of local leaders and voters to control. Tax reduction can be brought about by reducing the cost of local government, including local appropriations. The share of these costs assessed against real estate can also be more fairly apportioned. Home ownership should be encouraged by the tax structure instead of being penalized, as now.

Two years ago this publication was among the first to place the blame for the depression on wasteful governmental practices and resulting high taxes. We pointed out that the ownership of real estate, more especially homes and farms, was becoming economically impossible and that taxes would have to be reduced and equalized before the building industry and business in general could be restored to a normal prosperity.

Since then, many other publications, associations, and public agencies have taken up this campaign and some

very helpful results are finally appearing, especially in the realm of local taxation. An editorial in the *Chicago Tribune* of December 16 summarizes recent developments:

"In spite of the stubborn inadequacy of economy measures in congress, and in spite of resistance to economy proposals appearing in our city council, there are signs that governments nearer the people are responding to the demand for relief which has been sweeping the country with increasing force during the year. We can offer only a partial list of cities and towns which thus far have made substantial reductions in expenditures, resulting in many cases in lowering of taxes, but the number is impressive.

"In Illinois they are Lake Forest, Forest Park, River Forest, Streator, Danville, Jacksonville, Beardstown, Robinson, Moline, and especially East St. Louis, which has made a notable record. Probably there are and certainly there will be others.

"In the country generally the list includes Portland, Ore.; Seattle and Spokane, Wash.; Milwaukee, Wis.; Jacksonville, Fla.; Gary, Ind.; Buffalo and Rochester, N. Y.; Arlington, Mass., where the budget was cut 25 per cent without resort to pay reduction; Louisville, Ky., which entered its fiscal year Sept. 1 with a surplus of \$400,000, achieved by economies; Pittsburgh, Pa., which at least has made a beginning on a retrenchment program, and Omaha, Neb., and Iowa City.

"Imperative as drastic reduction in federal expenditure is, the battle for fiscal solvency and relief from all-destroying taxation must be carried on from coast to coast. It must be carried on to victory by militant citizenship acting directly upon the money spending agencies in city, state, and nation. The battle has just begun, resistance is organized and ruthless, but the American people must win this fight if they are to be saved from the certain ruin of their prosperity and their institutions. They have never faced a greater danger to their welfare, in peace or war. It is in fact war, war against parasitism and chaos."

As the building industry in every locality is injured more by excessive taxation of real estate than any other industry, and as real estate is everywhere more excessively taxed than any other property, the building industry should take the lead in every community in the war against excessive and destructive taxation.

GETTING AHEAD IN 1933

By L. R. PUTMAN

Marketing Editor, American Builder

THIS matter of getting ahead is one of knowing what to do and doing it. Sounds simple but works out to be a tough job just because we won't follow through. There's a lot of people who know what to do or what they ought to do but fail or refuse to do it.

Old Man Experience has put us through some pretty tough courses during the past four years. We've got those lessons still fresh in our minds. They certainly should prove valuable.

In the first place we've got to follow a plan based on a correct analysis of what's to be done. Let's see what is most needed to revive the building industry. We must serve the building public as it wants to be served. That means the local dealers and builders must work together in giving the public the best possible job at the lowest possible cost.

In the past, the building industry, next to our bureaucratic government, has been the greatest buck-passing institution in the world. We've got to cut that out and look not only to our own interests but to the interests of the buyer.

There is a growing menace to good, dependable house construction from some of the producers of cheap materials. The effect of these shoddy materials will probably not show up until some time after they have been used. They are sold strictly on price. For any contractor to demand such materials and for any dealer to supply them simply paves the way for the out-of-town competitors to find easy competition when they are ready to come in and get the business. There was never a product made that some other producer couldn't make it poorer and sell it at a lower price. The safest rule for any dealer or builder is to build up a trade for branded quality products and dependable workmanship.

A New Deal Here and There

There's going to be a lot of shifting by dealers in the products they handle and by the manufacturers in their local representatives. Dealers are going to insist on identified goods and close sales co-operation. The manufacturers are going to place their local distribution in the hands of dealers who can furnish more than local warehouses.

Local co-operation is going to be necessary in order to reduce taxes on real estate. All over the country, homes are carrying entirely too much of the local tax burden. Home owners and prospective builders must have the help of the local building interests if home ownership is to regain its popularity.

Home financing must be made more available. In two cities we recently visited, the building interests were working together to cause the building and loan asso-



"Your plan looks very good to me, especially as it pertains to the education of the local building industry in better merchandising and a lower cost of distribution. This, to my mind, is the key to the puzzled situation in which we dealers, and manufacturers as well, find ourselves now."—Byron Smith, President Smith-Nuppenau Co., Valparaiso, Ind.

ciation to make funds immediately available for repairs and remodeling. They are being successful. The Home Loan Banks in their districts have assured them that their local building and loan associations within thirty days can get money for repairs and remodeling but not for new construction. Similar arrangements can be made in other localities. It requires pressure brought to bear by an influential group of local building interests.

We have a report from the Home Loan Bank in Washington that local building and loan associations which can qualify will be supplied with funds for reconditioning. This will enable wide awake communities to go after business by January 1st.

Old Man Experience has taught us another thing, whether we do it or not. That is that home building interests must constantly keep themselves before the public and *must ask for the business*. Then when it comes, dealers and builders must be prepared to take care of it.

Folks Are Influenced by What They Read

Gradually, the building industry is adopting methods which have been and are proving successful in other lines. People are more inclined to buy the things they are constantly told about. Most people could get along without a vacation this winter but in all of the larger newspapers and many of the smaller ones the alluring pictures and lower travel costs are taking thousands to the winter resorts. Not nearly so many would go if experience had not taught the resort owners and railroads

Today's Lesson Get together on this program:

1. Reduce local taxes -
2. Release building credit -
3. Restore home buying confidence -
4. Promote identified quality materials -
5. Encourage good craftsmanship -
6. Create local business by advertising in home town papers.



"I have no doubts as to the good that will be derived by the dealers who co-operate with you. Further, I do not believe you could have started such a campaign at a more propitious moment than now when the dealer needs every assistance in getting the construction industry back on its feet."—Hunter M. Gaines, Secy., Michigan Retail Lumber Dealers Association, Lansing, Mich.

the necessity of advertising. Door bell ringing and direct mail advertising have their proper places but local newspapers are particularly attractive at this time. In doing the things we see necessary to the revival of building, the newspapers can render the greatest local service possible to obtain.

The AMERICAN BUILDER has perfected its plan to bring about a nation-wide revival of building. This plan is built around the local newspapers of the country. It is a plan which brings in every local element of the building industry. The plan is simply this—people are influenced by what they read; then keep them reading about home owning and about building, repairing and remodeling their homes.

Newspaper Features Friendly to Home Building

The public is not interested in lumber or shingles or paint or plumbing except as these things add to its comfort, convenience or pleasure. And so we have developed a news and editorial service about all phases of building, which is interesting, educational and attractive. A big undertaking, you say; and it is. But what other agency is so well qualified to furnish such a service as the editorial, art, architectural and news gathering departments of the AMERICAN BUILDER?

This service has been perfected and presented to leading manufacturers, dealers and newspapers. It has met with immediate and hearty approval. This service consists of attractive and interesting news and feature mat-

Don't blame the bankers if they are wary of home mortgages; organize to give the buying public an honest deal and the best possible house at the lowest possible cost and you will find plenty of money flowing back again into home financing.

ter, gotten up in high class, approved newspaper style, and furnished to the newspaper in matrix form. These articles will add to the attractiveness of any newspaper. This service will appear once a week, generally in the Saturday afternoon or Sunday issues.

No Flash-in-the-Pan; But a Continuous Campaign

This editorial service is planned to occupy half a page, leaving the balance of the page for use by the local building interests; thus making it possible for the local group to work together with the editor in arousing the interest of the local public. The local building interests will control the entire page so that none except the group co-operating can appear on it. All of this newspaper material will of course be friendly to the local builders and dealers.

It must be remembered that building materials are not bought on the impulse except by the dealer who needs the goods or a contractor who has a job to do. People decide to repair, modernize or build only after much thought, consideration and financial preparation. Constant suggestion is necessary to cause them to act. Much money is wasted by building material dealers in special editions, programs and similar flashes. Building materials are staple and cut price bargains are rarely offered. The modernizing campaigns of three or four months have generally been disappointing; it is continuous home owning and home building promotion that is needed.

Mail order companies, factory-built fabricated house concerns and others are developing plans to break into the local building field. The local dealers and builders have a very uncertain place in such plans. Even manufacturers of building materials now distributed and fabricated by local interests are questioning the value of such local service. All of these local forces have an intense interest in the AMERICAN BUILDER plan.

The Home Town Newspaper a Rallying Point

The newspaper publishers see the great service they can render their communities. Here is an interesting and attractive service coming to them every week, furnished by a recognized authority. Its appearance every week will cause every reader in any way affected by building to take a greater interest in the paper.

A continued use of this service will help to preserve and revive building, which is the greatest local industry. It will help to increase the beauty and comfort of the homes and other structures in the community. It will tend to stabilize the citizenship by creating a desire for

(Continued to page 50)

The Building Outlook for 1933

By E. L. GILBERT

Eastern Editor, The American Builder

FIFTEEN YEARS AGO this country faced a housing shortage which had become so acute that the Federal Government had found it necessary to go into the building business. Today we face conditions which may easily lead to a similar situation; and the building industry, reaching into the largest cities as well as the smallest villages, faces a condition which can be thoroughly studied nationally yet which controls the business of contractors, builders, dealers, and others, in more than 16,000 local areas.

After the World War there was so strong a demand for buildings of all kinds that local contractors and builders could not finish enough jobs to satisfy their markets. As a result of this condition the entire building industry speeded up its production, in which process it included thousands of men in its ranks who were not qualified by knowledge or experience of this highly difficult and technical business; thus, the industry developed an inflated personnel and it is true that many abuses resulted from the inexperience and carelessness of these "outsiders." Despite the handicap of too few trained men, however, the shortage of buildings, especially in the residential field, was thoroughly taken care of by the end of 1924.

In the chart which is printed at the bottom of this page, you will note a series of columns, one black and one white, for each year from 1925 to 1932, inclusive. In each case the black column represents the actual dollar volume of residential building; the white column shows how much work was needed. To estimate how much building work was needed year by year is not so difficult as it sounds. Statistics are available which show the value of all residential structures year by year, and since we know that buildings of this kind wear out or become obsolete in about 50 years, it is only necessary to calculate depreciation and obsolescence at the rate of 2 per cent per year to find out how much repair work, etc., is needed annually to take care of existing residential structures.

Population figures, released regularly by the Bureau

of the Census, tell us the minimum number of new dwellings required each year for increasing population. The dollar volume total for minimum new dwelling units required, when added to the amount needed to maintain buildings constructed in past years, gives us the total estimate of building work required each year, as a minimum. These figures are represented in the chart by the white columns.

Comparing actual building with building needs year by year enables us to see quite clearly what has happened in the residential building field during the last eight years. This may also enable us to forecast, within certain limits, the outlook for 1933 and beyond.

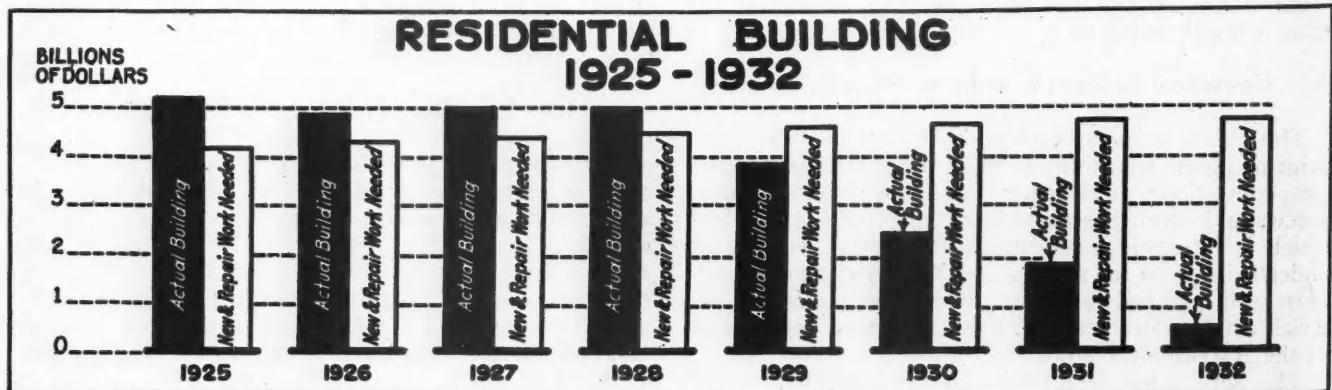
In 1925 about one billion dollars worth of residential building was constructed, above and beyond the needs. In 1926, 1927 and 1928, many more residential buildings were erected than could be used, according to the estimate of needs. At the end of 1928, in other words, there existed in this country approximately three billion dollars worth of residential buildings which were not needed—a pretty serious surplus.

Eliminating the Inflation

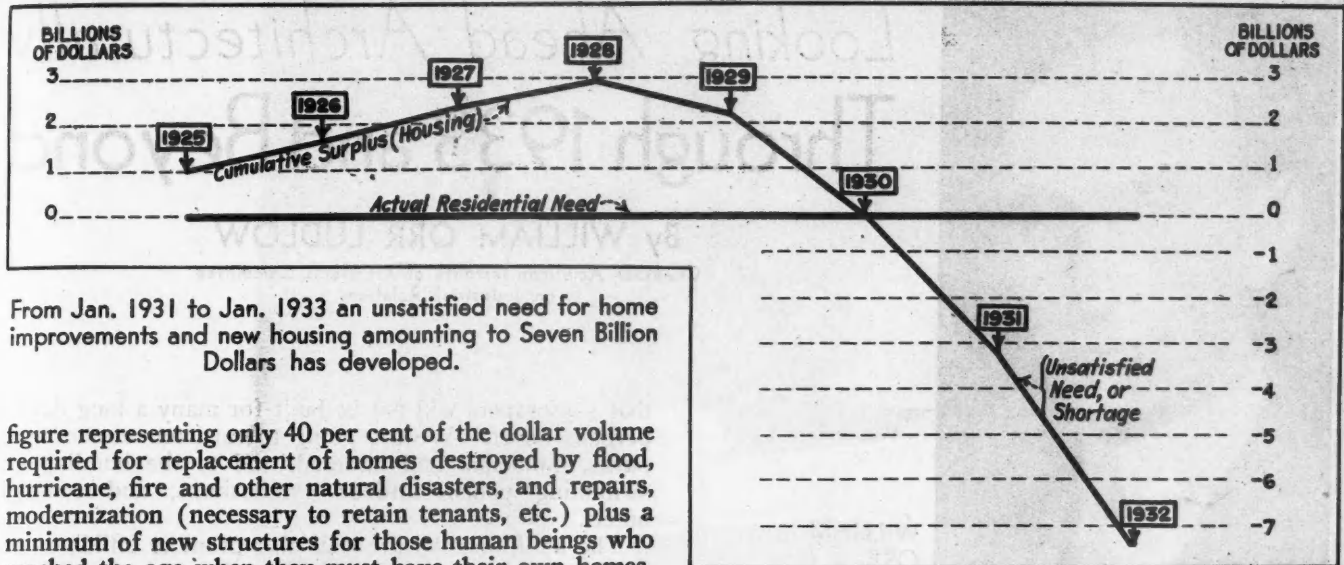
In 1929, long before the stock market debacle, building slowed down. People were more interested in the glittering promises of the magic ticker machine than in their needs for shelter. In the residential field, actual building fell short of the amount needed that year by about one billion dollars; this reduced the previous three billion dollar surplus by one-third, a trend in the right direction at that time.

The next year, 1930, actual residential building totaled only half the needed amount and this big drop in activity eliminated entirely the surplus that had existed at the end of 1928, statistically.

Building had slowed down so much during the years 1929 and 1930, especially residential building, that much hope was entertained for a revival in home building for 1931. Unfortunately, home building in 1931 reached a



The columns representing "New and Repair Work Needed" are figured on 2 per cent depreciation on existing homes plus the housing requirements for population increases year by year.



From Jan. 1931 to Jan. 1933 an unsatisfied need for home improvements and new housing amounting to Seven Billion Dollars has developed.

figure representing only 40 per cent of the dollar volume required for replacement of homes destroyed by flood, hurricane, fire and other natural disasters, and repairs, modernization (necessary to retain tenants, etc.) plus a minimum of new structures for those human beings who reached the age when they must have their own homes. Not only was the surplus of three years before wiped out; the small amount of building done in 1931, compared with the actual need, left an unsatisfied need, or shortage, of about \$3,000,000,000 of residential work undone.

During 1932 actual building in the residential field did not equal much more than 10 per cent of the needs, thus adding more than four billion dollars to the backlog of work undone. Comparison of the total amount of new and repair work needed for the years 1925-1932, inclusive, with the actual building done in the residential field shows that the building industry was *seven billion dollars behind* on December 31, 1932.

The amount of new and repair work needed to maintain existing residential structures during the year 1933 approaches very closely the figure of five billion dollars. This amount of money for materials and labor would not create any "building boom," mind you; it is just the minimum amount of money needed to make repairs, modernizations which are vitally necessary, replace destroyed structures, and provide a minimum of new dwellings to house the increased population.

In addition to the normal requirements for new and repair work in 1933, as outlined above, we must not forget the "backlog" of \$7,000,000,000 in residential work undone during the last two years before 1933. Adding these two sums, which will represent the total "pressure" on residential building, without any calculation whatsoever for speculative building or special sales promotional campaigns to induce people to purchase new homes, indicates that the total possibilities for home building of all kinds in 1933 reach the astounding total of twelve billion dollars.

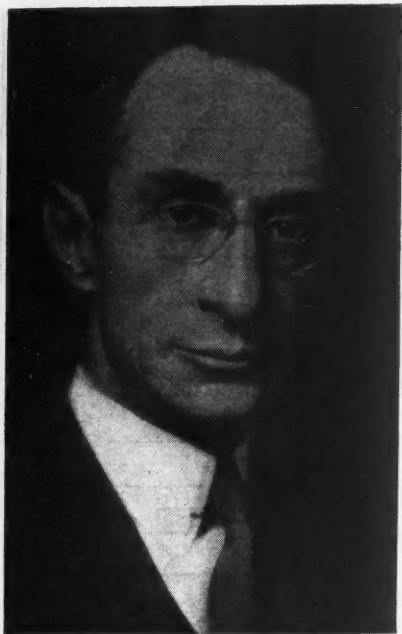
How much of this huge market potential will be translated into actual work it is difficult to predict. If manufacturers continue to deplete their sales staffs, allow the men who buy their products to forget, and follow policies defensive rather than aggressive, as has been true in many cases this past year, then there will be many manufacturers in 1933 who will complain of the poor business they have. If contractors, builders and dealers adopt a policy of "watchful waiting" during 1933, instead of aggressive, timely, well-thought-out merchandising campaigns, then there will be thousands of leaky roofs, faulty heating systems, insecure porches, inadequate housing facilities, with millions of home owners disappointed. The "buyer's market" has returned; no longer is it possible to wait for business to come to you. There is every indication that for the next three or four years, or longer, salesmanship will continue to increase in im-

portance while the "boom time" order-taking of a few years ago will disappear from the business world. How much of the twelve billion dollar potential market for residential building work will be turned into tunes on the cash registers will depend to a great extent upon what the active men of the building industry do, including those in every branch, from the presidents of huge manufacturing corporations to mechanics' helpers on the jobs.

Will There Be Another "Building Boom"?

From a statistical viewpoint there is every reason to predict a decided upturn in residential building within the next twelve months, perhaps starting in an unheralded fashion in thousands of communities in all parts of the country. The effect of stronger demand for new and repair work cannot be felt at once, for it takes time for hundreds of thousands of small orders to exert pressure on factories hundreds or thousands of miles away. And, according to the views of many builders, contractors, and dealers, there is little prospect that 1933 will show a tremendous increase in building. It is felt, however, that during 1933 the tremendous backlog in home building will exert pressure enough to develop considerably more business than was the case in 1932; this pressure will continue, it is predicted, through 1934, making that year much better than 1933; and 1935, according to the same sources, already promises to be comparatively rosy. "No 'building boom' is either needed or wanted," say building professionals; "all that is necessary is a steady, logical improvement in the industry; something which seems to be developing right now. Building is a basic industry and 'fireworks' are not a logical part of its normal functioning."

At any rate, the building industry is in a very healthy condition at present, viewed from the building economists' angle, for the present supply of shelter, especially housing, is not sufficient for the needs of existing population. Sooner or later this condition must be rectified, and that means a sharp upturn in the building industry's progress chart line. Straight thinking and hard work intelligently executed will play predominant parts in the determination of *how soon* a permanent improvement will become evident—without in any way disparaging the endeavors of those who are already bending every effort to the huge task and, surprisingly enough, succeeding to a remarkable degree in their own communities.



WILLIAM
ORR
LUDLOW,
Architect

Looking Ahead Architecturally Through 1933 and Beyond

By WILLIAM ORR LUDLOW

Chairman American Institute of Architects Committee
on Industrial Relations

IN the months and years ahead, vast change will take place in buildings, and this change will be not only in style but in kind. Breaking away from the traditional forms of architecture will bring about the change in style, and the increase in leisure time will create a demand for the kind of building that leisure time will need, according to our committee report which predicts an era of great construction activity.

The kind of building that will be required first will certainly not be the skyscraper or the factory; dwellings and institutional buildings, schools, hospitals, churches, and similar non-commercial buildings will probably lead the way.

There will be, however, a new factor in the situation that will mean great building along another line. The new factor is shorter hours of labor and longer hours of leisure. A "five-day week" is practically an accomplished fact, and perhaps the "four-day week" is just around the corner, for we shall keep on inventing ingenious machinery to replace hand work.

Whether the outcome is "five days" or "four days," the average man and woman will have an unprecedented amount of leisure time that is going to be filled with recreation and amusement. Already the automobile has nearly revolutionized our manner of living, and it will be the means of making the greatest use of out-of-doors and the buildings that go with it. The time is not far away when the hearts of our great cities will be abandoned as places for residence, amusement, and shopping, and will be given over to office buildings, centers for the distribution of freight and passengers, by rail, bus and airplane.

Amusements, shopping, and residence are already beginning the process of decentralization, as one can readily see by the establishment in suburban towns of great branches of our finest department stores, of elaborate moving picture houses and legitimate theaters; by the popularity of out-of-town apartment houses, and even in these times, when there is apparently no money for building, people have found money for building private residences in suburbs and country.

City congestion reached its limit in 1929, and the many nostrums which simply seemed to make the disease worse are giving way to the obvious cure—taking the people away from the city and not into it. It is probable

that skyscrapers will not be built for many a long day—perhaps never. We are going to turn our attention to parks, municipal and national, and to the building of swimming pools, outdoor gymnasiums, and country hotels.

The additional leisure will also promote buildings of many sorts for indoor recreation and amusement. Theaters and movie houses will flourish, great gymnasiums for football, baseball, tennis, skating and the like will be built to make outdoor sports possible indoors, for winter and at night. Our colleges, schools, hospitals and charitable institutions are even now at full capacity, and better times and more available money will bring about a great expansion of these and the new housing necessary to accommodate them.

Wiping out the Eighteenth Amendment, without the return of the saloon, but with more general leisure, may well bring about the European way of drinking, and we shall be building beer gardens, dance pavilions, and music halls; and, of course, we shall do it in the American way—on a great scale, with very big buildings.

We shall also build many straight highways for travel and traffic, and winding roads of scenic beauty for pleasure driving. Landscaping, planting, flowers, bridges, pavilions for rest, recreation and refreshment, public playgrounds, and golf courses, will of course accompany these in ever increasing numbers.

What the effect of all this will be upon us as a people is another question, its answer depending in a great measure, perhaps, on whether we build along with our recreational facilities more schools, churches, libraries, and charitable institutions, and whether we rebuild our slums with decent habitations.

But architects, engineers, city planners, landscape architects, builders, park boards, and public officials will do well to think a little in advance of the inevitable trend of affairs. They should prepare for great building activity, taking account of our rapidly changing conditions and probable mode of living, so that whatever is done shall not be done in the costly haphazard fashion of former days, but shall be planned with careful study and comprehensive scheming for the greatest economic use and the most adequate future development.

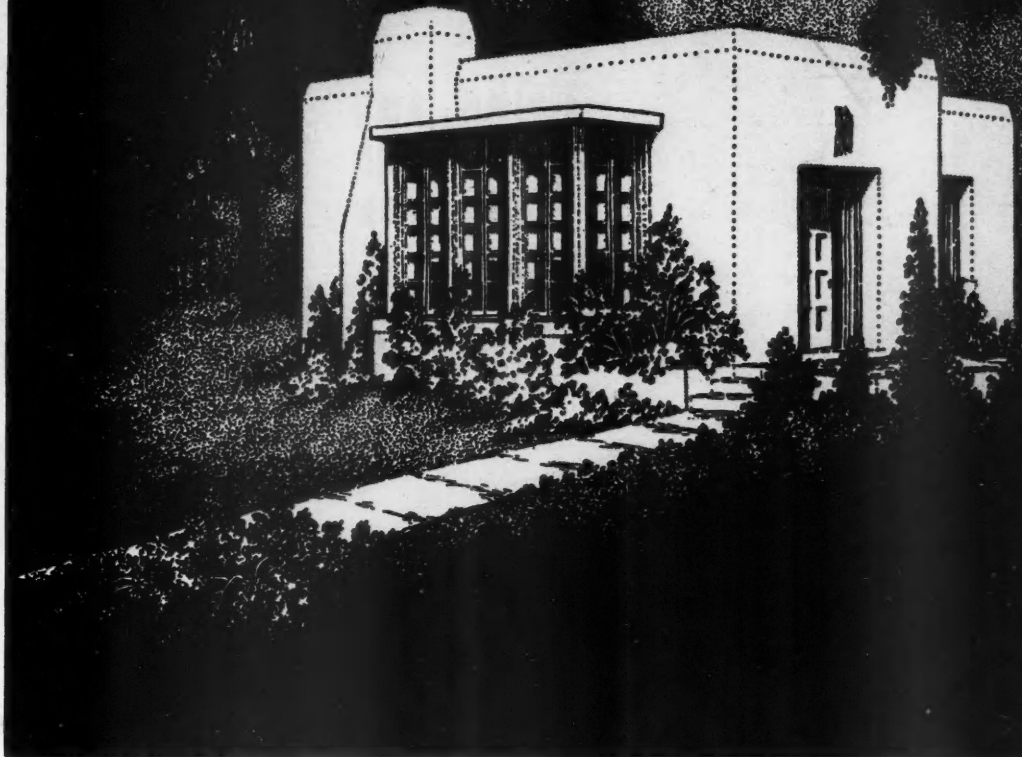
HOW COST KEY WORKS—

Every house in this issue carries a COST KEY to give the exact cost in any town by comparing it with a BASIC HOUSE figured by contractor and dealer together.

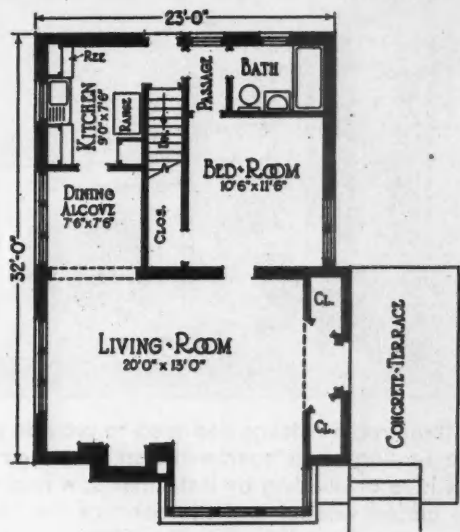
Here are what the Cost Key figures mean, using the Portland Cement Association house on the opposite page as an example.

| 1.024 Cost Rate | 120 Lin. Ft. Founda- tion | 792 Sq. Ft. Floor | 33 Yds. Excav. Per. Ft. Deep | 14 Sqs. of W'I | 8 Sqs. of Roof |
|-----------------------|------------------------------------|-------------------------|------------------------------------|----------------------|----------------------|
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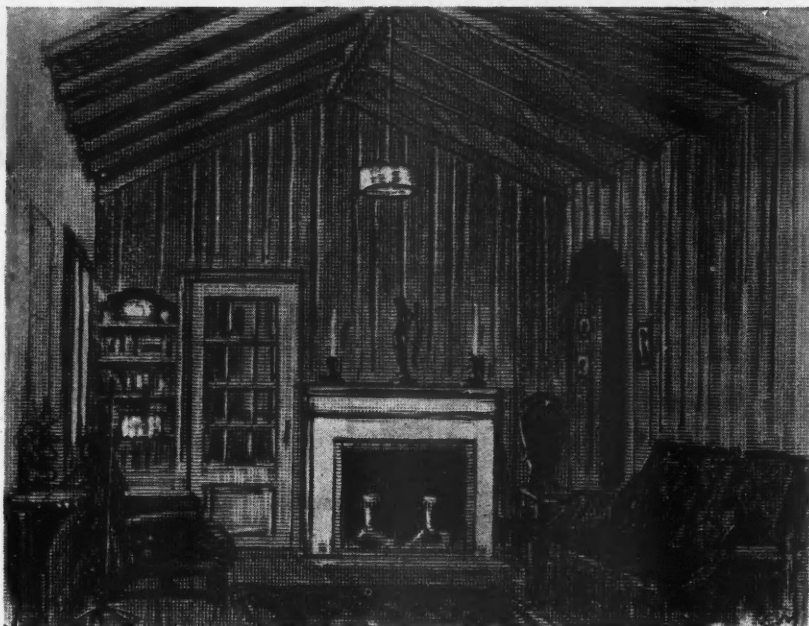
This low cost, fire-proof concrete house is one of a group averaging about \$4,000 suggested by the Portland Cement Association, Chicago. The design is modern in treatment, and a very practical arrangement.



Modern Home Plan Section
Showing
Recommended Designs
For 1933



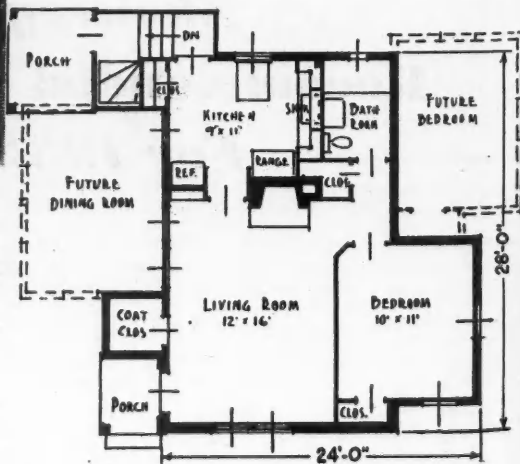
The floor plan of this concrete house is laid out like an efficiency apartment. Cost Key 1.024-120-792-33-14-8.



**Two Homes Designed
So They May Grow**

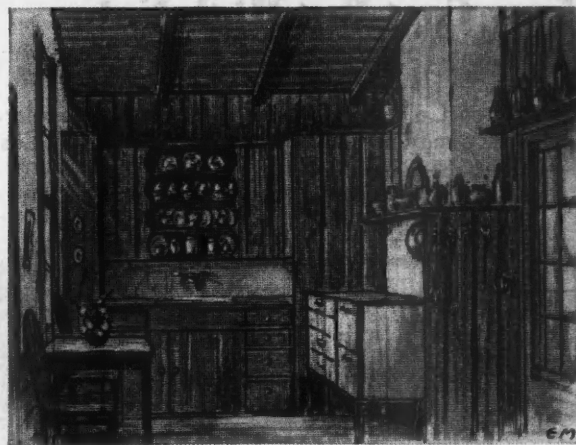
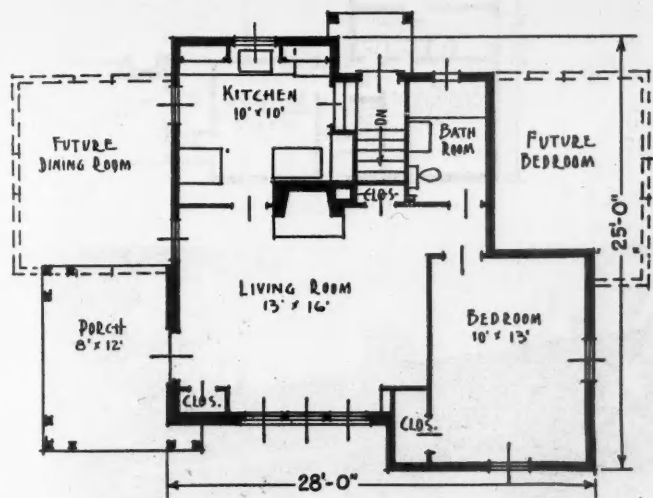
A three-room cottage designed to provide an opportunity for those who are renting small apartments to own their own homes. Carrying out the idea of building by installments, a bedroom and a dining room may be added without any alteration of the plan. The architect is Eldred Mowery. Cost Key if built as shown is .868-130-652-28-13-8. With future additions indicated Cost Key is 1.202-185-922-38-19-12.

The living room has a high ceiling following the structural line of the roof which is to be insulated. The outside walls are to be finished with plywood painted with a rough texture.



And
add
.900
Key

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Another design for a charming Colonial house that may be added to. The architect is Eldred Mowery. Cost Key is .900—112—631—28—13—9. With future additions Cost Key is 1.185—174—899—38—20—13.

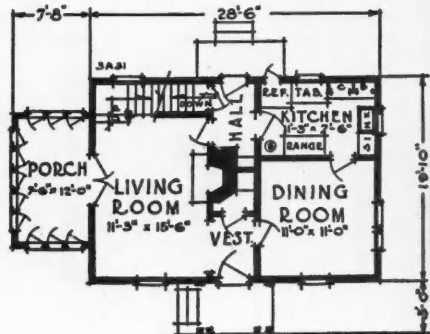
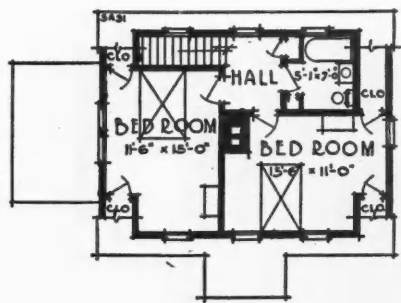
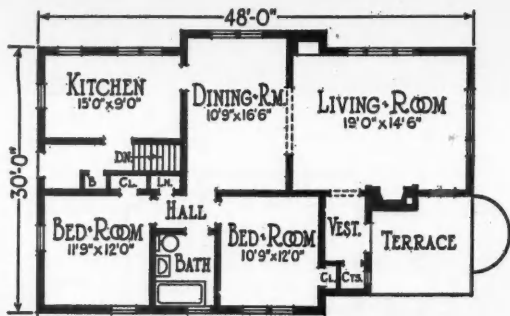
The kitchen at right above with its attractive built-in dresser, cabinet range, dining table and high ceiling appears to be an extension of the living quarters and may be decorated to carry out that idea. The bedroom will be finished entirely in plywood, walls painted in two tones, the ceiling stained. The vaulted effect is obtained by bending the plywood panels to grounds fastened directly to the rafters and tie beams.



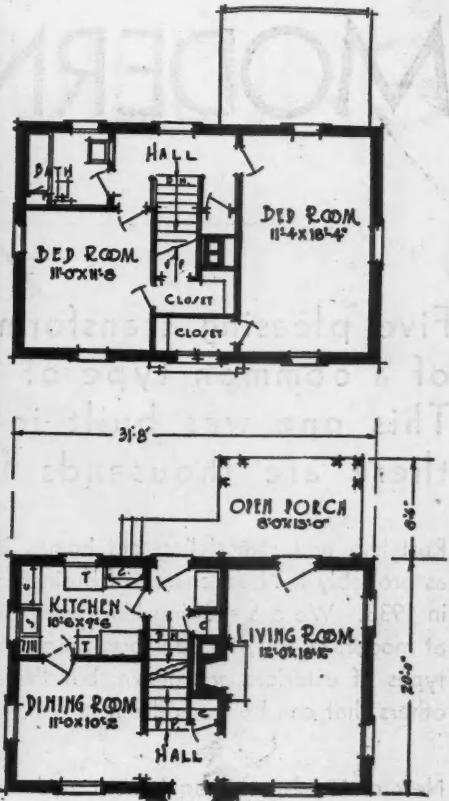
An interesting small frame home built at Seymour, Indiana, and sponsored by Better Homes in America. Cost Key 1.551—154—1200—50—19—25.

Low Cost But High Value

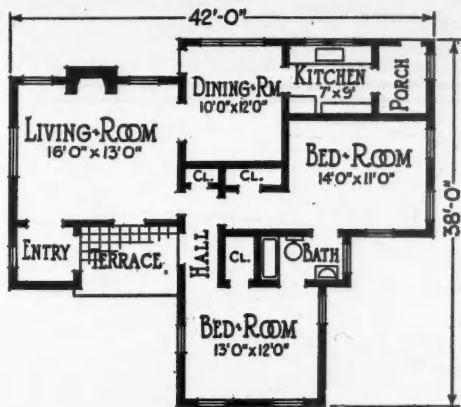
The Dutch Colonial of this type is always popular because it provides a maximum living space in small area. Cost Key 1.489.—112—668—29—19—11.



© Architects' Small House Service Bureau



Architects' Small House Service Bureau



This appealing brick Colonial (Bureau Design No. 5-A-50) is a safe and conservative design that keeps its popularity. Cost Key 1.440—104—635—28—21—11.

Popular Brick and Stucco Types

Built at Santa Barbara, Calif., famous for its prize winning homes, this stucco house has much to recommend it. Sponsored by Better Homes in America. Cost Key 1.207—192—1032—45—19—13.

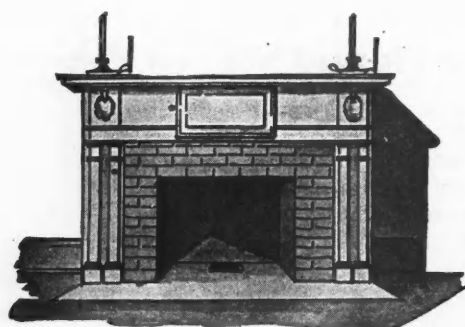
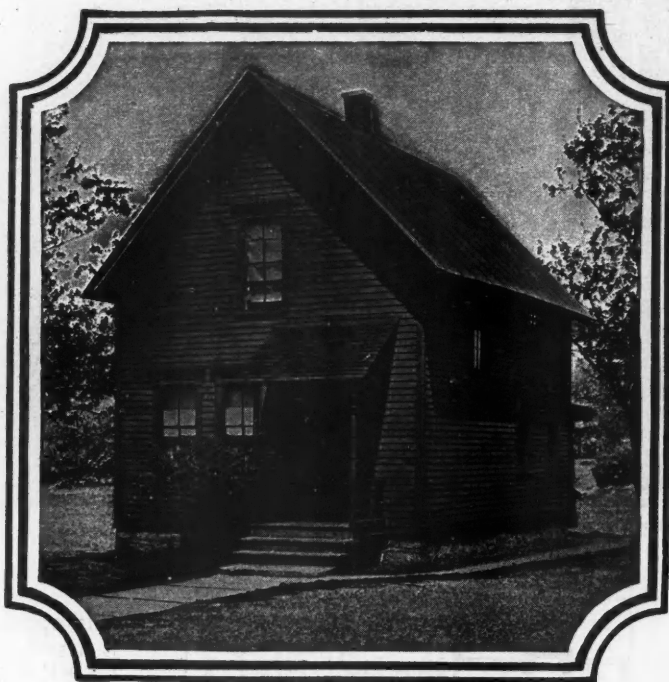


MODERNIZING—The LIVEST

Five pleasing transformations of a common type of house. This one was built in 1887; there are thousands like it.

Restyling and remodeling old homes is predicted as probably the best source of business for builders in 1933. We are showing here what can be done, at moderate cost, to transform an old house. Five types of exteriors are shown, but there are many others that can be worked out.

New materials, new equipment and new methods make the possibilities of home repairs greater than ever before. The new products simplify modernizing. Such sketches as these should be shown home owners to picture for them what can be done to bring their houses up to date.



Alteration sketches by National Plan Service, Inc.

FIELD For 1933 BUILDING



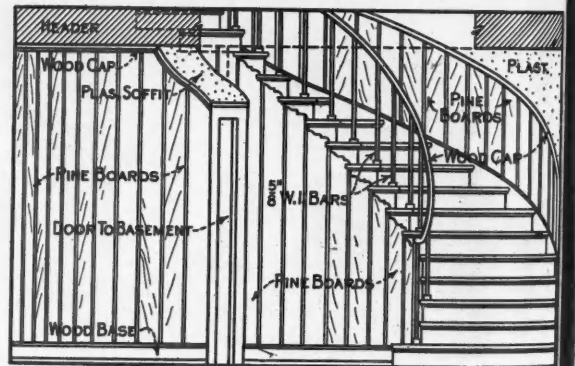
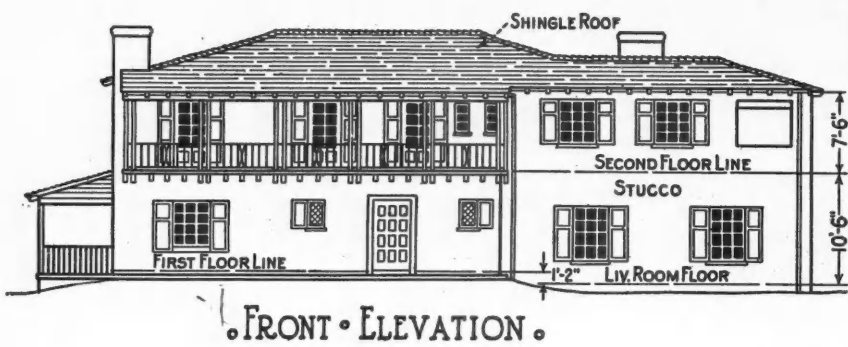
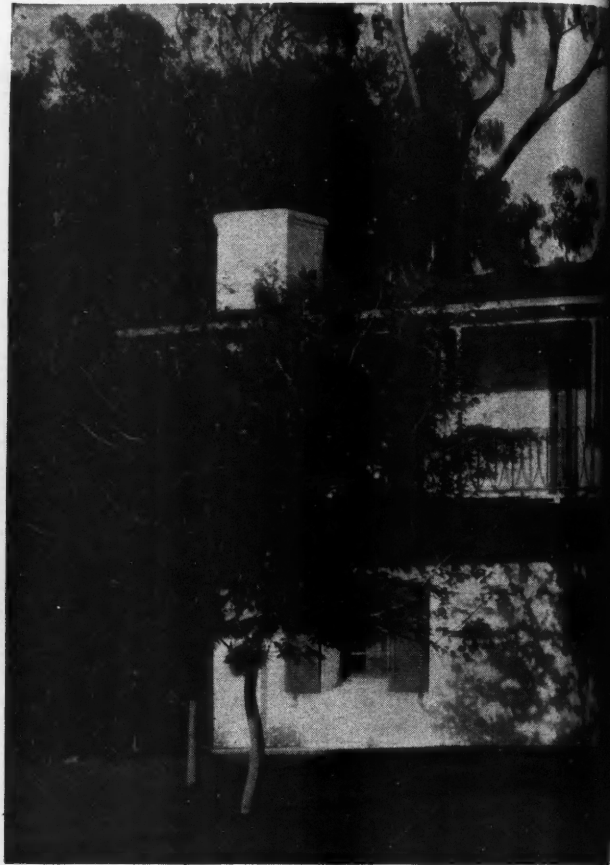
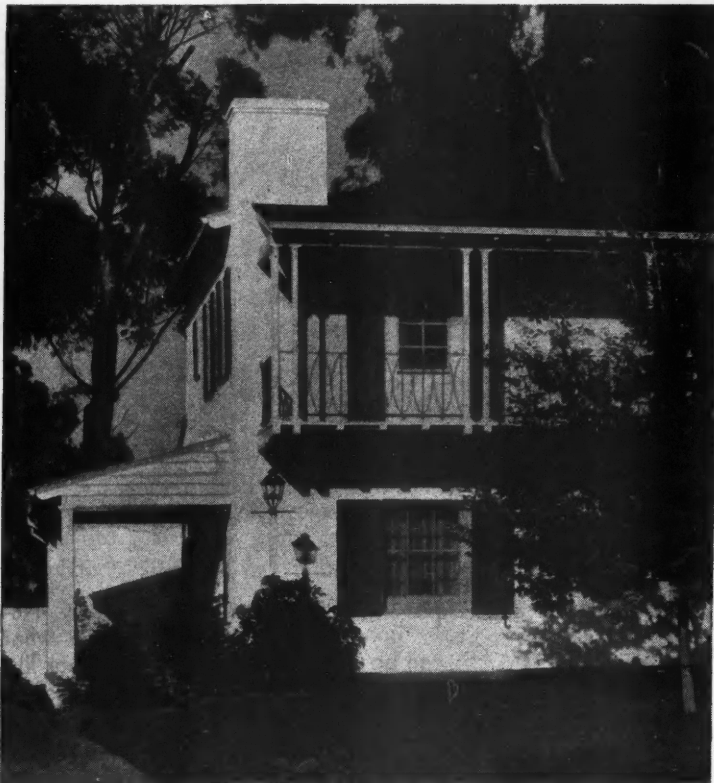
IN these drawings, prepared by National Plan Service, is shown what can be done to make old houses look like new and modern ones. To visualize for the prospective customer what you can do to his house, several sketches such as these should be made up.



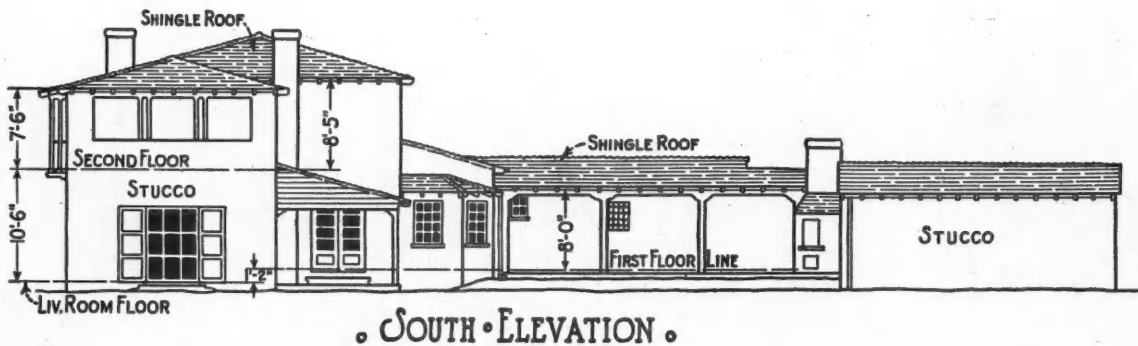
Experience has shown that one job of modernizing leads to others in the same block. The builder who transforms one of a row of old and dingy houses is usually called back to improve others nearby.



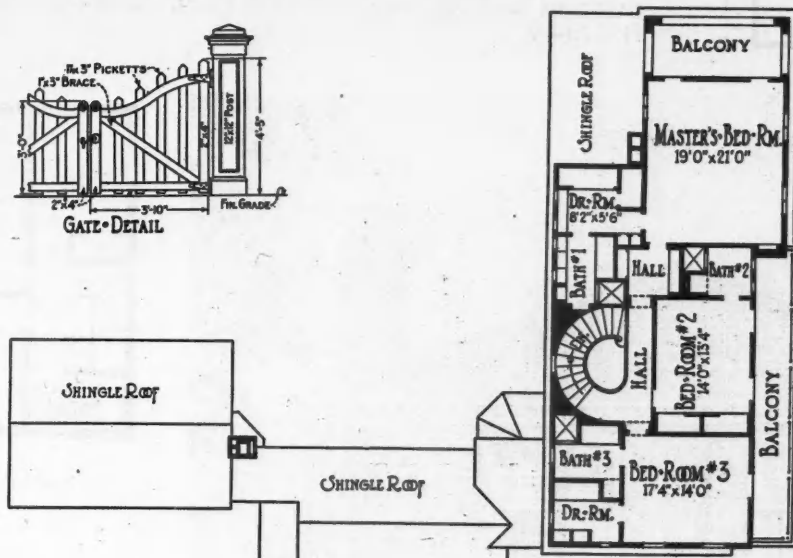
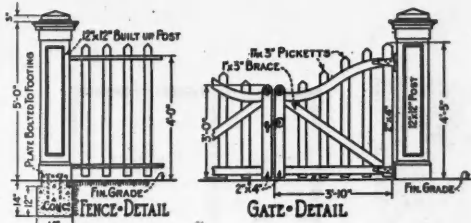
A Modern California Home In Beautiful Monterey Style



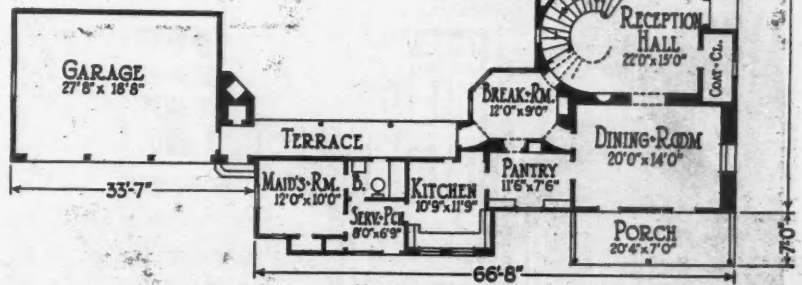
Careful detailing, as shown by the accompanying drawings, accounts for the unusual beauty of this new type of house. The architect is H. H. Whitely; the owner is Rollin L. McNitt, Los Angeles attorney.



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• SECOND FLOOR PLAN •

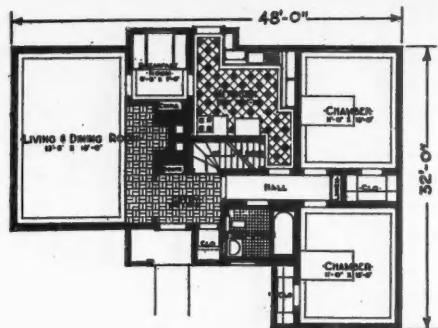
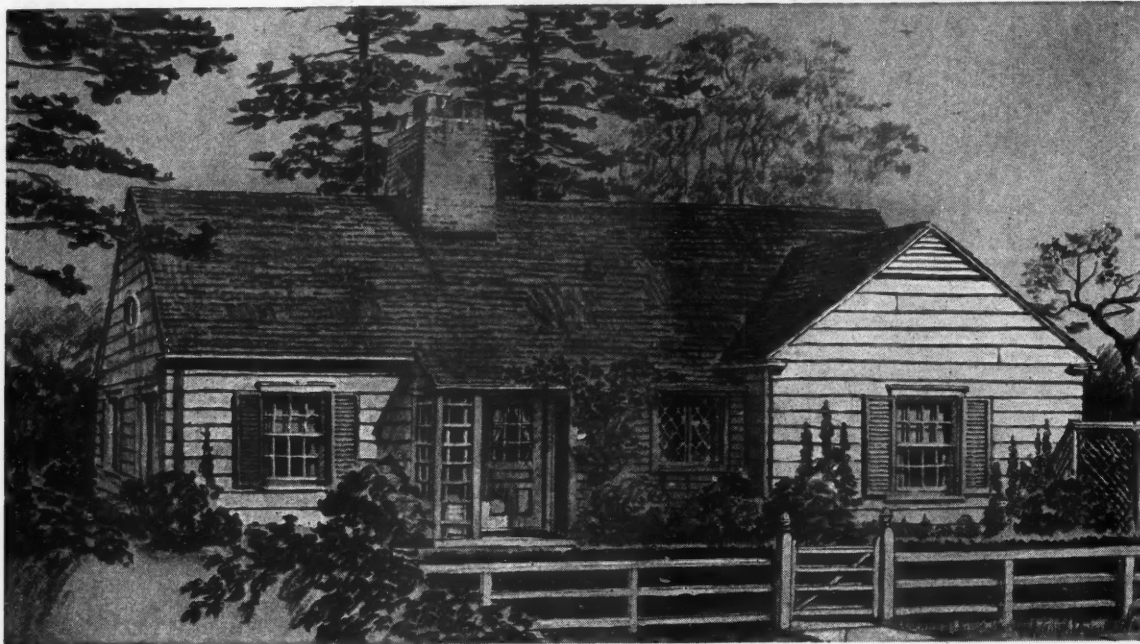


• FIRST FLOOR PLAN •

Monterey style architecture, of which this house is a fine example, combines in a simple manner the best points of Spanish and Colonial.

Cream color stucco, simple roof treatment, Colonial windows and interior, overhanging balcony, are features.

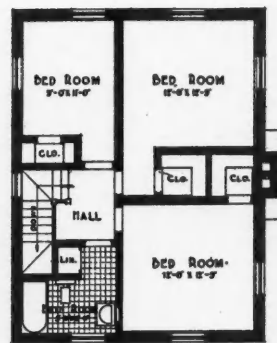
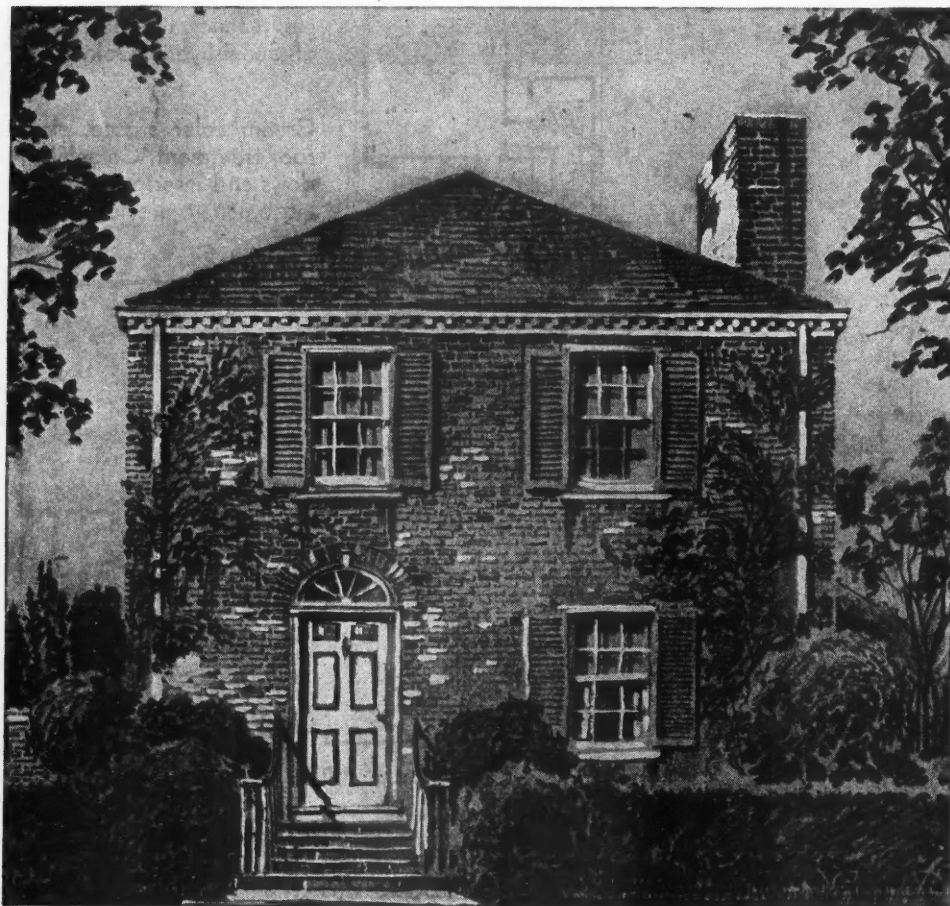
Located on a large lot with great cypress trees, this house has room to spread over a large area. A maximum amount of light and sunshine is admitted by the well placed doors and windows. The outdoor fireplace, open terrace and open porch make full use of the attractive walled yard or patio on which they face.



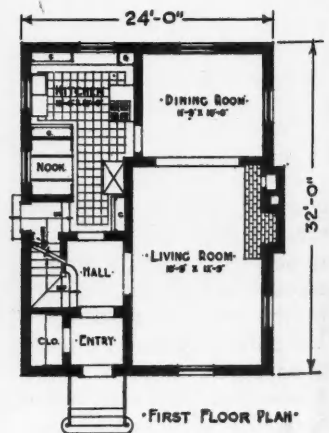
Unusually charming is this Cape Cod Colonial designed by the Architectural Guild of Small House Design. Total cubage is 18,410 cu. ft. Cost Key 1.205—154—1106—47—16—15.

Two Colonials of Authentic Design

This brick Georgian Colonial is especially good for a narrow lot. A compact plan, total cubage being 21,150 cu. ft. Cost Key 1.367—109—744—31—20—9.



SECOND FLOOR PLAN



FIRST FLOOR PLAN

Safe Financing for "Home for Growing Income"

By ELDRED MOWERY

A HOUSE as large and fine as an optimistic outlook will justify is a tremendous temptation. It is gratifying to own a home that will compare favorably with one's neighbor's. It is so easy at the moment to pay a small amount down and move in regardless of the final cost. But it is hard to wait and save until a house can be properly financed. And it is hard to limit one's desire by prosaic rules of good practice.

The rule that the value of a house should not exceed twice the owner's yearly income, and that the owner's equity should be at least 25 per cent, is good practice for both buyer and seller. Where this rule is followed, about 25 per cent of the budget will be devoted to shelter which must include fuel, taxes, insurance and other expenses incidental to owning a house. This rule is certainly safe.

It is not always an easy rule to follow. A large proportion of prospective buyers have too little cash to provide a 25 per cent equity in the kind of house they think they need. Either they must postpone ownership or be satisfied with a house that is not what they want. They try to find some way to beat the rule. Along comes the speculator with a made-to-order proposition. Cash,—what have you? Balance,—as you please. Sold! Sometimes it works. Sometimes it turns out to be not so easy as it looks.

If an easier method of financing could be found that was thoroughly sound, many more houses could be sold with a clear conscience. Owners would sleep better and speculators would be assured that their houses would sell and stay sold.

While so many people are always looking around for ways of performing miracles of financing, they overlook the obvious opportunity that is at the door of every home builder to create his own condition of easy financing properly proportioned to his individual circumstances.

The opportunity lies in building by installments, in order that the initial investment may be in the proper ratio. Future needs will be planned for in advance but not built for in advance nor paid for in advance. Cash installments on a smaller initial investment will be smaller. Instead of high fixed charges that are a strain on the purchaser there

will be room on the budget for savings to provide for a possible temporary inability.

An illustration perhaps will be the clearest explanation. Assume a young couple whose income might be as indicated in Diagram A, as little as \$150 a month at the start but increasing from year to year as a young man's income should. They have saved \$800 at the time they are married and decide to build a \$4000 house at once. Of course this small investment can hardly provide everything they expect eventually to have. But it will build the first installment of a very desirable home.

It does not seem unreasonable that their equity should be shaded to 20 per cent because they have not undertaken a difficult obligation. Thirty-five dollars a month will retire the loan in ten years. The value of the house is only slightly over twice their yearly income. A building and loan association should find them an excellent and an entirely desirable risk.

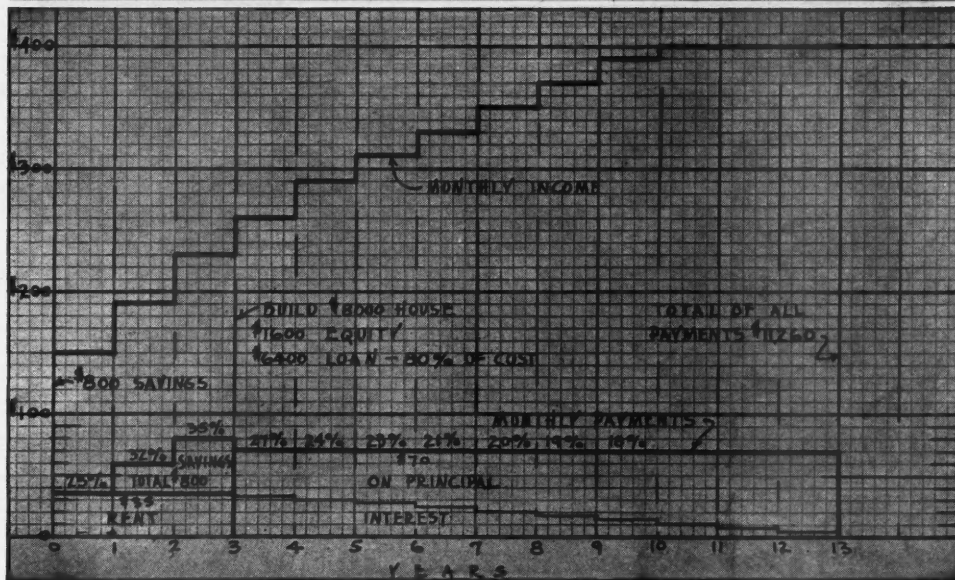
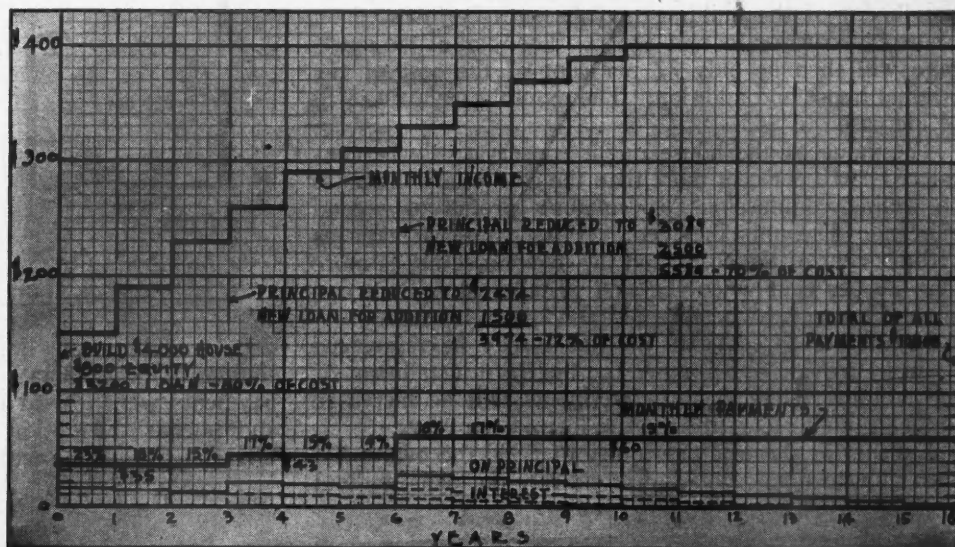


DIAGRAM A (above) shows set of graphs for home building by additions. DIAGRAM B (below) shows usual transaction in acquiring a home, built large at the start.



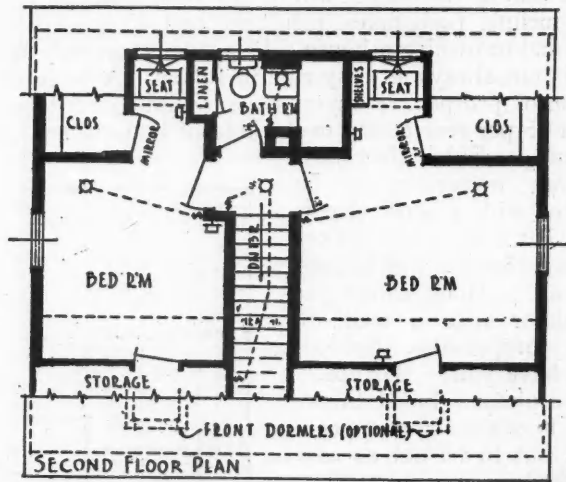
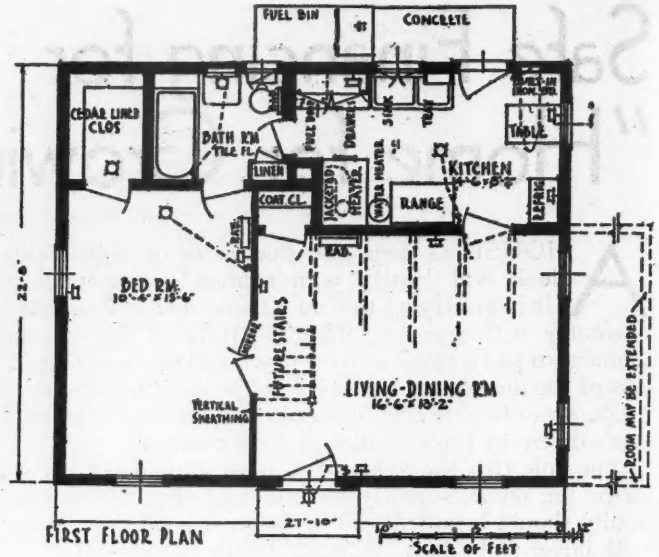
"The House for the Growing Income." Three rooms arranged in a simple and direct manner to reduce the costs of labor and material to the minimum and at the same time provide the greatest amount of serviceable space. A high attic provides space for two rooms and a bath to be finished later at the owner's convenience at very low cost. Cost Key original construction .832-101-630-27-13-10; Cost Key with second floor finished 1.091-101-630-27-13-10.

In three years the principal will be reduced to the point where, without any additional capital, the second installment of the building may be entirely financed on a new construction loan of \$1500. The total of the mortgage will then be only 72 per cent of the cost of the original house and addition. The monthly payments will be increased to \$43.

The value of the house might conservatively be considered as 10 per cent more than the cost where there are no selling commissions, speculator's profits or second mortgage discounts included. If the value is taken as 110 per cent of the cost, then the owner's equity is more than 25 per cent when the first installment is built and about 35 per cent when the \$1500 addition is made.

In another three years the house may be refinanced again to provide \$2500 more for the third installment of the building. The owner's payments will be increased to \$60 a month to retire the last loan in ten years.

Except for the original equity of \$800 the owner has been able to finance his house entirely on loans without



once stretching the limits of safety or taxing his resources to meet obligations. He has never paid rent. His payments were low at first when his income was small and he has the option of keeping them low until his financial prospects seem clear.

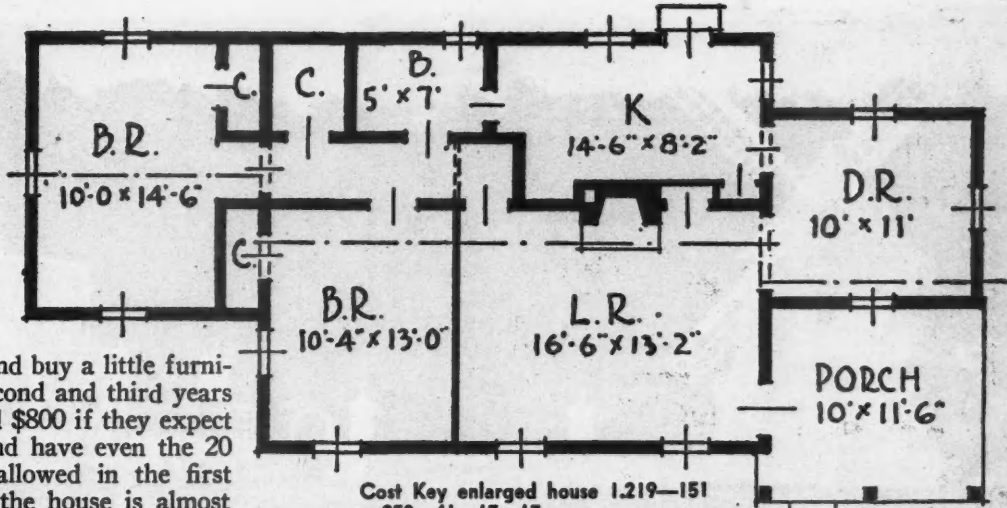
The alternative which is the more usual procedure is illustrated in Diagram B. Start with the same assumptions, an increasing income and an \$800 nest egg. Obviously with as small an income at the beginning as \$150 a month they cannot build the house which they want eventually to own. They can rent a makeshift



The living room in "The House for the Growing Income." The stairs need not be built until the second floor rooms are to be finished.

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Original floor plan appears at center of this enlarged plan, with porch and dining room added to right and bedroom to left.



Cost Key enlarged house 1.219-151
-958-41-17-17.

apartment at \$35 a month and buy a little furniture the first year. The second and third years they must save an additional \$800 if they expect to build an \$8000 house and have even the 20 per cent equity that was allowed in the first illustration. The value of the house is almost three times their yearly income. Then they must secure a construction loan of \$6400 requiring monthly payments of \$70 to retire it in ten years. Not so good a risk from the banker's point of view as in the case of A; where, at the end of three years, the principal of the loan is less than \$4000, the owner's equity 28 per cent or better, the value of the house less than twice the yearly income and the monthly payments only \$43.

From the owner's point of view also, alternative B is more difficult. The amounts paid for rent are a flat loss. The total of rent and savings for the future building consume too large a percentage of the first three years' income. For the next five or six years the budget

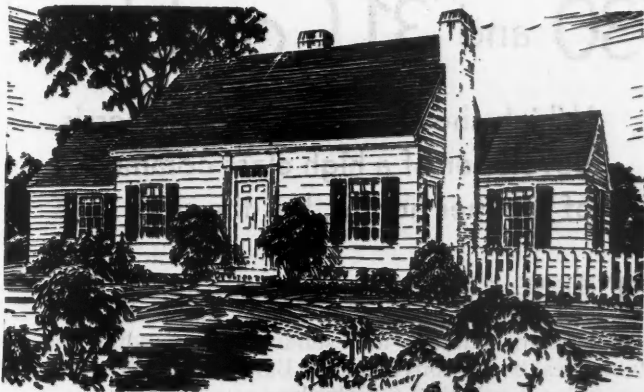
for shelter is still over 25 per cent if, to the percentage shown on the graph, is added the cost of fuel, taxes, insurance, etc. The largest payments must be made when the income is smallest.

The opposite is the case with A. Except for the first year, the proportion of the budget for shelter, exclusive of fuel, taxes, insurance, etc., is never over 18 per cent, or if these items are included well within 25 per cent. The payments increase at the option of the owner after his income has increased.

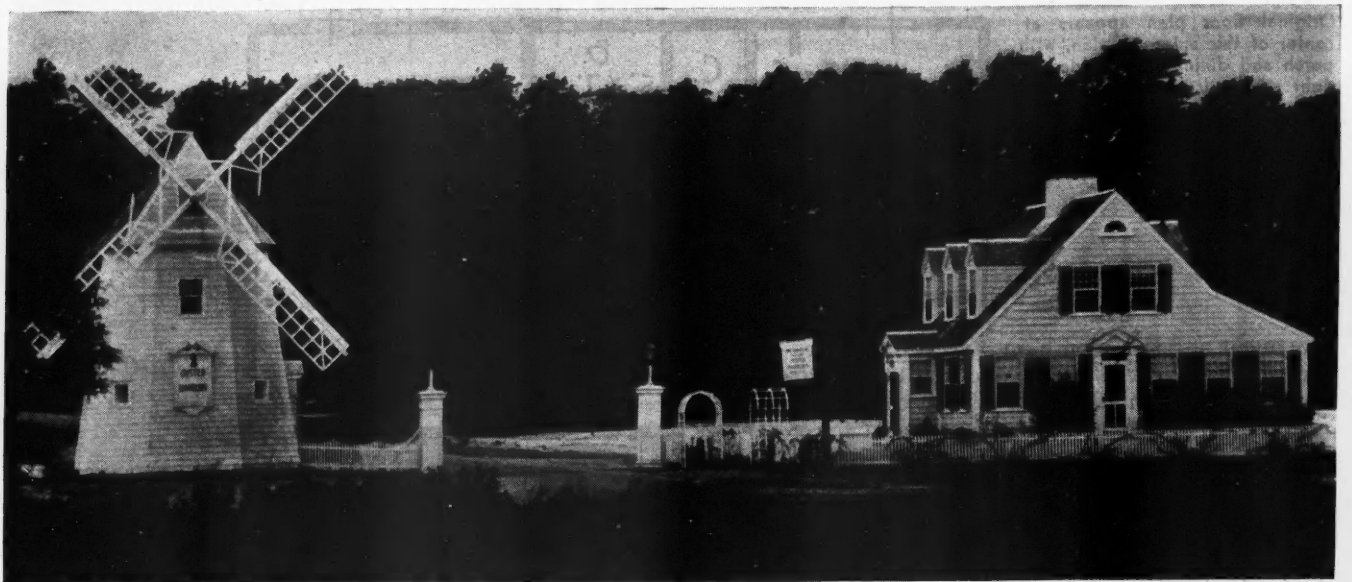
The total of all payments by A are actually less than the total of payments by B (due to the loss of rentals for three years) and are spread over sixteen years instead of thirteen years.

The expenses incidental to owning a house cannot very well be shown graphically, but it must follow as a matter of course.

(Continued to page 50)



Two schemes for additions to original unit. Cape Cod is famous for its houses built in this manner.



This quaint windmill and gate lodge guard the single entrance to Oyster Harbors, giving a pleasing first impression.

Sales in 1932 Exceeded those of '30 and '31 Combined

Which shows that Forris W. Norris, developer of a high class community of summer homes, has the right idea

THREE YEARS ago, Forris W. Norris, president of Oyster Harbors Club Colony on Cape Cod, spoke to home builders and subdividers attending the national real estate convention at Baltimore and outlined his ideas for developing a high class community of summer homes.

Since then, many unpleasant things have happened to builders and realtors, as well as others, to show that not all convention speakers know what they are talking about. It is encouraging to be able to report that this speaker, at least, did.

"The Oyster Harbors Club Colony has continued its healthy growth even during this depression, and we are happy to say that our sales at Oyster Harbors for the year 1932 exceeded the gross amount of total sales for the years 1930 and 1931 combined," reported Mr. Norris on December 22.

"The business of the Club in 1932 was greater than in 1931, a net profit exceeding by three times the net profit of the previous year.

"In my address at Baltimore I advised, and tried to show, the futility of cutting prices to make sales in a well planned subdivision, and our experience during the past year has proven the wisdom of this policy.

"The sales we have made have been effected without reducing our prices with the exception of homes already constructed which could be duplicated today for at least 25 per cent less than when they were constructed in 1928 and 1929. We reduced the price of these houses

OYSTER HARBOR - INC.
Application for Land Purchase

City or Town _____ Date _____

I, _____ hereby make application to purchase lot No. _____ Section No. _____ as shown on General Plan of Oyster Harbors by Olmsted Brothers, October, 1925, subject to the restrictions contained on the reverse hereof and at a total cost of \$ _____ Dollars.

My Check for \$ _____ is tendered herewith as a deposit against the purchase price of said lots and it is understood that Oyster Harbor, Inc. reserves the right to reject this application and return my deposit.

Applicant _____
Address _____
Business address _____
Residence address _____

OYSTER HARBORS
A SELECT COLONY OF SUBSTANTIAL AMERICAN HOMES

GATE LODGE

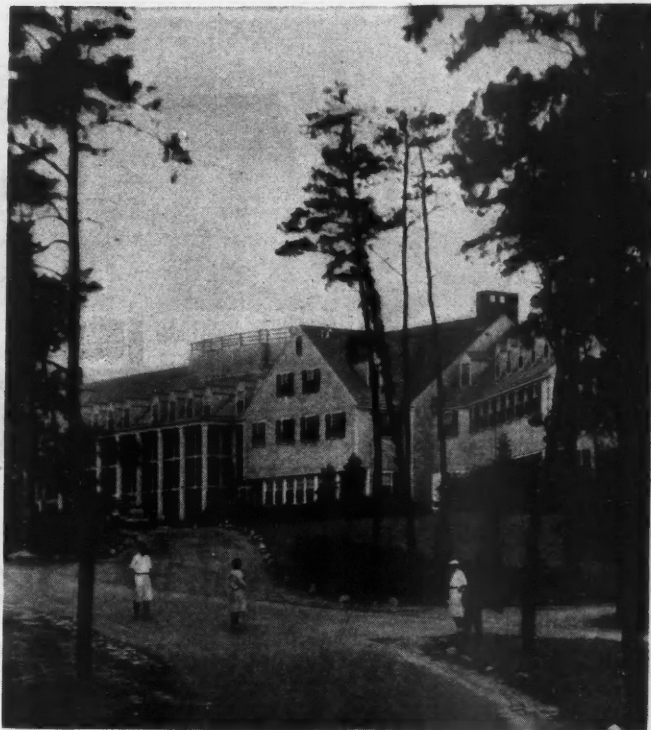
You and your family are cordially invited to become members of the Oyster Harbors Club and Residents of the Oyster Harbors Colony at Oarville in the town and county of Barnstable, Cape Cod, Massachusetts

Forris W. Norris, President
Oyster Harbors, Inc.
Oarville, Massachusetts

Dignified mailing pieces are sent to selected individuals. Above is an engraved invitation, descriptive booklet and application for land purchase.



One of the fine summer homes in Colonial style, the residence of A. Felix Dupont. Designs must be approved by developer.



Approach to the Club residence, a helpful selling aid. People who stay there get acquainted and become permanent owners.

above the land 15 per cent, and our sales of them were effected on this basis.

"We have three very fine homes under construction at Oyster Harbors this winter, one of the owners paying over \$100,000 for his land, while his home will cost above the ground including landscaping and outbuildings in excess of \$100,000. Another home including the land will exceed \$40,000.

"An interesting feature of the Oyster Harbors Colony in 1932 was the fact that we did not have a single house which was for rent—vacant. This is a condition I do not believe existed in any other summer resort on the Atlantic seaboard, or elsewhere. The remarkable part of this was that we had a large number of owners who felt the necessity of curtailing, and desired to rent their homes, and in every case we were able to effect a rental at a satisfactory return to them."

What were the principles laid down in 1929 by Mr. Norris? Briefly they may be summarized:

1. Climate—Fresh cool air, summer winds, no fogs, even temperature.

2. Location—Easy to get to by train, motor, boat.

3. Landscaping—A naturally beautiful tract developed by best landscape architect available. Roads placed well back from properties. Contour map made. Located house sites before lot lines. Power lines concealed in woods. A skillful plan for the entire project.

4. "Club" Feature—Said Mr. Norris: "After long and careful study of both the social and legal aspects of restrictions, I believe that a Club Colony affords the greatest protection for all concerned.

"In a Club Colony, a Board of Governors is elected or appointed. All names of applicants for the purchase of land must be approved by the Board. An applicant who is rejected need never know who objected to him.

"The requirements for eligibility to such a Colony as we are discussing are good breeding and refinement. Money is a consideration only insofar as it determines the purchaser's ability to buy. I believe that a most interesting and delightful community results where col-



One of the smaller cottages, in Cape Cod style. Such pictures as those above are sent out as part of mailing pieces to acquaint prospects with the beauty and charm of the property.

lege professors and other professional men are living in complete social accord with their wealthier neighbors. At Oyster Harbors some of our most valued residents are those with modest incomes.

"Architecturally, as well as socially, we believe that money is a false standard. The inexpensive house of good taste and good design is a greater asset than an ostentatious place that has no character. Accordingly, I believe that it is better to place no cost restrictions on houses. To achieve architectural harmony it is essential to determine what general type or types of houses are suitable to the locality and to reject plans for houses that would be a false note.

"Subdividers have an opportunity to exert a far-reaching influence on the public taste. Often, a purchaser who knows nothing about mass and line can be given an interest in a design that is good. When his experience is greater and he realizes that you have helped him

(Continued to page 46)



Truck Display Sells Farm Structures

Michigan Firm Takes Its Offerings Right to the Farmer's Doorstep

THE necessity for sales has proved during 1932 the mother of invention for numerous unique and unusual selling stunts. Probably 1933 will see more of the same among both retail lumbermen and builders. One enterprising plan utilized to good effect by Vosler & De Loof of Kalamazoo, Mich., was to fix up a motor truck as a traveling display of popular small farm buildings and carry the sale directly to the farm doorstep. Three insulated farm structures were displayed—a brooder house, a milk house and a hog house—besides such other needed items as garage door hardware, water supply system, etc. The salesman accompanying the truck is a man who knows the farmer's viewpoint and appreciates his problems. Stopping in a farmer's yard, this salesman is able to show the farmer the particular advantages of each of the outfits carried on the truck. But more important than this, he is maintaining a close relationship between this supply company and the farmers in their territory so that he is not only building immediate sales but also sales in the future.

Since these three small farm structures are so well designed and constructed, we present on the opposite page their working drawings, and list below the materials required for each.

THE "A" TYPE HOG HOUSE: Hog raisers realize that fresh pasture or ground that has not been put into crops is practically free from disease germs. This knowledge has greatly increased the demand for portable hog houses, of which the "A" type is the best known and probably the most satisfactory.

| Bill of Materials | | | |
|--|-----------------------|------------|------------------------|
| Use | Size | Quantity | Description |
| Celotex or other fibre board. 1—4' x 8'. 2—4' x 12'. Total 128 sq. ft. | | | |
| Skids | 2" x 4" x 8' | 2 pcs. | Bevelled Ends |
| Sills | 2" x 4" x 14' | 2 pcs. | |
| Studs | 2" x 4" x 12' | 3 pcs. | |
| Cross Braces | 2" x 4" x 14' | 2 pcs. | |
| Guard Rails | 2" x 4" x 14' | 2 pcs. | |
| Guard Rails | 2" x 4" x 10' | 1 pc. | |
| Ridge Board | 1" x 8" x 8' | 1 pc. | |
| Boards | 1" x 6" x 12' | 5 pcs. | Rough Lumber |
| Door Boards | 1" x 4" x 8' | 3 pcs. | T. & G. Y. P. Flooring |
| Trim | 1" x 3" x 12' | 2 pcs. | Dressed |
| Trim | 1" x 4" x 14' | 7 pcs. | Dressed |
| Stop | 1" x 2" x 12' | 1 pc. | |
| Ridge Cap | | 8 ft. long | |
| Hinges | 4" strap | 1 pr. | |
| Nails | 10d common | 3 lbs. | |
| Nails | 8d common | 8 lbs. | |
| Nails | 1 1/4" with 3/4" head | 6 lbs. | Galvanized Roofing |
| Haap and Lock | | 1 | |

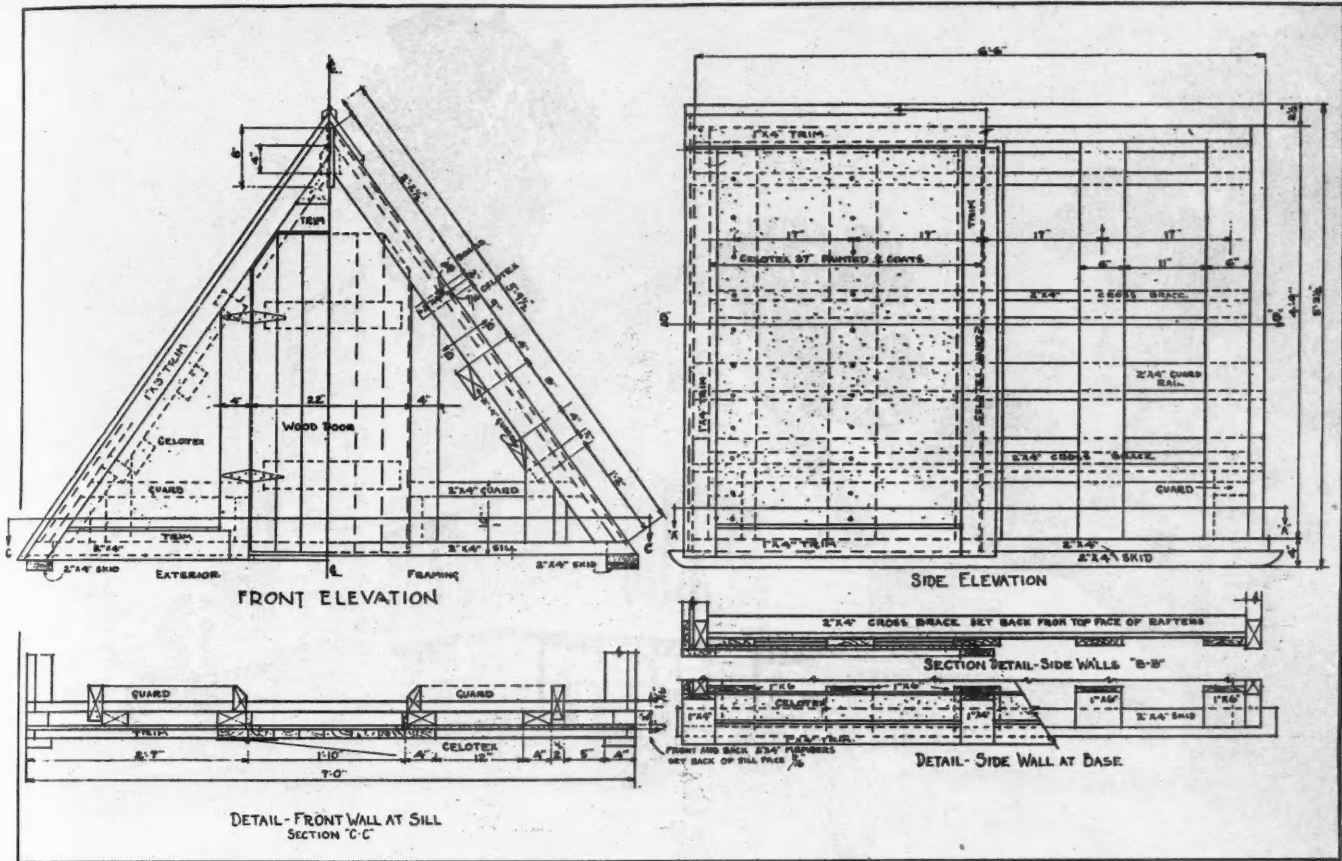
THE SHED TYPE BROODER HOUSE: Poultry raising can become profitable only when the business is carried on in proper buildings. An insulated brooder house with a well regulated stove and properly operated ventilating flues, provides a safe starting house for baby chicks. The walls consist of a single layer of insulation board, sized and painted on the outside for weather protection. The roof and floor are also insulated as shown on the drawing.

The brooder house constructed from these plans will provide 300 baby chicks with an ideal home—strong, warm, light in weight, well ventilated, dry, and with an abundance of light.

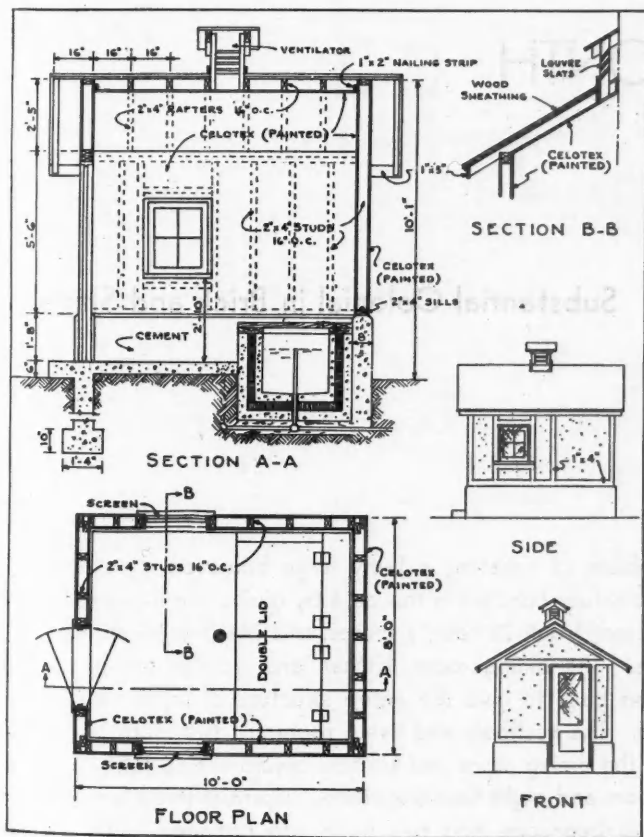
| Bill of Materials | | |
|-----------------------------------|---------------|-------------|
| Use | Size | Quantity |
| Skids | 4" x 6" x 14' | 4 |
| Window Stools and Cheeks | 2" x 6" x 12' | 2 |
| Rafters, Studs, Headers | 2" x 4" x 14' | 20 |
| Sills, Plates, Headers | 2" x 4" x 12' | 5 |
| Joints, Sills, Plates, Studs | 2" x 4" x 10' | 15 |
| Roof Sheathing | 1" x 6" x 16' | 25 |
| T. & G. Flooring | 1" x 4" x 12' | 33 |
| Trim and Door Framing | 1" x 4" x 16' | 19 |
| Window Stops | 1/2" x 1 1/4" | 50 lin. ft. |
| Celotex or other insulating Board | 4' x 8' | 4 pcs. |
| Barn Sash | 4' x 10' | 6 pcs. |
| Hinges for Door | 4' x 12' | 6 pcs. |
| Door Latch | 10" x 12" | 4-6 lt. |
| Hinges for Windows | 5" "T" | 2 |
| 1" Poultry Mesh | 3" "T" | 1 |
| Screen Wire | 36" wide | 15 lin. ft. |
| Roll Roofing | 24" wide | 50 lin. ft. |
| | 3 ply | 2 squares |

THE MILK HOUSE: City health authorities are insisting on a more sanitary control and co-operation in handling milk by the dairy farmer. This house, meeting the requirements in regard to sanitation, provides also proper cooling by running water and proper drainage.

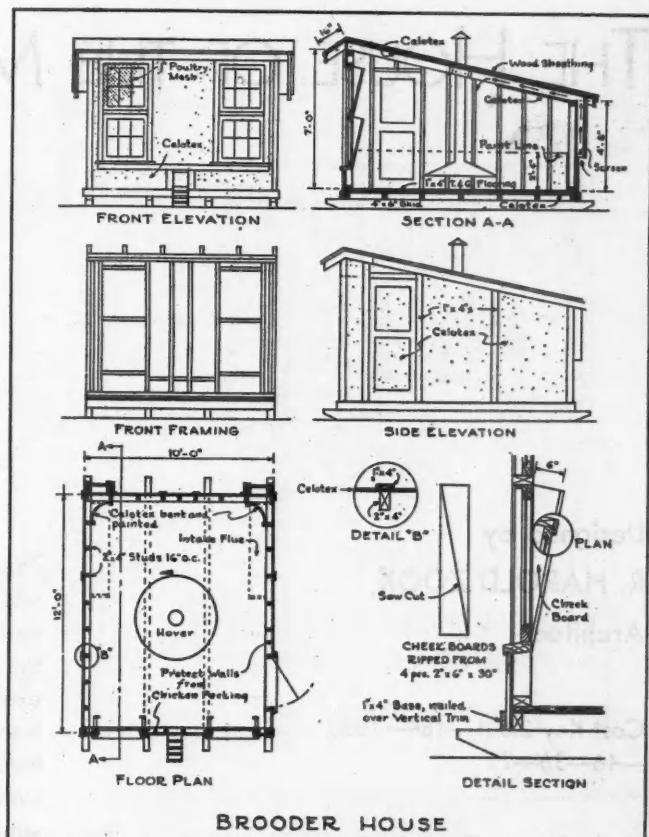
| Bill of Materials | | |
|---------------------------------|---------------|--------------|
| Use | Size | Quantity |
| Celotex or other fiber boards | | |
| | 4' x 12' | 9 |
| | 4' x 8' 6" | 3 |
| | 4' x 8' | 7 |
| Rafters, Studs, Headers | 2" x 4" x 12' | 18 |
| Sills, Plates, Studs | 2" x 4" x 10' | 19 |
| Sills, Studs, Ventilator | 2" x 4" x 8' | 10 |
| Window Sill | 2" x 6" x 8' | 1 |
| Roof Boards No. 2 Shiplap | 1" x 8" | 280 lin. ft. |
| Drop Siding (Optional) | 1" x 6" | 220 sq. ft. |
| Ridge Board and Louvre Slats | 1" x 6" | 24 lin. ft. |
| Trim around Roof | 1" x 5" | 50 lin. ft. |
| Trim (Outside) etc. | 1" x 4" | 360 lin. ft. |
| Trim (Inside) | 3/4" x 3" | 260 lin. ft. |
| Furring and Nailing Strips | 1" x 2" | 70 lin. ft. |
| Frame and Sash and Screen | 2" x 2" 5" | 2 |
| Frame and Door and Screen | 2" 6" x 6' 8" | 1 cu. ft. |
| Concrete (to 3' 0" below grade) | | 160 cu. ft. |
| Roll Roofing (Heavy) | | 2 squares |



THE "A" HOG HOUSE—dimensioned drawings of insulated struc ture which can be easily built by lumber dealer or carpenter and sold to farmers. Orders are taken from the sample displayed on the truck as shown opposite.



THE MILK HOUSE—dimensioned drawings of well-designed insu- lated building useful to dairymen.



THE BROODER HOUSE—dimensioned drawings of shed roof insu- lated house for young chicks.



THE HOUSE OF THE MONTH

Substantial Colonial in Brick and Shingles

Designed by
R. HAROLD ZOOK,
 Architect

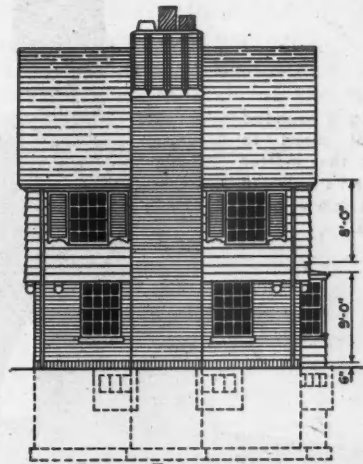
Cost Key 2.601—184—1060
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The problem of creating a fairly large house on a narrow plot was successfully handled in this case by giving the living room the entire street front, 29 feet, 2 inches, and placing the entrance on the side. The dining room, kitchen and garage are in a wing extending back to give the entire structure a depth of 62 feet, 5 inches. The vestibule and living room are two steps below the level of the dining room and kitchen, giving a nine foot ceiling in living room and eight feet elsewhere. Upstairs three large, cross-ventilated bedrooms and two baths are provided. The second story of timber construction has the characteristic Colonial overhang. Working drawings presented on the page opposite.

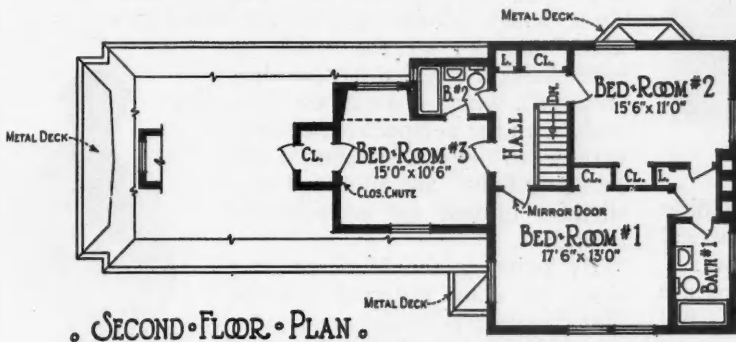
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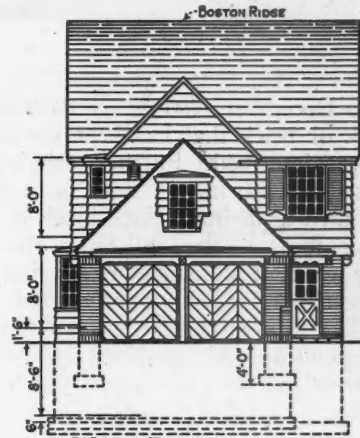
◦ SOUTH ◦ ELEVATION ◦



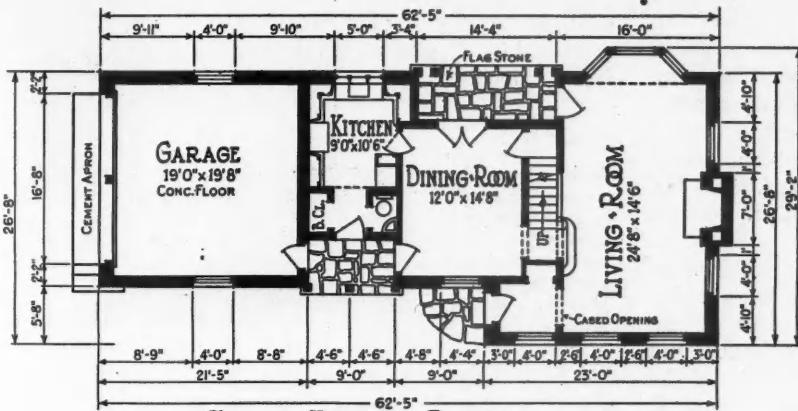
◦ EAST ◦ ELEVATION ◦



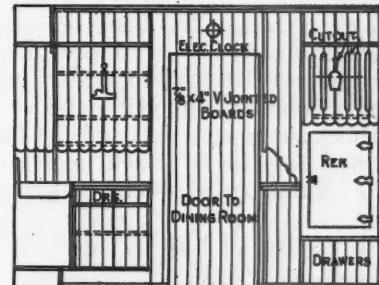
◦ SECOND FLOOR PLAN ◦



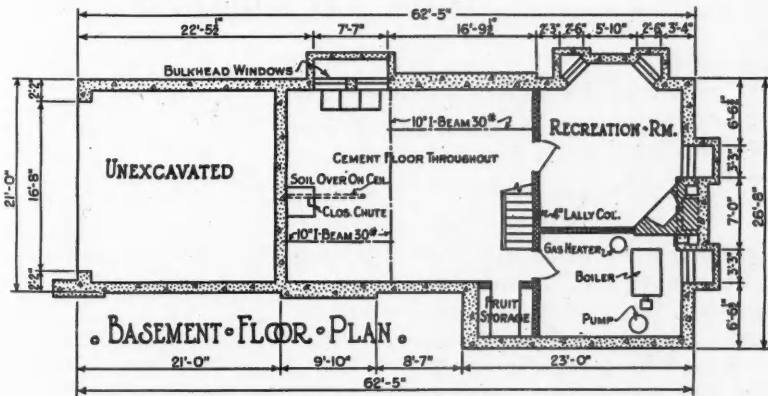
◦ WEST ◦ ELEVATION ◦



◦ FIRST FLOOR PLAN ◦



◦ DETAILS OF KITCHEN CASES ◦



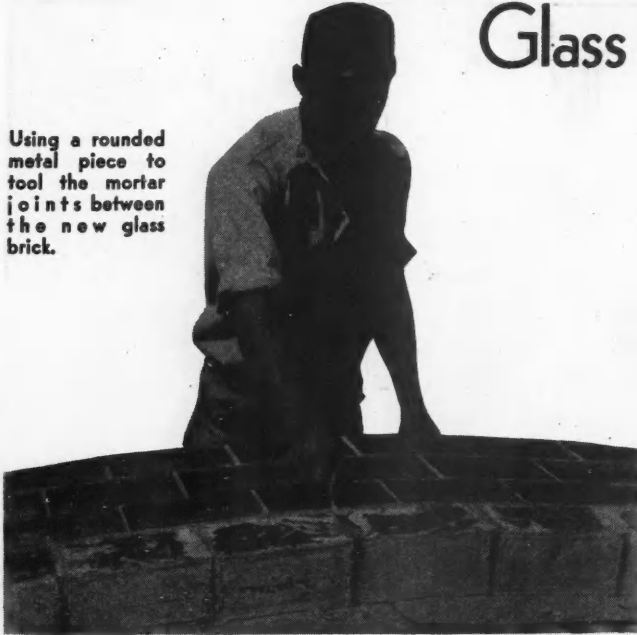
◦ BASEMENT FLOOR PLAN ◦



Plans and elevations of seven-room and garage Colonial Home in brick and shingles; R. Harold Zook, Architect. Scale is slightly less than 1/16 inch to the foot; by the photo-enlarging process these drawings can be easily brought up to 1/4 inch for further detailed study.

Glass Building Brick Takes Practical Form

Using a rounded metal piece to tool the mortar joints between the new glass brick.



IN the December AMERICAN BUILDER, a glass building block or brick that has been developed to a practical stage was described. Further technical details follow:

This unit with its six sides is of a shape masons are accustomed to laying. Each block is supported by a full bed for mortar, thus allowing the work to progress rapidly without difficulty in keeping proper alignment.

The surfaces which would normally be in contact with the mortar are painted in the factory with a cement paint. The reasons for this are: (1) to effect a bond between the mortar and the glass block; (2) to prevent the mortar from dropping off the block; (3) to give the block some suction while it is being laid; (4) to prevent water from penetrating the wall between the block and the mortar; (5) to eliminate the unsightliness of air pockets in the mortar.

The mortar materials used and their mixing and preparation have a great influence upon the ease with which the block is laid. The bond, elastic properties of the mortar, expansion due to temperature and moisture, and water tightness are all important factors. Due to the lack of suction and the brittleness of glass as compared to other masonry materials and the fact that most of the walls will only be 4" thick, high grade mortar is required. A number of special masonry cements are satisfactory.

With the use of a 3/16" joint and the cement paint previously applied to the surfaces in contact with the mortar, difficulties experienced in laying up masonry units without suction have largely been overcome, it is claimed. The manufacturers state that a good mason can lay up to 500 of the glass block per day, tool finished and wiped off on both sides.

The joints should be tooled with a round, pointed rod as shown in the accompanying picture. This tooling should be done when the mortar reaches its initial set, and the face of the joint should be vigorously rubbed with the tool to produce a smooth surface. This joint finishing seals the surface of the joint and prevents leakage.

Cleaning the excess mortar from the block is done by removing it with a rough cloth or with steel wool.

The application of colored cement paint to the glass block provides a new means of architectural treatment. Light reflected from the cement paint on the surfaces in

contact with the mortar gives the effect of tinted, light-colored glass. Because of the transparency of the glass, the colored mortar joints are seen in various patterns, depending upon the perspective. This is an entirely new architectural treatment, and is obtained without the expense of colored glass and intricate masonry patterns.

The glass block can be laid up to form geometric patterns. Color effects can be obtained by reflection of colored cement paint, or even a wider range of colors fused on by a color application and decorating process involving high temperatures. This is done on the sides in contact with the mortar. The translucency of the block, which admits light to the building and through which one can see the inside of each block; the varied pattern thus presented, which changes continuously with the perspective; and the variety of effects produced by changing lights, are all added possibilities offered for architectural treatment.

By painting the block on five sides, the color reflected into the flint block gives it the appearance of one made of colored glass. In fact, the appearance not in direct sunlight is so genuine that with some colors it cannot be detected from a block made of colored glass.

A high grade masonry cement is used with the glass bricks. The workman is demonstrating its application and consistency.



New Wood Tile Is Tried Out for Building Purposes

By HARRY D. TIEMANN

U. S. Forest Products Laboratory

WITH so much being said about mass production and unit construction, it seemed a good idea to make small building units or blocks out of short pieces of lumber, so constructed that they could readily be fitted together by anyone.

This scheme has been experimented with in a minor way by the author and is described here not with the thought that such construction can equal or replace standard building construction, but with the idea that it may be worth further development and experimentation.

The units or blocks are small and hollow. On account of their analogy to clay building tiles, I have termed them "interlocking wood tiles."

It is my thought that the stock pieces of which the

"tiles" are made would be cut and finished at the sawmill and shipped in solid bulk loads to nailing factories or retail lumbermen at local distributing points as is now practiced in box manufacture.

While it is obvious that many variations and modifications are possible, the following description is for one specific form for the wood tiles. There are, in general, just four different shapes required. The two principal constructional units are shown in Figure 4. The *A* tile is conveniently 32 inches in length, and the end-tile *B*, 16 inches. Width conforms to standard shiplap or whatever other siding it is desired to use. The upright pieces, or half-studs, project top and bottom half the width of the siding. These half-studs are so spaced as to slip together in pairs, the joints being staggered. Ends should abut upon one another to receive the entire vertical thrust, any shrinkage of the siding being independent of the vertical members.

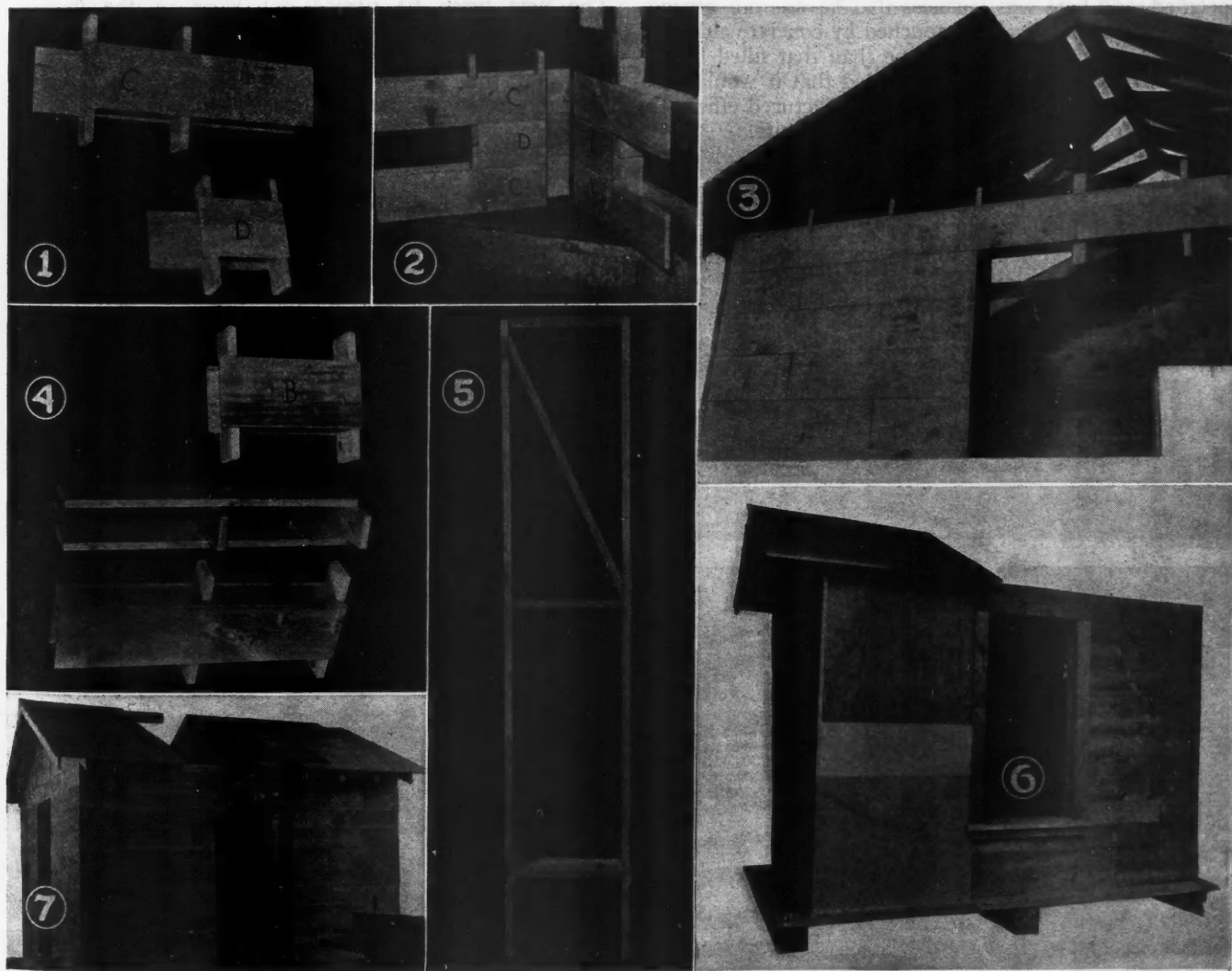
The spacing of the half-studs is such that alternate layers of tiles are laid in staggered arrangement in reverse directions, the short *B*-tiles being used to fill out the staggered half portions at the ends of the walls and at the window and-door casings.

The corner construction requires two shapes similar to the *A* and *B* tiles, but blocked out for the inset of the abutting wall. These *C* and *D* corner tiles are shown in

Figure 1. Obviously they must be furnished in rights and lefts for the opposite corners. The manner in which these corner tiles fit into the corner is shown in Figure 2. A partially completed structure built of the wood tiles, without window or door frames, is shown in Figure 7. An ordinary roof may be used; this part of the building may also be made of sectional braced units. A double rafter unit is shown in Figure 5 and a portion of the unit-built roof in Figure 3. A more complete sample house is shown in Figure 6 in which plywood has been used as an outside covering on one corner.

Deflection tests were made on a single panel 8 by 8 feet built somewhat as here described. The panel was supported along the top and bottom edges and pressed perpendicularly to its surface to simulate the effect of wind pressure. As expected, the unnailed panel held together merely by the interlocking elements was excessively flexible. When well nailed, both by driving nails through the overlapping half studs (splicing) and with cleats nailed on the outside, the nails passing through the siding into the studs, the wall was actually stiffer than standard.

It is obvious that various combinations of siding may be used for the tiles. Thus solid wood lath in place of the siding will permit direct plastering inside or out. Ceiling, or tongue-and-grooved boards may be used on the inside and shiplap on the outside.



Details of new wood tile construction are shown above as follows: 1—Corner tiles furnished in rights and lefts. 2—How corner tiles fit. 3—Detail of a unit-built roof. 4—The two principal construction units. 5—Double rafter roof unit. 6—Plywood applied as exterior covering of tile. 7—Sample house of wood tile.

Makes Quality Cement Brick at \$5.00 per Thousand

Wins Profitable Quantity Market

VAL BERRY of the Kalamazoo Haydite Tile Co. has kept his business out of the "red" for the past two years. In fact he has operated at a profit by invading an old field with a new product.

In 1930 he found conditions presenting an entirely new set of problems. For some years he has been in the business of manufacturing a light-weight concrete unit. He made a good product and had worked up a good business, but now he found his market narrowing down on account of the greatly reduced building program.

Analyzing this situation, it was self-evident to him that the future of the concrete products business lay in diversification. The decrease in construction meant that he must get a larger share of the building that was going on. What seemed to be the largest field was in big buildings of the industrial and municipal type. Further investigation showed that for this work brick was invariably specified, and here was business that he was not getting. In fact, it was practically untouched by concrete although it offered a much greater volume than that filled by the standard concrete block. He decided that it would be a good unit to make if it could be manufactured efficiently so as to compete with clay and sand lime units.

Satisfied of this, he looked into different methods of manufacturing a unit that could win this market. He had an idea of the ideal type of production machine on which he felt brick might be produced, not only on a basis which would enable him to go into the field on an even footing with clay and sand lime units, but would permit him to undersell them if necessary. It seemed to

him that someone ought to be able to produce a machine along the lines of the straight-line, continuous production methods he had seen in the great motor factories, something that would be simple and not excessively high in price.

He thought of having a special machine designed but realized that this would be difficult and costly. And then he found a machine, new, but already out of the experimental stage, which was just exactly what he had in mind. The installation of his Dunbrik machine was the turning point between running his factory at a loss and running it at a profit.

Berry knows his concrete and the methods of manufacture. He had always turned out a product that stood for quality to the architect and builder in his territory. The new brick he turned out were of the highest quality, low in absorption, high in crushing strength and the most true and accurate unit that he had ever seen. In a short time he was able to produce a brick to sell considerably below \$11.00 per thousand as estimated by the manufacturers of the machine, and so reduced his selling prices proportionately.

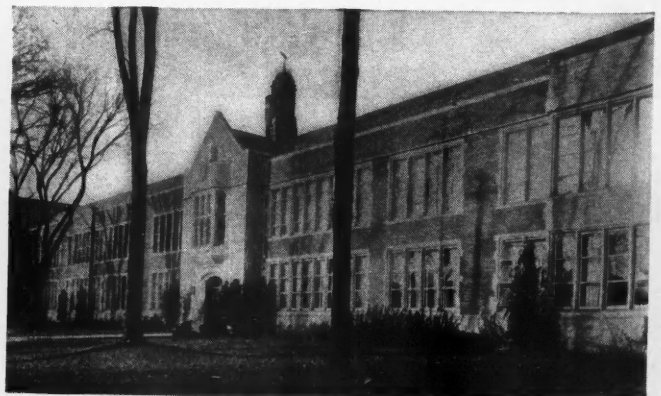
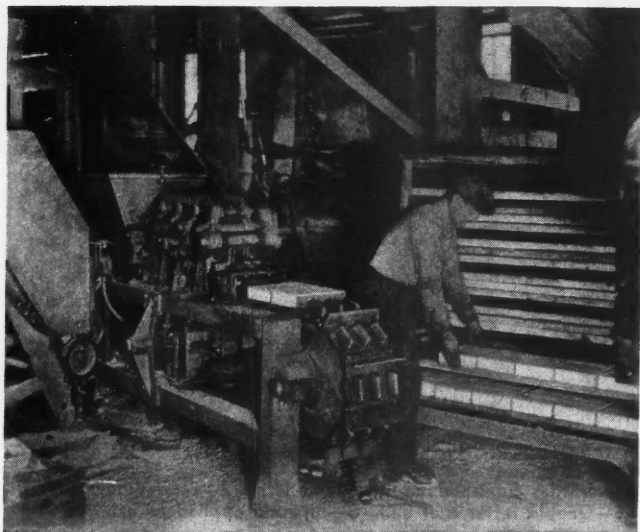
Within the first year, his Dunbrik went into the finest buildings in Kalamazoo and Battle Creek. On an open specification for a large school they were approved and used by the nationally known architect who designed the building; and as a further evidence of their quality and economy, more than a million were used in a second school by the same architect, put up in the following year.

Following out his idea of greater volume and lower price and on account of his lower manufacturing costs at the present time, he has set a delivered brick price within a radius of 25 miles of \$8.75 per thousand which still leaves him a net profit of more than \$3.00.

Berry has not only made a profit this year but his business is building up all the time. He has several new jobs in sight for the coming season.



VAL BERRY



Cement brick was produced in the Kalamazoo Haydite Tile Co. plant on the automatic machine pictured to left for this Battle Creek School for Crippled Children; Albert Kahn, Inc., Architects.

New Pump and Vibrator Will Help Speed Up Concrete Work in 1933

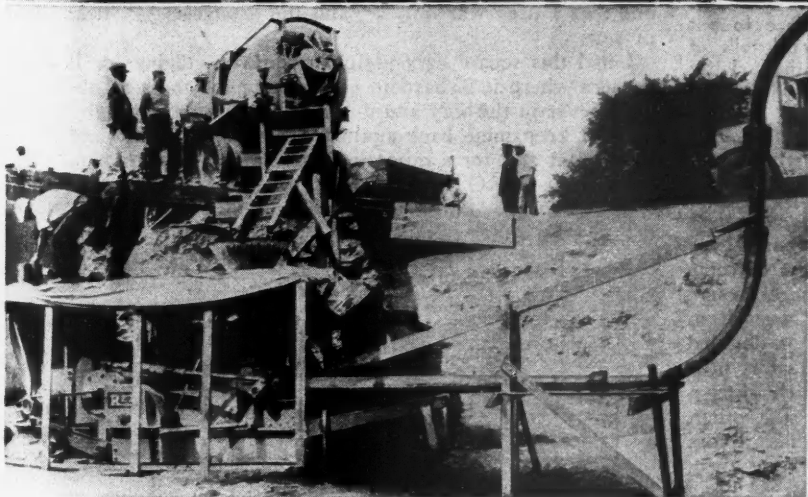
TWO new inventions that have been developed for practical use and will be of special help to concrete contractors in 1933 are on the market. One is the new concrete pump, first used in pumping concrete in construction of the 35th Street viaduct in Milwaukee last fall. The other is an electro-magnetic vibrator used to achieve a more dense quality of concrete.

The new pump was developed in Europe for delivering concrete to the forms by direct pumping action, and apparently is the successful solution to a method of placement by direct pumping that has long interested concrete engineers. American manufacturing rights have been purchased by a large maker of concrete equipment.

The Milwaukee demonstration lasted twelve hours, during which the pump handled 125 yards of mixed concrete to forms, including 1½ hours' idle time waiting for delivery. The pump is of the piston type, gasoline or electric motor driven, and has a capacity of 15 to 20 yards of concrete per hour, and is portable. It will transport concrete 500 feet horizontally, or up to 72 feet vertically.

In the Milwaukee test, 5-inch pipe was employed in the pipe line and the aggregates of relatively large size were moved through it, all day long, without a bubble. The pipe used was in 10-foot lengths, equipped with quick couplings.

THE new line of electro-magnet vibrators is designed for vibrating concrete during construction work, the vibrating of material in hoppers to keep them flowing freely and for vibrating bulk material into containers, such as packages, barrels, etc.



Vibrating concrete into a dense mass in forms with new electro-magnetic tool.

Possibly the most widespread use is for vibrating concrete while it is being placed, not only in building construction but in the fabrication of concrete products, such as cribbing, reinforced concrete piling, etc.

The new vibrator is a very simple tool, consisting of a horseshoe magnet and an armature, the gap between the armature and magnet being held open by springs. A pulsating current closes the gap between the magnet and its armature 3600 times per minute on 60-cycle alternating current and the heavy mass of the armature moving at such a high speed sets up a powerful vibration that can be applied in a direct line toward any given mass desired to be vibrated.

The vibrator can be fitted with a handle and a vibrating spud for vibrating floor forms, flat slab placements or reinforcing bars in concrete products.

Another attachment is a vise clamp for attaching vibrator to the stud or whaler of forms.

A third attachment is a chain clamp for attaching to a round column or sewer pipe mold.

The larger models may be fitted with a puddling board for vibrating mass placements of concrete.

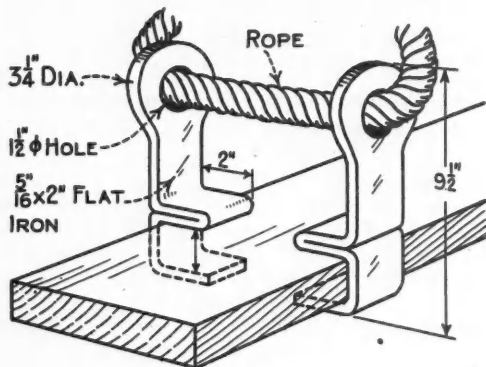
Two views of the new concrete pump which handles 15 to 20 yards per hour. Top shows concrete pouring from delivery end of pipe. Bottom shows pump receiving ready-mixed concrete from truck and delivering through 5 inch pipe.

PRACTICAL JOB POINTERS

A readers' exchange of tested ideas and methods, taken from their own building experience. Two dollars will be paid for each contribution published.

Timber Dogs

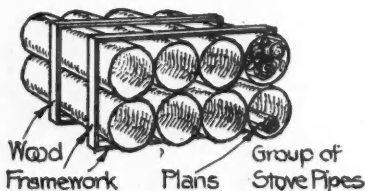
I AM sending in a sketch of what I call my "timber dogs." I find them quite handy any place where timbers or heavy boards are to be elevated higher than they can be reached. I have two sets, one for hand line and the other for block and tackle. The size of the "bite" the dog will take depends on the size of boards you have to handle. The one in my sketch is for handling 2" planks.—E. J. ELKINS, Alva.



These "dogs" are handy for hoisting heavy boards or timbers

Storage for Blueprints

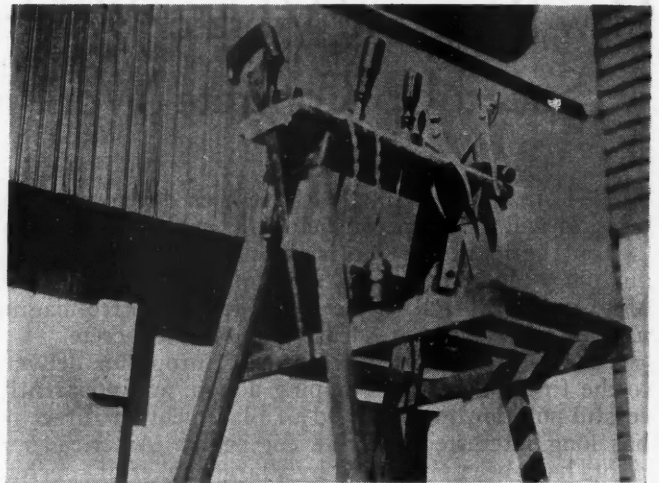
HERE is a very simple method of keeping rolls of building plans. This consists of a series of short lengths of stove pipe, held in position by means of a light wooden frame. One end of the tubes must be sealed, or the whole so set up that the back ends of these are against a smooth wall. When used for old plans, place up close to ceiling. Old pipes can be cleaned and used but it is best to buy new ones.—MORRIS A. HALL, White Plains, N. Y.



Here's a place to put those awkward rolls of blueprints that clutter up the office.

Ladder Tool Rack

THREE-QUARTER inch holes bored along the outer edge of the top step of a step ladder will hold screw-drivers, pliers and other small tools in place and prevent them from falling to the floor while the ladder is being moved. On the extreme edges of the top step, I also cut square notches, large enough for the handle of a claw hammer and a monkey wrench to slip in. These two tools are kept in these notches by a doubled piece of tin nailed across the opening. This tin cleat is provided with an inch slot cut at the fold, into which slips a putty knife on one end and a key hole saw on the other. Rough moving, by sliding or pulling, the step ladder across the floor will not jar any of these tools loose or cause them to fall to the floor. All of the tools are accessible for a ceiling



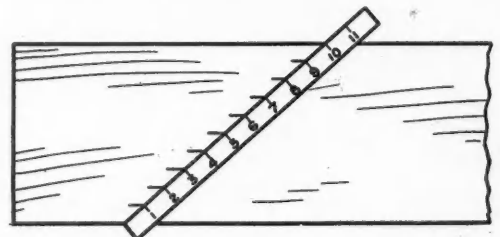
Much climbing up and down ladders is saved by the tool rack above.

job. When you are through with any certain tool, you can slip it handily into its allotted hole with no danger of it rolling off.—RAY J. MARRAN, 3225 E. 28th St., Kansas City, Mo.

Easy Way to Divide Space

QUITE often I have to divide a board of uneven width into equal parts. The method shown in my drawing can't be beat.

Example—Say a board 7" wide should be cut into 10 equal pieces: Take your rule and lay it upon the board at an angle until the 10-inch mark touches the outside edge. Then mark at each inch and you will have the board divided into 10 equal pieces.—CHARLES G. ENGEL, Box 96, Rossmoyne, Ohio.

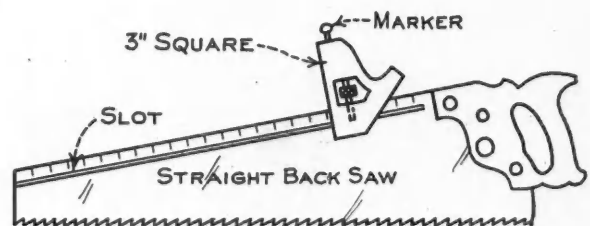


Use the rule this way to divide board into 10 even spaces.

Square, Saw, Rule and Mitre

A STRAIGHT back saw and a part taken from an old sliding square are all the parts needed to make this handy tool. Any machinist or toolmaker can cut a groove in the saw. The groove is cut in according to the size of the square. The one that I used was only 3" and the groove is 1/2" from back of saw.

I find this square very useful in work on stagings or in close corners where it is hard to be reaching for tools all the time. It is never in the way and doesn't add any extra weight to the saw. I keep mine back against the handle all the time for a square cut and for a mitre just slide along, mark it, and slide back again.—G. O'NEILL, 2051 E. Main St., Bridgeport, Conn.



Four tools in one are produced by this addition.

To Lay Out Show Window

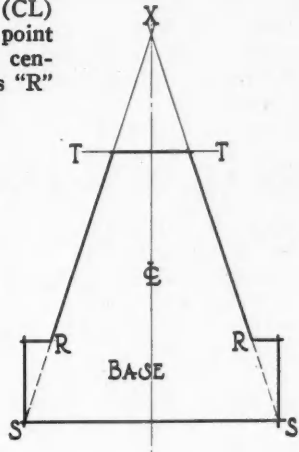
THIS method is usable in the drafting room or out on the job. First determine the center or axis line (CL) as shown in my drawing, by centering the front and then drawing a line as far back on the floor as possible, using the same measurement from wall in front. The greater distance between these points, the more accurate will be the laying out.

Next draw a line from "B" through "C" to "D" on this axis line. Lay out correctly the measurement "B" to "C". Parallel line "C" to "E" with center line and continue through to "K". Repeat the operation from "F" through "E" to "G". Run "F" to "H" line parallel to center line and lay out correctly the measurement "F" to "H". The next step is to draw lines from "H" through "I" to "J" on center line; lay out correct measurement "I" to "K" already lined off. With straight edge lay out line from "K" to "K", determining point "L". Line "L" to door posts can be laid out either by drawing lines to intersecting point "N" on center line or by laying out from door posts where slight errors can be corrected. The completed design will show both sides concentric to the center axis.

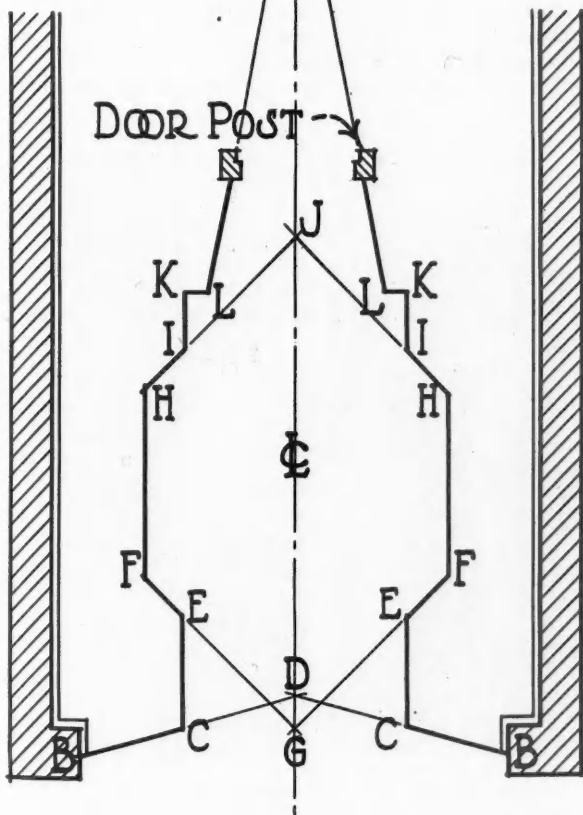
The above method may be used for any laying out of like nature; for instance any tapered design as where foundation walls are designed, both sides being equal.

First lay out base member and then determine point "R". Lay out height to "T" and draw top line "T" to "T". The center line (CL) should be first drawn in. From point "S" to intersecting point "X" on center line, draw lines touching points "R" and "T"; complete the lines.

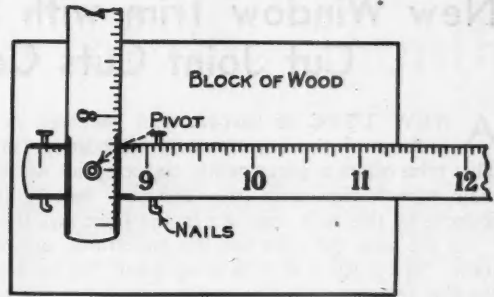
A general practice and an excellent one is to work from a center line at all times, whether it be in the office or on the work.—
J. T. NARBETT, Architect, Richmond, Calif.



Method followed in laying out store front.



The loose joints are fixed by this method.



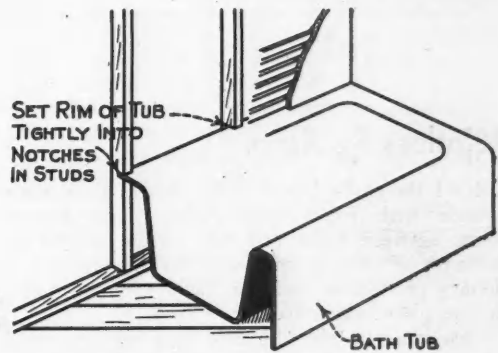
Fixes Loose Rule

FIND enclosed a sketch and explanation of how I saved my folding rule from the scrap heap. It got so limber it was aggravating.

Drive two eight penny nails into a block of wood 1/3 of the way in, 1 inch apart, and bend over parallel to one another. Bend the rule to a right angle at the joint, then place on the nails as shown and give a light blow with hammer over the rivet. Hit hard enough to bend the rule slightly. Then turn the rule over and give the other side a light blow. Do this on both sides of the rule at every loose joint, on all joints, to stiffen them.—AUSTIN GRIFFIN, Chapin, Ill.

Prevents Bathtub Setting

TO PREVENT bathtub settling away from the plaster and leaving a bad crack, notch the rim of the tub tightly into the studs as shown in my enclosed drawing. We find this very simple to do and yet it prevents a lot of trouble and makes a better job.—B. T. ALLYN, 7 E. 60th St. N., Portland, Ore.

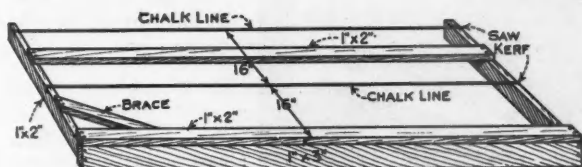


How the tub is notched into wall to prevent settling.

Jig Helps Line Up Nails

A FEW minutes spent in building a frame like the drawing I am enclosing will pay for itself many times over when applying plaster board, wall board or plywood. It not only takes the guess work out of where to drive the nails so they will hit studding, but will also line them up and make a much neater job.

I build a frame long enough to take the longest length of wall board, and then it can be used on all shorter lengths also. Simply chalk the lines, shove the frame against one edge of the board and snap the line. Lines can easily be changed for two foot (24") centers.—CHARLES W. MAUGER, Ulster, Pa.



For use with wall board. Lines up nails.

New Window Trim with Pre-Cut Joint Cuts Cost 24%

A NEW TYPE of narrow trim has been developed by the makers of the revolutionary silentite pre-fit window unit. This trim offers a permanently tighter joint at less cost installed than other trim with the common butt miter joint. The features of this new trim are in the joint and the pre-fitting.

On the face, the joint has the appearance of an ordinary miter joint. In reality it is a half lap joint, the head member lapping the side member. On the underneath lap of the side casing there is a tapered tongue, approximately 1/2 inch wide, that wedges snugly into a groove in the head casing, holding the miter joint permanently and tightly together. This lap joint makes it possible to drive casing nails through both heads and side casings and directly into the jamb and stud. It also offers a good gluing surface if a much stronger joint is desired.

As much of the machining and fitting as possible has been done at the factory, reducing installation time to about one-fourth of what is required when the cutting and fitting are done on the job. In a test, a carpenter installed a side of the new trim in 13 minutes. He then installed a side of the same trim from lineal stock in 55 minutes.

When a comparison of total cost including both material and installation time is made, it is found that in practically all cases the new trim with its superior joint is 24 per cent less costly than trim installed with the butt miter joint.

| | |
|---|-------------------|
| WIDE LINEAL TRIM | |
| Trim cost, per side..... | \$1.00 |
| Installation cost, per side, 45 min. at 80c per hour..... | .60 |
| Total Cost..... | \$1.60 |
| NARROW LINEAL TRIM | |
| Trim cost, per side..... | \$.79 |
| Installation cost, per side, 45 min. at 80c per hour..... | .60 |
| Total Cost..... | \$1.39 |
| MITERTITE TRIM | |
| Trim cost, per side..... | \$1.05 |
| Installation cost, per side, 13 min. at 80c per hour..... | .17 1/2 |
| Total Cost..... | \$1.22 1/2 |

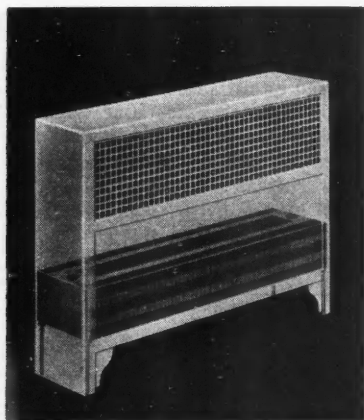
Jointless Radiator

FROM the earliest day to the present time, radiators have been made with joints—pipe joints, joints between sections or joints between tubes and fins. Now one of the large manufacturers of heating equipment has announced a new and revolutionary product—a radiator made without joints, cast as a unit in one piece, made from cast iron.

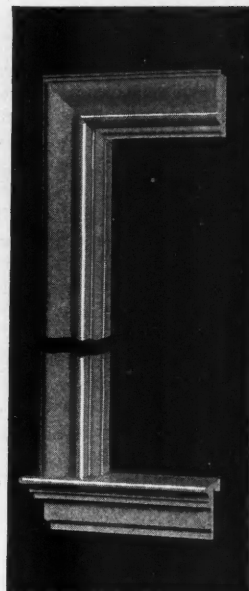
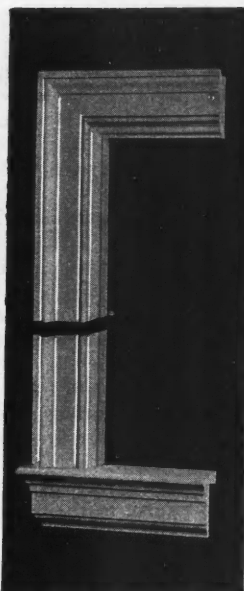
Cast integral with the fluid chamber are many cast iron fins, which join together at their vertical outer edges, forming the outer side walls of the radiator. Thus there are many unobstructed air passages through the radiator, bounded on the inner side by the wall of the fluid chamber and on the outer side by the wall of the radiator.

The fluid chamber is designed to permit circulation and drainage without noise. The internal cross-sectional area of the

chamber is greatly in excess of the area of the supply pipe connected to it. There are no joints or nipples in the radiator. The fins cast integral with the full height of the fluid chamber prevent any reduction in heating output due to disintegration, corrosion or by expansion and con-



This jointless radiator is cast in one unit, from cast iron and is especially designed for concealed use.



Two styles of new moulded trim which is factory pre-fit and cut with locked miter joints.

traction. The radiator is exceptionally strong and sturdy, and may be successfully used for vapor, vacuum or hot water heating systems. Full details will be sent on request.

Electric Drill and Hammer

OF unusual interest to builders is a sturdy new electric tool that is both drill and hammer. It drills holes rapidly in wood or metal. By inserting a 4 1/2 pound member into the chuck, it is changed into a hammer drill that strikes 2400 blows of 100 pounds each per minute, and will drive a star drill rapidly into concrete, stone, etc.

Wherever expansion bolts need to be installed, this dual machine is of special importance. It is built for hard, continuous use, yet is light and easy to handle. It is priced well under \$100.00.

This double-purpose tool fills a need that has long existed—one machine that will work in both metal and masonry. The manufacturers guarantee power for rapid drilling of 3/8" holes in metal or 7/8" holes in masonry. Full details will be sent on request.



The same tool drills 7/8" holes in concrete (left) or 3/8" holes in steel (right).

NEWS—building activities of the month

November Building Shows Good Gain

THE reports of building activities in November are encouraging for they show increases instead of the usual declines in that month.

U. S. Bureau of Labor Statistics for 350 cities shows an increase of 18.3 per cent in building permits for November 1932 over October 1932. A large increase in governmental and public work was recorded.

According to F. W. Dodge reports, the November total contract awards for 37 Eastern states for November was \$105,302,300 which is \$2,000,000 less than October. Since November is a shorter month, the day-for-day average in November showed a slight gain. November awards for residential building totaled \$19,245,300 as against \$21,855,600 in October. This decline is less than usual, and less than the residential decline from 1931 recorded in previous months this year.

Building permits on the Pacific coast showed a 120 per cent jump in November over October. Another bright spot was the Atlantic seaboard which showed a 60 per cent advance.

The 25 cities reporting the largest volume of permits, according to S. W. Straus & Co. are as follows:

| | Nov., 1932 | Nov., 1931 |
|--------------------------|--------------|--------------|
| 1. New York, N. Y. | \$5,686,956 | \$18,310,871 |
| 2. San Francisco, Cal. | 4,800,290 | 1,235,043 |
| 3. Pittsburgh, Pa. | 3,968,095 | 572,041 |
| 4. Philadelphia, Pa. | 1,391,088 | 1,060,130 |
| 5. Los Angeles, Cal. | 1,107,026 | 2,539,258 |
| 6. Baltimore, Md. | 903,840 | 1,772,040 |
| 7. Omaha, Nebr. | 595,712 | 118,747 |
| 8. Hartford, Conn. | 537,835 | 159,722 |
| 9. Washington, D. C. | 520,585 | 1,197,510 |
| 10. New Orleans, La. | 443,292 | 122,478 |
| 11. Glendale, Cal. | 317,370 | 170,920 |
| 12. Cincinnati, Ohio | 278,665 | 1,016,245 |
| 13. Boston, Mass. | 270,947 | 1,177,072 |
| 14. Albany, N. Y. | 269,332 | 312,513 |
| 15. St. Paul, Minn. | 229,977 | 303,210 |
| 16. Detroit, Minn. | 215,238 | 773,423 |
| 17. Minneapolis, Minn. | 198,480 | 598,945 |
| 18. Oklahoma City, Okla. | 197,155 | 257,000 |
| 19. Columbus, Ohio | 190,050 | 63,450 |
| 20. Denver, Colo. | 166,030 | 342,115 |
| 21. Indianapolis, Ind. | 164,914 | 1,299,857 |
| 22. Cleveland, Ohio | 162,400 | 544,900 |
| 23. Long Beach, Cal. | 150,675 | 218,975 |
| 24. St. Louis, Mo. | 148,527 | 454,868 |
| 25. Jacksonville, Fla. | 134,890 | 111,110 |
| Totals | \$23,049,372 | \$34,732,443 |

River and Harbor Work—Condemnation of the present system of control of government river and harbor work by Army engineers has been expressed by the American Engineering Council, representing 60,000 engineers. Unqualified support of President Hoover's executive order creating a Division of Public Works to include, among others, projects now under military supervision, was announced.

The Council declared that the engineering and allied technical professions support the Hoover departmental reorganization program because it will wipe out waste, cut the cost of government, and improve the Federal administrative organization.



This miniature building showing modern architectural lighting in the General Electric exhibit at the 1933 Chicago World's Fair has just been completed by E. F. Lumber.

To Build Homes—A large tract of land in the central part of Union, N. J., has been acquired by Graham & Graham for improvement as a moderate priced home community. Thomas T. Graham, president, and Norman A. Graham, vice president, announce that the majority of the proposed houses will be of brick construction containing five rooms and bath. A model house showing all the improvements to be installed in the proposed buildings is nearing completion. Most of the houses will be in the \$5,000 price class.

Steel Future—Readjustment of the steel industry to quality instead of quantity production is inevitable, Frank A. Sisco of the Iron Alloys Committee of the Engineering Foundation, declared recently in making public a report of three years of research.

The steel industry has hardly scratched the surface in research and development, he declared. There are thousands of alloy steels possible. Such innovations as molybdenum steel and stainless steel are just a start.

Mortgage Interest—As a means of restoring confidence in real estate investments, New York savings banks are being urged to cut the rate of interest on mortgage loans from 6 to 5 per cent by the Bronx Landlords' Protective Association, Inc., representing about 700 members with apartment house investments aggregating approximately \$200,000,000.

The request for a reduction of the interest rate on loans is contained in letters sent to savings banks by Henry Winters, secretary of the association, who says this year's large batch of foreclosures has had a demoralizing effect on the marketability and stability of real estate.

Disappearing City—The "only possible city of the future" will have an acre of land to the family, says Frank Lloyd Wright, modernist architect, in his most recent book. Land will not be sold by the square foot. Architecture and acreage will go together. There is plenty of land in the United States, he says. Mobility has been made easy by good roads and automobiles.

Home Loan Board Is Advancing Funds

THE Federal Home Loan Banks have made the first actual advances to borrowing institutions, but no direct loan had yet been granted to an individual home owner up to Dec. 14, it was stated by Chairman Franklin W. Fort of the Home Loan Board.

In the first two weeks of December, Mr. Fort said, 113 institutions applied for loans totaling almost \$20,000,000, and lines of credit amounting to \$8,000,000 or \$9,000,000 were approved for them.

Five million dollars had been obtained by Dec. 14 from the Treasury for distribution among nine regional home loan banks in varying amounts. With cash already in their hands from stock subscriptions by members, the banks had a little more than \$7,000,000.

The \$5,000,000 went to the banks at Cambridge, Newark, Pittsburgh, Winston-Salem, Cincinnati, Indianapolis, Evanston, Des Moines and Little Rock. The remaining three banks are all in districts in which the State laws hamper admission to membership in the system.

The Board is now passing on lines of credit with greater speed, it was stated.

Unconditional stock subscriptions totaled \$9,539,582 on Dec. 6. Some \$2,500,000 of subscriptions conditional on state legislation have also been made, making the total about \$12,000,000.

Forty Delaware building and loan associations with assets of more than \$17,000,000 recently became eligible for membership in the system with the passage of necessary legislation by the Delaware legislature.

President's Conference Predicts House Changes

BUILDING men will find much to ponder in the eleventh and concluding volume of the final report of the President's Conference on Home Building and Home Ownership, just published.

Houses of steel, copper or aluminum as well as of wood and masonry, built at the factory with rooms such as the kitchen and bath completely equipped and the rest ready to be assembled at the site, insulated against heat and cold and noise, costing perhaps only half as much as the present small house are described as merely awaiting the application of knowledge already largely in hand.

A committee of nationally known scientists and engineers led by the late Dr. George K. Burgess, Director of the Bureau of Standards, wrote the report. A careful analysis of practices and materials at present employed in small-house building was made.

For example, the Committee contends that the adoption of the practice of welding pipe would permit the use of thinner sheet steel and eliminate the laborious hand threading at the site which now raises the cost of plumbing.

The Committee's analysis takes no aspect of the present small house for granted, and concedes no authority to tradition. The universal practice of fabrication at the site and the use of the sloping roof are alike condemned as costly and unnecessary and practical substitutes recommended. Many present heating practices are criticized as wasteful and it is claimed that it is possible to reduce the cost of heating to the homeowner and eliminate the dirt and the smoke nuisance.

The Committee has painted what it considers a realizable ideal for the small house of the future. It has shown how much of this ideal could be immediately translated into reality and what is still to be worked out.

This final volume of the President's Conference reports, entitled "Housing Objectives and Programs," completes the program, formulated by the Conference at its meeting in Washington last December, to raise the standard of American housing. It contains the reports of the six committees, whose business was to digest the material assembled by the twenty-five fact-finding committees and to indicate how their findings could be translated into action.

To Reduce Government Cost—The International City Managers Association has recently issued a booklet giving 295 different ways to reduce municipal expenditures.

R. F. C. Housing Board—Two Chicago architects, Clark C. Wright and N. Max Dunning are serving as official housing advisers for the Reconstruction Finance Corporation. Dr. Charles B. Marx is chairman of the Housing Advisory Board. According to late reports the \$3,957,000 loan recently approved by R. F. C. to Hillside Housing Corporation has been held up as a result of objection

A WELCOME CHANGE!



© Chicago Daily News

Evidence of powerful public sentiment for tax reform is shown by the support of great city newspapers with editorials and cartoons such as the above by Shoemaker in the Chicago Daily News of Nov. 17, 1932.

of Bronx taxpayers who do not favor construction of this big subsidized apartment project in their small home tax-paying community.

Fight For Lower Taxes Given Aggressive Support

U. G. STOCKWELL, president of the New York State Association of Real Estate Boards, and Ray Hofford, executive vice president, are engaged in a tour of up-state communities, visiting real estate boards and enlisting the support of property owners in the movement for tax reduction and revision to relieve real estate of a part of its tax burden.

"Faced with irreducible fixed charges and decreased rentals, many owners are witnessing the confiscation of their holdings by exorbitant taxes and assessments of various kinds," says Mr. Stockwell.

"State and local fiscal problems are so acute as to demand concerted action by property owners to protect their own interests."

Included in a program to reduce taxes recommended by the National Association of Real Estate Boards are: eliminate most of the half million taxing bodies; transfer school cost to states; pay all street and highway maintenance from gas and automotive taxes; do away with special assessments; make all property taxes payable in quarterly instalments; collect Federal and state income and inheritance taxes together.

Two States, Michigan and Washington, recently adopted tax limitation provisions. The Washington provision, the more drastic, includes a state income tax to make up for the expected lower revenue from general property tax.

The Michigan provision (constitutional amendment): Total amount of taxes assessed against property for all purposes in any one year shall not exceed 1½ per cent of the assessed valuation. Exception: taxes levied for payment of interest and

principal on obligations heretofore incurred, which sums shall be separately assessed.

Provision for increase: By two-thirds vote of electors of any assessing district or when provided by charter of municipal corporation, limitation may be raised for period of not more than 5 years at a time to not more than 5 per cent of assessed valuation. Limitation does not apply to 1932 levy. The Michigan limitation is based on assessment at true cash value.

Newark Helps Building—A project of slum clearance and rebuilding of modern housing, financed by the Prudential Insurance Company, will start early in February in Newark, New Jersey. Located in the heart of the negro section, unusual help has been given by the city which purchased the center and end of two city blocks to be used as park and playground, thereby reducing land cost of the project.

1933 Bright Spots Reported

CONTRACTORS are looking forward to 1933 with more confidence, reports E. M. Craig of Chicago, Executive Secretary of the National Association of Building Trades Employers. This prediction is based on reports received from contractors' associations in fifty large cities. A few of the bright spots are:

BALTIMORE: Wages stabilized and expect improvement in 1933.

ERIE: Contemplate erection of 4,500 to 6,000 homes in 1933.

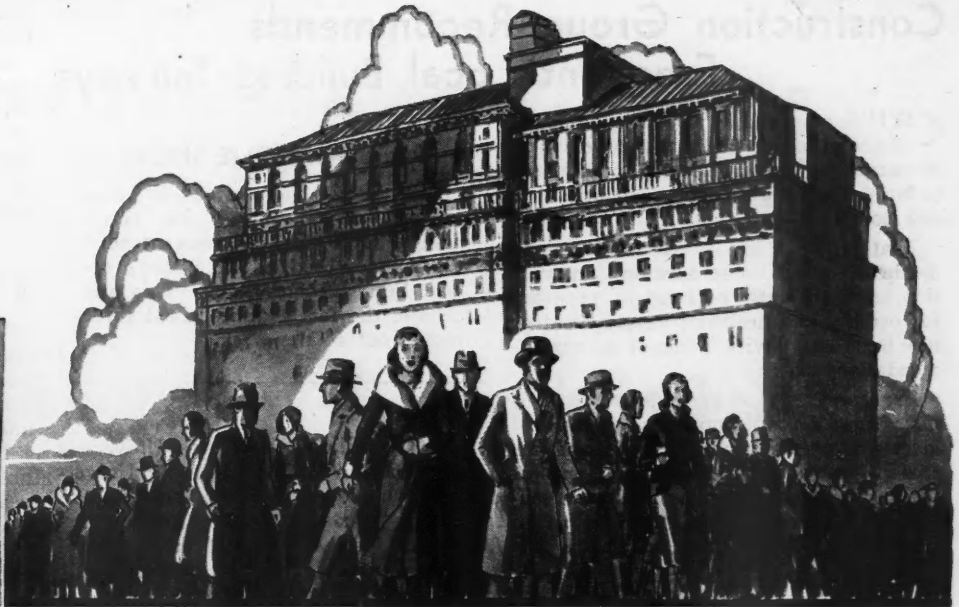
HARTFORD: Indications point to 10 to 20 per cent increase in home construction for 1933.

LINCOLN: Look for decided upturn in home field with wages now at extremely low level.

LITTLE ROCK: 1933 will register home building improvement.

MILWAUKEE: Breweries say employment will be given to 10,000 workers and plans call for five million dollars in plant improvements depending upon change in liquor laws.

PHILADELPHIA: Marked improvement in residential construction next year. Federal public school, public utility and church construction now under way will furnish much employment during next two years.



Public buildings are only as new as their plumbing

A CRITICAL public judges its office buildings, hotels and apartment houses — not by their actual age, but by the condition of their appointments. Of these the plumbing fixtures in the toilet rooms or baths are one of the easiest means of identification. If such plumbing shows signs of wear, is streaked or uninviting, that building loses caste—its tenants begin to look around for newer quarters.

If you are a building owner or an investor in public building property, you will find it pays to install Te-pe-co All-Clay Plumbing fixtures. Te-pe-co Plumbing is most sanitary, beautiful and enduring. Made entirely of clay, baked to the highest point of surface resistance so that after years of service you will find these fixtures looking as though they had just been installed. They add to the first class commercial life of any building, and are installed for that reason in many of our country's most notable buildings.

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Construction Group Recommends Frequent Local Building Surveys

CITIES must make periodic counts of the occupancy and vacancy existing in various types of buildings if they are to build and keep a sound foundation for new construction.

That is No. 1 of 19 recommendations by the National Conference on Construction which recently outlined its program for orderly and healthful development of new building activity. Some of the recommendations are:

For every city of over 100,000 population: some kind of continuous and frequent inventory of the supply and demand for real property. In these cities a way of measuring current need is held an essential part of any co-ordinated effort to stabilize the construction business.

For smaller cities: annual occupancy-vacancy surveys (or oftener) as an invaluable check on changes in construction needs.

Building Codes: An agency set up in each community with authority to hear complaints and recommend adjustments in the building code as rapidly as new products and new methods of construction make changes advisable.

Mortgage Laws: Adoption of the Uniform Mortgage Act approved by the National Conference of Commissioners on Uniform State Laws.

Appraisal: Discussion of appraisal practices with a view towards securing techniques and organizations which will have the support of all branches of the real estate and construction industry.

Blighted Areas: Further study of proposals for facilitating the assembly of large plots of land under united ownership or control for the purpose of improving present blighted areas of cities. This assembly should be made in such a way as to conserve the interests of all property owners.

More Homes Needed—In 1850, 1,000 persons comprised only 178 families. One thousand persons today comprise 263 families and require 48 per cent more homes than were needed by the same population eighty years ago. This is a statement by D. S. Wenzlick of Real Estate Analysts, Inc., based on a survey in St. Louis, Mo. "The marriage rate in St. Louis has been below normal since 1924," he states. "At present it stands at about 50 per cent of normal and the accumulated shortage below normal since 1924 is nearly 17,000."

Detroit Meeting—Leading national organizations interested in highway and building activities are joining forces in the Highway and Building Congress which will be held in Detroit, Mich., the week of Jan. 16, 1933. This will be an important gathering for construction interests, in that it is the first time that a combined meeting of all branches of highway and building construction will meet for consideration of their mutual problems.

POPULAR HOME SHOW

Are people interested in new homes and in ideas for better homes? Over 95,000 persons attended the Buffalo Real Estate Board's recent Better Homes show. This was despite the fact that it rained three nights out of the week.

Air Conditioning—The University Extension Division of Rutgers University has announced a new and modern home-study course in Air Conditioning. Scientific preparation and treatment of air in large and small systems, especially those in industrial buildings, offices, public buildings, and homes will be taught.

Big Department Store Starts Building Service

ANNOUNCEMENT will be made late in January of the entrance of Carson Pirie Scott & Company, large Chicago department store, into the home building field.

A department of Home Improvement and Building has been established and contracts for modernizing and repairs are being taken. As soon as operating methods have been thoroughly tried out, public announcement will be made and an advertising campaign released in time for the spring building season.

Full co-operation with local building interests is indicated. The plan of operation has been developed in co-operation with the Associated Leaders and financing will be provided by the National Homes Finance Corporation.

Centralizing of the selling, financing and supervising of home construction

under one responsible head is an important feature of the plan.

It is reported that local contractors, architects and supply dealers will be given an opportunity to participate. Building materials will not be sold direct from the store.

Compton Sees Better Lumber Trade for 1933

RECENT surveys indicate that an increase of 20 per cent in residential building in 1933 over 1932 is not an unreasonable expectation, states Wilson Compton, Sec'y-Manager of the National Lumber Manufacturers Association, in his annual forecast of lumber markets.

Potential demand for residential space has been accumulating for a number of years, for it must be remembered that residential building reached its peak not in 1929 but in 1925. In the current year home building has been less than 40 per cent of 1931.

Ordinary channels of building credit are opening up again, says Dr. Compton, and there are new channels created by the Reconstruction Finance Corporation and the Home Loan Bank system.

The renovation and modernization movement, which has been growing for several years, has attained great momentum and it is possible that 1933 will be the period of greatest outlay for such work that the country has ever known. Modernization has been the largest single source of lumber demand in the last six months. Repairs and rebuilding are in particular harmony with times of enforced economy, and the first tendency of increased purchasing power for housing is in that direction more than for new structures.

Exhibition—The forty-eighth annual exhibition of the Architectural League of New York will be held from February 18 to March 11, in the Fine Arts Building, 215 West 57th Street, according to announcement made by Arthur Loomis Harmon, chairman of the exhibition committee. Exhibits will include works of contemporary architecture, sculpture, landscape architecture, decorative painting, and works of the native arts and crafts produced within the last year. All exhibits to be eligible to the show must pass the juries of selection in their respective fields. Beautiful and novel settings for the exhibits will be made under the direction of Joseph Urban who will have charge of the general decorative scheme. Mr. Urban plans to embellish the exhibition with shrubbery, flowers, and fountains, thus lending to it an atmosphere of warmth and beauty not ordinarily expressed or attempted in the cold formality of architectural and art exhibitions. Two entire galleries will be devoted to recent work in architecture.

Radio City—The largest air conditioning system in the world—involving more than \$1,000,000 of work—is being installed in the broadcasting studios and lower floors of the new 70-story R. C. A. Building in Rockefeller Center, New York. Contract was awarded to the Carrier Engineering Corporation.

1933 DEALER CONVENTION DATES

| ASSOCIATION | CONVENTION DATES 1933 | CITY | HOTEL |
|-----------------|-----------------------|-------------------|----------------------|
| Mountain States | Jan. 12-13-14 | Denver, Colo. | Cosmopolitan |
| Northwestern | Jan. 17-18-19 | Minneapolis | Auditorium |
| Eastern Penna. | Jan. 18-19-20 | Philadelphia | Bellevue-Stratford |
| Indiana | Jan. 18-19 | Indianapolis | Claypool |
| West Virginia | Jan. 23-24 | Charleston | Daniel Boone |
| Northeastern | Jan. 24-25-26 | New York | Pennsylvania |
| Tennessee | Jan. 25-26 | Nashville | Noel |
| Southwestern | Jan. 25-26-27 | Kansas City | Ararat Temple |
| Michigan | Feb. 1-2-3 | Grand Rapids | Pantlind |
| Iowa | Feb. 7-8-9 | Des Moines | Shrine |
| Illinois | Feb. 7-8-9 | Chicago | Temple Stevens Hotel |
| Ohio | Feb. 8-9-10 | Columbus | Deahler Hotel |
| Western Penna. | Feb. 8-9-10 | Pittsburgh | Webster Hall |
| Carolina | Feb. 9-10 | High Point, N. C. | Sheraton Auditorium |
| Wisconsin | Feb. 14-15-16 | Milwaukee | John |
| Virginia | Feb. 17-18 | Richmond | Marshall |
| Nebraska | Feb. 22-23-24 | Omaha | Robt. E. Lee |
| Mississippi | Feb. 23-24 | Jackson | Brown |
| Kentucky | Feb. 23-24-25 | Louisville | Multnomah |
| Western Assn. | Feb. 23-24-25 | Portland, Ore. | Alexandria |
| California | Nov. 3-4-5 | Los Angeles | Corpus Christi |
| Texas | Apr. 11-12-13 | Corpus Christi | Nueces Angebilt |
| Florida | May 11-12 | Orlando | |

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LIBBEY-OWENS-FORD GLASS COMPANY, TOLEDO, OHIO, manufacturers of Highest Quality Flat Drawn Window Glass, Polished Plate Glass and Safety Glass; also distributors of Figured and Wire Glass manufactured by the Blue Ridge Glass Corporation of Kingsport, Tennessee.

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LETTERS

from Our Readers

You are invited to write your views on any subject of interest to the building industry. 300 words should be enough!

Favors Protected Entrances

Tacoma, Wash.

To the Editor:

Upon glancing through your December number, we are again struck by the many dwellings with unprotected entrances that are featured therein.

In our efforts to market our columns, we come in contact with many architects, many builders and many home owners. We have put the question, "Why the unprotected entrance to a home?" to thousands of these people. We have not yet received a satisfactory reply. We have, however, received many admissions that the unprotected entrance is a mistake and that such architecture is not correct. The home owner himself is especially dissatisfied with this discomfort that apparently has been foisted upon him.

We would like to put this question to your magazine and again we ask: Why should a home which above all should give every comfort to the dweller be produced with unprotected entrances? We are not referring to the large porch on three or four sides of a house that shuts off the sunlight. We are insisting, however, that a home with unprotected entrances is a source of discomfort to the people living in the home, to their guests and in fact to everyone who comes to their door.

If architects continue to design this class of homes, we would like to give all an opportunity to refute our statement that a home with an unprotected entrance is not correct.

T. L. MANLEY, Secretary,
Washington Manufacturing Co.

Finds Cost Charts Valuable

Kansas City, Mo.

To the Editor:

I wish to note that the article, "1931-32 Building Costs" in the December issue is very valuable and the best I've ever seen so far, and is worth the price paid for my subscription.

WILLIAM C. WALLACE, C.E., A.E.,
Architect & Builder.

Prefers Double Hung Windows

Miami, Florida.

To the Editor:

Our organization is interested in any development which will tend to improve or simplify the double hung window, and for that reason will be glad to have further information regarding the new system of counterbalancing the sash as described on page 37 of your November issue.

Experience has shown that the double hung window has the ability to withstand high winds and torrential rains better than any other form of opening that can be used in this section; but people will disregard the item of utility in favor of the more stylish appearance of wood or steel casements. It is to be hoped that this manufacturer has hit upon something really worth while in overcoming some of the objections to the old form of two-light window.

GREATER MIAMI MILLWORK MANUFACTURERS' ASSOCIATION,
M. B. JONES, Secretary.

"Keep Hammering Away on Real Estate Tax Confiscation"

Villa Park, Ill.

To the Editor:

Some months ago, a progressive local lumber company, the Christina Adams Lumber Company, sent me a complimentary subscription to your magazine. In return, I have given them (with the same spirit) my local trade.

I like your magazine immensely, especially "Practical Job Pointers." I think you place too much faith and emphasis on the Home Loan Bank and other bunk. Keep hammering away on real estate tax confiscation.

The penalty for having a well painted, well appointed home nowadays is too great.

Home owning must be made cheaper than renting,—which it is not in this locality.

PETE A. TIMMER,
Carpenter & Jobber.

Disappointed with Home Loan Banks

White Plains, N. Y.

To the Editor:

There is a great deal of disappointment among builders and home owners over the performance or lack of performance of the Home Loan Banks. The local sentiment is pretty well expressed by an editorial in our local publication, "Building and Realty News of Westchester County." This editorial under the title, "Home Loan Bank Troubles," is as follows:

HOME LOAN BANK TROUBLES

"Nine months after it was created the Home Loan Bank announces that five of the branches are ready to lend money.

"Coincident with the announcement Representative Cochran of Missouri introduced in the House of Representatives a bill making it mandatory on the Home Loan Banks to lend individual home owners an amount up to 80 per cent. of the assessed value of their property.

"And action in the upper house at Washington has taken the form of a bill introduced by Senator Borah to repeal the Home Loan Bank Act and abolish the system.

"The Cochran bill is, of course, too drastic to merit consideration, but the author of the bill gives utterance to thoughts which are echoed by the mass of home owners when he says:

"It was always questionable in my mind as to whether this law should have been passed, but it was held out as a measure that would save homes for individuals.

"We find, however, that it is of no value to the individual as now worded and administered, because no loans have been made to the individual and if a loan is made in the future it will not be for more than 30 or 40 per cent. of the present appraised values.

"No one would find it necessary to appeal to the government for a loan of 30 to 40 per cent. of the present appraised values. The building and loan associations that are subscribing for stock in the bank do not do business with individuals other than their members. Therefore, some provisions must be made for the home owner who is not a member of such an association."

"The Home Loan Bank as now set up can be of no assistance to the individual home owner. It is nothing more than a government agency with which building and loan associations, insurance companies and other lenders on residential property can hock mortgages for a small percentage of their face value. It provides a reservoir of funds for these institutions similar in respects to the Reconstruction Finance Corporation, which is the hock shop of banks and mortgage companies.

"It was never intended that the government would enter into competition with mortgage companies in lending money to home owners. Politicians gave the Home Loan Bank that twist and President Hoover emphasized the assistance the bank would be to the owner of a mortgaged home.

"Help obtained from the Home Loan Bank is help for the institution which obtains it. This help is not passed along to the home owner. The money lent to the borrowing institution is used to bolster the cash reserve of that institution. In a word, it is a means to keep lending institutions liquid.

"The only justification for legislation of this character is that it would help to revive industry; that money made available would be used to build homes and other buildings with; that this new construction would create employment on a wide scale; that workmen with jobs would be able to pay taxes and rents would pass along a large percentage of their earnings to merchants in both the taxpaying and rentpaying class.

"The Home Loan Bank as set up today is an anchor for institutions in distress or fearful that they might be. It doesn't create a job for any man in the building trades."

JOHN J. STEPHENSON.



Photograph of an old house and architect's sketch of the same structure after restyling and modernizing with Careystone Colonial Siding and Cape Cod Shingles.



1933

Profits

for Builders and Dealers

Get your share of the 1933 profits which will be made by the builders and dealers who push the modernizing of old frame homes with Careystone Asbestos-Cement Units. Made in the forms of Colonial Siding, Cape Cod Shingles and Normandy Brick, Careystone Units never require painting, for they are as fireproof and lasting as stone. Every job creates others, for owners are delighted with their transformed homes and the ending of painting expense.

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Sales in 1932 Exceeded Those of '30 and '31 Combined

(Continued from page 27)

to secure a house that is not only beautiful but one which is more readily marketable, he will be grateful for your suggestions."

5. Price—Having once established prices, they should be maintained even during a prolonged depression such as the one the building industry is experiencing. Nothing can be more unfair, or destroy the enthusiasm or confidence of the early buyers more surely, than to find that land similar to that which they have purchased is being offered at a lower price. This loss of confidence cannot be compensated for by the few sales which might be secured at bargain prices. This ability to maintain prices is one of the definite reasons for sound, long term financing in development work.

6. Advertising—Selling is done direct by mail, to carefully selected individuals. The story is told in a dignified manner, with folders beautifully made up, and carrying pictures of the property. Personal contact with prospects is carried out in the same reserved and courteous manner. High pressure salesmanship has no place in this work.

"Believing that people tend to follow the leader, we classified Cape Cod summer residents by their home address," said Mr. Norris. "In this way we learned from which states Cape Cod drew most of its summer population. We found that, from several middle-western cities, a number of prominent citizens had already established summer homes on Cape Cod. From each of these cities we then procured, through various means, the names of many of the residents who would be desirable as purchasers and who would be financially able to establish a summer home so far removed from their winter residence. Utmost care in checking each name was given. To these people we then told our story by direct mail. For our actual appeal we relied almost entirely on pictures."

Home building help is given. Sketches of small as well as elaborate homes to suggest proper design to the prospect are provided. Assistance in getting the prospect in touch with reliable architects and builders is given.

"It is important also," says Mr. Norris, "to compute in advance the cost of constructing and equipping each house as planned. If the development company includes a building department, so much the better, otherwise costs can be secured from dependable builders. It is advisable always to figure maximum costs, then if a saving can be effected, the purchaser will be more than satisfied. Even if the company maintains its own building department, I believe that customers should be encouraged to secure competitive bids. In this way they are assured of a fair figure, and an efficiently organized building department should be able to successfully compete against outside contractors.

"Another obstacle to be overcome is the reluctance of people to establish permanent homes after only a cursory view of a property. If you have neighboring communities from which to attract buyers who are already familiar with your development, you are indeed fortunate; if not, you must make provision for prospective buyers to become acquainted with your property. This can be done by building and operating a Club residence."

A Club Residence which in its service and appointments appeals to the type of customers desired is a helpful selling aid. People come to stay a season to become fully acquainted with the region before buying or building. Furnished cottages are a useful adjunct.

In conclusion, said Mr. Norris: "Summer residents like to have a Club in which they may give larger social functions than can be arranged at home, where they can stay while opening and closing their houses, and can dine when the cook is out, or when unexpected guests arrive. Furthermore, the Club guests give additional support to the golf course.

"Certain services for residents should also be offered, such as police protection throughout the year and a maintenance department which will attend to repairs and alterations. An additional function is a modern version of the chore boy. If owners wish to have their furnace fires lighted when they are opening their houses for a week end in spring and fall, if they want their refrigerators turned on, if they want their gardens planted, or their water shut off or turned on, they simply notify the maintenance department. These things, by making life simpler, add greatly to an owner's enjoyment of his summer place."

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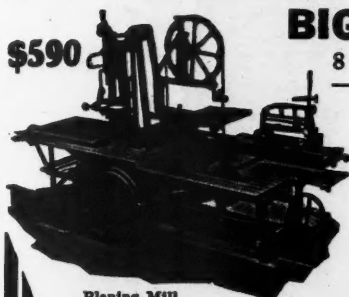
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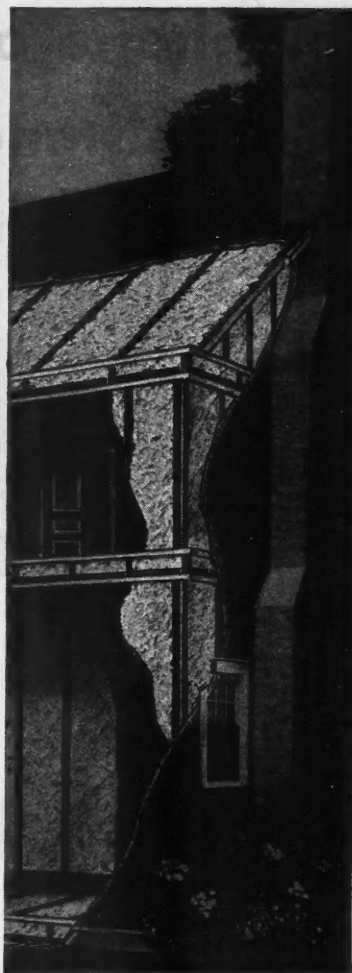
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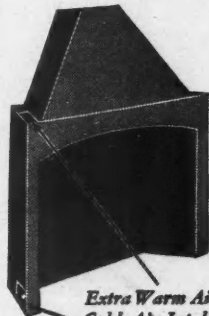
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WRITE today for the Heatilator booklet and installation plans. Learn how you can make the living room the real feature of the houses you build.

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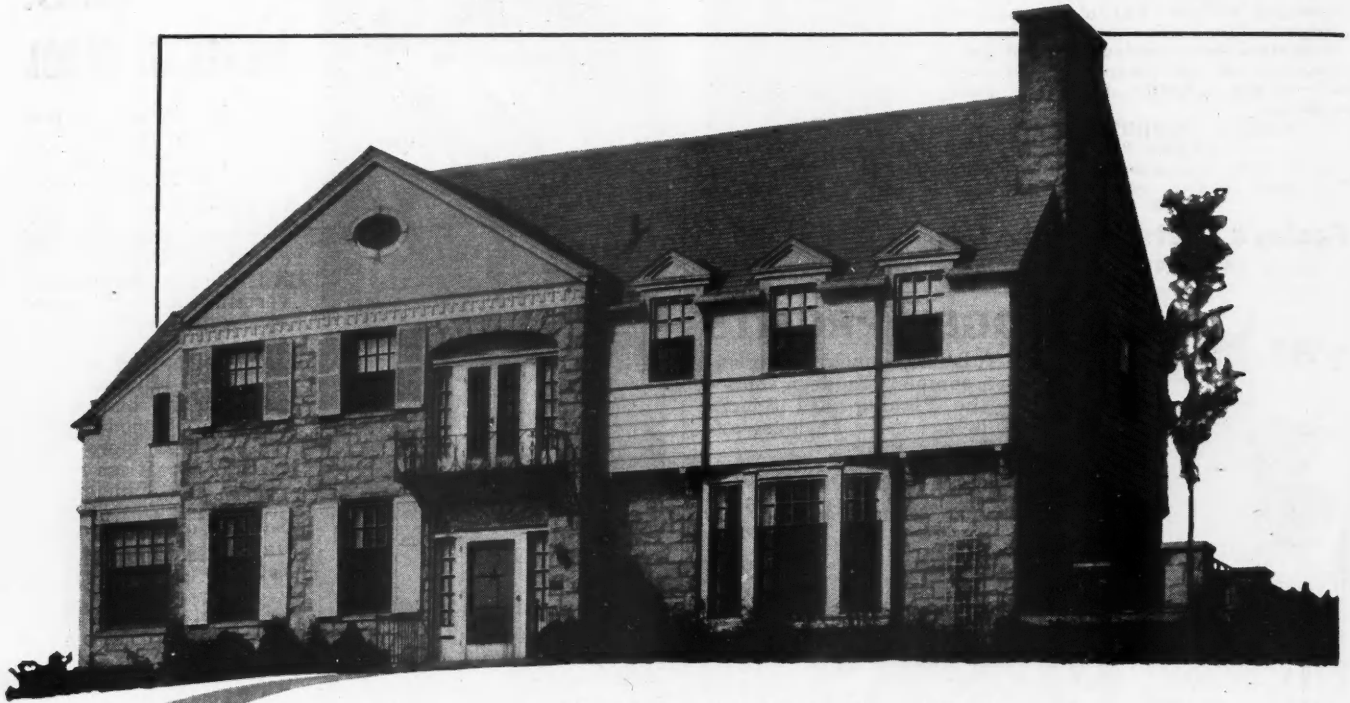


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Cold Air Intake

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The Heatilator is a double-walled metal form around which any style of fireplace can easily be built.

“... telephone outlets were provided with the assistance of your engineers”



In the residence of Dr. Matthew F. C. Zubak, Wheeling, W. Va., telephone convenience is provided for by built-in conduit connecting 8 outlets. SCOTT LUMBER Co., Designers and Builders, Wheeling.

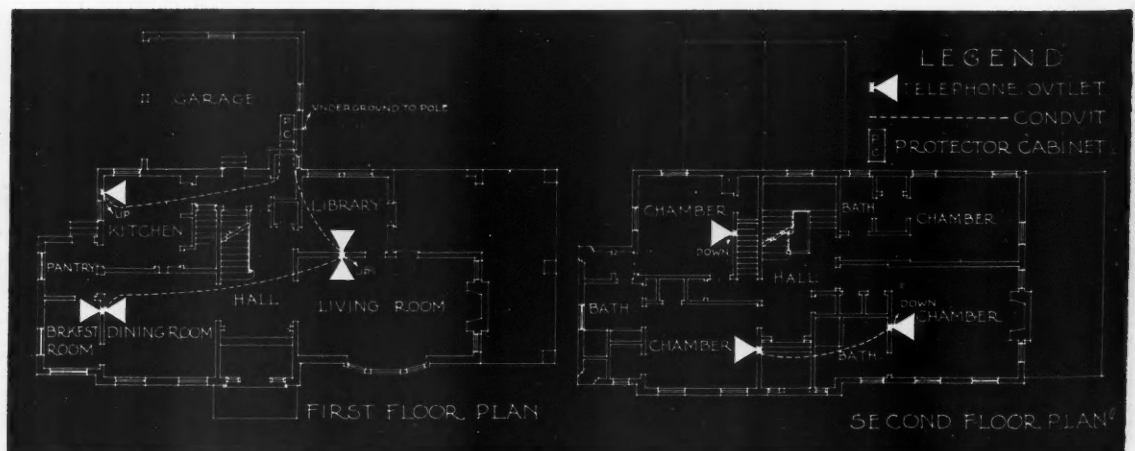
PRACTICAL builders have often proved that built-in telephone convenience makes houses more salable and more livable. They've proved, too, that the free advisory service maintained by telephone companies is well worth using. The president of the company that designed and built the residence above writes:

“In building Dr. Zubak's residence, telephone outlets were provided with the assistance of your engineers to afford the most convenient use of the service throughout the house.

“We feel that the provision for telephone

convenience is as important as any other service feature. We appreciate the splendid co-operation of the Telephone Company.”

Telephone convenience is merely a matter of including conduit in walls and floors during construction, so that outlets can be located at strategic points, with all wiring concealed. Trained telephone engineers will be glad to help you plan layouts for any of your projects. Just call the Business Office of your local telephone company and ask for “Architects' and Builders' Service.”



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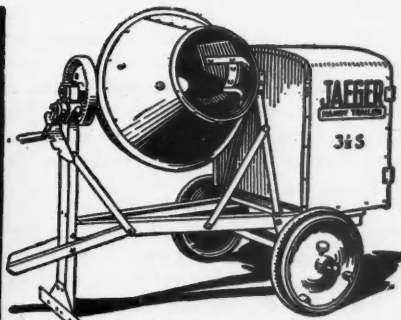
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CLARENCE A. O'BRIEN

Registered Patent Attorney
1903 ADAMS BUILDING WASHINGTON, D. C.

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NOTICE TO ADVERTISERS

Forms for the February Number of the American Builder and Building Age will close promptly on January 15. New copy, changes, orders for omissions of advertisements must reach our business office, 195 W. Adams St., Chicago, not later than the above date. If new copy is not received by the 15th of the month preceding date of publication the publishers reserve the right to repeat last advertisement on all unexpired contracts. AMERICAN BUILDER AND BUILDING AGE.

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Getting Ahead in 1933

(Continued from page 9)

home ownership. It will increase the value of all real estate. It will build up a better community spirit. It will give the women and other home lovers an intensely interesting news service.

We have discussed this service with several of the retail lumber and building material association officials. They endorse the program heartily and are arranging to assist their members in organizing local communities to take advantage of it. Where several of the local interests support the plan, the cost to each will be very low and the money will be spent right at home with the home town paper.

Safe Financing for "Home for Growing Income"

(Continued from page 25)

ter of course that if a house is small the cost of heating will be lessened; taxes will be based on a lower assessed value; the quantity of furniture required will be smaller and the beginners may therefore feel that they can afford a better quality. Some young couples may even consider the snugness of a small home a convenient excuse for avoiding visitations from unbidden relatives.

The type of small house that lends itself to installment building is shown in accompanying illustrations (pages 24 and 25). The significant features essential to the success of the idea are, first, that they are limited in size to the minimum requirements and, second, that they are planned for additions.

In almost any collection of plans one may find examples that will serve very well for the purpose with only minor changes. The arrangement should be just as convenient, the lighting just as good, and the floor space as well utilized whether the house is in its first, second or third stages. The heating plant in the first unit should be large enough to take the planned subsequent load.

The necessity for alterations when rooms are added should be absolutely eliminated. The only change in the existing structure should be the cutting through of the necessary doors. If this precaution is taken, building by installments will not add to the cost unless building costs in the meantime have increased. Recent experience has shown that building costs can come down as well as go up.

If on the other hand, because of poor planning, alterations are necessary to the existing house then the very essence of the idea is destroyed. For this reason existing houses not planned for the purpose will not lend themselves to the idea. The lot may be too small, the kitchen may have to be ripped out and replaced in another location, a stairway may have to be put in where it will spoil an existing room so that two rooms will have to be added to secure a net gain of one room. Alterations increase the cost very rapidly and the result is very apt to be nothing but a makeshift.

Many people are inclined to be a bit apologetic in a small house. Perhaps the prolonged diet of humble-pie may have corrected this failing. If not, the thought that more room can be added when required, and that in so short a time it can be soundly financed entirely on a construction loan, should do much to dispel any sense of inferiority.

If well designed, a small house can be just as pretty a part of the landscape as the governor's mansion. Size is not essential to beauty. It may not be quite so apparent, but it is just as true of houses as it is of housekeepers.

A pretty little cottage with well manicured lawns and gardens offers a great deal more satisfaction to the owner than a house twice as large but difficult to keep up with.

It need hardly be pointed out that a small house can be designed just as gracefully, built just as firmly, finished with as much poise and equipped just as smartly as a large house.

To be divorced by foreclosure from the home about which years of pleasant associations cling is much more than a matter of mere finance. Every deed to a home should contain the words, "love, cherish, and obey the rules of sound practice."

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