

ARCHITECTURAL RECORD

1 January 1958

Building Types Study: Factories 151

New Work of José Luis Sert 125

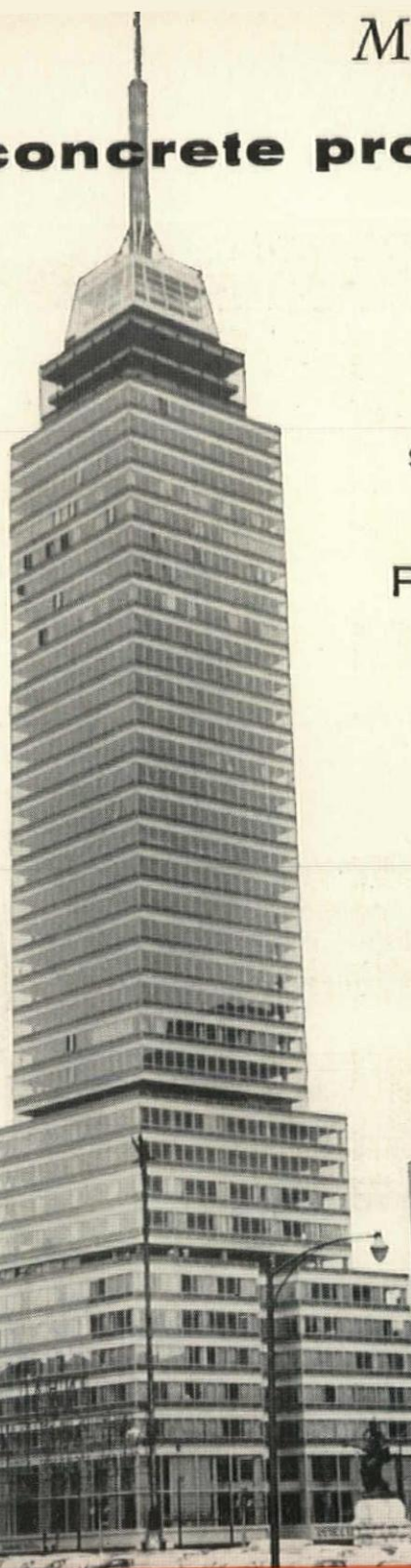
At the Fountain of Youth 141

Accent: Engineering 157

Mexico City's tallest building...*

concrete produced with POZZOLITH

** undamaged in Mexico City's recent severe earthquake*

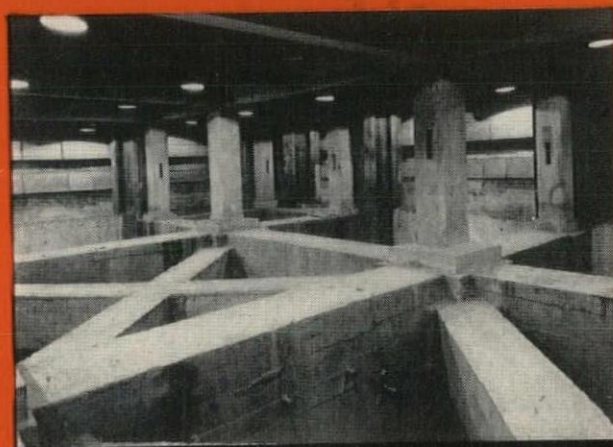


Designers and builders of fine structures such as this 43-story Latino-Americana Tower, employ POZZOLITH to obtain unmatched concrete quality and lowest cost-in-place concrete

Pozzolith provides lowest water content for a given workability and is key to the control of rate of hardening and the control of entrained air.

POZZOLITH—Reg. T.M.—M.B. Co.

Torre Latino Americana, Mexico City, Mexico. Owner: La Latino Americana, Seguros de Vida, S. A. Engineer & Constructor: Ing. Adolfo Zeevaert. Consulting Engineers: Dr. Leonardo Zeevaert & N. M. Newmark. Consulting Architect: Arq. Augusto H. Alvarez. All of Mexico City.



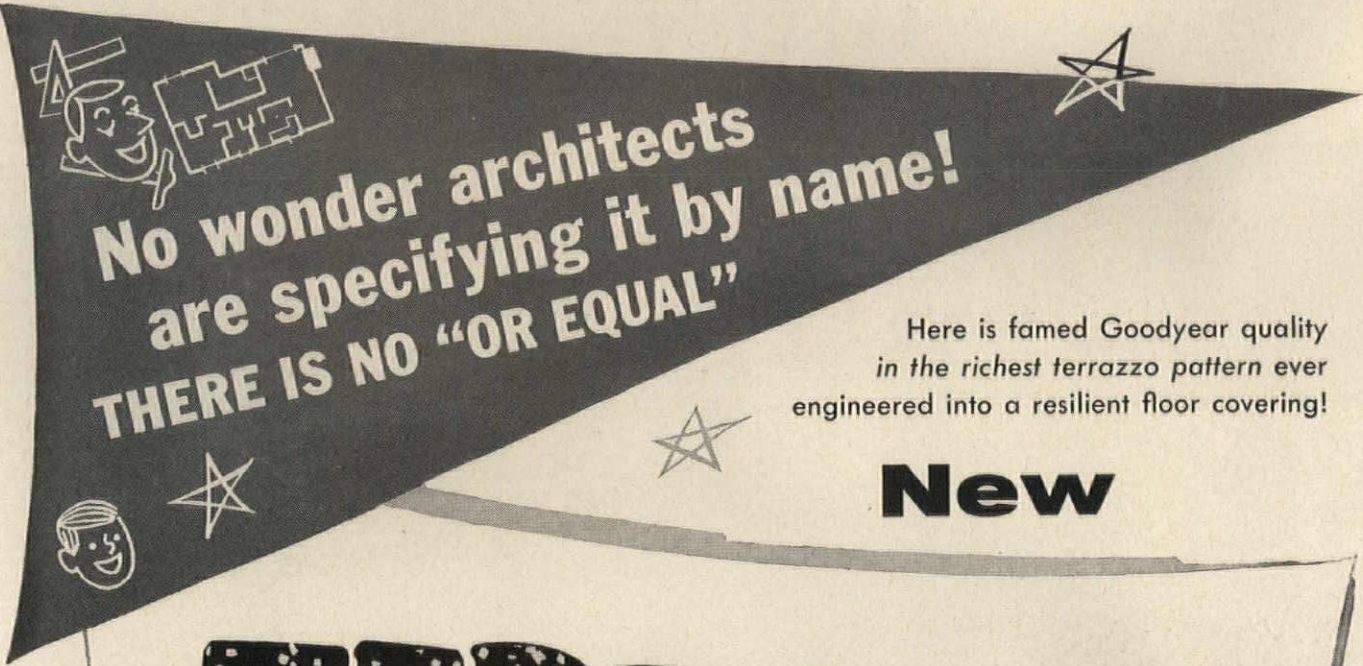
Typical section of the foundation of the Latino-Americana tower, designed partly as a floating box and partly pile-supported, consists of concrete girders atop a base slab to make piles act as unit.



THE MASTER BUILDERS CO.

DIVISION OF AMERICAN-MARIETTA CO.


General Offices: Cleveland 3, Ohio • Toronto 9, Ontario • Export: New York 17, N. Y.
Branch Offices In All Principal Cities • Cable: Mastmethod, N. Y.



No wonder architects
are specifying it by name!
THERE IS NO "OR EQUAL"

Here is famed Goodyear quality
in the richest terrazzo pattern ever
engineered into a resilient floor covering!

New



TERRAZZO RUBBER

FLOORING BY
GOOD YEAR

(in tiles and full yard-wide rolls!)

IN 14 SHADES

- ★ New in Pattern!
- ★ New in Design!
- ★ New in Freshness!
- ★ New in Beauty!

(It's the closest in design to that achieved by old-world
artisans in polished, crushed stone!)

AND it's priced lower than many vinyls!

WRITE TODAY FOR SAMPLES AND COMPLETE SPECI-
FICATIONS: Goodyear, Terrazzo Rubber Flooring,
Dept. M-8311, Akron 16, Ohio.



WHY ALL HYDRAULIC



*First name in oil-hydraulic passenger
and freight elevators—industrial lifting
devices—auto lifts.*

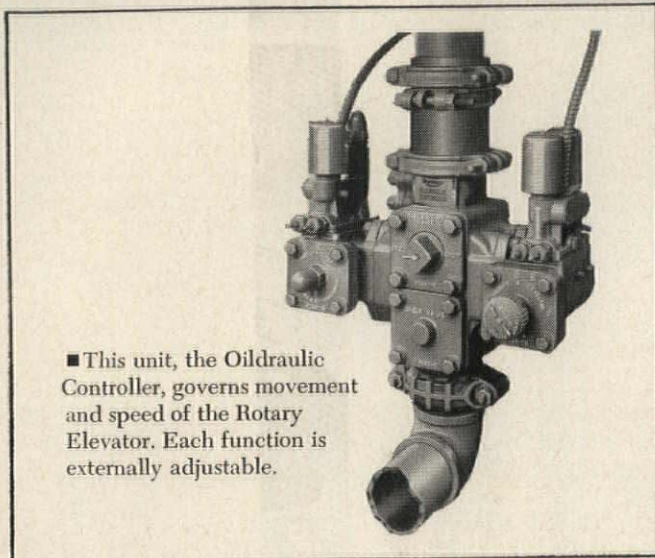
OILDRAULIC[®]

Engineered and built by Rotary Lift Co.

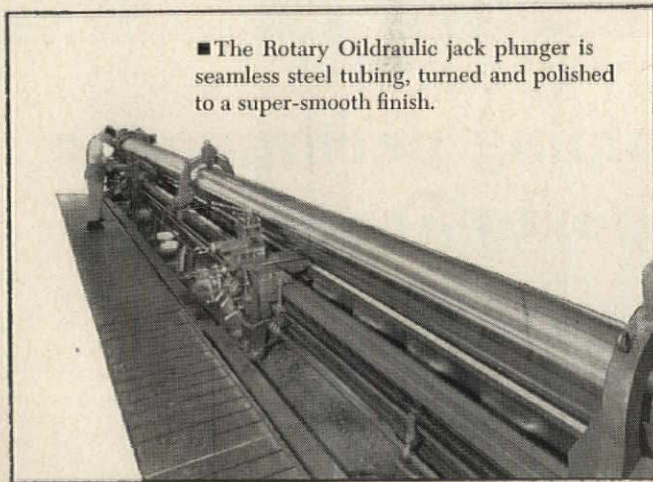
Division of Dover Corporation
Memphis, Tennessee • Chatham, Ontario

ELEVATORS ARE NOT ALIKE

**Rotary gives you a completely
engineered and integrated installation**



■ This unit, the Oilraulic Controller, governs movement and speed of the Rotary Elevator. Each function is externally adjustable.



■ The Rotary Oilraulic jack plunger is seamless steel tubing, turned and polished to a super-smooth finish.

Today's hydraulic elevator, as perfected by Rotary Lift Company, is a precision engineered machine with built-in dependability and economy.

It is unlike other hydraulic elevators, for these and many other reasons:

Rotary is the largest manufacturer of hydraulic elevators in the country... has more experience and skill.

The Oilraulic Controller has no equal in the industry. This "heart" of the hydraulic system combines all operating valves and controls in one unit. It makes possible extremely accurate control and easy adjustment.

The Rotary hydraulic jack, which moves and supports the elevator, is fitted with a precision turned and polished plunger to insure smooth operation and long packing life. Anti-friction bearings, casing of heavy steel tubing, rugged car platforms and other components are all perfectly matched to make the complete elevator installation a quiet, trouble-free, efficient unit.

Completing the package is a nationwide organization that sells, installs and services Rotary Oilraulic Elevators. The largest independent elevator organization of its kind, this distributor group assures your clients expert installation, inspection and maintenance service.

So for the best in hydraulic elevators, always specify Rotary Oilraulic. Mail the coupon for more information, see our catalog in Sweet's Files, or look in your phone book for "Rotary Oilraulic" under "Elevators."

*The modern elevator
for modern buildings*

ELEVATORS

PASSENGER AND
FREIGHT

Mail for
DATA
FILE

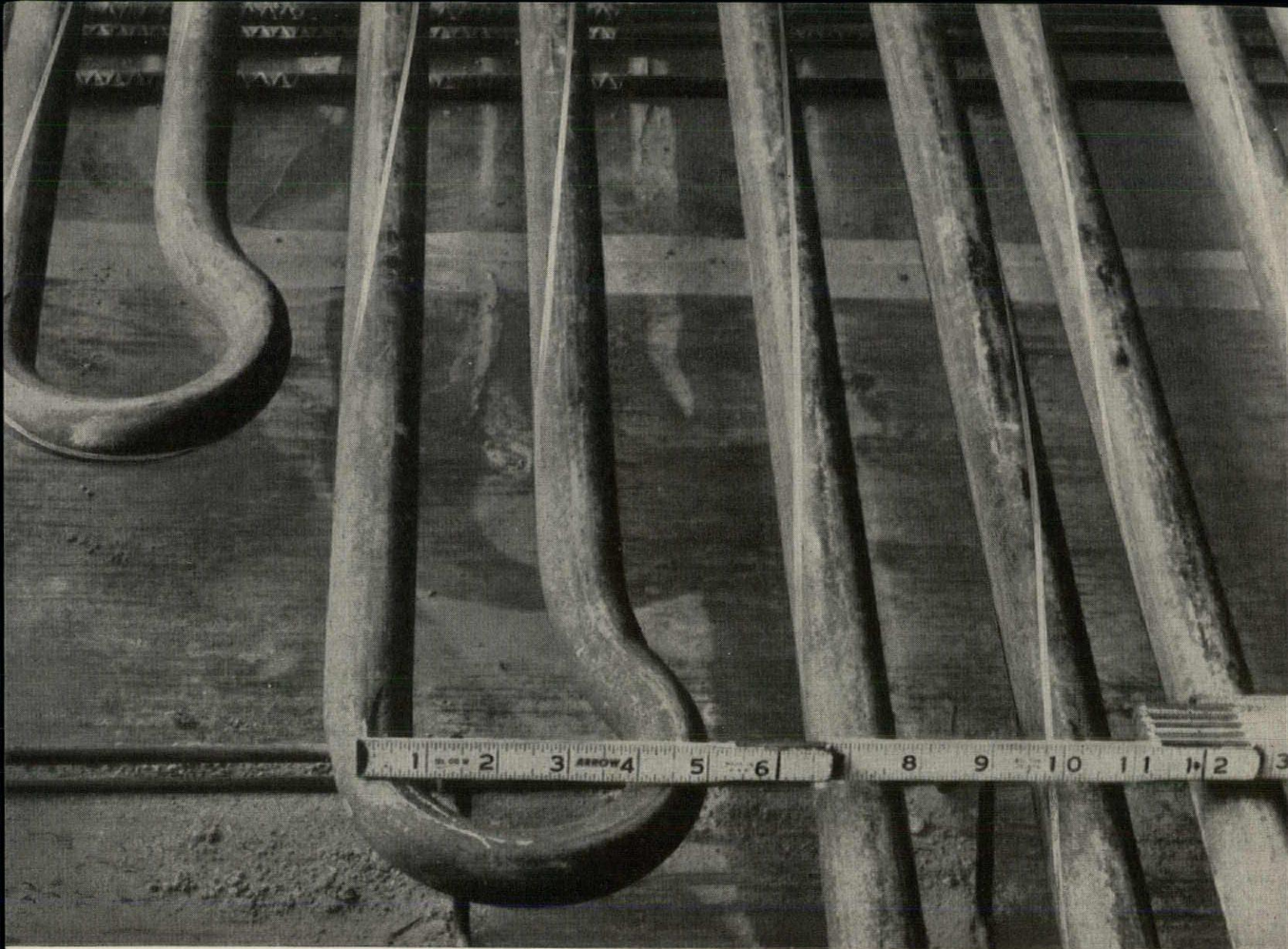


Rotary Lift Co.
1101 Kentucky,
Memphis 2, Tenn.

Please send data file on Freight
Passenger Elevators to:

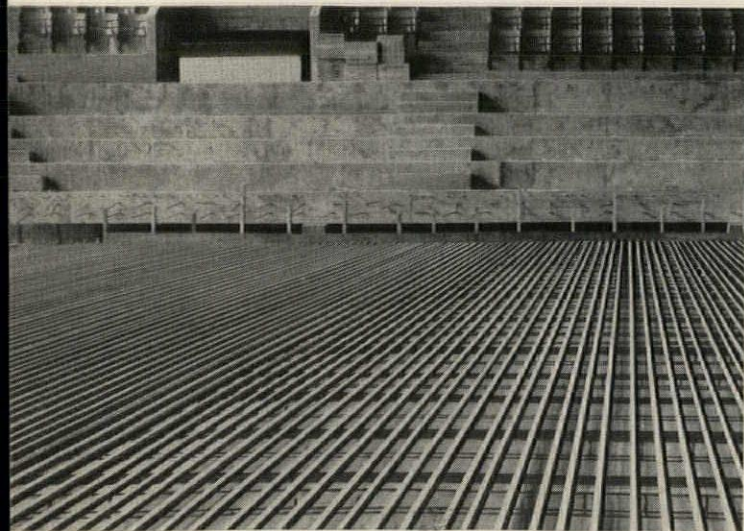
Name _____

Address _____



This corrosion resistant 1-inch wrought iron pipe was cold bent to 4½-inch centers.

Wrought Iron assures piping permanence at Long Island Sports Arena



Fifty tons of wrought iron pipe assure a long life installation in this indoor rink. Usable floor area totals 17,000 sq. ft.

The ice rink at Long Island Sports Arena in Commack, New York, has a built-in defense against corrosion—60,000 feet of wrought iron pipe. Extra-heavy black wrought iron pipe was used for all bends in coil installation. For straight runs, one-inch standard weight black wrought iron pipe was used.

Major rinks throughout the country rely on wrought iron's unique defense against corrosive attack. Thousands of glasslike iron silicate fibers per cross sectional square inch account for the material's exceptional corrosion resistance and assure low cost per-year-of-service.

A special report prepared by our Engineering Service Department, *Ice Skating Rinks—Their Construction and Maintenance*, tells how to maintain effective corrosion control in this field. Write for your copy. A. M. Byers Company, Clark Building, Pittsburgh 22, Pennsylvania.

Long Island Arena, Thomas Lockhart, Manager
Architect: J. H. Van Alst, Centerport, L. I., New York
Contractor: Frick Company, Waynesboro, Pennsylvania

BYERS Wrought Iron Tubular and Hot Rolled Products

ALSO ELECTRIC FURNACE QUALITY STEEL PRODUCTS

Corrosion costs you more than Wrought Iron

ARCHITECTURAL RECORD

January 1958

THE RECORD REPORTS:

- Perspectives* 9
Buildings in the News 10
Architecture Abroad 16D
Meetings and Miscellany 21
A Washington Report by Ernest Mickel 32
News from Canada by John Caulfield Smith 36
Washington Topics by Ernest Mickel 48
Construction Cost Indexes 54
Required Reading 58
Calendar and Office Notes 240
Current Trends in Construction 286

JOSÉ LUIS SERT 125

- American Embassy at Baghdad* 126
Staff Apartments, Baghdad 132
Presidential Palace of Cuba, Havana 135
Studio for Joan Miró, Mallorca 138

PAVILION SYMBOLIZES FOUNTAIN OF YOUTH

- Pavilion, South of Venice, Fla.; Victor Lundy, Architect* 141

ARTS, ARTISTS AND ARCHITECTURE

- Appel: Dutch Muralist* by Suzanne Burrey 147

BUILDING TYPES STUDY 254: *Factories; Accent Engineering*

- Introduction* by James S. Hornbeck 151

Surgical Dressings Plant and Shipping Center

Johnson & Johnson, North Brunswick, N. J.
Walter Kidde Constructors, Inc., Designers and Builders 153

Duke Laboratories, Inc. S. Norwalk, Conn. Harrison & Abramovitz, Architects 159

Torrington Mfg. Co. Van Nuys, Calif. Marcel Breuer & Associates, Architects 163

Avon Products, Inc.

Morton Grove, Ill. Skidmore, Owings & Merrill, Architects and Engineers 169

Rockwell Mfg. Co.

Porterville, Calif. Walter Wagner & Partners, Architects & Engineers 173

ACCENT: ENGINEERING

- Floor Slab Problems in Factories and Warehouses* by J. L. Staunton 179

TECHNICAL ROUNDUP 183

PRODUCT REPORTS 184

OFFICE LITERATURE 186

TIME-SAVER STANDARDS: *Cracking of Masonry Walls—I, II & III* 189

INDEX TO ADVERTISING 288

Cover:

Above: Entrance and Cafeteria Building, Eastern Surgical Dressings Plant, Johnson and Johnson, North Brunswick, N. J. Walter Kidde Constructors, Inc., Designers and Builders; mosaic mural by Max Spivak. Joseph W. Molitor photo. Below: Column Sections from Presidential Palace, Cuba, by José Luis Sert.

ARCHITECTURAL RECORD
January 1958 Vol. 123 No. 1
Copyright 1958
by F. W. Dodge Corporation,
with all rights reserved.
Copyright not claimed by
F. W. Dodge Corporation
on front cover and page 139.
ARCHITECTURAL RECORD
(combined with
AMERICAN ARCHITECT and
ARCHITECTURE)
is published monthly,
except May 1958
when semi-monthly,
by F. W. Dodge Corporation,
10 Ferry Street,
Concord, New Hampshire.
Editorial and executive offices:
119 West 40th Street,
New York 18, New York.
Western editorial office,
2877 Shasta Road,
Berkeley 8, California.

Staff of Architectural Record

EDITOR
John Knox Shear, A.I.A.

MANAGING EDITOR
Emerson Goble

SENIOR EDITORS
James S. Hornbeck, A.I.A., *Features*
Elisabeth Kendall Thompson, A.I.A., *West*

ASSOCIATE EDITORS
Robert E. Fischer, *Engineering*
Florence A. van Wyck, *Production*
Jeanne M. Davern, *News*
Herbert L. Smith, Jr., A.I.A., *Houses*
Mildred F. Schmertz, *Design*

CONTRIBUTING EDITORS
Ernest Mickel, *Washington*
Dan Street, *Washington*
John Caulfield Smith, M.R.A.I.C., *Canada*

ASSISTANT EDITORS
Margaret R. Fuerst, *Engineering*
Dianne Thomas

EDITORIAL ASSISTANTS
Helen E. Cook, *Production*
Pamela C. Forcey, *Assistant to Editor*

DESIGN
Eugene H. Hawley, *Director*
Burt Kramer
Mary Ann Godfrey

CONSULTANTS
Thomas S. Holden, *Industry Relations*
George Cline Smith, *Economics*
Clyde Shute, *Statistical*
Clifford Dunnells, Jr., *Field Research*
Daniel J. Howe, Jr., *Public Relations*
Sigman-Ward, *Drafting*

PUBLISHING DIRECTOR
H. Judd Payne

GENERAL MANAGER
Robert F. Marshall

CIRCULATION MANAGER
Marshall T. Ginn

Next Month in the Record

BUILDING TYPES STUDY: ELEMENTARY SCHOOLS

Seven schools in seven states present seven distinctive solutions by Architects Warren Ashley; Vincent Kling; Mitchell & Ritchey; Naramore, Bain, Brady & Johanson; George Pierce and Abel B. Pierce; Eberle M. Smith; and The Architects Collaborative.

MINORU YAMASAKI'S CONSULATE IN KOBE

One of the first completed buildings under the FBO program speaks of America in a skillful and sympathetic language.

A BANK OF IDEAS

A stimulating proposal for the State Bank of Clearing, Chicago, by Architect Harry Weese.

NERVI'S UNESCO STRUCTURAL SYSTEM

A sketch and photographic report on the structural fabric of the remarkable building by Breuer, Zehruss and Nervi.

THE EDUCATIONAL WORK OF EDWARD D. STONE

In the third installment of Stone's exciting current work the RECORD presents three dormitory groups, three libraries, a dining hall, a fraternity house and a new campus.

ACCENT: ENGINEERING

A report on the continuation of Princeton University's study of curtain wall construction with emphasis on jointing problems.

OTHER F. W. DODGE SERVICES: Dodge Reports — Dodge Statistical Research Services — Sweet's Catalog Services — Dodge Books — Dodge Mailing Service — The Modern Hospital — The Nation's Schools — College and University Business — Hospital Purchasing File — Chicago Construction News — Daily Pacific Builder — Denver Daily Journal — Real Estate Record & Builders Guide.

Members of Audit Bureau of Circulations and Associated Business Publications. ARCHITECTURAL RECORD is indexed in Art Index, Industrial Arts Index and Engineering Index.

Every effort will be made to return material submitted for possible publication (if accompanied by stamped, addressed envelope), but the editors and the corporation will not be responsible for loss or damage.

Subscription prices: Published monthly except May 1958 when semimonthly. U. S., U. S. Possessions and Canada: \$5.50 per year; other Western Hemisphere countries, Spain, to those who by title are architects and engineers, \$9.00 per year. Single copy price except Mid-May 1958 issue \$2.00; Mid-May 1958 issue \$2.95. Beyond Western Hemisphere, excluding Spain, to those who by title are architects and engineers, \$9.00 per year for 12 monthly issues not including Mid-May 1958 issue. Subscriptions from all other outside U. S., U. S. Possessions and Canada for 12 monthly issues, not including Mid-May issue, \$24.00 per year. Change of address: subscribers are requested to furnish both the old and new addresses, sending if possible stencil impression from magazine wrapper; allow four weeks for change.

Officers of F. W. Dodge Corporation

CHAIRMAN OF THE BOARD
James McV. Breed

VICE CHAIRMEN OF THE BOARD
Paul Abbott, Thomas S. Holden

PRESIDENT
Howard Barringer

EXECUTIVE VICE PRESIDENTS
Irving W. Hadsell, Chauncey L. Williams

VICE PRESIDENT AND TREASURER
Howard M. Thompson

VICE PRESIDENTS
Julius T. Little, Robert F. Marshall,
T. Oliver Morgan, O. O. Paulsell,
H. Judd Payne, George Cline Smith

REGIONAL VICE PRESIDENTS
Carl S. Bennett, Clinton C. Bennett,
Ralph M. Hairston, Roy J. Hard,
Arthur D. Prior, Richard H. Ray,
John M. Williams

ASSISTANT VICE PRESIDENT AND COMPTROLLER
Edwin H. Freed

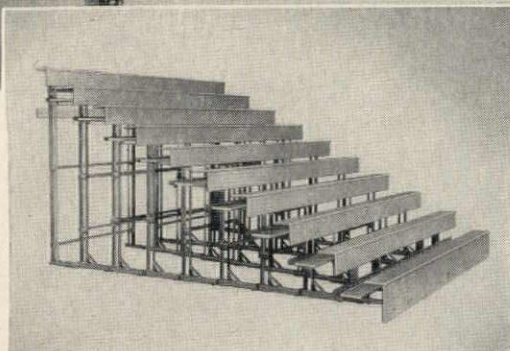
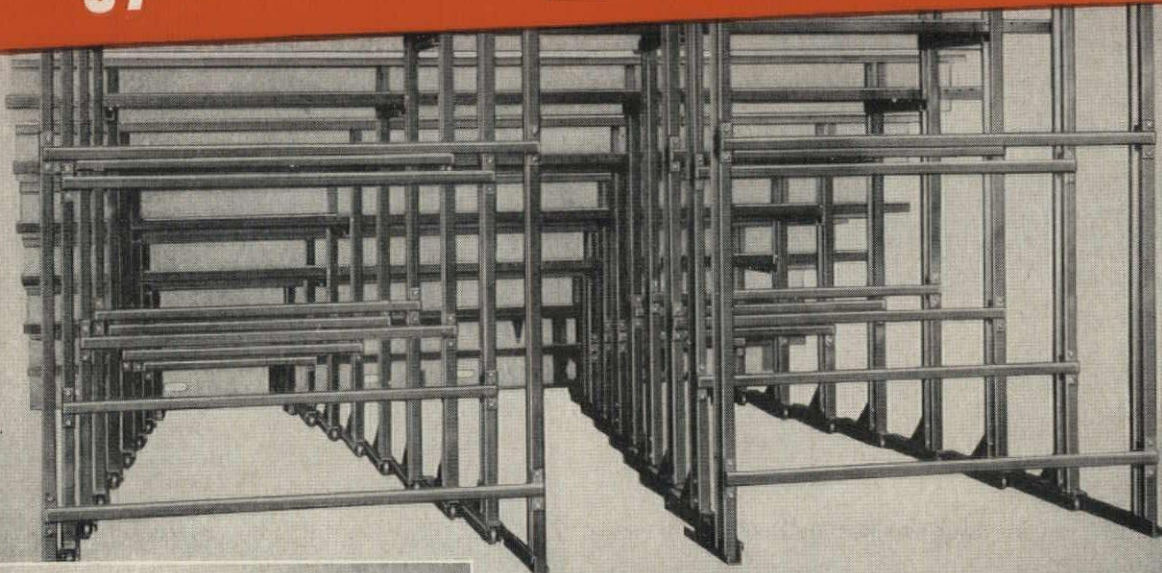
ASSISTANT VICE PRESIDENTS
Walter F. DeSaix, Clifford G. Dunnells, Jr.,
Gault Eastman, Clyde Shute, Marc Wayne

SECRETARY
Sanford D. Stockton, Jr.

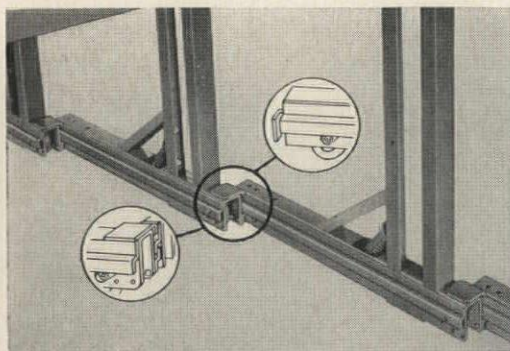
ASSISTANT SECRETARIES
William C. Breed, Jr., George W. Morgan

ASSISTANT TREASURER
Irving B. Satin

BE SURE the seating in that new
gymnasium is **EXTRA SAFE!**



Medart Telescopic Gym Seats can be furnished with 10½" or 11½" row rise and 22" or 24" row spacing. Exclusive fully-automatic power operation is available at small cost.



Interlocked telescoping supports at top, and roller housings at bottom, assure easy opening and closing, and straight-line non-binding trackage.

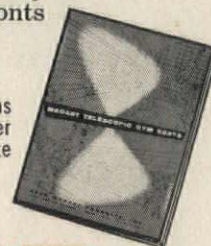
Medart Telescopic Gym Seats have a super-strong understructure built like the steel skeleton of a skyscraper

The steel understructure of Medart Seats is a completely free-standing, self-supporting unit, open or closed. It will support 400 pounds for each linear foot of seating space—nearly 3 times recommended standard. Wood members add extra strength and rigidity. No wall reinforcement is necessary.

Eight *vertical* steel uprights support each seatboard directly on floor, and are staggered for even weight distribution. Dual rubber rollers, in steel housings under each pair of uprights, retract under load so seat section rests immovably in position when occupied. Everybody is safe on Medart Seats!

But safety is only one of many Medart advantages. More leg and foot room; better visibility; use of only 1, 2 or as many rows as needed; vertical fronts for flush recessing, are only a few of many superior features of Medart Seats.

Medart's Gym Seat Catalog contains many ideas on how to get better, safer seating with minimum investment. Write for your copy.



MEDART
TELESCOPIC GYM SEATS

SPECIFY the best, then INSIST on it!



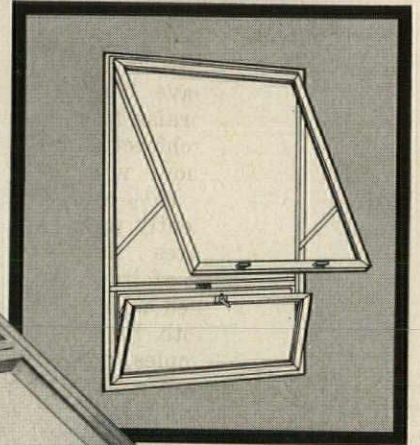
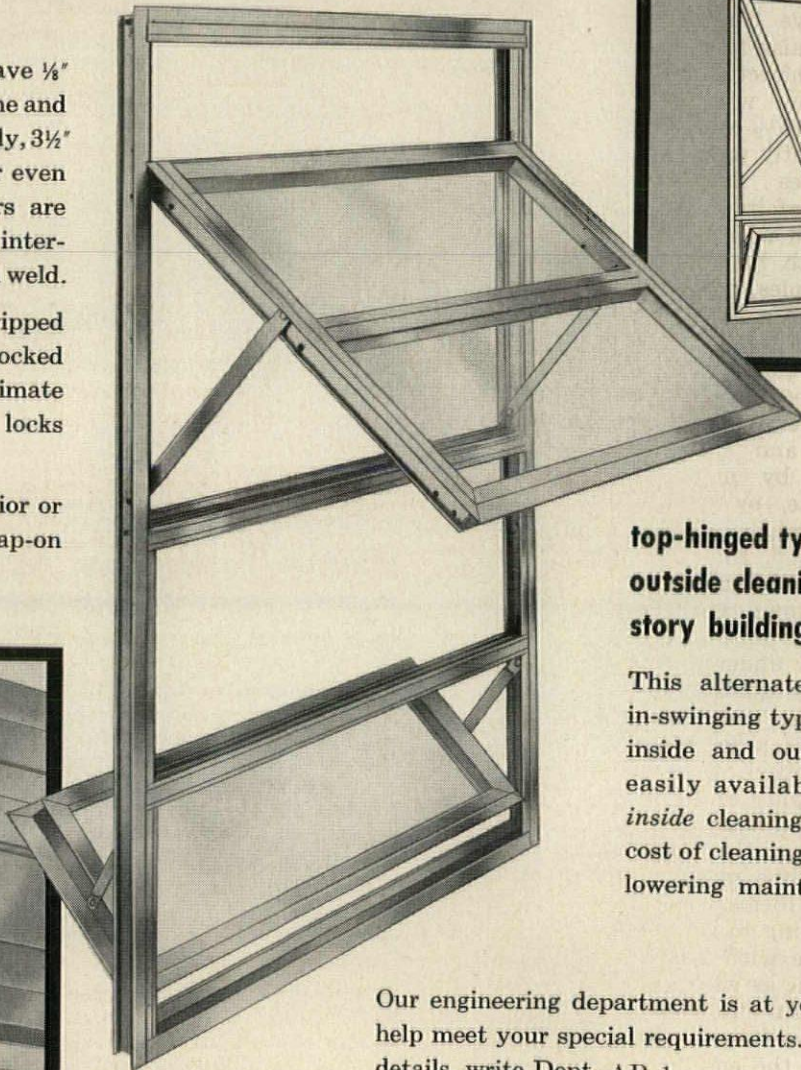
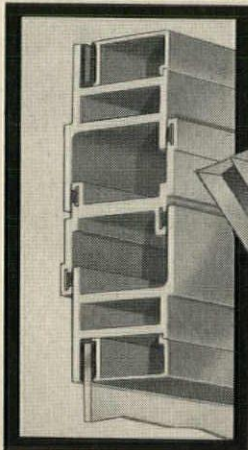
FRED MEDART PRODUCTS, INC. • 3540 DE KALB ST. • ST. LOUIS 18, MISSOURI

Another New Ware Window...

WARE MONUMENTAL PROJECTED

offers greater strength and rigidity for large operating glass areas

- Tubular ventilators have $\frac{1}{8}$ " minimum thickness, frame and vent depth 2" horizontally, $3\frac{1}{2}$ " vertically (min.), and for even greater strength, corners are mechanically joined by interlocking corner angles and weld.
- Completely weatherstripped by premium wool pile locked in extruded channel. Climate control assured by Key locks at jambs.
- Optional glazing, interior or exterior—channel or snap-on glazing bead available.



top-hinged type eliminates outside cleaning for multi-story buildings

This alternate top-hinged, in-swinging type makes both inside and outside surfaces easily available for rapid *inside* cleaning — saving the cost of cleaning bolts, greatly lowering maintenance costs.

Our engineering department is at your service to help meet your special requirements. For complete details, write Dept. AR-1.

Aluminum **WARE** Windows



Jalousie

Econ-O-Wall

Econ-O-Ware
Awning

WareRite and
Ware Awning

Projected

Casements



Member

Ware Laboratories, Inc., 3700 N.W. 25th, St., Miami, Florida

Architecture USA

Architects who have been hearing more blame than praise for the state of American architecture might spend a healing hour with "Architecture USA," the 10½ x 14-in. 50-page pamphlet recently published by the United States Information Agency for the use of its posts overseas. Well illustrated with handsome photographs of both historical and contemporary examples, the publication offers "a glimpse of past and present America as revealed through its architectural development."

American architecture, notes the introduction, "is the result of many cultures, blended and molded by time and events, by natural resources and climate, by knowledge and creativeness, and by freedom of thought and action." And here is where American architects are reported to be: "Human needs have always influenced architecture. Today it is more fully understood that these needs vary as much as do the demands of climate, materials and geography. There is a growing appreciation of tradition, that while youth may have beauty and vitality, age brings depth and character, and that architectural qualities that have stood the test of time may well be fused with newer forms. American architects are striving to satisfy the needs of the people with structures that provide esthetic as well as practical satisfactions. An effort is being made to utilize more fully the fruits of man's labor for the enhancement of his environment in all aspects that touch his life."

Poem

One more comment—supremely succinct—on that famous October issue of the *Ladies Home Journal* comes from Prof. C. E. ("Chicago gets the shaft") Stousland, architecture head at Ohio's Miami University. "The New Nun's Tale, or, get your remodeling hands off my habits" is the title, and the first verse says plenty:

the frost is on the pumpkin
the Journals on the stands
Miss Thompson's on the architect
and anything he plans

The Good Old Days

With the mellow chords of Auld Lang Syne still in the air, it seems like a good time to remind the same *Ladies Home Journal* that its authors once (December 1895, for example) *reasoned* with architects' prospective clients: "And now a few words on behalf of the builder and architect: Don't expect your house to be perfect; wood will shrink, plaster will crack more or less, and doors and window stick; and don't expect them to keep the house in repair. They cannot afford to do more than put it in proper condition when they hand it over to you." What's happened to the old spirit?

Architects Anonymous

A recent issue of *Buildings, The Magazine of Building Management* carried a two-page story called "The Changing Skyline" and showing photographs of six new buildings, only two of them accompanied by architectural credits. In pursuit of a line of inquiry resumed whenever its attention is drawn to such an omission in another publication, the RECORD asked *Buildings* why no architectural credit on four of the buildings, and received from Managing Editor Ray Walther this reply: "Regarding editorial new construction and modernization material, our first concern is to credit the building management or rental firm involved. This, of course, is in keeping with the nature of our audience. In addition, we always credit the firm which provides us with background material. This may be either a manufacturer, architect, builder, etc. If space permits, regardless of the reference, we usually try to mention the architect. However, this isn't always possible. In a highlight feature such as the one you mention, there is room for just so many credits,

in addition to the more important purpose of describing the buildings involved."

"The Trouble with Architects"

According to Editor Herbert L. Mann of *Contractor's Electrical Equipment*, "the national magazine for electrical contractors," the trouble with architects is they will not provide information on request for news stories on projects which are of interest to him for their implications in his field. Mr. Mann, who says he *always* credits architects, complains that nine times out of ten, in fact, he never even gets a reply to a query directed to an architect.

Our Readers Write

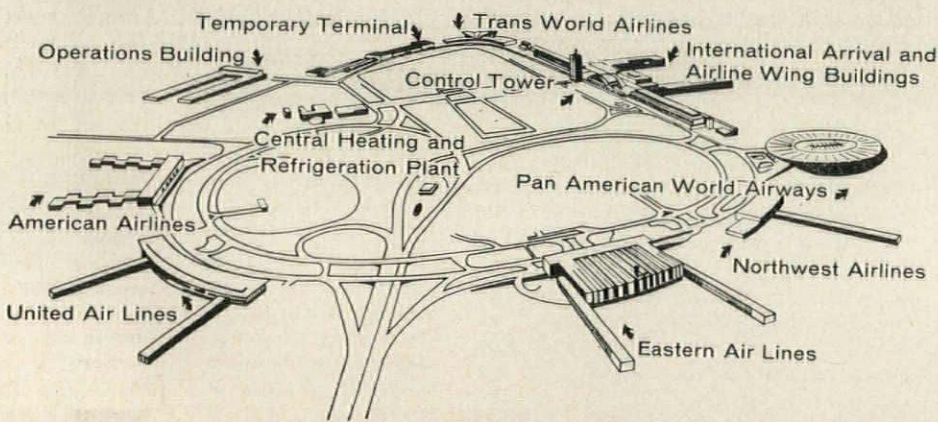
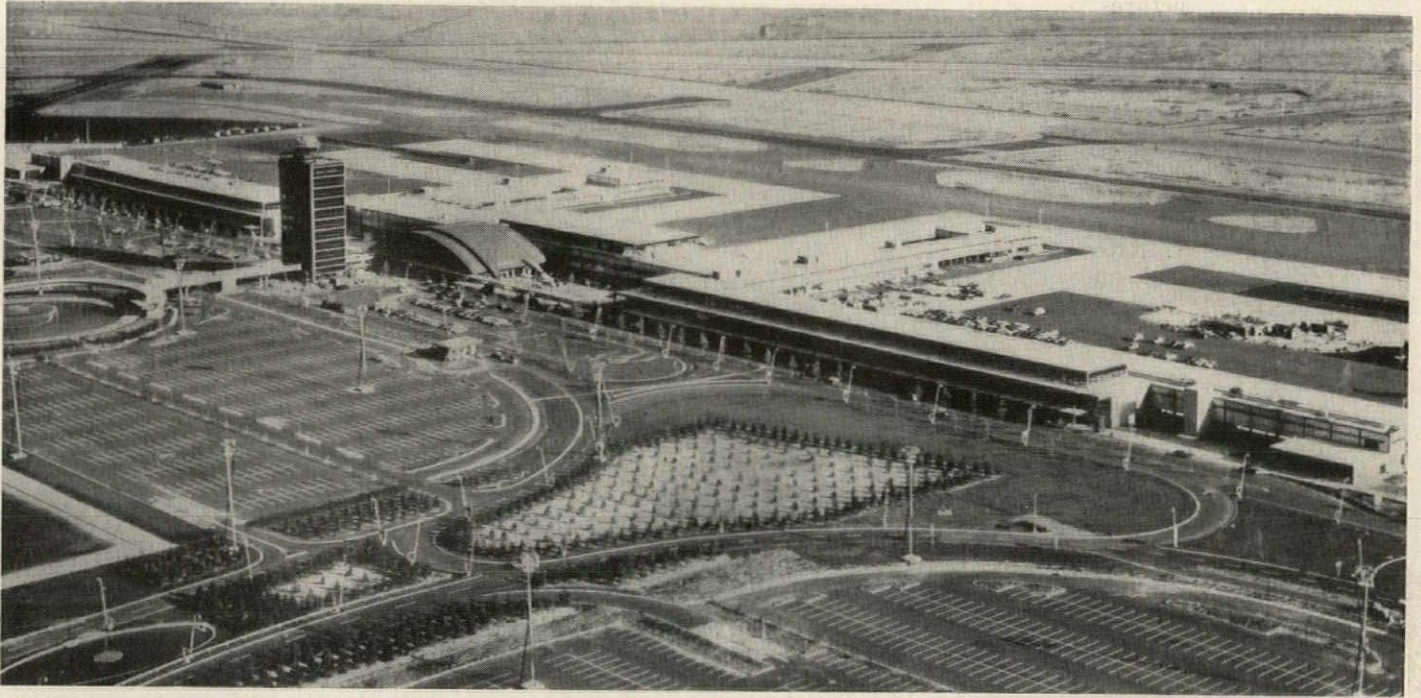
Your timely article, 'American Architecture Designed for Export' (AR, Oct. 1957, pages 237-242), "was a visual treat," writes Architect Ben Ronis of Washington, D. C., "but at this time of increasing need for respect for American opinion abroad, I could not keep from thinking that perhaps to millions of knowing individuals in other countries we must appear to live in a world of fantasy, scorning to practice what we preach, when those foreigners have seen our recent governmental buildings in Washington, D. C., and elsewhere in the United States, or have read the petty bickering over the tremendously magnified importance of the East Front of the Capitol and the criticism of the design of the Air Academy by high government officials."

Alan Dunn for Brussels!

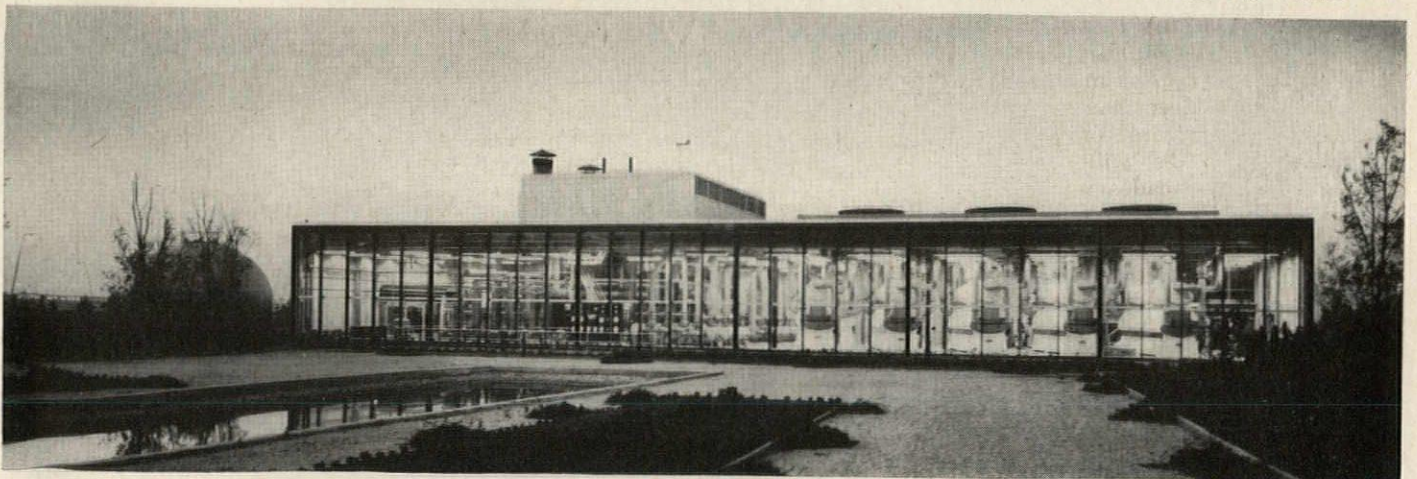
Some of your favorite cartoons—of those Alan Dunn has been doing for the RECORD over the years—may become part of the American exhibit at the Brussels World's Fair 1958. The committee in charge of U. S. building exhibits has asked permission to use several of Dunn's RECORD cartoons on the walls of the "exploded house", part of the exhibit in Ed Stone's American Pavilion.

Buildings in the News

NEW YORK INTERNATIONAL AIRPORT OPENS MAJOR BUILDINGS OF ITS "TERMINAL CITY"



International Arrival and Airline Wing Buildings, (aerial view above) will be dominant structures of Terminal City (key map at left). They and the Central Heating and Refrigeration Plant (below) were designed by Skidmore, Owings and Merrill on the basis of functional and physical plans prepared under the direction of Thomas M. Sullivan, Chief of the Port of New York Authority Aviation Planning Division, whose office conceived and planned Terminal City in consultation with Architect Wallace K. Harrison. Individual unit terminals (three shown across-page) are the work of the various architects commissioned by the sponsoring airlines. The Arrival Building houses all customs, health and immigration inspection services, as well as restaurant and cocktail lounge, coffee shop, barber shop, several stores, waiting rooms and press accommodations. Wing Buildings house foreign flag airlines



The first major structures to be completed in the \$150 million "Terminal City" development at New York International Airport at Idlewild, Queens, were dedicated and opened for business last month. The \$30 million International Arrival and Airline Wing Buildings will handle all international air passengers entering the United States through the Port of New York and thus become, according to their proud sponsor, the Port of New York Authority, "the country's air age front door."

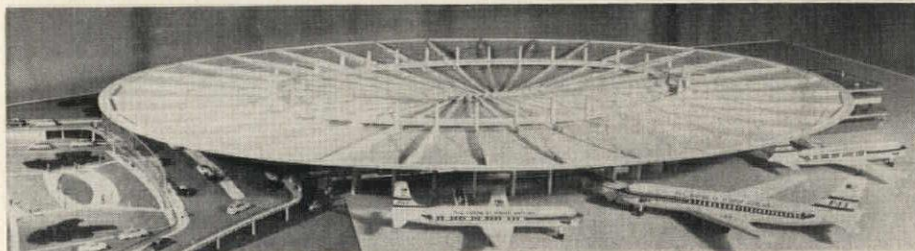
The design of the 655-acre Terminal City itself was dictated by the realities of anticipated traffic at Idlewild—11,100,000 passengers by 1965, some 3,300,000 of them overseas passengers. A single terminal building to serve this traffic would have required a structure over two miles long, according to Port Authority estimates. Therefore the decision was made to concentrate in a single structure only the flights requiring clearance through Customs and other Federal inspection services. Each airline will have its own terminal facility for handling flights not subject to such clearance. Major U. S. flag lines are building individual terminal buildings on sites around the perimeter of the terminal area. The overall scheme provides for handling 140 aircraft at one time. Facilities of Terminal City upon completion—scheduled for 1960—will also include an operations building, ten miles of roadways, seven miles of taxiways, parking space for 6000 cars and a 220-acre landscaped "International Park." A specially designed lighting system will "cover the entire area with a blanket of never-ending daylight."

The concrete, glazed brick and masonry Arrival Building, three stories high and approximately 760 ft long by 640 ft deep, has two double-deck 240-ft "fingers" or arcades. Incoming passengers will use the first floor of the arcades in moving to the inspection area. Outgoing passengers will be at second-floor level until they descend at their particular gate positions. The fingers connect with Federal inspection services on the first floor. The Wing Buildings, connecting with either end of the Arrival Building, will house ticket counters, lobbies and offices of the foreign-flag airlines.

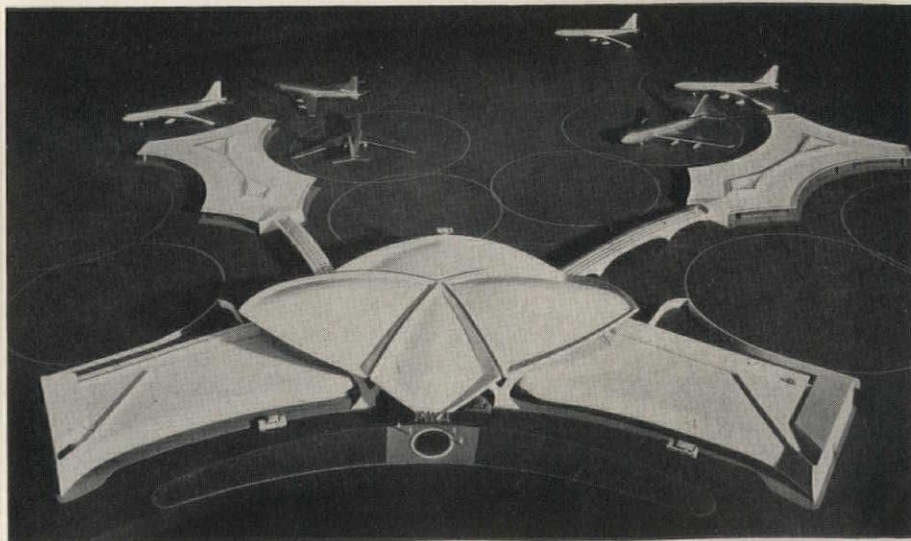
American Airlines passengers will move from individual lounge at each gate position through enclosed corridors which will be extended from the lounge to fit snugly around airliners' doors. This "telescopic corridor" is "now under development."
Kahn and Jacobs, Architects



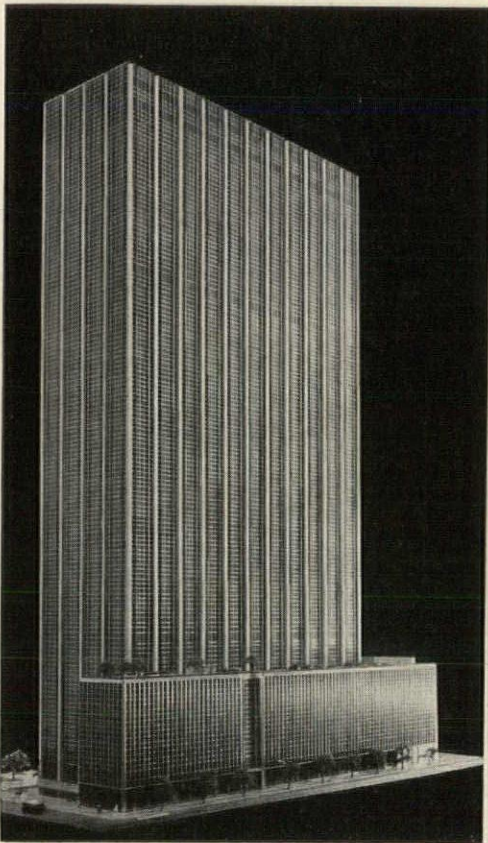
Pan American will shelter emplaning and deplaning passengers, baggage and cargo and keep distance from terminal to planes at minimum by parking planes under giant extension of terminal roof, which will be cantilevered 110 ft out over parking apron. Tippetts-Abbett-McCarthy-Stratton, Architects-Engineers; Ives, Turano and Gardner, Associate Architects



Trans World Airlines will provide moving (and stationary) sidewalks to take passengers from terminal through glass-enclosed corridors to gate houses adjacent to plane boarding areas. In this building a dynamic architectural expression of purpose and occasion was deliberately sought. Eero Saarinen and Associates, Architect



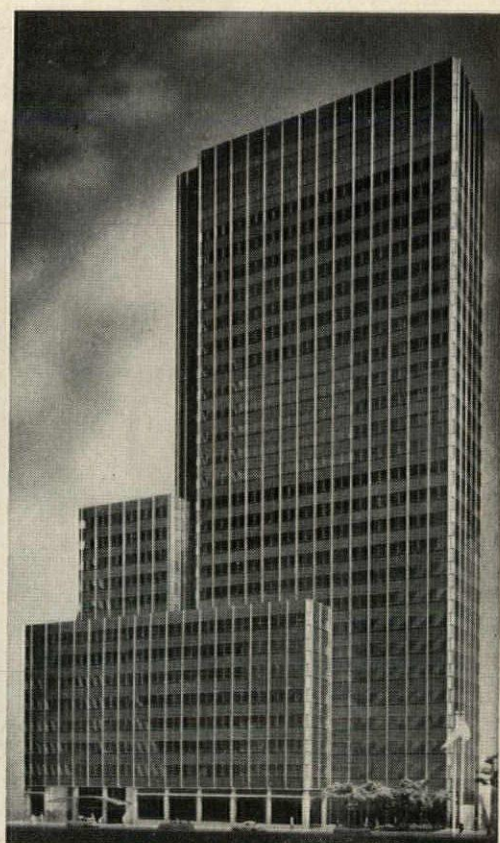
OFFICE TOWERS AROUND THE NATION



New York—Time & Life Building; Harrison & Abramovitz & Harris, Architects. The 47-story limestone, aluminum and glass tower and its seven-story L-shaped base structure (to provide bulk space for certain tenants) will cover 75 per cent of site, landscaped plaza the rest; provide 1,525,000 sq ft of rentable area, 600,000 sq ft of it to be leased by Time Inc. Cost is estimated at \$70 million



New York—666 Fifth Avenue; Tishman Realty & Construction Company, owners and builders; Carson & Lundin, Architects. New neighbor to the north of Rockefeller Center, this 38-story building has "world's largest bolted steel framework" and "world's largest aluminum curtain wall." Occupying 200 by 300 ft plot, it contains over a million sq ft of office space. Estimated cost: \$40 million



New York—717 Fifth Avenue; Corning Glass Works, sponsor; Harrison & Abramovitz & Abbe, Architects. The 28-story tower will have skin entirely of green-tinted glass; it will be set back 12 ft from the lot line, with the corner left open, to provide 3000-sq-ft landscaped plaza. Corning and associates will occupy less than half the 365,000 sq ft area. Contractor: George A. Fuller Company



Miami—First National Bank, DuPont Plaza; Weed, Russell, Johnson Associates, Architects. The 17-story structure, scheduled for completion late this year, will provide 450,000 sq ft at estimated cost of \$6 million. Bank will occupy first three floors (about 40,000 sq ft each); the other 14 floors of tower space will be rented to tenants. Structure is field-welded structural steel, facade precast concrete panels faced with ceramic tile



Boston—The Travelers Insurance Companies, 125 High Street; Kahn and Jacobs, Architects. The building will rise 16 stories (one more than rendering shows), its center section, housing utility core, three stories higher; it will contain 298,000 sq ft of floor area. Cost is estimated at \$7 million. The Travelers tentatively plans to occupy four floors and lease 12. Structure is steel, facade blue and white brick. Building will be air conditioned



Pittsburgh—Porter Building, Grant Street and Sixth Avenue; H. K. Porter Company, sponsors; Harrison and Abramovitz and Abbe, Architects. A 17-story tower to be built in Pittsburgh's Golden Triangle at an estimated cost of more than \$7 million, the new building will house the company's general offices. It will be completely air conditioned and will have automatic elevators. Completion of construction is scheduled for late this year

ANNOUNCING

Ainswall

THE NEW, **LOW COST** FLUSH-WALL PARTITIONING

Ainswall movable partitions have been designed with features never before available at such a low cost per foot. Available in either flush-wall or panel type, Ainswall partitions are movable by sections, need not be dismantled. Ainswall panels and framing members are factory pre-finished in baked enamel to virtually eliminate maintenance. Ainswall partitions are available in a modular range of panel sizes.

FREE ILLUSTRATED BOOKLET

Write today on your letterhead for this illustrated booklet that provides details, sizes, and specification information.

Ainswall

a product of

MULT-A-FRAME DIVISION

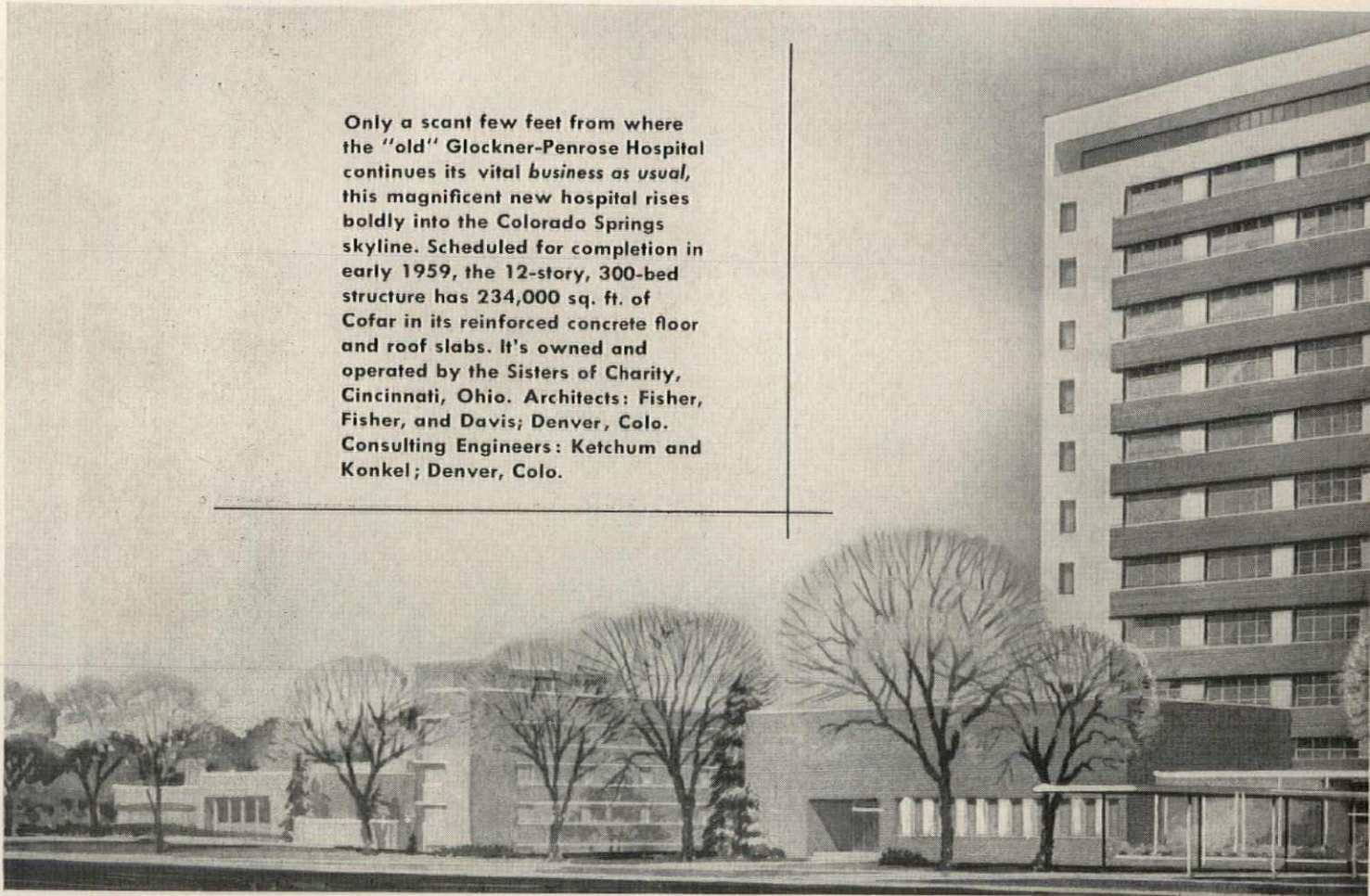
Ainsworth—Precision Casting Co.

Division of Harsco Corporation

1471 E. ATWATER STREET, DETROIT 7, MICHIGAN

AW-1

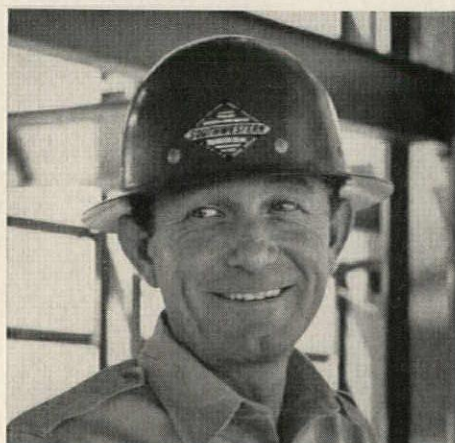
Only a scant few feet from where the "old" Glockner-Penrose Hospital continues its vital business as usual, this magnificent new hospital rises boldly into the Colorado Springs skyline. Scheduled for completion in early 1959, the 12-story, 300-bed structure has 234,000 sq. ft. of Cofar in its reinforced concrete floor and roof slabs. It's owned and operated by the Sisters of Charity, Cincinnati, Ohio. Architects: Fisher, Fisher, and Davis; Denver, Colo. Consulting Engineers: Ketchum and Konkel; Denver, Colo.



How Granco's COFAR[®] helps build new Colorado Springs



GENERAL SUPERINTENDENT Don Ingle of Lembke Construction Company, Colorado Springs: "With Cofar, our whole operation is simpler. We use the lower flange of beams to support temporary shores so there's no mass of vertical wood supports to worry about. Trades seem to work so much easier, and Cofar T-wires are ideal to tie to."



COFAR ERECTOR Bob Hatch of Southwestern Transfer Company, Albuquerque: "Cofar's biggest advantage is *easy handling*. One man can place it as fast as another can weld. And the other trades can follow right behind because Cofar, with temporary shores, easily fulfills all requirements and needs for overhead safety planking."

BEST place to evaluate performance of building materials is the job-site. At Glockner-Penrose Hospital, Cofar again proves it's the most economical way to combine concrete forming and reinforcing in *one* operation—with maximum design flexibility. "Spotted" by a giant crane, Cofar was quickly placed and welded to structural steel, forming a working platform. Trades moved in fast, concrete was placed even as Cofar placing proceeded on floors above. Next time, save manpower, cut costs for your clients . . . specify Cofar!



construction team hospital faster, at lower cost

How reinforced concrete slab construction is simplified when Cofar is specified



Cofar units are 2½ ft. wide, weigh only 2 lbs. per sq. ft., are often handled by one man. Delivered shop-cut, ready to place, Cofar reduces storage problem on crowded job-sites.



Welded to structural framing, Cofar is safe working platform. Trades move in quickly. Interlocking side-laps make tight form for wet concrete, eliminates form building, removal.



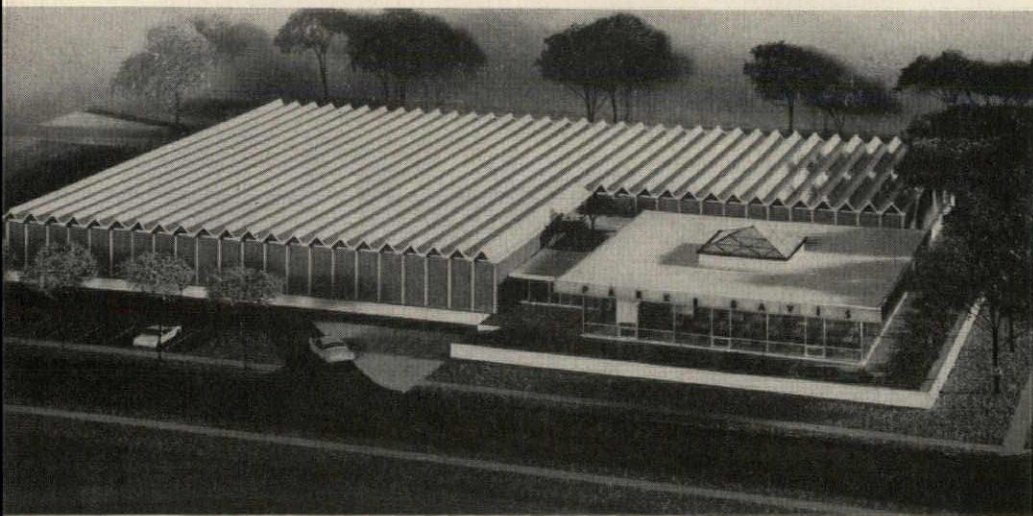
In finished slab, Cofar serves as (1) main positive reinforcement, (2) temperature reinforcement. System has earned UL fire ratings (up to 4 hrs.) without a suspended ceiling.



A Subsidiary of
GRANITE CITY STEEL CO.
GRANITE CITY, ILL.
Granco Distributors in
80 Principal Cities



FREE! New Cofar Product Manual
Clip this coupon, attach it to your letter-
head, sign it and mail to:
GRANCO STEEL PRODUCTS CO.
6506 N. Broadway, Dept. R-81
St. Louis 15, Missouri

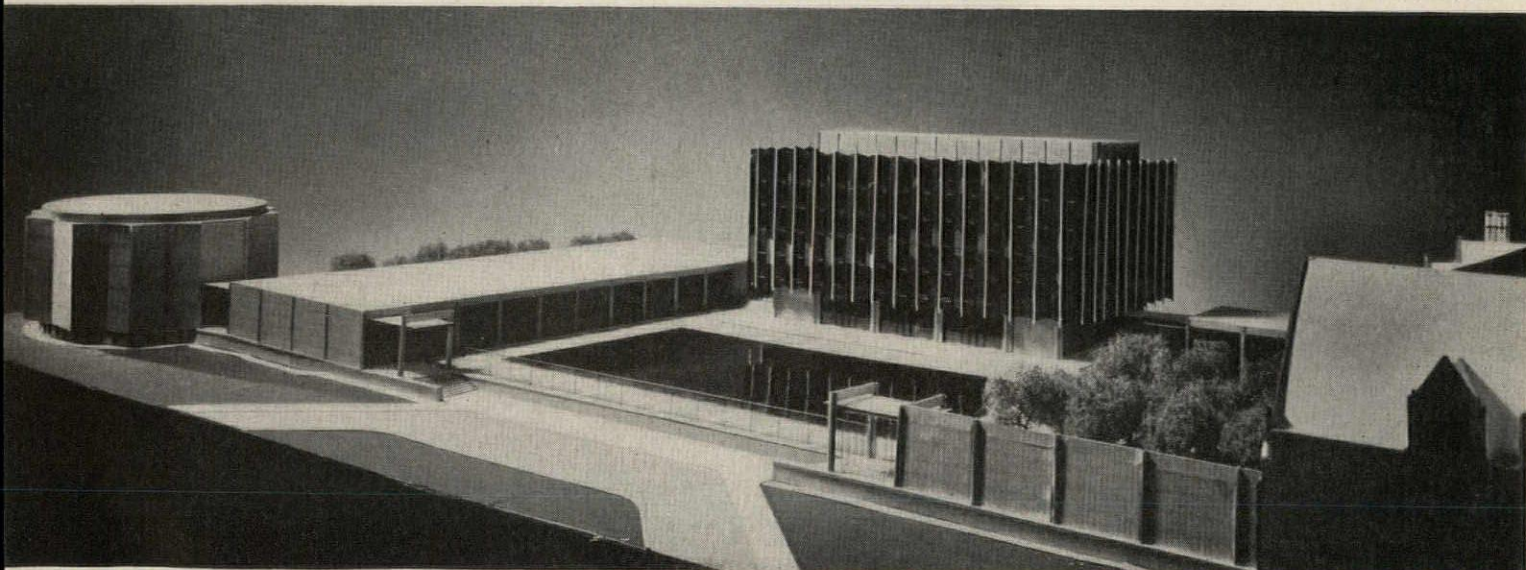


Branch office and warehouse to be constructed for pharmaceutical firm of Parke-Davis in Skokie, Illinois; Yamasaki, Leinweber and Associates, Architects. Building, scheduled for completion in November, will have reinforced concrete roof, brick walls and—for office section—large expanse of glass. Warehouse section will be approximately 40,000 sq ft; office 6000 sq ft. Estimated cost: \$500,000



Christ Chapel (left) for Episcopal Academy, Overbrook, Pa.; Vincent Kling, architect. Fund-raising campaign is now under way to raise \$350,000 to construct the chapel, designed to "express the central role of religion" at the 172-year-old Academy and "the freshness, directness and simplicity of the young boy's attitude toward God and the world." Plan is a Greek cross, with altar at center and seating around it in three transepts. Roof is ribbed copper, steeple glass enclosed, walls of native field stone. Within, laminated wood structure and stone walls will be left exposed; gable ends above doors will be stained glass

Revised design (below) of new Law School Building for University of Chicago; Eero Saarinen and Associates, Architect. Units include (from left) elliptical-shaped auditorium and court room; classroom and seminar structure; six-story main section containing library, stacks, faculty offices, student and public rooms and fronting on large reflecting pool. At right are residence halls. Estimated cost: \$4,100,000



KENTILE® Vinyl Asbestos on today's smartest FLOORS



Floor of Random Mocha and Random Gray Tones. Counter Top is Cushion-back Vinyl; Russet KenCove® Wall Base.

Latest look in floors! New Random Tones in longer wearing KENTILE Vinyl Asbestos Tile!

- Highly styled new Random Tones go with any décor—from Chinese Contemporary to Early American Shaker.
- Subtle variations of muted color give floors drama and visual interest.
- Decorator colors stay glowing for years and years.
- Greaseproof and stain resistant.
- Pays for itself with longer wear, less care.
- Ask your flooring contractor or Kentile Representative to show them to you. Or write in for samples. Address is Kentile, Inc., 58 Second Avenue, Brooklyn 15, N.Y.

SPECIFICATIONS:

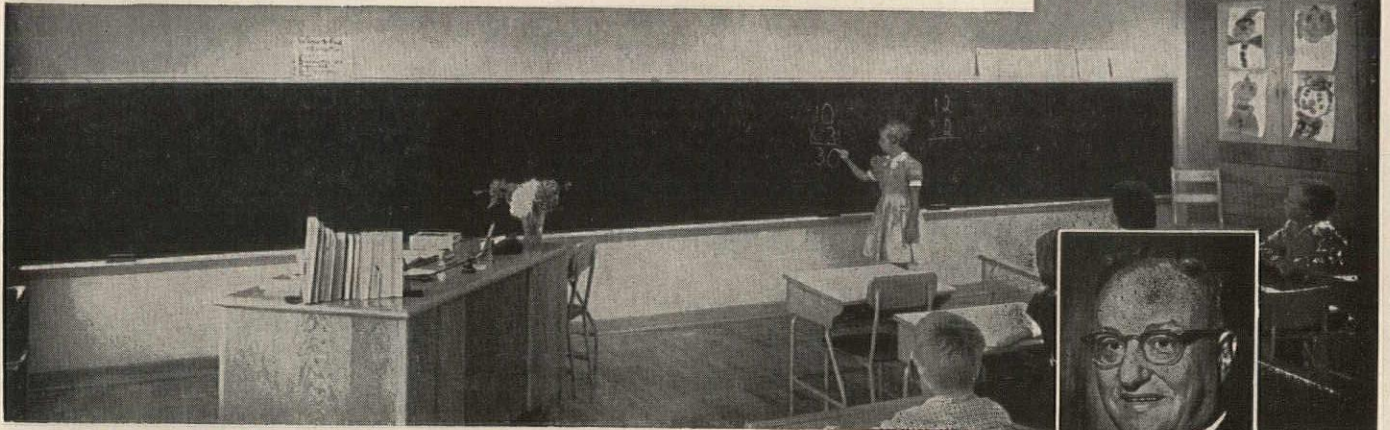
- Size: : 9" x 9"
- Thicknesses: : 1/16", 1/8"
- Colors: : Rose Tones, Mocha Tones, Gray Tones, Green Tones.
- Installation: : Random Tones are laid just as they come from the carton . . . keeping labor costs to a minimum.

KENTILE

FLOORS

AVAILABLE IN VINYL ASBESTOS • SOLID VINYL • CUSHION-BACK VINYL • CORK • RUBBER AND ASPHALT TILE . . . OVER 175 DECORATOR COLORS!

natural slate chalkboards



Union Terrace Elementary School - Allentown

Arch.: A. L. Wiesenberger, Assoc., Allentown



"First and Only Choice of the Allentown, Pa. School District"

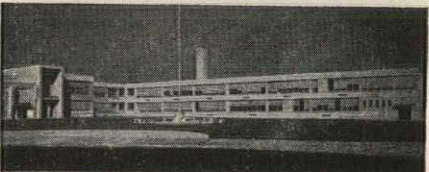
. . . says Mr. Paul J. Fink, Assistant to the Superintendent of Schools



Midway Manor Elementary School - Allentown
Arch.: Heyl-Bond-Miller, Allentown



Muhlenberg Elementary School Addition - Allentown
Arch.: Lange & Everett, Allentown



South Mountain Junior High School - Allentown
Arch.: Heyl-Bond-Miller, Allentown



Vocational Annex to Senior High School - Allentown
Arch.: George E. Yundt, Allentown

"There is no substitute for the real thing! Nothing is easier on a child's eyes than the contrast of white chalk against a slate chalkboard. Words stand out crisp and clear . . . are quickly read by all."

"We have found Pennsylvania slate to be practically indestructible as we're still using some of the original slate boards in one of our recently renovated schools . . . boards installed when the school was built in 1886! After close to 70 years, these boards are still ably serving our students and teachers. What's more, they fit in perfectly with their new, modern surroundings. No wonder we are sold on slate and specify it in all our schools."

That's the feeling of Mr. Paul J. Fink of the Allentown School District. And the facts bear it out. Since 1950, this district has renovated or built additions to 7 elementary schools, built 2 new elementary schools and a junior high school, added a vocational annex to the senior high school, and construction is now under way for another new junior high school. In each case, natural slate chalkboards were specified.

Why not investigate slate chalkboards for your classrooms? You'll find for contrast, durability, easy maintenance . . . and timeless good looks . . . there is just no substitute for slate!

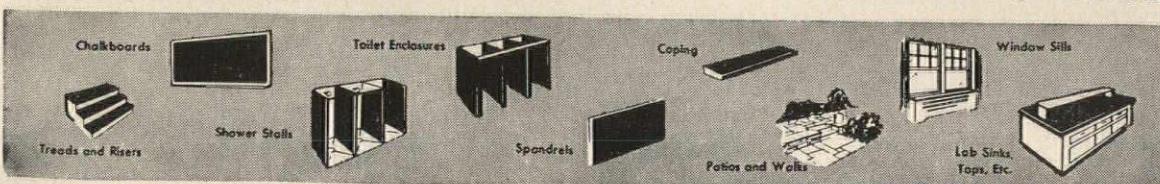
Inquiries welcomed on specific properties of slate. Write:

NATURAL SLATE BLACKBOARD CO.

THE STRUCTURAL SLATE CO. - pen argyl, pennsylvania

for your protection, insist on slate quarried in Pennsylvania

natural slate...500 million years in the making



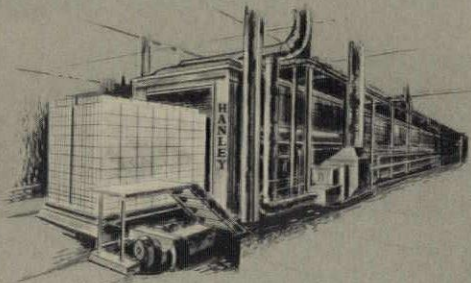
BRICK

HANLEY

FROM CLAY



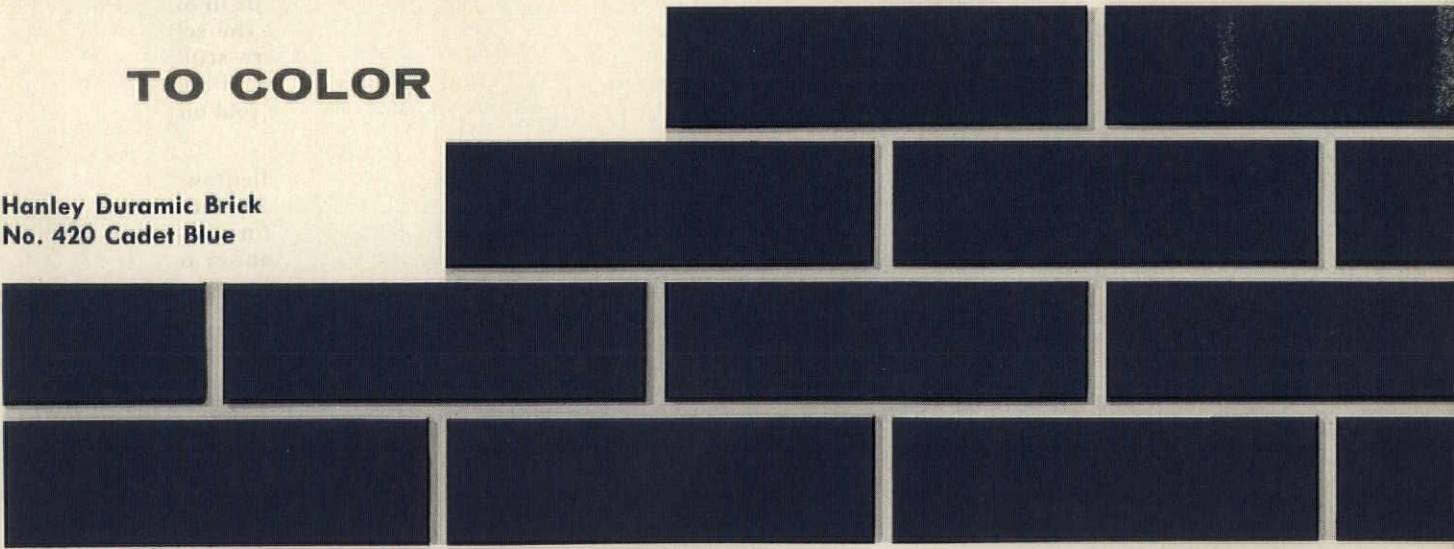
TO KILN



Architects favor Hanley Duramic Brick for two important reasons—quality and color. *Quality* that is the result of strict control—from grading of raw material, through production in the Hanley patented kiln, to the finished product. *Color* that enables the architect to create structures of unique, lasting beauty; color such as this Hanley Duramic Brick No. 420, Cadet Blue.

TO COLOR

Hanley Duramic Brick
No. 420 Cadet Blue



The Hanley glazed brick and tile catalog is filed in Sweet's. For copies contact your nearest Hanley Sales Office or Distributor.



HANLEY COMPANY

Administrative Office: One Gateway Center, Pittsburgh 22, Pa.

Home Office: 28 Kennedy Street, Bradford, Pa.

District Sales Office: **New York** • 101 Park Avenue

Detroit • 14976 Schaefer Highway

Buffalo • 625 Delaware Avenue

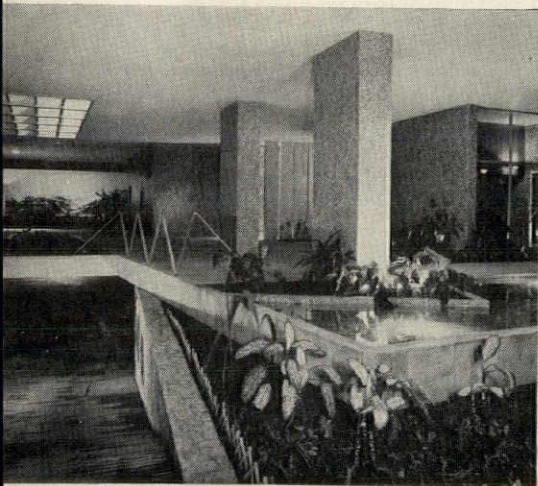
Pittsburgh • 647 Washington Road, Mt. Lebanon

FIRST LOOK AT ARCHITECTURE EXHIBITION OF SÃO PAULO'S IV BIENNAL

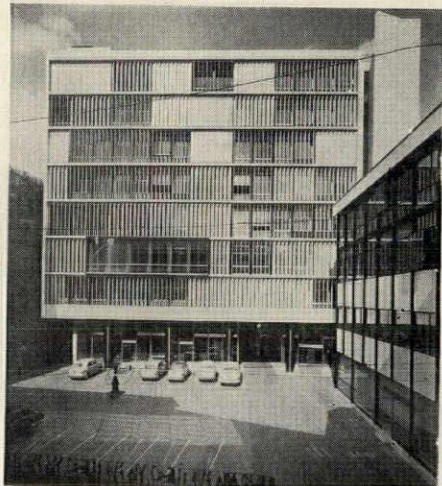
The only international exhibition of architecture which is regularly repeated under the same auspices is that sponsored by Sao Paulo's Museum of Modern Art in connection with its Biennial programs. For the IV Biennial, held during the three months just past, a selection committee composed of Architects Francisco Beck, Edouardo Kneese de Mello, Plinio Croce and Maria Henrique Glicerio Torres chose the works of 142 architects from 21 nations, including 13 from this country, from works submitted by 205 architects. Five of the non-U. S. projects selected are shown here. A later report will show all the award-winners (none U. S.).



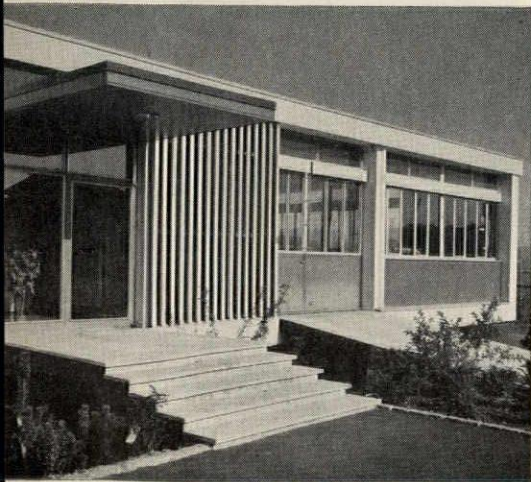
YUGOSLAVIA—Apartment building at Zagreb; Drago Galic, Architect



BRAZIL—Apartment building in Rio de Janeiro; Maurice Sued and Marcellus Fraggelli, Architects



ITALY—Olivetti office building, Milan; Gian Antonio Bernasconi, Annibale Fioocchi and Marcello Nizzoli, Architects. This building, the "Palazzo Olivetti," was the winner of the only award in the commercial building category



SWITZERLAND—Industrial building, Zurich; Hans U. Gubelin, Architect



ARGENTINA—Apartment building, Buenos Aires; Alberto and Luis Morea, Architects; view at right is landscaped interior court lit by skylights

Just off the press... and yours for the asking

ALUMILINE'S NEW CONSTRUCTION DETAILS & 1958 CATALOGS

FOUR VALUABLE WORKING MANUALS

COMPLETE DETAILS AND SPECIFICATIONS OF

ALUMILINE'S ALUMILITED
EXTRUDED ALUMINUM PRODUCTS
AND ARCHITECTURAL COLORS

CONSTRUCTION DETAILS ENTRANCES...STORE FRONTS

- FULLY INDEXED
- TRANSPARENT SHEETS
- FULL SIZE & SCALE DRAWINGS
- SPECIAL FILING FOLDERS WITH A.I.A. FILE NUMBERS

(INCLUDING FULL SIZE
DETAILS OF ALUMILINE'S
NEW 560 SERIES FACIA)

1958 CATALOGS

ENTRANCES...STORE FRONTS

TWO REPRINTS FROM
SWEET'S 1958 FILE
EXPRESSLY PLANNED AND
PREPARED WITH YOUR NEEDS
IN MIND...
MANY NEW INNOVATIONS
ARE FEATURED IN
BOTH CATALOGS.

THE **ALUMILINE** CORP.

PAWTUCKET • RHODE ISLAND

- FABRICATORS & FINISHERS OF ARCHITECTURAL ALUMINUM PRODUCTS
- PIONEERS IN ARCHITECTURAL COLORS & MODERN DESIGNS

MAIL COUPON TODAY

THE ALUMILINE CORPORATION, Dept. R
DUNNELL LANE, PAWTUCKET, RHODE ISLAND

PLEASE SEND, WITHOUT OBLIGATION, COPIES OF YOUR
1958 PUBLICATIONS, AS FOLLOWS:

FULL SIZE CONSTRUCTION DETAILS

- STORE FRONTS
 ENTRANCES & DOORS

1958 CATALOGS

- STORE FRONTS
 ENTRANCES & DOORS

FIRM _____

BY _____

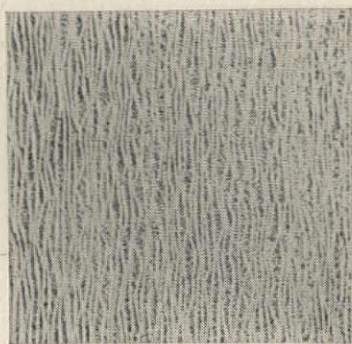
ADDRESS _____

CITY _____

STATE _____

PLEASE HAVE YOUR REPRESENTATIVE CALL





Announcing a new concept in ceiling design

Embossed Travertone

The latest addition to high-style ceilings is Armstrong Embossed Travertone, a striking new acoustical material. By varying the depths of embossing, Armstrong stylists have designed a soft, mellow ceiling—highlighted by thin, wavering relief surfaces. This deep, rich texture makes Embossed Travertone ideal for areas where exceptional overhead beauty is desired.

Armstrong Embossed Travertone is a mineral wool material that will not support combustion (Class A: Fed. Spec. SS-A-118b). It has excellent sound-absorbing qualities, can be cleaned by conventional methods, and can be repainted without appreciable loss of acoustical efficiency.

For free sample and full details, call your nearest Armstrong District Office, your Armstrong Acoustical Contractor, or write the Armstrong Cork Company, 4201 Rock Street, Lancaster, Pennsylvania.

Armstrong

ACOUSTICAL CEILINGS

Cushiontone® • Travertone* • Arrestone®

Minatone® • Corkoustic® • Crestone®

Custom Minaboard*

*TRADE-MARK

Don't get trapped with too little or too much—

GET COMPLETE WALL PROTECTION ECONOMICALLY

ALL NEW
Heavy-duty

PERMON[®]

Vinyl Wall Covering

CHOOSE FROM SCORES OF TODAY'S MOST
ATTRACTIVE SOLID COLORS AND NEW PRINTS

All-new Permon — today's most outstanding *heavy-duty* vinyl wall covering for maximum wall protection where you need it! It's the heaviest gauge, most effective and economical vinyl wall covering outperforming even expensive structural materials! Examine its fabric-supported construction of 36-38 mil overall thickness for simple, trouble-free hanging; positive protection against severe damage and spreading fire. Available in scores of beautiful colors and prints in a wide variety of combinations. Write today for all the details on unique new Permon.

For the protection of Permon prints, an invisible barrier and extra top layer of clear vinyl seals beauty in, seals abuse out!

Lighter-weight New Vinyl FABRON[®]
for general wall areas subject to ordinary
wear. Perfect Companion to Permon

- Triple-layer plastifused wall covering combining the best of plastic and cloth
- Designs printed on pure Bakelite "Krene" permanently sealed in by an invisible barrier* of clear film
- Colorfast, abrasion-resistant, fire-spread retardant, waterproof
- Saves up to 75% by eliminating repainting, simplifying maintenance
- Scores of colors and patterns to harmonize with Permon

* A Toscony Process

FREDERIC BLANK & COMPANY, INC.

230 Park Avenue, New York 17, N. Y.

Established 1913



FREE

What you
should know
about

**WALL
COVERINGS**

FILL OUT AND MAIL TODAY

Frederic Blank & Company, Inc.
230 Park Ave., New York 17, N. Y.

Please send me free folder "What You
Should Know About Wall Coverings" giving
all the facts needed in planning wall finishes.

Name _____

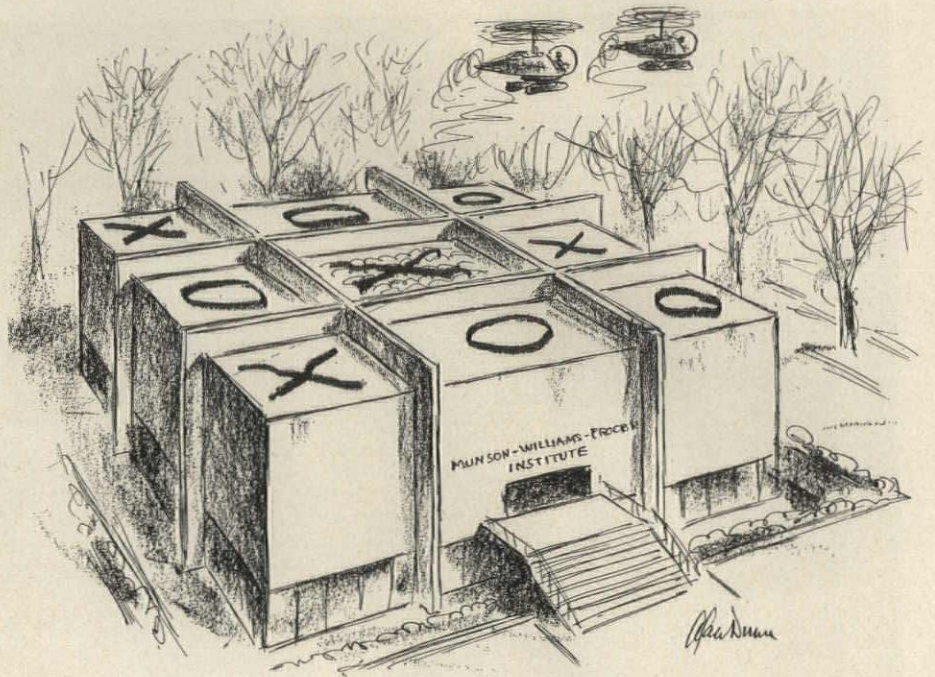
Position _____

Affiliation _____

Address _____

City _____ Zone _____ State _____

DI-A



—Drawn for the RECORD by Alan Dunn

CREATIVE STRUCTURES: APPEAL IS THERE FOR EVERYONE

That the subject of new structural concepts is bound to attract a good-sized, enthusiastic audience to a meeting is not particularly news. (Prestressed concrete, plastic design, thin shells and so on. But registration for the Third National Construction Industry Conference, "Creative Trends in Structural Design," held at the Congress Hotel in Chicago, December 11 and 12, so exceeded expectations that it was necessary to accommodate overflow crowds by means of closed circuit TV (never underestimate the power of technology!). At this meeting, sponsored by the Armour Research Foundation of Illinois Institute of Technology, there were over 700 in attendance, breaking down roughly into 30 per cent architects, 35 per cent engineers, 15 per cent educators, 15 per cent manufacturers and five per cent government personnel.

Instead of being devoted to only a single aspect, this program was all-embracing, covering (1) form; (2) materials; (3) methods and (4) applications.

Familiar faces were there: Severud, Candela, Tedesko, Beedle and Hognestad. As often happens where architects are gathered, slides of dramatic buildings, for example those of Candela, drew bursts of applause.

Walter Bird of Bird-Air Structures opened the program with his discussion of "Air-Supported Structures," those balloon buildings that have been used for radomes and storage structures, and are now being

proposed for swimming pools, theaters, skating rinks, etc.

Hyperbolic paraboloids in all shapes and sizes, and in magnificent combinations, were shown by Felix Candela. Thin shells of other types were discussed at some length by Dr. Anton Tedesko of Roberts and Schaefer Co.

Fred Severud said that there wasn't such a thing as a pure cable structure—that there had to be something to hold the cables up. In fact, thin shells and cable structures are often combined for this purpose.

In Session II, "Prestressed and Lightweight Concrete" was taken up by Joseph J. Shideler of the Portland Cement Association. "Fiber-Reinforced Materials," that is, plastics using fiber reinforcement, were analyzed by General B. S. Kelsey of Owens Corning Fiberglas Corp. The prospects for and uses of "Lightweight Metals" were talked about by C. Robert Lillie of Armour Research Foundation. And "New Developments in Timber" were covered by Elon E. Ellis of Timber Structures, Inc.

In Session III, determination of stresses on paper, in models and via machines, through the latest theories of structural analysis, were looked at in some detail.

A well-known proponent of plastic design, Prof. Lynn S. Beedle of Lehigh University, discussed the basis for plastic theory, and how it is applied to actual examples. "Ultimate Strength Design of Concrete" was taken up by Dr. Eivind Hognes-

tad of the Portland Cement Association. Mechanical techniques as an aid to design were covered by Dr. August J. Durelli of Armour Research Foundation, who talked on "Structural Model Analysis," and by Dr. James H. Turnock of International Business Machines Corp., whose subject was "The Potential of Computers in Structural Design Procedures."

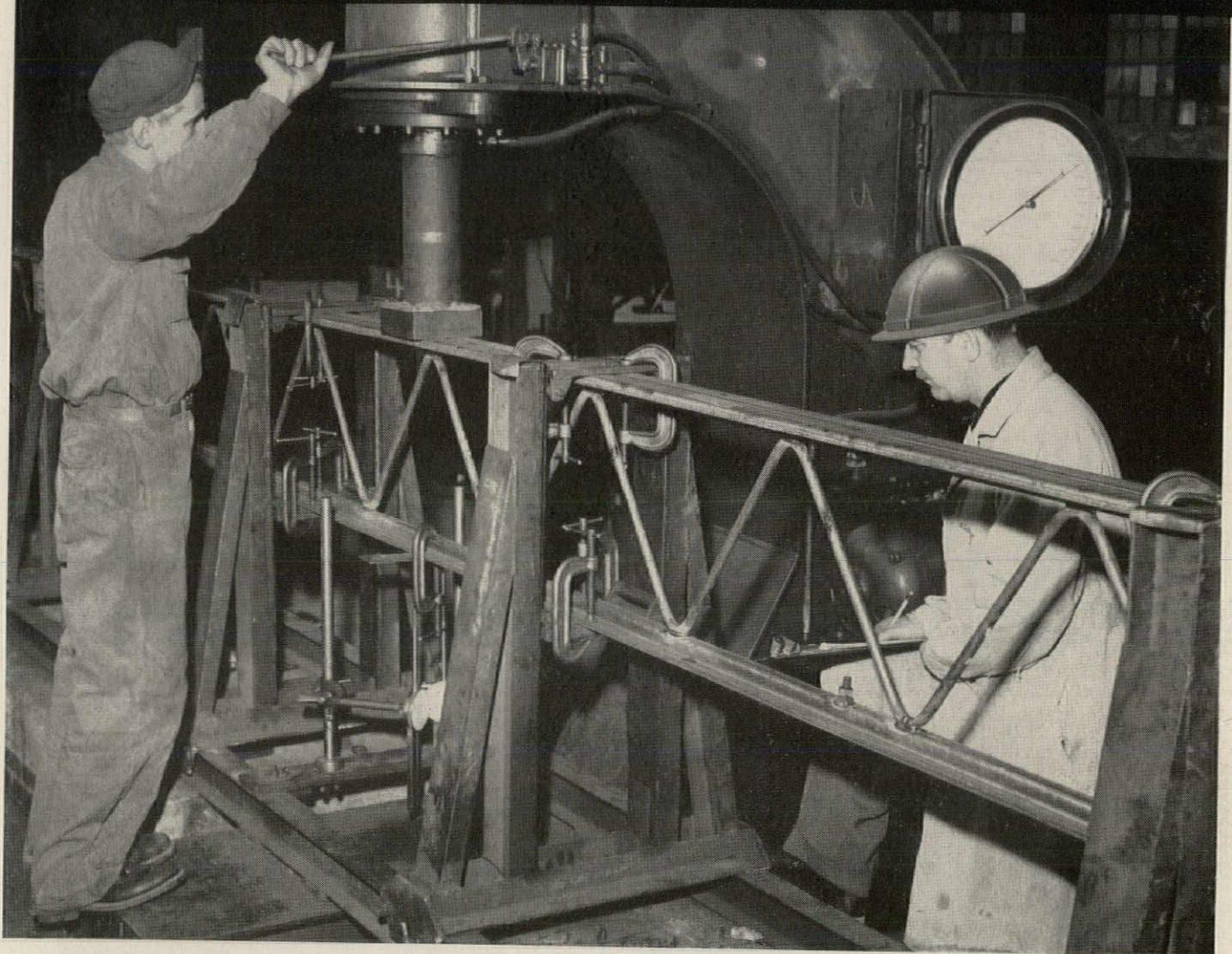
In Session IV, development of the Kaiser dome was described by Robert J. Hume. Michael Gigliotti of Monsanto told how plastics are being used in new structures. "High Speed Computers for Structural Analysis," by Charles W. Zahler of the United States Steel Corp., was the final speech of the session and the program.

Luncheon speakers were Commissioner Joseph P. Wolff, Detroit Department of Buildings and Safety Engineering, and Robert E. Fischer, associate editor of ARCHITECTURAL RECORD.

World Construction Year?

Success of IGY (International Geophysical Year) in regard to both scientific achievement and public relations value apparently has stimulated figures in the building field to think that a "World Construction Year" might be a very good thing. An attempt to get a "World Construction Program" going was made at Northwestern University on December 10 at a conference co-sponsored by the University, A.I.A. and A.S.C.E. and in addition, about 40 host-cooperating organizations from Chicago. (At its last annual

SJI Quality Control Here...



A Crushing Load Test on This Open Web Steel Joist

An inspector from an independent testing laboratory supervises the regular testing of an open web steel joist manufactured in an SJI member company plant. This joist, selected at random from the production line, is subjected to severe load tests. The ultimate carrying capacity, degree of deflection, and other pertinent data are carefully recorded by the inspector for the Institute.

This is just one of sixteen separate tests and inspections which the joist will have to pass successfully before the joists manufactured at the plant are granted the Steel Joist Institute's seal of approval.

STEEL JOIST INSTITUTE

1346 CONNECTICUT AVE., N. W. • WASHINGTON 6, D. C.

Steel joists of the designations adopted by the Steel Joist Institute and manufactured by the following companies have been investigated and approved by the Steel Joist Institute:

AMERICAN BRIDGE DIVISION
United States Steel Corporation
BETHLEHEM STEEL COMPANY
BUILDERS STRUCTURAL STEEL CORP.
CECO STEEL PRODUCTS CORP.
COLORADO BUILDERS SUPPLY CO.
CONCRETE STEEL COMPANY
JOHN HANCOCK, JR., INCORPORATED

LACLEDE STEEL COMPANY
MACOMBER INCORPORATED
SHEFFIELD DIVISION
Armco Steel Corporation
SOUTHWEST STEEL PRODUCTS
TRUSCON STEEL DIVISION
Republic Steel Corporation
VIRGINIA STEEL COMPANY

Means Better Construction Here...



Means Strength and Durability for This New Building

Because of this strict control over materials and processes, the architect, engineer and others who specify SJI-approved joists can be sure they're specifying joists of the highest quality and dependability. This means, of course, better constructed and more durable buildings.

The unique design of open web steel joists makes them particularly adaptable for modern construction. Not only are these high strength joists easy to handle and place, but they're extremely versatile, and satisfy a great variety of architectural design requirements. What's more, they're fire resistant and vermin proof and can be erected in any kind of weather.



FREE Write for
technical bulletins

See our insert
in Sweet's
Architectural File $\frac{2c}{St}$

STEEL JOIST INSTITUTE
1346 Connecticut Ave., N. W.
Washington 6, D. C.

Please send technical bulletin(s) checked below:

- 1BR—BRIDGING
 1QVP—QUALITY VERIFICATION
PROGRAM

Name _____
Company _____
Address _____
City _____ Zone _____ State _____

convention A.I.A. had passed a resolution, presented by John Fugard of Chicago, agreeing to be a principal co-sponsor of an exploratory conference on this theme.)

Northwestern, represented by Dean of The Technological Institute, Harold B. Gotaas, was host for the meeting, but prime mover in the whole affair was Howard T. Fisher, peripatetic building researcher and Chicago architect, who has recently held conferences on "3-D Research" and been adviser to the Inter-American Housing Center.

Response to the theme and potential benefits was highly enthusiastic. Considerable concern was expressed, however, concerning the outcome of the venture unless a very carefully thought out program was made available for presentation to the building industry at large, which would receive staunch financial and moral support.

First resolution adopted by the conference was to appoint a committee from among the three co-sponsors who will select approximately 20 key people in the building field to develop a basic program. A second resolution authorized acceptance of voluntary financial contributions to provide a working fund for early operation of the program.

Worth the Winning

The tenth annual program of NATIONAL HONOR AWARDS "for distinguished accomplishment in architecture" has been announced by the American Institute of Architects. Any building in the U. S. or abroad



Engineering Center to be erected at an estimated cost of \$10 million on Manhattan site at United Nations Plaza between 47th and 48th streets is displayed in model of projected scheme by Shreve, Lamb and Harmon Associates by Dr. Mervin J. Kelly, chairman of industry campaign to raise funds for construction, and Walter J. Barrett, president of United Engineering Trustees Inc., builders and operators of the projected headquarters for the engineering profession in U.S.

completed since Jan. 1, 1953 by a registered American architect is eligible. Entry slips are due February 11 at A.I.A. headquarters, 1735 New York Avenue, N.W., Washington 6, D. C. . . . Entries and nominations are invited till March 15 for the 1958 BUILDING PRODUCTS LITERATURE COMPETITION co-sponsored by the A.I.A. and the Producers' Council Inc. Entries may be made by manufacturers, their advertising agencies or manufacturers' associations: query Producers' Council Inc., 2029 K Street, N.W., Washington 6, D. C.; nominations may be made by A.I.A. members or chapters "or others": query A.I.A. Department of Education and Research, 1735 New York Avenue, N.W., Washington 6, D. C. . . . A cash award up to \$2500 is available for the 1958 ARNOLD W. BRUNNER SCHOLARSHIP administered by the Architectural League of New York. All U. S. citizens are eligible to submit, not later than February 15, applications outlining a proposed project relating to architecture or (in their aspects relating to architecture) city planning, crafts, decoration, design, education, engineering, landscape and site planning, painting, photography, sculpture or other design fields represented in the membership of the League. Details are available from the League Office, 115 East 40th Street, New York 16.

I.D.I. Considers the Consumer

Designers who want to succeed had better think hard about the real needs and wants, emotional as well as practical, of "the ultimate of all our competitive efforts—the person who buys." This was the genesis and also the gist of the recent fourth annual design symposium of the Industrial Designers Institute, Southern New England Chapter, at Norwalk, Conn. Vance Packard was there to give his "recapitulation and summary of the forces at work behind the scenes in the Great American Market"; but the theme was sounded by all the speakers in one way or another. Sheldon R. Coons, marketing and sales consultant and former Gimbels executive, remarked as a serious problem the ever diminishing personal contact between manufacturers and stores and their customers. Architect Morris Ketchum Jr., who made a detailed analysis of the evolution of "Our New Shopping Environment," noted that the new type of shopping center brings back the personal contact that used to be over-the-counter selling. And remarked also that "specialty

DESIGN FOR BUILDING WISELY

shops have never been drowned out of business by the department store."

Kentile Film Promotes Architects

A view of the genus *architect* that every architect would be glad to think his clients and prospective clients hold is nicely pervaded in an eight-minute 16-mm. color film produced and distributed by Kentile Inc., manufacturers of resilient tile flooring. The film, called "Design for Building Wisely," follows the experiences of the proverbial young couple in the evolution of their house from talking stage to finished building. Intent of the production, Kentile reports, was "to demonstrate to the consumer the vital role the architect plays in building a home and to secure more assignments for the profession." Available without charge on request to Kentile (58 Second Ave., Brooklyn 15, N. Y.), the film was written and directed by Academy Award winners Eugene Milford and Sidney L. Katz with the technical and editorial assistance of the A.I.A.

Corrections

The RECORD regrets that the name of the late Arthur Brown Jr. was incorrectly given (as Arthur F. Brown Jr.) in the listing of Advisory Architects to the Architect of the Capitol in the story on page 32 of the October issue.

The photograph of the Maybeck interior on page 24 of the November issue of the RECORD, incorrectly identified as the First Church of Christ Scientist, Berkeley, is actually the Faculty Club of the University of California.

The Association for Applied Solar Energy advises that its press release listing winners of the "Living with the Sun" design competition (AR, Nov. 1957, page 10), incorrectly credited the Fifth Prize entry, which was the work of Marven E. Goody of Hamilton & Goody, Architects, Cambridge, Mass., and Robert J. Pelletier, not of the last-named alone.



THIS IS G-B ULTRACOUSTIC CEILING BOARD

GUSTIN-BACON MANUFACTURING CO.

224 W. 10th, Kansas City, Mo.

a new-type
of incombustible
glass fiber ceiling board
for suspended acoustical
ceilings. Unique features in-
clude classic travertine texture
... fire hazard classification of
15 and under... new resilient
toughness. See Sweet's
File 11a/Gu or write for
4-color A. I. A.
brochure.

your job*

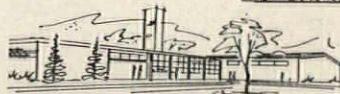
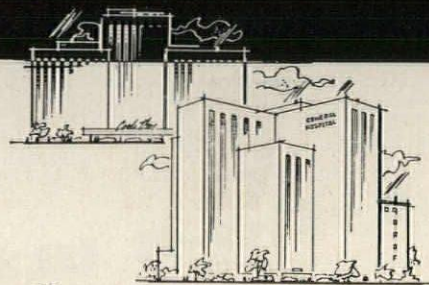
calls for the best

and...

**in
Fire Protection Equipment
there's only one best:**

ALLENCO

**Commercial and Public Buildings,
Hotels, Hospitals, Schools, Churches,
Multi-Unit Residential Buildings*



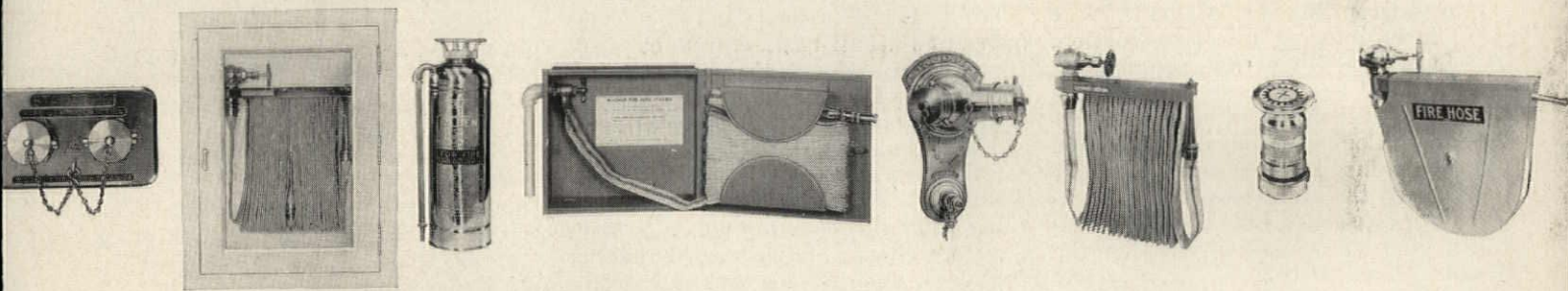
See why ALLENCO leads year-in and year-out . . .

- Ask architects, engineers, contractors or fire authorities
- Check Sweet's or Domestic Engineering catalog directory
- Write for your own copy of Catalog 150—A.I.A. file 29e2



best for ^{*}specifying

- Wide selection to meet any requirement of code or insurance, structure or design, owner's operation or budget
- Detailed data and ready-to-copy standard specs in catalog form and also from nearby, reliable Fieldmen
- Best known name, thoroughly backed by manufacturer



best for ^{*}installing

- No delays: prompt quotes; accurate rough-in data; delivery on time and as specified
- Lower costs: competitively priced; goes in faster, needs no more work
- Reliable: on-the-job help as needed; lasting good looks and service



* Write for catalog, or phone your Alenco Fieldman listed in Yellow Pages.



SINCE 1889

W. D. ALLEN MANUFACTURING CO.
ROOM 500, ALLENCO BLDG., 566 W. LAKE ST., CHICAGO 6, ILL.

11.2 FIRE EXTINGUISHERS AND CABINETS:

Contractor shall provide and install the following fire extinguishers and cabinets complete with hose and nozzle, (Allenco) or ~~Approved equal.~~ *else!*

A. Fire Extinguisher Cabinets: 8 (eight) required, one at each fire alarm station, installed as detailed, unit #285 12" x 27" x 8" cabinet complete with Allenco aluminum door and trim, glazed with single strength glass, and flush fitted flat key cylinder lock.

THE PRODUCERS' COUNCIL: AN OLD FRIEND OF ARCHITECTS IN A NEW ERA

Changing Programs Meet Changing Needs: A Special Report by Ernest Mickel

There are no segments of the construction industry in which producers of building materials do not have a vital interest, but by virtue of the established patterns of building procedure their primary concern is with the architect.

Because of this close alliance, the American Institute of Architects, back in the early 1920's, gave birth to a Producers' Section of its Structural Service Committee. The then stated need was for a better understanding among architects and producers as to their common interests in the characteristics, presentation, and appropriate utilization of the products entering into construction.

Later, in 1929, that committee's Producers' Section was incorporated as a separate organization—The Producers' Council—and the affiliation has remained in effect since.

Today, the objectives of the Council can be spelled out in greater detail, but they are essentially the same. The distinction that really marks the present Council from its predecessor self of the first two decades of its existence is a remarkable adjustment provoked by the pace of technological development in construction.

As a spokesman voiced it recently: "The needs of the entire industry have been changing rapidly, and we had to change with them."

It must be said that the Council's awakening to the new needs of the industry has developed rapidly in recent years and now is manifesting itself in a number of fresh programs directed at answering the clamor for more information—technical information—on builders' products.

As the Council sees it, the information supplied the architect needs a different emphasis now, a "coordinated presentation." Building is more complicated and the materials that go into structures are caught in an accelerated technical development spurred by increasing research. The architect seems to have less time to absorb all that he should know about products and their application. Mar-

kets are more competitive. New materials are being introduced more rapidly.

To meet these needs, Producers Council, Inc., has embarked on a large number of new programs designed to inform architects and others of the day-to-day progress in building materials development.

One of the broadest of these new efforts, as far as public impact is concerned, is the Building America television program series. This is to be shown on public service time weekly in more than 200 marketing areas. Each program will run 30 minutes and is made up of five or five-and-a-half-minute product presentations and one three-minute interview with an outstanding figure in the construction industry. Local dealer tie-in promotion is arranged.

This is perhaps the only industry activity today that directs itself to the general consuming public as well as architects, engineers, builders, dealers, businessmen and civic leaders. The first program series (this month) has as its industry figure Leon Chatelain Jr., president of the American Institute of Architects.

Each of the programs is being developed from material excerpted from members' current or newly prepared promotional films. The series is being presented through the Public Service Network of Princeton, N. J.

Another new P.C. program, the Architectural Sales Representatives Institutes, aims at giving the materials salesman a better understanding of the architect's office. These sales schools will operate for the first time this year, running for five days each and concluding with appropriate graduating ceremonies. The first is being held at Rensselaer Polytechnic Institute, Troy, N. Y., this month.

The instruction at these schools has been designed, the Council explains, to help sales representatives sell products by developing an understanding of the complex problems facing an architect. The training will, it is hoped, enable sales personnel to offer technical and consultant serv-

ices at the time and in the way that will make them of greatest value.

The Institutes will all be at leading universities in conjunction with their architecture departments. Outstanding architects and other industry men will cooperate with the university faculties in serving as instructors.

Also tied to the architectural schools is P.C.'s new visual aids project. Underway for some months, this program is a vital part of the over all educational aim. The Council co-sponsors with the Association of Collegiate Schools of Architecture, furnishing 2-in. by 2-in. slides in sets on a variety of building products. More than 2000 sets, averaging 25 slides each, have so far been sent to the schools.

The revival of a specifications information service by the Council's merchandising committee can also be classed as a new activity. P.C. is calling this its Spec-Data Service. It is described as insuring that all practicing architects receive the most up-to-date technical information available from manufacturers. Actually, Spec-Data Service is a reactivation of a technical file published by the Council's *Technical Bulletin* up to and including 1942. The material, to be published in the P.C.'s quarterly *Technical Bulletin*, will be restricted, it was said, to highly technical data required in specification writing.

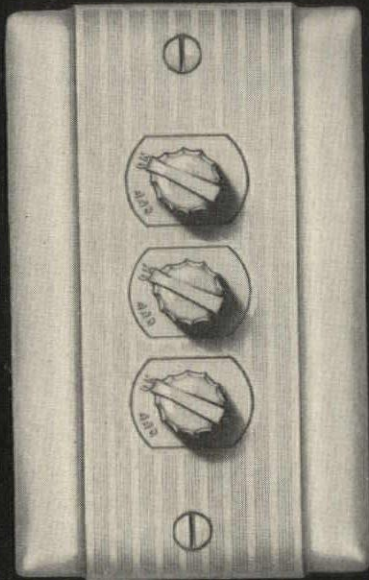
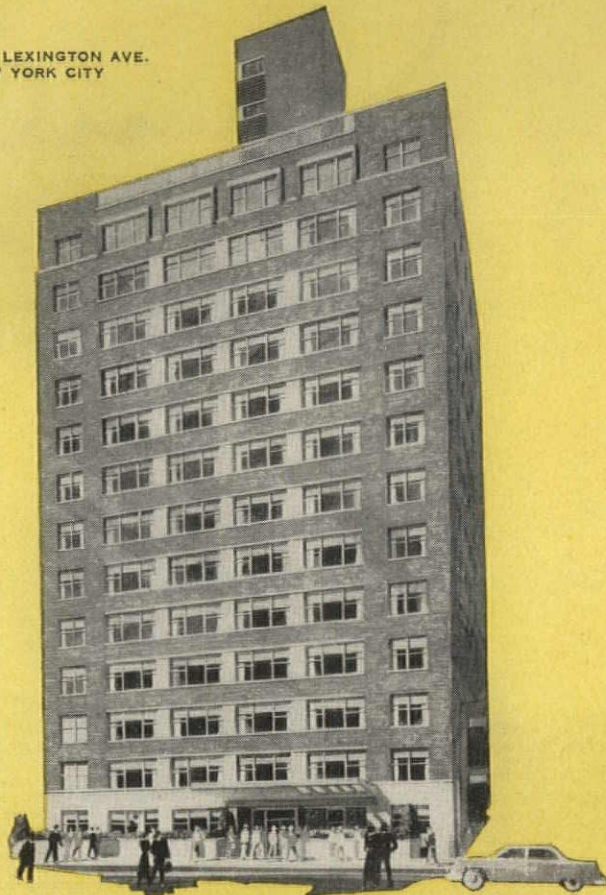
An example of industry's search for promotional aids—a need to which P.C. remains ever alert—is the home-builders' request of last September. Manufacturers were approached by the builders at the first merchandising conference sponsored by the National Association of Home Builders in San Francisco. As a result, the two organizations are teaming up on a coordinated promotional effort for 1958.

The Council has also been increasing its activities in the area of marketing research. The first major move in this field was made last year when P.C. fostered a comprehensive

continued on page 236

ARCHITECT
H. I. FELDMAN
BUILDER
PHILLIP E. GOLDFEIN
ELECTRICAL ENGINEERS
AND CONTRACTORS
ZWICKER ELECTRIC CO., INC.

288 LEXINGTON AVE.
NEW YORK CITY



PLANS WITH A FUTURE INCLUDE *ROTO-GLO**

The Switch That Answers All Requirements

From hundreds available, one switch was selected for use throughout the striking new apartment residence, 288 Lexington Ave., New York City: the P&S Roto-Glo Quiet Switch. Its trim-lined beauty fully complements the handsome new interiors.

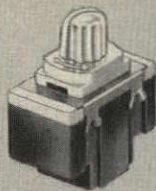
In a darkened room, a soft glow guides the hand to Roto-Glo. A gentle twist and whisper-quiet action is complete. Over 850,000 test-switchings prove Roto-Glo's dependability.

In the best new buildings everywhere—you'll find the P&S Roto-Glo Quiet Switch.

For information on any of the long line of modern P&S devices, write Dept. AR-158.



NO. 1591-I
STRAP TYPE
ROTO-GLO
15 AMPERES



NO. 1581-I
P&S DESPARD
TYPE ROTO-GLO
15 AMPERES

Combined with the 1500-I



P&S Duplex
Outlets ideally
complement
Roto-Glo



PASS & SEYMOUR, INC.

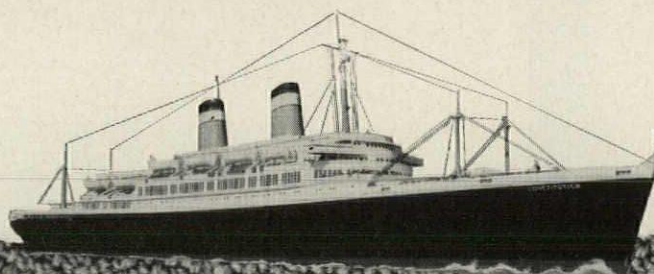
SYRACUSE 9, NEW YORK

60 E. 42nd St., New York 17, N.Y. 1440 N. Pulaski Rd., Chicago 51, Ill.
In Canada: Renfrew Electric Limited, Renfrew, Ontario

MAKE THE COMPLETE JOB COMPLETELY P&S

Seamloc CARPET

SAILS WITH THE CONSTITUTION



Aboard the SS Constitution, where everything is the finest, you'll find Seamloc Luxuria carpet. Seamloc carpet is specified by many of the country's leading architects and decorators because,

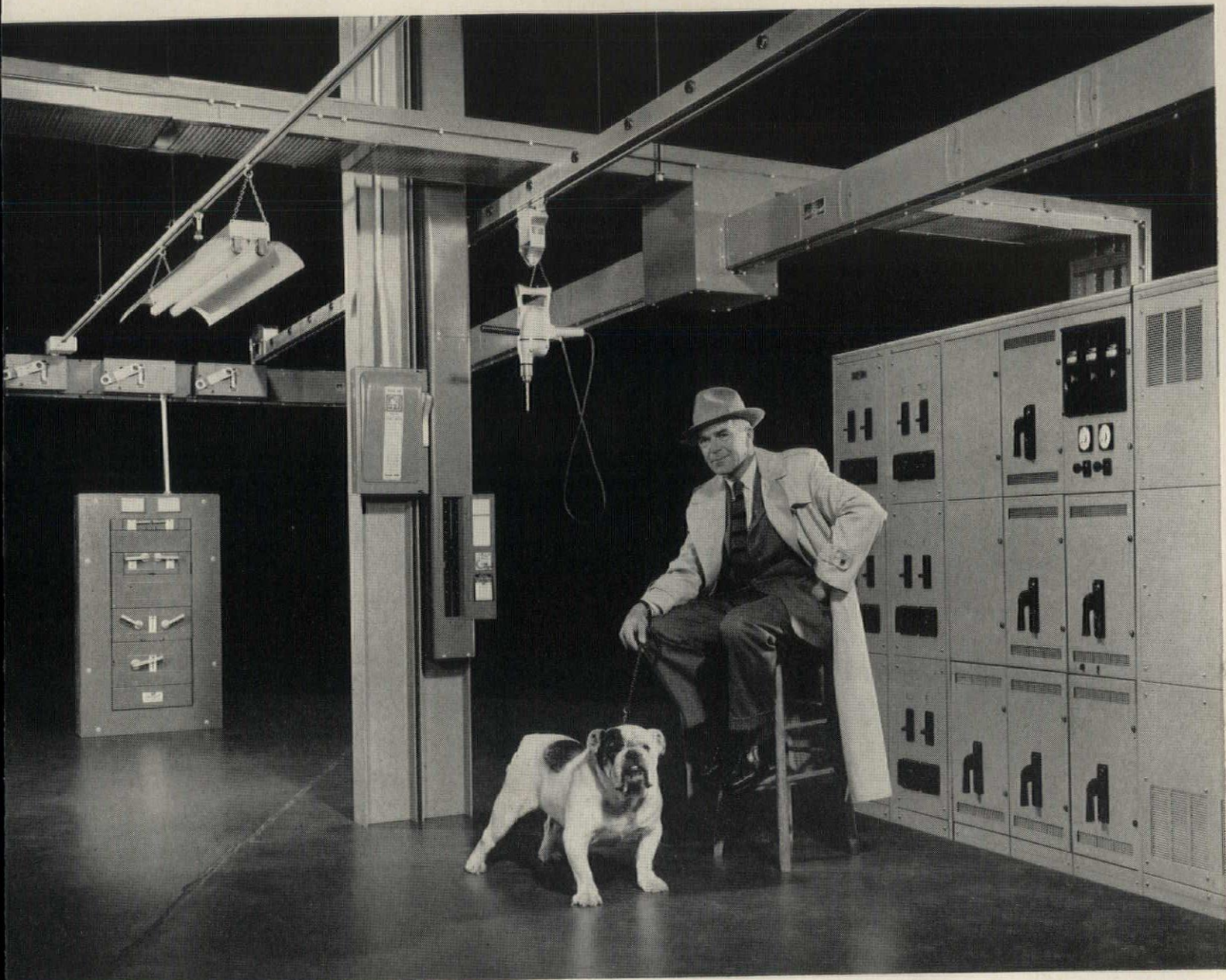
- Seamloc's twenty five plain and eight Moresque colors meet the demands of almost any color scheme.
- Seamloc's economical four and one-half foot widths are joined with almost invisible seams to make any width carpet.

- Seamloc can be inlaid with emblems, slogans or trade marks without special weaving.
- Seamloc's special backing locks in the fibers, makes binding unnecessary. The edges cannot ravel.
- Seamloc comes in eight grades, one to suit any installation.
- Seamloc can be cut to any shape, repaired, patched or reshaped . . . easily . . . economically.

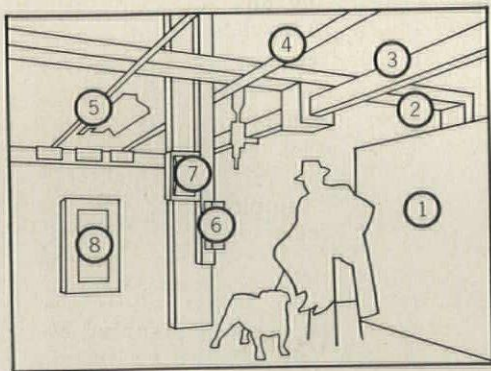
For further details and color samples see your nearest Seamloc dealer or write

SEAMLOC CARPET COMPANY • SANFORD, MAINE

Catalog in Sweet's Architectural File



Electrical Planning—*key to efficiency and economy, too!*



PLANNED POWER on display—it's yours in a system of coordinated BullDog components. 1. Unit Substation and Unit-Versal® Switchboards. 2. Lo-X® Feeder Duct. 3. Plug-in® Duct. 4. Industrial Trol-E-Duct®. 5. Universal Lighting Duct. 6. Pushmatic Electri-Centers®. 7. Clamp-matic® Safety Switches. 8. Power Panels.

Score yourself on how well you're using electricity. Is control and distribution of power getting its deserved emphasis in your power blueprints? Do your clients enjoy the benefits of a distribution system tailored to the needs of their operations—whether commercial, institutional or industrial? Such a system of BullDog equipment can and *does* provide greater efficiency, profitable use of personnel, and easy, economical growth.

Contact your BullDog field engineer for complete details on the advantages of a BullDog distribution system. Make sure your customers are powered up to meet a challenging future. © BEPCO

BULLDOG



BullDog Electric Products Co., Detroit 32, Mich. A Division of I-T-E Circuit Breaker Co.
 BullDog Export Division: 13 East 40th St., New York 16, N.Y.
 In Canada: BullDog Electric Products Co. (Canada) Ltd., 80 Clayson Rd., Toronto 15, Ont.

REPORT OFFERS A NEW FRAMEWORK FOR PLANNING IN THE NATION'S CAPITAL

Proposals by Architect Louis Justement Would Offer Substitute for Present "Planning by Committee"; American Institute of Architects Board of Directors Votes Its Enthusiastic Approval of the Report

"A Framework for Planning the Nation's Capital" is the title of a new comprehensive report drafted by Architect Louis Justement, A.I.A., and enthusiastically approved by the Board of Directors of the American Institute of Architects at its November meeting in Phoenix, Arizona.

Actually what is proposed is abandonment of coordination through conferences and committees. Mr. Justement says: "We would secure the coordination through the establishment of a basic framework within which planning could proceed efficiently; and, paradoxically, we would find that, far from having restricted the individual planner, we would have liberated him. For nothing is more deadening for the creative spirit than to work on the basis of uncertainty, delay, frustration, impotence—and committees. Within a given framework of established conditions, but with genuine freedom within that framework, the planner will have many opportunities for creative planning."

Few people are as conversant with the architectural needs of the Federal City and its environs as is Mr. Justement. For more than a decade he has studied the planning problems in great detail and has written extensively on this much-argued subject. His views culminate in the recent report, a five-page document that is certain to pinpoint new problems and pose important new questions in the continuing debates.

The report calls for a new approach to Capital planning. Whereas the A.I.A. moved into the planning controversy of 50 years ago and helped to save l'Enfant's Mall concept, the problems differ today, Mr. Justement notes. He believes an entirely new procedure for planning is required.

The general solution to current planning problems as presented in the Justement report lies in creation of an organization with the power to plan, finance and construct for

the entire metropolitan area but to do so for carefully limited purposes agreed to by the several political jurisdictions. A specific portion would be Congressional creation of a Federal City Corporation with power to plan, construct, finance and control a rapid transit system. The plan envisions Federal government grants for such a corporation involving the major part of funds now authorized for highway construction in the District of Columbia.

Favoring the mass-transit solution, the framework for planning suggests that a choice should be made between an all-automobile city with the present type of bus transportation, or some form of rapid transit which provides fast and convenient travel through grade crossing elimination.

These advantages of the mass-transit solution were presented: "It will help to preserve the essential character of our present National Capital. For mass-transit can go underground within the central city and leave aboveground unchanged except as we deliberately choose to make changes.

"Whereas the all-automobile solution, if it is to reach and serve the central area, will necessitate such vast changes in the form of freeways, underpasses, cloverleafs and automobile parking areas that much of the charm of the present city will be lost. In the last half of the 19th century we nearly spoiled the plan of Washington by the reckless use of railroads; we are now in danger of spoiling our city by an almost equally reckless use of automobiles."

Tangent values from a rapid transit system would accrue to business, real estate and the Federal government, the report argues, and these values would equal or surpass those going to the transit riders.

The report would have the Federal City Corporation do the basic planning research required to locate the transit lines and to plan the bridges, tunnels, highways and terminals re-

lated to the transit system; but it would have no other planning authority. Metropolitan planning would thus be severely limited in scope but extremely effective within the limitations, it is believed. The Corporation could constitute a framework within which the National Capital Planning Commission and the various county planning commissions could function more efficiently than at present. Why? Because an overall pattern of the city would have been established.

The operation of a rapid transit system would be left to private enterprise, but its construction must be a governmental or semi-governmental enterprise.

The report is strong in its support of a rapid transit system as a preferable means of traffic movement. It states, for example, that the restriction of metropolitan planning to the basic subject of mass transit may be found to have many advantages. A great deal of the irritation, indecision, confusion and delay caused by the present planning procedure is held to result from an excessive effort to coordinate and correlate all of the many facets of the planning process.

It's explained this way: "Each of the planning commissions, within its own geographic jurisdiction, attempts to plan for and to coordinate many separate activities such as street and highway construction, sewer and water mains, school and recreation facilities, zoning and land-use, bridges, redevelopment, subdivisions, housing, etc. But the city planner cannot coordinate without adequate power to enforce his plans. The result is planning by conference and committee instead of creative and imaginative planning by individuals."

The proposed plan would work as follows: the Federal City Corporation would establish a basic framework for planning at the top. The various commissions would operate at the level of the present NCP.

Room-Divider is entirely Masland Duran with handsome effect on both sides.



MAGNA-FOLD Door
by AMERICAN DOOR CO.,
South Bend, Indiana

For Room-dividers, too . . .

it's *Masland Duran* vinyl

for more beauty . . . less upkeep.

Versatile and practical! That describes Masland Duran. Not only does this handsome vinyl provide distinctive upholstery beauty; it is also practical and decorative on just about any flat surface. Masland Duran Room-Dividers, for instance, are easy to keep clean with soap and water—making even the lightest colors practical for new interior effects. Your own imagination will suggest many more uses. Write for folder with samples. The Masland Duraleather Company, Dept. 36, Philadelphia 34, Pa.

We'll also send you information on the newest in functional decorating — Masland Duran Clad surfacing on hardboards and metals.

Masland Duran also on chairs, booths, Room-Divider in The Shack, Philadelphia, Pa.

Masland Duran[®]
vinyl upholstery

The BIG news, in windows!



APPLIANCE-SMOOTH! Smooth, hard and glossy as your automatic washer is the surface of Truscon Steel Windows with exclusive new Supercoat Process. This finish actually was developed for appliances.



INSTALL WITHOUT PAINTING! Steel windows finished with Truscon Supercoat Process need no painting when installed. Maintenance painting won't be needed for many years. Exhaustive tests prove it.



NEW TRUSCON SUPERCOAT PROCESS!

Install without painting! Stave off maintenance painting!

Now, you can get the solid strength of steel and avoid painting, too.

Truscon is introducing a great new super finish for steel windows. It is a two-coat baked enamel that originally was developed for water-using appliances in which corrosion must be avoided. And, that superbly smooth, hard finish has been improved by the research laboratories of Republic Steel to further withstand exterior exposure.

Smooth, hard and glossy, Truscon's new Supercoat Process gives you a steel window that's ready for immediate installation. It's a tough, durable window finish that will stave off maintenance painting for many a year.

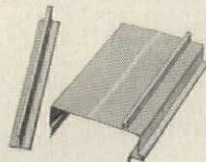
No need now to sacrifice strength and

solidity in window sections simply to avoid painting costs.

Supercoat Process can be furnished *now* on specification in factory shipment on all Truscon Steel Windows for commercial, institutional, and industrial construction. Standard color is a handsome light gray.

Send coupon

You'll want to see and examine this sensational new window finish as soon as possible. Send coupon for your free samples of Truscon window sections with new Supercoat Process.



More Truscon products for modern buildings include Vision-Vent® Window Walls, Stainless Steel Windows and Curtain Walls, "O-T"® and Clerespans® Steel Joists, Ferrobord® Steel Roofdeck, Concrete Reinforcing Bars and Welded Wire Fabric. Republic's Berger Division offers Republic Steel Kitchens, Steel Lockers and Wardrobes, and a complete line of Roof Drainage Products in galvanized steel, stainless steel and terne. Republic's Steel and Tubes Division manufactures ELECTRUNITE® E.M.T. and Republic Heavy Wall electrical conduit, as well as square and rectangular ELECTRUNITE Welded Steel Tubing for architectural applications. Through its manufacturing divisions, Republic is big in building. Through its basic steel facilities, too, Republic is big in building. Republic mill products include Steel and Plastic Pipe, Sheets and Roofing, Bolts and Nuts for construction, Stainless Steel, Roofing Ternes, Nails.



**TRUSCON STEEL DIVISION
REPUBLIC STEEL**

YOUNGSTOWN 1, OHIO



A NAME YOU CAN BUILD ON

**TRUSCON STEEL DIVISION • REPUBLIC STEEL
DEPT. C-4679**

1062 ALBERT STREET • YOUNGSTOWN 1, OHIO

Yes, I'm interested in new Supercoat finish. Please send samples of hot rolled bar and strip steel window sections.

Name _____ Title _____

Firm _____

Address _____

City _____ Zone _____ State _____

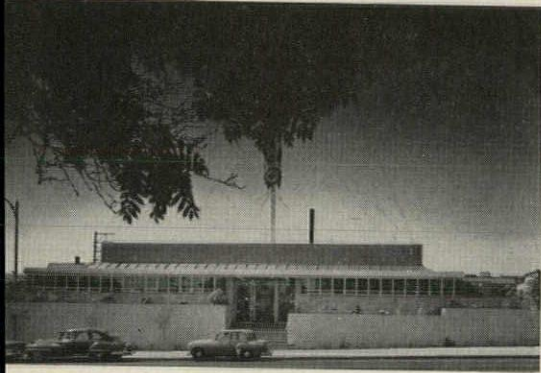
A LOOK AT CURRENT ARCHITECTURE IN BRITISH COLUMBIA

The fledgling steps taken before the war by Canada's West Coast architects have become giant strides in achieving what is undoubtedly our most indigenous form of contemporary architecture. Most of British Columbia's new buildings show a healthy respect for the value of the construction dollar despite the fresh and imaginative approach displayed. They do not seek the spectacular for its own sake—novelty in violation of established precepts of logic and es-

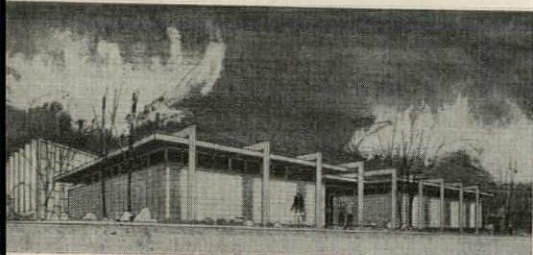
thetics—but nevertheless conform to the tempo of today. Functional planning and original use of native materials are fused in solving current building problems with "commodity, firmness and delight." Influence of U. S. West Coast design, though potent, is diminishing as B. C. architects evolve a vocabulary of expression all their own. On this and following pages are examples of some of the work being done in various parts of the province.



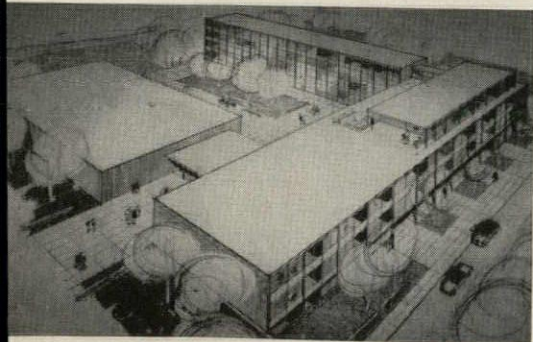
1 Selwyn Pullan



2

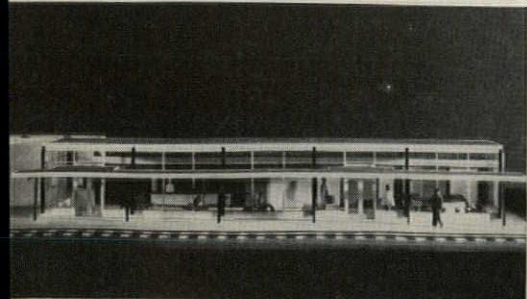


3 Williams Bros.

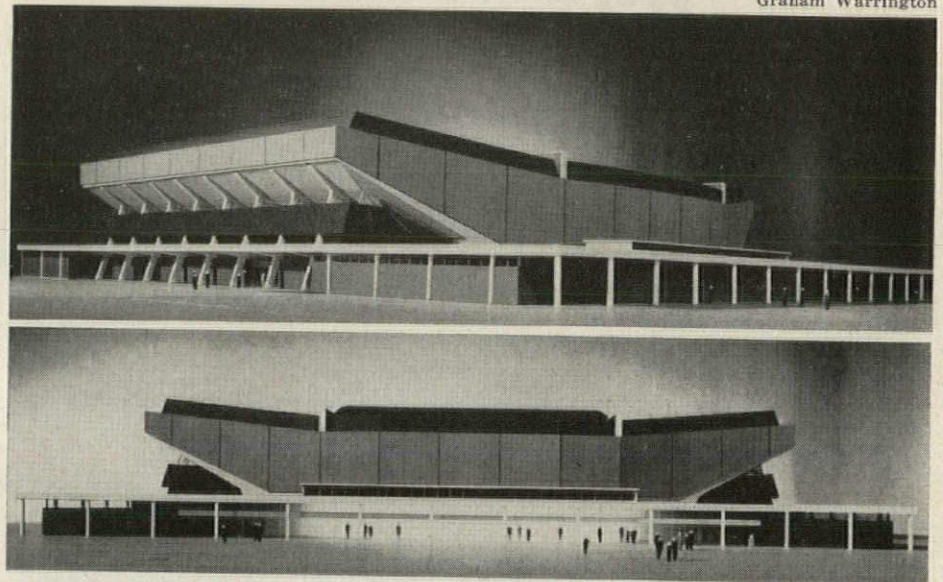


4

Williams Bros.



5



Graham Warrington

Coliseum for Pacific National Exhibition at Vancouver; William K. Noppe, Architect. The main structure is of reinforced concrete and the roof structure is of structural steel. The two main trusses are of the bowstring type so that the entire roof structure is supported on four columns in the center, and on the cantilever bents on the outside edges. The outside walls of the upper section were to be precast concrete panels, and the lower section concrete masonry. Total seating capacity is 13,000

1. Martin Paper Products Factory, Vancouver; Gardiner, Thornton, Gathe & Associates, Architects. The plant produces corrugated cardboard from raw cardboard and from this a variety of boxes and containers. It is constructed of light steel framing with infill panels of rough cedar boarding, concrete block, or glass fiber sheeting, in the plant area, and rough cedar boarding and colored asbestos sheeting in the administration wing. Its plan is dictated by requirements of future expansion in every department

2. Radio Station CKWX, Vancouver; Thompson, Berwick & Pratt, Architects. This building of reinforced concrete houses the offices and studios of a local radio station. Soundproof studios and equipment rooms are contained in solid center portion. Surrounding this center mass at a lower and more intimate level, and separated from it by a skylighted corridor, are the general offices. Exterior walls of the center studio mass are faced with glass mosaic tile. Exterior office walls are rendered concrete, glass and aluminum sash. Total cost: \$290,000

3. Union Headquarters, Local 1357, I.W.A., New Westminster; Allen C. Smith and Associates, Architects

4. Arts Building, University of British Columbia, Vancouver; Thompson, Berwick & Pratt, Architects. Court looks toward view to the north. Lecture halls and student lounges on the west, classroom block on the south and faculty offices on the east. Classroom block is raised on columns for open arcade to large court beyond. Court is built of colored concrete slabs and contains seating, garden areas and large reflecting pool. Total cost: approximately \$1,675,000

5. North Vancouver Station, Pacific Great Eastern Railway, North Vancouver; Hale & Harrison, Architects. The building, designed for future expansion, has a concourse 22 ft by 80 ft, with a large glass expanse to the skyline of Vancouver. The structural frame is steel; lavatories, kitchen and office frame with brick veneer; floors terrazzo throughout; ceilings acoustic plaster. The station was designed so trains could be viewed from within

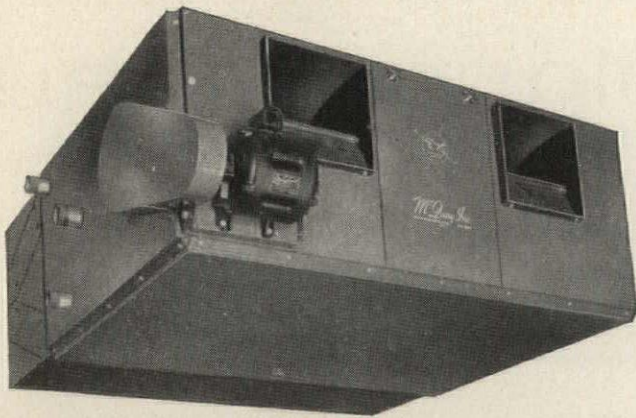
you get MORE
and MORE to
choose from with

McQuay Seasonmaster central station air conditioners give you more of everything you want, more of everything you need. There is more inherent quality—more dependability—more rugged construction—more flexibility in location of coil connections and air openings—so necessary to that kind of satisfaction that only McQuay Seasonmaster provides. McQuay also gives you more to choose from, with 16 models in either horizontal or vertical type. Add to this the most complete combinations of heating and cooling coils—water, steam or direct expansion—all with the famous McQuay Ripple-Fin construction, and the wide range of accessories, and you have the most universal line of central station air conditioners in the industry. Yes, you really get more—and more to choose from with McQuay Seasonmaster central station air conditioners. For complete information, contact the McQuay representative in or near your city or write McQuay, Inc., 1605 Broadway St. N. E., Minneapolis 13, Minn.

McQuay

SEASONMASTER

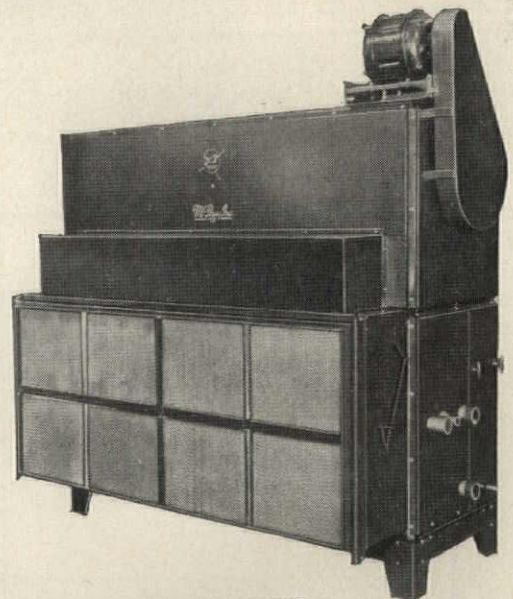
central station
 air conditioners



McQUAY HORIZONTAL SEASONMASTER

McQuay horizontal Seasonmaster with water coil, steam coil, face and by-pass, and flat filter section. Removable panels permit complete accessibility for inspection or service. All Seasonmaster coils are made with the exclusive McQuay Ripple-Fin construction.

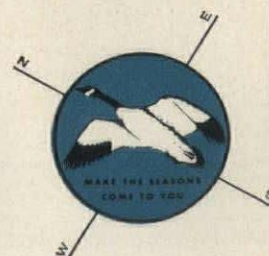
McQuay
 Means Quality



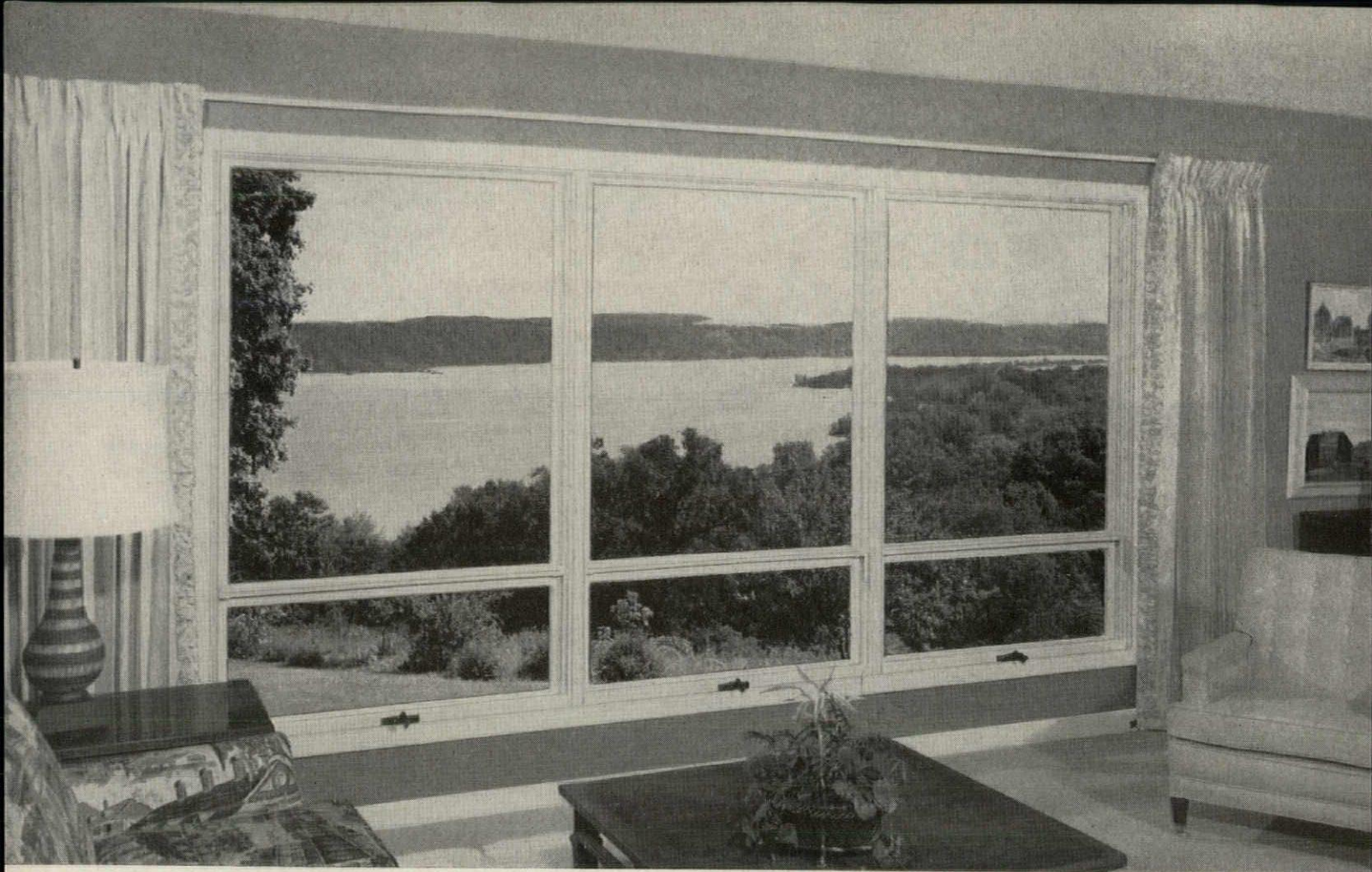
McQUAY VERTICAL SEASONMASTER

McQuay vertical Seasonmaster with direct expansion coil, steam coil, face and by-pass, and flat filter section. Heavy gage galvanized channel framework to form a rigid structure. Sixteen sizes available in either horizontal or vertical type. C.F.M. range from 640 to 29,000.

McQuay INC.



AIR CONDITIONING
 HEATING
 REFRIGERATION



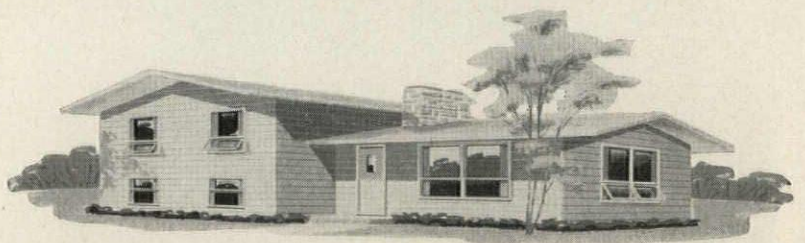
Ideal for living rooms! Glamorous 5'10" high Beauty-Line Windows combine to form picture WINDOWALLS. Narrow meeting rails give minimum interference with vision. Roto-Lock (illustrated) works under screen, pulls sash corners in tight.

New...Beauty-Line* wood designed to suit

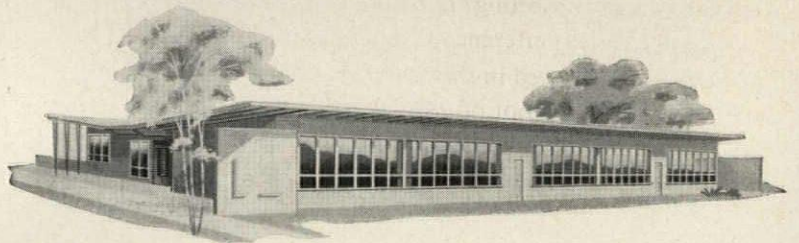
**new Beauty-Line window offered
in four heights, two widths**

UNIT DIMENSION	2-10 1/4"	3-10 7/8"
ROUGH OPENING	2-8 1/8"	3-8 1/2"
BASIC UNIT SIZE	2-7 7/16"	3-7 1/2"
SASH OPENING	2-4 3/8"	3-5"
GLASS SIZE	27"	39 3/8"

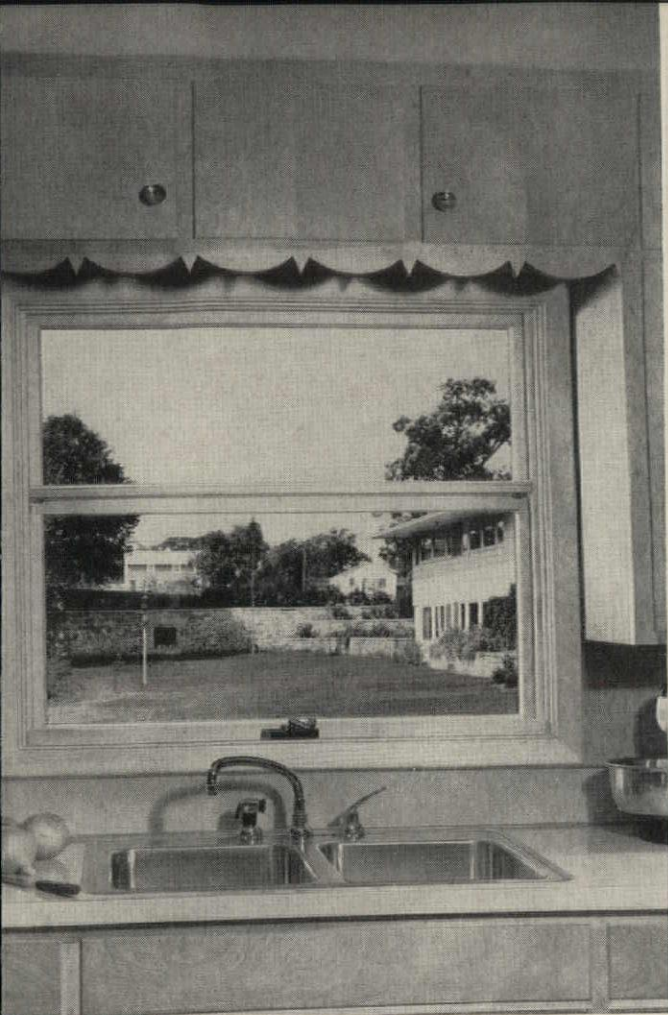
3-5 9/16"	18" 1/4"	232	3832
3-4 3/4"			
3-3 3/8"			
3-0 1/4"			
4-1 1/16"	18" 1/2"	240	3840
4-0"			
3-11 1/8"			
3-8 3/4"			
4-9 3/16"	30"	248	3848
4-8 1/8"			
4-7 1/8"			
4-4 1/4"			
6-0 3/16"	49"		3863
5-11 3/16"			
5-10 1/8"			
5-7 1/4"			



In split level homes, new Beauty-Line Windows blend perfectly to match architectural design—no matter what elevation you're planning.



In schools and light commercial buildings new Beauty-Line Windows adapt to any exterior elevation, admit plenty of light and ventilation.



Ideal for kitchens! 3'3" Beauty-Line Unit makes perfect kitchen window, easy to operate over kitchen sink. Also serves as excellent privacy window for bedrooms.

Ideal for dining rooms! 4'7" Beauty-Line Unit serves in dining areas, all through the house. Hardware shown is Bar-Lock Operator, one of three hardware options.*

windows by Andersen your building plan

Andersen announces a new idea in wood window beauty, the Beauty-Line Window, designed for a variety of architectural styles in homes, schools and commercial buildings.

Now in a single unit you can specify a window with fixed upper sash over an awning style lower ventilating sash. Andersen's exclusive design features an exceptionally narrow meeting rail to bring trim, narrow lines, minimum interference with vision.

Economies effected in this design mean a lower overall cost per square foot of glass area. And Beauty-Line

is available in seven sizes, forms mullions or triples.

In addition, the Beauty-Line comes completely assembled and packaged. Optional features include double glazings, insulating glass, aluminum frame screens, choice of operating hardware. All wood parts are treated against moisture, decay and termites. They last as long as the house.

You can get full details and specifications on new Andersen Beauty-Line Wood Window Units to suit *your* building plans by writing directly to Andersen Corporation.

*Patents Pending

Andersen Windowalls

TRADEMARK OF ANDERSEN CORPORATION

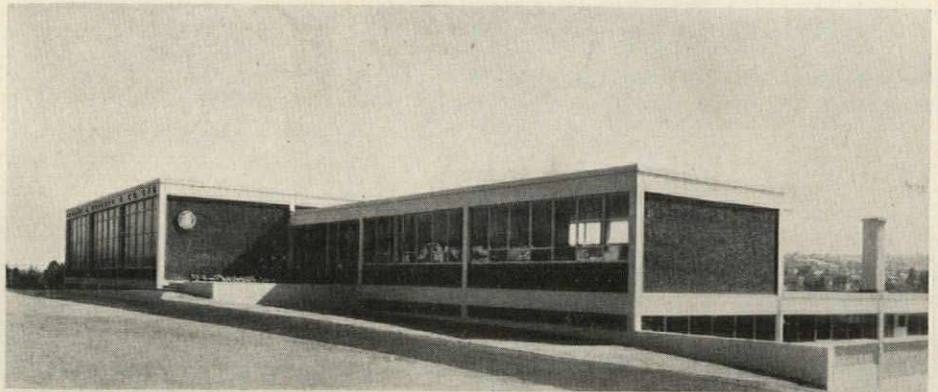


ANDERSEN CORPORATION • BAYPORT, MINNESOTA

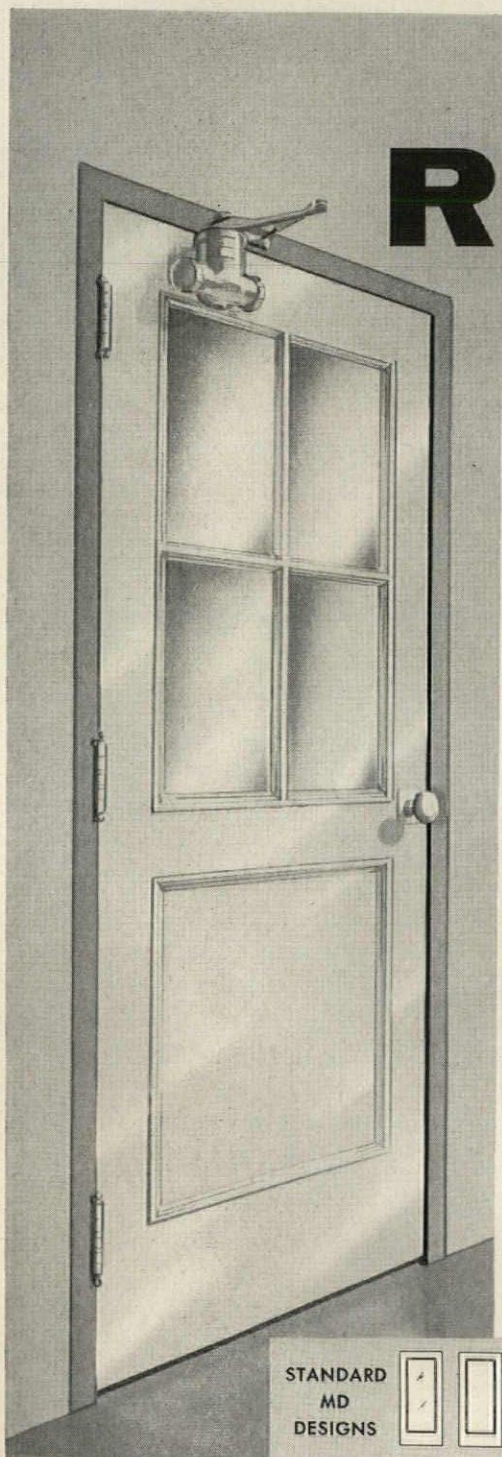
1958 Building Outlook Viewed As Very Good "Overall"

Qualified optimism is perhaps the best description for Royal Architectural Institute of Canada President Douglas E. Kertland's view of the building outlook for 1958.

"Total value of contract awards at the end of the first 10 months of 1957 was \$500,000 below the figure for the same period in 1956," he says, "but this decline was not a great surprise. Industrial, engineering and residential building were exception-



Warehouse and offices for Harold F. Ritchie & Co., Vancouver; Thompson, Berwick & Pratt, Architects. Cost: \$245,000
Williams Bros.



**RICHMOND
HOLLOW METAL
DOORS**

**CUSTOM-BUILT
TO FIT BUDGETS**

These fine quality doors can be custom-built to desired sizes at competitive prices. They are specified by prominent architects for many well-designed industrial, commercial and institutional buildings. Made with or without Underwriters' Class B, C, D, or E Label. 16 gauge steel construction in either panelled design ("MD") or flush ("FD"). List of recent installations gladly sent to any architect requesting it.



**RICHMOND FIREPROOF
DOOR COMPANY**
RICHMOND, INDIANA

STANDARD
MD
DESIGNS



Proposed apartment building for S. Gaylie Construction Ltd., Vancouver; Toby & Russell, Architects

ally active in 1956, and these categories have suffered the most severe setbacks. Commercial construction registered a gain, on the other hand, reflecting earlier activity in the industrial and engineering building."

Mr. Kertland believes that the danger of inflation has been checked, and relaxation of the Federal government's "tight money" policy is in order. He cited the recent reduction in the interest rate on loans made by the Industrial Development Bank, from six and a half to six per cent, as an example.

While the long postwar boom may be over, at least for the present and perhaps for the next six months, there is no cause for alarm, according to the R.A.I.C. president. "Overall business activity is continuing at a high level," he points out. "What is being established is a plateau of economic stability from which we will progress to greater heights than ever before."

Planners Told They Fail to Meet Many Needs of Modern City

A stiff dose of frankness enlivened the annual conference of the Community Planning Association in Canada, held in Vancouver September 29-October 2.

Futuristic in styling

Futuristic in engineering

PATTERNS OF THE FUTURE



... heralded by these handsome "large area," recessed, 4-foot in diameter, circular Visionaires: the SP3840 series. Besides widening the architectural-designer's range of dramatic concepts in interior designs, the SP3840 is ideal either as a contrast fixture or the dominant shape in the ceiling theme. Matte-finish translucent white Plexiglas affords unusual low brightness, minimum glare and greater visual comfort. Diffusers are concave for added strength and structural stability. Fixture-body is square for easy installation. Loosening of only 4 screws permits fully framed diffuser to be lowered on concealed slotted hinges for relamping without removal. Bonderite treated against corrosion and finished in high reflectance, all white baked enamel. Also available 24" and 36" in diameter. Write for bulletin D-49.

SUNBEAM LIGHTING COMPANY

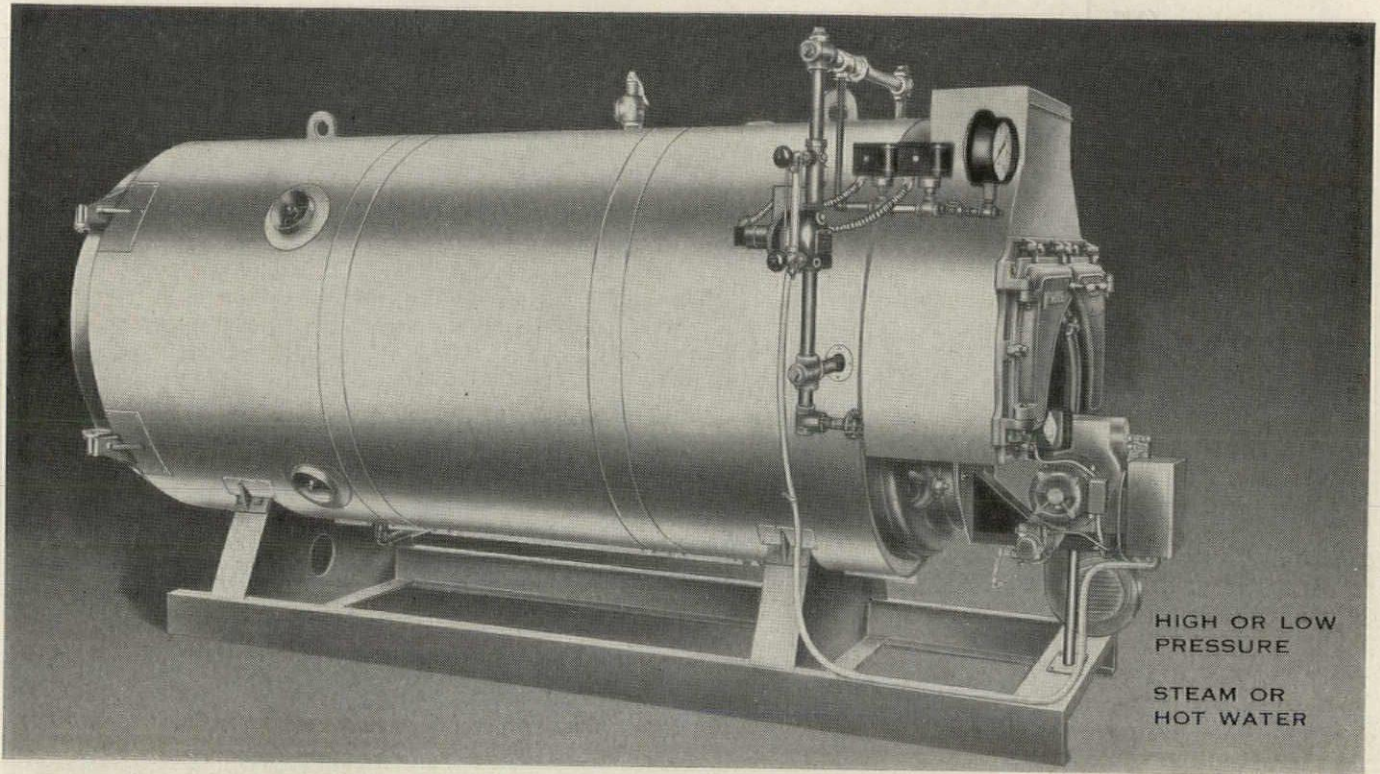


Complete Manufacturing Facilities
in Gary and Los Angeles



777 E. 14th Pl.
Los Angeles 21, Calif.
3840 Georgia St.
Gary, Indiana

Announcing 8 new KEWANEE



Kewanee low pressure boiler with Iron Fireman MicroMist forced draft burner for heavy oil.

HIGH OR LOW
PRESSURE
STEAM OR
HOT WATER

All advantages of forced draft firing now available in smaller size series

READ THESE SPECIFICATIONS. SIZE RANGE: 18 to 92 bhp. FUELS: Light or heavy oils, gas, or combination oil-gas. **FACTORY ASSEMBLY:** All models available factory assembled as complete package units, ready for service connections on job.

In the new Kewanee-Iron Fireman series of package units, the important advantages of forced draft firing are extended to the small "Scottie, Jr." sizes. Thoroughly proved in worldwide installations of larger size units, this new series makes forced draft firing, with all its benefits, available for smaller boiler plants.

Forced draft advantages. Forced draft firing has many inherent advantages over other methods of gas or oil combustion.

With these units there is a 50% saving in electrical power for operating motors. This is important, particularly in the larger sizes. More positive regulation is assured by controlling the air at room temperature, rather than at exit gas temperature. Equipment is smaller and requires less maintenance. In addition, a forced draft unit

is much quieter than a natural or induced draft unit. No high stack needed; requires only a vent pipe.

Boilers and burners conservatively rated. There is an ample reserve capacity beyond the rated output. Normal load is carried at a comfortable "cruising speed." This assures long life with low maintenance costs. Units operate at well above 80% efficiency even at 50% above the Steel Boiler Institute rating.

Only service connections required. All boiler fittings, automatic burner controls, fuel and air systems are installed and tested at factory. Units are fire tested and shipped as a unit if desired, or boiler and burner may be shipped separately if it is necessary to protect the burner from weather or vandalism during construction.

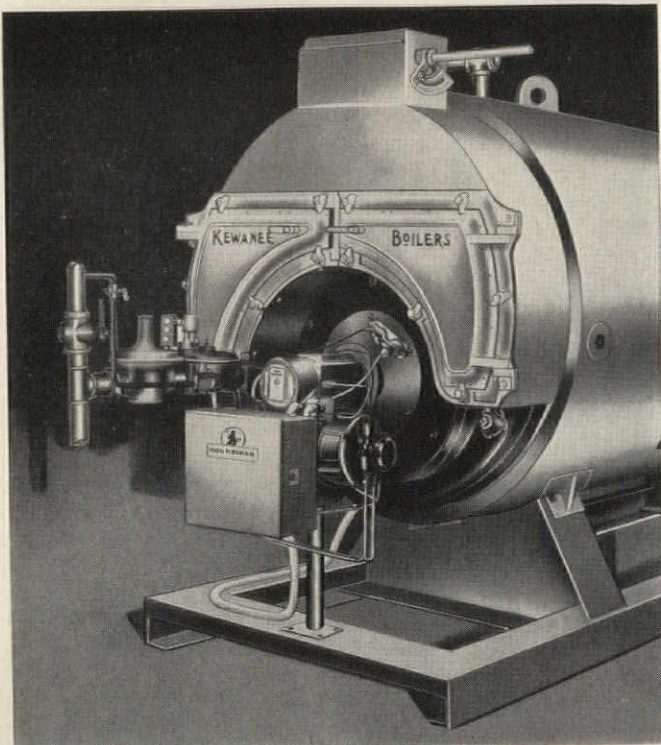
IRON FIREMAN forced draft package units

High or low pressure, steam or hot water boilers . . .
all sizes, all fuels . . . *ready to hook up and GO*

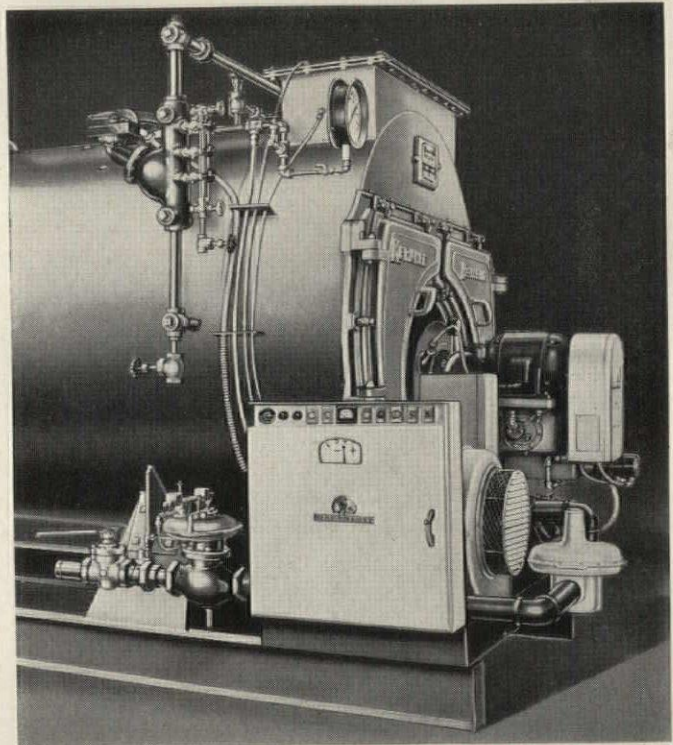
Light oil, gas or gas-oil. The Iron Fireman WhirlBlast burner is a new and advanced design. Its most outstanding feature is its ability to fire, with high efficiency, either gas or oil in a sealed combustion chamber, without flame pulsation. It is a true forced draft burner, operating under firebox pressure. On dual fuel models, fuels are changed without mechanical adjustment, either through automatic controls or with the flick of a switch. From 18 to 92 bhp.

Heavy oil burner for smaller boilers. The ability to fire either heavy or light oils and to modulate over a wide range are the two outstanding features that make the MicroMist burner unique in its field. Its most notable feature is a two-stage supercharger atomizing principle which converts fuel oils, up to and including No. 5, to an air-oil mist that is readily ignited by an electric spark. No gas pilot required. For boilers from 18 to 92 bhp.

No. 6 oil or lighter—gas or gas-oil. This burner is designed for larger size boilers. Oil models incorporate the famous Iron Fireman horizontal rotary burner with Volumeter oil control, which accurately meters, by positive displacement, all grades of oil. The integrated ring type gas burner operates at highest efficiency at the same input ratings as are developed with oil. Available in sixteen sizes with capacity ranging from 59 bhp to 651 bhp.



Iron Fireman WhirlBlast burner (described above) fires either gas or light oil, or combination oil and gas, under forced draft. This is a new Iron Fireman development; never before available in the medium size range.



The Iron Fireman rotary forced draft burner (described above) fires any grade of oil, gas or gas-oil combination. It includes control panel, air and fuel systems. Control instruments are wired and tested at factory.



Write for catalog and specifications

IRON FIREMAN®

AUTOMATIC FIRING EQUIPMENT
FOR HEATING, PROCESSING, POWER

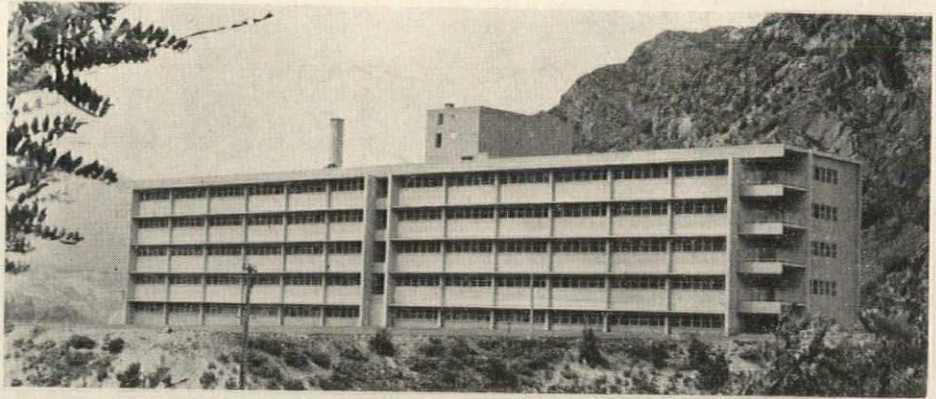
IRON FIREMAN MANUFACTURING CO.
3347 West 106th Street, Cleveland 11, Ohio
In Canada: Write 80 Ward Street, Toronto, Ontario.
Please send complete technical description and specifications.

low pressure new 18 to 92 hp. units only
 high pressure all capacities

Name _____
Company _____
Address _____
City _____ Zone _____ State _____

George S. Mooney, executive director of the Canadian Federation of Mayors and Municipalities, Montreal, told the nation's planners that they had failed miserably to meet many of the needs of the modern city. He added that control of the "explosive" growth of Canadian cities requires bold imagination, and at present they are examples of an uneven advance.

Eric Beecroft, executive director of the C.P.A.C., suggested that, to be effective, urban planning must be undertaken at the metropolitan level. Furthermore, he added, cities and



Another Thompson, Berwick & Pratt project—150-bed hospital for mining city of Trail, B. C. Cost: \$2,000,000

Graham Warrington



Office Building, Canadian Kenworth Trucks, North Vancouver; Semmens & Simpson, Architects. Cost: \$500,000

NOW!

A NEW, DIFFERENT and BETTER INORGANIC, THIN-BED ADHESIVE MORTAR—PROVIDES THE PERFECT UNION BETWEEN CLAY, CERAMIC, GLASS MOSAIC TILES and DRY BASE SURFACES.

TILE-MATE

NOW!

- You can specify **TILE MATE** as an architect
- Install **TILE MATE** as a tile contractor

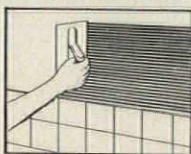
and Profit by its weight, time and cost saving factors

Tile Mate by the Makers of **HYDROMENT JOINT FILLER**

MAKES TILE JOBS EASIER, FASTER AND LESS COSTLY—SAVES WEIGHT, TIME & MONEY



MIXING: Add only water and mix to paste consistency. Remix after 10 minutes and apply. TILE-MATE's pot life is 4 to 5 hours.



APPLICATION: Apply to back-up at rate of 3 to 4 sq. ft. per lb. using a notched trowel. Confine application to an area not exceeding what can be tiled in 30 to 45 minutes.

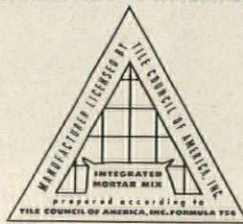


TILING: Set in conventional manner, wet or dry. If surface skin forms, merely apply pressure on tile to break skin and cause new TILE-MATE to flow from ridges.



GROUTING: Tiled areas can be grouted immediately, or delayed for any period of time. Clean by sponging with clear water. Remove dry film with polish cloth.

is
Approved by All Leading TILE MANUFACTURERS, As Evidenced by the Seal of the TILE COUNCIL OF AMERICA INC.



WRITE FOR FREE SAMPLE

and for full particulars

THE UPKO COMPANY
 4805 LEXINGTON AVE. • CLEVELAND 3, OHIO

SALES ENGINEERS and WAREHOUSE STOCK IN PRINCIPAL CITIES COAST TO COAST

surrounding municipalities wishing to avoid the costly and unsightly consequences of "sprawl" should have closer cooperation and assistance from their provincial governments.

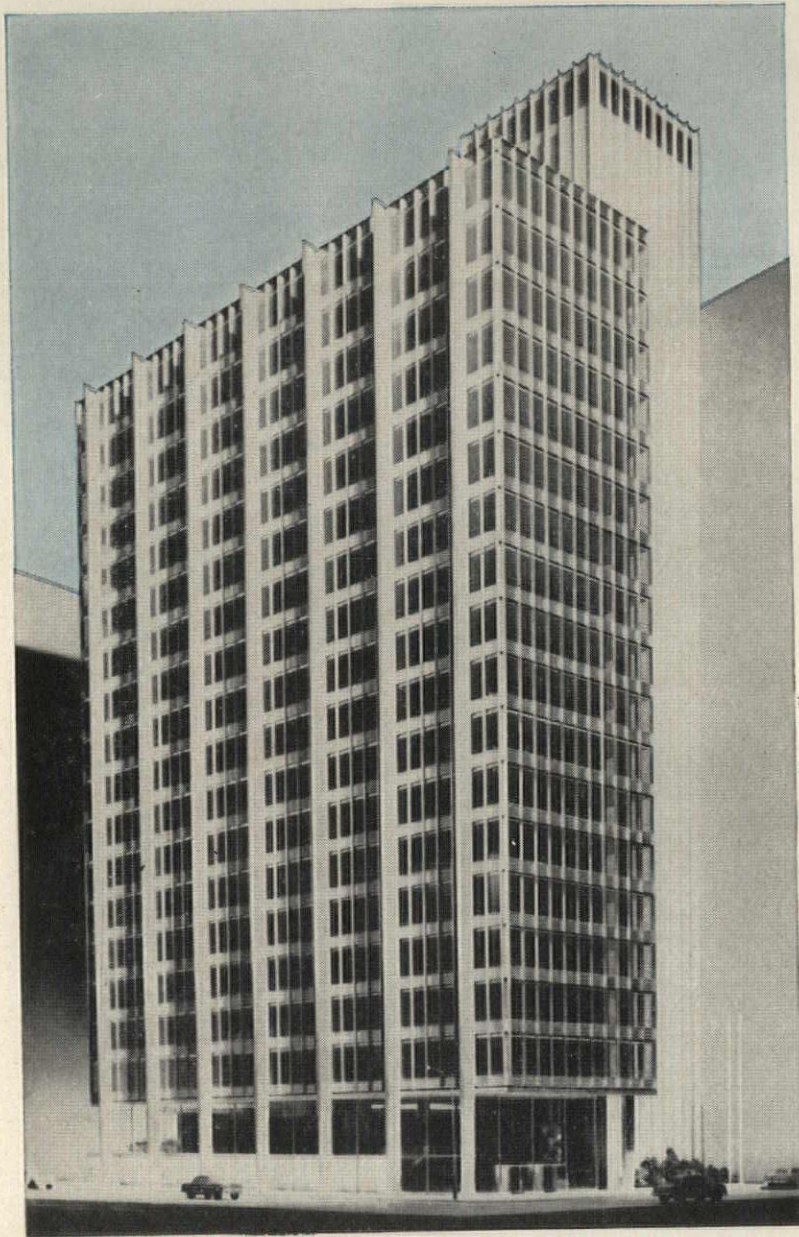
These governments must assume a "great deal more leadership," especially in the field of setting up planning machinery and authority, Mr. Beecroft noted, is that families municipal officials must accept their guidance—or accept the consequences.

Consequences of allowing haphazard development to continue are not, he said, pleasant to contemplate. They present a picture of crushing financial burden on the relatively few taxpayers in areas of scattered population who must pay for the construction of miles of roads, sewers, water mains, power lines and other services; of choked, congested roads and bridges; and of the dreary ugliness that inevitably follows a piecemeal development.

The anomaly of the situation, Mr. Beecroft asserted. And, he warned, families moving into fringe areas soon encounter the very inconveniences they left central areas to escape.

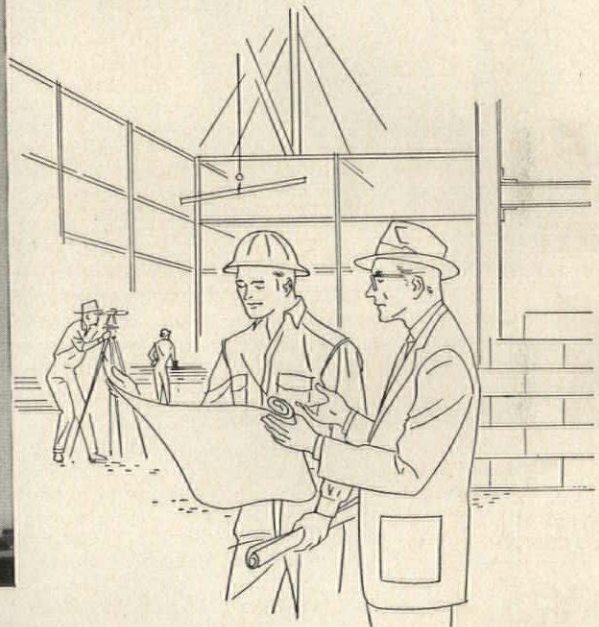
Slum clearance, with its accompanying rehabilitation of families, emphasizes the problem. Since many of these families have to be relocated in neighboring municipalities, it also underlines the need for overall metropolitan planning.

"Very often," said Mr. Beecroft,



CHICAGO'S NEW INLAND STEEL BUILDING (Photo by Hubs Henry, Hedrick-Blessing)
Skidmore, Owings and Merrill—Architects... Turner Construction Co.—Gen. Contractor

FIRST BUILDING
TO USE THE
NEW NICKEL-SAVING
ALLEGHENY-PIONEERED
STAINLESS STEEL (TYPE 202)



The Inland Steel Company's new headquarters in Chicago numbers some important firsts among its outstanding features. It is the first large office building to be built in Chicago's loop in 20 years. It is also Chicago's first stainless curtain wall building, and the first building anywhere to use the new low-nickel stainless grades pioneered by Allegheny Ludlum.

Allegheny 200-series stainless steels (Types 201 and 202) are the answer to one of the knottiest problems that have faced architects and designers who want to use the superior durability, strength and beauty inherent in stainless steel. Now, with the in-

roduction of the 200-series it is possible to think in terms of stainless steel without fear of shortages. In most applications the 200-series performs as well as the 300-series of stainless steels, and they offer unique advantages of their own. There is some advantage in price, strength is slightly higher and availability is much greater in times of nickel shortage. Weldability, forming and finishing characteristics are virtually the same as with the 300-series.

• If these new steels sound interesting to you, give us a call. *Allegheny Ludlum Steel Corporation, Oliver Building, Pittsburgh 22, Pa.*

WRITE FOR DATA

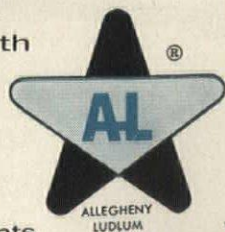
ASK for a copy of our "Technical Horizons" bulletin on the Allegheny 200-Series stainless steels.

ADDRESS DEPT: R-1

Make it BETTER and LONGER LASTING with

**ALLEGHENY
STAINLESS**

Warehouse stocks carried by all Ryerson steel plants



NEW 6525

3 HOW TO SOLVE THE BIG PROBLEMS of Heating System Design



KEEP COSTS DOWN

The cost of Reznor unit heaters is comparable to or lower than that of other types of equipment of equal heating capacity. And with Reznor, this is the total cost. You don't have to add the costs of extensive piping and valves or duct work, and of radiators or registers. Reznor gas unit heaters produce and distribute heat at the point of need. To install them involves only suspension, venting and utility connections. So installation costs are much lower than those of central heating systems. Lower

equipment cost . . . lower installation cost . . . two reasons why Reznor gas unit heaters can offer substantial savings on heating systems for so many commercial and industrial buildings.

SAVE SPACE

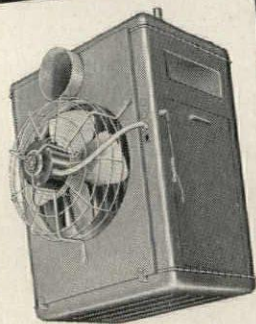
Reznor gas unit heaters are installed up at the ceiling, completely out of the way. When you design for a store or factory, you don't have to allot a single square foot of valuable space for heating equipment . . . and you don't have to keep floor or wall areas clear for radiators or registers.

INSURE FLEXIBILITY

When you specify Reznor gas unit heaters you don't have to choose between a heating plant which is over-sized and over-priced for current requirements and one which may not be adequate for future needs. With Reznor unit heating, when that new wing is added, additional heaters are installed. It's as simple as that. And in the case of internal remodeling, it's very easy and inexpensive to relocate the existing heaters.

ONLY REZNOR GAS UNIT HEATERS OFFER ALL THESE ADVANTAGES

- Clean, modern design, back as well as front . . . all controls and connections inside the cabinet.
 - FlexiTemp control system with automatic two-speed fan control to provide nearly continuous air circulation and minimize temperature fluctuations (optional).
 - No costly frills and gadgets . . . features which are needed only to meet special situations always separately listed and priced.
 - Fan or blower models in ten sizes from 25 to 300 thousand BTU.
- There is no "equivalent" for Reznor gas unit heaters.



REZNOR
WORLD'S LARGEST-SELLING DIRECT-FIRED
UNIT HEATERS

Reznor Manufacturing Company
62 Union St., Mercer, Pennsylvania

for complete details,

wherever
you are . . .



News from Canada

"the organized city is dealing with a problem that really stems from one neighboring community."

He believes that while remarkable progress has been made in planning at the community level during the past 10 years, the next decade will see emphasis on the province.

The Ontario government started the trend when it literally forced the "metropolitanization" of Toronto and its surrounding municipalities. In Alberta, the provincial government provides a planning service available to all towns. Manitoba is expanding its Winnipeg planning staff to render assistance to other communities.

C. E. Campeau of Montreal was elected president of the Association. Other officers elected: vice-presidents—Eric W. Thrift, Winnipeg, and George L. MacDonald, Toronto; councillors—J. Roland Bedard, Quebec City, J. S. Hodgson, Ottawa, and W. T. Lane, Richmond, B. C.

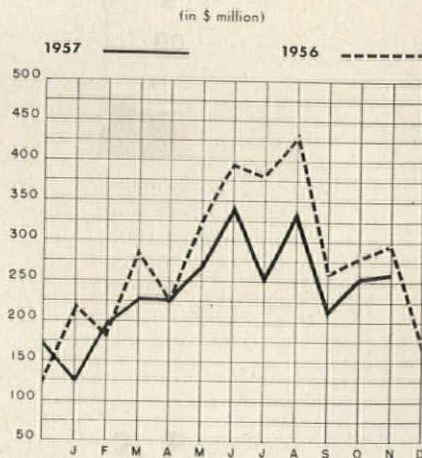
Convinced The Architect Is Worthy of His Hire

The Board of Education, Township of North York—a Metropolitan Toronto municipality—has rejected a proposal that the board set up its own architectural department.

It was claimed that having staff architects would reduce the present bill for architectural fees, which amounts to about \$500,000 annually.

"But would it?" one of the trustees is reported to have asked. "There are other boards of education that have their own architectural departments and their schools are not as good as ours. We're getting value for our dollars because of the competition among architects in private practice."

Contracts Awarded: Comparative Figures*



*Compiled by the Editor and staff of The Building Reporter, from information collected by Maclean Building Reports

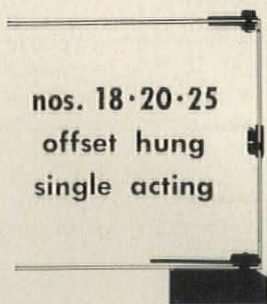
for the **MODERN ENTRANCE**



RIXSON

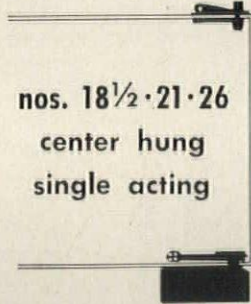
concealed floor type door closers

4 basic styles in a variety of sizes and types to meet every installation requirement



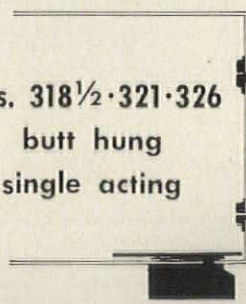
nos. 18·20·25
offset hung
single acting

Allow full unobstructed door opening space and wide door swing to 180°. Has arm locking device for vertical adjustment of door.



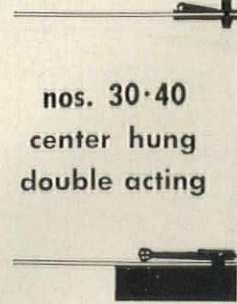
nos. 18½·21·26
center hung
single acting

Hanging hardware completely concealed. Ideal for batteries of doors. Require no mullions allowing greatest open entrance area.



nos. 318½·321·326
butt hung
single acting

For installations where it is desirable to have door hung independently from closer. RIXSON ball hinges with vertical adjustment recommended.



nos. 30·40
center hung
double acting

For doors that swing both in and out. Each swing separately adjustable to local wind and draft conditions. Completely concealed.

write for complete information and templates

THE OSCAR C. RIXSON COMPANY originators of the checking floor hinge
9100 w. belmont ave. • franklin park, ill. CANADIAN PLANT: 43 racine road • rexdale, ontario



Pegs

are popular

Here's a popular-priced version of always-appealing pegged oak flooring. The walnut pegs of this Bruce Ranch Plank Floor are inserted at the factory. The beautiful finish is factory-applied, too, for economy and durability. Alternating 2¼" and 3¼" strips with beveled edges help capture the appearance of a costly random-width plank floor. Bruce Ranch Plank is laid just like any strip floor. Write for color booklet. See our catalog in Sweet's Files. E. L. BRUCE CO. Memphis 1, Tennessee



Bruce
Ranch Plank
Floor
Naturally Beautiful

Furniture by Knoll Associates, Inc.
Photo by Hedrich-Blessing



Chester, K-2790-C. Size 19 x 17"

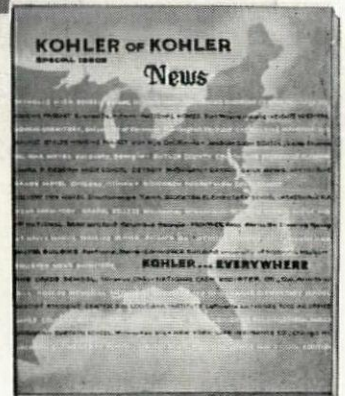
KOHLER CHESTER

New enameled iron lavatory— popular ledge design

Fresh opportunities for varied bathroom ensembles are afforded by this enameled iron ledge lavatory, another first. The Kohler line was also first to include an enameled iron shelf lavatory.

In design, the Chester was inspired by the Chesapeake, of vitreous china, which has an established reputation for popularity and successful sales.

Attractive features include 6 $\frac{3}{4}$ " of wall-bearing surface for extra support, a roomy basin, and built-in soap dish. Like other Kohler lavatories, the Chester has a front overflow, leaving an unbroken expanse of sparkling, easy-to-clean surface in the rear. The convenient Centra combination fitting is all-brass, chromium-plated. Available in the famous Kohler white and any of 7 colors.



Send for
"KOHLER... EVERYWHERE"

A handsome new booklet—shows with pictures the widespread use of Kohler plumbing fixtures in all types of homes, institutions, commercial and public buildings in every part of the country.

KOHLER CO. Established 1873 KOHLER, WIS.

KOHLER OF KOHLER

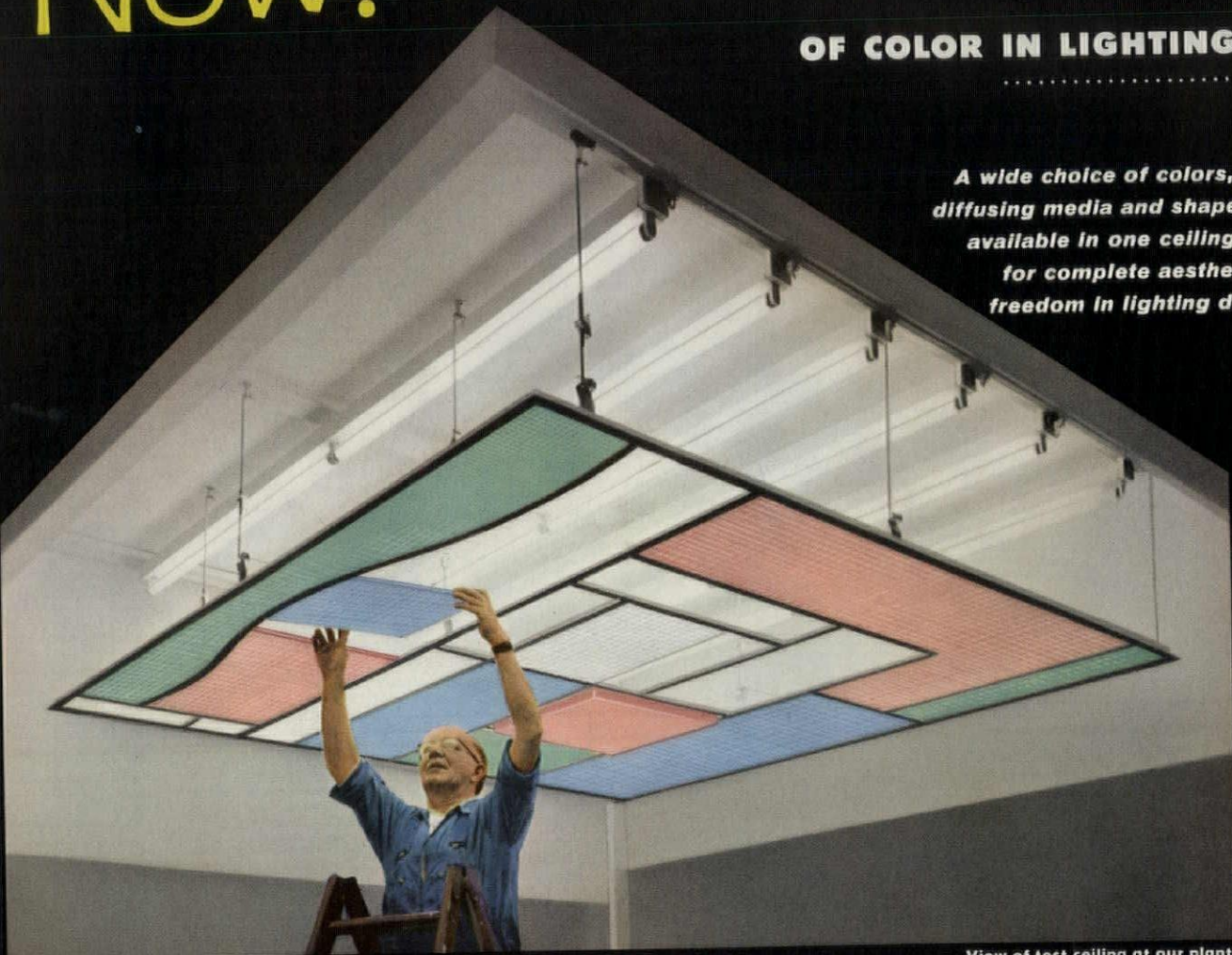
Enameled Iron and Vitreous China Plumbing Fixtures • Brass Fittings • Electric Plants • Air-cooled Engines • Precision Controls

NOW!

CHOOSE FROM A RAINBOW

OF COLOR IN LIGHTING!

*A wide choice of colors,
diffusing media and shapes
available in one ceiling system
for complete aesthetic
freedom in lighting design*



View of test ceiling at our plant.

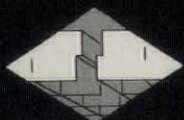
Electro Silv-A-King **LUMENAREA** ceiling system

The simplest, most versatile installation system ever developed!

Here is the world's first large area lighting system that gives you practically unlimited variety of form, as well as color and diffusing media. Now you can design lighting layouts, from the conventional to the abstract, curved or straight in any combination of louver, molded forms, glass and accent lighting . . . in soft pastel pink, blue, green and white . . . in a ceiling completely free of any visible screws, bolts or mechanical devices.

And with all that, the new Electro Silv-A-King LumenArea System, incorporates Slide Adjustment and Adjusto-Lok hanging devices which adjust for spacing and depth without tools!

Design of our Overlap Polycube® Louver (1/2" cube), on 2-ft. wide modules eliminates the necessity for crossbars, regardless of how long the run . . . also provides 45° x 45° shielding for optimum seeing comfort.



Dished plexiglas ceiling with perimeter of green "Polycube" Louvers helps give this office a distinctive appearance.

For your Free Specification and Data Bulletin, write to:

Electro Silv-A-King Corporation, 1535 SO. PAULINA ST., CHICAGO 8, ILL. • SPRUCE & WATER STS., READING, PA. • REDWOOD CITY, CALIF.



preferred for its beauty—and because it is practical



RED CEDAR beautifully expresses the trend toward wood paneling for every home setting, Early American to Modern.

In either its clear or knotty grades, Red Cedar is a favorite of architects and builders everywhere. It is handsomely grained and colored. It is one of the best natural wood insulators. And Red Cedar resists swelling, shrinking and warping, thus will not crack or split. Carpenters like Red Cedar, too. It is light in weight, readily workable and easily nailed.

For *sheathing, siding, and floor and roof decking*, Red Cedar is also excellent. In addition to its insulating properties, it is extremely weather-resistant. And it is *carefully dried*, assuring accurate sizing and improved working qualities, insuring lower maintenance costs.



Write for **FREE** illustrated Facts Folder about Red Cedar to:
WESTERN PINE ASSOCIATION,
 Dept. 701-U, Yeon Building,
 Portland 4, Oregon.



Western Pine Association
member mills manufacture these woods to high standards of seasoning, grading and measurement
Idaho White Pine • Ponderosa Pine • Sugar Pine
White Fir • Incense Cedar • Douglas Fir • Larch
Red Cedar • Lodgepole Pine • Engelmann Spruce

Today's Western Pine Tree Farming Guarantees Lumber Tomorrow



PLUS VALUES

...that make
happy clients

Everybody is happier when architects specify ALWINTITE aluminum windows. Well designed and carefully made by General Bronze—recognized leader in aluminum windows—they offer many PLUS VALUES. To hospital or school building committees, to realty managers and to building owners, their fine workmanship, easy trouble-free operation, low-cost maintenance and attractive appearance, are all evidence of their superior quality. Architects, too, appreciate such other PLUS VALUES as wide selection from stock sizes, dependable on-time deliveries and reliable distributors with factory-trained window specialists always at your service. For the complete story—types, sizes and details—see the ALWINTITE catalog in Sweet's, or write us direct.

ALWINTITE
by **GENERAL BRONZE**
GARDEN CITY, N.Y.

ENSEMBLE: OLEG CASSINI

ALUMINUM WINDOWS • SLIDING DOORS

Construction Cost Indexes

Presented by Clyde Shute, Director of Statistical Policy, Construction News Div., F. W. Dodge Corp., from data compiled by E. H. Boeckh & Assoc. Inc.

Labor and Materials: U.S. average 1926-1929=100

NEW YORK

ATLANTA

PERIOD	RESIDENTIAL		APTS., HOTELS, OFFICE BLDGS.	COMMERCIAL AND FACTORY BLDGS.		RESIDENTIAL		APTS., HOTELS, OFFICE BLDGS.	COMMERCIAL AND FACTORY BLDGS.	
	Brick	Frame	Brick and Concrete	Brick and Concrete	Brick and Steel	Brick	Frame	Brick and Concrete	Brick and Concrete	Brick and Steel
1930	127.0	126.7	124.1	128.0	123.6	82.1	80.9	84.5	86.1	83.6
1935	93.8	91.3	104.7	108.5	105.5	72.3	67.9	84.0	87.1	85.1
1939	123.5	122.4	130.7	133.4	130.1	86.3	83.1	95.1	97.4	94.7
1946	181.8	182.4	177.2	179.0	174.8	148.1	149.2	136.8	136.4	135.1
1947	219.3	222.0	207.6	207.5	203.8	180.4	184.0	158.1	157.1	158.0
1948	250.1	251.6	239.4	242.2	235.6	199.2	202.5	178.8	178.8	178.8
1949	243.7	240.8	242.8	246.6	240.0	189.3	189.9	180.6	180.8	177.5
1950	256.2	254.5	249.5	251.5	248.0	194.3	196.2	185.4	183.7	185.0
1951	273.2	271.3	263.7	265.2	262.2	212.8	214.6	204.2	202.8	205.0
1952	278.2	274.8	271.9	274.9	271.8	218.8	221.0	212.8	210.1	214.3
1953	281.3	277.2	281.0	286.0	282.0	223.0	224.6	221.3	221.8	223.0
1954	285.0	278.2	293.0	300.6	295.4	219.6	219.1	233.5	225.2	225.4
1955	293.1	286.0	300.0	308.3	302.4	225.3	225.1	229.0	231.5	231.8
1956	310.8	302.2	320.1	328.6	324.5	237.2	235.7	241.7	244.4	246.4
Aug. 1957	321.0	310.7	336.8	349.5	344.6	243.6	241.3	252.0	255.6	258.8
Sept. 1957	321.2	310.9	337.4	349.5	345.2	242.0	239.3	251.4	255.2	258.2
Oct. 1957	320.3	309.8	337.0	349.2	344.8	242.0	239.3	251.4	255.2	258.2
Oct. 1957	159.4	153.1	157.8	161.8	265.0	180.4	188.0	164.4	162.0	172.7

ST. LOUIS

SAN FRANCISCO

1930	108.9	108.3	112.4	115.3	111.3	90.8	86.8	100.6	104.9	100.4
1935	95.1	90.1	104.1	108.3	105.4	89.5	84.5	96.4	103.7	99.7
1939	110.2	107.0	118.7	119.8	119.0	105.6	99.3	117.4	121.9	116.5
1946	167.1	167.4	159.1	161.1	158.1	159.7	157.5	157.9	159.3	160.0
1947	202.4	203.8	183.9	184.2	184.0	193.1	191.6	183.7	186.8	186.9
1948	227.9	231.2	207.7	210.0	208.1	218.9	216.6	208.3	214.7	211.1
1949	221.4	220.7	212.8	215.7	213.6	213.0	207.1	214.0	219.8	216.1
1950	232.8	230.7	221.9	225.3	222.8	227.0	223.1	222.4	224.5	222.6
1951	252.0	248.3	238.5	240.9	239.0	245.2	240.4	239.6	243.1	243.1
1952	259.1	253.2	249.7	255.0	249.6	250.2	245.0	245.6	248.7	249.6
1953	263.4	256.4	259.0	267.0	259.2	255.2	257.2	256.6	261.0	259.7
1954	266.6	260.2	263.7	273.3	266.2	257.4	249.2	264.1	272.5	267.2
1955	273.3	266.5	272.2	281.3	276.5	268.0	259.0	275.0	284.4	279.6
1956	288.7	280.3	287.9	299.2	293.3	279.0	270.0	288.9	298.6	295.8
Aug. 1957	293.0	284.6	297.0	308.3	306.1	288.3	276.8	305.0	318.0	314.2
Sept. 1957	294.8	285.5	299.8	312.5	309.4	289.1	275.3	308.0	322.8	317.5
Oct. 1957	292.7	284.1	297.1	308.9	306.0	287.3	273.8	306.9	320.4	316.4
Oct. 1957	165.6	165.5	150.3	157.8	157.1	172.1	175.7	161.4	162.8	171.6

Cost comparisons, as percentage differences for any particular type of construction, are possible between localities, or periods of time within the same city, by dividing the difference between the two index numbers by one of them; i.e.:

$$\frac{\text{index for city A} - \text{index for city B}}{\text{index for city B}} = \text{percentage difference}$$

(both indexes must be for the same type of construction).

Then: costs in A are approximately 16 per cent higher than in B.

$$\frac{110 - 95}{95} = 0.158$$

Conversely: costs in B are approximately 14 per cent lower than in A.

$$\frac{110 - 95}{110} = 0.136$$

Cost comparisons cannot be made between different types of construction because the index numbers for each type relate to a different U. S. average for 1926-29.

Material prices and wage rates used in the current indexes make no allowance for payments in excess of published list prices, thus indexes reflect minimum costs and not necessarily actual costs.

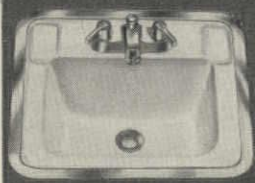
A new age in architecture for Chicago

Plumbing Fixtures by

RICHMOND



The Loop gets its first modern office building in twenty years. Featured are such architectural and engineering innovations as exterior columns, floor to ceiling windows, steel bearing piles...and featured too, plumbing fixtures by RICHMOND. The styling, quality and lasting beauty of these fixtures perfectly complement the newest in contemporary building design. And they are engineered to give year after year of service with minimum maintenance. Richmond has a place in your future projects, whether commercial, industrial, institutional or residential. Write for complete catalog or consult Sweets Catalog File.



Inland Steel Building, Chicago, Illinois

ARCHITECTS - Skidmore, Owings and Merrill

MECHANICAL ENGINEER - Skidmore, Owings and Merrill

OWNER - Inland Steel Co.

GENERAL CONTRACTOR - Turner Construction Co.

PLUMBING WHOLESALE - Warren Barr Supply Co.

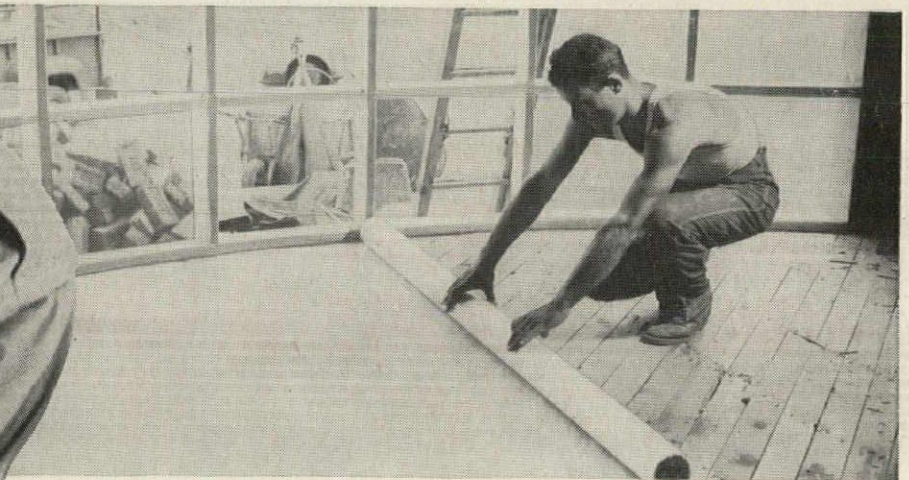
PLUMBING CONTRACTOR - Economy Plumbing and Heating Co., Inc.

 **RICHMOND** PLUMBING FIXTURES
Division of Rheem Manufacturing Company
16 Pearl Street, Metuchen, N. J.
The Fastest Growing Name in Plumbing Fixtures

GER-PAK -- THE SHORT WAY TO SAY SUPERIOR POLYETHYLENE FILM

GER-PAK
VIRGIN POLYETHYLENE FILM

**Virtually
SEALS OUT
Cellar Moisture and Dust!**



Satisfy yourself and the homeowner with a positive way of preventing moisture and dust from coming up through the basement. Use Ger-Pak film over sub-flooring to seal out unwanted cellar moisture and dust.

All over the country successful builders agree that Ger-Pak virgin polyethylene film is the most effective, versatile moisture-vapor and dust barrier material. In addition to its superior dust-sealing and moisture vapor protection in sub-flooring, Ger-Pak film excels under slab foundations to end wet basement problems, and to reduce sidewall moisture penetration to a minimum.

And that's not all. Ger-Pak film is the ideal material for concrete curing blankets, for protecting equipment and materials from bad weather, for painting drop cloths as well as many other on-the-job uses.

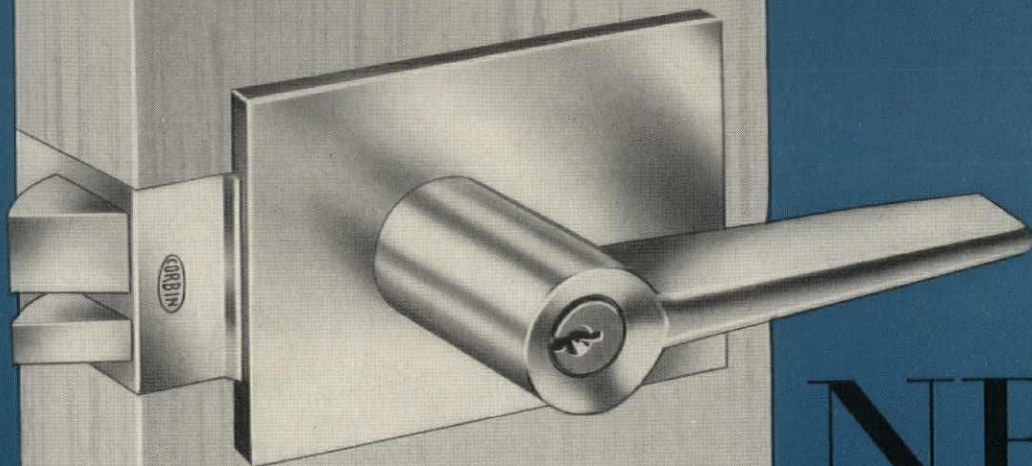
And only Ger-Pak film offers the widest range of widths — from 10-inch for flashing all the way up to 40 feet. Available in clear, black and special opaque white. Ask your dealer about tough, lightweight, easy to handle, and inexpensive Ger-Pak film today.

FREE samples and brochure are yours for the writing.

Designed
To Meet FHA
Requirements

GERING
Virgin Polyethylene Film

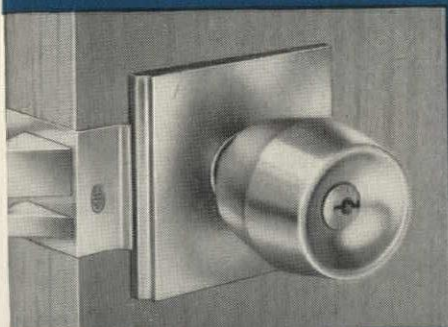
GERING PRODUCTS INC., Kenilworth, New Jersey



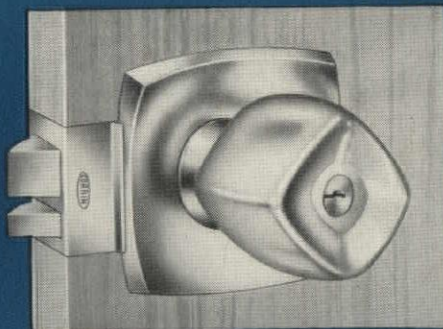
New LEVER HANDLE Design No. 90055
 A classic example of styling simplicity! This newest Corbin creation is the first lockset to offer easy lever action for utmost lock convenience plus famous UNIT construction for faultless security! Can be used with other UNIT lock escutcheons.

NEW!

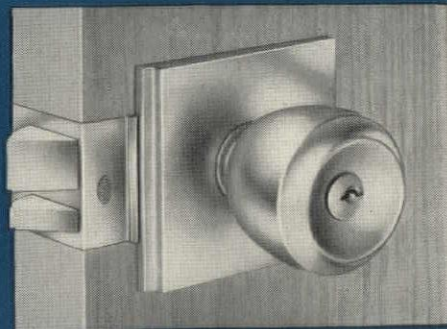
4 Corbin Originals in UNIT Locks



New MELODY Design No. 911



New VEGAS Design No. 913



New CHALICE Design No. 909

Simplicity is the first word for the Corbin UNIT Lock line. The striking new custom designs above . . . together with five other equally beautiful designs . . . now offer you greater latitude in door styling for commercial and industrial buildings, and luxury homes.

Unique, *one-piece* assembly also makes the UNIT lock far easier and faster to install. Only a simple mortise is required — any of 20 available functions fits into a quick cutout in the door. Lock mechanism is factory-assembled and *permanently* aligned in a tough extruded brass frame, leaving practically no chance for misapplication.

Available with cast brass, bronze or aluminum trim, in all popular finishes. Ask your Corbin dealer for a demonstration.

CONSTRUCTION FEATURES:

- Internal parts of long-wearing, nonferrous metal or zinc-plated, dichromated steel
- 100% reversible
- Positive deadlocking
- Famous Corbin master ring cylinder provides unusually flexible keying system and maximum security at the same time
- Accepted by Underwriters' Laboratories for use on all Class B label doors

Good Buildings Deserve **CORBIN** Hardware



P & F CORBIN DIVISION
 The American Hardware Corporation
 New Britain, Connecticut



ABOUT NERVI'S APPROACH TO DESIGN

By Herbert M. Noyes, Jr.

Structures. By Pier Luigi Nervi: translated by Giuseppina and Mario Salvadori. F. W. Dodge Corp. (New York) 1956. 118 pp., illus. \$6.95

Top: Stress analysis of hangar (1940). Center: Turin Exhibition Building—Main Hall (1948). Bottom: New Tobacco Factory, Bologna (1949).

Few indeed are the ranks of the true "master builders" in our times, and of these few, none speaks so clearly to each of us (who fulfill only part of his far ranging function) as does Pier Luigi Nervi.

Nervi has combined a basic mathematical and engineering education, forty years of designing and building reinforced concrete structures, and an instinctive esthetic sensitivity to produce a succession of truly significant architectural achievements.

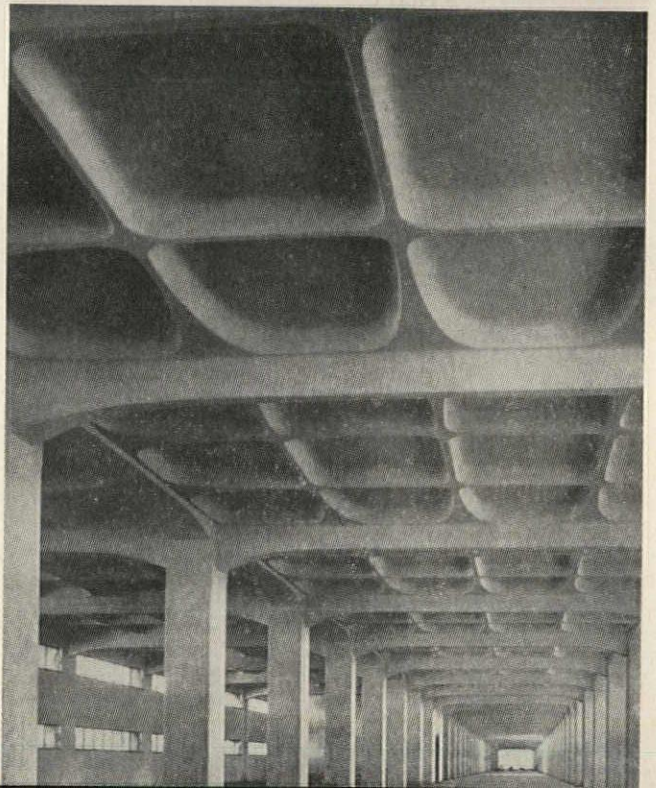
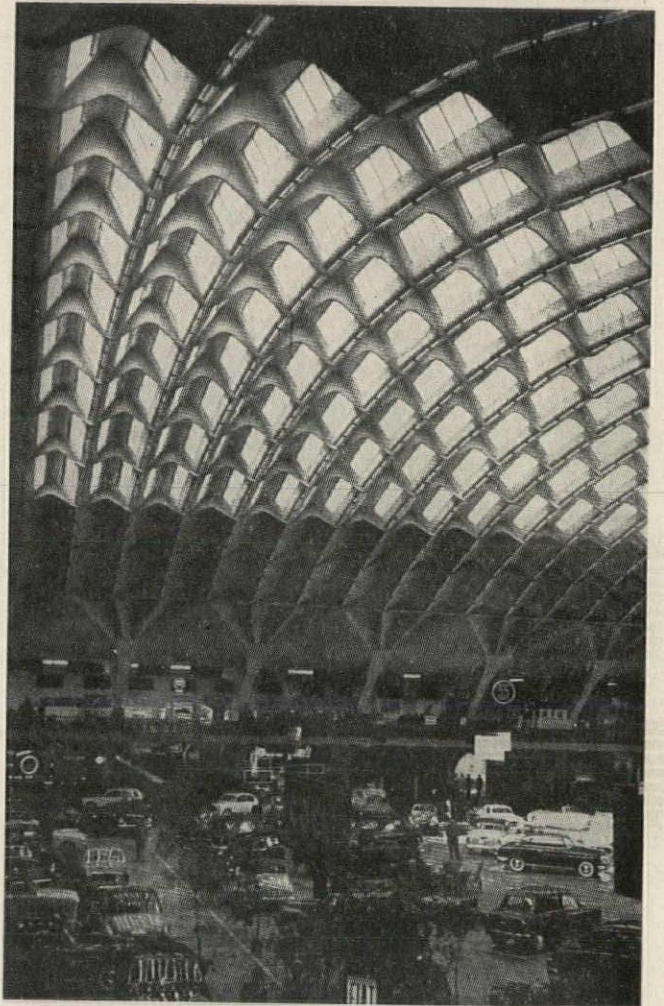
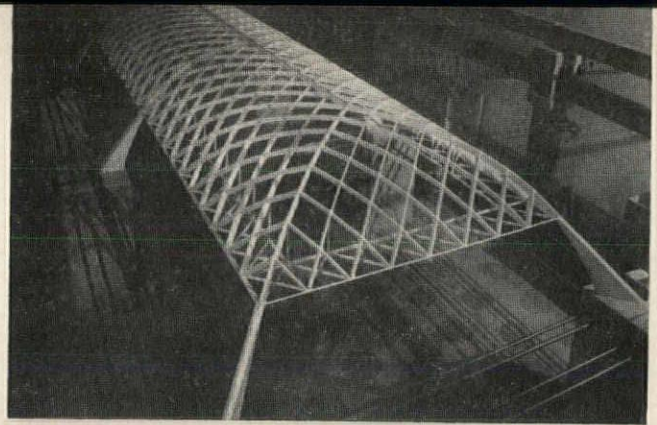
As founder of the famous Italian company, "Ingg, Nervi and Bartoli," Nervi has produced his masterpieces under an economic pressure dictated by Italy's unusual (to us in the United States) system of building. Design solutions to fulfill the client's needs are submitted competitively with construction cost bids. This system produced all of Italy's significant works in the last fifty years, according to the author, but would appear to be less sure of success in this country where the prosaic rather than the imaginative is generally the economically sound approach.

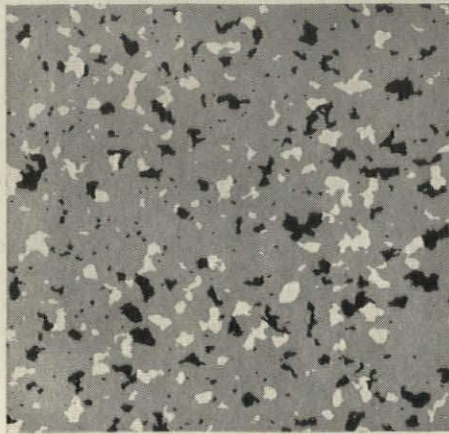
Nervi's earlier works, represented by the Florence Stadium and the great precast lamella hangars, are only relatively more conventional in design than his later work. They indicate his continuing search for "truth" in design as he sees it: namely that intuitive interpretation and expression of structural phenomena give economy of means as well as unexcelled architectural beauty.

Nervi's wide-angled approach to the whole world of construction is probably only hinted at in this relatively small book. One wishes genuinely to hear more of his philosophy of the education of architects, a subject which seldom lacks for protagonists of many persuasions. Developments of intuitive feelings for structure are more important to him under certain circumstances than lofty academic theories.

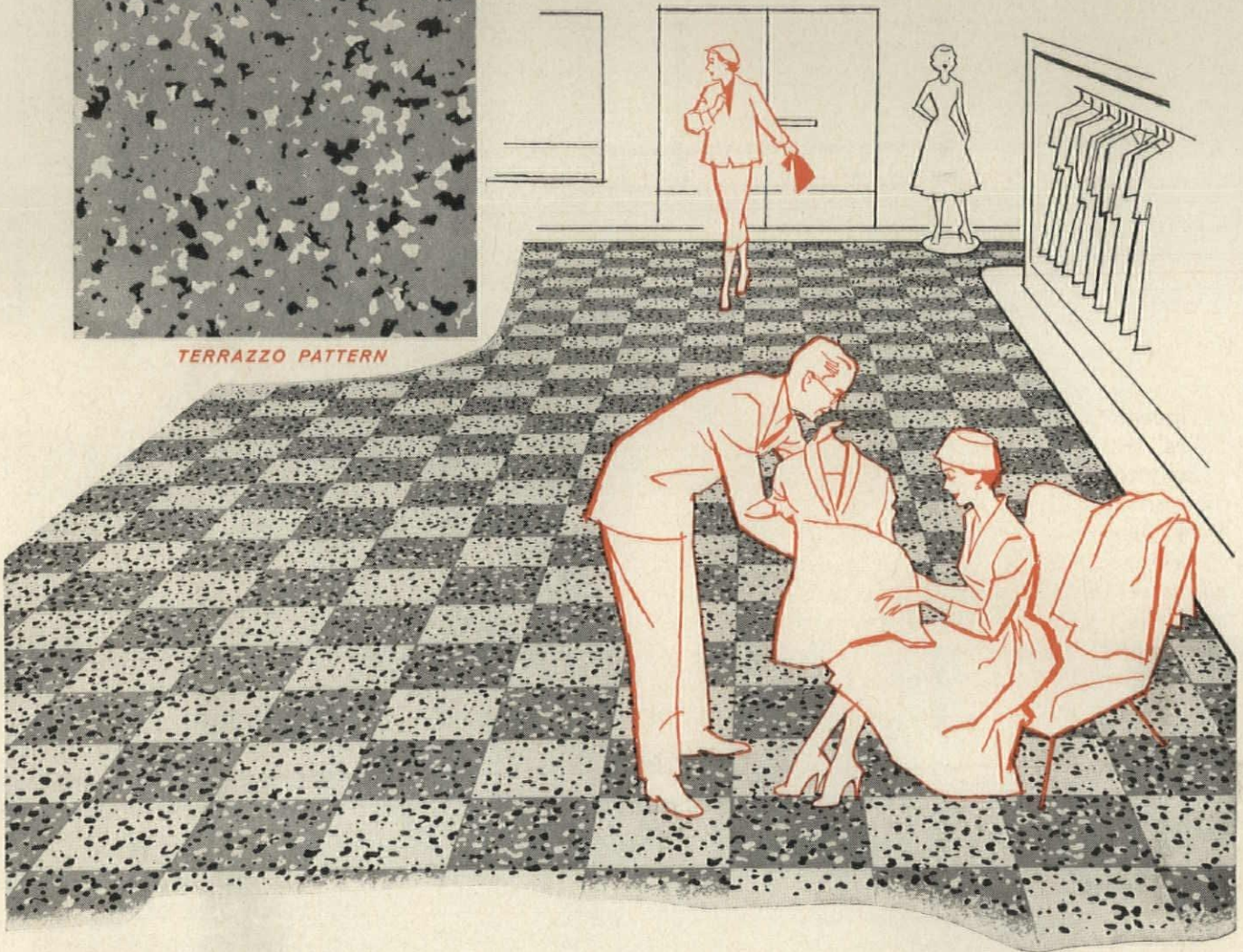
He speaks of the responsibility of the client (particularly governmental agencies), for the overall quality of the architecture of any nation; and explains why competitions have failed in the past and how to make them successful in the future. In regard to reinforced concrete, he decries the lack of research toward advancing design analysis methods

continued on page 62





TERRAZZO PATTERN



Here's Customer-inviting beauty that lasts longer with less care

Bolta-Floor's rich decorative colors and patterns help "dress-up" stores . . . make them more appealing to shoppers. Best of all heavy store traffic has little effect on Bolta-Floor. Its smooth, non-porous surface resists soil, scuffs and stains . . . keeps its lustrous "just-polished" appearance with far less care than other types of flooring. Bolta-Floor is dimensionally stable . . . won't crack, chip or shrink. Exceptional beauty and outstanding performance makes Bolta-Floor the wise choice for modern stores, buildings and institutions.

SPECIFICATIONS:

Bolta-Floor is available in 23 marbled, 24 "Terrazzo," or 5 solid colors, in standard 9" x 9", or 6" x 6", 12" x 12" and 18" x 18" tiles on special order, in .080", and 1/8" gauges. Solid or marbled are also offered in 1/2" and are produced in 27", 45" and 54" roll widths for floors, walls and countertops. See Sweet's 13i/Ge.



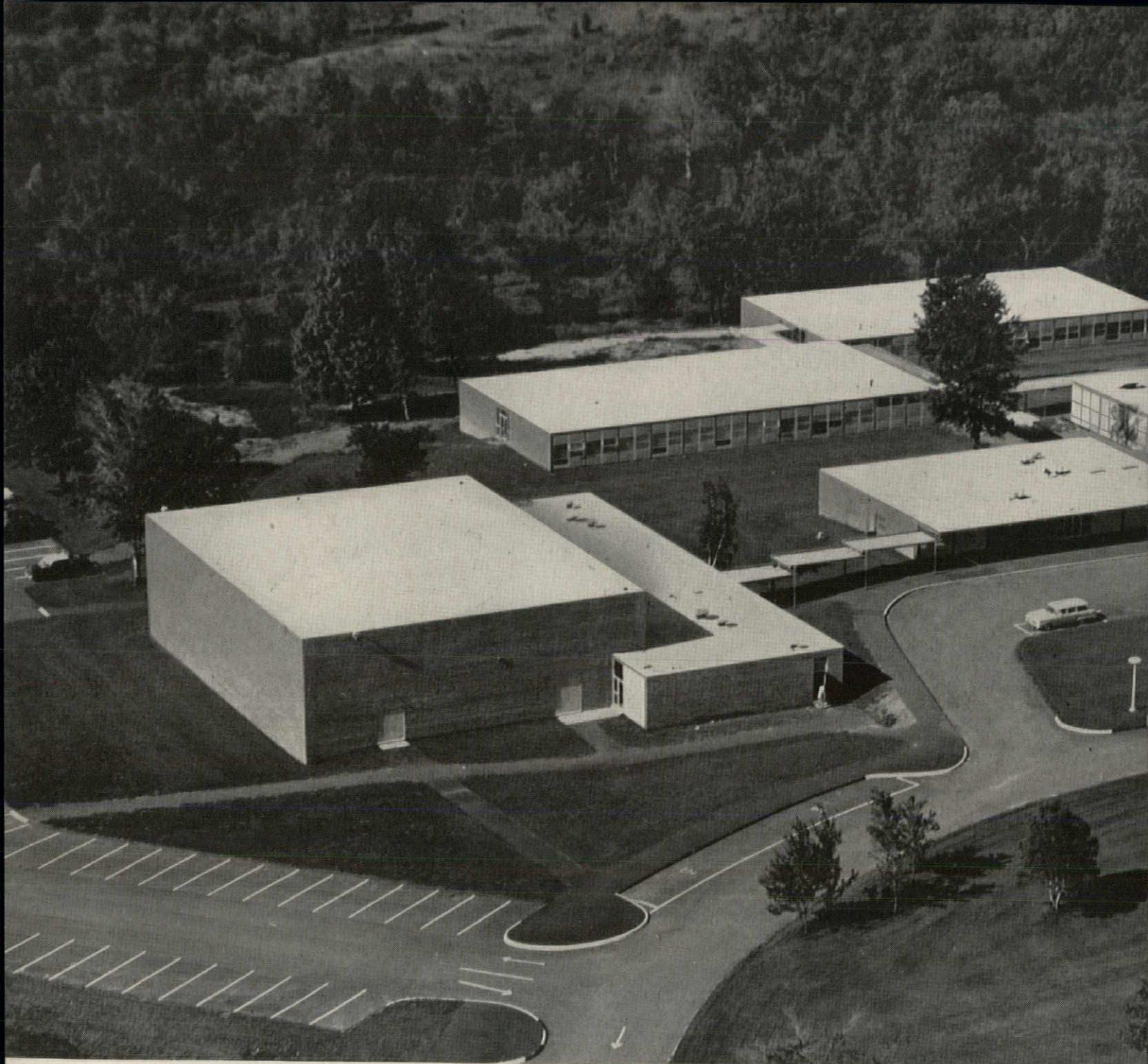
THE GENERAL TIRE & RUBBER COMPANY
FLOORING DIVISION • AKRON 9, OHIO



SOLID VINYL FLOORING

THE FINEST QUALITY
FLOORING FOR . . .

Stores, Restaurants
Hotels, Motels
Banks, Offices
Hospitals, Homes



John Jay Junior-Senior High School, Cross River, N.Y. Architects: Ketchum, Giná & Sharp, New York. Structural Engineers: Severud-Elstad-Krueger.

A Lupton aluminum curtain- helps sustain a single design theme throughout eight

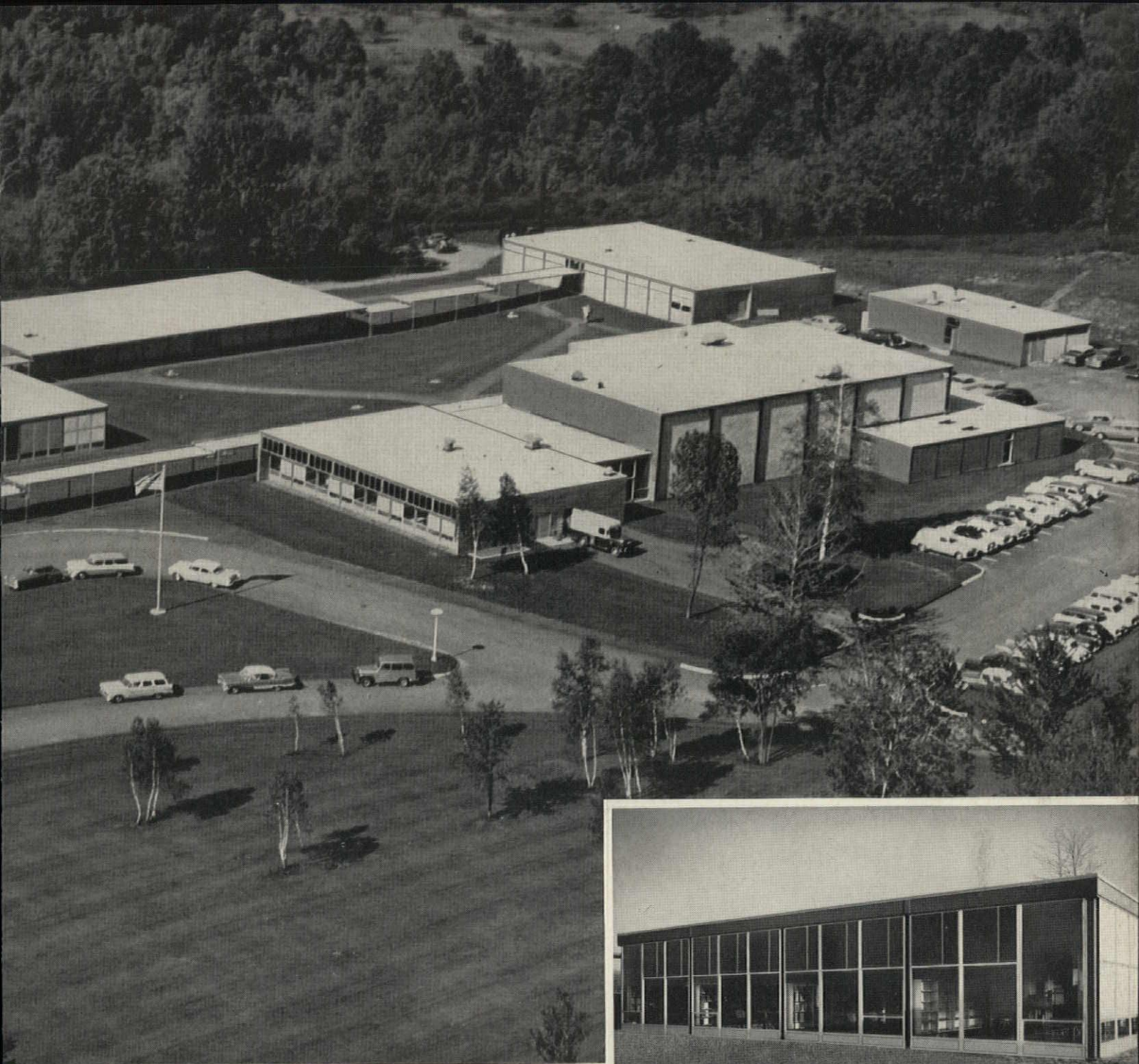
The new \$1,700,000 John Jay High School in New York's Katonah-Lewisboro district is a monument to the determination and pride of a community. And, with its completion, the project also becomes an indication of what architects can accomplish with a low-cost and versatile LUPTON curtain-wall system.

At the outset, it was obvious that each building would present particular planning problems of its own (see illustrations at right), yet it was esthetically desirable that the school—taken as a whole—retain a continuity of design. A most satisfactory combination of beauty and economy was found in aluminum curtain-wall construction.

Imaginative use of LUPTON aluminum projected window

components and insulated porcelain-enameled panels enabled the architects to incorporate the required combinations of vision, natural lighting, and ventilation in their designs without destroying the relation of each building to its neighbors. Moreover, this was accomplished within the Trustees' original budget.

The versatility and design flexibility of LUPTON aluminum curtain-wall systems make an investigation worth your while. They save money, go up fast (usually from *within* the building, without scaffolding), and permit creative freedom for far less than you'd think. By leaving the entire job to LUPTON—including erection by swift, skilled LUPTON crews—you can effect even greater savings.



Photographs by Continental Air Views and Joseph W. Molitor.

wall system

dissimilar buildings

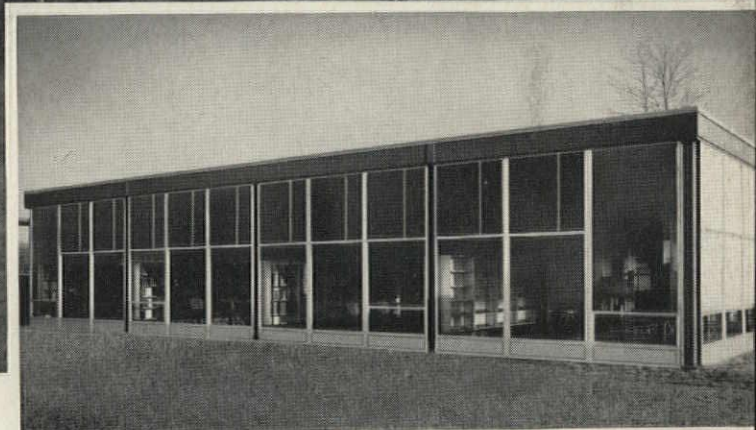
See Sweet's (Sections 3 and 17) for the Michael Flynn Curtain Wall and Metal Window Catalogs, and write to us for further information. For fast action, look up the LUPTON representative in your Yellow Pages, under "Windows-Metal."

LUPTON

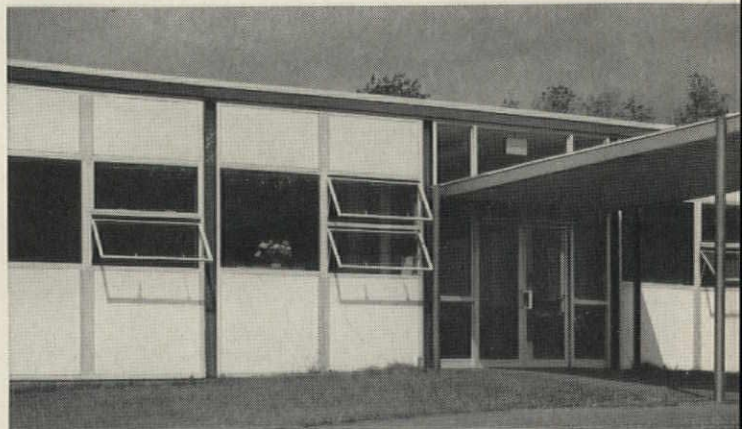
METAL WINDOWS • CURTAIN WALLS

MICHAEL FLYNN MANUFACTURING COMPANY

MAIN OFFICE AND PLANT: 700 E. GODFREY AVE., PHILA. 24, PA.



ABUNDANT NATURAL LIGHT was wanted for this north wall of the John Jay library. LUPTON aluminum projected windows were selected and delivered ready for installation. Good-looking, rugged, and simple to put up, they provide light and maximum controlled ventilation to this outstanding building.



GLASS BALANCED WITH OPAQUE PANELING for classrooms. Here, natural lighting was neither practical nor desirable, and custom-engineered, insulated porcelain-enamelled panels by LUPTON were specified for their beauty and thermal insulation value. The LUPTON windows open for air and for cleaning from the inside.

Required Reading

Continued from page 58

to keep up with the need of many imaginative designers, and stresses the need for continual and widespread experimental work in skin resistant structures. He has fostered the model stress analysis technique where applicable for problems without theoretical solutions.

For the past ten years his efforts have been largely directed toward freeing reinforced concrete design from the limitations of wooden formwork. Nervi's carefully worked out solution to the problem was the invention of "Ferro-cemento". An ingenious method of using maximum percentage of steel in the form of wire-mesh and minimum percentage of high-strength cement mortars in very thin sections enabled him to eliminate forms entirely for radically different smaller structures; to use "Ferro-cemento" forms for large repetitive structures and to precast light-weight parts for spanning a huge space with relatively inexpensive techniques.

Nervi has certainly achieved more daring results with reinforced concrete than even his great predecessors, Perret and Maillart, but still he envisions reinforced concrete flowering into form in architecture which will characterize our culture for scholars of the future. "Its structural limitations are hard to foresee, . . . [and] the amazing results achieved so far will be easily surpassed."

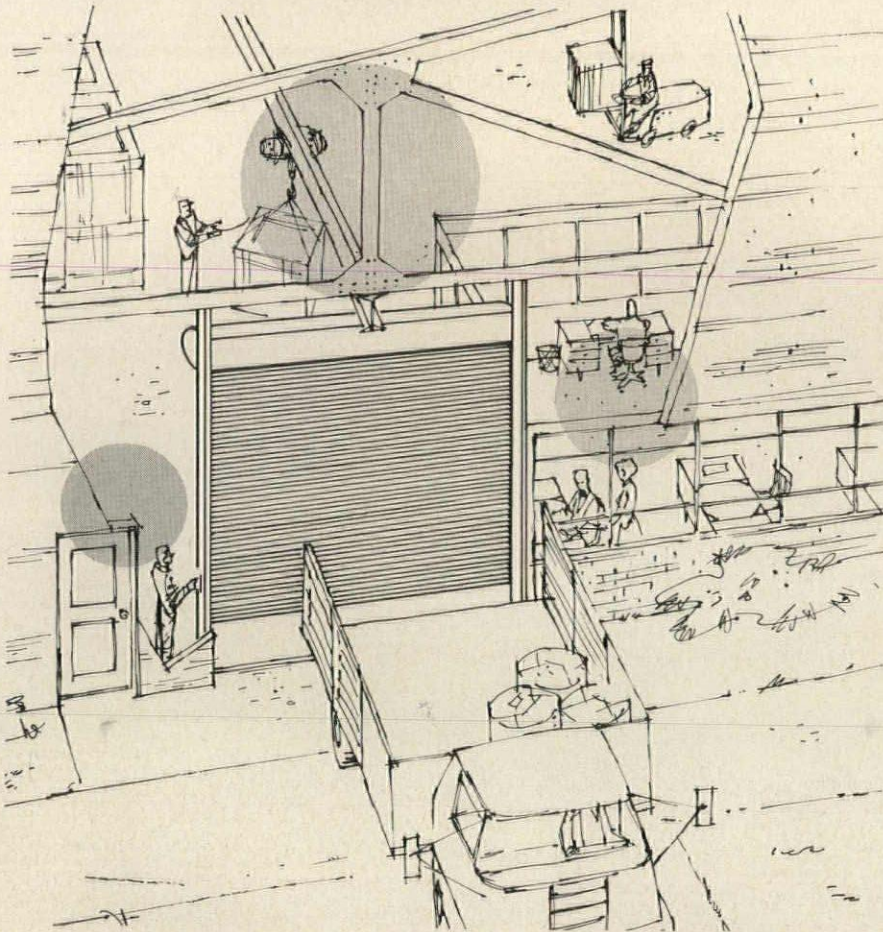
With such a man as this speaking—enthusiastic, humble and dedicated—how can we help but listen and be inspired?

Technical References

Research On Fire

This hardbound volume is a report to the National Fire Protection Association's Committee on Research, describing the facilities, personnel and management of some of the agencies engaged in research on fire. Its primary value to architects would be as a guide to what research is being done, how it is conducted, and sources from which information would be available. Some results are noted. *National Fire Protection Association, 60 Batterymarch St., Boston 10, Mass. 183 pp., illus. \$5.00.*

more reviews on page 286



Balfour rolling steel doors "add" all this usable space

...and insure complete security

Only rolling steel doors combine all these features

- **Space Saving** — Balfour rolling steel doors coil into a single compact unit above the opening . . . valuable adjacent and overhead areas remain unobstructed.
- **Extra Security** — Balfour's all steel construction assures positive protection against theft and vandalism, fire and wind.
- **New Time-Labor Economy** — Speedy up and down action is virtually effortless, whether operated manually or by motor.
- **Durability** — Balfour quality rolling steel doors last for decades under the most extreme conditions. Maintenance costs are minimal. Accidentally damaged slats may be replaced easily and inexpensively. Heavy zinc coating provides extra resistance to corrosion.
- **Ease of Application** — Balfour doors are simple to install and adaptable to all types of construction. They are custom manufactured to any size requirements.

See Balfour's new catalog in Sweet's Files. You'll find it one of the most comprehensive and easy-to-use guides to service, fire and counter door specifications ever presented. For your personal copy write to Balfour today.

Balfour
rolling doors

Walter Balfour & Co. Inc. Brooklyn 22, New York



another



on the west coast

VICRTEX V.E.F.* WALLCOVERINGS

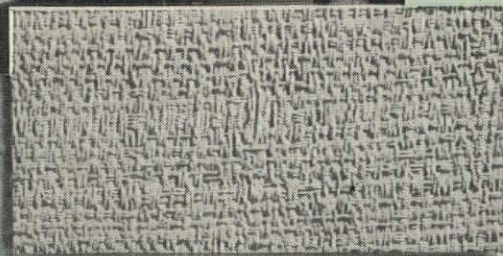
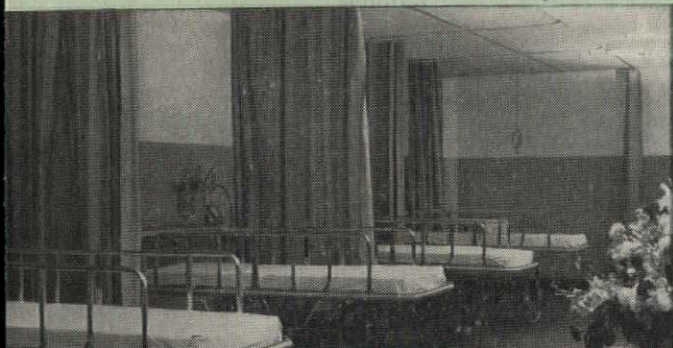
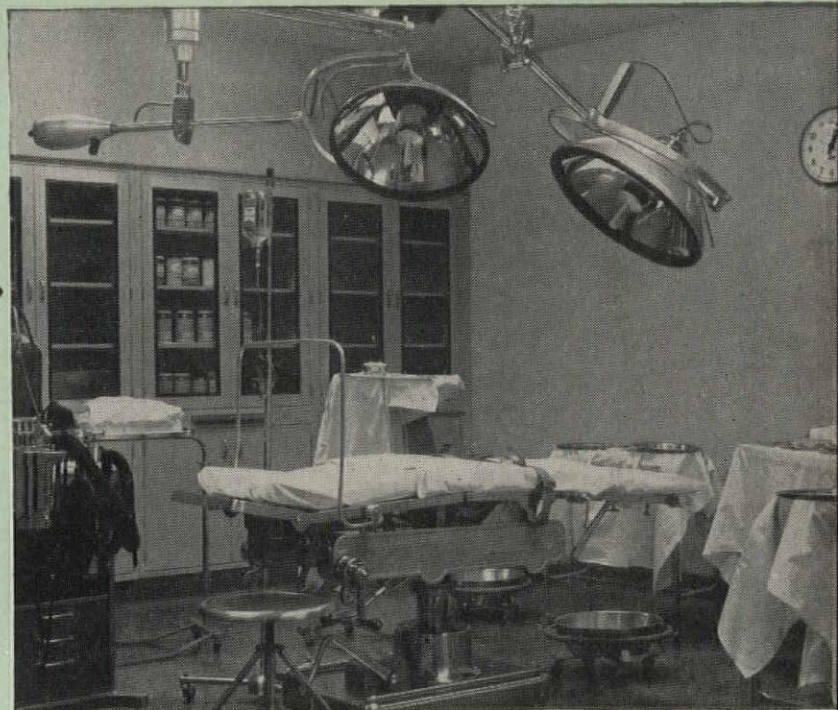
provide beautiful surroundings
plus economical maintenance

at **COMMUNITY HOSPITAL**
Riverside, California



◆ The blue of the sky and the grey green of the sea brighten corridor walls in Vicrtex VEF MADAGASKA.

The major operating room (one of six) is protected from floor to ceiling with HEAVY DUTY VEF DADO-WALL, and there's a porch-like atmosphere in the observation room with its pleasant wainscoting of Vicrtex.



MADAGASKA
so interesting
and pleasing
to the eye



Protective
heavy duty
VEF DADO-WALL



Newest of the
Vicrtex VEF
patterns, lovely
IMPERIAL SILK

Architect, Jay Dewey Harnish, has done wonderful things at Riverside's Community Hospital with VICRTEX VEF Wallcoverings . . . brought simple beauty, warm cheer, to plain functional walls . . . created an atmosphere of comfort in rooms which must be practical, efficient, withstand punishing wear and tear.

Most important of all he has assured *lasting* economy with easy, low-cost maintenance, no re-decorating problems.

You, too, can do wonderful things when you plan walls with Vicrtex VEF. Find out about the more than 30 textural and tri-dimensional Vicrtex VEF patterns . . . more than 30 Vicrtex VEF colors and color combinations. They make walls come alive!

Write for samples and prices TODAY. Ask for Vicrtex VEF "Walls of Fame" booklet.



L. E. CARPENTER & COMPANY, INC.

Sales Office: Empire State Building, New York 1 • LOnacre 4-0080
Mills: Wharton, New Jersey

*vinylelectronically fused,
needs no backing however used.

Architect: Philip R. Soloway, Vineland, N. J.
 Consultant Designers: M. Saphier Associates, Inc., New York City
 Contractor: N. J. Post Construction Co., Oaklyn, N. J.
 Precast and prestressed concrete units manufactured and erected by:
 Edward Campbell Co., Vineland, N. J.

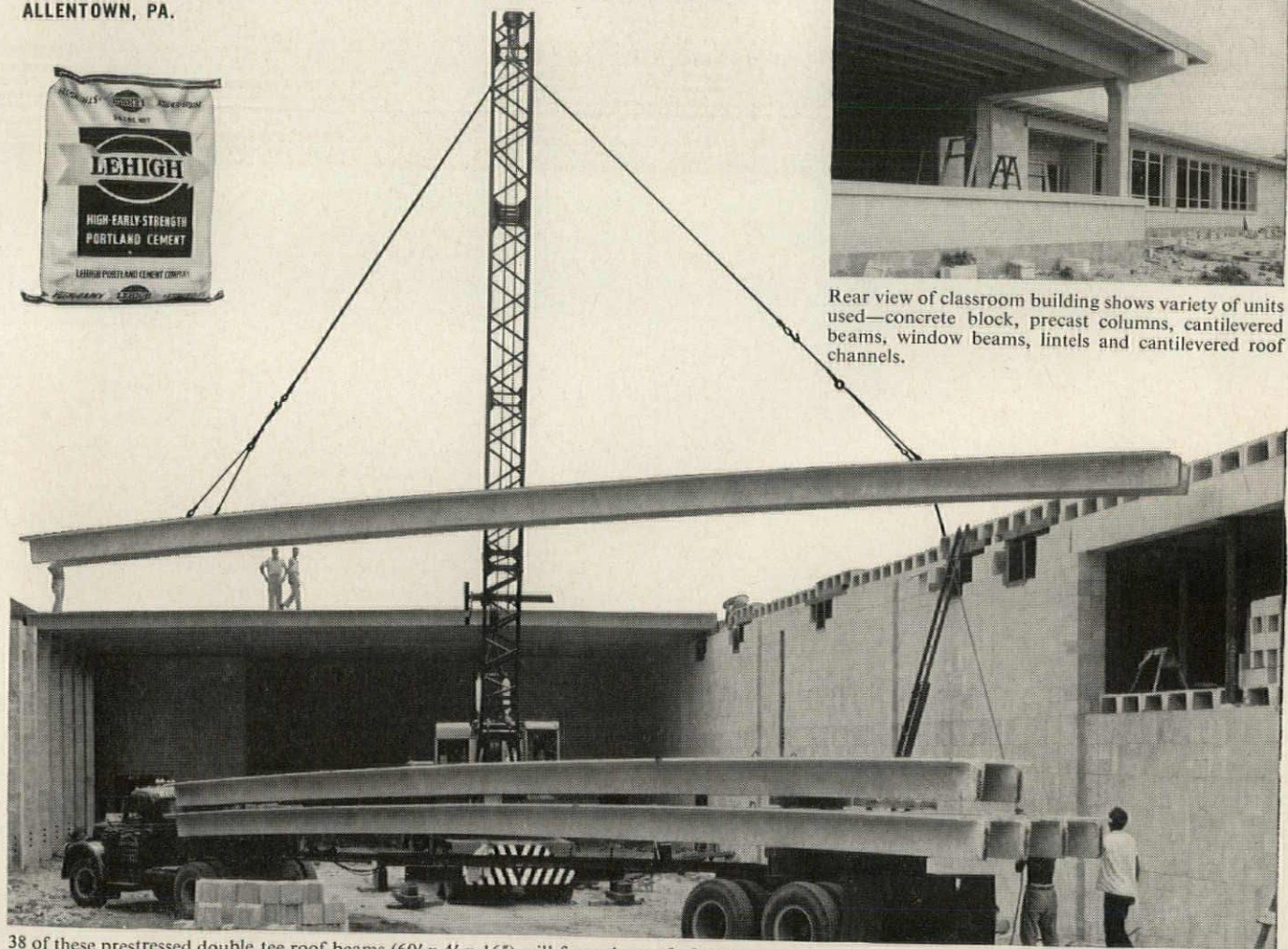
Precast concrete construction throughout . . .

The growing trend toward precast concrete is illustrated by this new Beth Israel Synagogue and School at Vineland, New Jersey. From standard concrete block to huge 60 ft. prestressed double tees, precast concrete serves both architecturally and structurally.

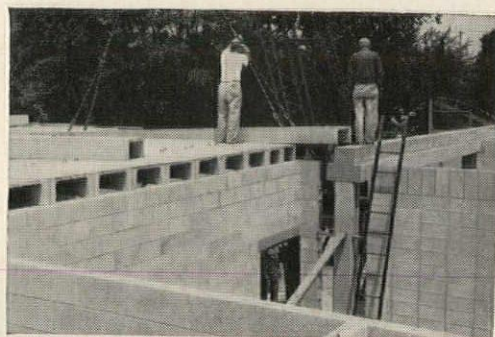
In precasting these units, the Edward Campbell Company used Lehigh Early Strength Cement for maximum production efficiency and economy. For example, in making the double tees, they used Lehigh Early Strength Cement and hot water curing. Result: early removal of units and reuse of forms in less than half the time required with regular portland cement.

This is typical of the advantages of Lehigh Early Strength Cement in modern concrete construction.

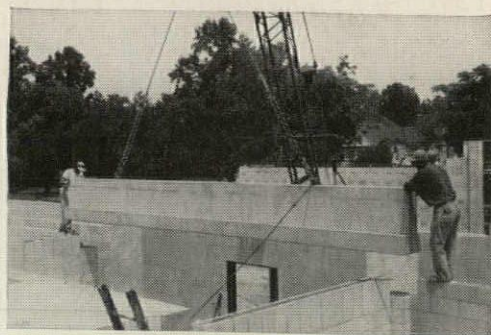
LEHIGH PORTLAND CEMENT COMPANY ALLENTOWN, PA.



38 of these prestressed double tee roof beams (60' x 4' x 16") will form the roof of the synagogue.



Placing one of the 440 "Clearspan" channels in the roof of the classroom building.



This inverted tee beam, 2'10" deep x 27' long, was especially cast for the job. Note extensive concrete masonry in common, stack and ashlar patterns. Load bearing walls include pilaster and bond beam block.

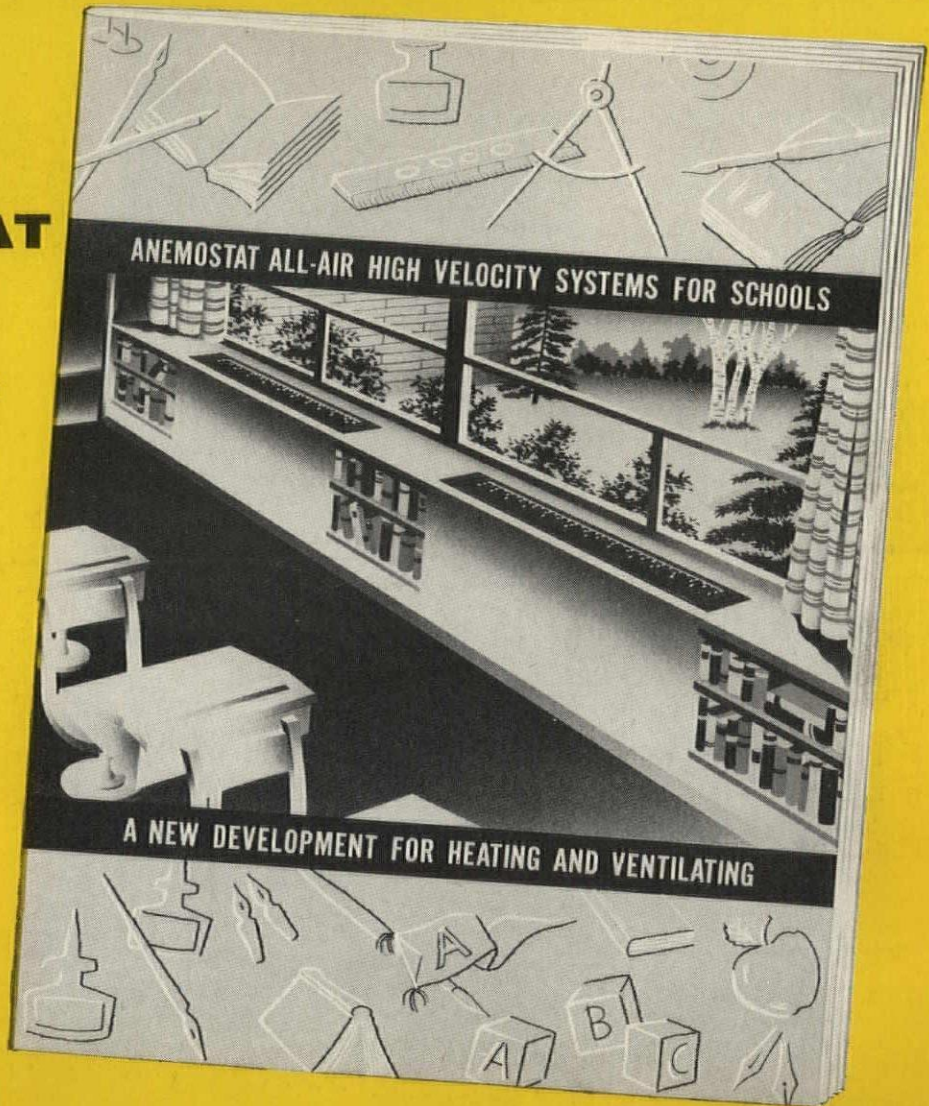


Rear view of classroom building shows variety of units used—concrete block, precast columns, cantilevered beams, window beams, lintels and cantilevered roof channels.

**Are you building a new school
or renovating an old one?**

**New
ANEMOSTAT
SCHOOL
CATALOG**

contains
necessary
application
and selection
data



↓ JUST CLIP AND MAIL

ANEMOSTAT CORPORATION OF AMERICA
10 E. 39TH STREET, NEW YORK 16, NEW YORK

Gentlemen:

Please send me, without obligation,
a copy of your new School Catalog.

Name..... Position.....

Company.....

Address.....

City..... Zone..... State.....

ANEMOSTAT®
DRAFTLESS Aspirating AIR DIFFUSERS

ANEMOSTAT CORPORATION OF AMERICA

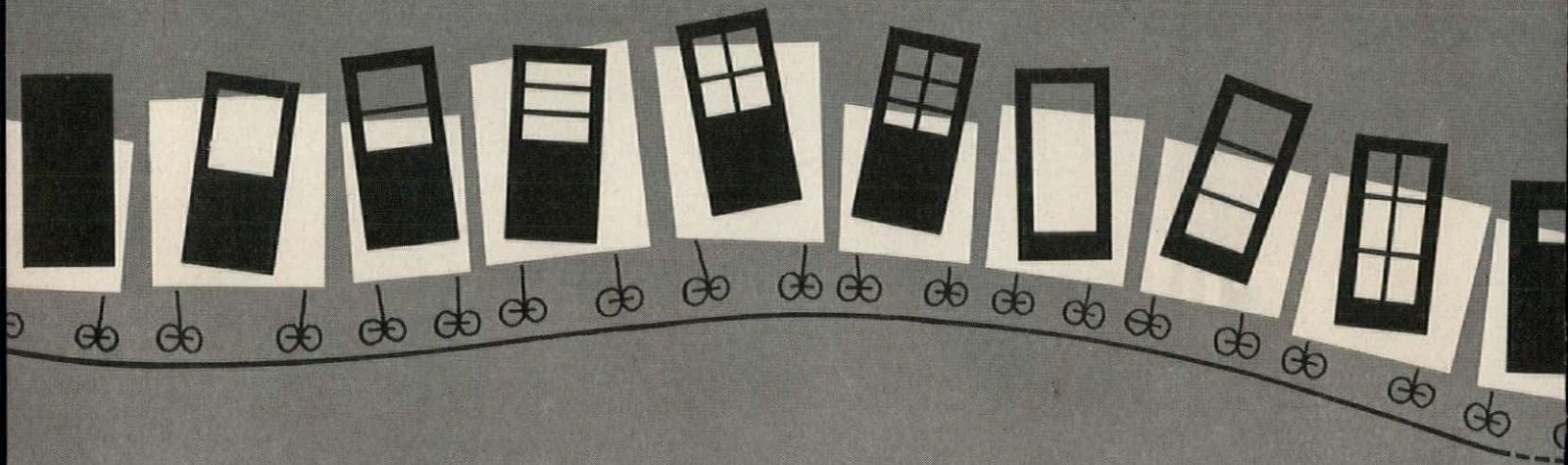
10 EAST 39TH STREET, NEW YORK 16, N. Y.

Representatives in Principal Cities

AC-1359

AETNA

CUSTOM-QUALITY STOCK STEEL DOORS, FRAME



OVER 2500 COMBINATIONS *From 16 Basic Types in Standard Widths and Heights. Over 200 type-and-size combinations of swing and sliding doors, featuring the completely flush door. Choice of Aetnapak Hardware.*

AETNAPAK

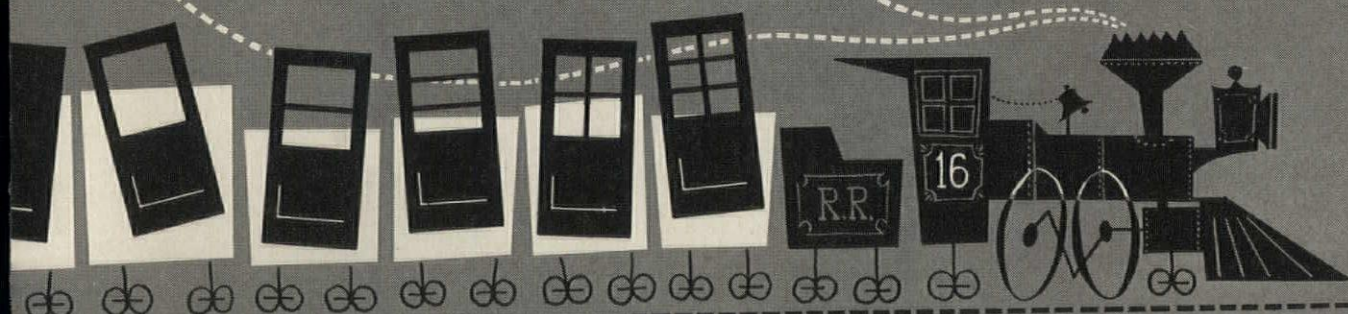
STOCK
STEEL DOORS,
FRAMES,
COMPLETE
WITH HARDWARE
THAT
REFLECT YOUR
CREATIVE
INDIVIDUALITY

COMPLETE WITH HARDWARE

*ordered...delivered...
in no time at all!*

AETNAPAK advantages boil down to this: complete design freedom and Aetna custom quality, with stock service at stock prices:

1. Choose from 200 ready-to-install type-and-size combinations for commercial, industrial, institutional requirements from AETNAPAK's new stock component catalog. Doors and frames shipped complete with your choice from the broad selection of AETNAPAK hardware.
2. True custom features not found on ordinary stock doors: completely flush design; uniform clearances; mortised flush bolts; furniture-grade steel in doors; standard bevelled door stiles; either knocked-down or set-up frames.
3. Choice of mortised or cylindrical locksets, hinges, push plates, closers, push bars, bumpers, panic devices, and other accessories.
4. Refinements, like welds and seams dressed smooth and extra reinforcements, offer you stock packages with custom workmanship, appearance and features.
5. Shipped to meet *YOUR* schedules—wherever you are—through nation-wide representatives



AVOID CUSTOM ENGINEERING DELAY. SPECIFY AETNAPAK IN-STOCK DOOR-AND-FRAME PACKAGES, COMPLETE WITH HARDWARE. SEND FOR COMPLETE CATALOG NOW!

Please send free catalog on AETNAPAK Custom-Quality Stock Steel Doors, Frames, and Hardware.

AETNA STEEL PRODUCTS CORPORATION

730 Fifth Avenue, New York 19, New York Dept:2-B

Individual _____

Firm _____

Street _____

City _____ Zone _____ State _____



fill in the **NAME**

and win a *free* sample



HUBBELL'S NEWEST PRODUCT
SOON TO BE ANNOUNCED

Easy as A.B.C.—just fill in the yellow spaces to spell out the name we've picked for our newest product and you'll win a sample, free. Do it now! . . . but be sure to follow these rules:

1. Eligibility: contest open to Hubbell distributors, electrical contractors, electricians, architects or electrical consulting engineers.
2. Only one sample to a firm.
3. All entries must be postmarked no later than midnight, Feb. 14, 1958.
4. Coupon below must be filled out in full and mailed along with a copy of your Company letterhead to:

HARVEY HUBBELL, INC.
BOX 3052, BRIDGEPORT 5, CONN.

NAME

COMPANY NAME

COMPANY ADDRESS

CITY

STATE

a

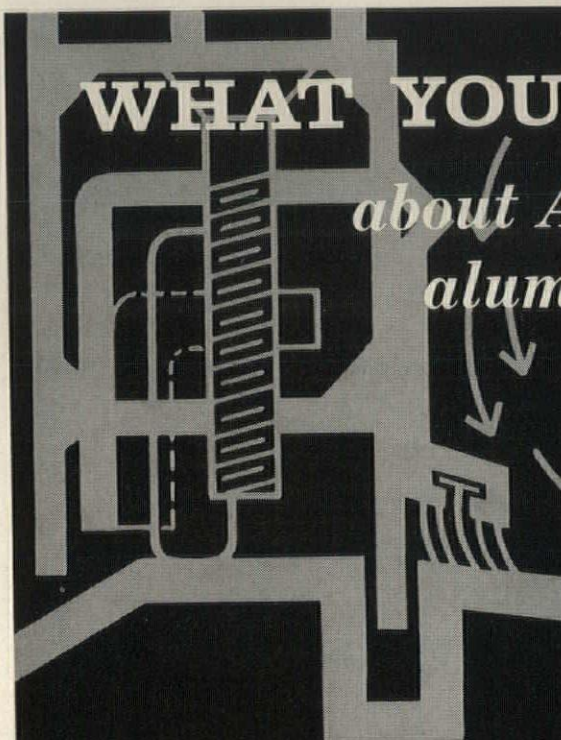
S	E	C	I	F	I	C	A	T	I	O	N		
G	A	D	E										
D	E	P		N	D	A	B	L	E				
	D	E		I	G	N							
	T	E		T	E	D							
	U	N	D	E	R		R	I	T	E	R	S	
		R	E	L		A	B	L	E				
E	F	F	I	C	I	E	N						
	M	A	N	U	F	A		T	U	R	E	D	
								U	B	B	E	L	L

WHAT YOU SHOULD KNOW

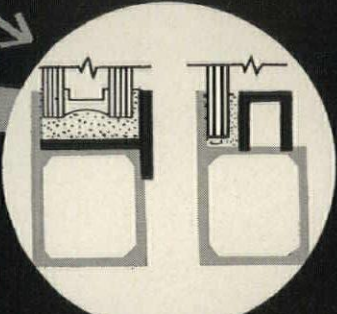
*about America's leading quality
aluminum sliding glass doors*

NUDOR offers 3 exclusive features

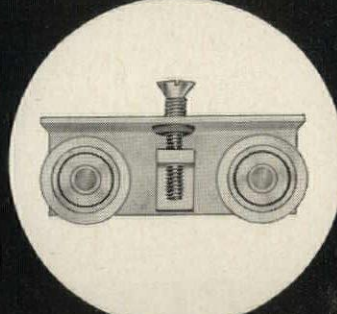
Three of Nudor's many stand-out features are found in no other door in Nudor's price range...



The unique bottom rail shield for weatherseal adjusts vertically allowing proper compression of Schlegel wool pile as well as providing a metal shield to divert weather elements.



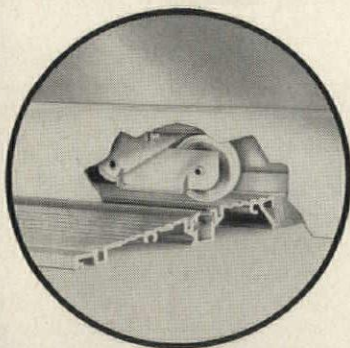
Adjustable screw fastened glass stops allow use of four different glass thicknesses: One inch insulation glass, three sixteenth's and seven thirty-second's crystal and one quarter inch plate. Glazing time is cut to the minimum.



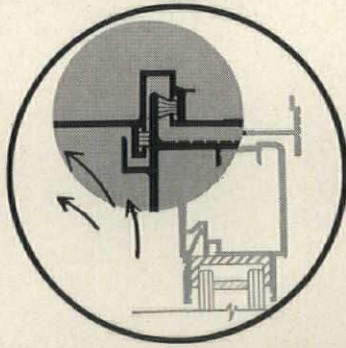
Tandem radial ball bearing nylon rollers that roll flush in line contact on a flat trackless threshold are fully adjustable, an important feature allowing a full true alignment of door with jamb.

The d'COR offers 3 exclusive features

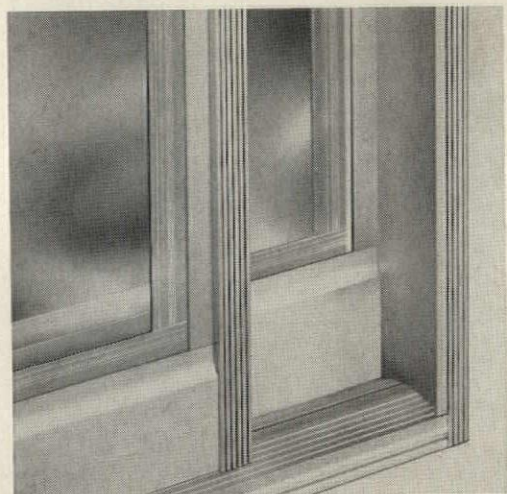
Three exclusive features, found in no other door, at any price, help make d'Cor America's finest door...



Absolutely flat trackless threshold has nothing over which to trip, offers flat surface for wide nylon-tired ball bearing rollers to roll on. This insures silent sliding action and greater roller wear resistance.




Solid barrier protected weather-sealing, in a complete uniplaner system regardless of door adjustment, makes d'Cor absolutely draftproof. All wool pile is shielded against direct weather contact.



The stunning, classic beauty of d'Cor's styling is unmatched in sliding door design. Note that fasteners and top and bottom shock bumpers are concealed from view... truly, America's most beautiful sliding glass door.

Look for our catalog in Sweets Architectural or Light Construction File... or write for your free copy. Address Department AR.

Member Sliding Glass Door and Window Institute



7326 Fulton Avenue, North Hollywood, California



RADIANT COMFORT HEATING

B & G *Hydro-Flo*^{*}

...the finest in living comfort for homes



SUMMER COOLING



SNOW MELTING



HOT FAUCET WATER



To custom-built luxury homes or low cost multi-unit developments, a B&G Hydro-Flo

ONLY *Water* OFFERS ALL FIVE

A B&G *Hydro-Flo* System adds genuine distinction and sales value to any home...offers all the immediate and potential advantages which only *circulated water* can provide. It's the system of *plus values*... capable of giving a lifetime of service.

Money can't buy finer, yet the benefits of the B&G *Hydro-Flo* System are within the cost limits of the modest home. This system offers not only the best in heating but an option of such additional features as summer cooling, snow melting and zoning. These features can be included originally, or added when the owner's budget permits.

The basic B&G *Hydro-Flo* System enriches a home with *radiant warmth*...warm, draftless floors...uniform temperature...*superior heating by any standard!* Plus a limitless supply of hot faucet water, economically heated by the same boiler that heats the house.

Most easily zoned—ideal for split-level homes

For split-level homes, the B&G *Hydro-Flo* System challenges comparison! The simplicity of equipment, piping and controls permits the necessary zoning in the most economical and dependable manner. *Better heating at smaller cost!*

SYSTEM
in every price bracket



SIMPLIFIED ZONING



THE B & G BOOSTER PUMP

The key unit of a B&G *Hydro-Flo* System is the Booster Pump. This electric pump is used to circulate water for heating the house in winter, cooling it in summer and for snow melting panels.

The B&G Booster and auxiliary *Hydro-Flo* equipment can be installed on any hot water heating boiler. A majority of boiler manufacturers include *Hydro-Flo* units as standard equipment on their "package" boilers.

Quiet, vibrationless operation and long-lived dependability are the outstanding characteristics of the B&G Booster. Over 2,000,000 of them have been installed to date!

Get the complete story—send for color illustrated booklet.



*Reg. U.S. Pat. Off.

BELL & GOSSETT
C O M P A N Y

Dept. FC-32, Morton Grove, Illinois

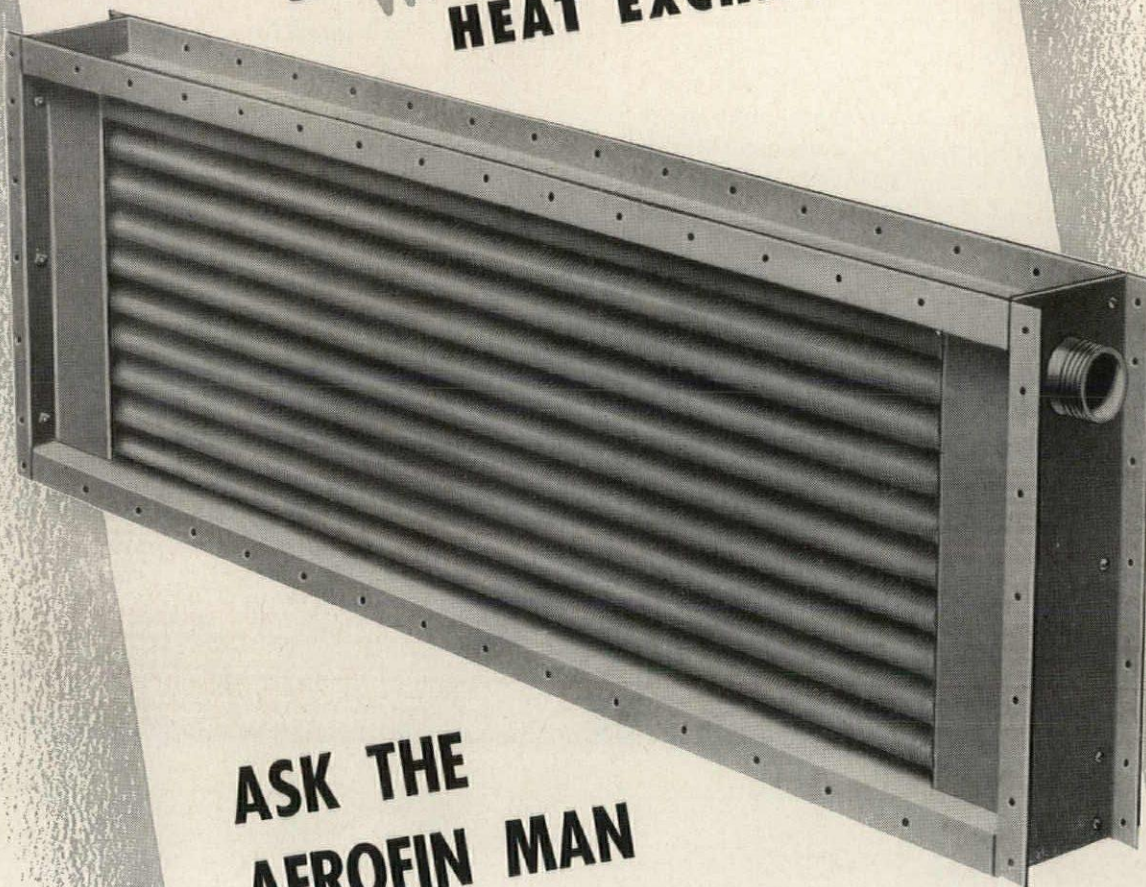
Canadian Licensee: S. A. Armstrong Ltd.,
1400 O'Connor Drive, Toronto 16, Ontario

System adds sales-making distinction

***FIRST LINE**

Extended-Surface

HEAT EXCHANGERS



**ASK THE
AEROFIN MAN**

Specify Aero-fin and you specify high efficiency, long service life and low maintenance and service costs.

Take advantage of Aero-fin's unequalled experience, production facilities, and materials-testing and design research—of Aero-fin's complete engineering service at the plant and in the field.

Ask the Aero-fin man.

*Aero-fin makes extended heat surface exclusively — not as a by-product, not as a side-line. Sold only by manufacturers of fan-system apparatus. List on request.

AEROFIN CORPORATION

101 Greenway Ave., Syracuse 3, N. Y.



Why **WEIRKOTE**[®] zinc-coated steel carries lots of weight with today's architects

Specifications like this are becoming more and more an old story to architects everywhere:

SHEET METAL WORK—
Materials—Galvanized steel. Unless otherwise specified, this shall be of 26-gauge galvanized sheet steel, of "Weirkote" with make and gauge stamped on each sheet.

And there's plenty of reason for specifying Weirkote zinc-coated steel. Inside or outside the building—in heating and ventilating ductwork, ducts for dust and fume removal, rain drainage

items; water type air coolers, other uses—Weirkote brings greater durability and corrosion resistance to sheet metal work. And the cost is low compared with other materials.

Weirkote, made by a continuous galvanizing process, has the skin-tight zinc coating that won't flake or peel despite punishing fabrication or rough handling on the job.

Free Weirkote Booklet

Send for the new Weirkote booklet today. Write Weirton Steel Company, Dept. Q-7, Weirton, West Virginia.



**WEIRTON STEEL
COMPANY**

WEIRTON, WEST VIRGINIA

a division of

NATIONAL STEEL CORPORATION

Now ZONOLITE® Perfects LOWEST COST



Bonds Directly to

- ★ Provides 3- and 4-hour Fire Ratings
- ★ Saves Days on Construction Schedules
- ★ Eliminates 7 inches of Height per Story
- ★ Gives Built-in Acoustical Benefits

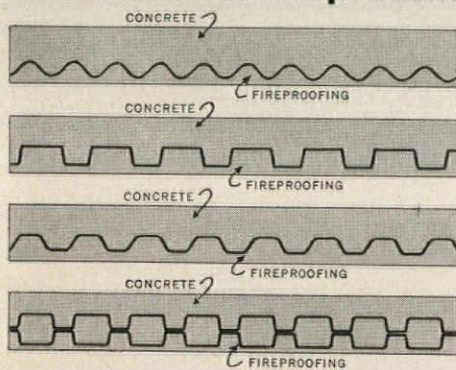
Now, with Zonolite direct-to-steel fireproofing, you can cut over-all costs of materials and construction. On one building, for example, a savings of \$30,175 was effected simply by using this new technique in lieu of another fireproofing method. Zonolite direct-to-steel fireproofing "has everything"—it speeds work progress, provides three- and four-hour fire ratings—provides additional bonuses other fireproofings do not offer.

Zonolite direct-to-steel fireproofing amazingly sticks to the underside of steel floors, applies quickly by hand or machine—reducing former construction schedules by days. It provides its own attractive finish.

Sound-Conditions As You Fireproof!

This new direct-to-steel technique does more than fireproof—it *sound conditions!* Zonolite fireproofing

Typical Steel Floor Systems Using ZONOLITE® Direct-to-Steel Fireproofing



OTHER WAYS TO ACHIEVE FASTER, LOWER-COST CONSTRUCTION WITH



In Bedford, N. H., School, insurance savings quickly pay for the Zonolite Plaster Fireproofing and Zonolite Acoustical Plastic. Arch.: A. J. Majeski. Plast. Contr.: J. F. McGranahan.



3325 Wilshire Blvd., office building, Los Angeles, Calif., uses Zonolite Plaster Fireproofing and Zonolite Spandrel Back-up System throughout. Arch.: Victor Gruen. Plast. Contr.: Martin Bros.



Gulfgate Shopping City, Houston, Texas, has Zonolite Plaster Fireproofing throughout. Arch.: John Graham & Co. Plast. Contr.: Tobin & Rooney.

New Advanced Technique for FIREPROOFING

Underside of Steel Floors!

is composed of vermiculite and suitable binders with exceptional noise-reducing characteristics. The architect can often design so that further sound-conditioning is unnecessary.

Reduces Other Material Costs

With Zonolite direct-to-steel fireproofing you cut 7 inches from the height of each floor—a gain of one story in every 14 in multi-story construction, a saving on other construction materials.

Tenant Changes, Mechanical Alterations Easily Accomplished

Because the fireproofing is applied direct-to-steel—up high, out of the way—there is free access to the mechanical installations. Tenant changes are accomplished without cutting through the fireproofing in new or old buildings.

BE PREPARED to make the most of Zonolite direct-to-steel fireproofing. **BE INFORMED** on quick, sure, low cost fireproofing in all types of construction. Tear out the coupon now for **FREE** reference booklet giving ratings, application data, all details.

Typical ZONOLITE DIRECT-to-STEEL Fireproofing Installations

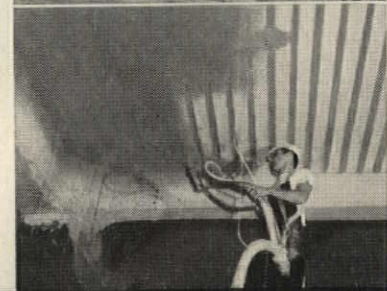
AAA Office, Kalamazoo, Mich. Fireproofed throughout with Zonolite applied directly to steel. Arch.: Louis Kingscott & Associates. Plast. Contr.: Ben Schuemann.



Zonolite Fireproofing was applied to underside of steel by machine in new-type steel roof at Phoenix, Ariz., Coliseum. Plast. Contr.: Gray Plastering Co.



Fireproofing direct to underside of steel floors in Bell Telephone Building, Pittsburgh. Arch.: Press & William C. Dowler and Associates. Plast. Contr.: Easley and Rivers.



ZONOLITE PLASTER FIREPROOFING AND ZONOLITE ACOUSTICAL PLASTIC



New York International Airport, Idlewild, N. Y., world's largest, is made firesafe with Zonolite Plaster Fireproofing throughout. Arch.: Skidmore, Owings & Merrill. Plast. Contr.: Mario & DiBono.

ZONOLITE COMPANY, Dept. AR-18
135 S. LaSalle St., Chicago 3, Illinois

Send me booklet PA-41 "Plaster and Acoustical Systems", and Data Sheet, PA-35 on "Direct-to-Steel Fireproofing".

Name _____
Firm _____
Address _____
City _____ Zone _____ State _____

SEAPORCLAD* LAMINATED-INSULATED PANELS COMBINE VIVID COLOR, DESIGN FLEXIBILITY IN CUBAN ELECTRIC COMPANY BUILDING

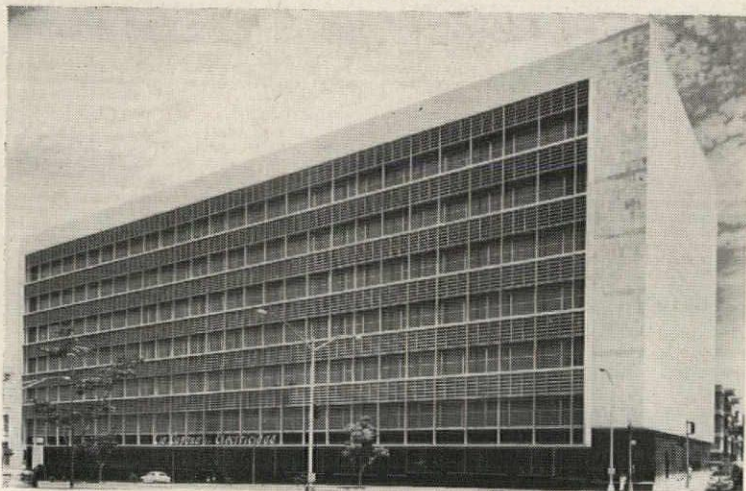


The outstanding Cuban Electric Company building in Havana, Cuba is another shining example of Seaporclad porcelain enamel on steel laminated-insulated curtain-wall panels.

Design flexibility was gained by the utilization of 2"-thick panels with Foamglas insulation, creating a "U" factor of .15. A thinner panel — only 3/8" thick — with a core of cement asbestos board was used where "U" factor value was not a consideration. The bluish-gray color and rippled texture further enhance the beauty of design.

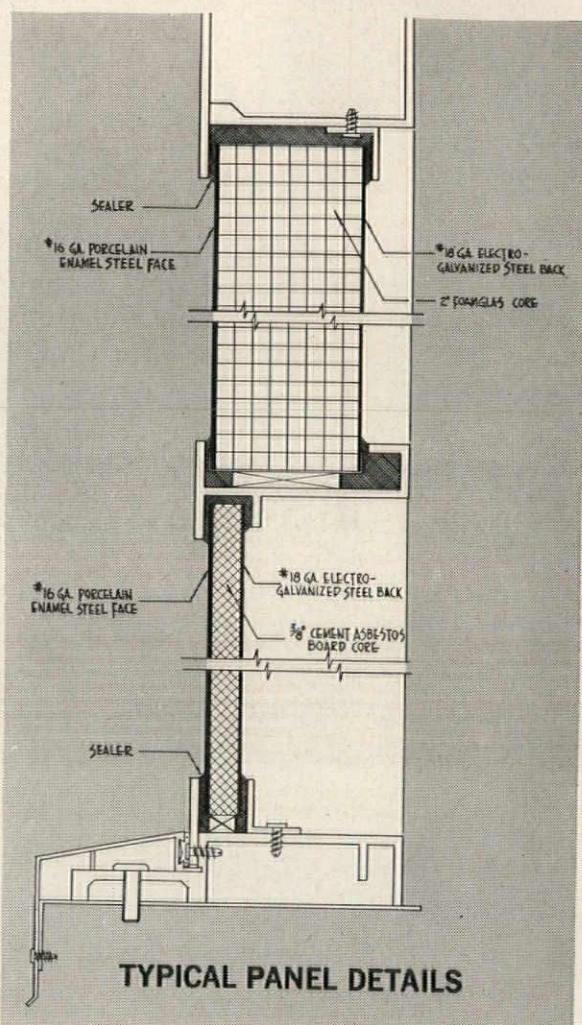
The next time you design a building, consider the many advantages of Seaporclad curtain wall panels. With almost unlimited color and texture, as well as form, Seaporclad insulated panels are light in weight and easily installed in a fraction of the time required for other construction methods. And you can assure the owners of low maintenance costs for the life of the building.

For more information about Seaporclad, send for brochure 12.



Colorful Seaporclad insulated panels give the Cuban Electric Company building a distinctive appearance. Beautiful bluish-gray and rippled texture complement the over-all design.

Architect: Jorge Luis Echarte, Havana, Cuba
Contractor: Pan Am Products Co., Havana, Cuba



*Reg. U. S. Pat. Off.

For some job...somewhere...you can use

Seaporcel

ARCHITECTURAL PORCELAIN

SEAPORCEL METALS, INC., 28-20 Borden Avenue, Long Island City 1, N. Y.
Boston, Mass. • Philadelphia, Pa. • Washington, D. C. • Newark, N. J. • Agents in principal cities

Complete Engineering and Erection Departments. A. F. of L. Metal Fabricating and Enameling Plant. Member: Porcelain Enamel Institute.

These licensed manufacturers fabricate SEAPORCEL products in the countries listed below. Personnel trained in SEAPORCEL's U.S. plant.

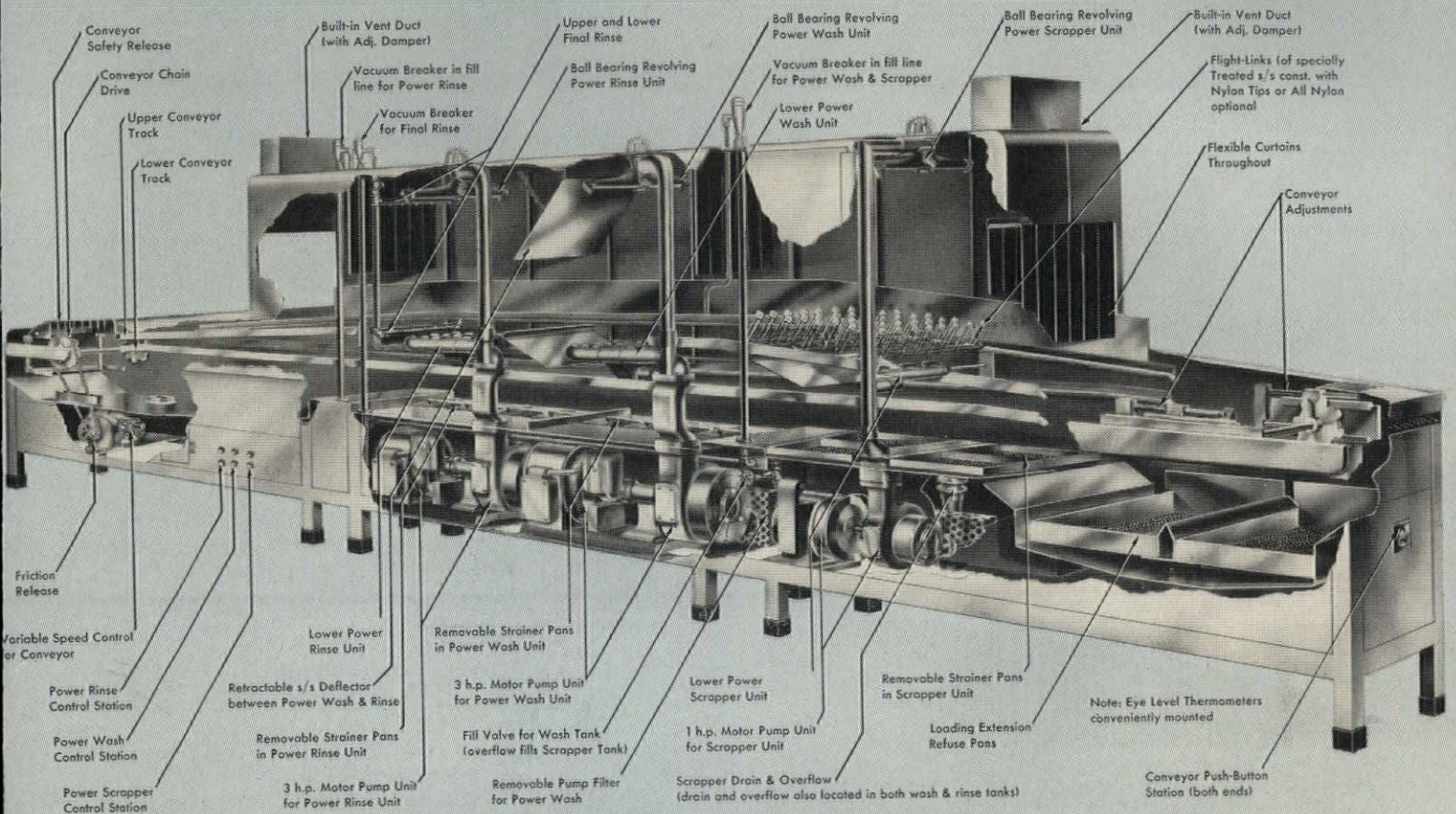
IN AUSTRALIA: Metters, Ltd., Sydney, New South Wales
A. Simpson & Son, Ltd., Adelaide, South Australia
IN AUSTRIA: Kleiner & Fleischmann, Moedling, N. Oe.
IN BRAZIL: Rheem Metalurgica, S.A., Rio De Janeiro
IN CANADA: General Steel Wares, Ltd., London and Toronto, Ont
IN CHILE: Fabrica de Enlozados, S.A., "Fensa", Santiago

IN FRANCE: Societe Equipement Menager Japy, Paris
IN GREAT BRITAIN: Edward Curran Engineering, Ltd., Cardiff, Wales
IN ITALY: S.I.L.T.A.L. & Filiberto Crespi, Milan
IN NORWAY: Moss Glasvaerk, Moss
IN SWITZERLAND: Metallwarenfabrik Zug, Zug



37 reasons

why your kitchen layouts work with Hobart



In kitchens where speed and capacity are demanded, a Hobart flight-type dishwasher is the complete answer for making your kitchen layouts work economically and efficiently. Completely automatic fresh water scraping, power washing and rinsing... dishes are racked in the conveyor in one amazingly fast operation...no need for constant supervision. Flight-type sizes range from 12 to 26 feet long, with conveyor speeds from 5 to 12 feet per minute. Check the features above that assure you of trouble-free operation. In the complete line of Hobart dishwashers there are over 50 different models...one is exactly right for any operation, regardless of size or volume.

You, as an architect, can readily appreciate the flexibility and adaptability of the Hobart line as well as the nationwide sales and service organization that backs all Hobart products. The best kitchen layout is not efficient unless the machines you specify are dependable. Check Sweet's Architectural File for specifications on all Hobart kitchen and dishwashing machines or send in the coupon.



Hobart machines

The World's Largest Manufacturer of
Food, Kitchen and Dishwashing Machines

The Hobart Manufacturing Co., Dept. HAR, Troy, Ohio
Please send information and complete specifications on Hobart continuous racking dishwashers , semi-automatic or dual-drive automatic dishwashers , kitchen machines .

Name of Firm.....

My Name.....

Address.....

City.....Zone.....State.....

How you can REDUCE SCHOOL COSTS...

Instead of stinting on the heating and ventilating system in an effort to economize, many school boards have reduced the cost of their new school buildings by the installation of an advanced hot water system—and at the same time have increased their classroom thermal comfort.



? *What is this heating and ventilating system that saves up to 20% of the construction, equipment and installation costs incurred by some other systems?*

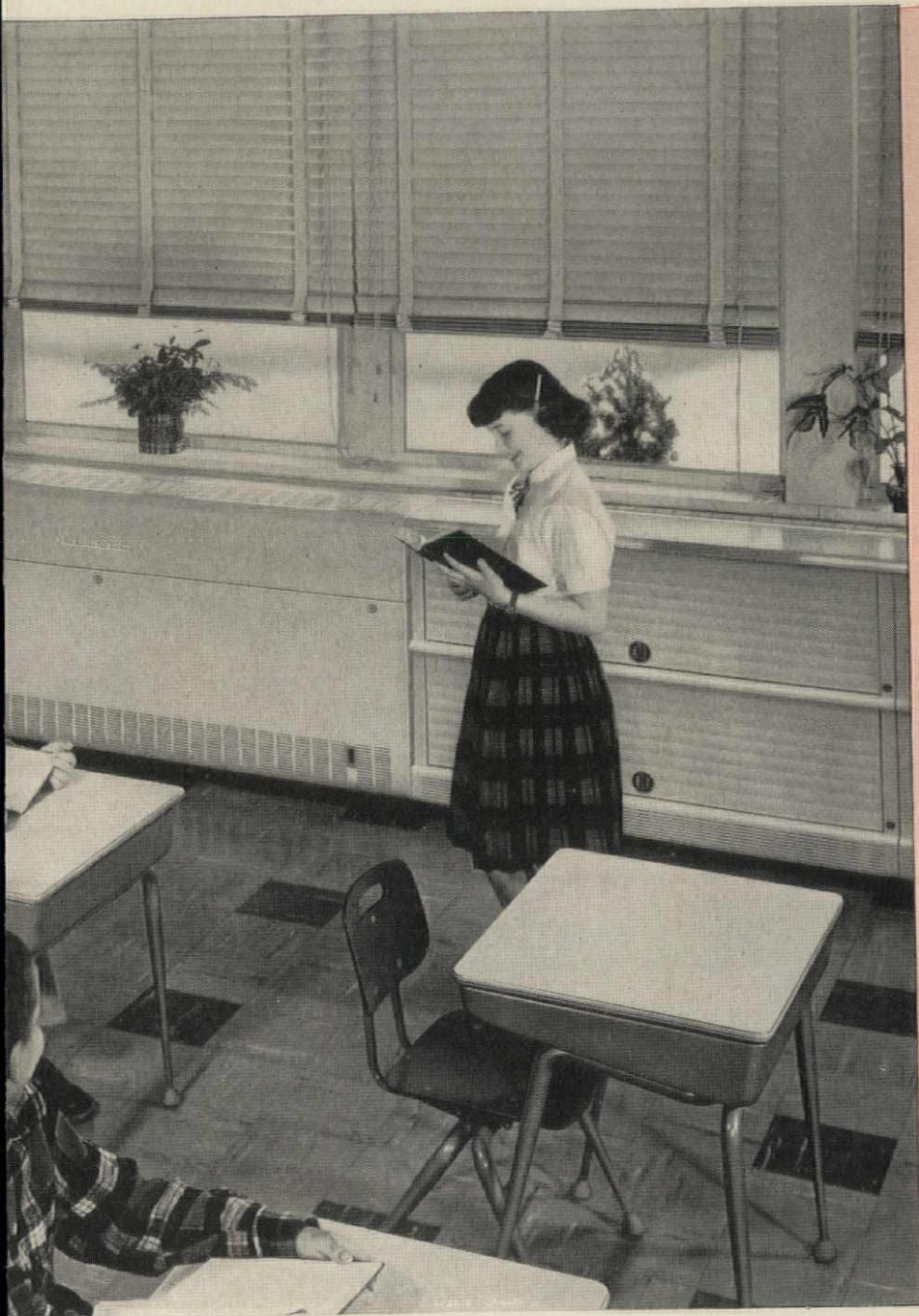
A. It is the Nesbitt Series Hot Water Wind-o-line System. Every classroom has its own Syncretizer for heating, ventilating, and natural air cooling. Wind-o-line fin-tube radiation (in wall-hung enclosures or in storage cabinets) extends along the sill to protect against cold walls and window downdraft.

Q. *How does this system save so much money?*

A. The copper tubing of the Wind-o-line radiation becomes the supply and return mains for the Syncretizers in a group of classrooms or an entire wing. This saves on pipes and covering and eliminates expensive pipe trenches, mains and runouts. Circulating less hot water, smaller pipes and pumps are needed. Piping within the units is factory-assembled; labor costs are reduced. Night temperature is maintained by gravity heating, saving controls.

Q. *How does the system create a better thermal environment?*

A. By solving (in the only sure way, with Wind-o-line radiation) the cold wall and window downdraft problem, as well as providing (by means of the Syncretizer) the heating, ventilating and natural cooling called for in each classroom. This double protection assures healthful comfort—without physical distraction—for every pupil in the room—even those along the windows. It is “the thermal environment most conducive to learning”—a Nesbitt distinctive.



These schools saved money

Some of the recent low costs
for heating and ventilating:

In Ohio \$1.49 sq. ft.

Bath High School, Lima, Ohio
Architect: Robert A. Helsler
Capacity: 550 pupils
Gross area: 37,942 sq. feet
Total contract: \$372,635
Heating and ventilating: \$56,700
Nesbitt Series Hot Water Wind-o-line System
970 feet of pipe trenches and 1,000 feet of
pipe covering eliminated

In Illinois \$1.75 sq. ft.

Rural Street Elementary School
Rockford, Illinois
Architect: Hubbard and Hyland
Engineer: E. R. Gritschke and Assoc.
Capacity: 700 pupils
Gross area: 47,250 sq. feet
Total contract: \$545,713
Heating and ventilating: \$82,826
Nesbitt Series Hot Water Wind-o-line System
1,000 feet of pipe trenches eliminated

In Wisconsin \$1.62 sq. ft.

Mequioc Elementary School
Town of Scott, Wisconsin
Architect: John B. Somerville
Associates, Inc.
Engineer: R. J. Cott
Capacity: 180 pupils
Gross area: 14,420 sq. feet
Total contract: \$163,409
Heating and ventilating: \$23,371
Nesbitt Series Hot Water Wind-o-line System
210 feet of pipe trenches, 120 feet of mains
and piping, 60 feet of pipe covering, and
night controls eliminated

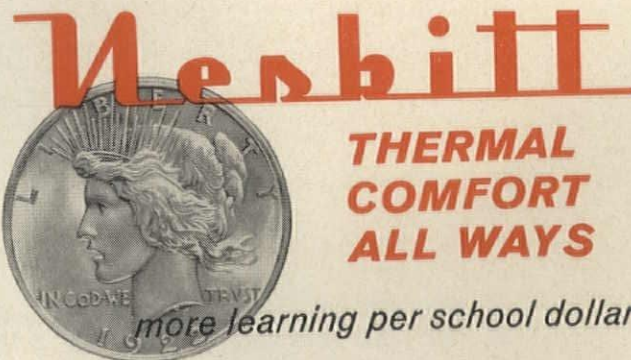
■ ■ ■ The Nesbitt Series Wind-o-line System is an engineering development of John J. Nesbitt, Inc., pioneers in the field of classroom thermal comfort.

No other unit ventilator is equipped to perform as well nor so economically as the Nesbitt Syncretizer; and with Wind-o-line Radiation integrated, the Nesbitt System provides its protected learning environment on the coldest days, even in classrooms with large window walls.

The forced hot water arrangement here described makes it possible for every school to afford and enjoy the unequalled benefits of the Nesbitt System.

Schools in moderate climates where finned radiation is not essential may have the economies of the series piping arrangement through the Nesbitt Mainline System.

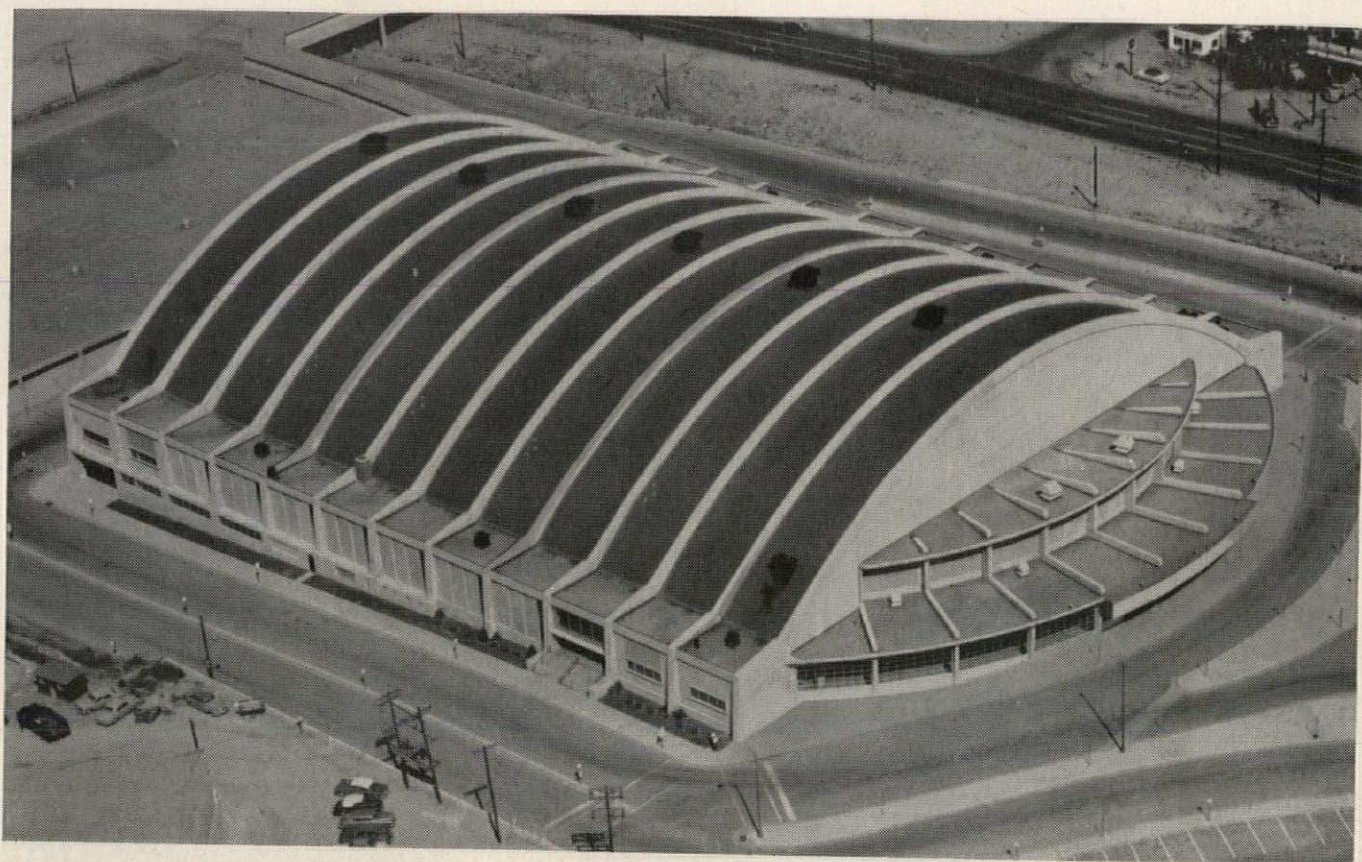
Send for the big book, *More learning per school dollar.*



**THERMAL
COMFORT
ALL WAYS**

Made and sold by John J. Nesbitt, Inc., Philadelphia 36, Pa.

Sold also by American Blower Corporation
and by American Standard Products (Canada) Ltd.



Denver's Coliseum...

Illustrates Versatility of Concrete for Arena Buildings

Denver's Coliseum is a handsome example of the functional use of concrete for arenas requiring uninterrupted enclosed space with minimum maintenance. Its arched construction requires no supporting pillars and provides a clear and unobstructed view of the entire arena area. Only concrete, the completely plastic building material, can be so molded and formed into any shape with all of its strengthening reinforcement inside.

Throughout the long years of its life, this concrete building will be virtually maintenance-free—a joy both to taxpayers and to spectators who attend the public functions held therein.

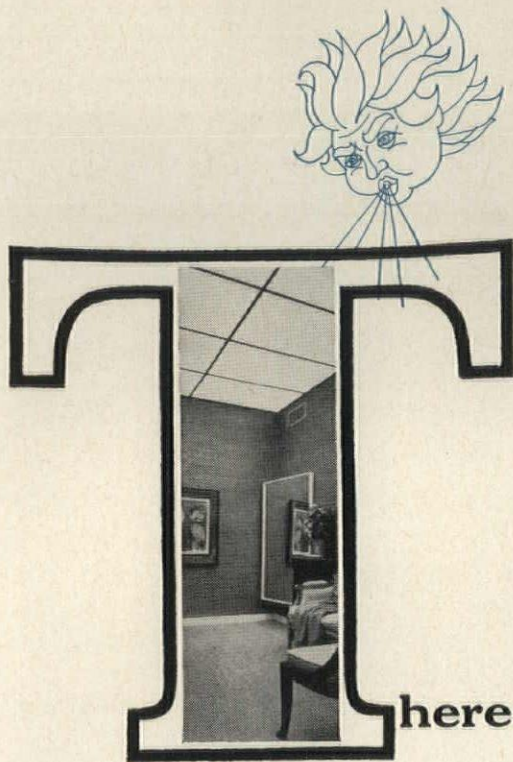


Growing with the Country

IDEAL CEMENT COMPANY

DENVER, COLORADO

15 Plants and 4 Terminals Serving Some of the Most Rapidly Growing Areas of the Nation



here is only one light diffusing ceiling that actually helps circulate the air from overhead air conditioning and heating systems (it's used solely for this purpose by air cooler manufacturers) yet obscures overhead utility systems (by 45 or 60 degree shielding) while transmitting light with the greatest known efficiency and with the absolute minimum of surface glare



HONEYLITE[®]

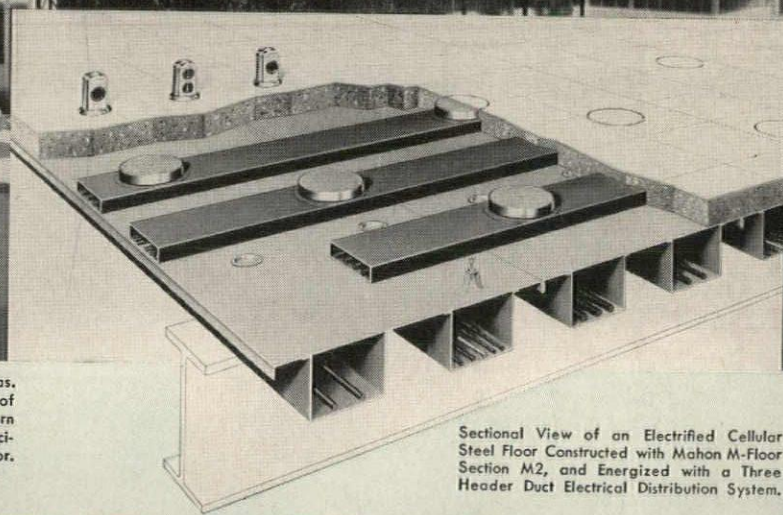
LIGHT-DIFFUSING ALUMINUM HONEYCOMB
A DEVELOPMENT OF HEXCEL PRODUCTS INC.
951-61ST STREET, OAKLAND 8, CALIFORNIA

M-FLOORS

Assure Adequate



Sedgewick County Court House and Welfare Building, Wichita, Kansas. 196,000 Sq. Ft. of Mahon M-Floors and 15,000 Sq. Ft. of Mahon Steel Roof Deck will provide the Electrified Sub-Floors and the Roof of this modern building. Thoma-Harris-Calvin & Associates, Architects. G. Hartwell & Associates, Structural and Consulting Engineers. Martin K. Eby, General Contractor.

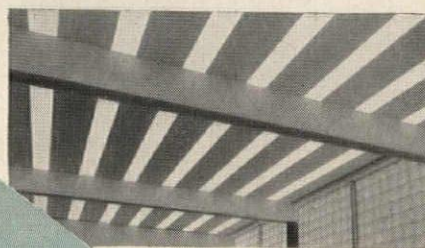


Sectional View of an Electrified Cellular Steel Floor Constructed with Mahon M-Floor Section M2, and Energized with a Three Header Duct Electrical Distribution System.



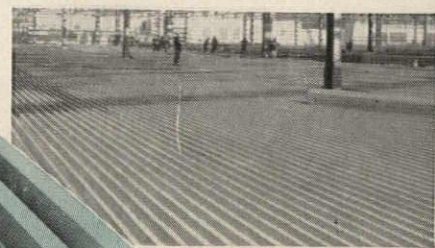
LONG SPAN M-DECKS

M-Decks Span from Wall to Wall or Truss to Truss—Provide Combined Structural Roof and Acoustical Ceiling. Recessed Troffer Lighting may also be Included.



ACOUSTICAL and TROFFER FORMS

Provide an Effective Acoustical Ceiling with Recessed Troffer Lighting—Serve as Permanent Forms in Concrete Joist and Slab Construction of Floors and Roofs.



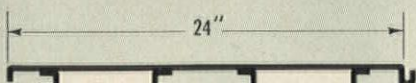
CONCRETE FLOOR FORMS

Mahon Permanent Concrete Floor Forms in various types meet virtually any requirement in concrete floor slab construction over structural steel framing.

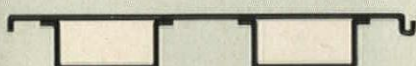
Built-In Electrical Raceway Capacity in New County Court House and Welfare Building!

MAHON M-FLOOR SECTIONS

CEL-BEAMS, WHICH ARE UTILIZED AS ELECTRICAL RACEWAYS, ARE 6" WIDE



SECTION M2-1.5
CEL-BEAM DEPTH 1 1/2"



SECTION M2-3
CEL-BEAM DEPTH 3"



SECTION M2-4.5
CEL-BEAM DEPTH 4 1/2"



SECTION M2-6
CEL-BEAM DEPTH 6"



SECTION M2-7.5
CEL-BEAM DEPTH 7 1/2"

In the twelve-story County Court House and Welfare Building, illustrated at the left, Mahon M-Floors will provide the light weight structural sub-floors and the built-in electrical raceways so necessary in modern office buildings today. Through his selection of M-Floors for this impressive building, the architect assured himself and the using agencies of all-over electrical availability, year-after-year electrical convenience, and adequate raceway capacity to meet any electrical demands in future years.

The 6" wide Cel-Beam Raceways in M-Floor Construction provide further electrical advantages . . . they allow greater latitude in the location and installation of Floor Service Fittings, and they permit the use of 4" diameter Hand-holes between Electrical Header Duct Access Units and the Cel-Beam Raceways. This is important . . . the larger access hand-holes save time and labor costs, not only in the initial electrical installation, but year after year, whenever changes in electrical circuits are required or additional circuits become necessary.

In the M-Floor Cel-Beam Section you get a better balanced, more efficient structural unit . . . you get electrical availability in every square foot of floor surface . . . you get greater raceway capacity, greater latitude in location of floor service fittings, and greater convenience, electrically, for the life of the building.

When you select an Electrified Cellular Steel Sub-Floor for your next building, you will want all of the structural and electrical advantages that have been engineered into Mahon M-Floors. Comparison will convince you that the basic functional requisites of a Cellular Steel Sub-Floor are more fully realized in the design of Mahon M-Floor Cel-Beam Sections.

See Sweet's Files for information, or write for Catalogue M-58.

THE R. C. MAHON COMPANY • Detroit 34, Michigan
Sales-Engineering Offices in Detroit, New York and Chicago
Representatives in all Principal Cities

MAHON



INSULATED METAL WALLS

Three Distinctive Patterns with "U" Factor Superior to that of Conventional Masonry Wall with Lath and Plaster. Erected up to 60 Ft. in Height without a Horizontal Joint.



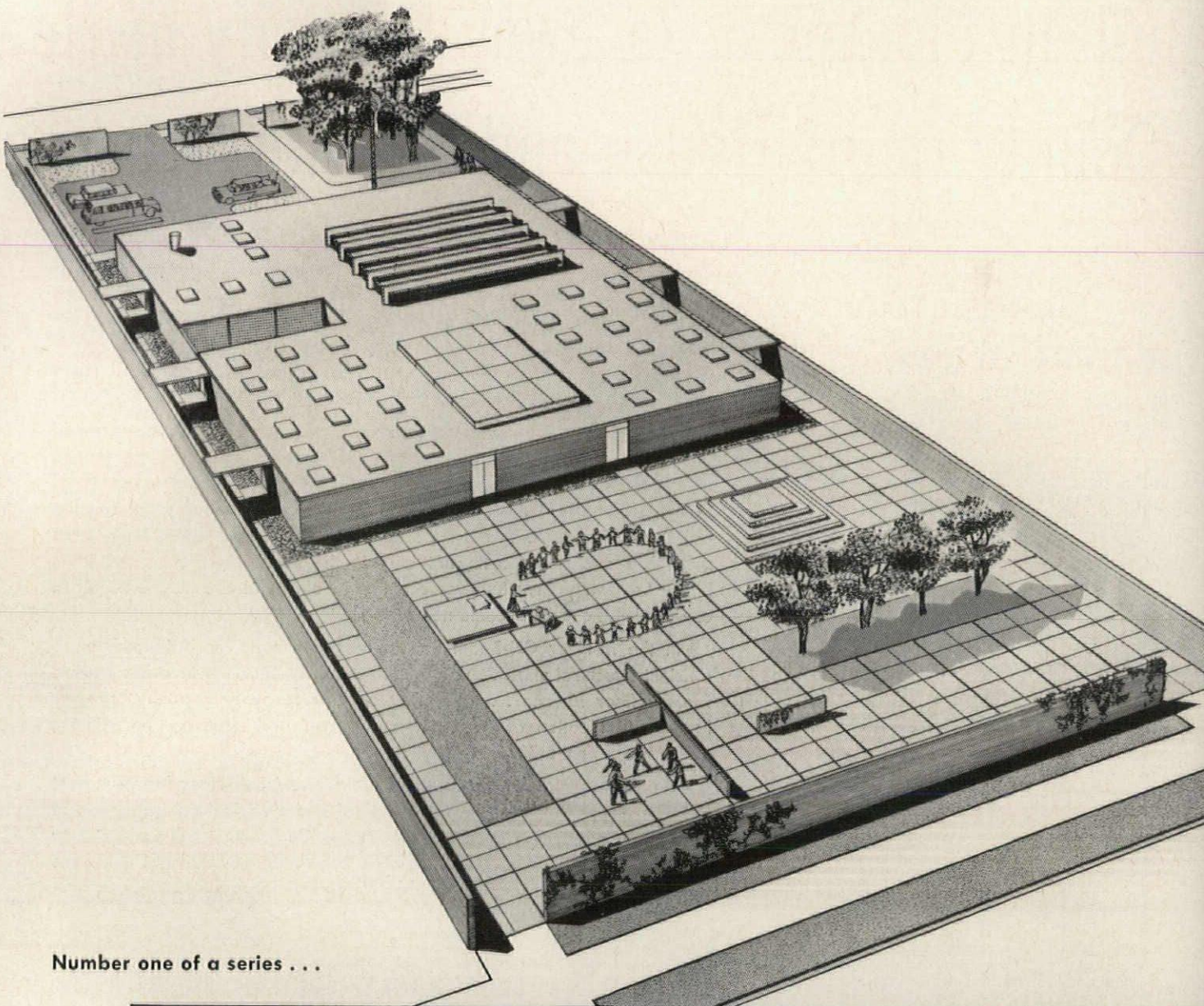
UNDERWRITERS' RATED FIRE WALLS

Mahon Metalclad Fire Walls carry two Hour Rating by Underwriters' Laboratories, Inc., for Use as Either an Interior Dividing Fire Wall or an Exterior Curtain-Type Fire Wall.



ROLLING STEEL DOORS

Standard Manually, Mechanically or Power Operated Rolling Steel Doors and Grilles. Underwriters' Labeled Automatic Closing Rolling Steel Fire Doors and Fire Shutters.



Number one of a series . . .

The herman nelson file of

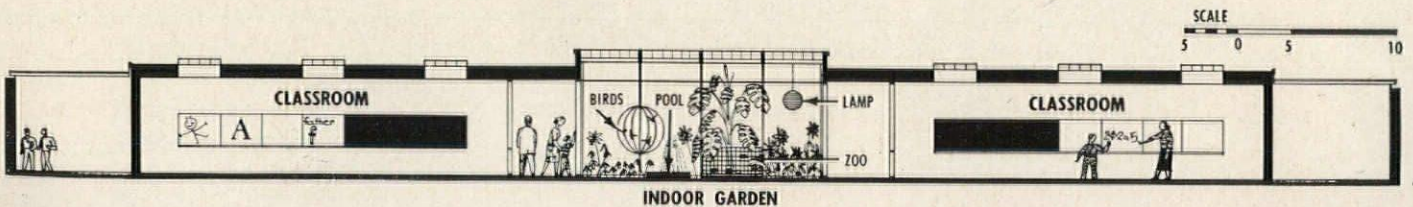
CLASSROOM AIR CONDITIONING, more and more, is becoming a basic factor in school design. Architects everywhere are recognizing the trend in their structural considerations for school buildings.

Educators, too, are thinking — talking — stressing air conditioning. They have found that classroom temperature, air movement and humidity have a direct bearing on learning and development. They realize that it is just as important that a child be com-

fortable in hot weather as it is in wintertime.

For these reasons, many schools are already air conditioned, or are planning for it in the future. Throughout the country, the need for air conditioning is being reflected again and again in basic school design. The building plan shown on these pages is an outstanding example.

Does the school you are planning include eventual air conditioning? Think it over. Chances are—it should.



INSTALL NOW—AIR CONDITION LATER! It's completely practical in any school with HerNel-Cool II unit ventilators. Here's how the system works:

HerNel-Cool II units provide individual temperature control for each classroom, automatically. Most of the year they provide heat, ventilation, or natural cooling (with outside air) as the room requires. Whenever a chiller is installed in the boiler room, HerNel-Cool II units also function as air conditioning units.

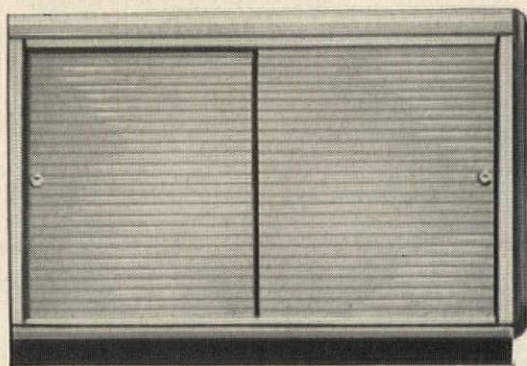
In hot weather, HerNel-Cool II units switch automatically to mechanical cooling, with chilled water circulating in the same piping that carries hot water during cold weather. Complete window downdraft protection is provided under all conditions—because Herman Nelson DRAFT|STOP does not depend on heat for draft protection.

Some schools which have already specified Herman Nelson unit ventilators for heating, ventilating, natural cooling and immediate or eventual air conditioning, include:

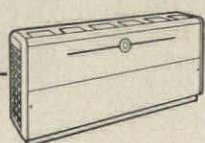
Pleasant Hill School, Austin, Texas • Wilmot School, Wilmot, Wisconsin • Niles Township High School, Skokie, Illinois • South High School, Bakersfield, California • Morrillton Elementary School, Morrillton, Arkansas • Sierra Joint Union High School, Auberry, California • Immaculate Heart of Mary Parish, Chicago, Illinois • New Science Building, Northeastern State College, Tahlequah, Oklahoma • South Union Junior High School, Fresno, California • Davy Crockett School, Phoenix, Arizona • Mockingbird Road Elementary School, Vero Beach, Florida • Administration & Educational Building, Buena Vista College, Storm Lake, Iowa • Purdue University, West Lafayette, Indiana • William S. Speed Building, University of Louisville, Louisville, Kentucky • Lodi High School, Lodi, California • McKinley School, Bakersfield, California • St. John the Baptist School, Chico, California • St. Monica's Church and School, Dallas, Texas • Southeastern College, Hammond, Louisiana.

Cost studies—for schools employing immediate air conditioning as well as for those which are planning for its installation later—are available upon request.

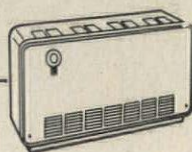
Get all the facts now. Classroom air conditioning—immediate or eventual—is being included in more and more school planning. You'll want to consider it in yours. Write today to Herman Nelson Unit Ventilator Products, American Air Filter Company, Inc., 215 Central Avenue, Louisville 8, Kentucky.



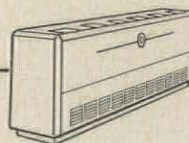
HerNel-Cool II units are as attractive as they are efficient—they harmonize with any classroom color scheme. Choice of seven standard colors. Five durable, decorative laminated plastic top patterns. Matching utility cabinets and other accessories.



Hot water or steam unit ventilators



Amervent unit ventilators

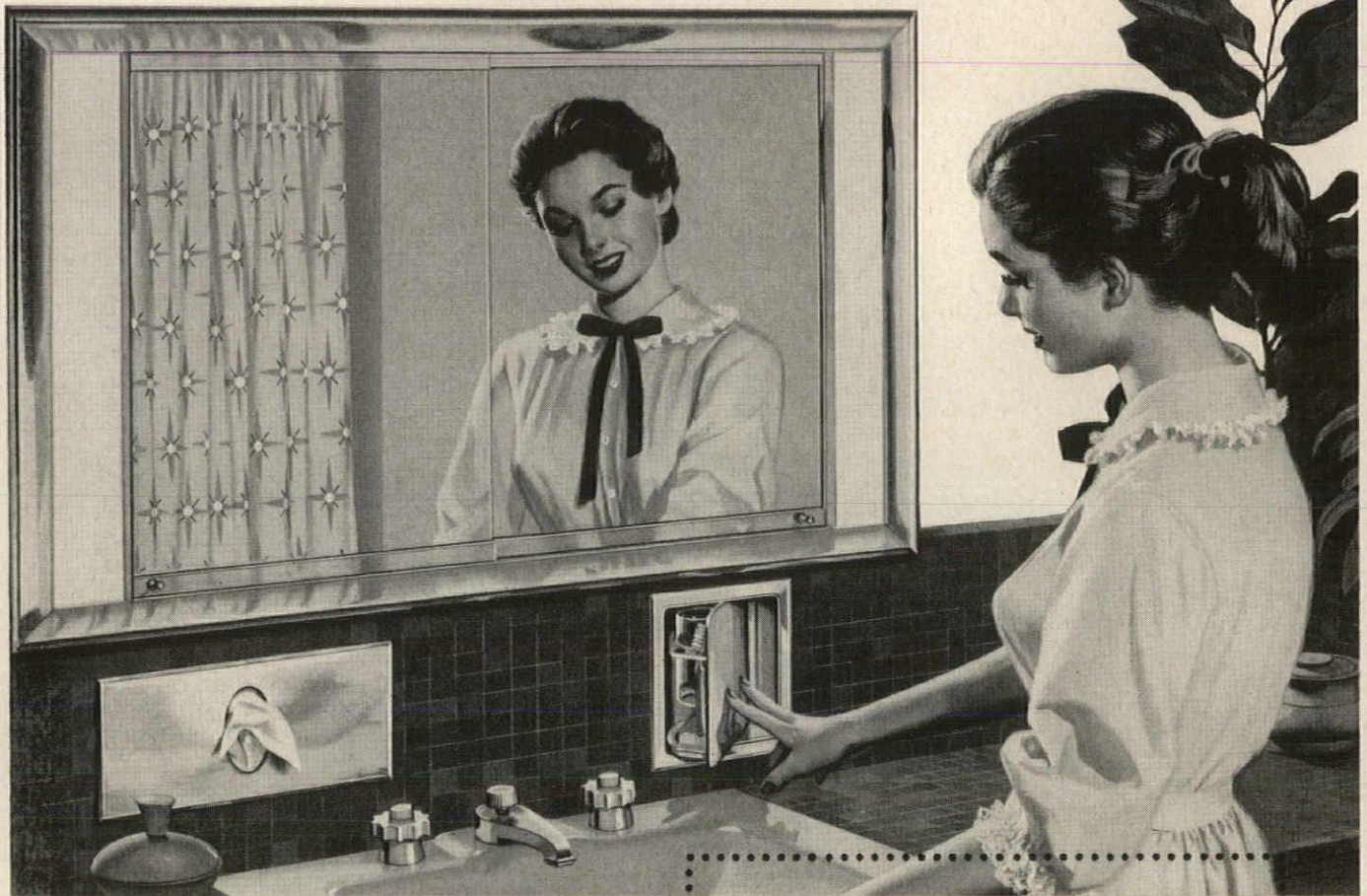


Electric unit ventilators



UniVent gas-fired unit ventilators

Add to the beauty and liveability of your bathroom



Inch for inch, the bathroom gets more hard wear than any room in the house. Making it into a showplace and keeping it that way requires more than good intentions. That's why so many architects, builders, and homemakers specify Hall-Mack Accessories. They know these quality fixtures retain deep, gleaming beauty under rugged usage. And they recognize at a glance the highly original ideas that make these accessories *extra* convenient for family and friends. Skillfully designed to blend with any decor, these famed accessories combine sparkling beauty and unusual utility to add real livability to this important room. Hall-Mack Accessories . . . first choice far and away.

HALL-MACK®

bathroom accessories
in sparkling *chrome*

HALL-MACK COMPANY Division of **TEXTRON INC.**
1380 W. Washington Blvd., Los Angeles 7, California

Please send your FREE color booklet of new bathroom ideas

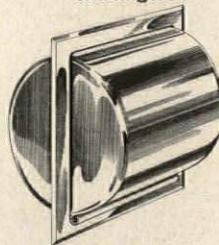
NAME _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

AR-1

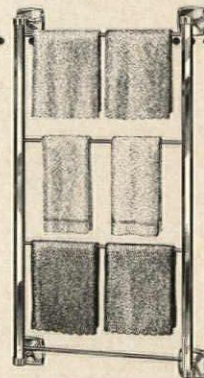
Concealed Toilet Paper Holder is recessed — has a gleaming chrome cover that lifts at the touch of a finger!



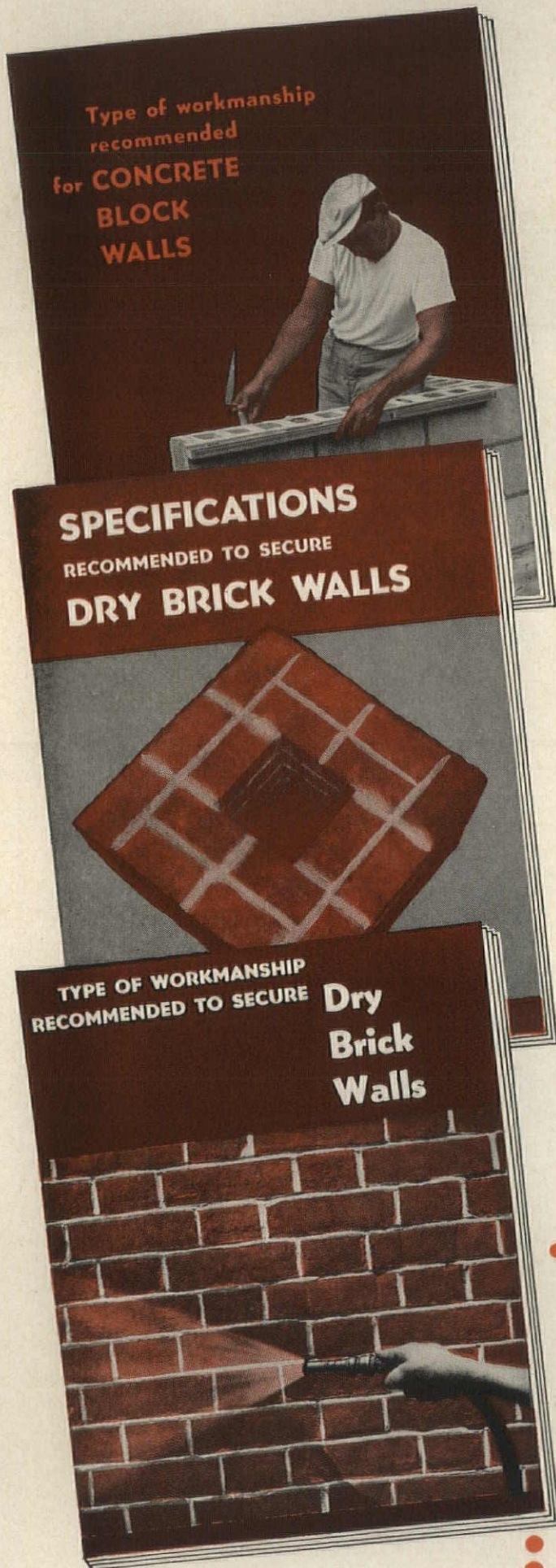
New chrome plated Shower Recess Unit — handy, safe spot for shampoo bottles, etc.



New chrome Towel Ladder gives extra towel space so often needed.



Sold by leading plumbing, tile, and hardware dealers everywhere.



GET THESE IMPORTANT BOOKS!

THE three books at the left are a "must" for anyone who is interested in good masonry construction. One describes the type of *workmanship* recommended to secure dry brick walls. The second describes the *specifications* recommended to secure dry brick walls. The third describes the type of workmanship recommended for *good concrete-block walls*.

Each of these books has been endorsed by foremost authorities. Each has received a citation of merit from the Producers' Council and the American Institute of Architects. Each is fully illustrated, clearly written. Each contains a wealth of really valuable information.

These books are *not* advertisements for our product, Brixment. They are published and made available to members of the building trades solely as an industry service. Mail the coupon, *today*, for your free copies.

LOUISVILLE CEMENT COMPANY, LOUISVILLE, KY.
Manufacturers of
BRIXMENT FOR MORTAR



Louisville Cement Company—Dept. AR-3
Second and Walnut Streets, Louisville 2, Kentucky

Gentlemen:

Without cost or obligation, please send me a copy of each of your three books on masonry construction.

Name _____

Firm _____

Street _____

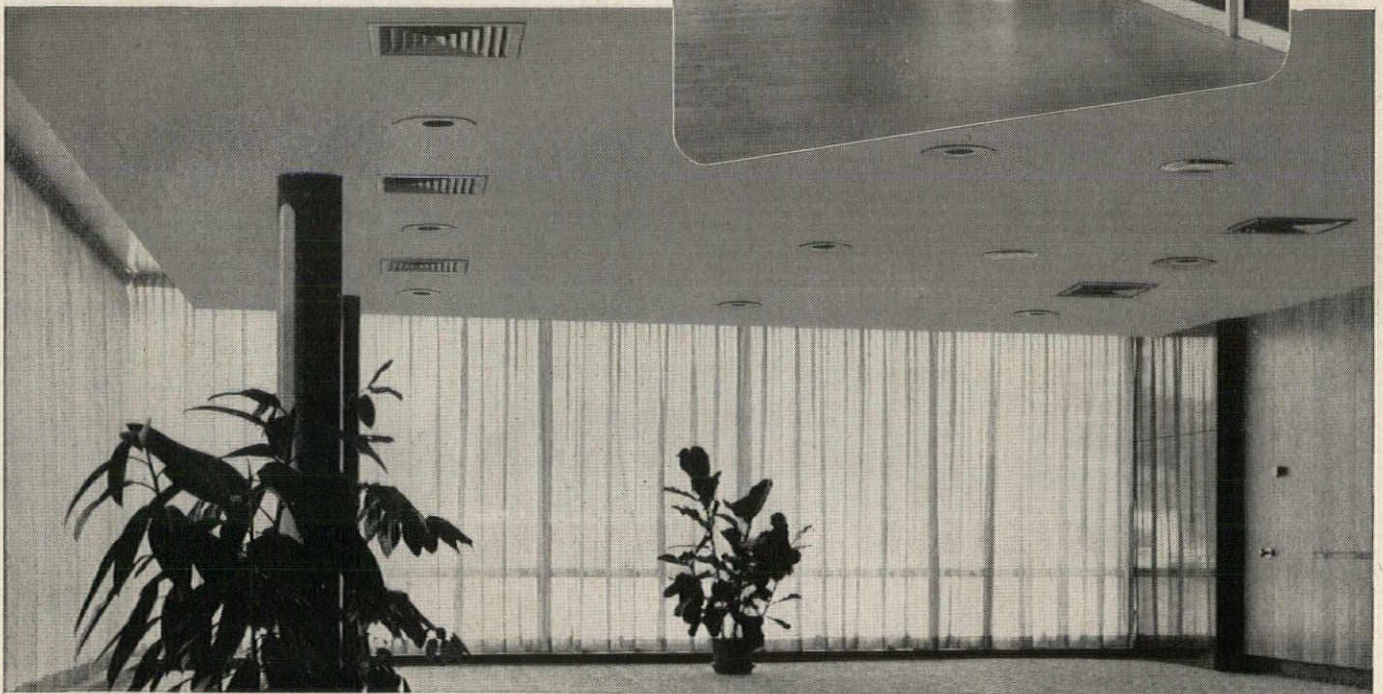
City _____ State _____

AGITAIR®

Custom Made

SQUARE and RECTANGULAR

AIR DIFFUSERS



Custom made in unlimited air patterns, AGITAIR square and rectangular air diffusers suit all job conditions . . . blend perfectly with any interior design.

These AGITAIR diffusers need not be centrally located. They assure draftless, noiseless, equalized air distribution from any location in the ceiling or side wall.



high velocity units • punkah louvers
air diffusers • filters • exhausters

Sold exclusively by representatives for:

AIR DEVICES INC.

185 MADISON AVENUE, NEW YORK 16, N. Y.

Write for Catalog R107 for complete data
on these Agitair Diffusers



BOOTH MEMORIAL HOSPITAL
Flushing, Long Island, N. Y.
Architect: William Francis Schorn.
General Contractor: Caye Construction Co., Inc.
Painting Contractor: Supreme Decorating Corporation.

LYNCHBURG GENERAL HOSPITAL
Lynchburg, Va.
Architect: Samuel Hannaford & Sons and
Pendleton S. Clark, Associate Architects.
General Contractor: Virginia Engineering
Company, Inc.
Painting Contractor: Shaw Paint &
Wallpaper Co., Inc.



NANTICOKE STATE HOSPITAL
Nanticoke, Pa.
Architects: Schmitt & Lippi.
General Contractor: Stan Seiple, Inc.
Painting Contractor: William W. Davis Co.



LUTHERAN HOSPITAL
St. Louis, Mo.
Architects: Froese, Maack & Becker.
General Contractor: MacDonald Construction Co.
Painting Contractor: Stanley Hanks Painting Co.



TEMPLE UNIVERSITY HOSPITAL
Philadelphia, Pa.
Architects: James A. Nolen Jr. and Skidmore,
Owings & Merrill, Associate Architects.
General Contractor: John McShain, Inc.
Painting Contractor: Murphy, Inc.

**CRAFTSMANSHIP
IN THE
PACKAGE**



Service to Architects... *the way you like it!*

You are invited to make full use of Pratt & Lambert Architectural Service... the way you like it... without obligation.

For painting information that is reliable, specifications that are authoritative, and color counsel that is sound, please write to

your nearest Pratt & Lambert Architectural Service Department: 3301 38th Avenue, Long Island City 1, New York; 326 West 26th Street, Chicago, Ill.; 75 Tonawanda Street, Buffalo 7, New York. In Canada: 254 Courtwright Street, Fort Erie, Ontario.

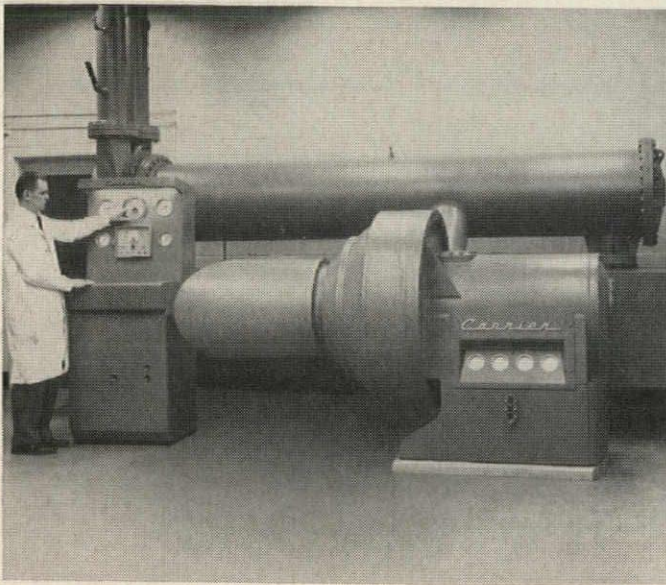
P
R
A
T
T
&
L
A
M
B
E
R
T



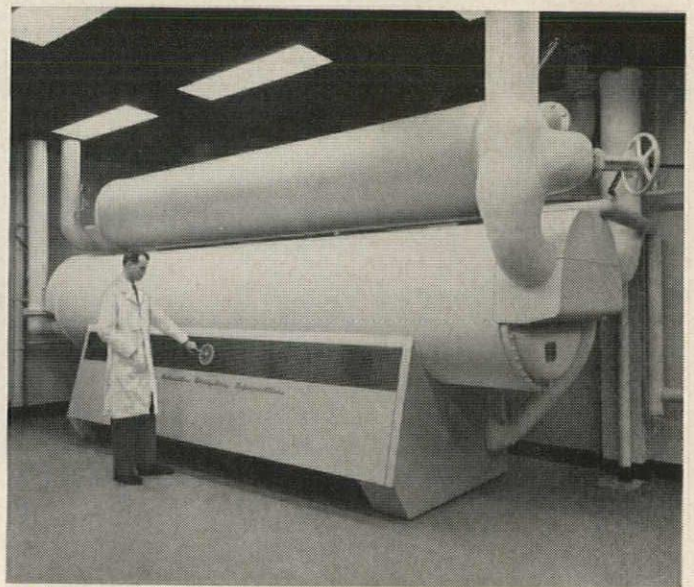


Which way is best to air condition a building?

Every building poses different problems. Take the refrigerating machine, for example. Where should it be located? What kind of power is available? How much tonnage do you need? Carrier builds every type of refrigeration for air conditioning. Two of the many types are shown below. Each provides unique advantages under special conditions. Each has been proved practical and dependable in installation after installation. For complete information about them, call your nearest Carrier office. Or write Carrier Corporation, Syracuse, New York.



If you have low-cost electric power, the new Carrier Hermetic Centrifugal Refrigerating Machine offers unmatched advantages. It's the only hermetic with such advanced features as refrigerant-cooled motors through the entire capacity range, hydraulic powered capacity vanes, and electronic controls for completely automatic operation. Its compact design and light weight minimize space and structural requirements. In 28 sizes—90 to 1100 tons. Other Carrier Centrifugals up to 4000 tons. For smaller buildings, there are "packaged" Carrier Reciprocating Water Cooling Machines from 3 to 200 tons.

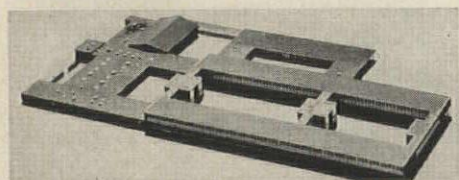


If you have low-cost steam, the best way may be a new Carrier Absorption Refrigerating Machine. It cools with heat energy derived from low-pressure waste steam or hot liquids to cut costs. Operates automatically at the push of a button. Follows fluctuating loads electronically from full load to zero capacity. It's safe—with water the refrigerant, a simple salt the absorbent. And it's so compact and vibration-free you can locate it wherever there's room to spare—on the roof, in the basement or anywhere in between. In thirteen sizes with cooling capacities ranging from 60 to 700 tons.



REINFORCED IN EVERY DIRECTION

ARCHITECT: Reynolds, Smith and Hill
 GENERAL CONTRACTOR: William S. Smith
 ROOFER: Reeves Brothers



GOING UP ALL OVER AMERICA—SCHOOLS WITH FIBERGLAS BUILT-UP ROOFS

and Fiberglas Roof Insulation. This is the Lake Forest Hills High School in Jacksonville, Florida . . . one of the many types of buildings coast to coast where Fiberglas Built-Up Roofing and Fiberglas Roof Insulation have been used together with notable success.

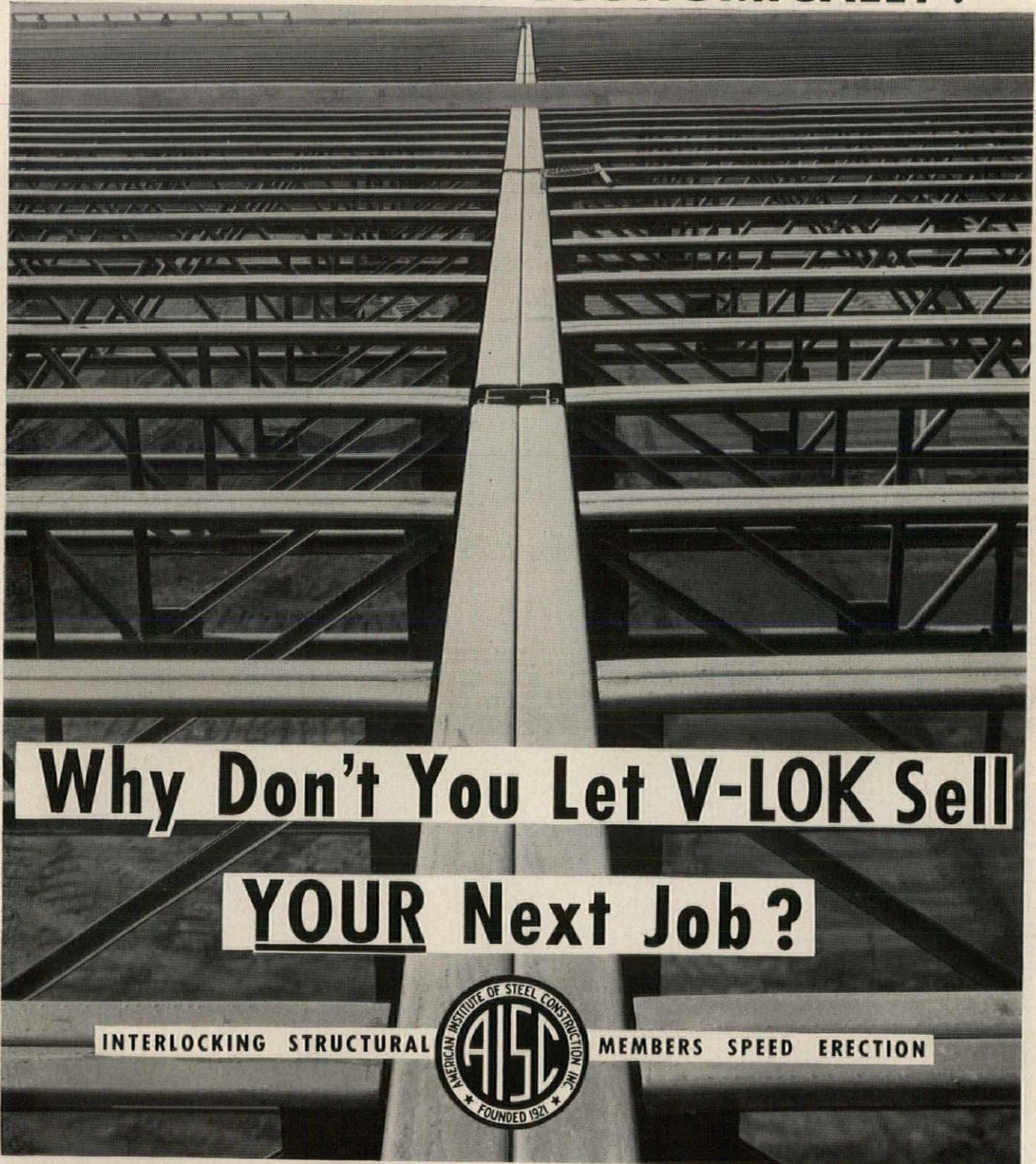
LIKE A FIBERGLAS BUILT-UP ROOF!

Applied by conventional methods, Fiberglas* Built-Up Roofing welds instantly into a monolithic structure—with fiber-reinforced strength in every direction. For long-lasting weathertight protection for your buildings . . . specify Fiberglas Built-Up Roofing and Fiberglas Roof Insulation. For further information, write to Owens-Corning Fiberglas Corp., Dept. 68-A, Toledo 1, Ohio.



*T.M. (Reg. U.S. Pat. Off.) O-C.F. Corp.

THE TRIUMPH OF COLD FORMED STEEL STRUCTURALLY! ECONOMICALLY!



Why Don't You Let V-LOK Sell
YOUR Next Job?

INTERLOCKING STRUCTURAL



MEMBERS SPEED ERECTION

SEND FOR V - L O K CATALOG

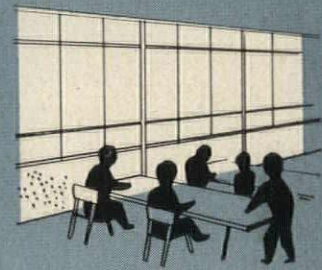
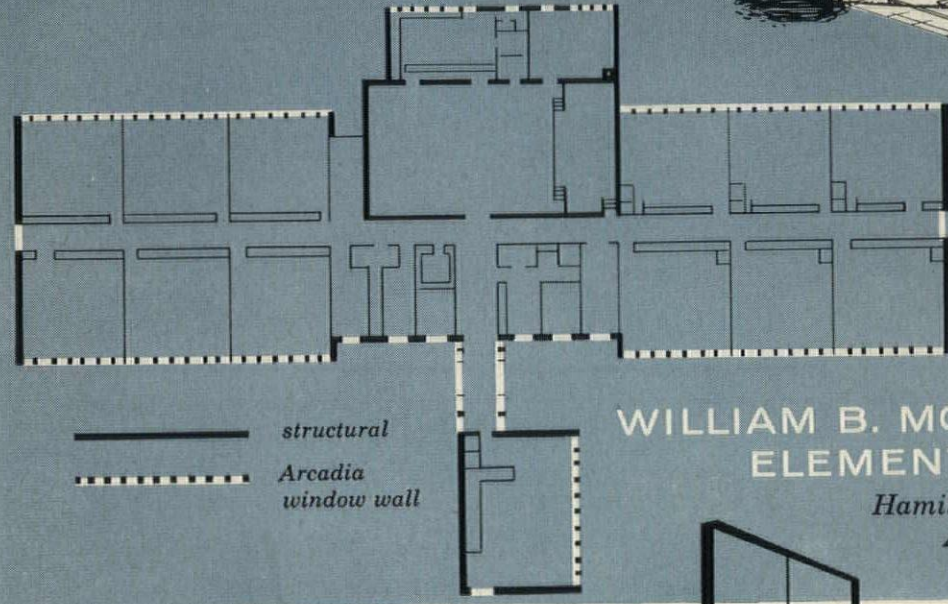
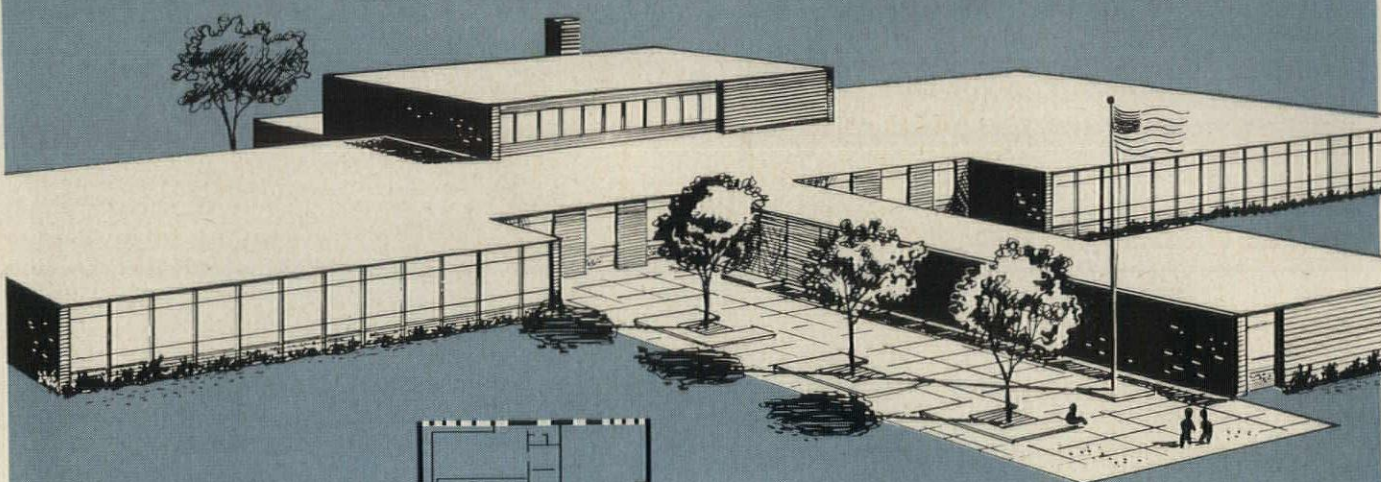
Consult your Macomber Representative for quotation.



MACOMBER

CANTON
1, OHIO

"maximum light and ventilation . . . danger free . . . substantial economy"



**WILLIAM B. MORGAN
ELEMENTARY SCHOOL**

*Hamilton Township, New Jersey
Architects: Kramer, Hirsch
& Carchidi*

window wall by **arcadia**

801 SOUTH ACACIA AVE., FULLERTON, CALIFORNIA
National Member Producers' Council, Inc.

ARCADIA...the name for the finest in sliding glass windows, doors, and window wall

problem: To secure maximum light and ventilation through exterior classroom walls . . . and to avoid the hazards of conventional architecturally-projected windows.

solution: Arcadia steel Window Wall units (120 in all) admitted light, allowed regulated ventilation. Customary low, inward-projecting ventilators, which are always hazardous to children, were completely eliminated by using Arcadia sliding panels.

plus factor: A cost analysis was made of the Arcadia steel Sliding Window Wall and of window walls composed of architecturally projected windows. The Arcadia units were found to be definitely more economical, contributing to a final cost of the project which was substantially under the budget established by the School Board.

HELP BUILD A BETTER AMERICA . . . SEE AN ARCHITECT



Personalized year-round comfort... better—at lower annual cost

You get *all* of the inherent benefits of a fan-coil unit air conditioning system with Modine AIRditioners. Compare them on these *five major economy considerations*—and you'll see why beautifully-styled AIRditioners are first choice for both new building and remodeling.

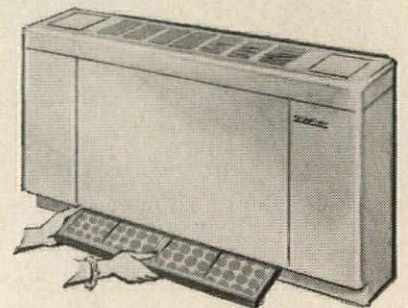
1. Quieter operation. Resiliently suspended Modine fans operate at 1050 rpm top speed. The result—maximum quietness.



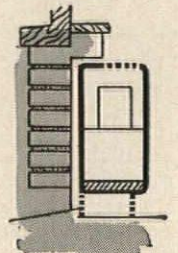
2. Lower maintenance costs. AIRditioners have permanently-lubricated motors that never need oiling.

3. Faster installation. AIRditioners are furnished with reversible coils, provision for right- or left-hand piping and wiring, generously sized end sections that do not cramp the installer.

4. Easier filter changing. With AIRditioners you merely tilt the filter rack and *slide* out the filter. No need to loosen or remove the front panel.

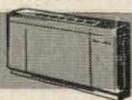


5. Easier recessing. Square corners simplify recessing—up to 5 inches, with less than 6 inches protruding into the room.



You can choose from console, concealed, overhead or ceiling types in all popular sizes. For facts, see the Modine representative listed in your classified phone book, or write for Bulletin 755 to Modine Mfg. Co., 1510 DeKoven Ave., Racine, Wis.

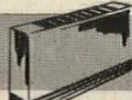
A-1342



AIRditioners



Convectors



Cabinet units



Gas unit heaters



Steam & hot water unit heaters



Duct furnaces

In Canada: Sarco, Ltd., Toronto



"A result no other way obtainable"

**unusual design
produced economically
with Rilco beams and arches**



Katz Drug Store,
Kirkwood, Missouri.
Architects Kivett and
Myers, Kansas City.

"Although the economy was not the prime factor in the use of (Rilco Laminated Beams) it was, of course, a natural result and particularly welcomed when you thereby achieve a result no other way obtainable." The parentheses and underlining are ours, but the comment is direct from the user.

Often Rilco Glued Laminated Arches, Beams and Deck are selected because of their economy. In the case of the Katz Drug Store in Kirkwood, Missouri, however, they offered the architectural effect desired plus the warmth and beauty of wood — economy was a welcome *plus*.

You, too, will find that Rilco *welcome plus values* fit into many types of construction — churches, schools, industrial and commercial buildings. Fire safe, Rilco laminated wood members span large areas gracefully and economically.

Rilco engineers will gladly work with you on your requirements and give on-the-job cooperation. There's a cost saving Rilco member for every type of structure, precision built to meet your needs.



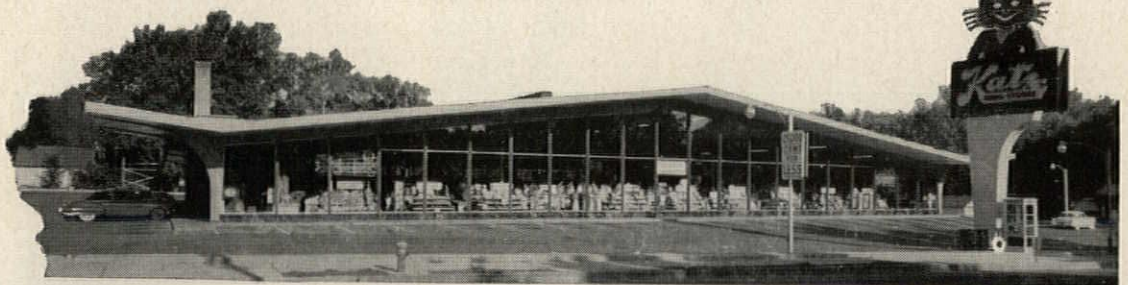
Rilco fire safe Laminated Beams are delivered on the job, machine finished, wrapped for protection.

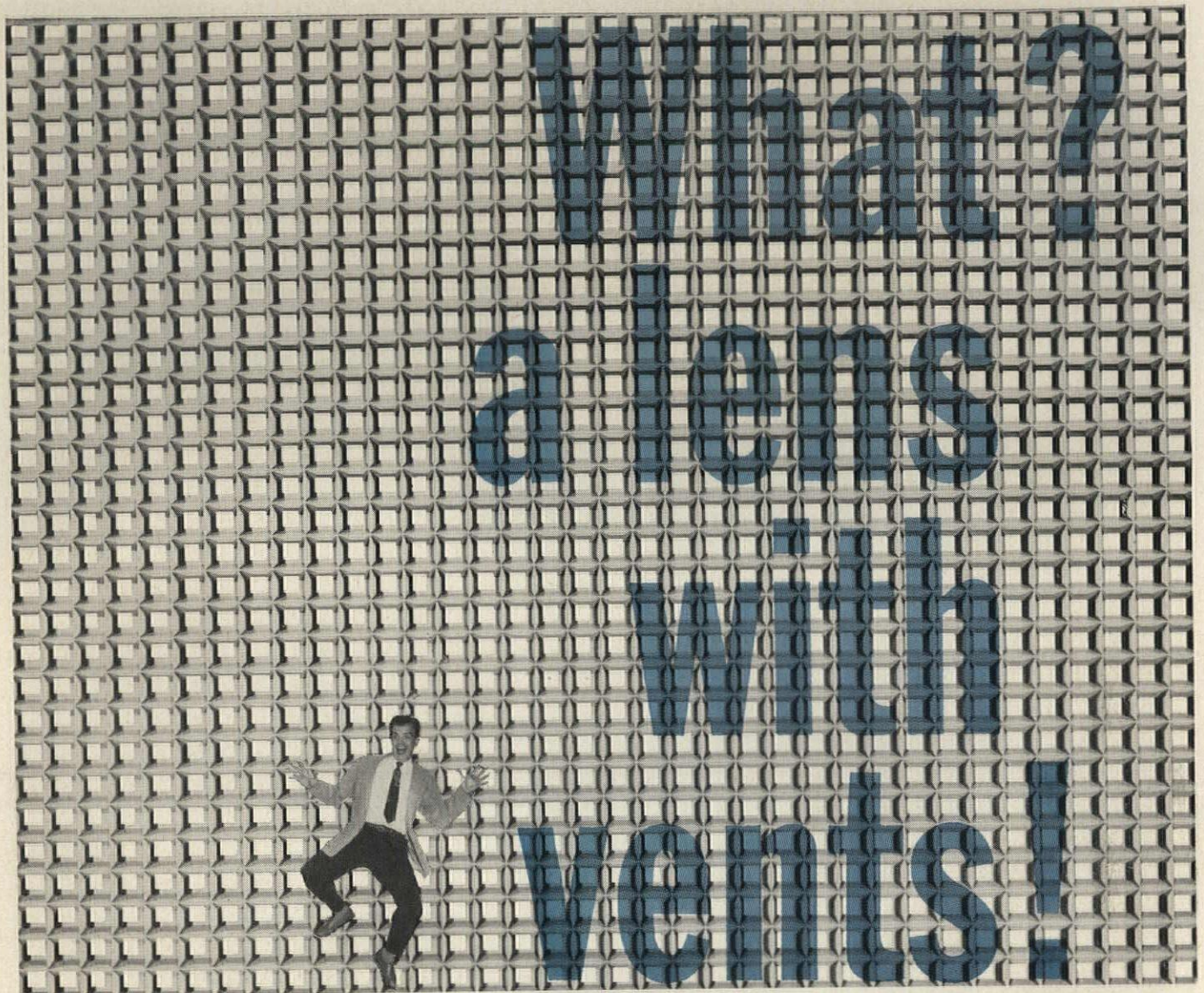
RILCO
works wonders with wood

RILCO LAMINATED PRODUCTS, INC.
W818 1st National Bank Bldg., SAINT PAUL 1, MINNESOTA
District Offices: Newark, N. J., Fort Wayne, Ind., Tacoma, Wash.



See Rilco in
Sweets or
write for free
24 page Catalog





ballast men are amazed about Guth Prismoid-GrateLite*

When a recent visitor to our plant saw a section of the new Guth Prismoid-GrateLite lying flat on white paper, his eyes sparkled.

He held it up and exclaimed, "It's great! It's got holes!"

Our visitor was a ballast salesman, and he was mighty happy that the gorgeous new Prismoid has holes. As he explained, almost everyone is enclosing ballasts, cooping up the heat, cutting down fixture depth... making it tougher than ever for ballasts to serve their legitimate lives.

But here is Prismoid, a prismatic louver-lens *with holes!* The ballast salesman said, "It's certainly a step in the right direction!"

Thanks to Prismoid's *breathing action* ballasts get ventilation, lamps are cooled and the flowing air helps keep lamps, Prismoid and fixtures up to 50% cleaner than solid panels.



THE EDWIN F. GUTH COMPANY • ST. LOUIS 3, MISSOURI
TRUSTED NAME IN LIGHTING SINCE 1902

*T. M. Reg. U. S. &
Can. Pats. Pend.



PITTCO[®] SASH MEMBERS

■ Shown here are six of the many glass-holding members in the complete line of PITTCO Metal Products. Curved or flat, simple or ornamented, they combine beauty of form with effectiveness of function. The result is quality sash—handsome, durable, easy to install—for every design need. See or call your PITTCO Store Front Representative for complete details.

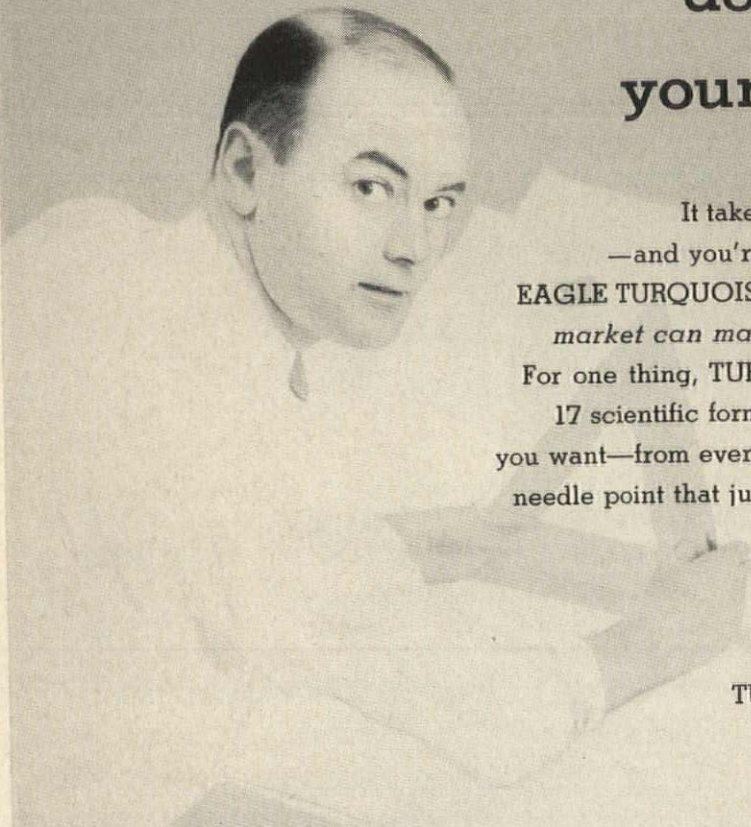


PAINTS · GLASS · CHEMICALS · BRUSHES · PLASTICS · FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

do your drawings do justice to your designs?

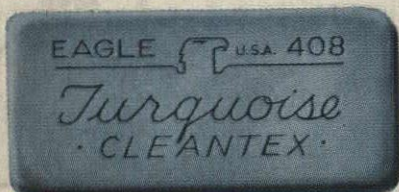


It takes a sharp drawing to sell a sharp idea
—and you're halfway there when you pick up an
EAGLE TURQUOISE drawing pencil. *No pencil on the
market can match TURQUOISE for reproduction!*
For one thing, TURQUOISE is tops for uniform grading.

17 scientific formulas guarantee exactly the blackness
you want—from every pencil, every time! You get a strong
needle point that just won't crumble—and stays sharp for
line after long line of unchanging
width. You can't beat it for smooth-
ness, either—thanks to Eagle's
exclusive [®]"Electronic" graphite.
TURQUOISE makes your drawings look
sharp—and you, too!



• TURQUOISE DRAWING PENCILS: With 100% [®]"Electronic" graphite. 17 grades, 6B through 9H.



• TURQUOISE CLEANTEX ERASER:
Super-soft, non-abrasive rubber.



• TURQUOISE DRAWING LEADS: Fit any standard holder. Grades 5B through 9H.

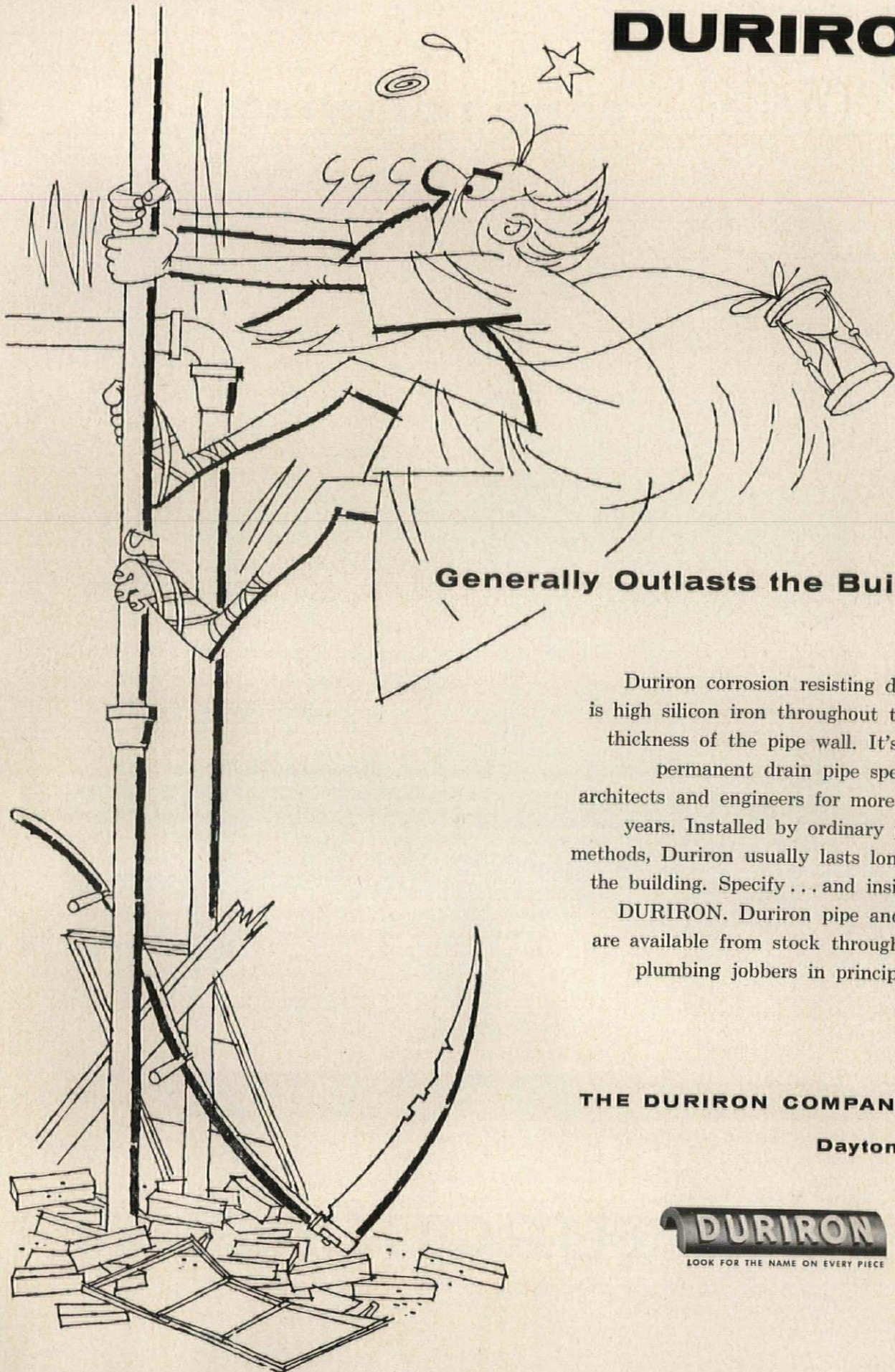


• TURQUOISE LEAD HOLDERS: Hold any grade of Turquoise lead—so firmly that lead cannot be pressed back.

EAGLE[®] TURQUOISE PENCILS, LEADS AND HOLDERS
are the largest-selling in the United States!

EAGLE PENCIL COMPANY • NEW YORK • LONDON • TORONTO • MEXICO • SYDNEY • BOGOTA

DURIRON®



Generally Outlasts the Building

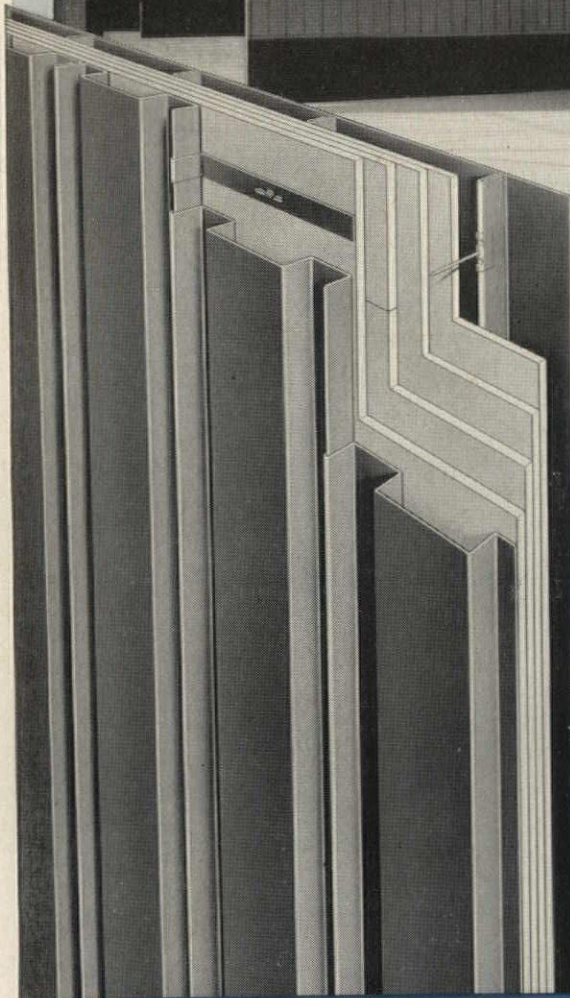
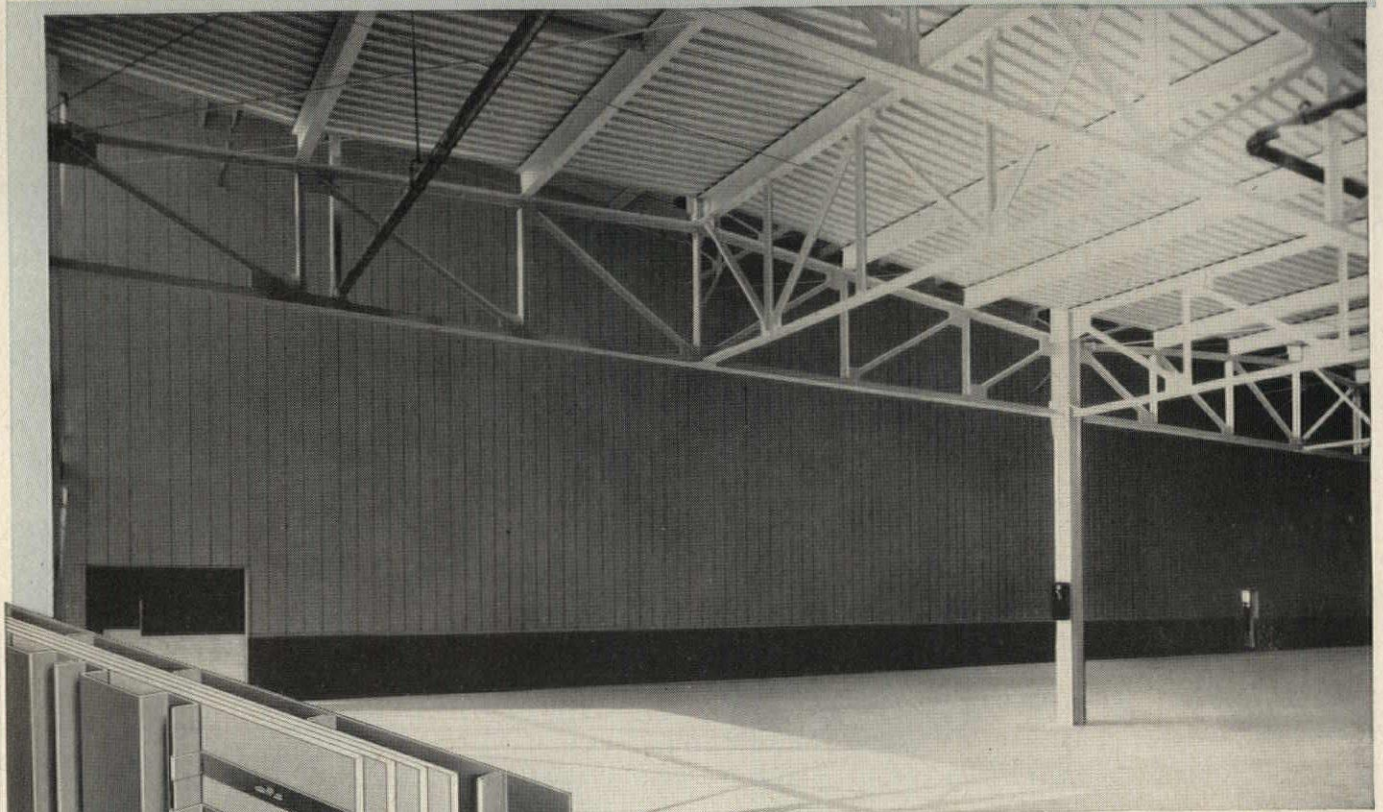
Duriron corrosion resisting drain pipe is high silicon iron throughout the entire thickness of the pipe wall. It's the one permanent drain pipe specified by architects and engineers for more than 30 years. Installed by ordinary plumbing methods, Duriron usually lasts longer than the building. Specify... and insist on... DURIRON. Duriron pipe and fittings are available from stock through leading plumbing jobbers in principal cities.

THE DURIRON COMPANY, Inc.

Dayton, Ohio

DURIRON
LOOK FOR THE NAME ON EVERY PIECE

Underwriters' Rated FIRE WALLS



Section of Mahon Metalclad Fire Wall showing Construction Features. Four layers of $\frac{1}{2}$ " Plaster Board are sandwiched between Roll-Formed Steel Wall Plates. All Joints in both Wall Plates and Plaster Board are Offset.

...for Interior or Exterior Use!

Mahon Underwriters' Rated Metalclad Fire Walls are now available for use as interior dividing fire walls or as exterior curtain-type fire walls. They can be installed in old or new buildings, of either steel or reinforced concrete construction, where a fire hazard may exist, or where the requirements of Fire Insurance Underwriters or Building Codes must be met. The Mahon Metalclad Fire Wall is field constructed. It has been tested by the Underwriters' Laboratories, Inc., and has been given a Two-Hour Rating for use as either an interior or exterior fire wall. When employed as an exterior wall, Fiberglas insulation can be inserted between the interlocking ribs of the inner wall plates, thus providing insulating properties superior to that of a conventional masonry wall with furred lath and plaster. Exterior Wall Plates may be Aluminum, Stainless Steel or Enamel Coated Cold Rolled Steel. The important feature of the Mahon Fire Wall is the Impaling Clip with its Stainless Steel Spike (Patents Pending) which permits construction of the wall with a minimum of through metal. Mahon engineers will cooperate fully in supplying information and assistance in adapting this product to your particular requirement. See Sweet's 1958 Files for information, or write for Catalogue W-58.

THE R. C. MAHON COMPANY • Detroit 34, Michigan
Sales-Engineering Offices in Detroit, New York and Chicago • Representatives in Principal Cities
Manufacturers of Underwriters' Rated Metalclad Fire Walls; Insulated Metal Curtain Walls; Steel Roof Deck and Long Span M-Decks; Acoustical and Troffer Forms; Electrified M-Floors; Rolling Steel Doors, Grilles, and Underwriters' Labeled Rolling Steel Fire Doors and Fire Shutters.

MAHON

You can specify *Quality*
in toilet compartments,
too...

...you get outstanding quality

when you specify *NICHOLSON*

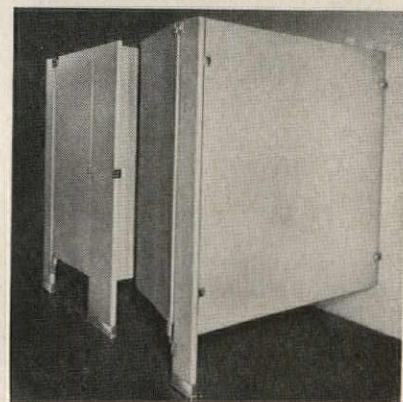
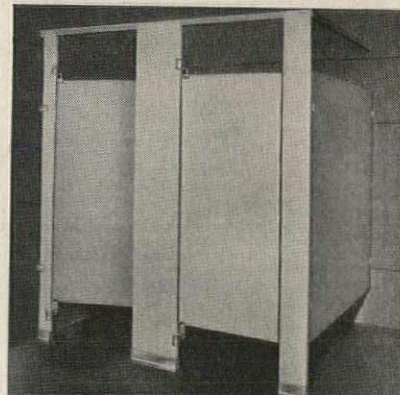
Maximum gage metals, where they're needed, assure the right combination of strength and beauty... for quality toilet compartments that complement the finest equipment and construction details.

Compare these quality features, and you'll know why discerning architects and builders are specifying Nicholson toilet compartments:

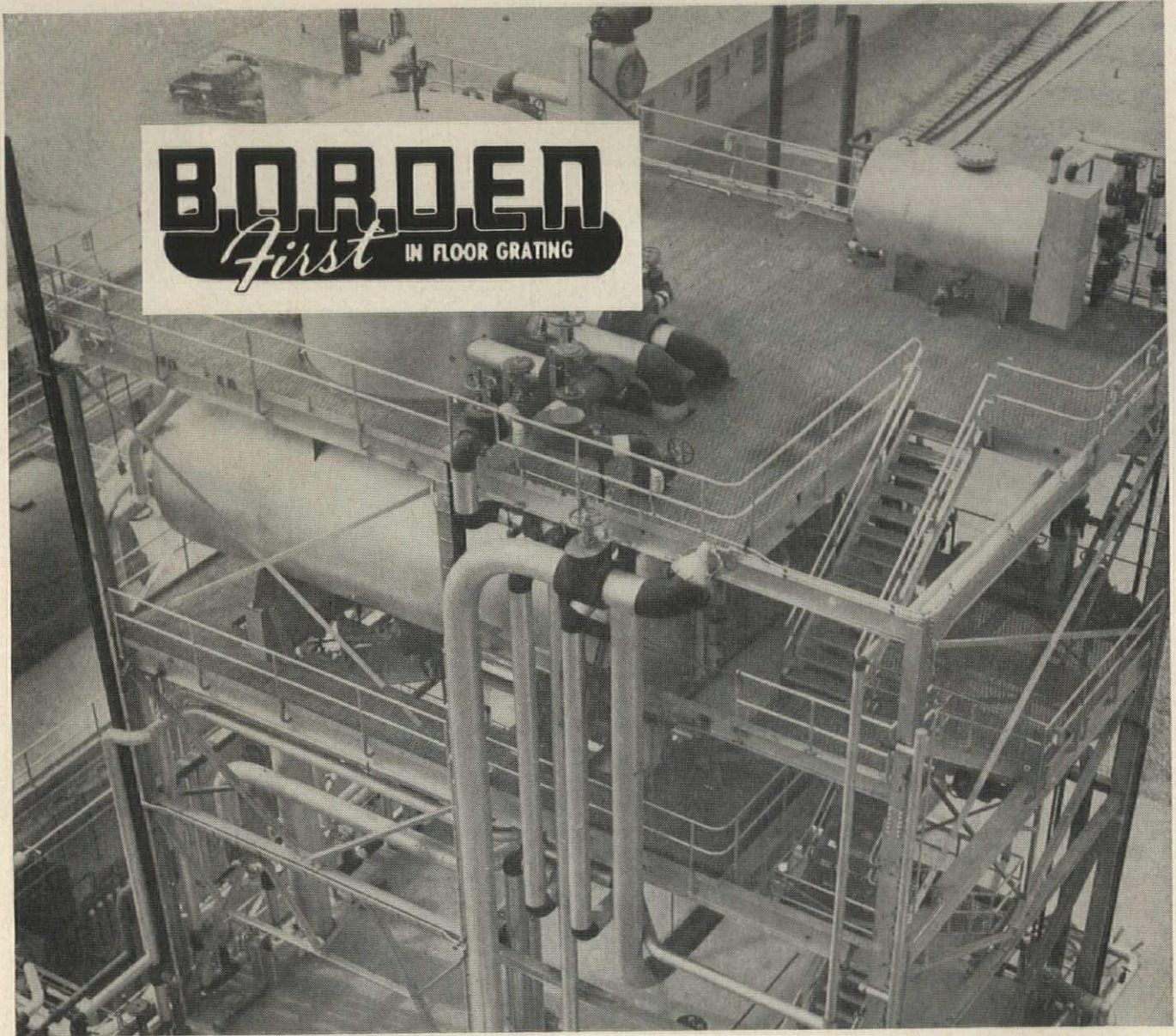
- Panels and doors are 20 gage, 1" thick
- Pilasters are 16 or 20 gage, 1¼" thick with 6-ply fibre core
- Moulding is 18 gage, die-drawn

Standard Nicholson designs range from distinctive, modern to sturdy, utility units... all available with attractive and lasting finishes in a variety of colors.

When you're looking for *quality* toilet compartments, without a premium price... look to W. H. Nicholson and Company, 12 Oregon St., Wilkes-Barre, Pa. Sales and Engineering offices in 98 principal cities.



NICHOLSON
of Wilkes-Barre

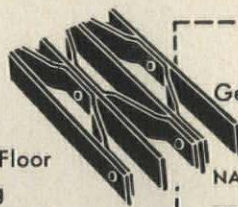


BORDEN
First IN FLOOR GRATING

BORDEN MANUFACTURES EVERY TYPE FLOOR GRATING
 IN FERROUS AND NON-FERROUS METALS

- **EASY TO INSTALL** — engineered in conveniently sized units for easy installation.
- **EXTRA STRONG** — reinforced, designed with maximum safety factor.
- **LIGHT WEIGHT** — approximately 80% open, reduces dead weight, allows greater live load.
- **SELF-CLEANING** — creates greater safety, economy of maintenance, no sweeping or washing required.

Write for complete information on BORDEN All/Weld, Pressure Locked, and Riveted Floor Gratings in this FREE 8-page catalog



BORDEN METAL PRODUCTS CO.

822 GREEN LANE ELIZABETH 2-6410 ELIZABETH, N. J.
 SOUTHERN PLANT—LEEDS, ALA. — MAIN PLANT—UNION, N. J.

BORDEN METAL PRODUCTS CO.

Gentlemen:

Please send me BORDEN Catalog

NAME

TITLE

COMPANY NAME

ST. AND NO.

CITY AND STATE

Rich's Inc.
ATLANTA 3, GEORGIA

February 9, 1956

Economy Engineering Company
4511 W. Lake Street
Chicago 23, Ill.

Re: Economy Engineering Company's
window washing equipment for
Rich's, Inc.

Gentlemen:

We, at Rich's, have always been very proud of our physical facilities and have made every effort to maintain them by proper scheduling and using the most efficient equipment.

As a result of the excellent service and money saved by the use of the window washing equipment that you furnished to us on our Store for Men Installation in Atlanta, we again selected your fine equipment for the use on our new modern downtown shopping community in Knoxville, Tennessee.

This equipment not only has saved us maintenance cost, but has provided a safer means for maintaining these windows. It has enabled us to retain the crystal-like sparkle of the original design that would be impossible without the aid of this equipment.

We feel that a very conservative estimate of the savings resulting from these two pieces of equipment would be approximately \$5,000.00 per year. Therefore, you can understand why we, once again, selected your equipment to accomplish this difficult task for us.

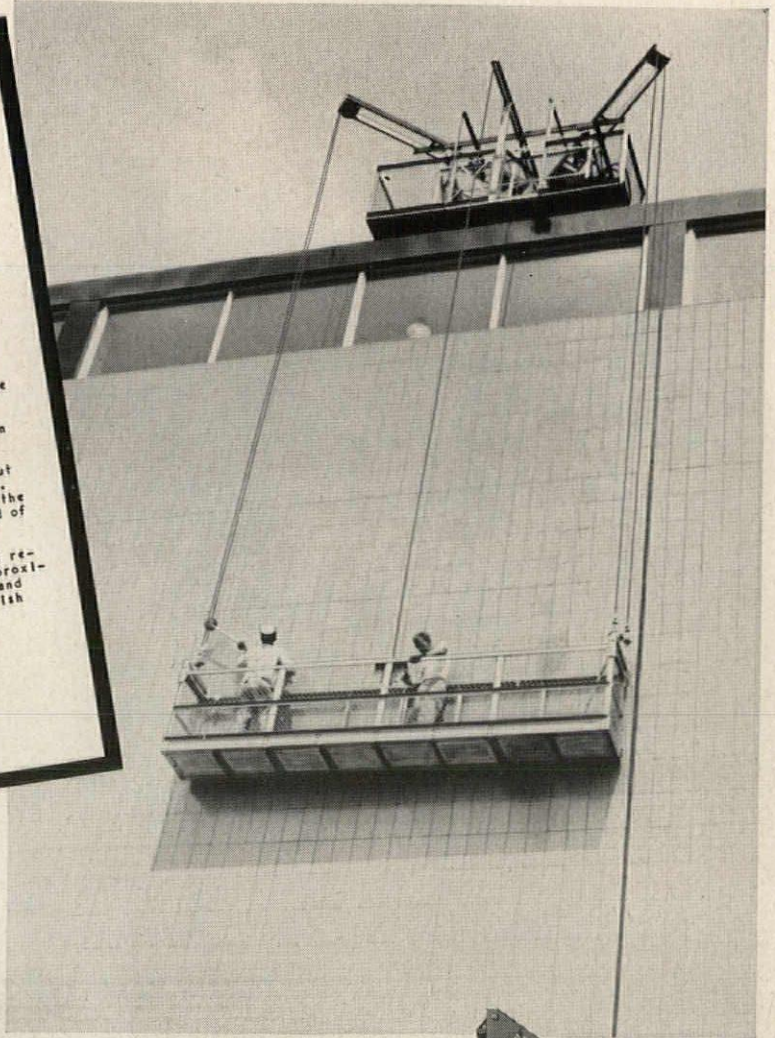
Very truly yours,

A. M. Ferst

A. M. Ferst
Supt. of Planning
& Plant Management

AMF:kw

Rich's Inc., one of the world's finest and most progressive department stores, was the first to recognize what the Wind-O-Washer offered in cost-saving and safety.



ECONOMY Wind-O-Washer

A machine designed by Economy engineers for servicing buildings exteriors.

The architect can now exercise complete freedom in the design of building exteriors, unrestricted by the necessity of specifying movable glass for window washing.

The Wind-O-Washer is electrically operated from the working platform by push button controls for both up and down and horizontal movements. The machine travels on a track, and when not in use, is backed out of sight by means of a turntable or transfer car.

Economy representatives, located in all principal cities, can give personal engineering service on your problems and make recommendations with estimates. Each installation is individually engineered.

Write E. W. McDonnell for Catalog.

For interior maintenance. Economy Hi-Reach Telescopes are the answer to the problem of servicing overhead lighting and hard-to-reach interior maintenance work. For many years these Hi-Reach Telescopes have been widely used throughout industry and by institutions.

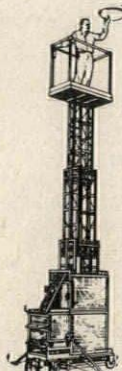
ECONOMY ENGINEERING CO.

4530 W. Lake St., Chicago 24, Ill.

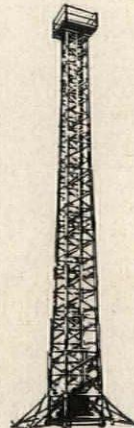
New York Office: 342 Madison Ave., New York 17, New York



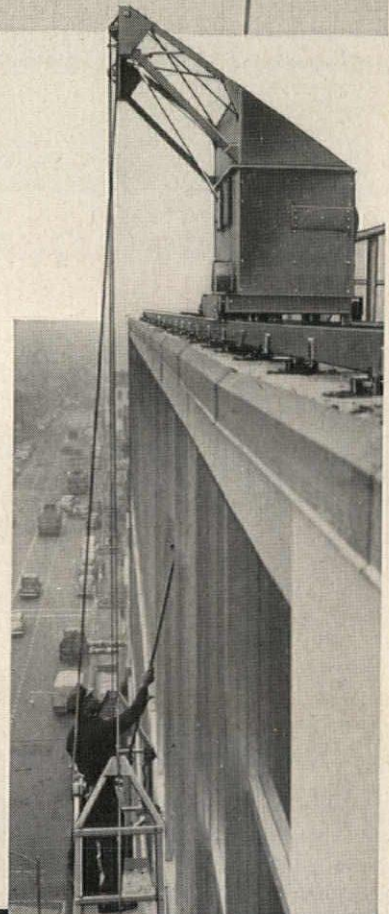
Model PUL
10'9" to 15'



Model LB
20' to 35'



Custom
up to 100'





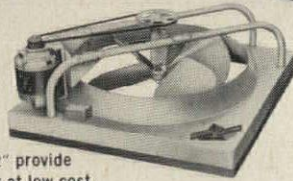
great names combine

EMERSON pryne

to bring you the world's most complete line

ATTIC FANS

in sizes from 24" to 42" provide complete home cooling at low cost.



EXHAUST FANS

in a complete range of sizes and types for both wall and ceiling installation.



VENTILATING HOODS

Pioneer developer of truly efficient ventilating hood-fan-light units, only Emerson-Pryne offers the world's easiest-to-clean "Tilting" hood... in addition to a complement of stationary hoods.



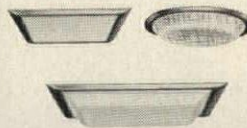
EXHAUST BLOWERS

"Squirrel Cage" type dual and single blowers for residential exhaust ventilation.



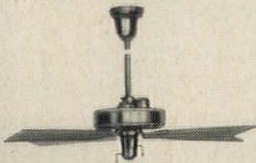
RECESSED LIGHTING FIXTURES

in sizes, shapes and types for every illuminating application.



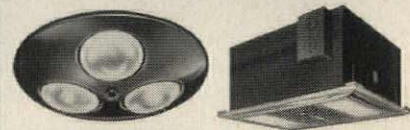
AIR CIRCULATORS

32" and 52" ceiling mounted air circulating fans keep porches, breezeways, patios cool and insect free.



RITTENHOUSE CHIMES

Emerson-Pryne is national sales representative for Rittenhouse... manufacturers of America's most distinctive line of door chimes, signaling systems and transformers.



RECESSED BATHROOM HEATERS

designed for safe ceiling installation, Emerson-Pryne "instant heat" infra-red heaters, and the famous model 5010 4-way combination exhaust fan-light-heater-air circulator assure the utmost in supplemental heating.



EMERSON

pryne
COMPANY

POMONA, CALIF. · KEYSER, W. VA.
ST. LOUIS, MO. · TORONTO, CANADA

Giant Computers are made here

Architect: **L. Rossetti**

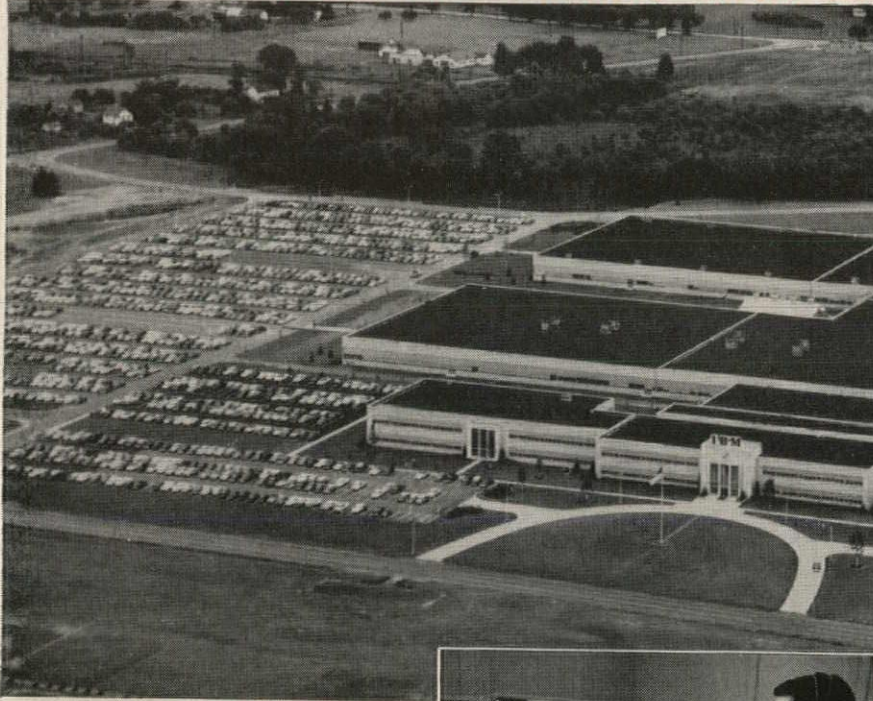
Engineers: **R. F. Giffels and V. E. Vallet, Detroit, Mich.**

Contractors for heating and air conditioning:

Rowland Tompkins & Sons, Hawthorne, N. Y.

Carrier Corporation, New York City—subcontractor

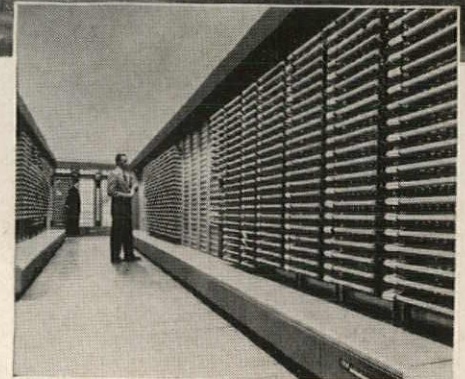
INTERNATIONAL BUSINESS MACHINES CORP. MILITARY PRODUCTS PLANT, KINGSTON, NEW YORK



Focal point of the SAGE Air Defense System is the round scope portion of Display Console shown in photo at right. It can depict the over-all battle or focus on part of it. Powers Precision Control of Temperature and Humidity is important in all spaces shown here at the IBM Kingston Plant



One of the SAGE Air Defense System Display Consoles.



Input frames (front view) thru which all radar information is processed.

View of Pluggable Unit Assembly department.



One of many Quality Control areas.



View of Manufacturing-Engineering department.



where Employees both **THINK** and work better in proper Thermal environment provided by

POWERS

AIR CONDITIONING CONTROL SYSTEMS



In this big modern IBM plant at Kingston, N. Y. are produced the world's largest electronic digital computers, which mastermind the famous SAGE Air Defense System. In minutes the system can detect a foe approaching by air, determine its course and even guide an interceptor to meet the attacker. SAGE is a masterpiece of automation.

The SAGE computer comprises over 200 separate units, occupying floor space equal to 24 average ranch style homes. It uses as much power as a town of 15,000 and it generates an immense amount of heat. Proper cooling is important.

Accurate control of temperature and humidity by Powers in this completely air-conditioned plant helps employees THINK better and produce better quality products. Central Fan Systems supply proper year 'round conditioned air for the varied types of activity in these

spaces: engineering, manufacturing, test areas, laboratories, offices, classrooms and cafeteria. Perimeter areas of the building are heated with silline hot water radiation regulated by Powers master-sub-master control systems.

Powers Process Controls also are used at IBM for accurate temperature control of dryers, metal plating and finishing, photo film developing, heat treating, and shower baths.

Are You Planning a New Building or modernizing an old one? Solving the many temperature, humidity and pressure control problems at IBM exemplifies the engineering skill available at Powers and the versatility of Powers Control to handle a wide range of requirements. Ask your architect or engineer to include a Powers Quality System of Temperature and Humidity control.



Symbol of Quality Control and Economy

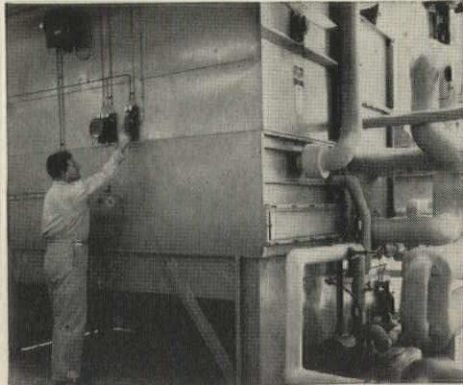


THE POWERS REGULATOR COMPANY

SKOKIE, ILLINOIS

Offices in chief cities in U.S.A., Canada and Mexico

65 Years of Automatic Temperature and Humidity Control



In 4 special SAGE Computer test areas are dehumidifiers (above), a central control panel (right), and dry air coolers (left). On the latter, fluid drive variable speed control is operated by a 6" Powerstroke motor controlled by Powers Static Pressure Regulator and Submaster K Thermostat.

(C-57)


A continuing series of distinguished office buildings, schools,
churches, hospitals and industrial structures using NORTON DOOR CLOSERS.

100 Years of Progress

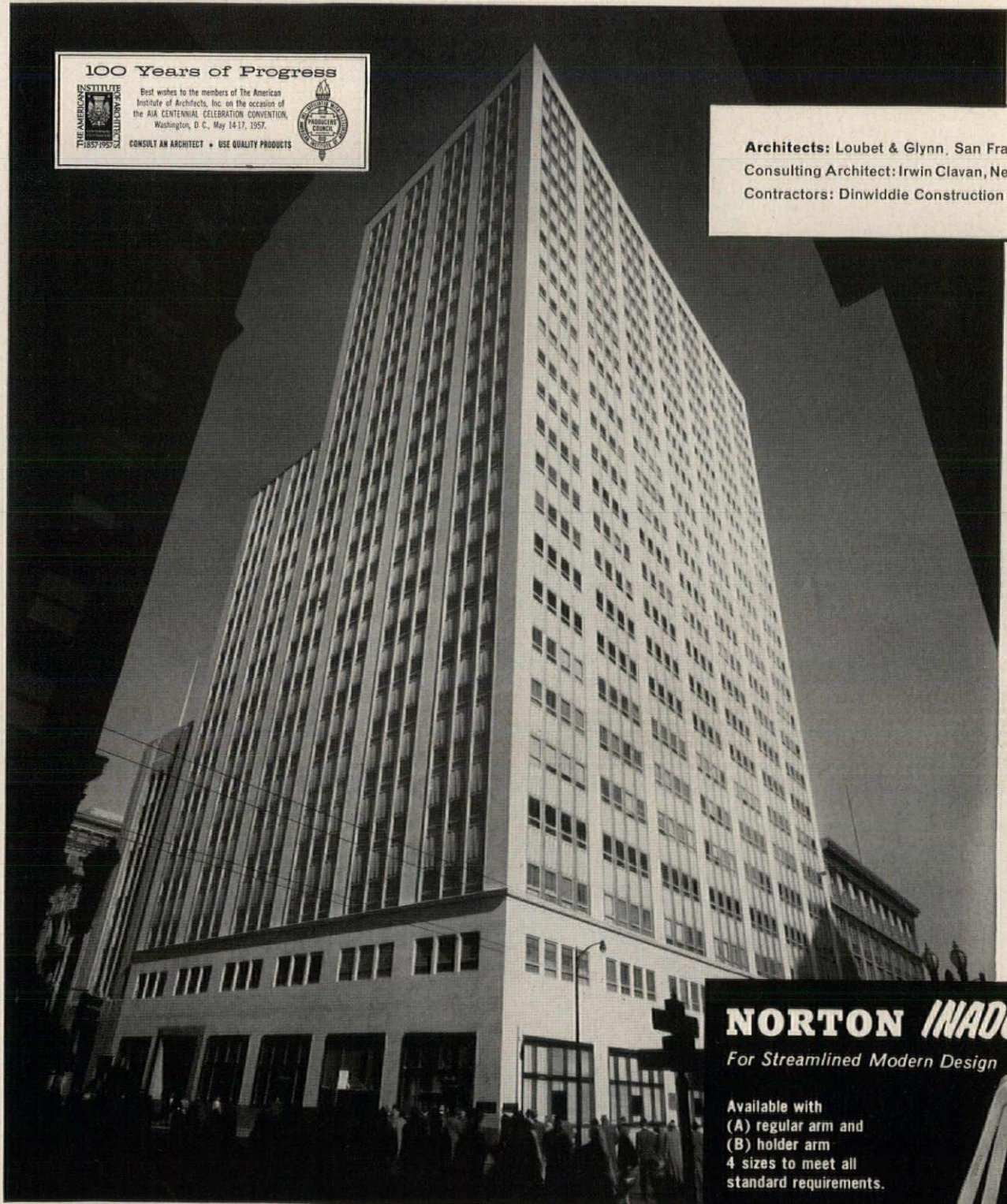
THE AMERICAN INSTITUTE OF ARCHITECTS
1857-1957

Best wishes to the members of The American Institute of Architects, Inc. on the occasion of the 100th CENTENNIAL CELEBRATION CONVENTION, Washington, D. C., May 14-17, 1957.

CONSULT AN ARCHITECT • USE QUALITY PRODUCTS



Architects: Loubet & Glynn, San Francisco
Consulting Architect: Irwin Clavan, New York
Contractors: Dinwiddie Construction Co.



1800 DOORS EQUIPPED WITH NORTON CLOSERS IN NEW EQUITABLE LIFE BUILDING... SAN FRANCISCO

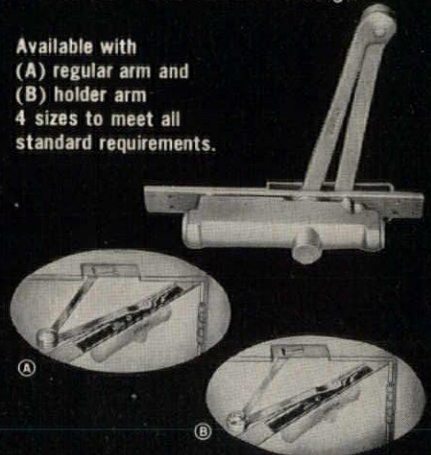
Trouble-free service for years to come is assured in this striking ultramodern building by the use of Norton Door Closers throughout. Both INADOR® and surface-applied NORTON closers are used, the latter on doors where concealment is not essential. Every Norton Door Closer is built to last longer with minimum maintenance and long range economies so essential in all public buildings. For full details, see current Norton catalog. Write for one today if you don't already have a copy.

NORTON DOOR CLOSERS, Dept. AR-18, Berrien Springs, Mich.

NORTON INADOR

For Streamlined Modern Design

Available with
(A) regular arm and
(B) holder arm
4 sizes to meet all
standard requirements.



THIS MODERN OFFICE BUILDING FEATURES

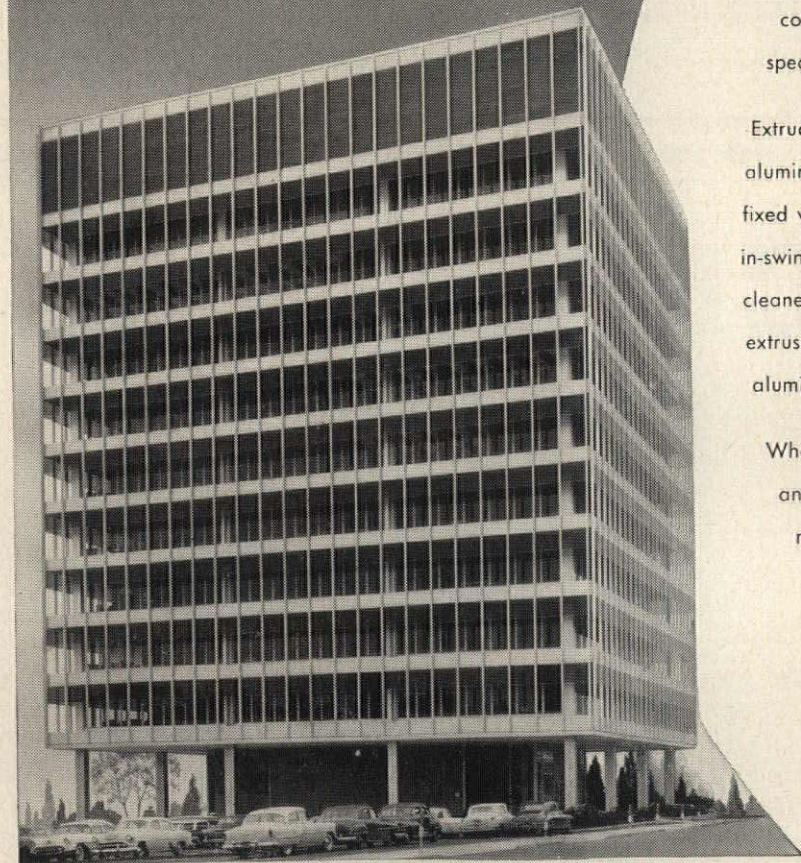
ALUMINUM CURTAIN WALL

DESIGNED BY ARCHITECTS

CUSTOM-BUILT BY...

CUPPLES

WARREN PETROLEUM CORPORATION,
GENERAL OFFICE BUILDING
Tulsa, Oklahoma
Skidmore, Owings & Merrill, Architects, Chicago
W. R. Grimshaw Company, Contractor, Tulsa



Here's an excellent example of how closely Cupples works with architects and builders. The curtain wall system for this handsome twelve-story structure was designed completely by the architects. Cupples followed the specifications with no variations.

Extruded aluminum facia over spandrel beams with heavy aluminum I Beams forms the exterior line. Specially designed fixed windows are set back five feet from facia. Two top-hinged, in-swinging windows on each floor permit egress for window cleaners. Top floor is screened by dark gray alumilited extrusions, running behind vertical aluminum I Beams. Balance of aluminum work is plain alumilite finish.

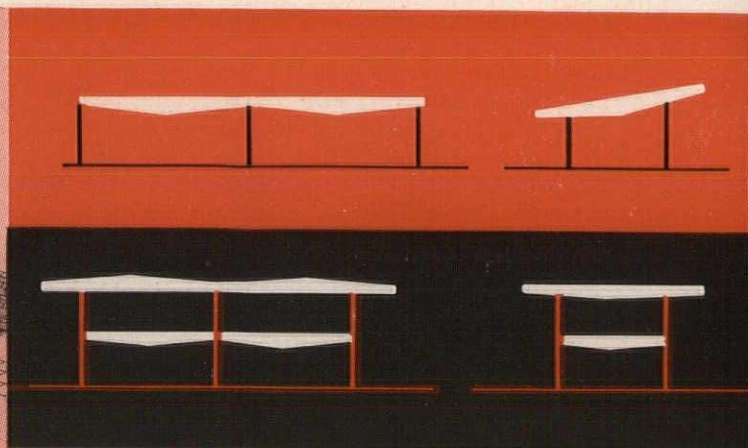
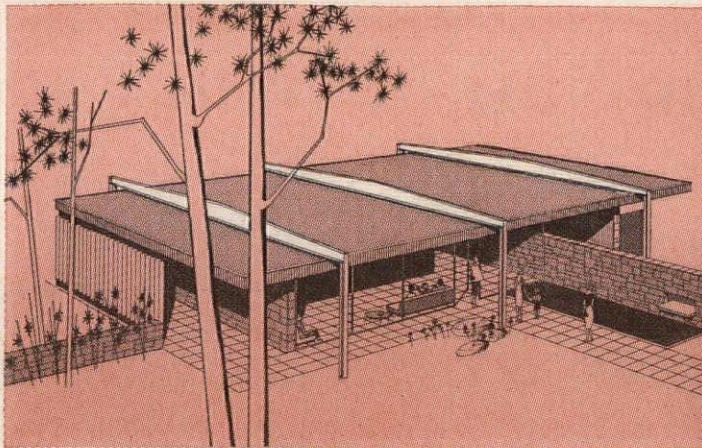
Whether the design is yours or ours, Cupples has the experience and facilities to build aluminum curtain walls that meet your needs exactly. Cupples, also, is a leading manufacturer of aluminum windows, doors, Alumi-Cooustic grid systems and special ornamental products.

Our catalogs are filed in Sweet's.

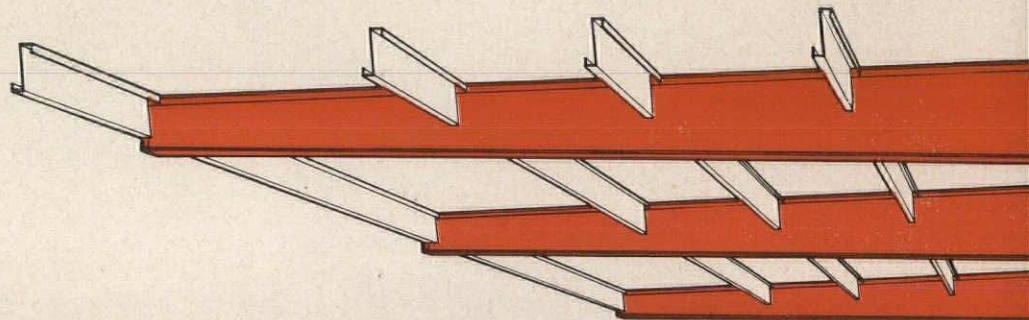


PRODUCTS CORPORATION

2658 South Hanley Road • St. Louis 17, Missouri



NOW! . . . A wider range of creative



STEELCRAFT steel

- *Cuts material and construction costs*
- *Offers unlimited design flexibility*
- *Saves delivery time*

The slope-beam design lends itself to innumerable interesting architectural arrangements. The versatility of the system grants complete freedom of treatment with concrete block, masonry, metal curtain walls, and other materials.

This custom-designed structural roof system includes tapered steel beams and steel purlins . . . a

completely integrated framework which can be roofed with metal, gypsum, concrete, and many other types of roof deck.

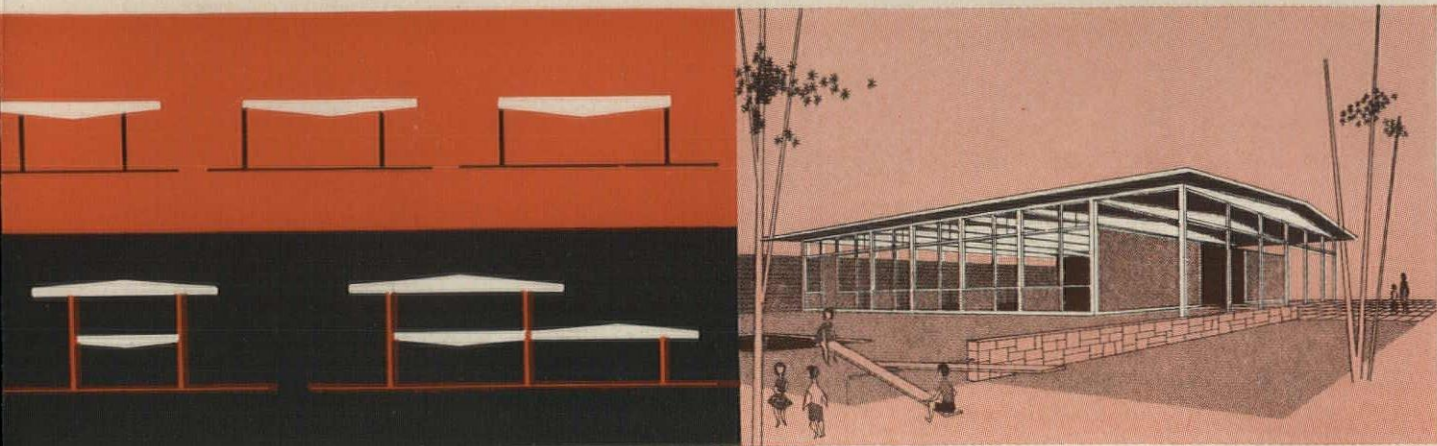
The entire system is designed, fabricated and tested to carry specific loads and conform to AISC Standard Codes of Practice.

To find out the 14 important advantages of the Steelcraft Slope-Beam Roof System, mail coupon now for your copy of our new Slope-Beam Catalog.

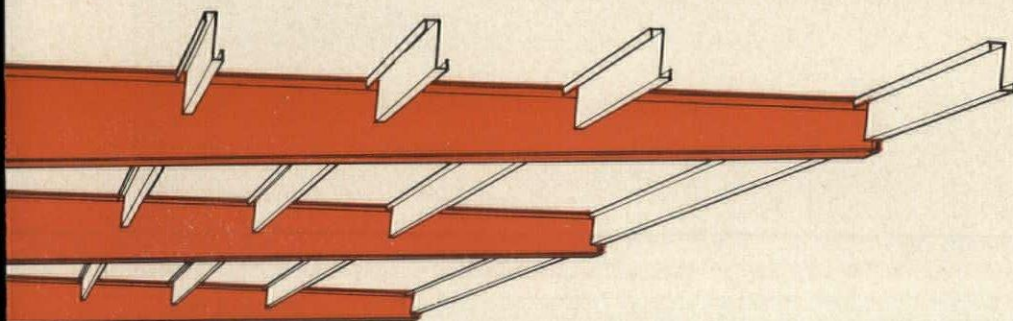
- *Exclusive dealer franchises available. Write for complete information.*



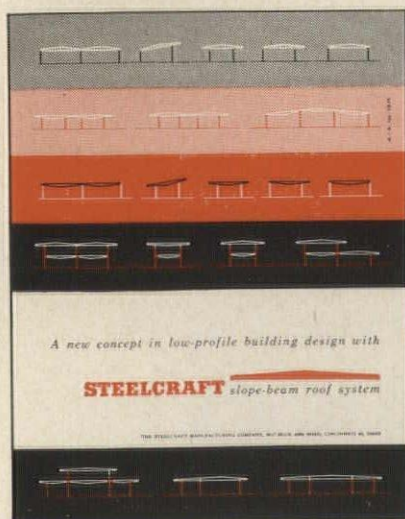
THE **STEELCRAFT** MANUFACTURING COMPANY 9017 Blue Ash Road, Cincinnati 42, Ohio



possibilities for low profile buildings



slope-beam roof system!



FREE! New slope-beam catalog... mail coupon now!

Just off the press, this new Steelcraft Slope-Beam Catalog suggests many design opportunities, complete with detail drawings . . . provides complete slope-beam specifications and load tables. It is meant to be your working tool—so be sure you receive your copy.

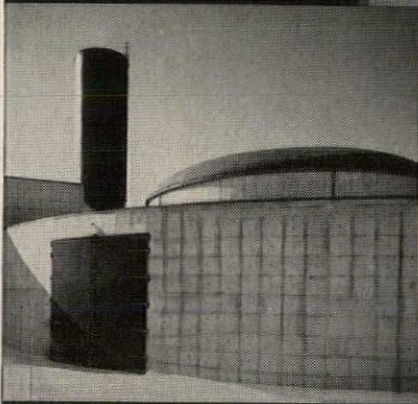
The STEELCRAFT Manufacturing Co., 9017 Blue Ash Rd., Cincinnati 42, Ohio
Dept. IS-R Please rush my copy of the new Steelcraft Slope-Beam Catalog, complete with detail drawings, specifications and load tables.

NAME _____

COMPANY _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____



(above) Large Jamison Sound Reduction Doors in new Test Cell at Detroit Arsenal. Construction under the direction of the District Engineer, Detroit District, Corps of Engineers. (left) Part of circular wall and Jamison Sound Reduction Doors designed to conform to it. Architects: H. E. Beyster & Associates; and Leinweber, Yamasaki and Hellmuth. Contractor: A. J. Etkin Construction Co.; and Collins and Catlin, Inc.

Jamison Sound Reduction Doors meet unusual requirements in new arsenal

...special design fits curved wall; doors reduce sound, resist pressure and temperature

Once again the effective stopping power of Jamison Sound Reduction Doors is being demonstrated in the new Laboratory and Test Cell of the Detroit Arsenal. Here 22 sound reduction doors are in operation, and an additional 38 Jamison Sound Reduction Doors designed to operate under specific heat and pressure conditions.

After years of study and research on the myriad problems of unwanted noise, Jamison engineers developed the "Mass Principle" to effectively minimize sound transmission through a structure. This same principle, with certain refinements, is being used today in doors that are specified again and again by airlines, engine manufacturers and the military services.

If your noise problem ranges from a quiet room or TV studio to a test cell for a 23,000 pound jet engine, come to Jamison for authoritative analysis and help. Write today for new bulletin to Sound Reduction Door Division, Jamison Cold Storage Door Co., Hagerstown, Md., U.S.A.

For 50 years the leading builder of cold storage doors

JAMISON
ENGINEERED DOORS

Announcing a promotion

... a promotion designed to focus the attention of prospective home builders and homeowners on the importance of color and design in bathrooms. . .

dream of an Eljer bathroom CONSUMER CONTEST

Get your official entry form by going or writing to the Eljer Plumber displaying this sign



\$50,000

in prizes just for dreaming of an **Eljer** bathroom

PLUMBER LISTING



win An Eljer dream bathroom ... plus an exciting vacation trip

100 BIG PRIZES

FIRST PRIZE - your dream bathroom with a value up to \$4000 built in your home exactly as you designed it. Plus two weeks for two in glamorous Hawaii with all expenses paid.

SECOND PRIZE - your dream bathroom with a value up to \$3500 and a week in Acapulco with all expenses paid for two.

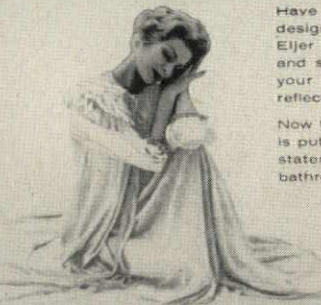
THIRD PRIZE - your dream bathroom with a value up to \$3000 and a week for two in Hollywood with all expenses paid.

SEVEN - FOURTH PRIZES - dream bathrooms each with a value up to \$2000.

TWENTY - FIFTH PRIZES - convenient Eljer powder rooms each with a value up to \$600.

TEN - SIXTH PRIZES - Easy Combomatic Washer-Dryers each valued at over \$500.

SIXTY CASH PRIZES - ten awards of \$100 in cash and fifty of \$50 in cash.



Have you ever dreamed about a beautiful new bathroom... designed just the way you want it... with gleaming modern Eljer fixtures... stylish, spacious cabinets... soft-toned colors and subdued lighting? A dream bathroom... one that marks your home with distinctive good taste... a bathroom that reflects your own personality... a gracious Eljer bathroom.

Now this dream can come magically alive. All you have to do is put your dreams down on paper. If your simple sketch and statement are selected as the winner, Eljer will build your bathroom for you... exactly the way you dreamed it.

How to enter: ... stop in or call any of the nearby Eljer plumbers listed in this column on the left of this ad and obtain an official entry form. You'll find that it contains full instructions, many helpful suggestions and complete rules. Or, if you prefer, write to Eljer Division of The Murray Corporation of America, Three Gateway Center, Pittsburgh 22, Pa.

ELJER

DIVISION OF THE MURRAY CORPORATION OF AMERICA

or write Advertising Department
Eljer Division
Three Gateway Center
Pittsburgh 22, Pennsylvania

PLAN NOW TO BE A WINNER...

This first big national contest ever designed to point directly to the convenience and beauty that can be enjoyed when bathrooms are correctly styled to appeal to today's homemakers has already awakened tremendous interest in the industry.

It is another Eljer contribution to stimulate widespread interest in home modernization and properly designed new homes. Eljer Division of The Murray Corporation of America, Three Gateway Center, Pittsburgh, Pennsylvania.

ELJER

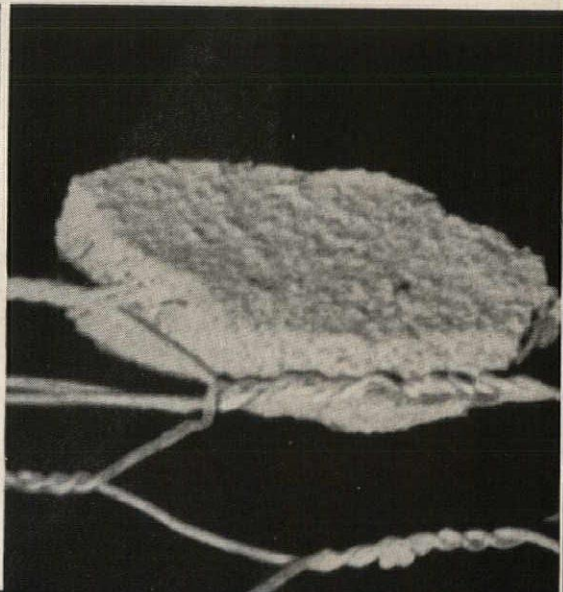
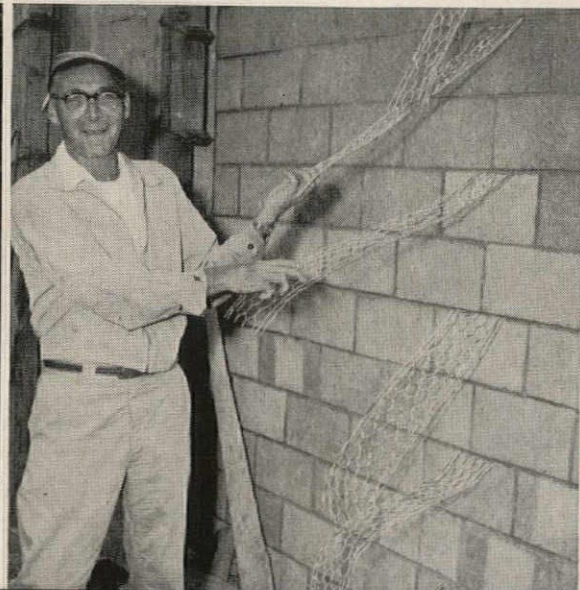
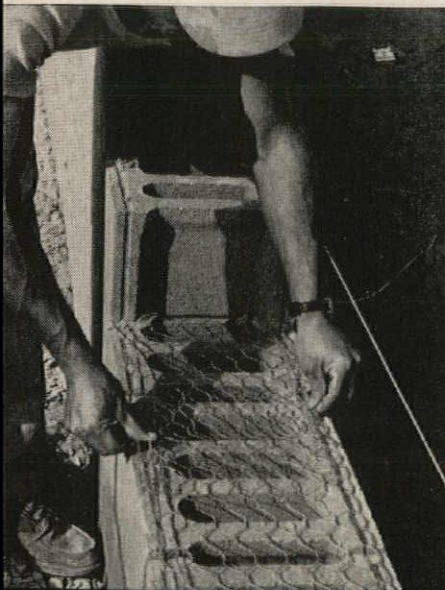
DIVISION OF THE MURRAY CORPORATION OF AMERICA



KEYWALL

Galvanized

Masonry Reinforcement



"I have no problem getting masons to lap KEYWALL. I prefer a 2-foot lap. When it's lapped, it doesn't interfere with the embedment. Yet it gives the full reinforcement value of continuous wire," Mr. Gans points out.

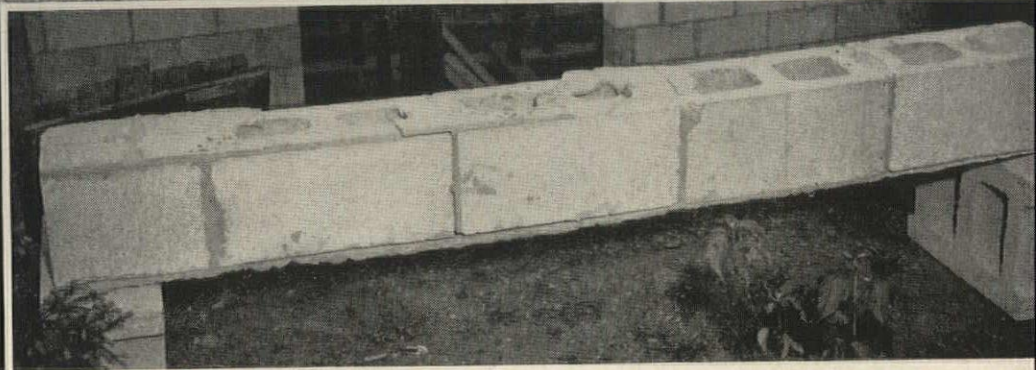
Wherever walls intersect, Mr. Gans uses KEYWALL to tie them together. "It is easy to place in alternate joints as shown," he explains. "And KEYWALL bends out of the way, removes the hazard of projecting rods or wires."

"Reinforcement is only as good as its bond. This section of joint shows how KEYWALL is fully embedded in the mortar to provide an exceptional bond. Actually, the hexagon mesh becomes locked into the mortar," says Mr. Gans.



Note the full embedment of the face shell of these units. KEYWALL helps hold mortar in place, giving a stronger, more weather-tight wall.

When a 2-day-old course of masonry was removed from the wall this section of five units came out in one piece. The load of this beam is carried by the KEYWALL reinforcement in the mortar joint.



"EXCLUSIVELY, NOW"

says Al Gans, Masonry Superintendent
R. S. Ursprung Company
Cleveland, Ohio

"I believe in reinforced masonry," says Al Gans. "In fact, I was one of the first in Cleveland to use it. But I was never satisfied with results until Keywall came along."

"It looked right to me. I tried it out. It solved the

problems I had with other types. The results in the wall have lived up fully to my expectations. Today, I use no other type."

Here you see some of the ways Mr. Gans is using KEYWALL to get better, stronger walls.

KEYSTONE STEEL & WIRE COMPANY

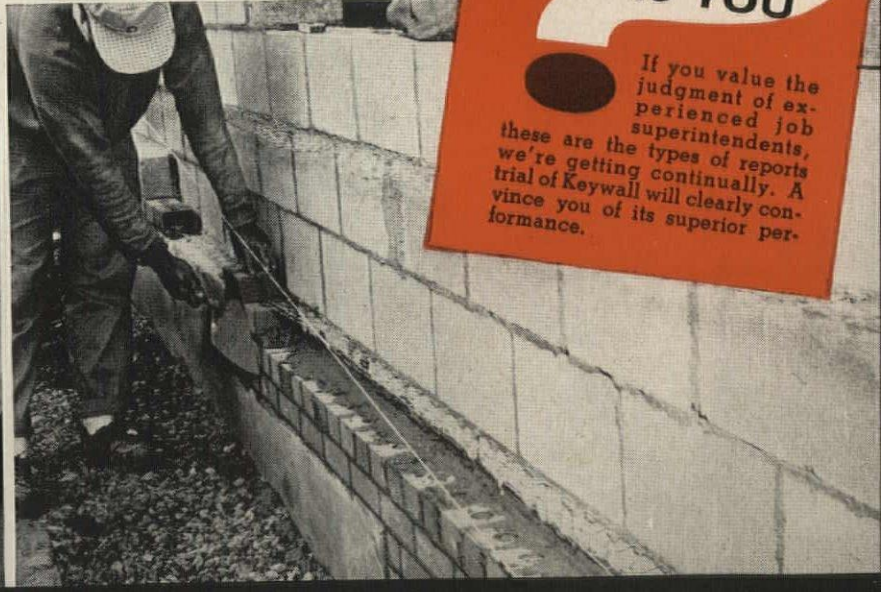
PEORIA 7, ILLINOIS

what does this mean to YOU

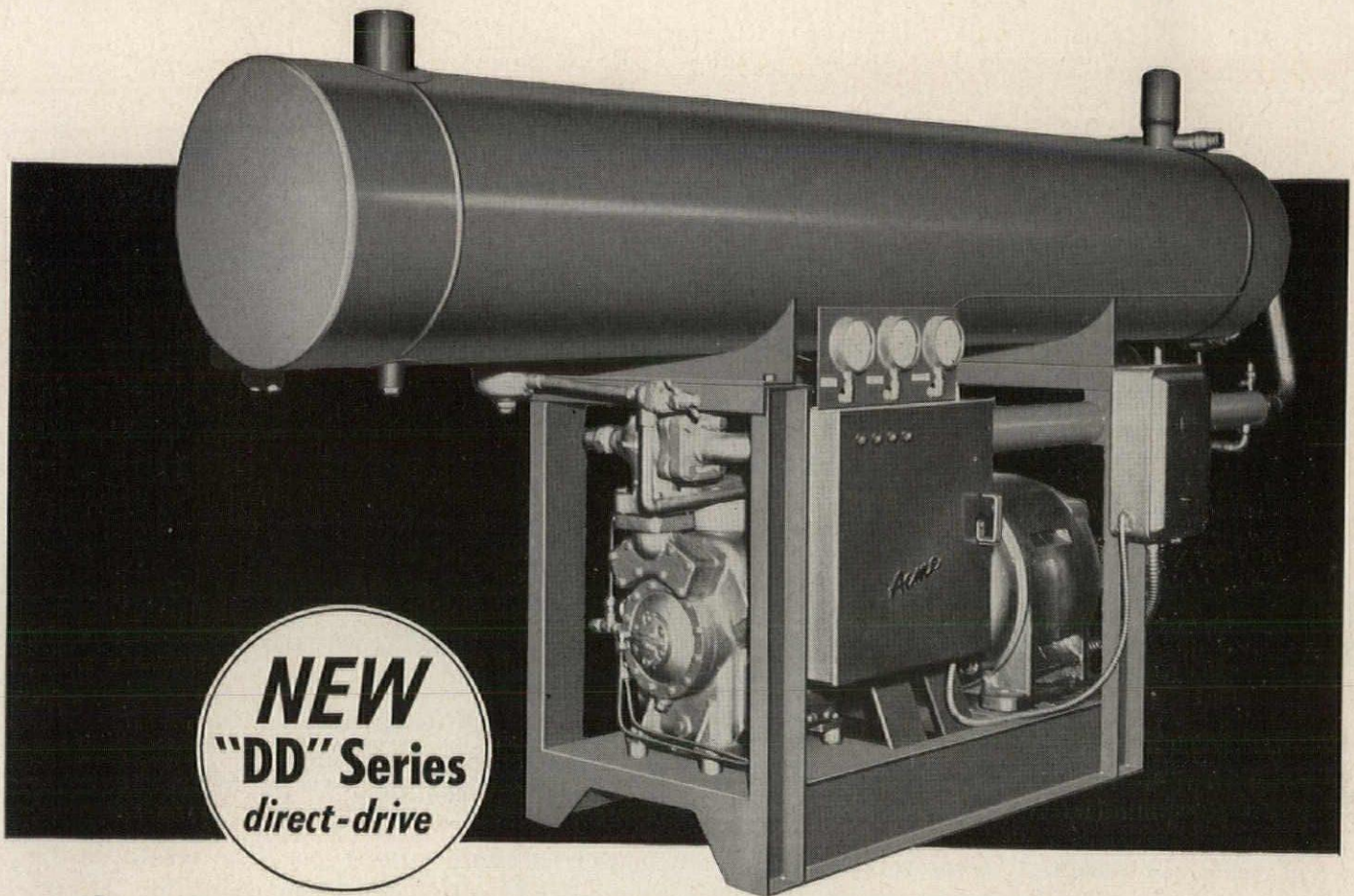
If you value the judgment of experienced job superintendents, these are the types of reports we're getting continually. A trial of Keywall will clearly convince you of its superior performance.



"I build a chase in the wall. Pipes, ducts and conduits are easy to install when KEYWALL is used. I run the KEYWALL right through the chase," Mr. Gans explains. "The center mesh can be cut away as required without destroying the reinforcement



"You can't beat KEYWALL as a wall tie," according to Mr. Gans. "It does everything a wall tie should do, and does it better. In addition, it gives reinforcement. What's more, this double-duty product costs no more in the wall than the ordinary non-reinforcing type of wall tie. With KEYWALL I omit header courses, too. KEYWALL is the only masonry wall tie that moves as header brick do



Acme *FLOW-THERM*[®] with **CERTIFIED DEPENDABILITY**

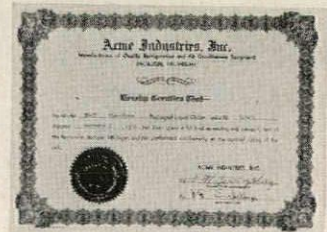
Acme's new DD Series Flow-Therm Liquid Chillers combine the advantages of close-coupled direct drive between compressor and motor with new engineering features that make these units the most advanced large-tonnage packages on the market today. Completely enclosed, tamper-proofed control panel with pilot lights to warn of open limit switches . . . Pilot-operated regulator valves for smooth, accurate refrigerant control and increased capacity range at low superheats . . . these and many other features are worth your investigation.

TEST CERTIFIED


In addition to the normal factory tests for leaks and mechanical defects, all Acme packaged chillers are tested under full load conditions before leaving the factory. Every unit must perform satisfactorily at its nominal rating. Your guarantee of this tested operation is the new Acme Certificate of Performance, a "first" in the industry.

NINE MODELS - 20 THRU 125 TONS

With Acme you get a more complete range of models, with capacities to fit exact job requirements. This is possible because the Flow-Therm's chief components, famous Dry-Ex Chiller and Shell-and-Tube Condenser, can be tailor-made to match compressor performance exactly — combine operating economy with maximum capacity.



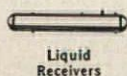
Acme Certificate of Performance issued on all Flow-Therm and Flow-Cold packaged liquid chillers, 3 through 125 tons.



To Get Your Copy of Acme's data-packed Flow-Therm catalog, just send us this coupon attached to your letterhead



Acme INDUSTRIES INC., Jackson, Michigan



Evaporative Condensers & Cooling Towers

Room Conditioners

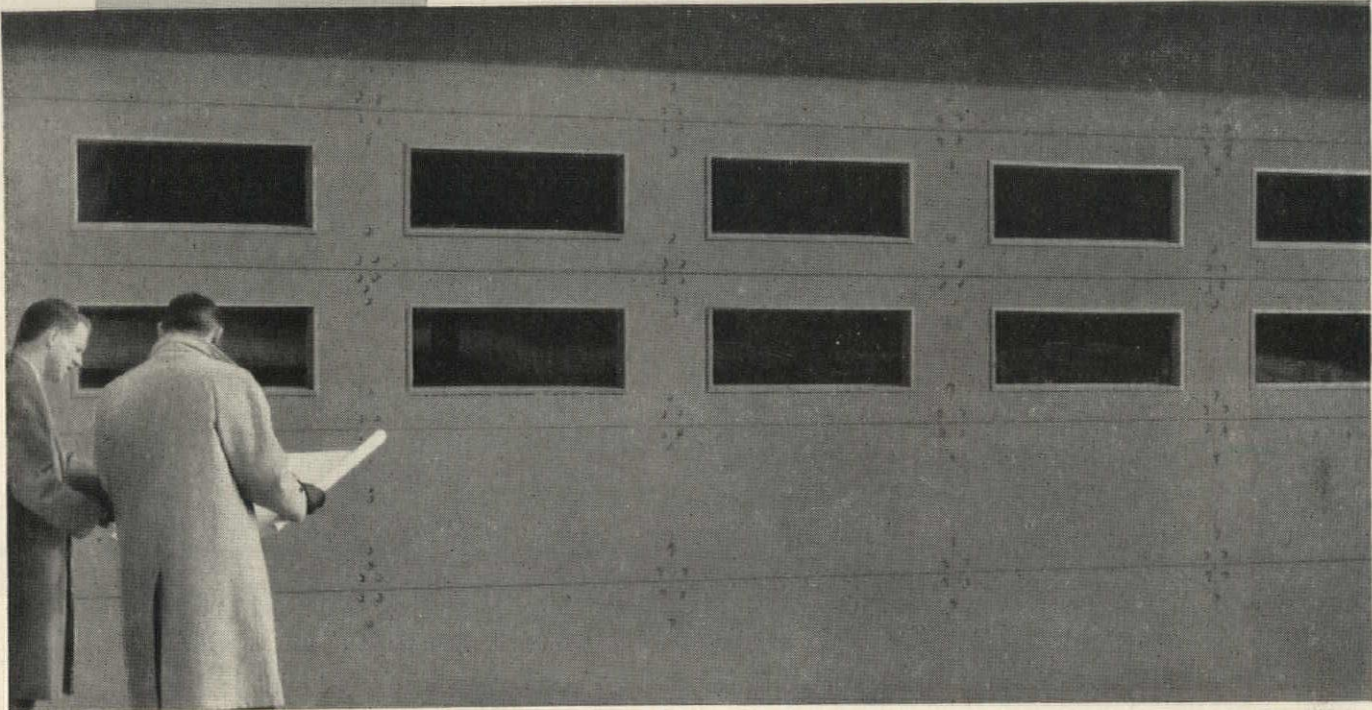
Manufacturers of Quality Air Conditioning and Refrigeration Equipment since 1919

THE MARK OF QUALITY



**Now Barcol helps you predict
how much each OVERdoor feature
will cut plant's operating cost!**

BOOKLET OFFERED BELOW ILLUSTRATES METHOD*



Architects can readily identify *three ways* Barcol OVERdoor installations cut operating expenses for the plant:

1. Barcol Cam Action closing hardware gives a tighter air seal than conventional wedge-type closing hardware . . . *reduces cost of heating and cooling space inside.*
2. New Barcol WEATHER-KING Flush Door Sections are guaranteed weatherproof and have a U factor of .257 — twice the insulation value of a 12" poured concrete wall — three times the insulation value of ordinary door panels! Combined with Cam Action closing, these new sections *materially add to savings on heating and cooling.*
3. Barcol Electric Operators applied to both exterior and interior doors and gates *eliminate costly starts and stops* in plant traffic and *save many man-hours annually* by freeing workers from nonproductive opening and closing of doors.

Now the Barcol engineers can predetermine the average amount of each of these savings, and the method is ready for use on your present door problems. Variables like local average weather conditions and intended use of each door are realistically applied. In many cases it can be predicted that these features will pay for themselves in two years or less through measurable *extra* plant economies. In other cases the tests show whether or not a feature of the installation is economical. Ask your Barcol distributor (under "Doors" in the phone book) for a savings estimate on your present project or use the coupon on the right.

* **SEND** for this new 8-page booklet demonstrating through specific case material the method by which your Barcol distributor helps you predict *how much* OVERdoor features can reduce heating costs and save on labor. Also describes and illustrates Barcol Cam Action, WEATHER-KING Flush Doors, and Electric Operators — features that, in many areas, can now be *proved* to pay for themselves in as little as two years through measurable direct savings.



**send this coupon
for your
FREE copy**

BARBER-COLMAN COMPANY

Dept. P81, Rockford, Illinois

NAME _____
COMPANY _____
STREET _____
CITY _____ STATE _____

**RALPH WOODS HALL
MURRAY STATE COLLEGE
MURRAY, KENTUCKY**

ARCHITECT:

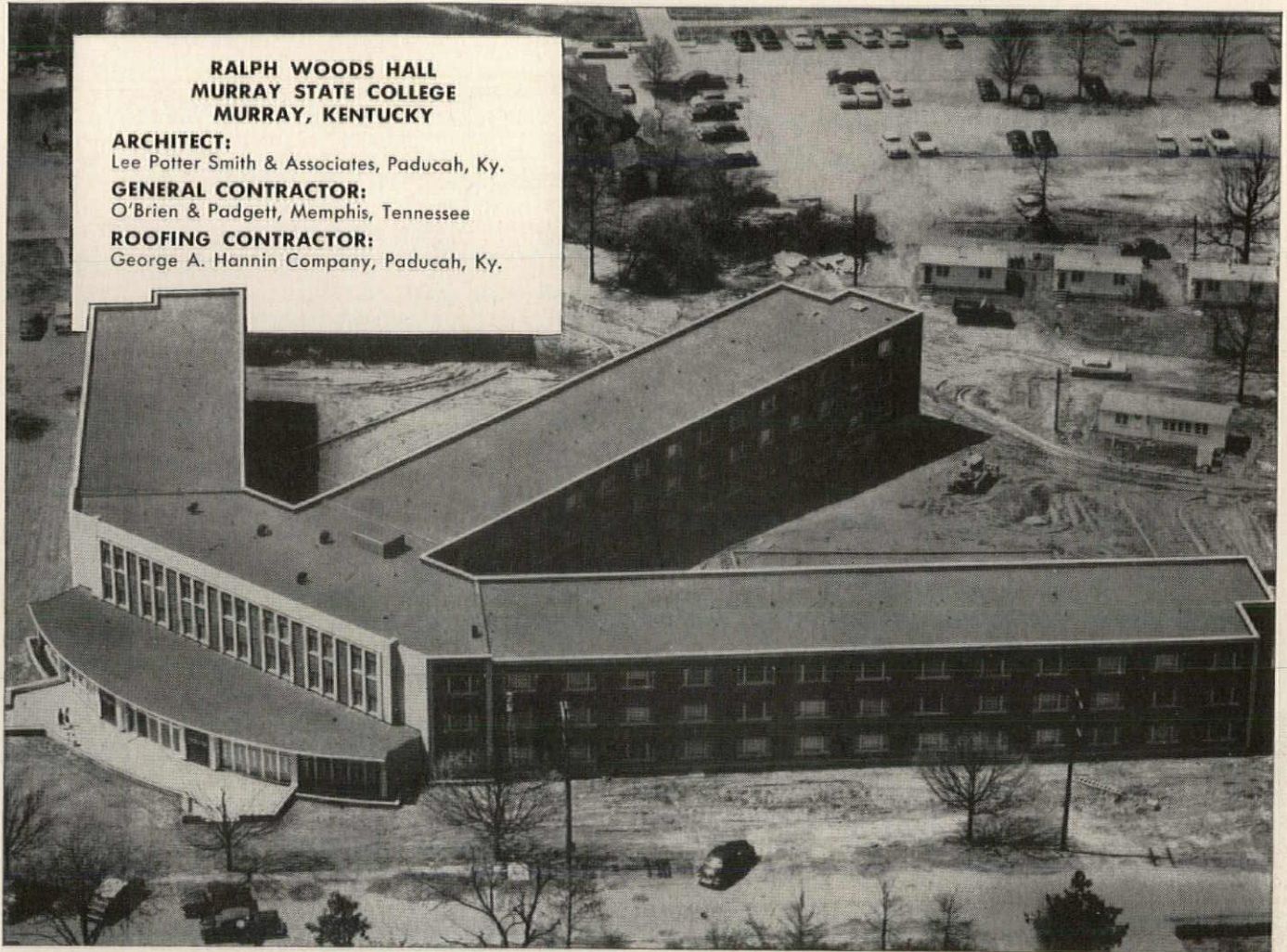
Lee Potter Smith & Associates, Paducah, Ky.

GENERAL CONTRACTOR:

O'Brien & Padgett, Memphis, Tennessee

ROOFING CONTRACTOR:

George A. Hannin Company, Paducah, Ky.



On Murray State College's new dormitory . . .

A RUBEROID BUILT-UP ROOF

Was engineered to fit the job

Ralph Woods Hall, the new dormitory for women at Murray State College, has a unique design feature. Three dormitories are joined into one by connecting three wings with a large circular lobby.

But there is nothing unique in the use of Ruberoid Built-Up Roof specifications. The fact that Ruberoid Built-Up Roofs are the answer to many roofing problems has long been known to progressive architects and builders everywhere.

In engineering the roof construction to fit the needs of the building, three different Ruberoid specifications were used. The largest portion of the roof—398 squares—is Coal Tar Pitch and Tarred Felt with a Gravel Finish (Specification #202). A second section is a

Dubl-Coverage Mineral Surface Roof (Specification #159). In still another area, Asbestos Felt and Asphalt Felt with a Smooth Finish (Ruberoid Specification #208) was used.

As with all Ruberoid Built-Up Roofs, rigid standards of manufacture will assure Murray State College of many more years of trouble-free service for their roofing dollar.

Ask your Ruberoid Approved Roofer to demonstrate the advantages of Ruberoid products when next you are faced with a built-up roofing job. You will find that there is a Ruberoid specification to fit whatever requirements you may have.



The RUBEROID Co.

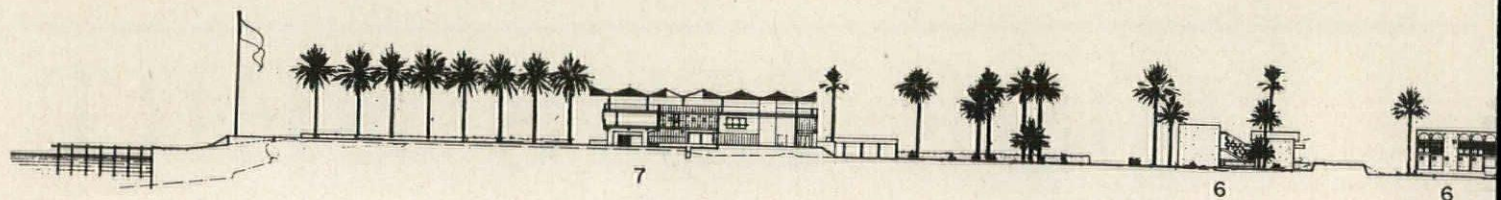
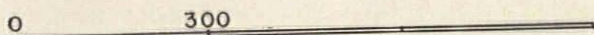
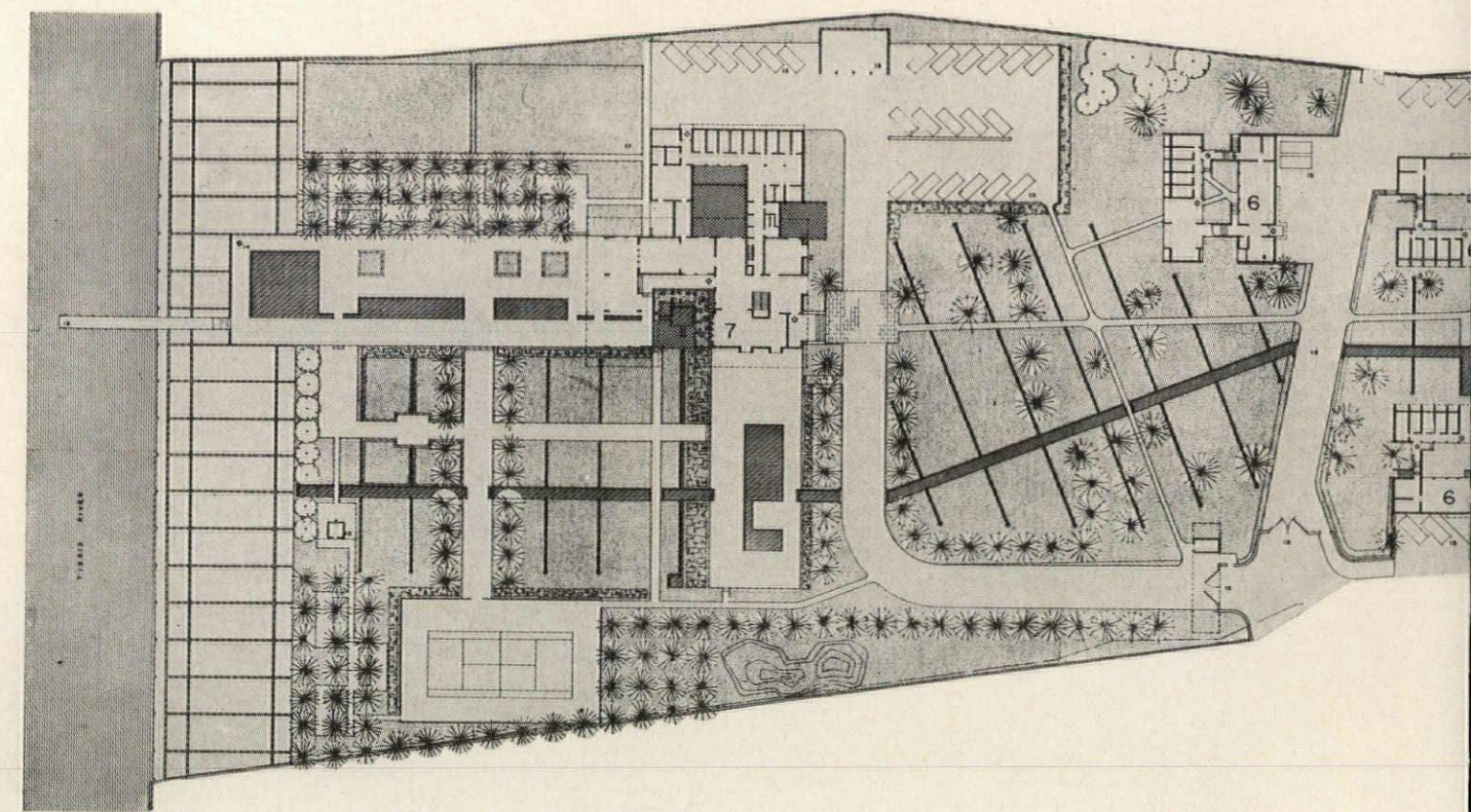
Asphalt and Asbestos Building Materials

500 Fifth Avenue, New York 36, N. Y.

Now that architecture is turning into a broad new highway—a road to richness—Dean Sert seems to stand out even more prominently than before. Not because he is a new figure in the procession—he has always traveled this road—but because there are new eyes to see. The highway leads, of course, toward a new fullness in architectural vocabulary, toward new explorations in shapes, in materials, scale and proportion. Sert has always exerted his pull in these directions; though a leader in modern thought he was never beguiled into the narrower streets of the dogmatic quarter. Now, happy to applaud the refinements in steel and glass, he points out that flat styles quickly suffer in repetition. Especially is this true within the urban pattern. We need now the variety of other materials and forms, other roof lines, something to compare with the sculptural qualities of the vaults and domes of earlier days. He would urge more concern with urban land uses for beauty and enjoyment, so that architecture may enrich life in a materialistic age. If visual satisfactions are important to good living everywhere, how much more vital in big cities, where the whole scene is man made.

JOSÉ LUIS SERT

These themes of Sert's are here illustrated in three projects, buildings differing widely in scale and program, also in locale. As it happens they are designed for temperate or tropical climates, and all make use of sun and glare protective devices. They are all concrete structures, with particular attention to the design of the roofs and roof lines—folded slabs, shell concrete vaults, and hyperbolic paraboloids used as parasols (Sert designed such a parasol for a small weekend beach house in Barcelona in 1933). Sun and shadow do much to enrich the architectural effects. And all of these show Sert's attention to skillful site development, in patios, terrace and garden elements and useful courts.



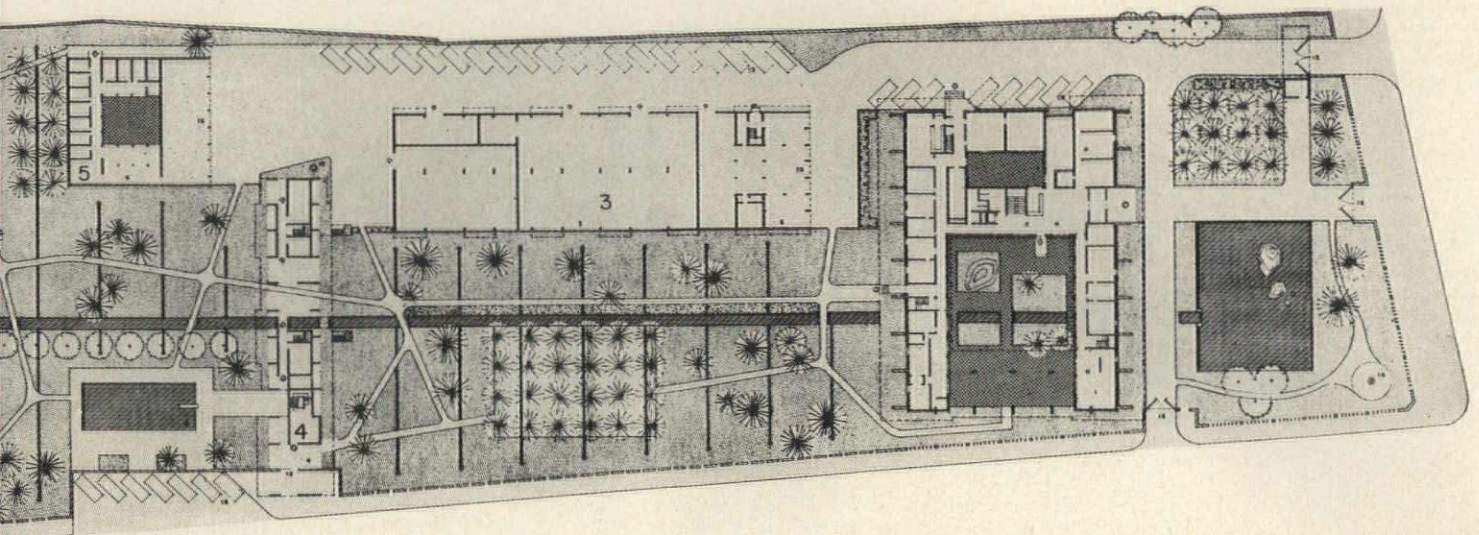
American Embassy at Baghdad

Environmental factors, and the obligation to express them, probably nowhere else become so dominant as in the State Department's program of building embassies in foreign lands. In each instance the architect visits the site to study local materials, resources, craftsmanship, to get acquainted with the culture, climate and people. And perhaps nowhere are these matters so insistent as in Baghdad, where in addition to all of the influences which could be anticipated, there is the further confusion of great local interest in American building ideas and slicker architectural expressions, to the point of a great deal of inept copying.

The site for the embassy complex brings many of the influences to focus. Situated in the middle of the new residential district of Baghdad, the long

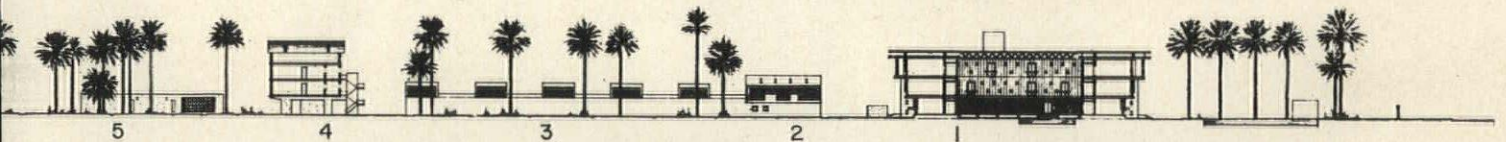
narrow site stretches between one of the major thoroughfares and the river Tigris. The terrain is flat. Both bordering properties are richly planted estates and the site itself contains a number of palm trees. It is divided down the center by a six-foot-high dike which is part of the flood control.

Sert has divided the site into a series of court-like spaces, separated and partially enclosed by the buildings, which also define the functional role of each open space. Thus the siting of the Embassy office building at the western end of the site (related to the main public approach road but separated from it by the large rectangular reflecting pool) creates the formal entrance space for official purposes. Behind the office building the long thin court, whose length is further emphasized by the



- | | | |
|----------------------------|-------------------------------|-------------------------------|
| 1. Embassy Office Building | 3. Ancillary Utility Building | 6. Senior Officer's Residence |
| 2. Marine Guard Quarters | 4. Staff Housing | 7. Ambassador's Residence |
| | 5. Servant's Quarters | |

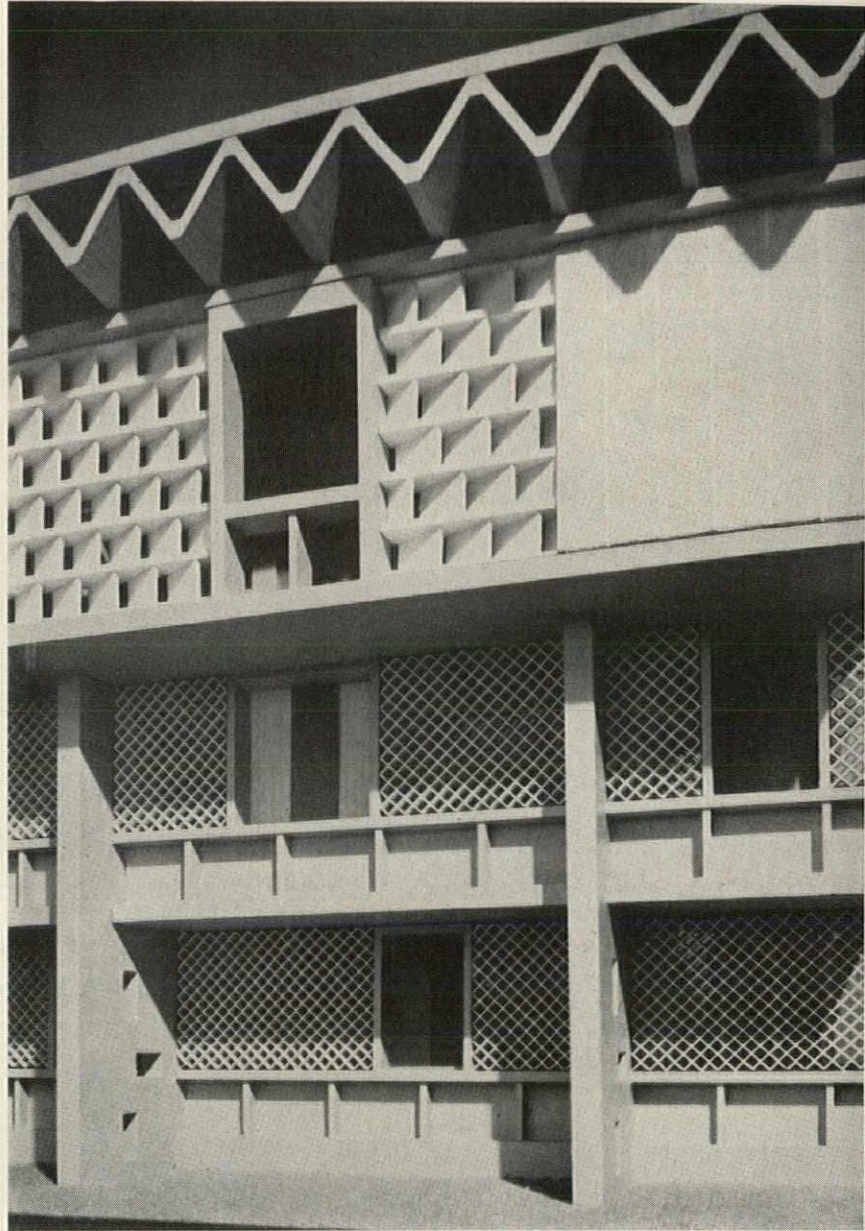
Architect: José Luis Sert; Landscape Architects: Hideo Sasaki & Associates; Structural Engineer: Paul Weidlinger; Mechanical Engineers: General Engineering Associates



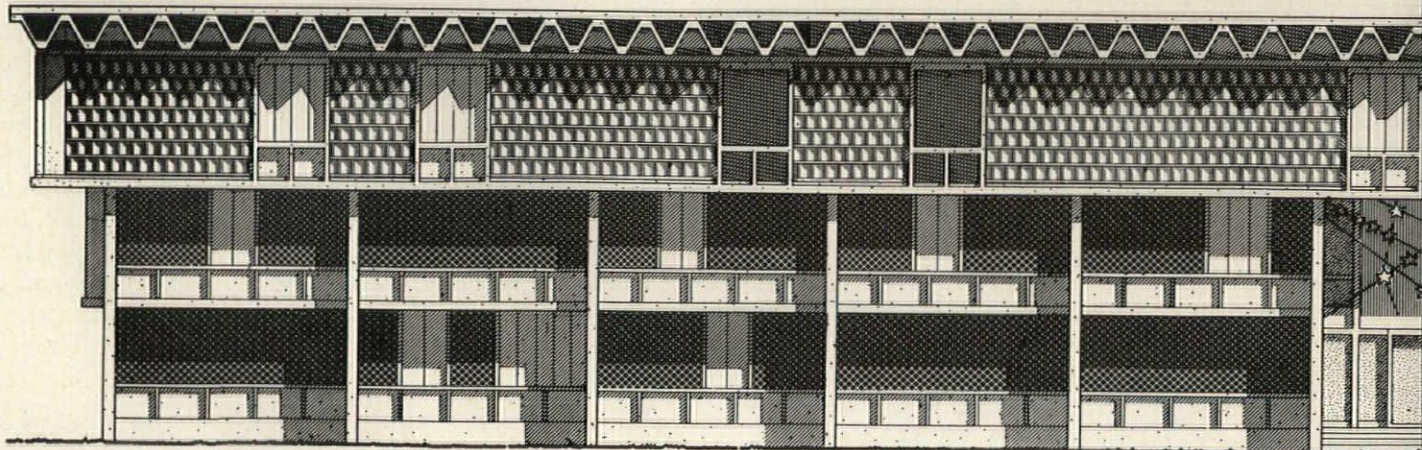
broad, rhythmic treatment of the low flanking utility building, is designed to form a vista and spatial contrast to the enclosed and smaller scale treatment of the interior court. The space is restricted to pedestrian traffic, and is terminated by the staff housing building, the tallest structure of the complex. This apartment building, with the three villas and servants' building to be built later are grouped to form another court space containing the social and recreational activities of the staff members and their families. The high dike separates this space from the grounds surrounding the ambassador's residence. Two large formal terraces extend from the house itself into the garden which is formally landscaped in the local tradition. One terrace terminates on the bank of the Tigris River.

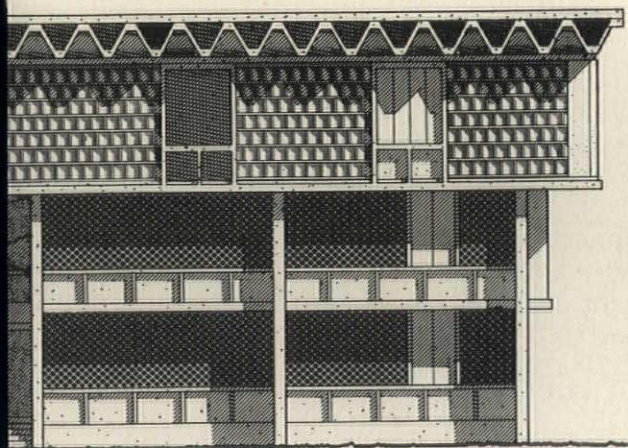
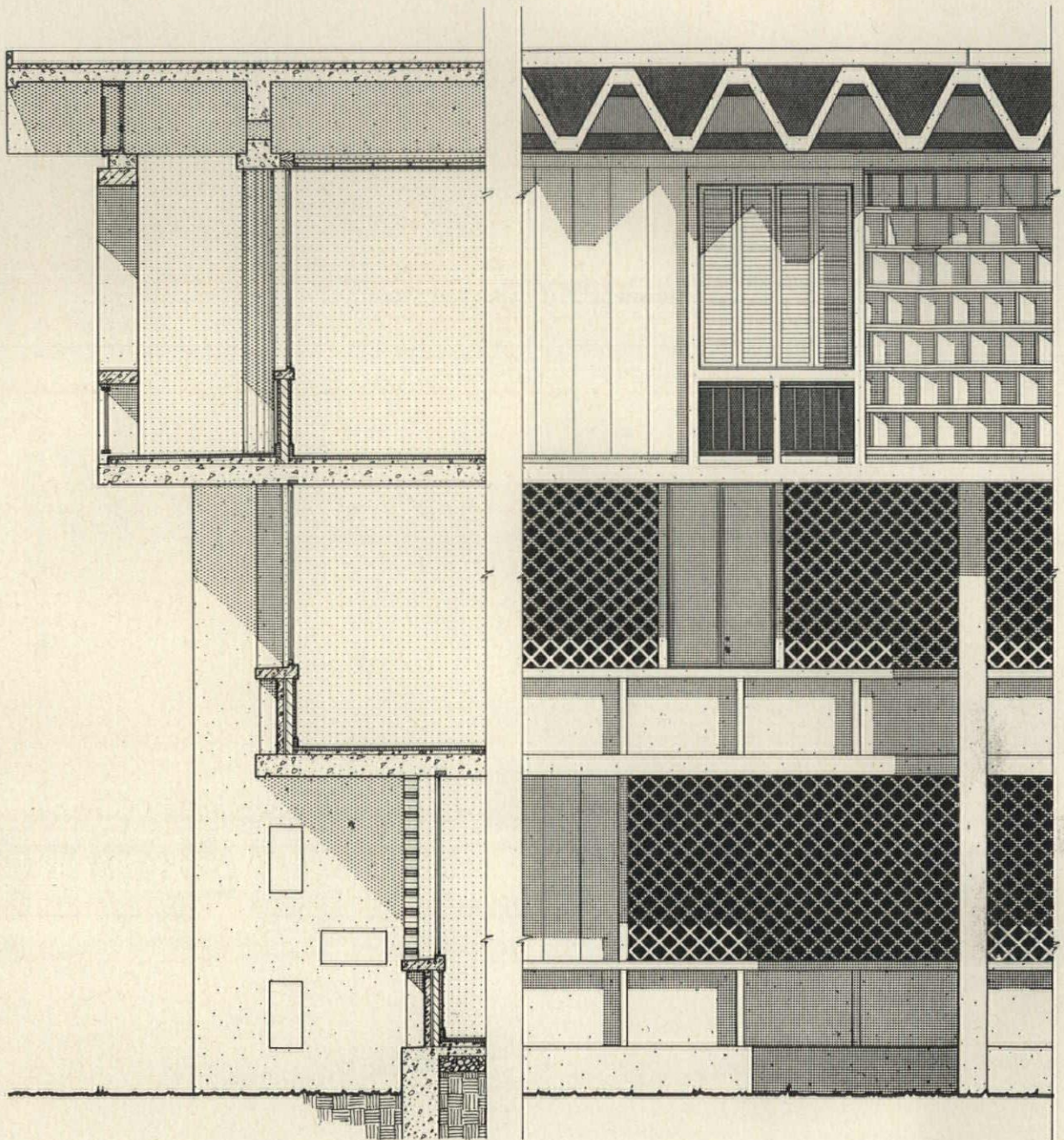
Throughout the consecutive courts runs the main irrigation channel. Water is the unifying feature, essential for the irrigation of the grounds, but also supplying the pools and terrace ponds which, in the tradition of Middle East countries, enrich the architectural setting by their contrast to the surrounding arid desert landscape.

The annual rainfall of the area is about twelve inches, nearly all of which falls in the winter. The four summer months are completely rainless. Irrigation is essential and the system employed is standard for the area—a central canal with lateral ditches covering the whole site. The water is pumped from a well on the river bank. The constant summer irrigation improves the extremely low humidity and assists in controlling dust.



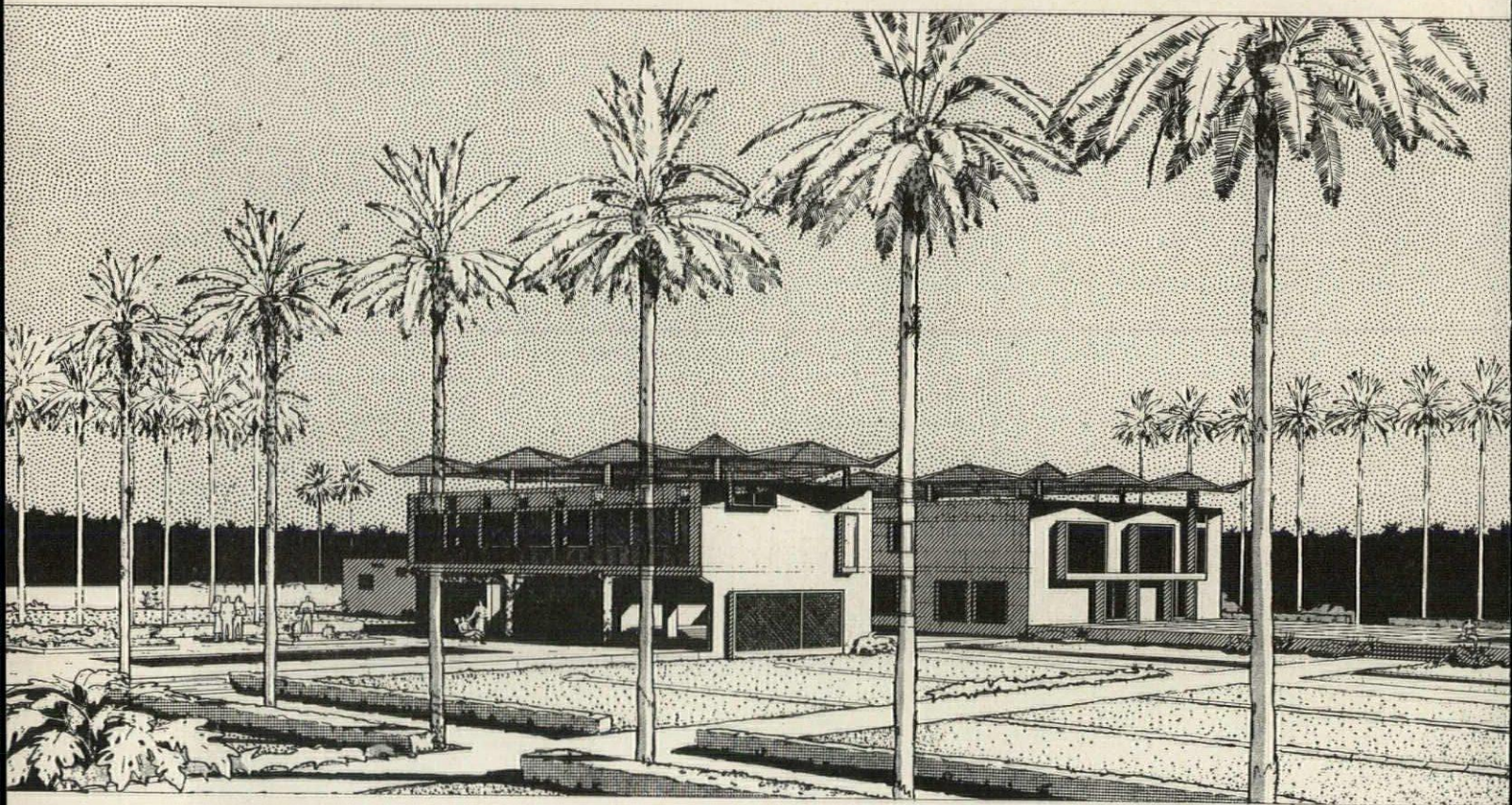
Embassy office building, Baghdad





The annual temperature variation is from just above freezing on occasions in winter up to 120 degrees in summer. Insulation is given by double roofs on all main buildings, for example in the ambassador's residence, a parasol of concrete hyperbolic paraboloids is supported on columns allowing free air flow between them and the surface below. Year around comfort is provided in all buildings by an air system using warm water in winter and chilled water in summer. The system is supplied from a central plant in the utility building.

The Embassy office building is planned on three floors enclosing a landscaped courtyard. The section of the facade shows the system of sun-shading provided by the stepping back of the lower floors and the supporting of the upper level overhangs by



Ambassador's residence, Baghdad

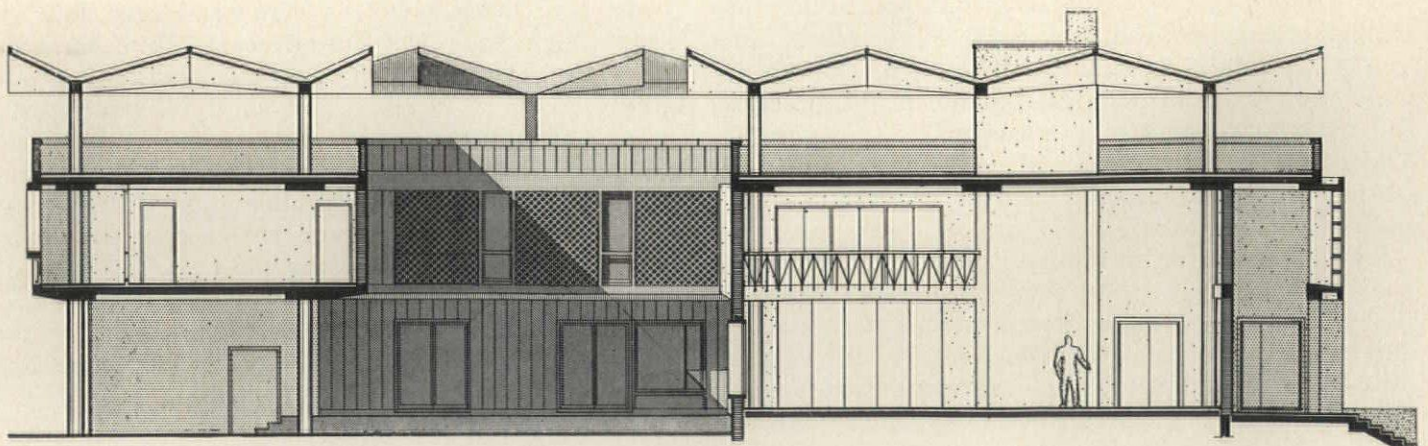
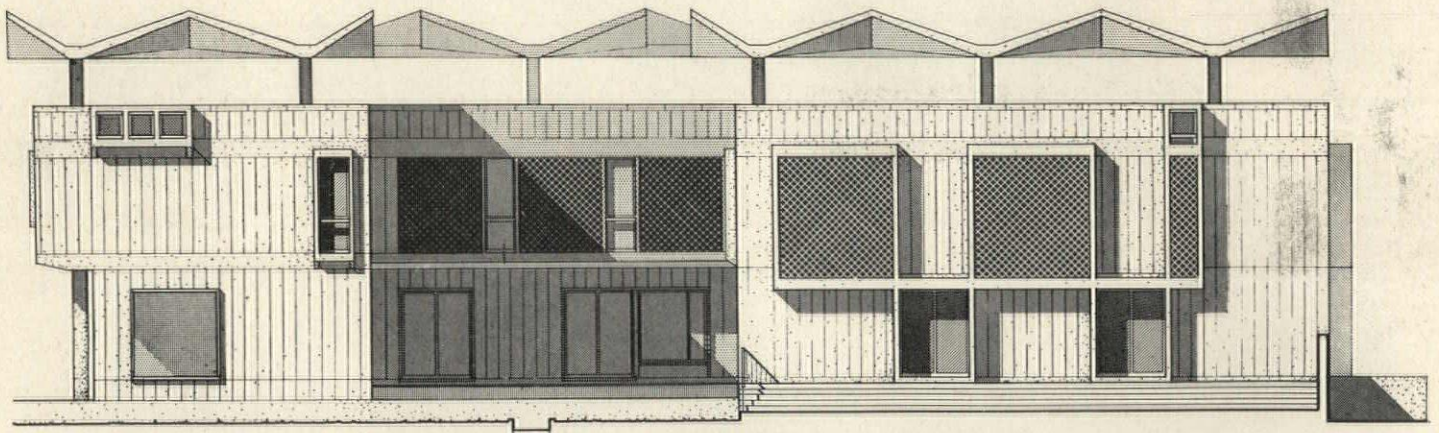
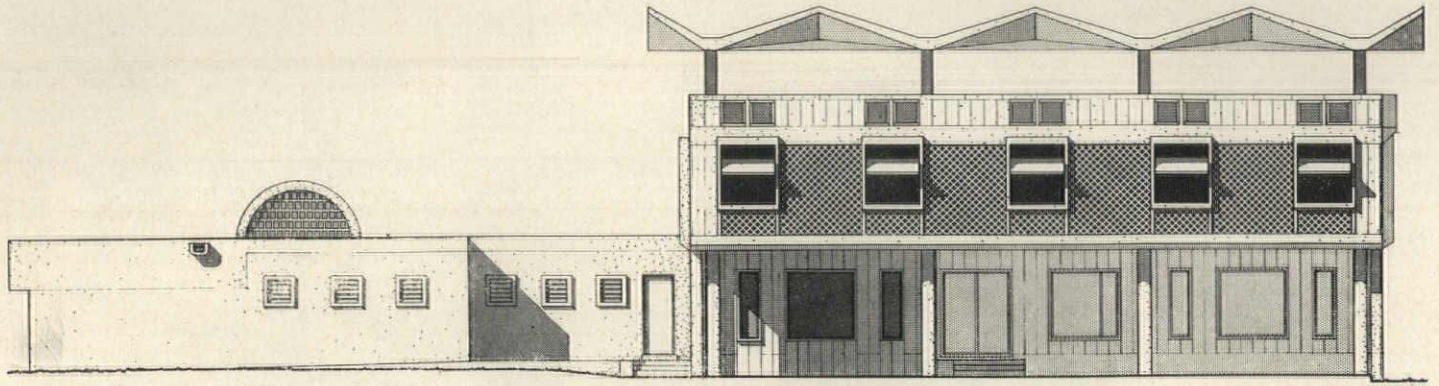
concrete slab piers which also serve as vertical sun breaks. The double roof is made of reinforced concrete folded slab troughs capped with precast reinforced concrete planks laid with open joints. The troughs, which are three feet deep, are self flashing, and the water running through the open joints drains to the outside and there falls on gravel at the ground level. The roofing is completed with a flat hung plaster ceiling.

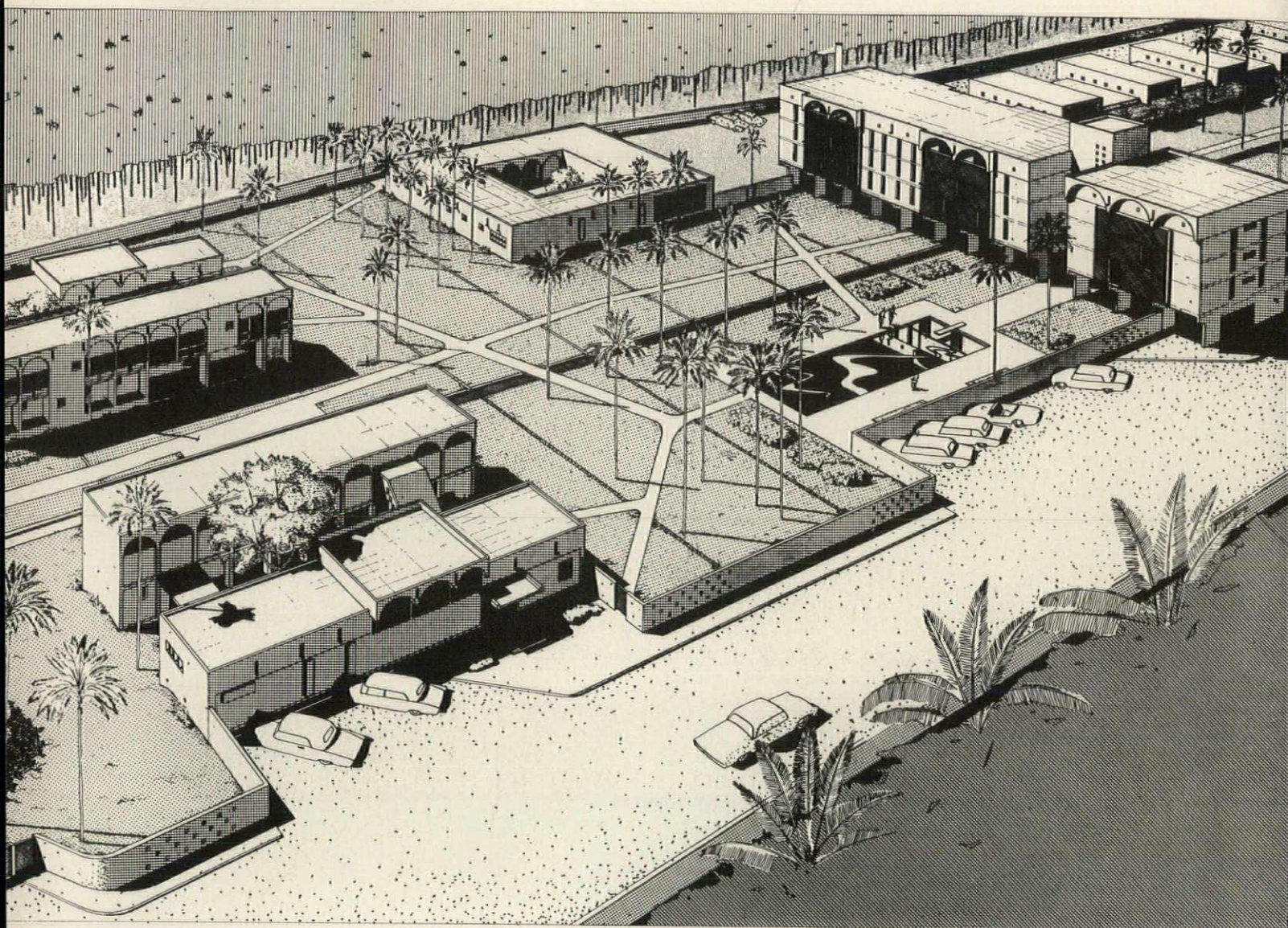
The construction is reinforced concrete columns and flat slabs. Externally all exposed concrete is bush hammered and left in natural color. The wall surfaces to the interior court are faced with terrazzo slabs pierced with small glazed square windows. These windows are glazed with colored glass in bright primary colors. On the east and west ele-

vations the first two floors are exposed concrete spandrels and white ceramic tile screens above. The upper story is white ceramic glazed louvred screen over openings and precast white terrazzo slabs where solid. Shutters are in teak painted in primary colors. Window and shutter openings are framed by pre-cast concrete frames.

The ground floor of the staff apartment building is open except for entrance halls and storage areas. In the southern block are three-bedroom apartments, one per floor. In the main block two-bedroom apartments fill the second and third floors, but on the top floor with balcony access from the main staircase are one-bedroom apartments. The top floor apartments have vaulted ceilings.

The construction of the building is concrete ma-





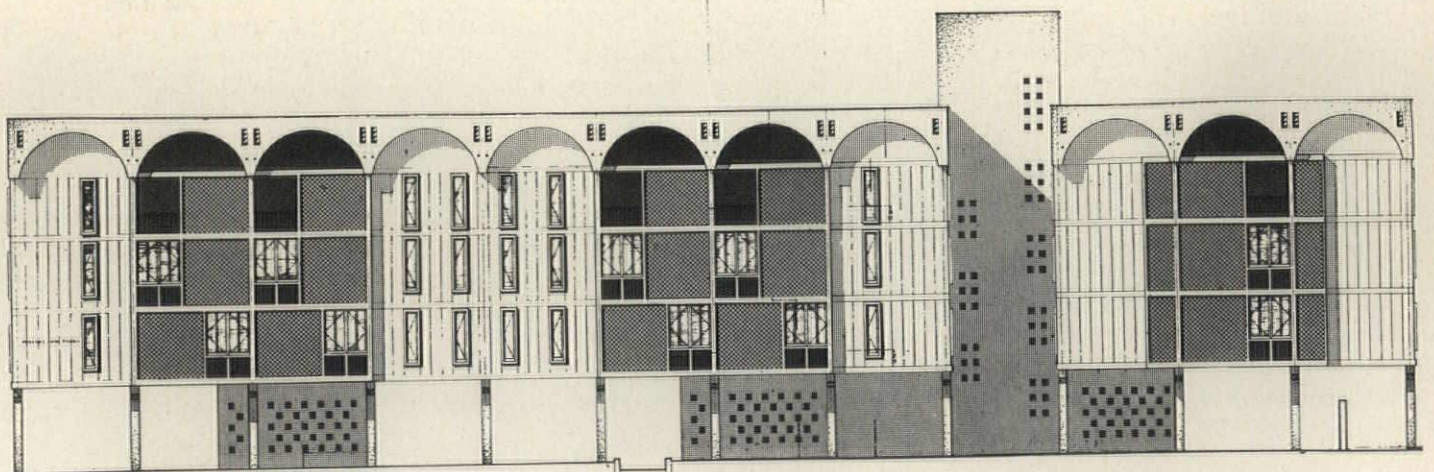
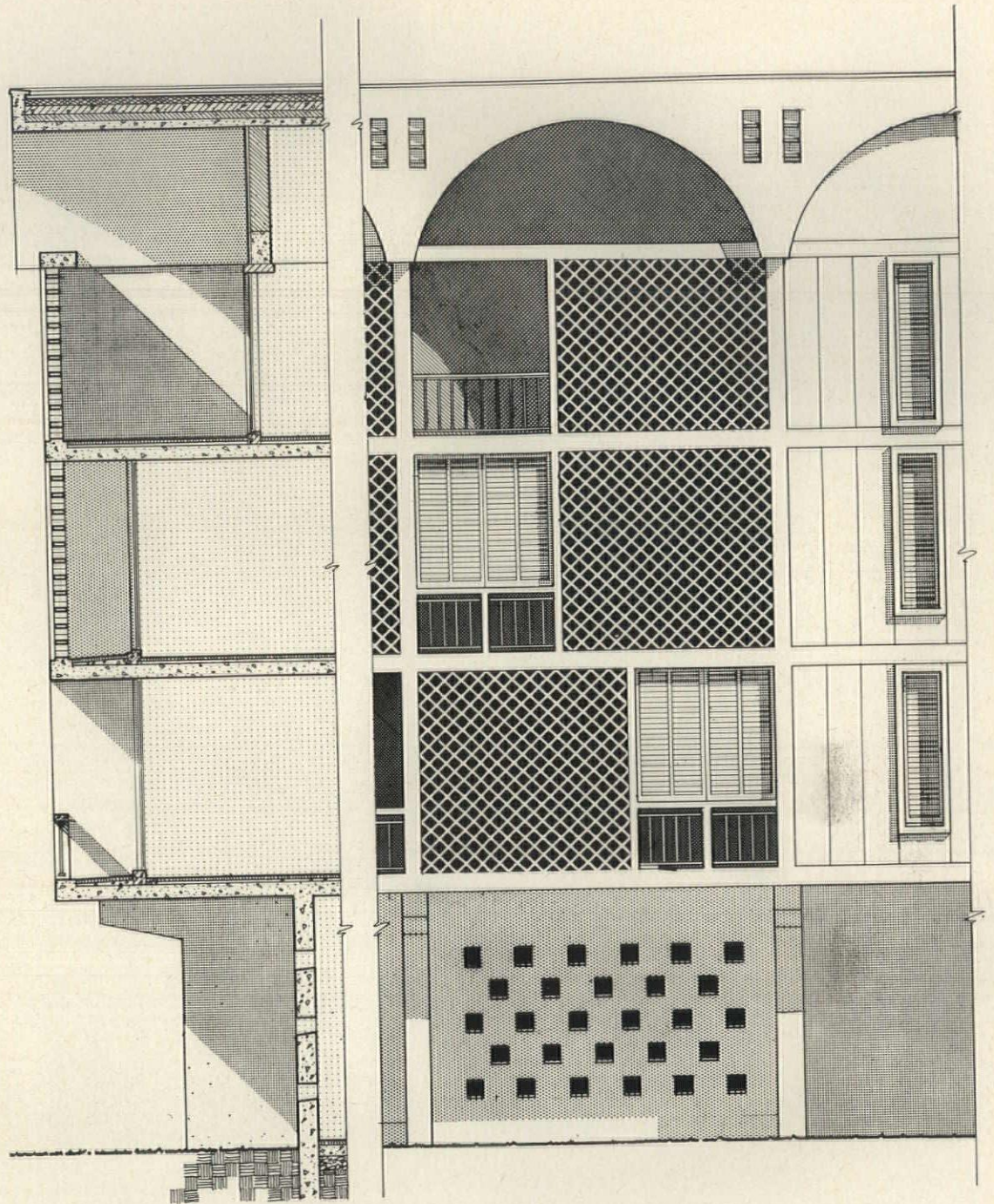
Staff apartments, Baghdad

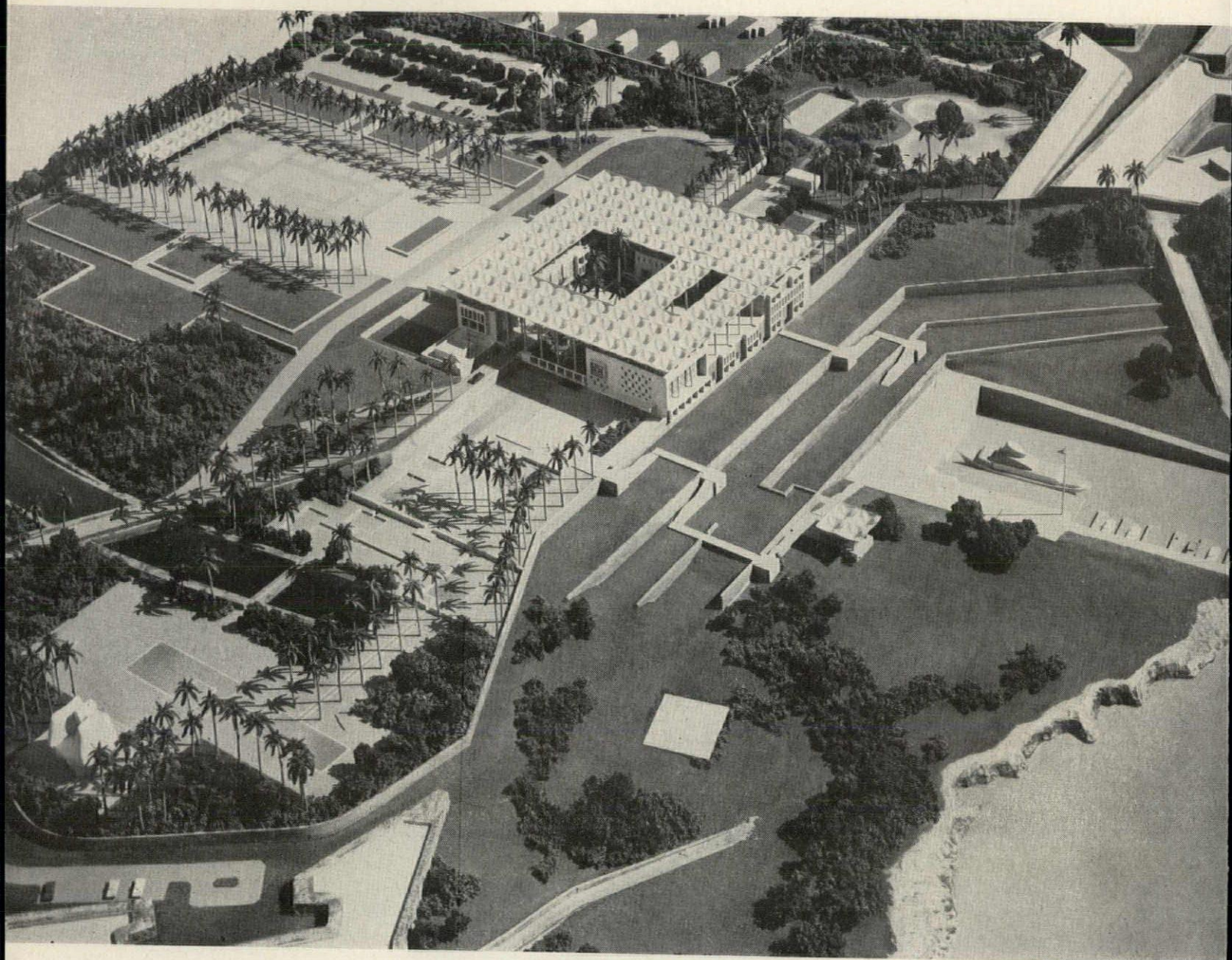
sonry cross wall and reinforced concrete floors. The cross walls also support the roof vaults which in turn are bridged by precast reinforced concrete planks, forming a double roof. The vaults are topped with an insulation fill of native gypsum. The waterproof roof is installed on top of the precast slabs. Exterior finishes are whitewashed concrete. The glazed ceramic screens on the eastern face are leather color or turquoise blue. Shutters are painted in bright colors.

The planning of the ambassador's residence has been arranged to give an easy architectural transition from the intimate domestic scale for everyday living to the expansive scale required for official diplomatic functions. These functions will range from indoor receptions for from 50—100 persons, to

open air receptions for up to 1000 guests. Consequently both the areas of the living and dining rooms can be extended by drawing back sliding doors which stack behind spur walls. The enlarged reception rooms in turn lead out to the garden terraces.

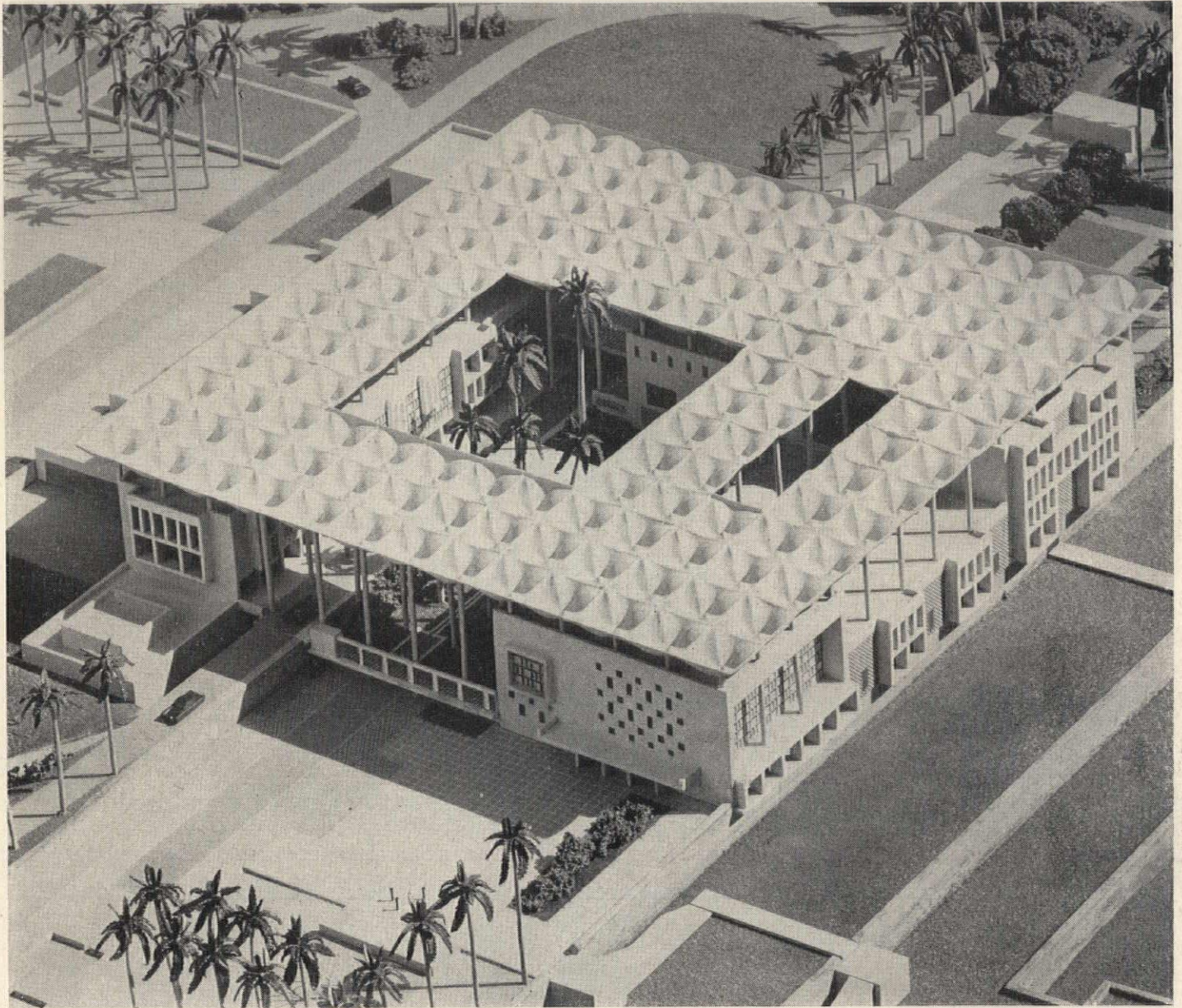
Throughout the project both construction and finishes have been detailed to use a minimum of imported materials. Concrete has been used extensively, floor surfaces are terrazzo or concrete tiles. External facings are precast white terrazzo slabs. Window sashes are steel—most woods being subject to attack by white ants which inhabit the palm trees. External openings are protected by glazed tile screens; balcony openings have teak shutters.





Architects: Jose Luis Sert, Mario Romanach, Gabriela Menendez; Landscape Architects: Hideo Sasaki & Associates; Consultant for Site Planning: Paul Lester Wiener; Structural Consultant: Felix Candela





Presidential Palace of Cuba, Havana

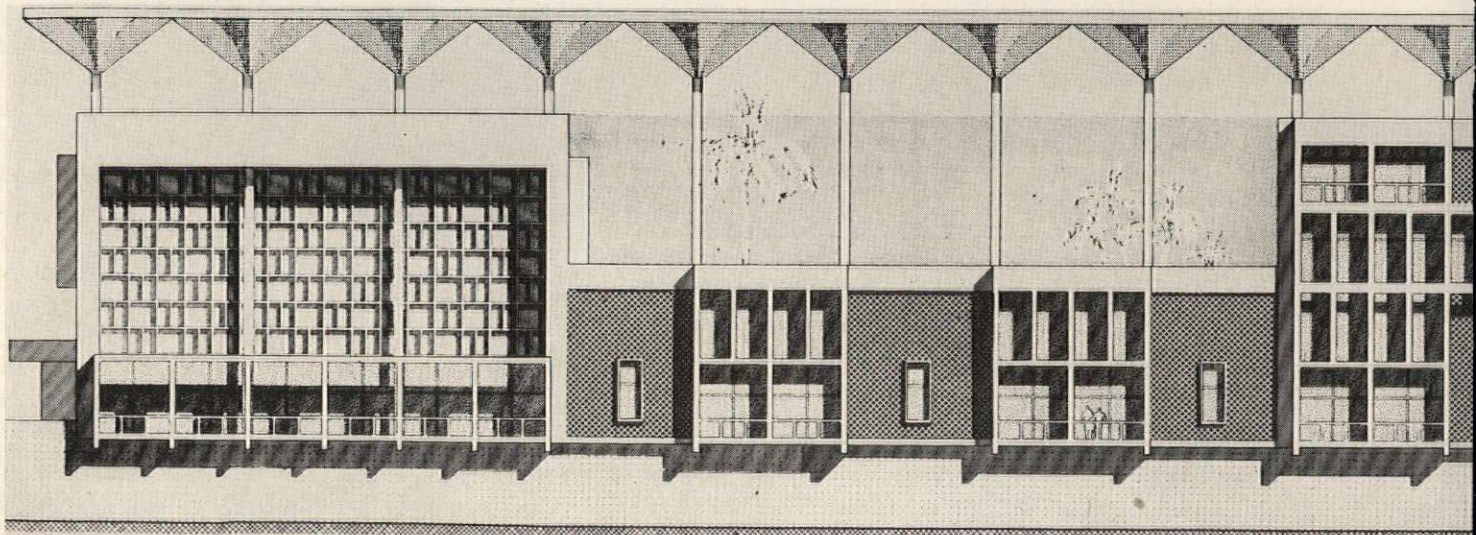
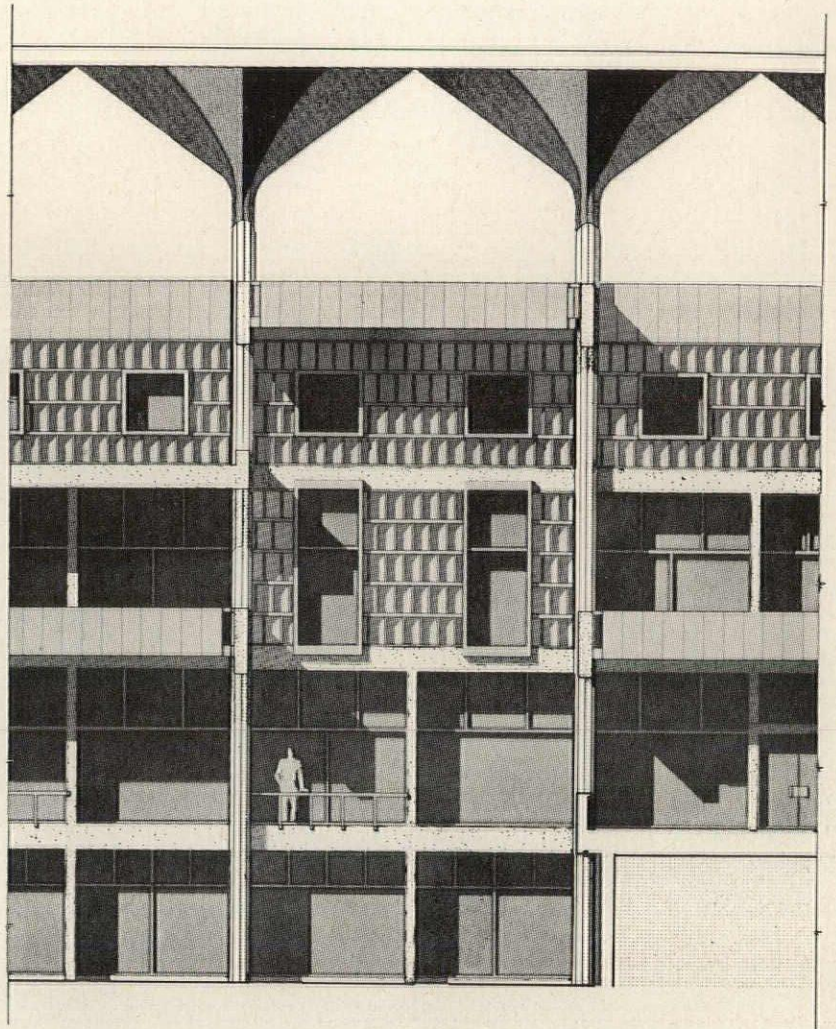
The Palace of the Palms is a series of related buildings under one large shell concrete parasol. Included are: the Ministry of the Presidency, the Presidential Residence ball rooms and dining facilities for entertainment, cafeteria and other services for office employees, and quarters for the presidential guard. The building is fully air conditioned. These different sections each have individual needs and characters so the dominant problem was to form an architectural unity from the agglomerate parts and yet retain in each part the character and expression appropriate to its function. The repeated module of the structure (sometimes emphasized, sometimes masked out by a plain wall) gives a rhythm to the whole, but the most positive unifying element and that which gives the Palace of the Palms its architectural character

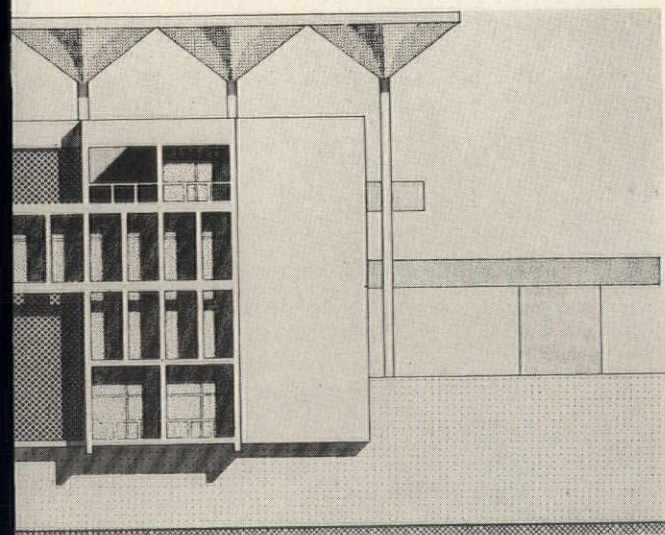
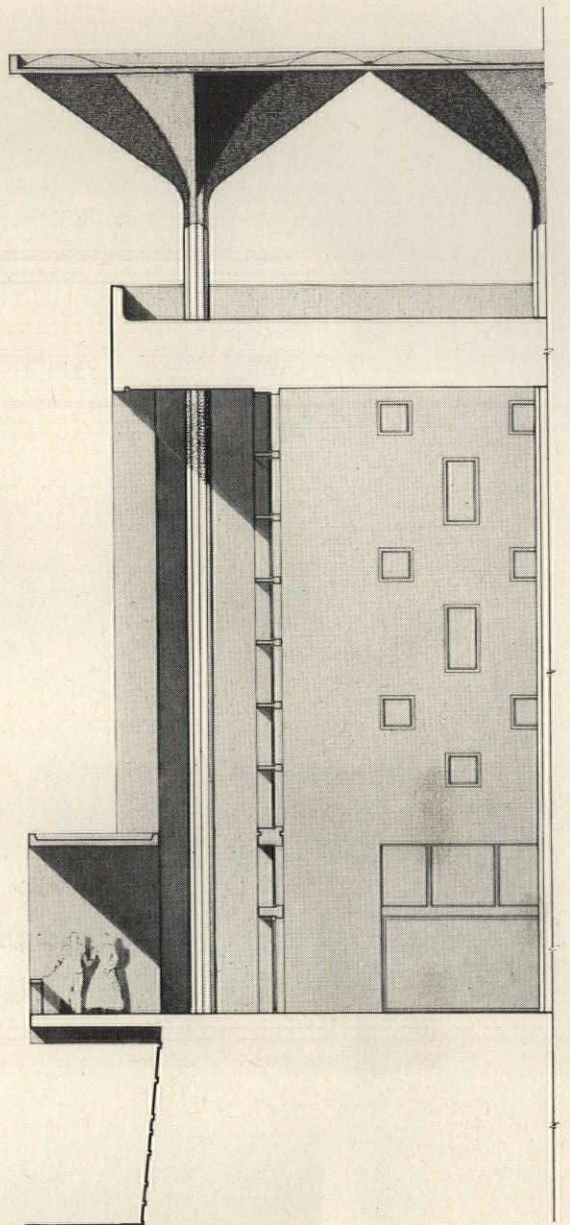
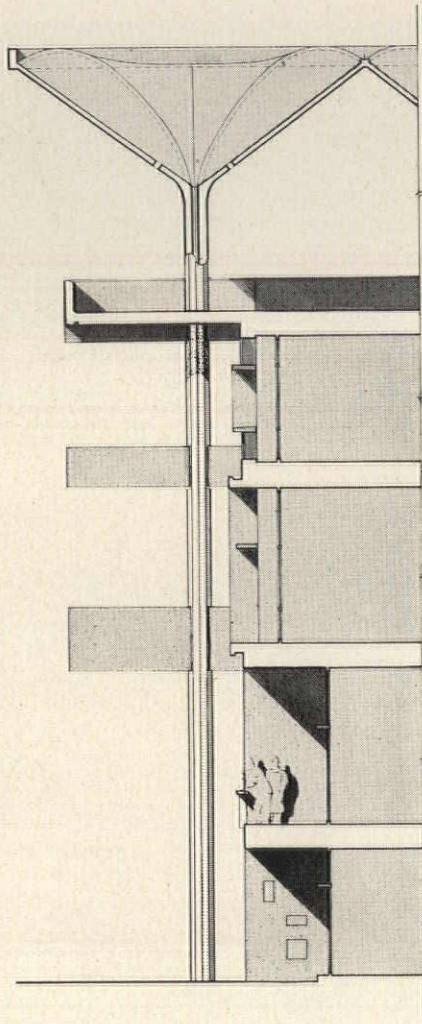
and monumental scale is the concrete shell roof.

The roof is composed of 140 concrete shell elements in a square, 13 elements on a side. Each parasol element is composed of hyperbolic paraboloid shells springing from a central column that has an octagonal section. The shape resulting from the composition of curving shells and the column recalls the royal palm, a symbol of Cuba.

The facades are composed of varied fenestration elements and glazed tile grills. The glazes are of different bright colors. Some of the windows make use of bright-colored glass. The masonry walls are faced with gray and white marble. Many of these elements are to be found in the traditional architecture of Cuba.

The site of the new palace is on undeveloped land directly across the harbor entrance from Old





Havana. The channel connecting the harbor to the sea until recently isolated this area and retarded its development. The site selected for the Palace is located between two historic fortresses. The 16th century Castillo del Morro (Morro Castle) is located at the very entrance to the harbor, and the Fortaleza de La Cabana (Fortress of La Cabana) of 18th century origin is built across from the city on strategic heights. The Morro is a famous tourist site and traditional landmark, and the Cabana is now the Cuban Military Academy. The defenses of the two fortresses were linked by an old stone wall running between them. The new palace was placed so that this wall would become a part of the new building. Located on the heights of the site, the Palace will be a part of the vista from Old Havana and the waterfront drive.



Studio for Joan Miró, Mallorca

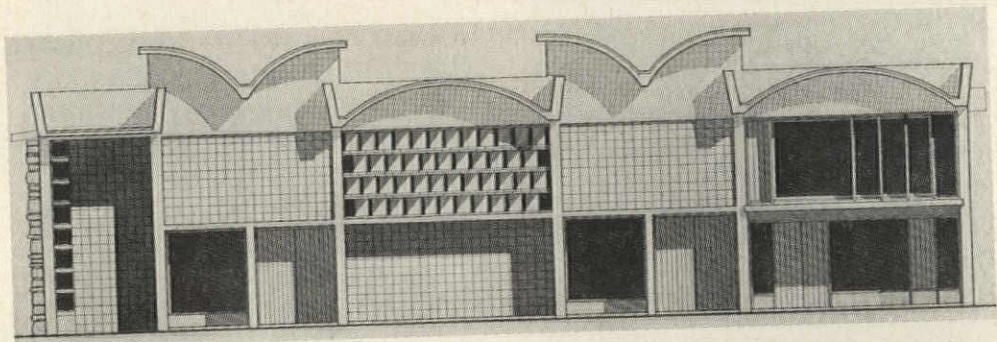
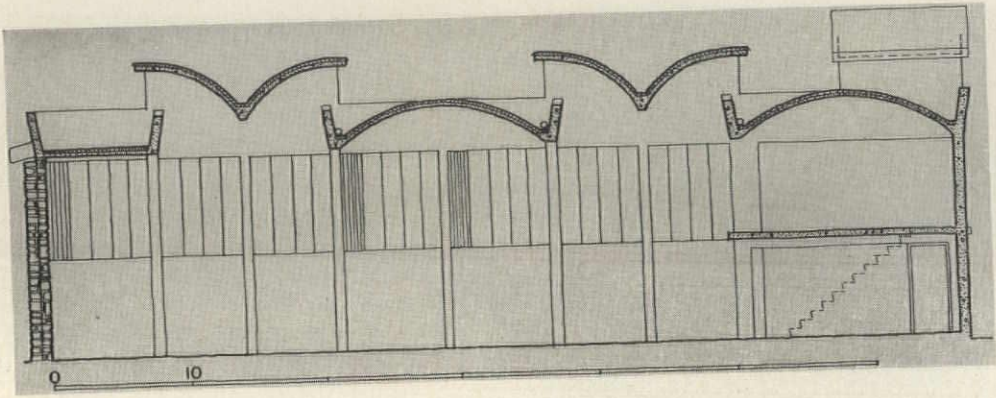
Architect: Jose Luis Sert; Structural Engineer: Antonio Ochoa; Supervising Architect: Enric Juncosa

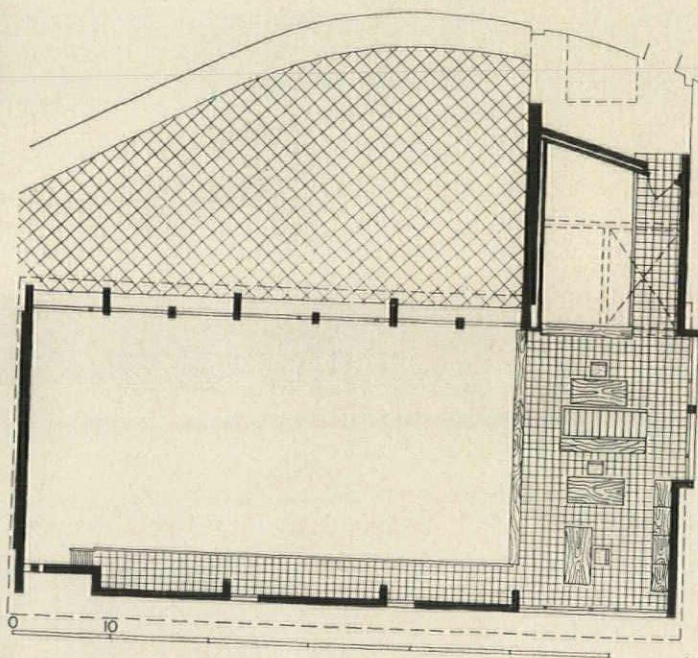
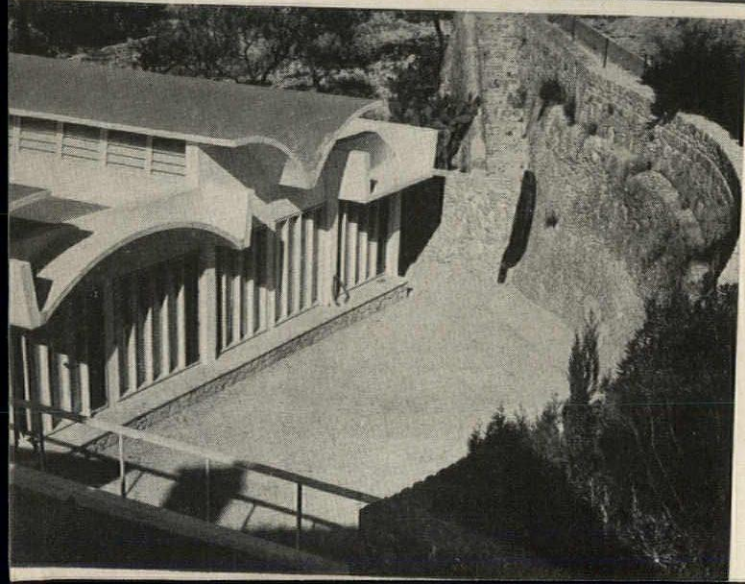
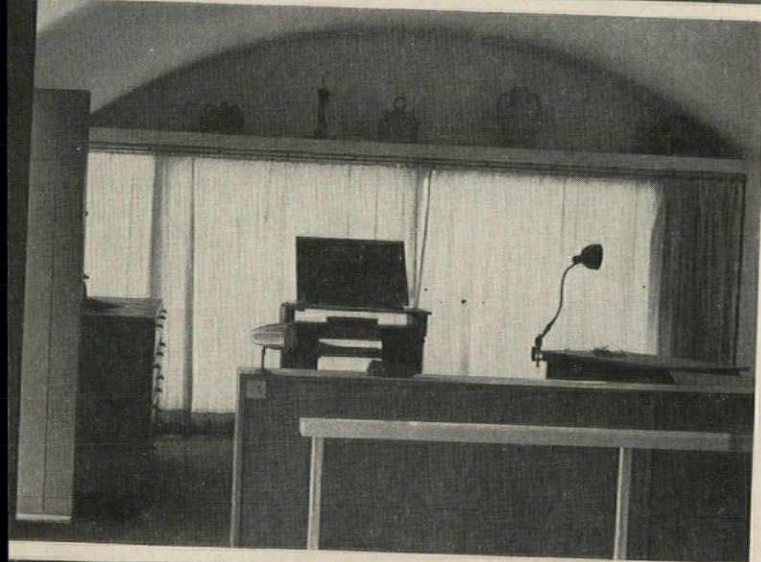
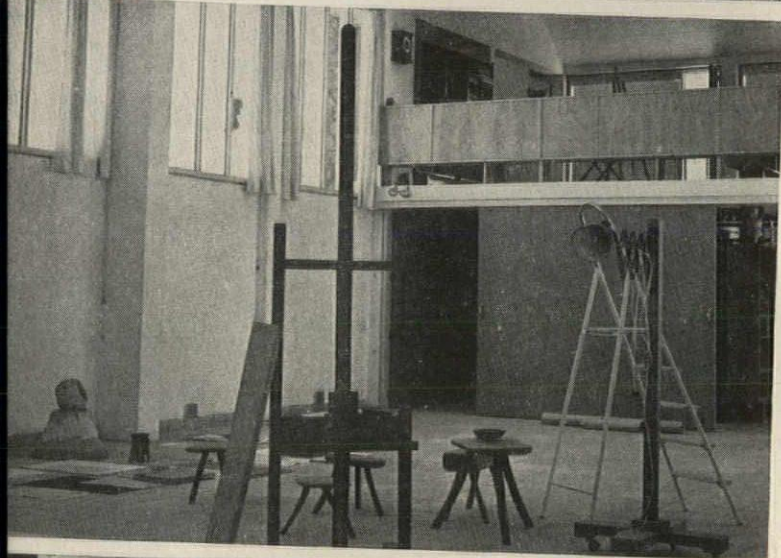
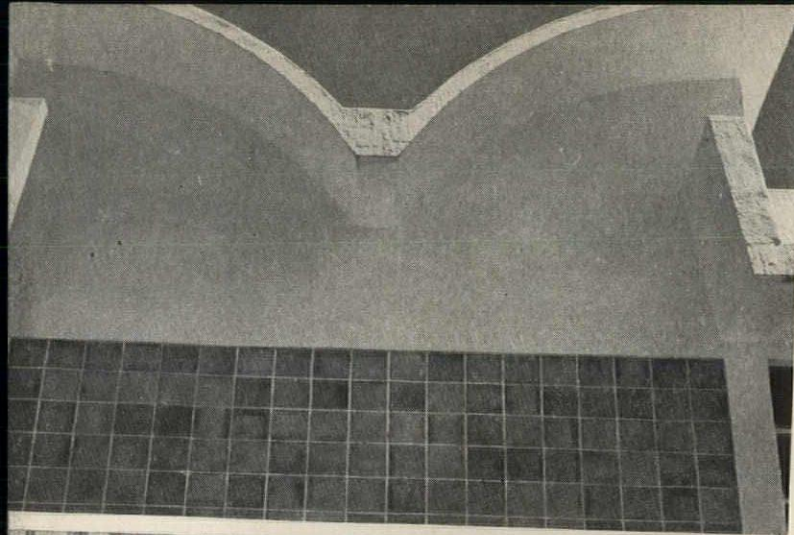
The painter Joan Miro has moved his residence to the island of Palma de Mallorca, where he bought an old farm house and land on the terraced slope of the island. These terraces are maintained by high walls built of dry stone masonry and are characteristic of the island. Carob trees, pine trees, and almond trees, typical to Mallorca, surround the house. The terraces are connected by flights of stone stairs, in the same masonry of the walls. Both walls and stairs evidence the good local craftsmanship.

The studio building was placed on two of the terraces. A long curving wall of the next higher terrace encloses a patio to the north of the studio for the display of sculpture. This patio is paved with pebble mosaic and stone slabs.

The studio is divided into two main levels that conform to the existing terraces. The ground floor at one level, the sculpture court and mezzanine at another. Entrance to the building is possible from three levels as the roof entrance is connected to the terrace rising above the sculpture court. The ground floor consists of entrance, storage, and main (painting and sculpture) studio. The storage has a height of two stories to accommodate large pieces.

The building is roofed with a series of varied membrane concrete vaults. The vaults are arranged to form monitors for cross ventilation and a certain amount of lighting in the ceiling. The louvered vents are oriented in respect to the breezes.





All concrete retains the finish left by the forms and is whitewashed. The front of the studio toward the sea (southwest exposure) uses a number of sun protection devices for the large windows. One is composed of 16 by 16 inch glazed terra cotta tiles forming rows of vertical louvers on horizontal tile courses, giving protection against high and low sun rays. The large windows are deeply recessed, and the roof has a strong projection. Roof projection, window recesses and tiles make an animated pattern of shadows. The stone retaining walls provide a powerful base for the building.

Materials are concrete, native stone and terra cotta tile (also used for floors). Windows are fixed glass, as brightly colored hinged wooden panels give openings for ventilation.

On the west coast of Florida off the Gulf of Mexico, near the highway southward through the Everglades lies Warm Mineral Springs, a two acre blue-grey lake. Sufferers from arthritis, rheumatism and other afflictions bathe there in the nine million gallons of 87 degree mineral water which flow daily from a subterranean spring. The owners hope to develop the area into one of the great health spas of the world. They claim that this is the original Fountain of Youth sought by Ponce de Leon.

The owners intend that the projected buildings of the health spa be subordinate to the landscape. The pavilion shown in the following sketches has been designed to house certain administrative functions, to provide an area for light refreshment and to invite visitors to the site. Of the symbolic quality of the design Victor Lundy says ". . . the arches are intended to suggest an upward growing form, reaching toward youth and rejuvenation, to symbolize the thought of a fountain of youth by a plastic, flowing shape."

The owners hoped for a Spanish courtyard theme because of the history of the spring with its roots in Spanish discovery, and because they believe that this is a fundamental design that would be liked by a great many people of every age and nationality. The building is therefore a simple rectangle with two arcades, one on the interior, the other on the exterior. The interior arcade surrounds the courtyard which, since it must be evocative of Spain, will have a fountain, benches, richly textured paving,

Pavilion Symbolizes Fountain of Youth

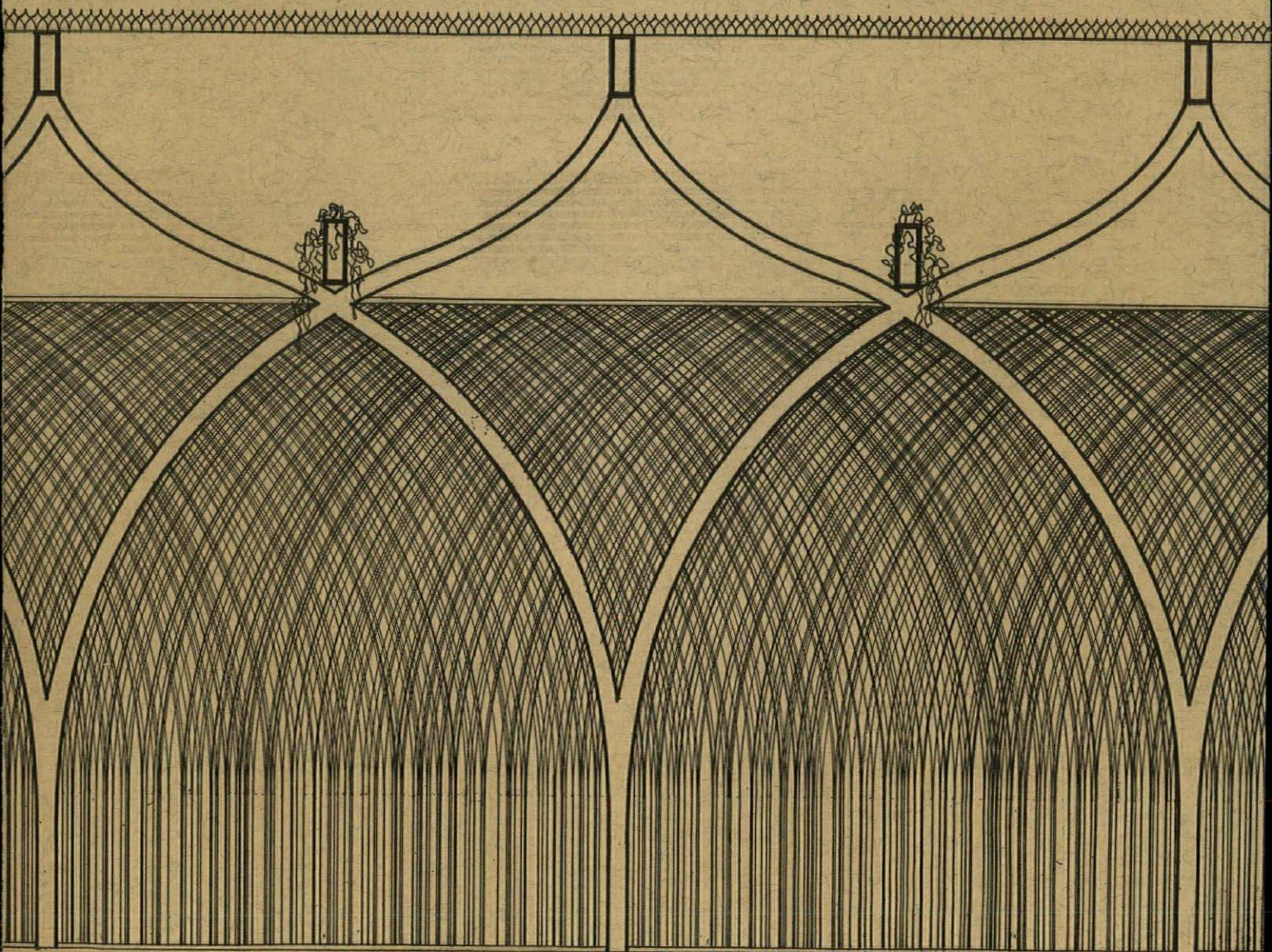
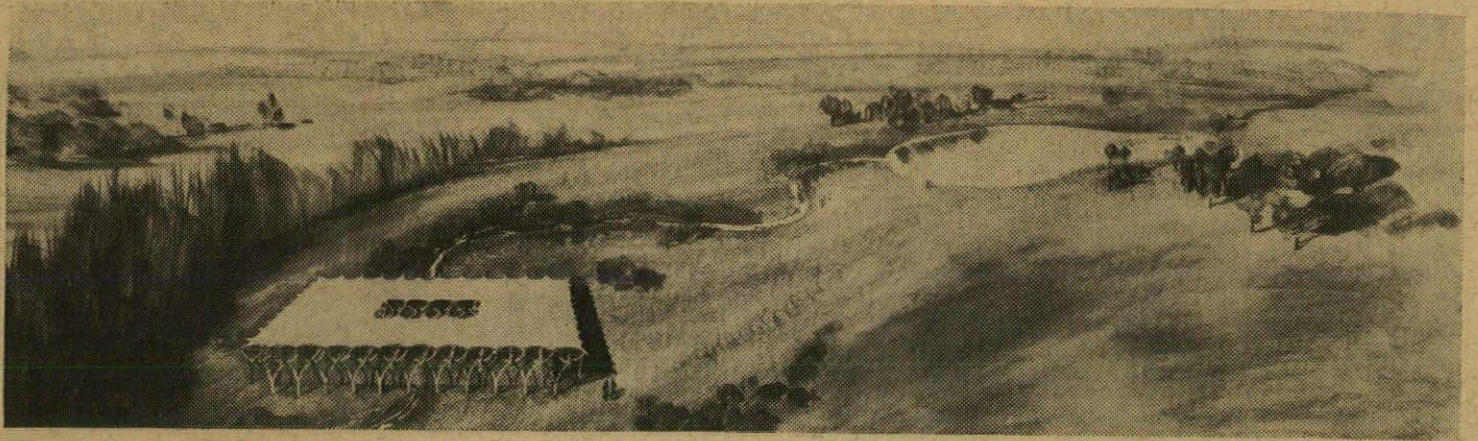
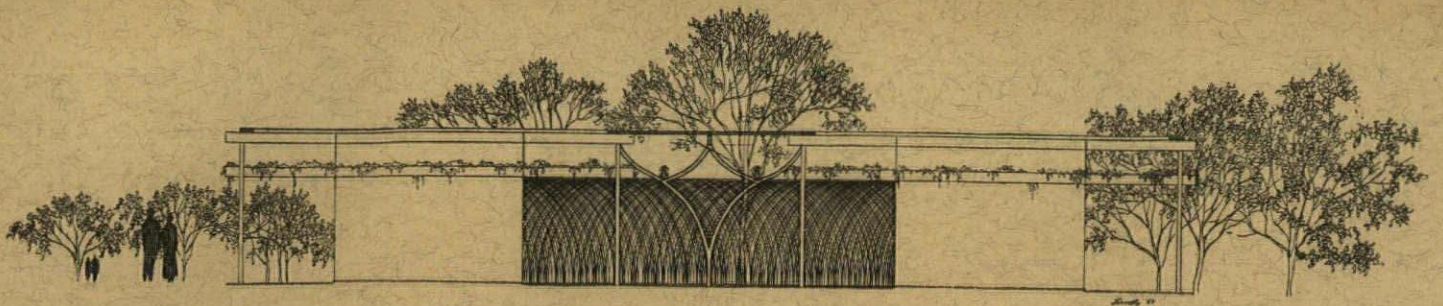
ARCHITECT: *Victor Lundy*

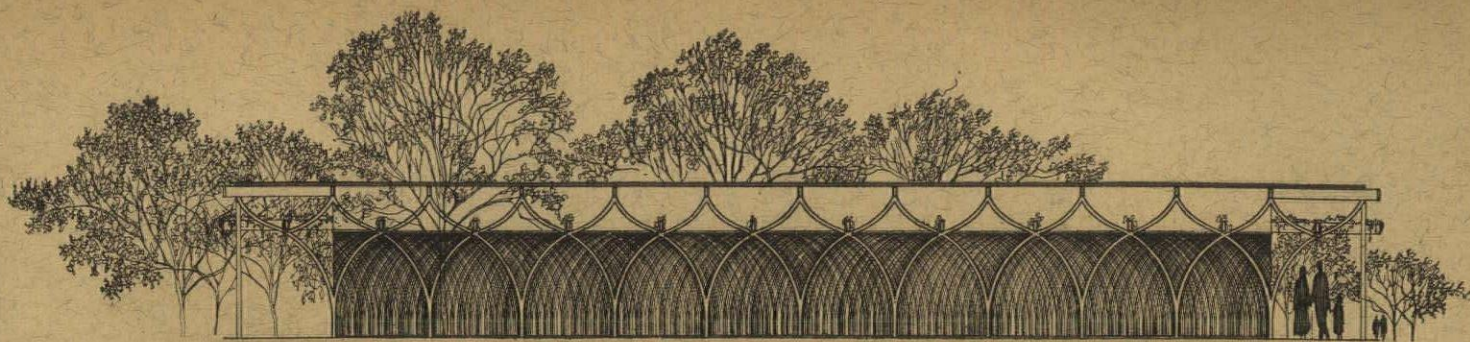
OWNER: *Warm Mineral Springs, Inc.*

LOCATION: *South of Venice, Florida*

All drawings by the architect



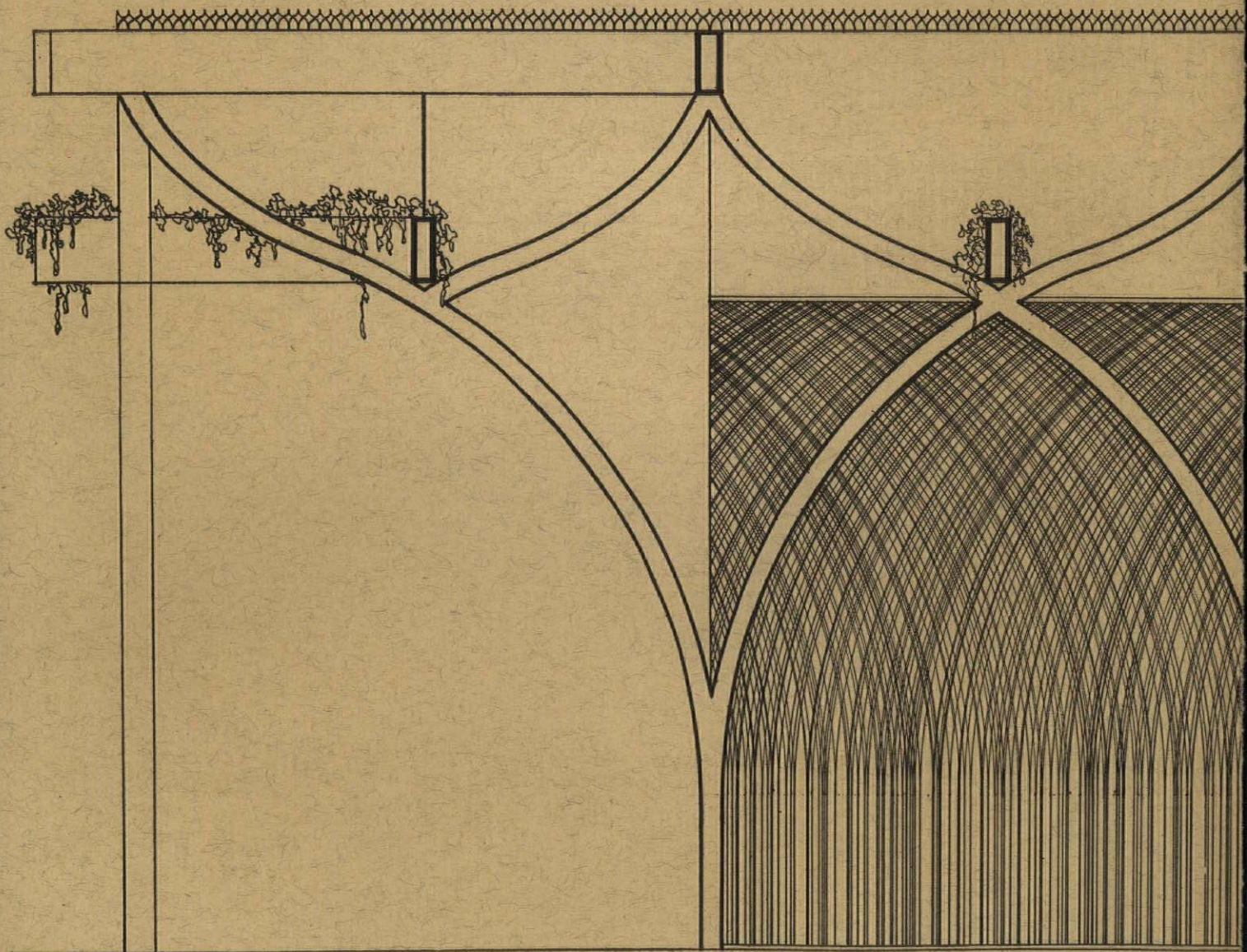




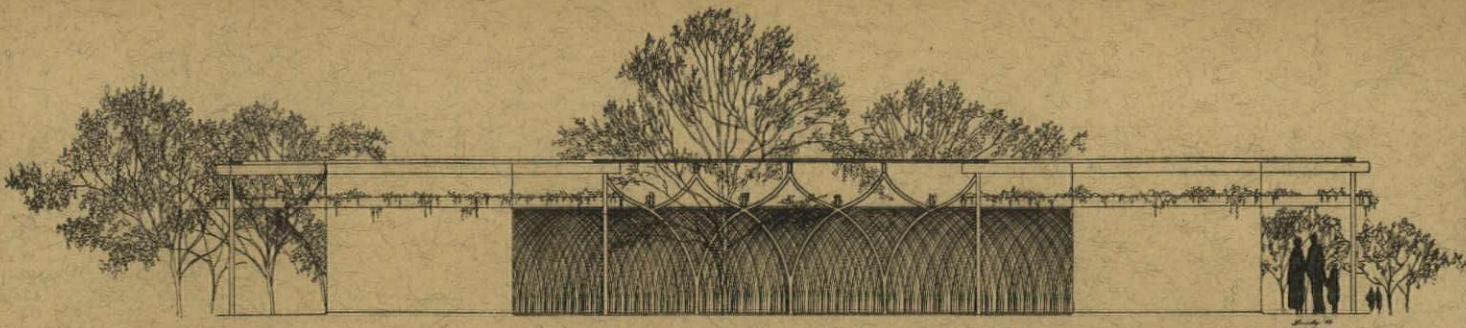
Fountain of Youth

Above: arcade in elevation with etched glass wall behind it. Above right: section on the short axis.

Right: perspective showing relation of pavilion to lake and to surrounding landscape. New bathhouses will be hidden in the trees. Below: elevation detail. Glass wall behind laminated wood arcade is etched to the height of 8 ft in a pattern of random width lines which repeat the arch form. Clear glass is used from the 8 ft line to the roof.

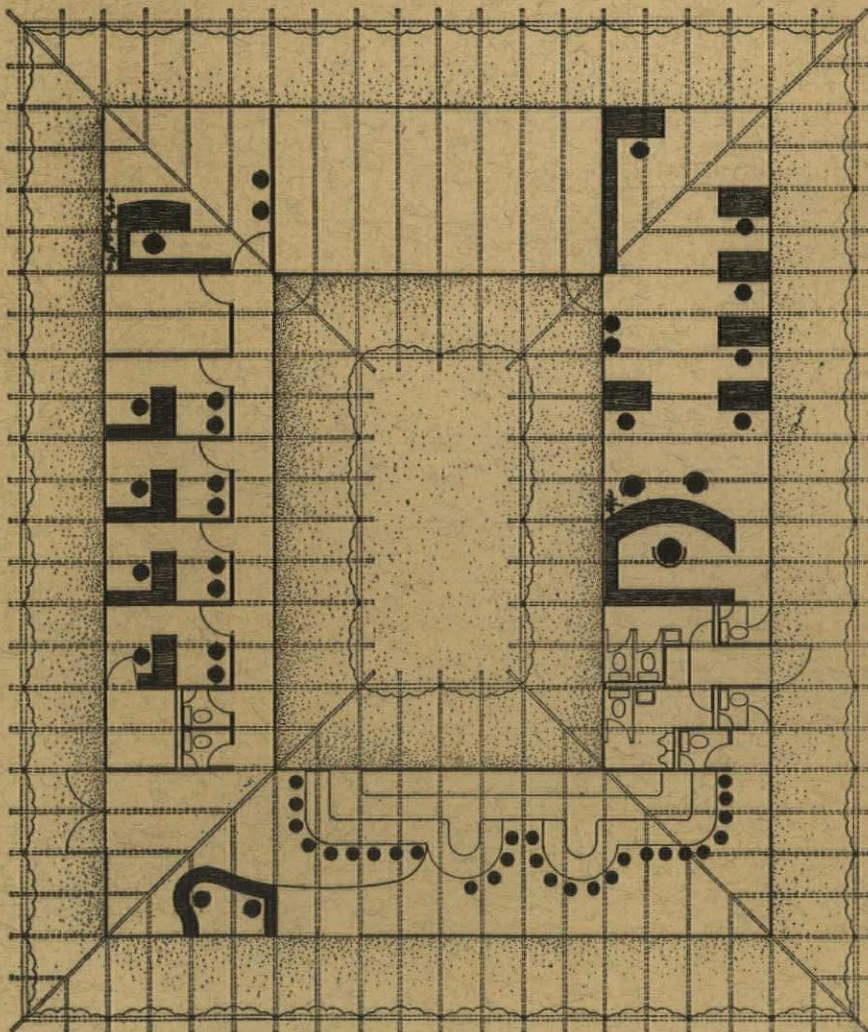






Section through the courtyard on the long axis. Arches are of curved laminated wood and support two tiers of beams. The upper tier carries the roof, the lower tier supported at arch intersections holds hanging vines and concealed cathode lighting directed upward.

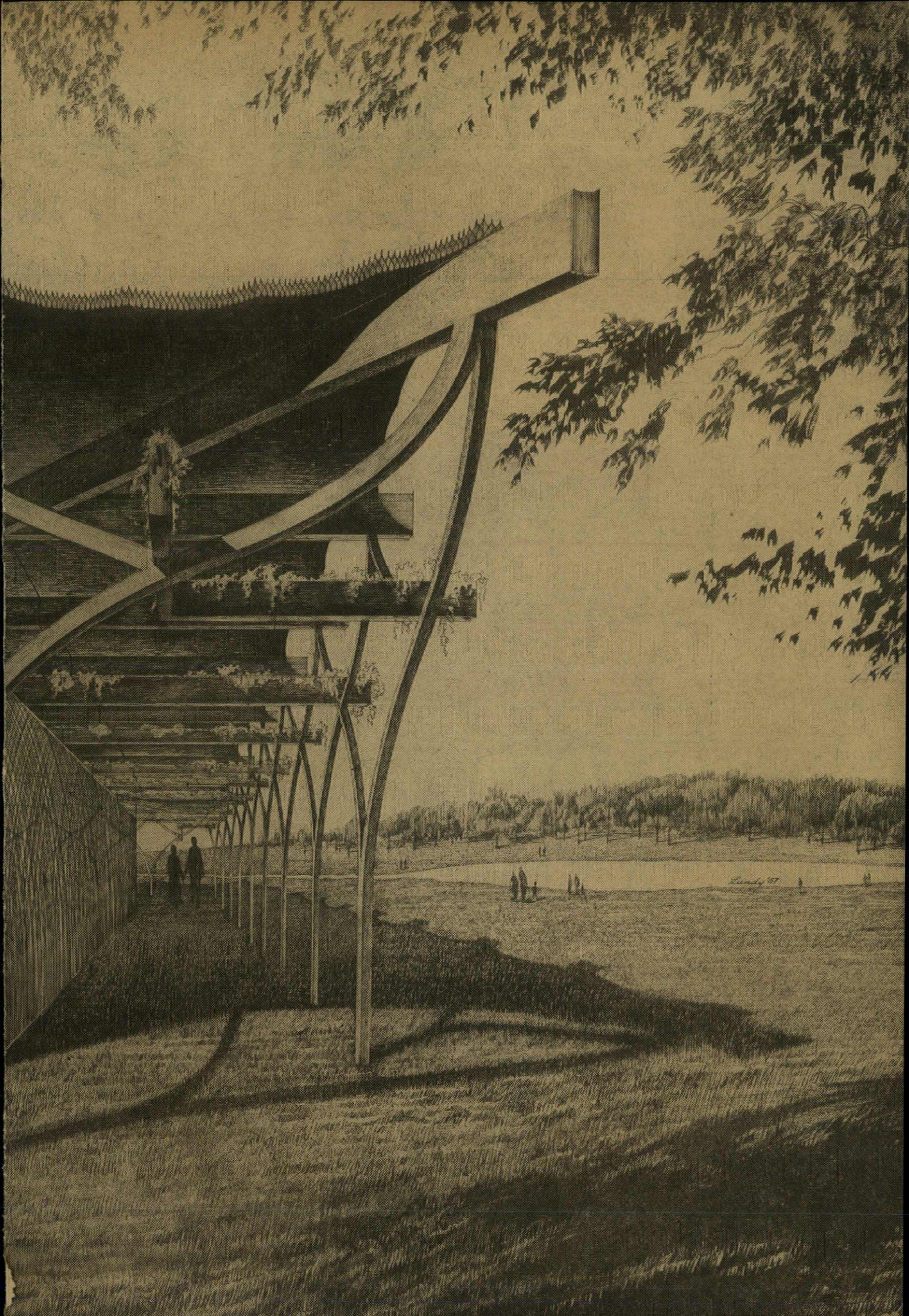
Plan shows exterior and interior arcades supporting rectangular laminated wood beams. The scheme forms an interior court surrounded by an enclosed space devoted to administrative functions, which includes an area where soft drinks and light lunches are served.

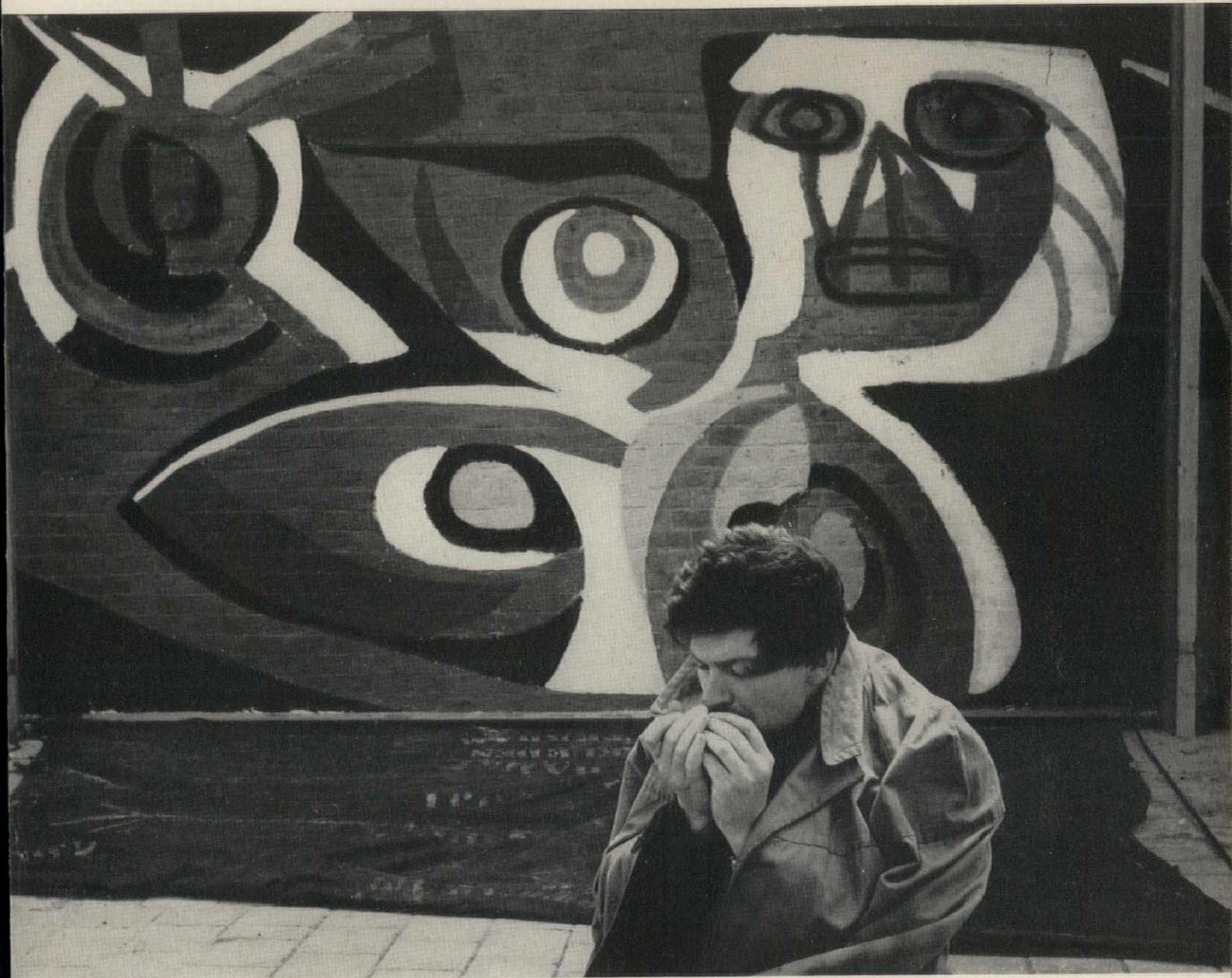


a hanging garden overhead and the scent of jasmine in the air. The exterior arcade will provide shelter from sun and rain.

The architect has described the structural scheme as follows: "... the outer and inner arcades are defined by the supporting lacework of light curved laminated wood arches arranged in scissored fashion . . . by their sculptural shape, they echo the organic growing shapes of the surrounding trees. Structurally the laminated arches support two tiers of beams, the upper rectangular laminated wood beams that carry the roof, and a lower tier of hollowed out beams supported at the crossing of the scissored arches. The lower tier, 8 ft from the floor for human scale, carries hanging vines and also contains the cathode indirect lighting that shines upward and gives general lighting to the entire building."

Exterior walls are entirely of glass etched in a random arch pattern. These etched lines allow diffused light in, while still permitting those within to see out. The glass is clear on all exterior walls from 8 ft above the floor level to the roof. All interior partitions are 8 ft high (standard plywood dimension) with glass above. Thus from any point within the interior one may see the quality of the roof structure going through to the supporting order of continuous arches outside. One apprehends the building as a whole because he can see the entire roof. At night activities cease but the building will remain lit from within. Then the interiors become softly visible and the lacework of the exterior arches is dark and in silhouette.





Arts, Artists And Architecture

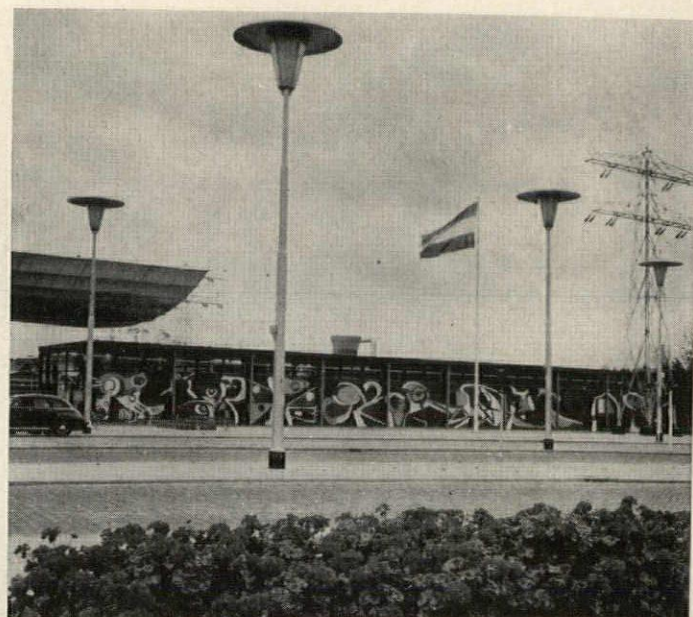
APPEL: Dutch Muralist

By Suzanne Burrey



1

1. Appel and young "assistant" studying scheme for the "Wall of Energy," a mural depicting man's increasing discovery and utilization of sources of energy (panel on air power, previous page). 2. Completed "Wall" as it formed the facade of Bakema's exhibition hall in Rotterdam. Painted on brick, the panels were man-height and extended 100 meters along one side of the building (eventually destroyed to make way for the new Rotterdam). 3. Garden Hall of the Stedelijk Museum, 1956. 4. Coffee-room of the Stedelijk, commissioned in 1951. Full of fantasy, the witty images of Appel's mural break across the limits of door frames, ceiling, and corners. "Since people spend only five minutes here," Appel said, "I wanted to make the space alive and entertaining."



2

Karel Appel, who is now preparing a mural that covers 600 square meters for the Brussels World's Fair, is a dynamic campaigner, through his words and his work, to extend the painter's role in architecture. Appel's campaign originated in his native Holland where he developed an approach which, he feels, applies the world over.

It is not enough for the painter to approach the building as a decorative problem—or to create a pictorial entity in a given area. The challenge is total, involving the entire building. "As a specialist in form and color in his own right, the painter should collaborate with the architect in the early stages of design to contribute fresh ideas in color and materials (where details and surfaces are concerned) in order to intensify the design of the three-dimensional space. If his work is complementary to the architect's concept of the building and so disciplined, ultimately the painter will help to make the structure more dynamic and individual."

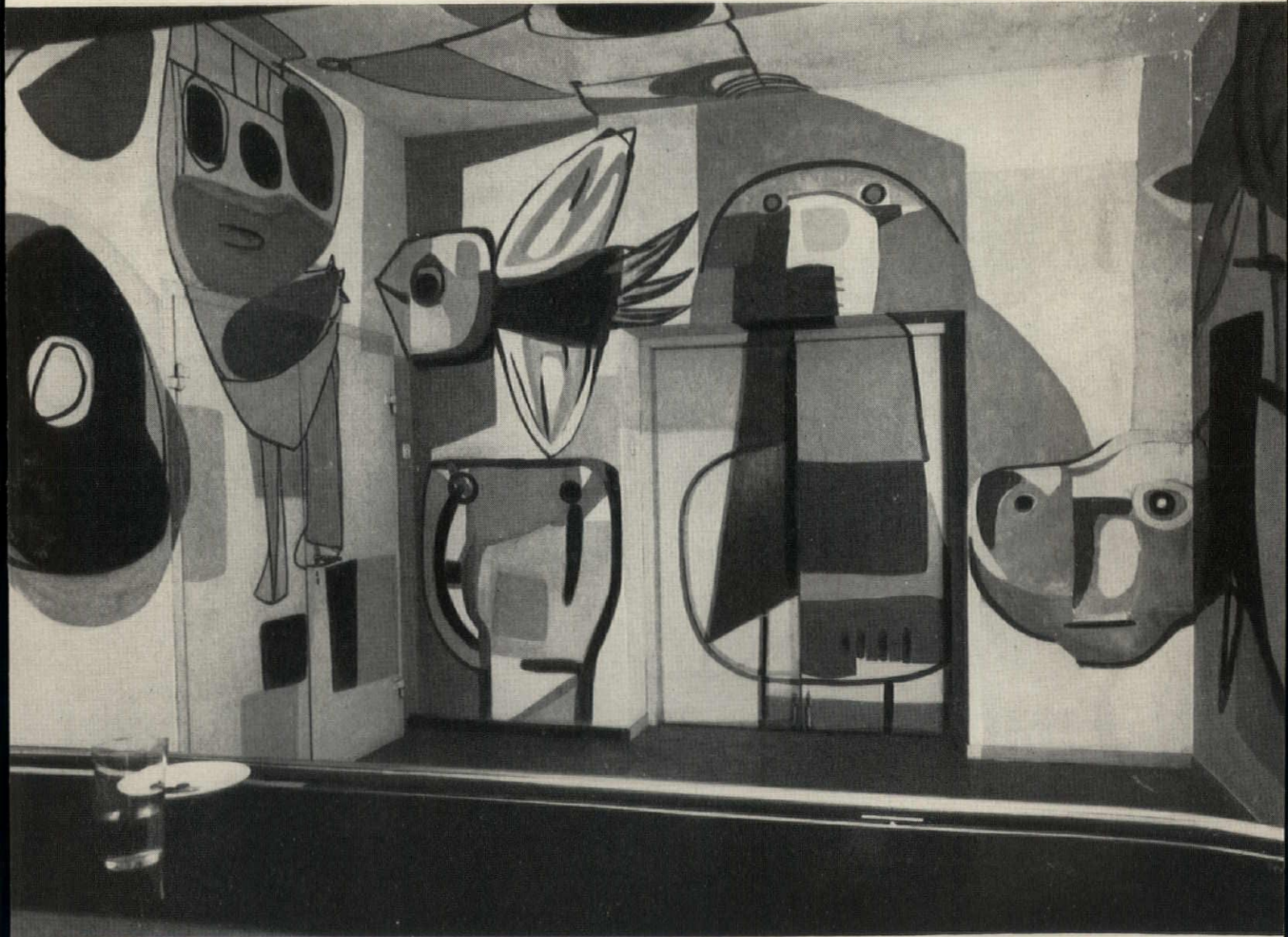
Appel speaks from a desire to participate more fully in the community and in the growth of cities. This is true of many artists who have not been nearly as successful as Appel in winning opportunities to work with architects. The post war building boom of Holland's bombed cities shook the prejudices of those who would exclude all painting—and even color—from architecture. It is a revolutionary step in Holland from the austerity that was an outgrowth of the De Stijl movement to the winged structures of Bakema and the enormous expressionistic murals of Appel.

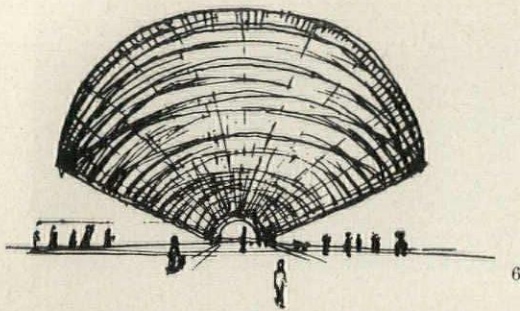
Appel's assertive art has been likened to the intense imagery of childhood and has won international recognition—though not without controversy. His first public mural (1949), in which he



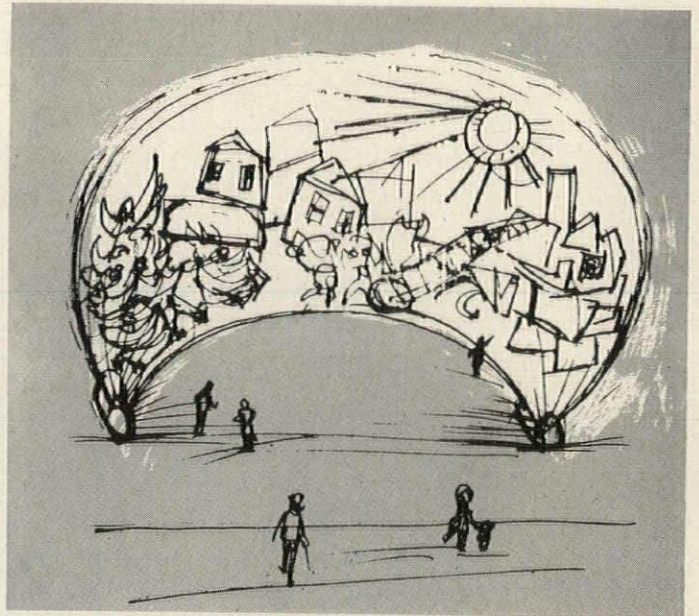
3

4

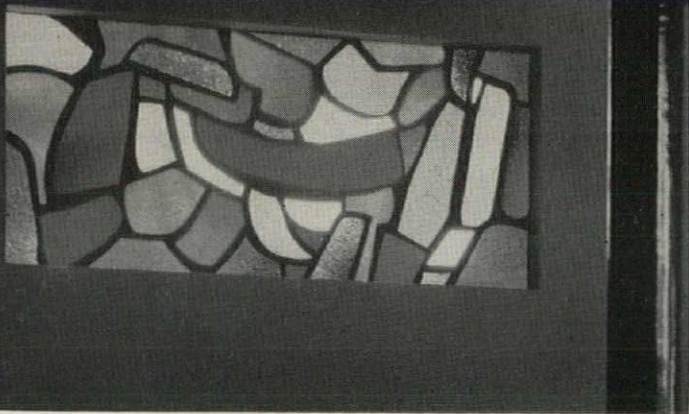




6



7



5

5. Window for Van Kasteel's church in Geleen. In contrast to Appel's other work, the window is non-representational. The pieces of glass are three inches thick and are of strong, rich colors, creating powerful shafts of light and color in the nave. 6, 7. Sketches of mural for the foyer of the Dutch Pavilion, designed by Bakema, at the Brussels Fair. His latest commission, the mural echoes the fan shape of the entrance and covers some 600 sq. meters. It tells the story of Zeeland, that portion of Holland which is constantly being reclaimed from the sea.

Photos courtesy Martha Jackson Gallery

set out to make the Town Hall of Amsterdam "more alive," delighted the arts council who had commissioned it. But because some of the citizens objected to such fantastical figures on the Town Hall walls, and even threw cans at the mural, it was papered over. In reparation, the Stedelijk Museum (devoted to modern art) in Amsterdam has twice commissioned Appel. In the Garden Hall of the new wing, the painter's work went beyond the actual mural. The director's door below the mural is blue, and another door, yellow; the balcony is red, blue and copper. "Thus the room is one object, and wherever you go you find the same rhythm."

If he has painted a mural in an area, Appel believes the painter should also plan the adjacent or otherwise related colors. He must have this freedom if he is "to intensify the dynamics of the architectural design." When the problem is one of exhibition halls, such as the Hall of Energy and the Dutch Pavilion of the Brussels World's Fair (in which Appel is again collaborating with Bakema), his dynamic figurative painting tells a big story. In different circumstances, Appel has worked in an abstract mode and is fascinated by other color media, such as stained glass. For the window of a new church in Geleen, Holland, designed by Bart van Kasteel, he developed a special technique. Varying shapes of colored glass, some more than three feet long, are cemented together and set in a series of steel frames. These and the joints between the chunks of glass are not noticeable, so that the window becomes an integral part of the reinforced concrete wall. This too, is the particular contribution of the painter: by whatever means, to incorporate color and illuminate architectural space in an expressive way.

FACTORIES

BUILDING TYPES STUDY 254

®

In 19th century America, industrialists commissioned architects to design their country estates and office buildings, but not their factories, which were generally planned by others. Today that has changed; now, factories are usually designed by architects and the engineers that work with them.

The change can be attributed to a group of hardy architectural pioneers who successfully invaded this field early in the 20th Century, and as a result brought into being a new and improved kind of industrial building—one that added the further dimension of good architectural design to the basic provision of efficient function.

Important early examples include—among others widely published: Peter Behren's buildings for GE in Berlin, the plants at Alfeld by Walter Gropius, the Van Nelle tobacco factory in Holland by Brinkman and Van der Vlugt, a number of American factories by Albert Kahn, and the buildings by the TVA architects.

Such structures served as important milestones and exerted a wide and beneficial influence in the shaping of a receptive climate for contemporary industrial architecture.

As we consider factories today—in 1958—it seems appropriate to question whether or not today's examples have in reality moved further along the road toward the ultimate factory—or to inquire if they have changed only in superficial aspects.

There is evidence of real progress; especially in connection with certain specifics. Plans have opened up—become freer—there is less of the "box" kind of thinking. Architectural expression has become richer—more mature—even when it sometimes lacks the bold vigor of certain of those forthright early examples. Today, with our increasingly industrialized construction techniques, buildings can be put together more

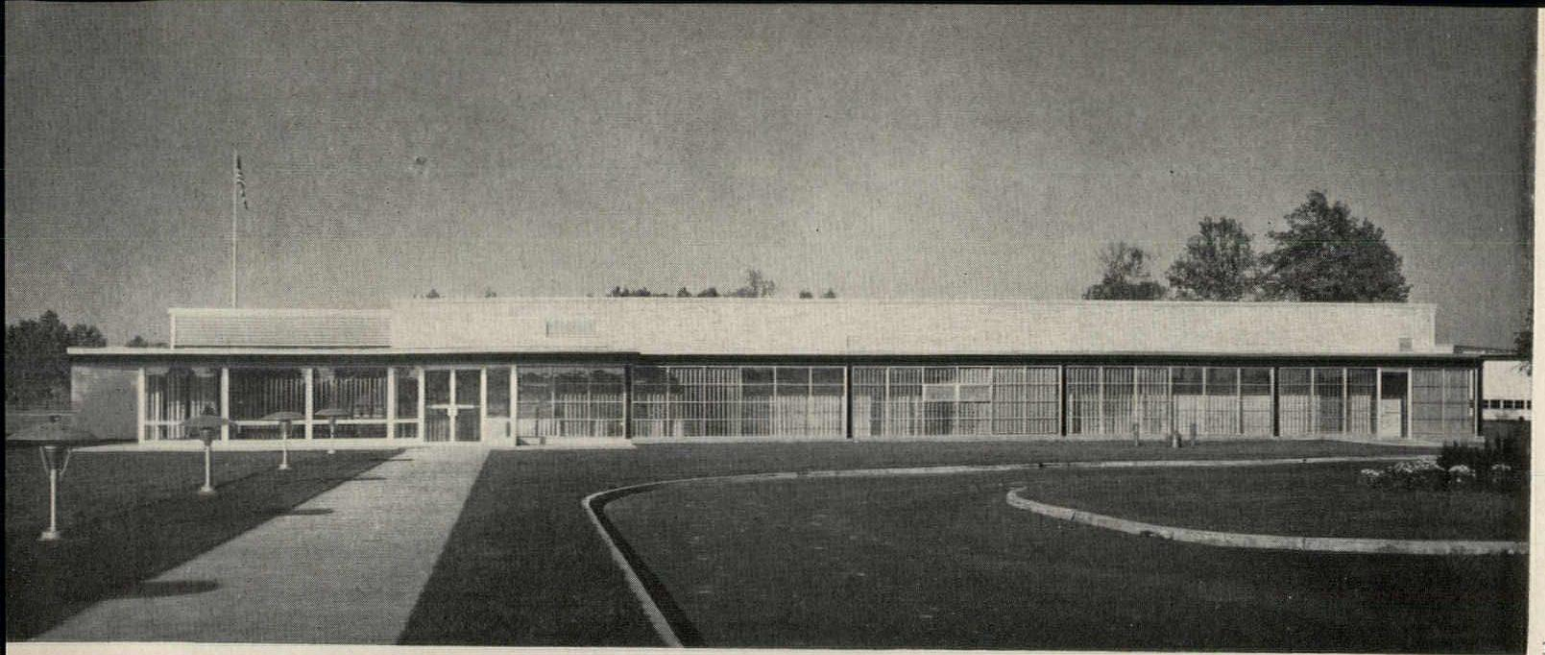
quickly. These factors are all to the good, but can scarcely be described as basic.

At the root, however, is the increasingly evident change in thinking as regards the larger relationship between factory and environment. Architects and industrialists alike are conscious of this relationship, so that the factory is moving out of the back alley to assume a more appropriate guise in a more favorable situation. Here is a consideration filled with meaning; for the skillfully designed factory that rests easily and appropriately in its setting and becomes a source of pride to local citizens, workers, and owners can noticeably improve the appearance and morale of an entire community. If this concept spreads then cityscapes and countrysides will benefit.

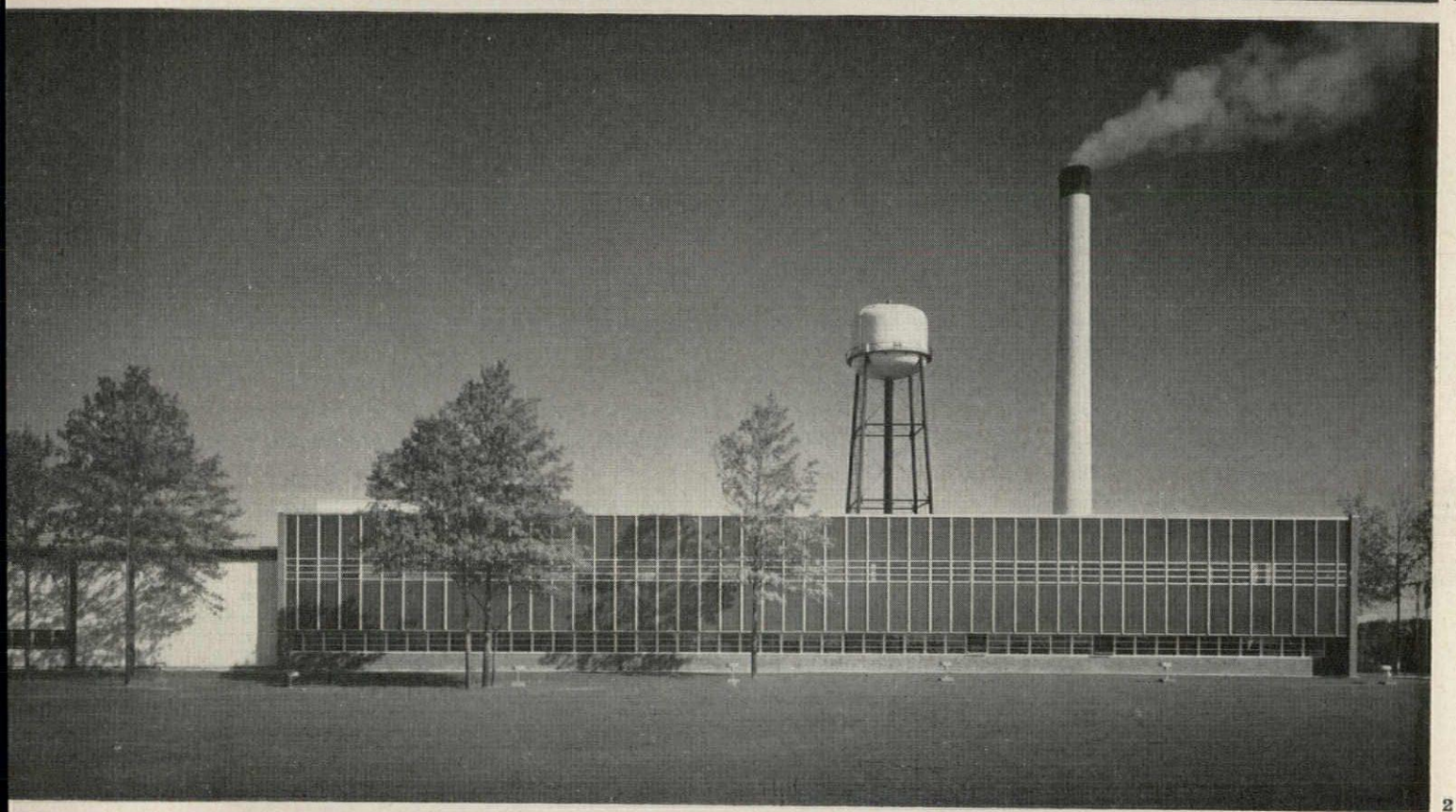
The physical comfort and well being of the factory worker have been the subject of considerable study, and significant benefits have resulted. In many cases, employes now work in air conditioned, well lighted, appropriately colored surroundings; handle machinery and equipment that has been exhaustively analyzed and improved to prevent accidents and promote efficient, more effortless production. Much of the hazard and drudgery of materials handling has been eliminated and that process has become largely a mechanical one. Attractive and inviting facilities for luncheon, relaxation, and employes' social functions are becoming almost the rule. All of these comforts and amenities result in improved morale and greater productivity and pride in company, and appear—when added together—to constitute a second basic improvement.

The five factories presented in this study have each made a strong contribution in one or more of the directions noted, and therein lies their importance.

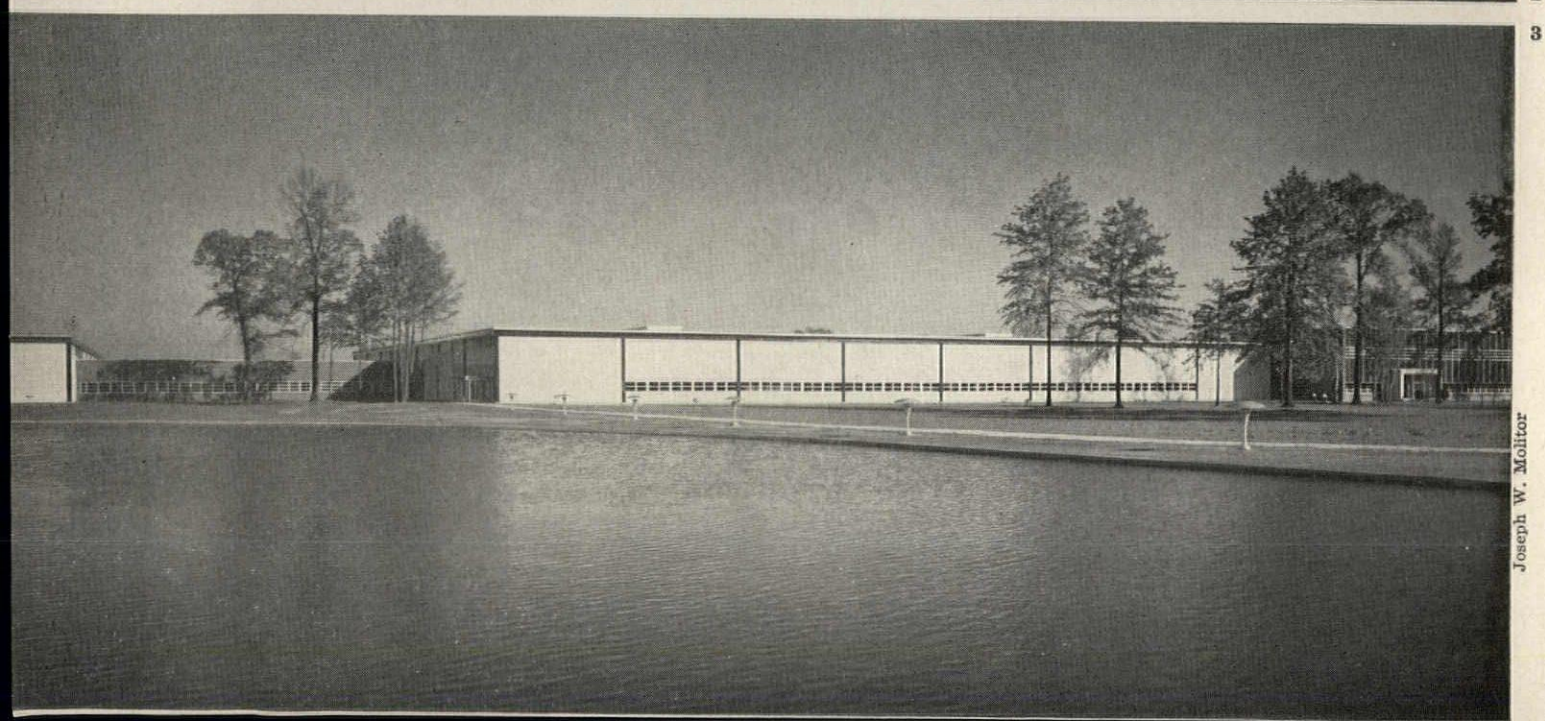
—JAMES S. HORNBECK, A.I.A.



1



2



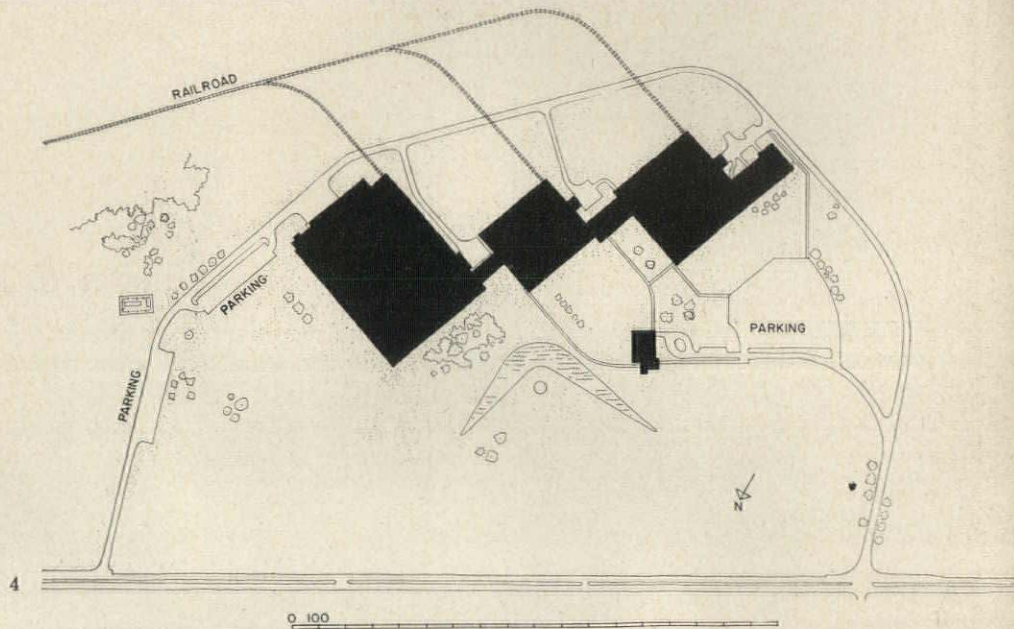
3

The entrance and cafeteria building (1) shown also on the cover in color, features walls of yellow glazed brick; as well as screens of aluminum and glass. Future plans call for adding an administrative headquarters office building to this unit.

The maintenance shops and offices (2) occupy a two-story building at the extreme southern end of the grouping.

The west facade of the baby products unit (3) seen across the lake from the highway.

Those responsible: for J & J, C. V. Swank, Vice President, Manufacturing; L. J. Bardsley, Assistant to Vice President, Manufacturing; Nason Manley, Director of Construction Services. For Walter Kidde, Frank L. Whitney, Vice President; Walter L. Hough and Carl F. Bauer, Project Architects; John Faas, Chief Mechanical Engineer.



New Jersey: Surgical Dressings Plant and Shipping Center

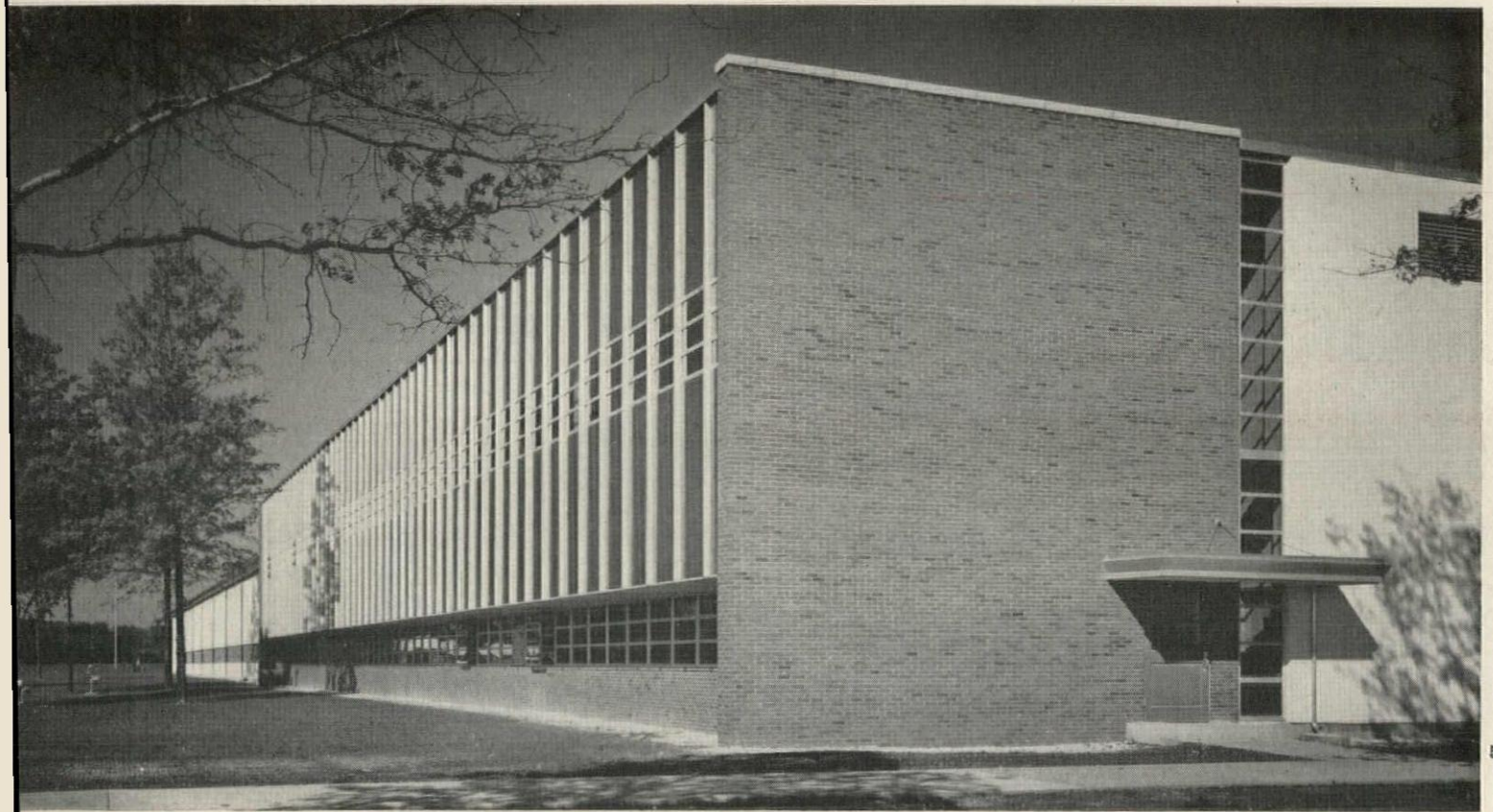
*Surgical Dressings Plant,
Johnson & Johnson,
North Brunswick, New Jersey
Walter Kidde Constructors, Inc.,
Designers and Builders*

Jean Labatut, Landscape Consultant

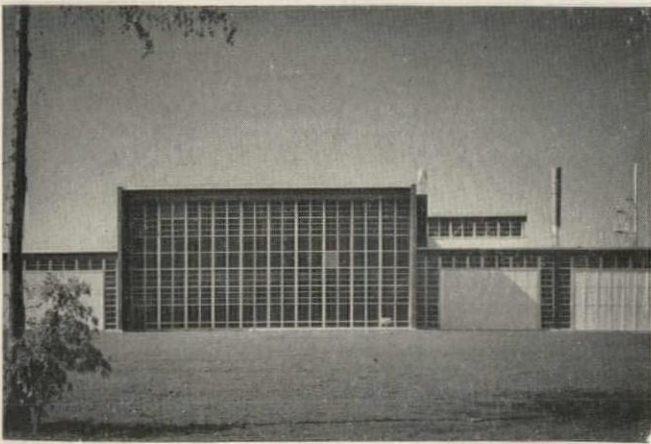
Johnson & Johnson, long known for an enlightened approach to building design and landscaping, have recently found themselves in an expansion squeeze, with demands for more space exceeding the physical potentials of their older plants and sites. Hence, a new approach to factory planning, exemplified in this group and explained at some length in ARCHITECTURAL RECORD for February, 1956, pp. 182-189.

Briefly, the scheme separates the several industrial operations into separate buildings (shipping center, baby products, plaster mill, maintenance shops) which are then linked at their diagonal corners by pertinent office units—see plan, p. 154. The whole is then laced together by a continuous dragline for material flow through the plant and fed by separate rail and truck access points. This means that any operation—scaled to its needs and its workers—can expand sideways in two directions without disturbing the existing machines, the offices, or the adjacent operations; and also makes possible divisional autonomy for the company.

Johnson & Johnson



5

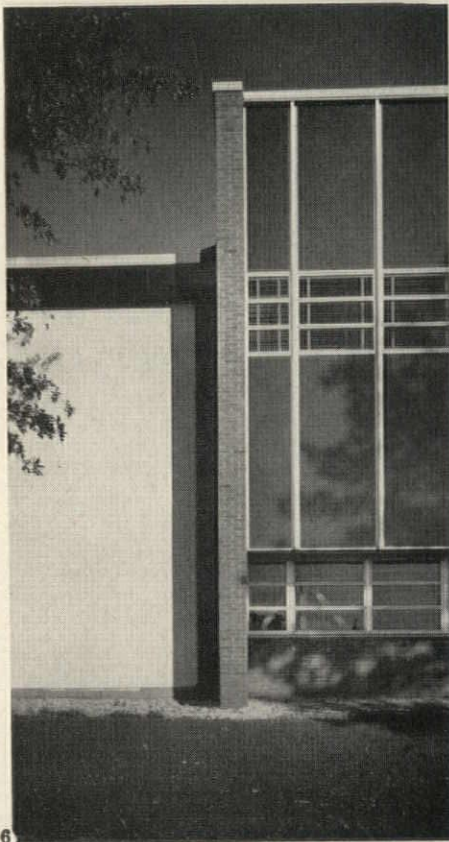


Joseph W. Molitor

7

Fenestration follows several patterns, determined both by the owner's philosophy and by orientation. On west facades, there are eye-level strips to obviate claustrophobia and provide emergency ventilation; on the south, ribbons at the roof provide visual separation and natural lighting, with louvers organized within the strips; on the north and east, ribbons at the roof are combined with vertical panels at the columns for view and ventilation. Blowout panels are provided on certain east walls. All the sash are glazed with an imported blue glass for both economy and glare reduction.

The block walls sheathing the 600,000 sq ft plant are predominantly finished with white stucco, while the metal fascias and columns are clad with royal blue porcelain enamel. Occasional panels of vivid red glazed brick provide color accents here and there.



6

Exterior views, these pages: (5) the maintenance building, with red brick panel in the foreground; (6) detail of the east juncture of baby products unit and plaster mill; (7) the plaster mill from the other (west) side.

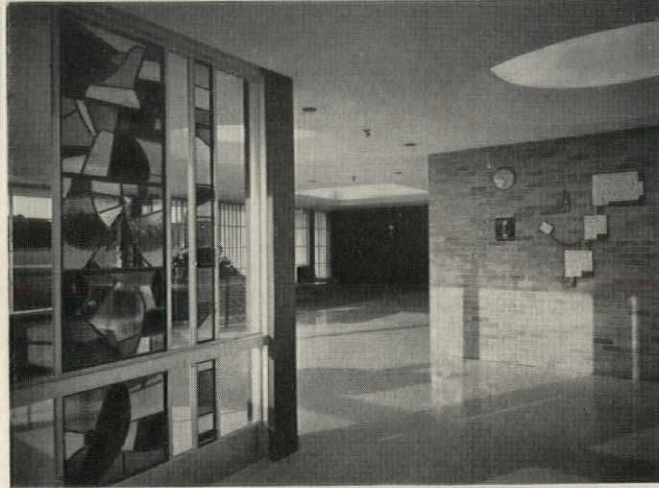
The lobby of the entrance and cafeteria building, (8), (9), and (10) features a Venetian glass mosaic and stained glass panels, designed and executed by Max Spivac. The mosaic tesserae are set in a bed of white cement, containing marble and tile chips for texture. The panels of stained glass are set in black-lacquered aluminum channel frames, making them transportable, unlike most such constructions.

(11) and (12) are views, respectively, of the outgoing truck docks in the shipping center and the interior of the plaster mill.

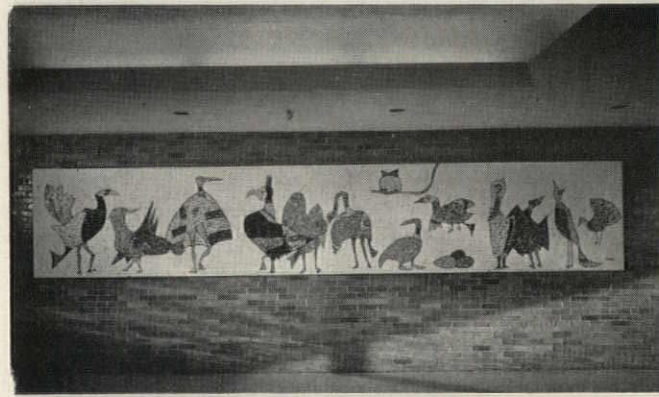
8



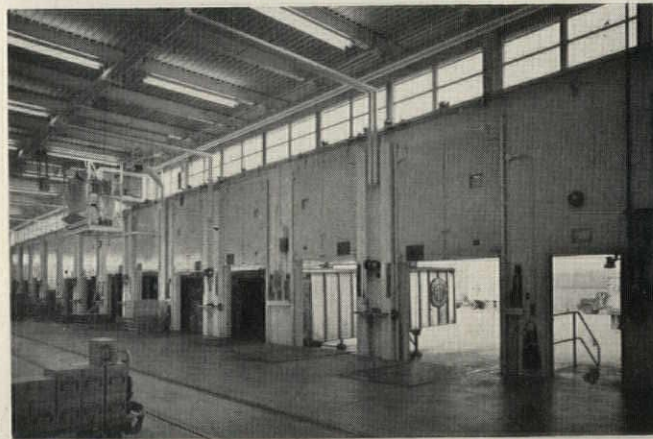
9



10



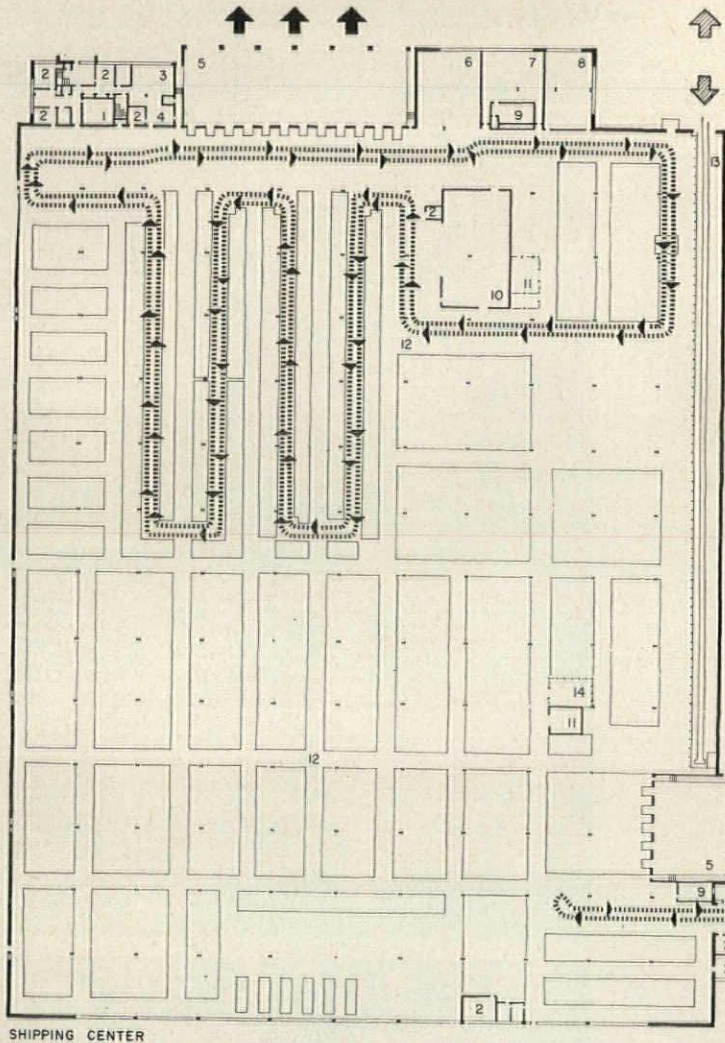
11



12

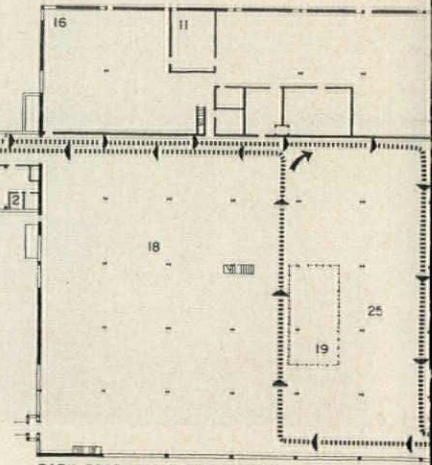


Johnson & Johnson

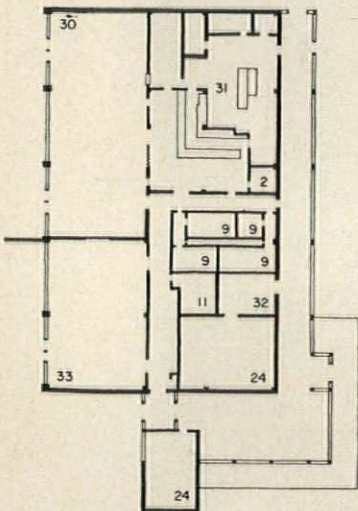


SHIPPING CENTER

0 20



BABY PRODUCTS & ORTHOPEDIC



CAFETERIA BUILDING

- | | | |
|----------------------|---------------------|--------------------------|
| 1. Conference Room | 12. Shipping Area | 23. Mill Room |
| 2. Office | 13. Railroad Siding | 24. Equipment |
| 3. Scheduling | 14. Maintenance | 25. Raw Stores |
| 4. Billing | 15. General Office | 26. Slitting & Finishing |
| 5. Truck Dock | 16. Ortho Products | 27. Auto Repair |
| 6. Will Call Pallets | 17. Ortho Products | 28. Carpenter |
| 7. Men's Lockers | 18. Packaging Area | 29. Boiler Room |
| 8. Lunch Room | 19. Shop | 30. Cafeteria |
| 9. Toilets | 20. Lab | 31. Kitchen |
| 10. Loose Goods | 21. Sterilizers | 32. Mail Room |
| 11. Storage | 22. Base Sealer | 33. Meeting Room |

Efficiency of materials handling and expansibility provisions for factory and warehouse areas primarily determined siting of the buildings at Johnson & Johnson. For a number of reasons, the designers departed from the large single-building concept—one of them being convenience in the delivery and storage of raw materials.

With one building "split" into three, heat distribution lines became quite long; the whole system entails several miles of pipe, one run being 3000 ft from the boiler plant. This was a contributing factor in the selection of high temperature water over steam.

Materials Handling

Supplies are brought in by rail on three separate spurs so that raw stores not only can be unloaded close to the spot where they will be used, but each manufacturing operation can be fed materials as needed without interfering with other operations, and freight cars themselves can serve as "warehousing." Truck docks are nearby.

Stretching out the buildings would have made internal materials handling practically impossible for fork lift trucks since operators would spend most of their time in travel. But to a dragline conveyor, it doesn't matter whether its length is arranged in a compact sinuous pattern, or whether it is stretched out in a long continuous loop; conveyor trucks come by as frequently as subway trains.

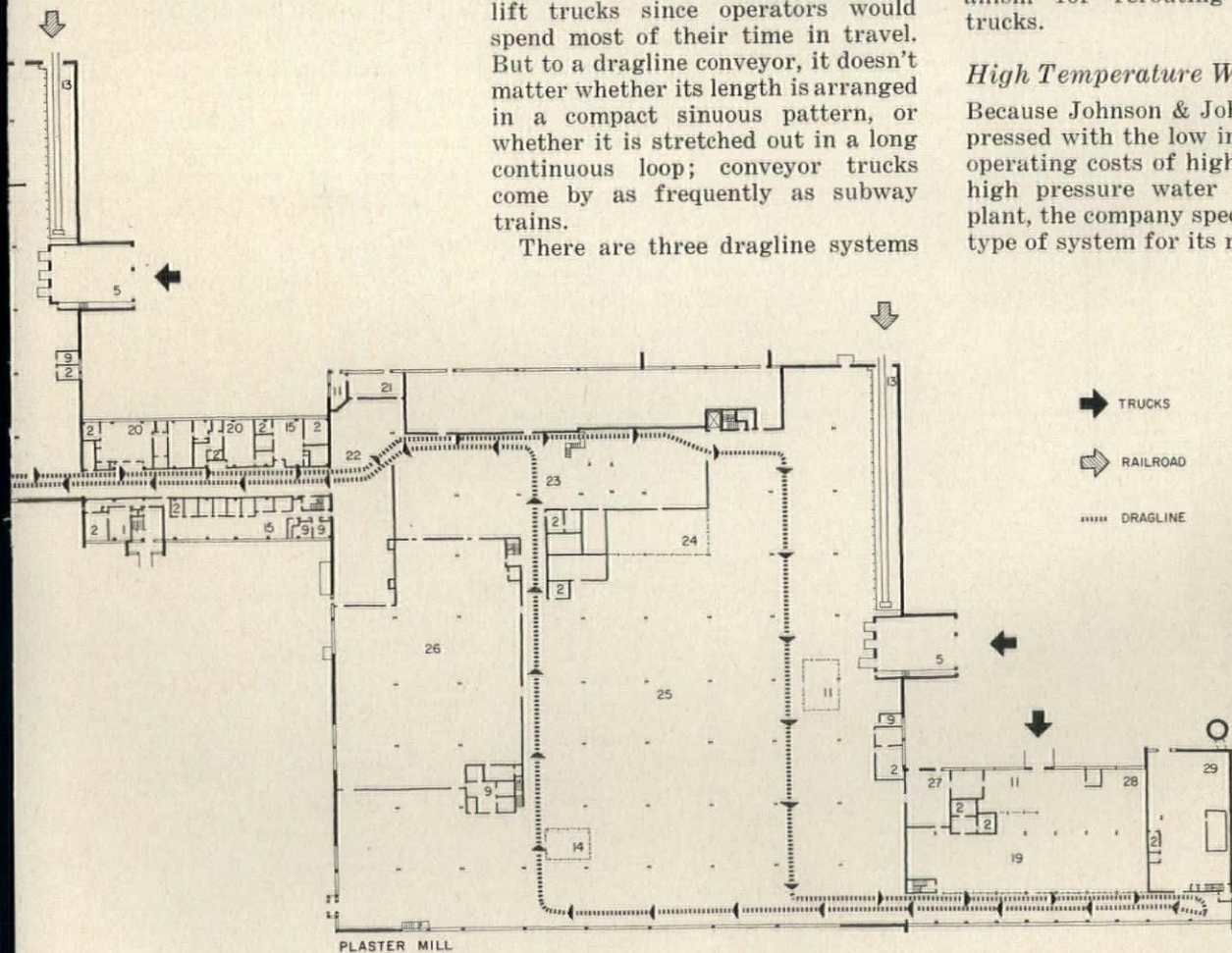
There are three dragline systems

in the J & J plant. One 3624-ft system runs through the manufacturing operations to the shipping center and back. The second consists of two parallel units, each about 1850-ft long, which are used in the order makeup section of the shipping center to take palletized loads to the truck docks. The third is a small 103-ft closed loop (see curved arrow) which rerouted (see curved arrow) which will not enter the shipping center, but will continue to circulate through manufacturing areas.

Each conveyor truck is equipped with an electronic "memory." Twelve positions on a selector switch key twelve different oscillator frequencies on a small transmitter. There also are single-frequency oscillators under the floor at selected locations, each corresponding to one of the truck oscillator frequencies. As a conveyor truck approaches a position with under-floor oscillator sending out the same signal as the truck, the two oscillators are in resonance, and this triggers either a light or bell to warn a worker at the receiving station. When the truck arrives, a worker disengages it from the tow line. In addition one position on the selector initiates the switching mechanism for rerouting of conveyor trucks.

High Temperature Water

Because Johnson & Johnson was impressed with the low installment and operating costs of high temperature-high pressure water in an earlier plant, the company specified the same type of system for its manufacturing



Johnson & Johnson

Joseph Molitor



In the shipping center, two dragline conveyors transport orders. Unit ventilators are up out of the way inside the monitors

center at North Brunswick. This high temperature water system provides four definite advantages:

1. Uniform distribution of heat, independent of fluctuation in boiler pressure.
2. Reduction in size of piping and boiler plant.
3. Elimination of steam traps and pipe grading.
4. Elimination of condensate pipe-line corrosion.

Thermodynamically, high temperature water has one big advantage over steam; a given volume of water can carry more heat units than a similar volume of steam. For instance, at 400 F and 250 psi a cubic foot of water has a total heat content of about 20,000 Btu, while a cubic foot of steam has only about 650 Btu. Water thus carries some 35 times as many Btu as steam at this temperature and pressure.

In high temperature water systems, the water is always under pressure to prevent flashing to steam. Distribution can be in the form of high temperature water direct from the boiler; lower temperature water through use of heat exchangers; or as steam, using flash converters.

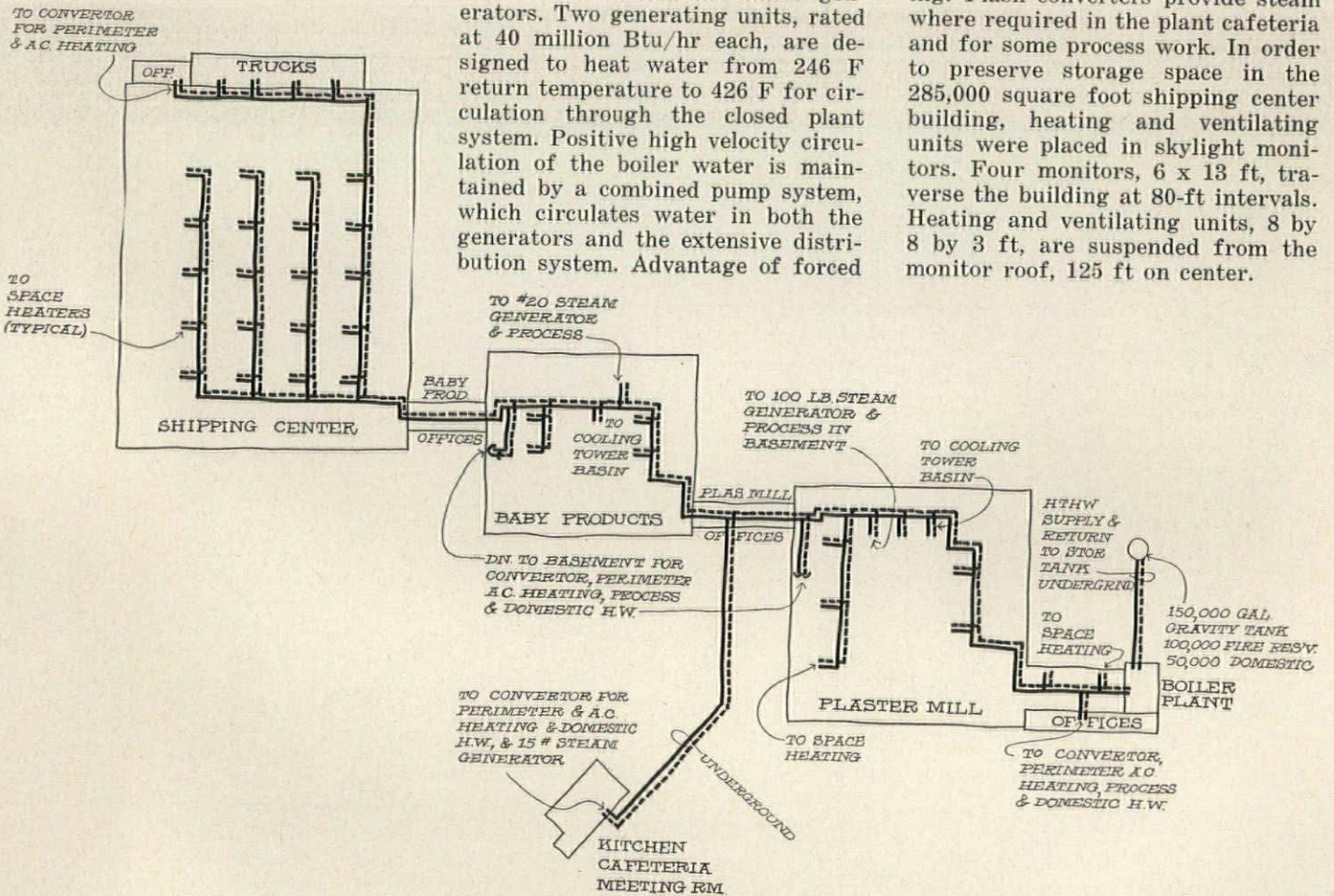
System design began with boiler selection. The plant is believed to make the first industrial use of forced recirculation hot water generators. Two generating units, rated at 40 million Btu/hr each, are designed to heat water from 246 F return temperature to 426 F for circulation through the closed plant system. Positive high velocity circulation of the boiler water is maintained by a combined pump system, which circulates water in both the generators and the extensive distribution system. Advantage of forced

recirculation lies in high heat absorption per unit area.

From the generators and expansion tank, 426 F hot water is pumped under 426 psi pressure to the system (326 psi static head, plus 100 psi discharge pressure of circulating pumps);

Total calculated load of the plant heating system is 63 million Btu of which 12 million is process heating. For the greater part of the year, it is estimated that one generator will carry the full load, with the other serving as standby. During severe weather, both will operate. Hot water is used in three ways throughout the plant: (1) direct through coils; (2) as "low temperature" (240 F) water; and (3) as steam for process work.

Wherever possible within the plant, hot water is used direct. One such application is in heating and ventilating units and unit heaters in the factory sections. Hot water is also used directly in the cooling tower to maintain minimum wintertime temperature (process cooling is needed year-round). Direct heating is used also in air conditioning equipment in parts of the plaster mill. Lower temperature water is used for perimeter heating, at the gravity tank to prevent freeze-up, for process heating and for most air conditioning. Flash converters provide steam where required in the plant cafeteria and for some process work. In order to preserve storage space in the 285,000 square foot shipping center building, heating and ventilating units were placed in skylight monitors. Four monitors, 6 x 13 ft, traverse the building at 80-ft intervals. Heating and ventilating units, 8 by 8 by 3 ft, are suspended from the monitor roof, 125 ft on center.



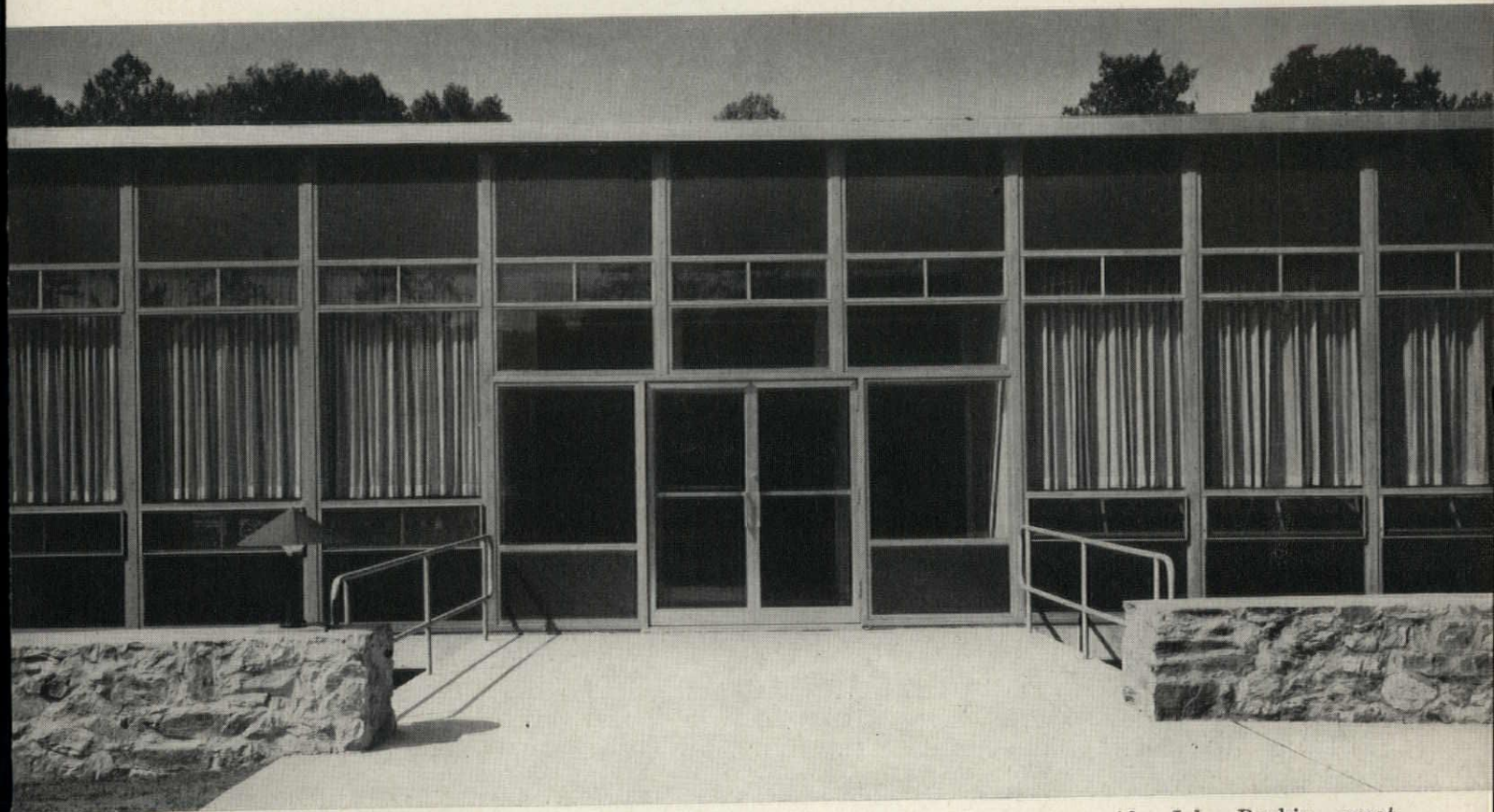
Connecticut: A Rural Factory for Ethical Cosmetics

*Duke Laboratories, Inc.,
South Norwalk, Conn.*

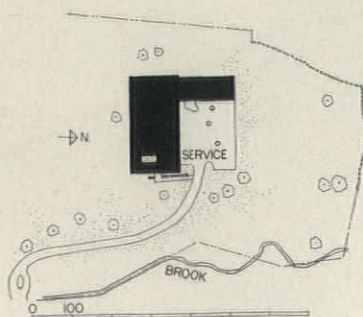
*Harrison & Abramovitz,
Architects*

*Jaros, Baum & Bolles, Mechanical En-
gineers; E. E. Ashley, Electrical En-
gineers; Edwards & Hjorth, Struc-
tural Engineers; Clarke & Rapuano,
Landscape Architects*

The flavor of the Connecticut hills lies about and pervades this plant, where the workers—whether inside or out—can always see the oaks and hickories and birches and dogwoods



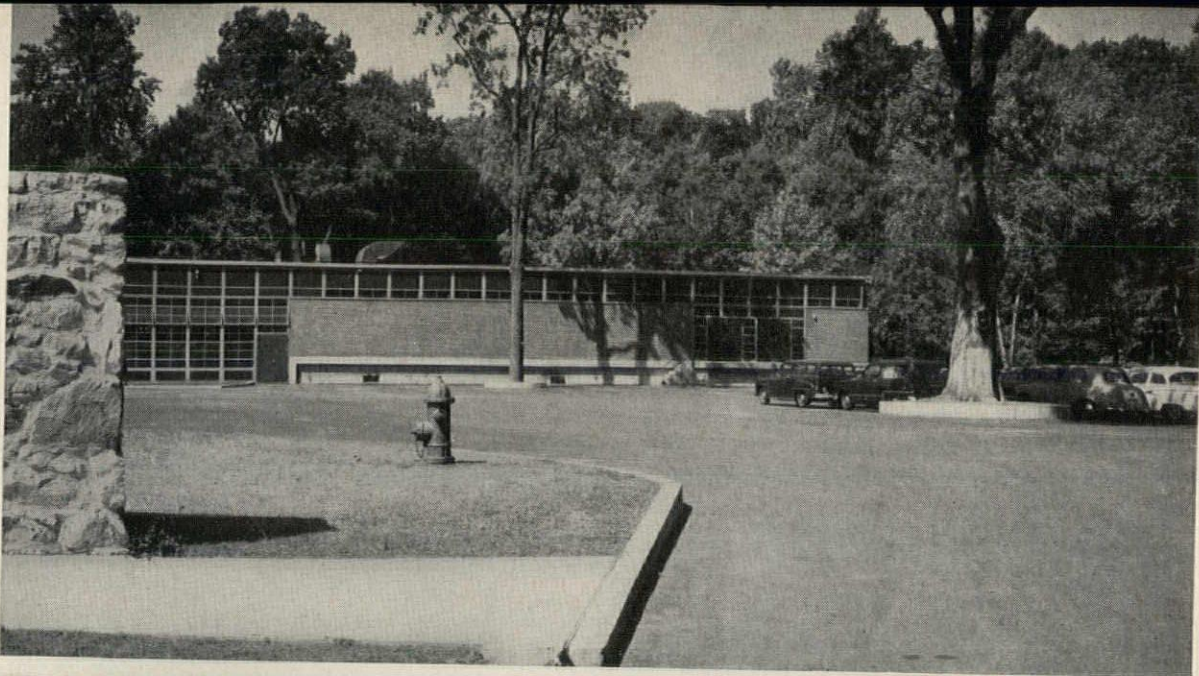
Ben Schnall



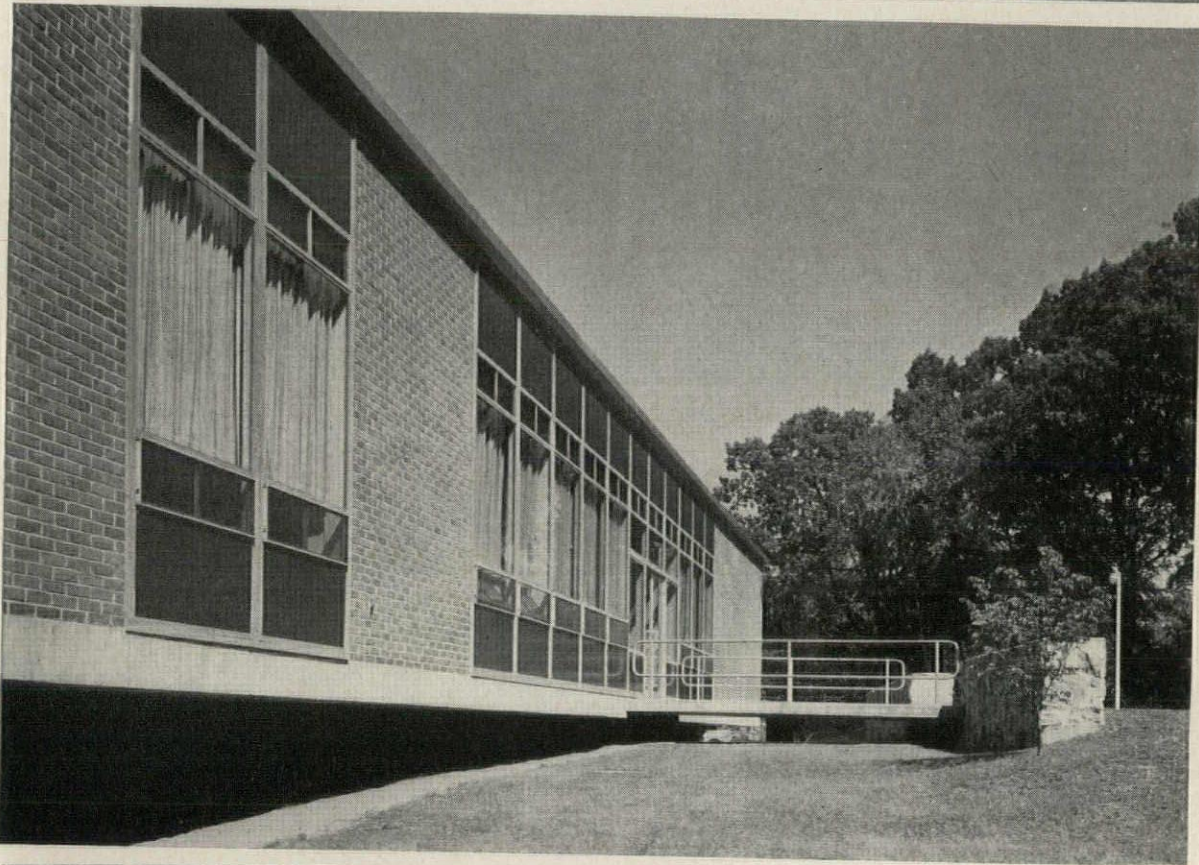
on every side. John Ruskin—great critic of 19th century industrial abuses—might well approve this kind of neotechnic sylvan development.

Architects and owner were equally concerned with preserving the virgin character of the hilly 24-acre site. As a result, the building was conceived as a platform floating free above the grade, which could then flow up or down beneath, according to its natural configuration. Visitors' access is by way of a bridge, shown in the photograph above.

Founded in New York nearly 30 years ago by Carl J. Herzog and Paula von Klein, the company specializes in adhesive surgical bandages and ethical cosmetics, distributed only through the medical and allied professions.

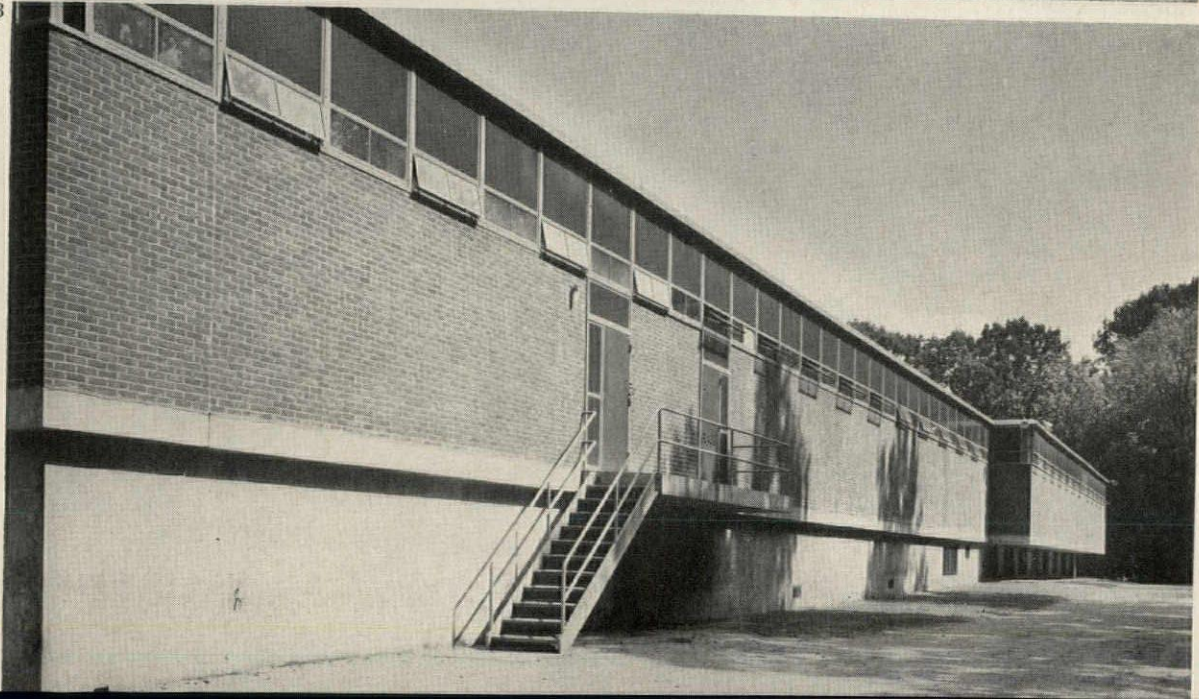


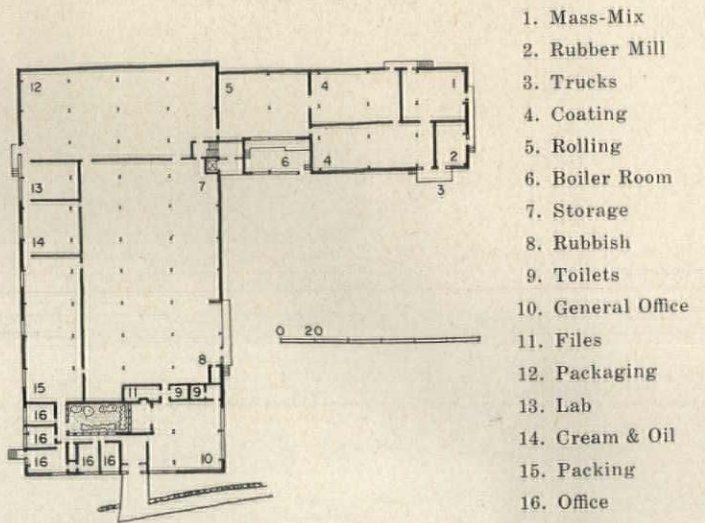
1



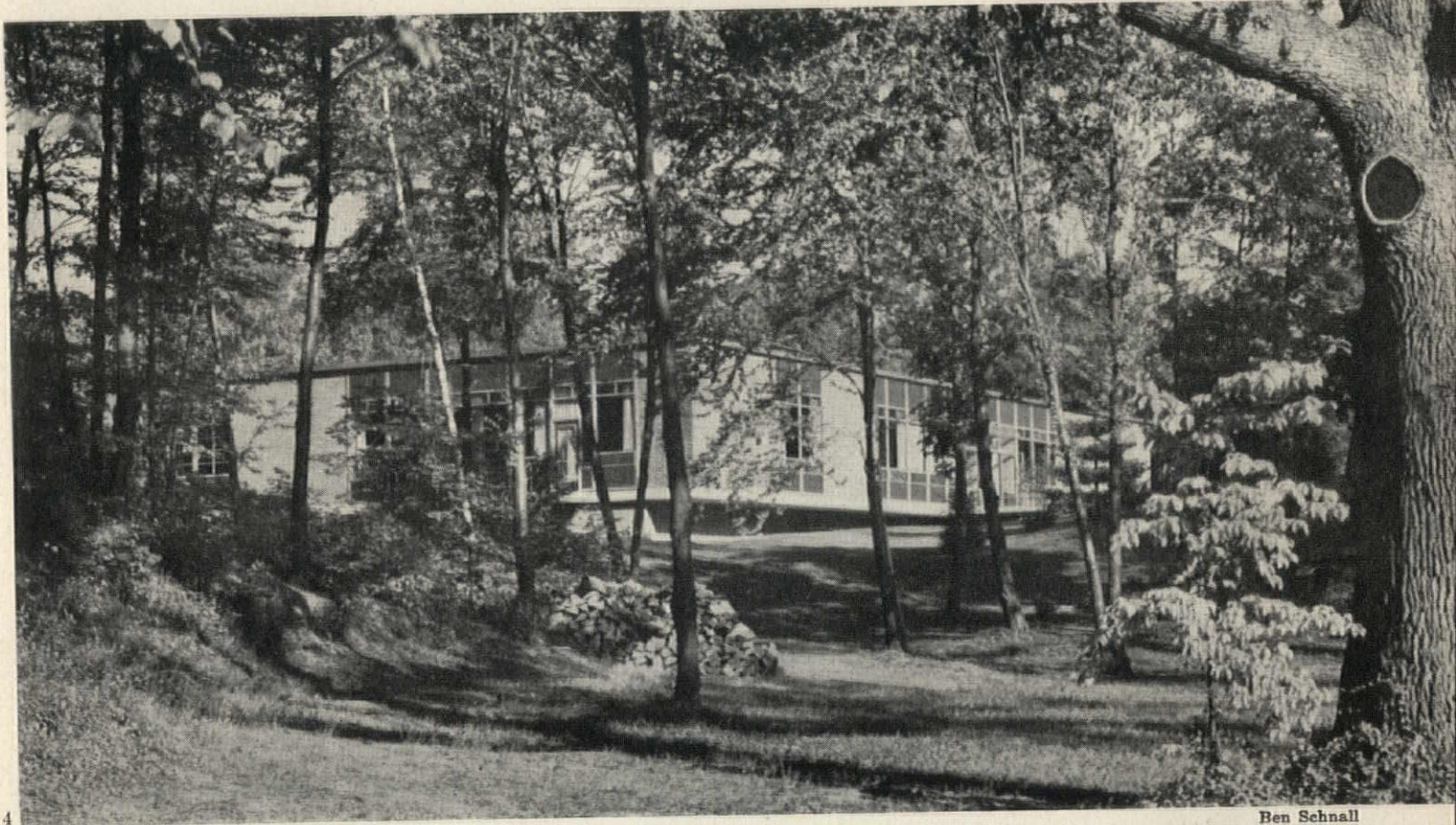
2

3





These photos point up the "platform" concept of the scheme, and show also the unevenness of the natural grade, left undisturbed.



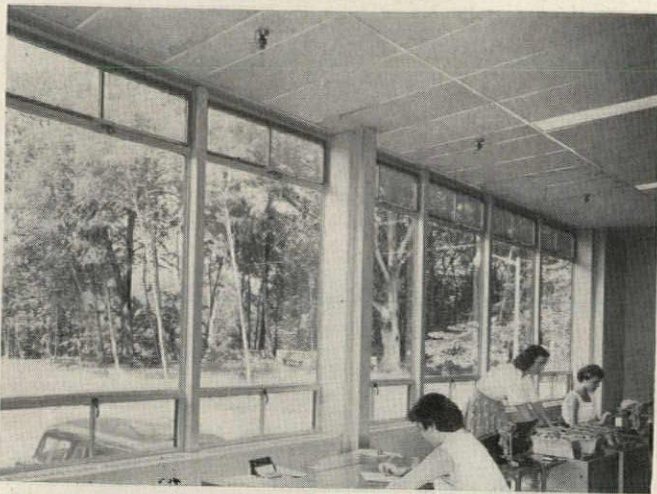
4

Ben Schnall

The plan, above, is in essence a U-shaped group of office, packaging, and manufacturing areas wrapped about a central warehouse and shipping core that works—by forklift—both inwards and outwards. The extended wing houses the flammable operations connected with the coating of adhesive bandages.

Duke Laboratories

1. View from the entrance walk across the parking area towards the adhesives wing.
2. Shows the front office portion, with the visitors' bridge now in side elevation.
3. The rear of the plant, looking along the adhesives wing towards the packaging area in the main factory block beyond.
4. The view through the trees toward the plant one sees as he approaches.



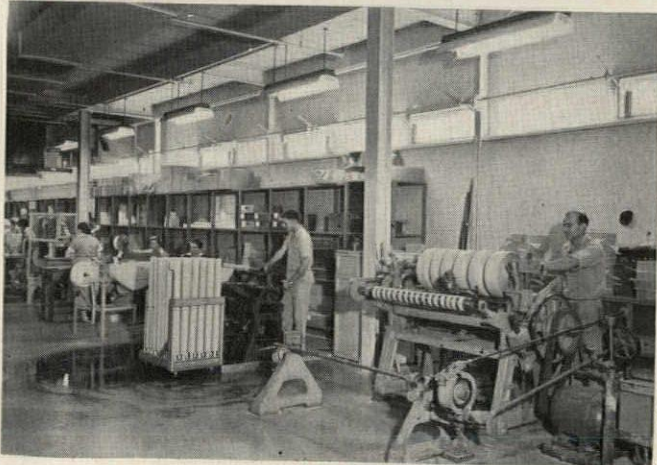
5



6



7



8

Duke Laboratories

In the office areas (5), the walls are plaster, painted; the ceilings acoustic tile; and the floors asphalt tile. The general office is shown above. In the packaging and bottling departments (6) and (7), there are acoustic tile ceilings; walls of glazed facing tile; and cement finish floors. In the adhesive plaster coating and slicing sections (8), the floor is of the conductive type, due to the fire hazard.

The basic structural frame of the building is steel post and lintel, with structural floor slab and concrete plank roof. The sash are painted steel, glazed with ultra-violet absorbing flat drawn glass. The structure is sprinklered throughout.

Ben Schnall

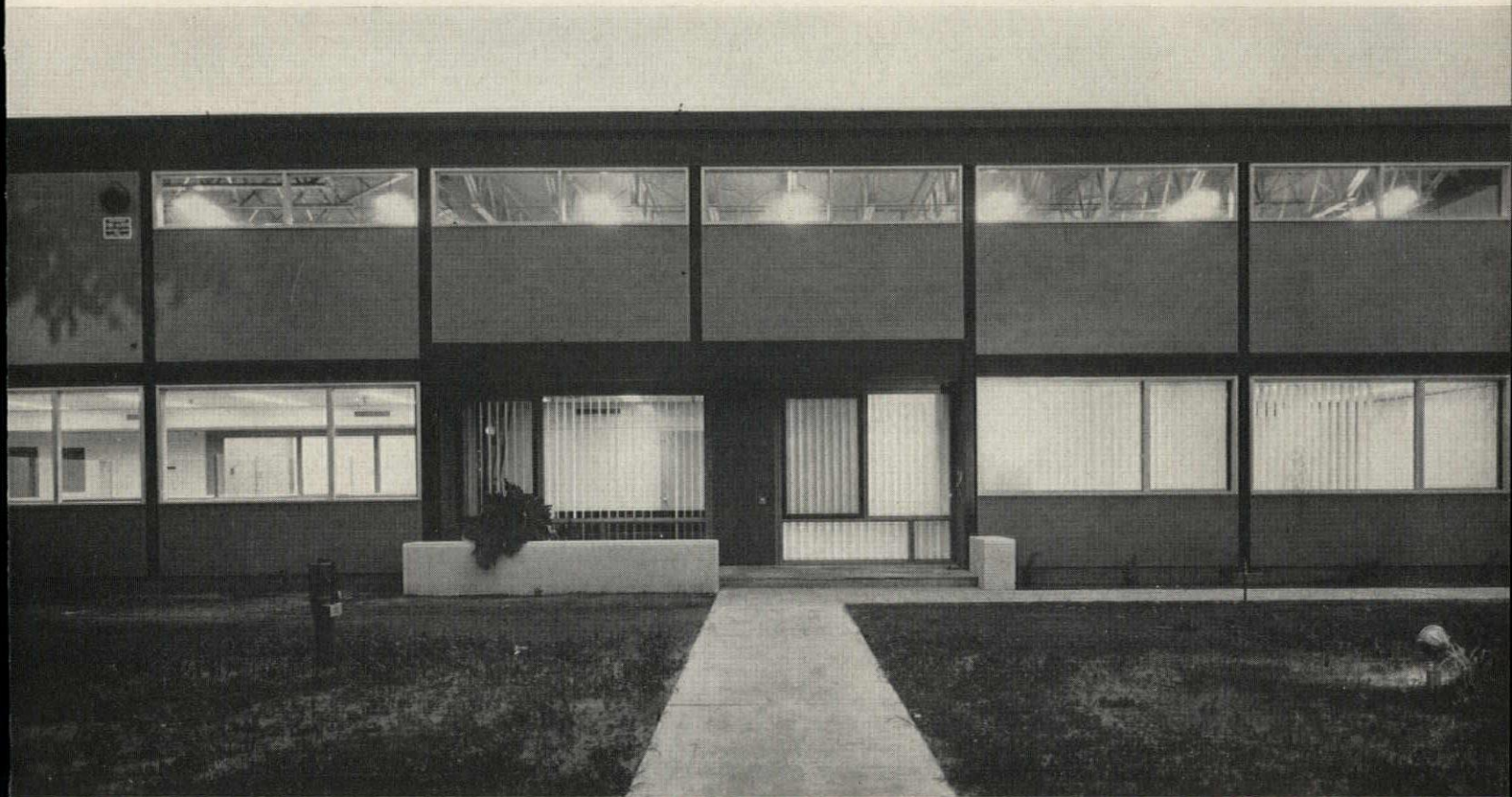
Near Los Angeles: A Western Branch Plant for Fan Manufacture

*Torrington Manufacturing Co.,
Van Nuys, California*

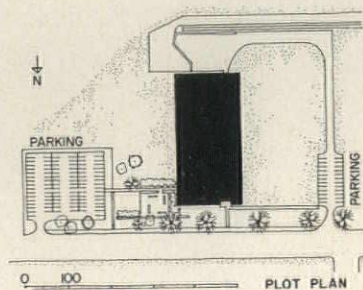
*Marcel Breuer & Associates,
Architects*

*Craig Ellwood, Supervision; Farkas
& Baron, Structural Engineers;
Mackintosh & Mackintosh, Engineer-
ing Consultants; Ralph E. Phillips,
Mechanical & Electrical Engineers;
Eric Armstrong, Landscape Archi-
tect*

Situated on a site with a railroad at
the rear and a highway along the
front, this factory holds several
points of architectural interest.



Marvin Rand

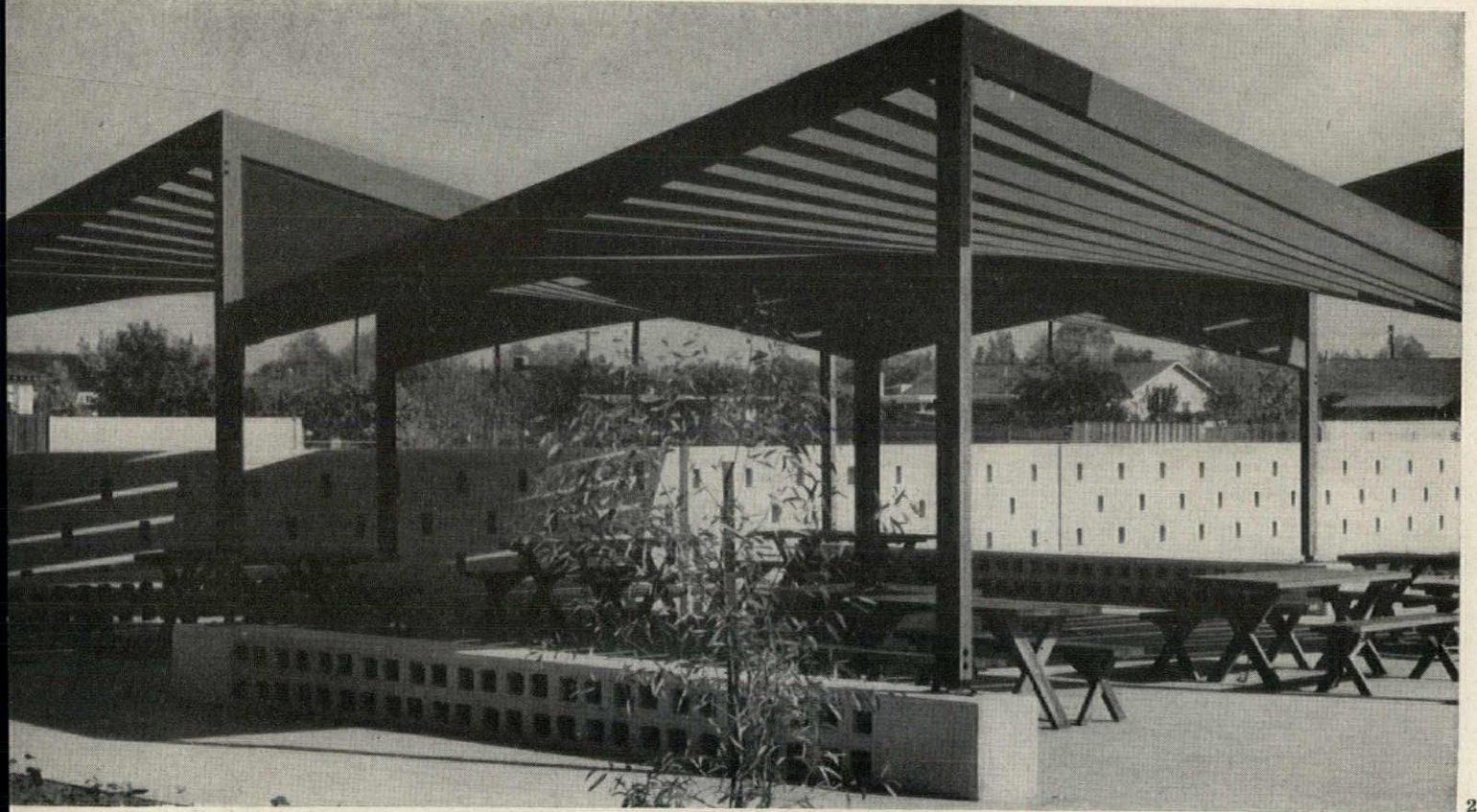


Principal of these is its triple ex-
pansibility; made easy by removable
walls on the two long sides of the
building. These walls—of aluminum
and glass—can be readily re-erected
in their new positions. Ground area
for three new bays on both sides of
the plant is planned into the scheme;
thus the present area of 45,000 sq ft
can be expanded in increments of
15,000 sq ft to an ultimate area of
135,000 sq ft.

The end walls—which will remain
as the plant expands sideways—are
of masonry, and consist of concrete
block infilling for the exposed steel,
painted charcoal gray. Shown above
is the facade adjacent the highway.
The sash are painted white; the en-
trance door vermillion.



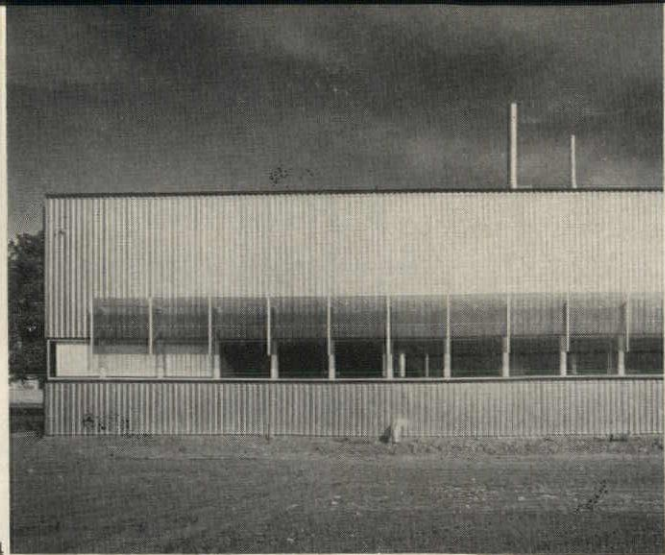
1



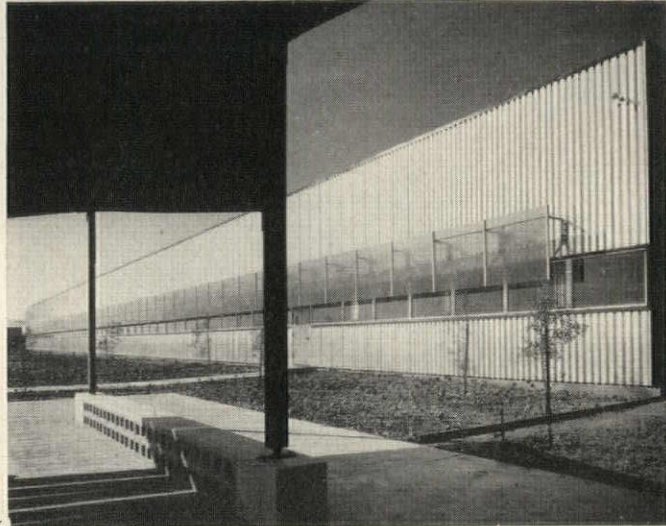
2

Marvin Rand

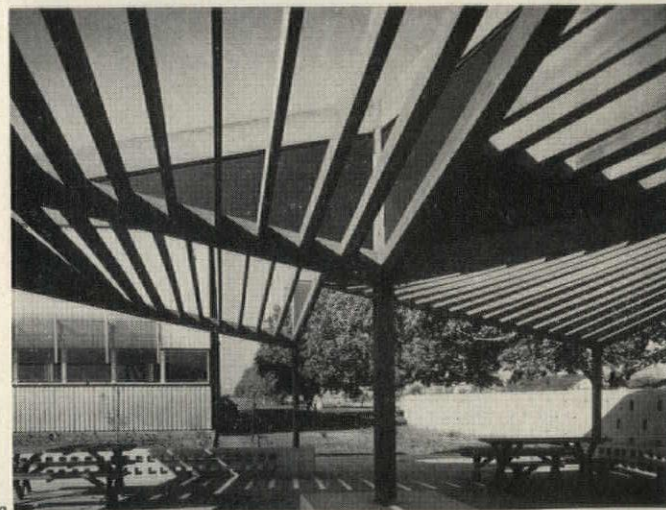
Torrington Manufacturing Co.



4



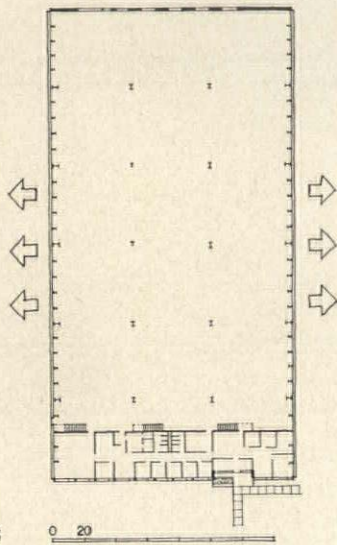
5



6



7



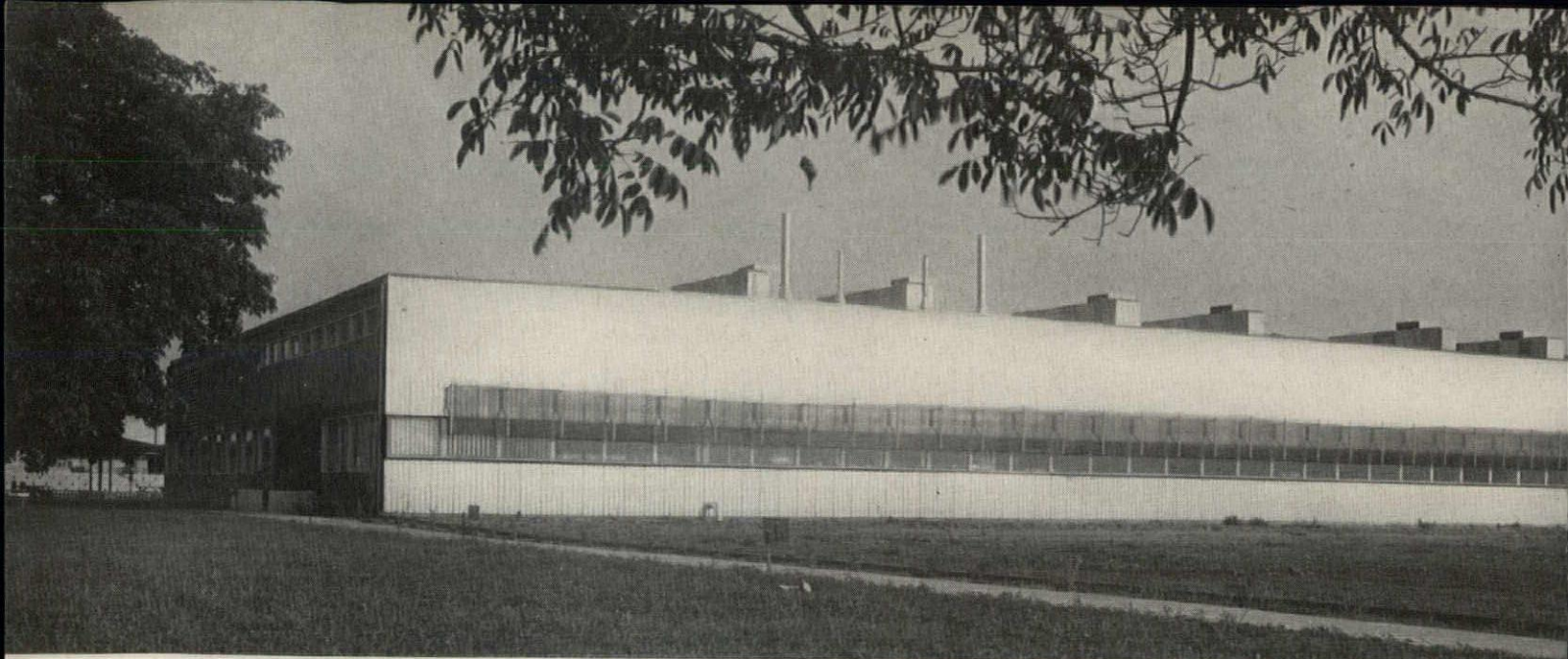
3

The plan (3) follows a regular pattern of 50-ft square bays, with the open-span roof joists alternating direction in a checker-board arrangement, which provides a uniform beam depth overhead as well as large areas of clear space for manufacturing. Arrows indicate the direction of expansion.

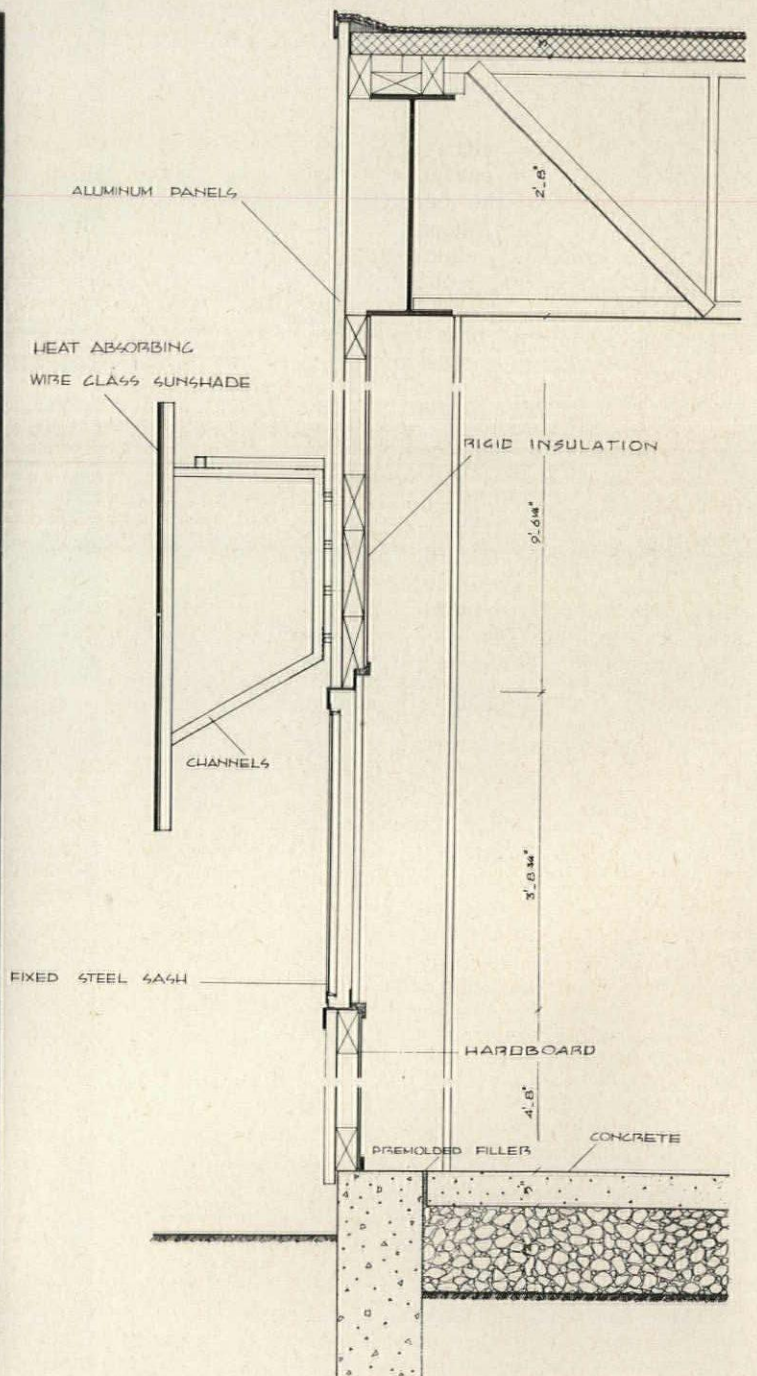
A point of major interest is the outdoor picnic area, where employes can eat their lunch in favorable weather. Sun protection is provided by a gazebo of natural redwood, (2) and (6), interestingly formed of hyperbolic-paraboloid sections joined into several interlocking umbrella-like shelters. The gazebo can be dismantled in sections—and re-erected—as the plant expands.

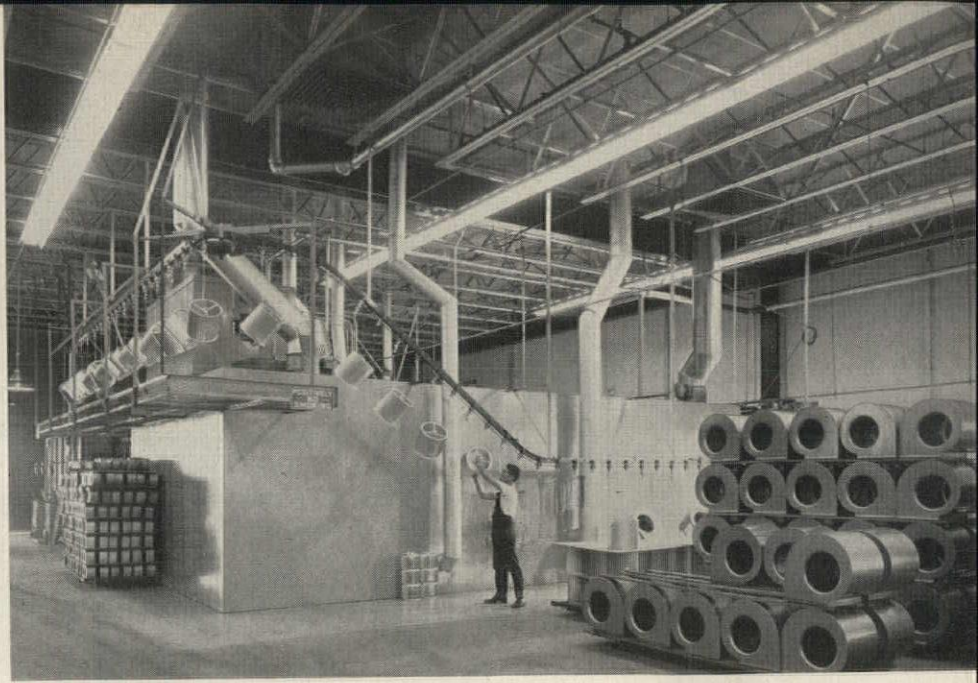
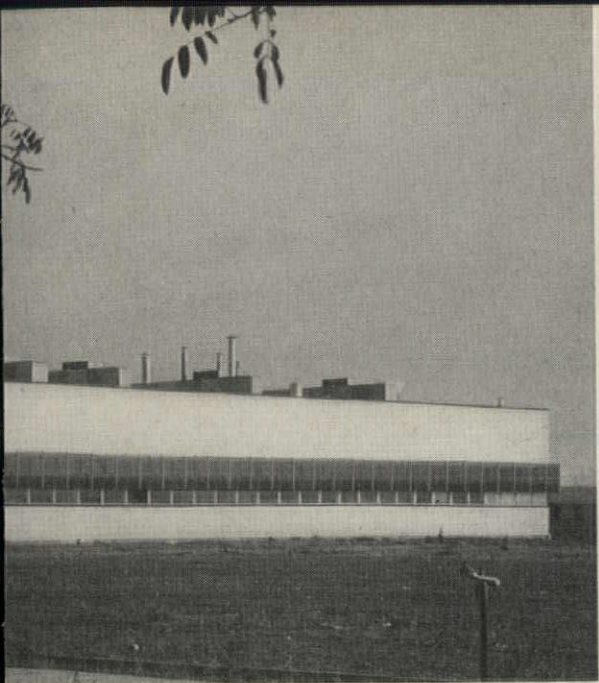
Photographs (4) and (5) show the removable side walls of aluminum, with free-standing sun shades of blue-green heat absorbing glass.

The night view (7) shows the building from the highway, and the entrance through which visitors enter the reception lobby (1)



Marvin Rand





Torrington Manufacturing Co.

Accent: Engineering

Expansion, coupled with the necessary provisions for earthquake resistance, keyed the engineering design for the Torrington plant—the former sparking such features as a removable, re-usable exterior wall assembly; the latter a “checkerboard” roof framing plan that adds rigidity and subtracts steel tonnage.

Foundation and Structure

The foundation design, complicated by the sandy, silty loam found on the site, was based on the decision to design for a reasonable settlement rather than to sink piles or caissons down to the firmer soil 20 ft below. Accordingly, the spread footings for the columns were placed with their bases only 3 ft below grade. A grade beam runs around the entire building perimeter, and the 5 in. slab is laterally tied to the interior piers. The calculated settlement was $\frac{3}{4}$ in., two-thirds of which was expected to occur during construction. (It did.) As a further precaution, the soil under the exterior footings on the east and west walls was power-tamped to reduce settlement when the plant additions are built.

Given a predetermined bay size of 50 ft in both directions, the engi-

neers developed a “checkerboard” roof frame which increased the rigidity of the structure—and made it possible to span the bays with beams that would otherwise have spanned only 30 ft. The beams—all the same size, all equally loaded—frame into the columns from both directions and are braced diagonally by light steel angle ties. Between them are 32 in. long span joists which run in alternate directions in adjacent bays, forming the checkerboard pattern.

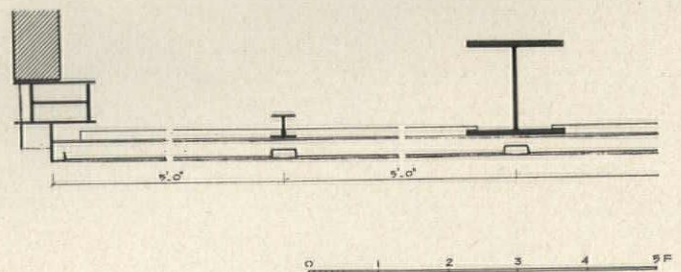
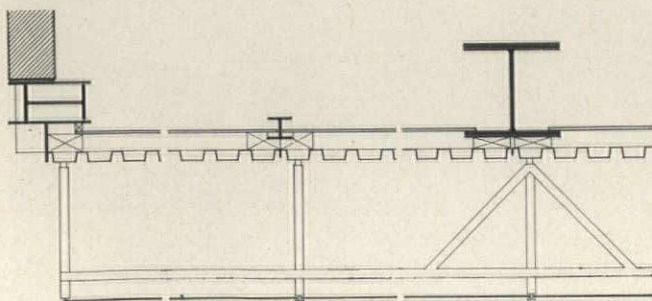
The movable side walls on east and west are fastened to the exposed welded steel frame by horizontal wood studs spanning between the 14 in. main columns and the 4 in. intermediate columns which serve dually as window mullions and bracing. Their exterior skin is of insulated aluminum panels; the interiors are finished with rigid insulation above the windows, hardboard below. The end walls, which will remain fixed, are of reinforced concrete block, anchored to the exposed columns.

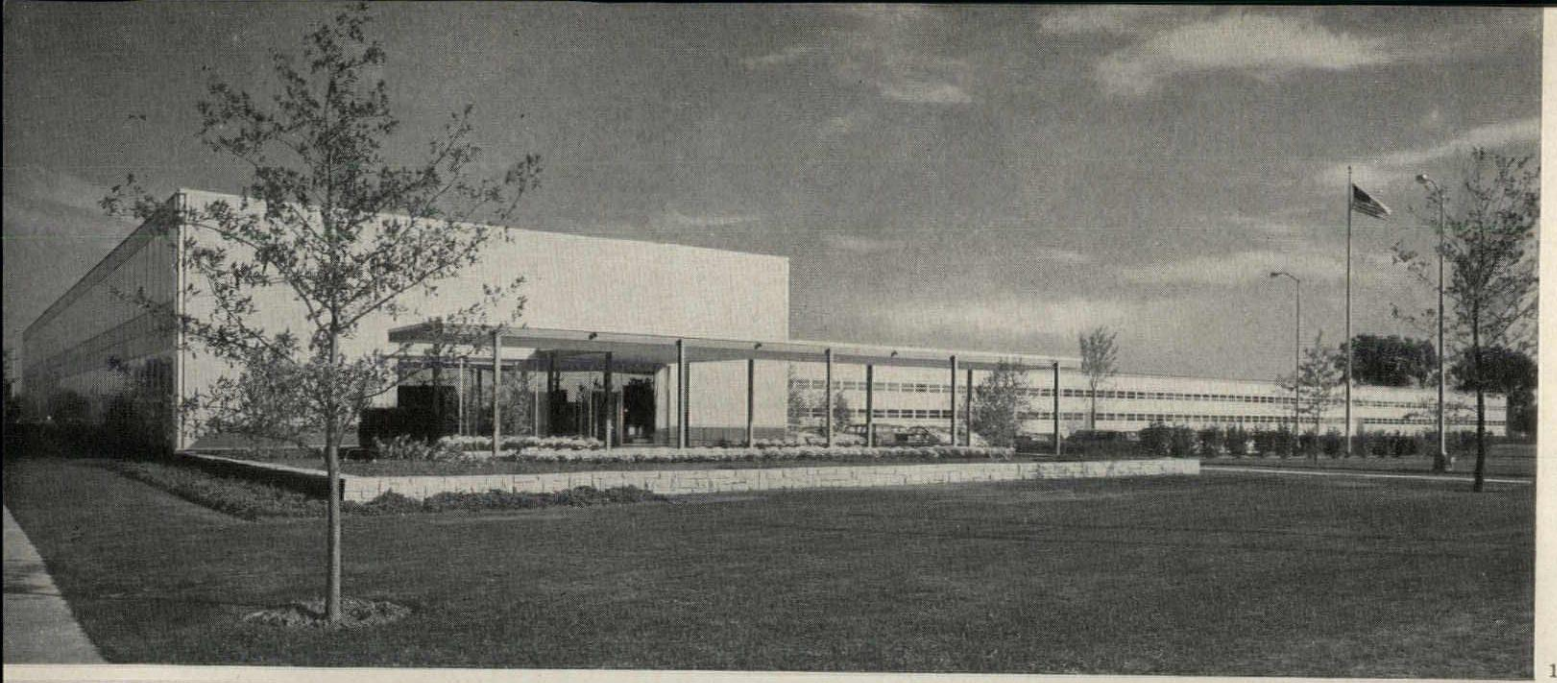
To reduce the cooling load, a sun shade was designed to span the entire western elevation of the building. As shown in the photo and section at left, the heat absorbing wire

glass is supported across the long strip of windows by a simple frame of steel angles and channels. This frame, in keeping with the emphasis on expansibility that characterizes the plant as a whole, can be easily detached—and bolted back in place when the wall has completed its projected step outward.

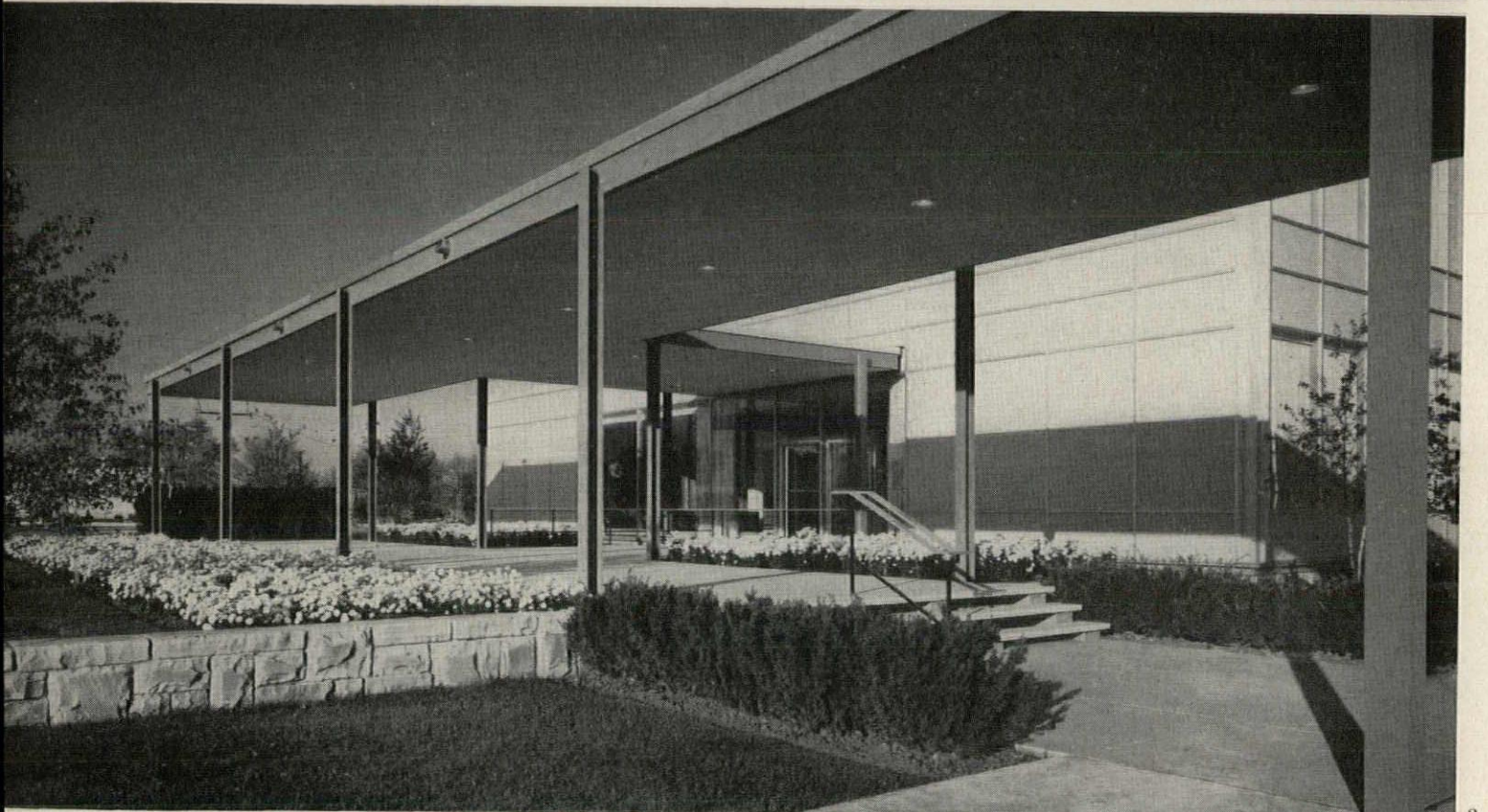
Heating and Air Conditioning

Because of the widely differing character of the two spaces, heating, cooling and ventilating for the office and manufacturing area were treated separately, with a built-up five zone system serving the offices. The factory area is heated with ten 155,000 Btu input, 1800 cfm output, unit ventilators suspended 11 ft from the floor (photo above right) and controlled by individual thermostats. Cooling is provided by twenty-two 15,000 cfm evaporative coolers, located on the roof as shown above left, which operate in conjunction with eight 25,000 cfm power roof exhausters. According to the mechanical engineers, the unusually large volume of air was made necessary by the high internal heat gain from the 880 KVA electric load used to operate the production lines.

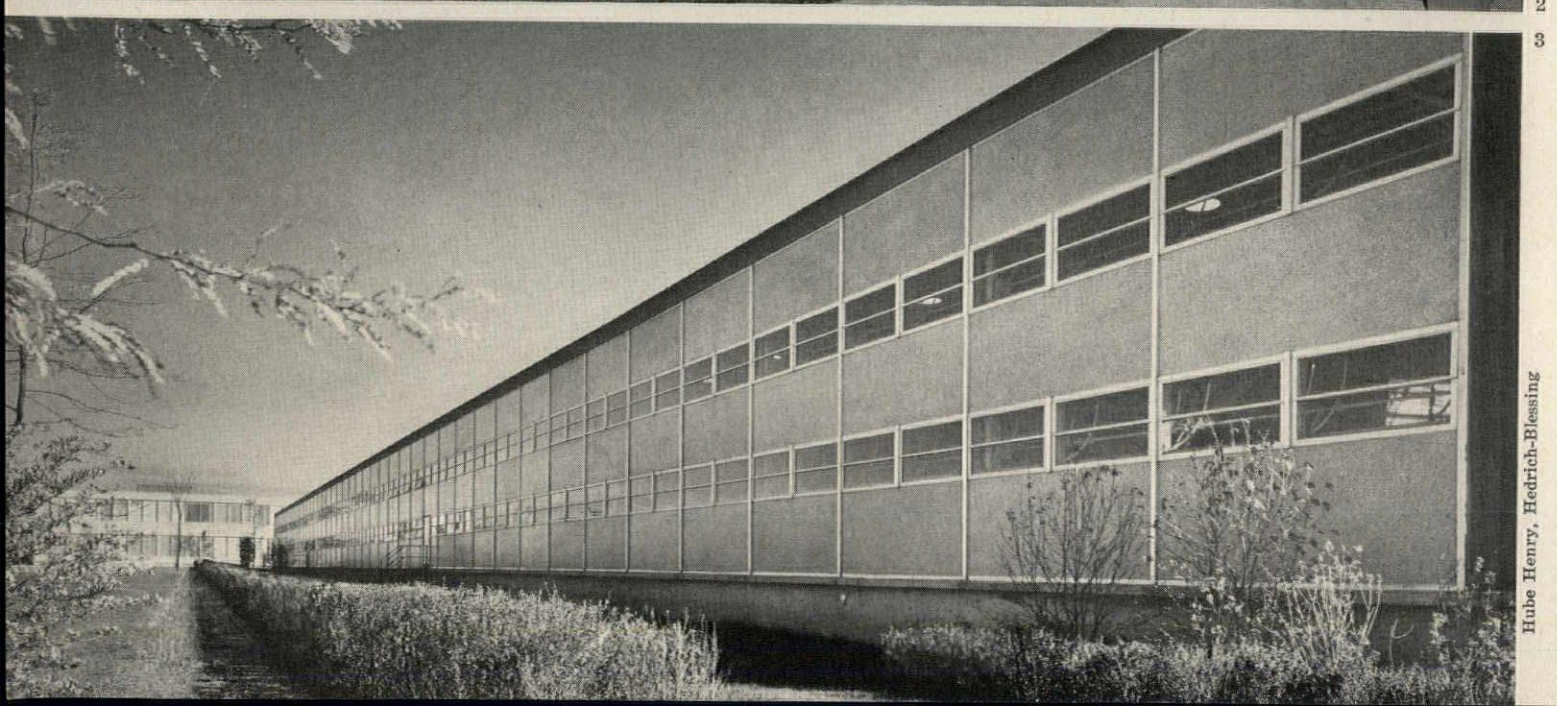




1



2

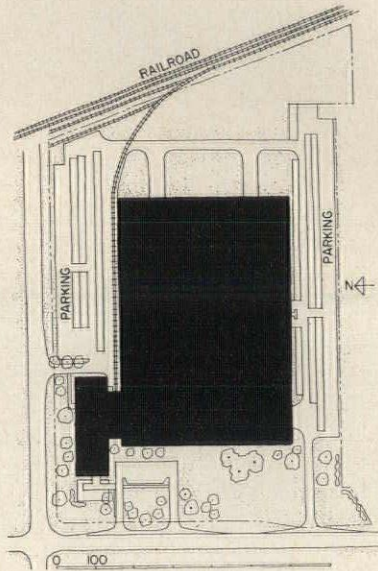


3

The office block (1) and (2) is entered through a garden court, patterned with grass, ground cover, and flowers, blooming in rotation with the seasons. This unit is sheathed—four sides—in light gray structural glass held in aluminum surrounds. The canopy is of structural steel, painted charcoal gray.

The manufacturing building (3) is faced with asbestos cement sandwiched panels finished with a terrazzo-like gray cement enamel. The panels are set in aluminum surrounds and sealed in place by neoprene gaskets.

The 20-acre plot (4) is bounded on two sides by highways and on the other two by a railroad and elementary school. Visitors' parking adjoins the office entrance; there are two areas for employe parking.



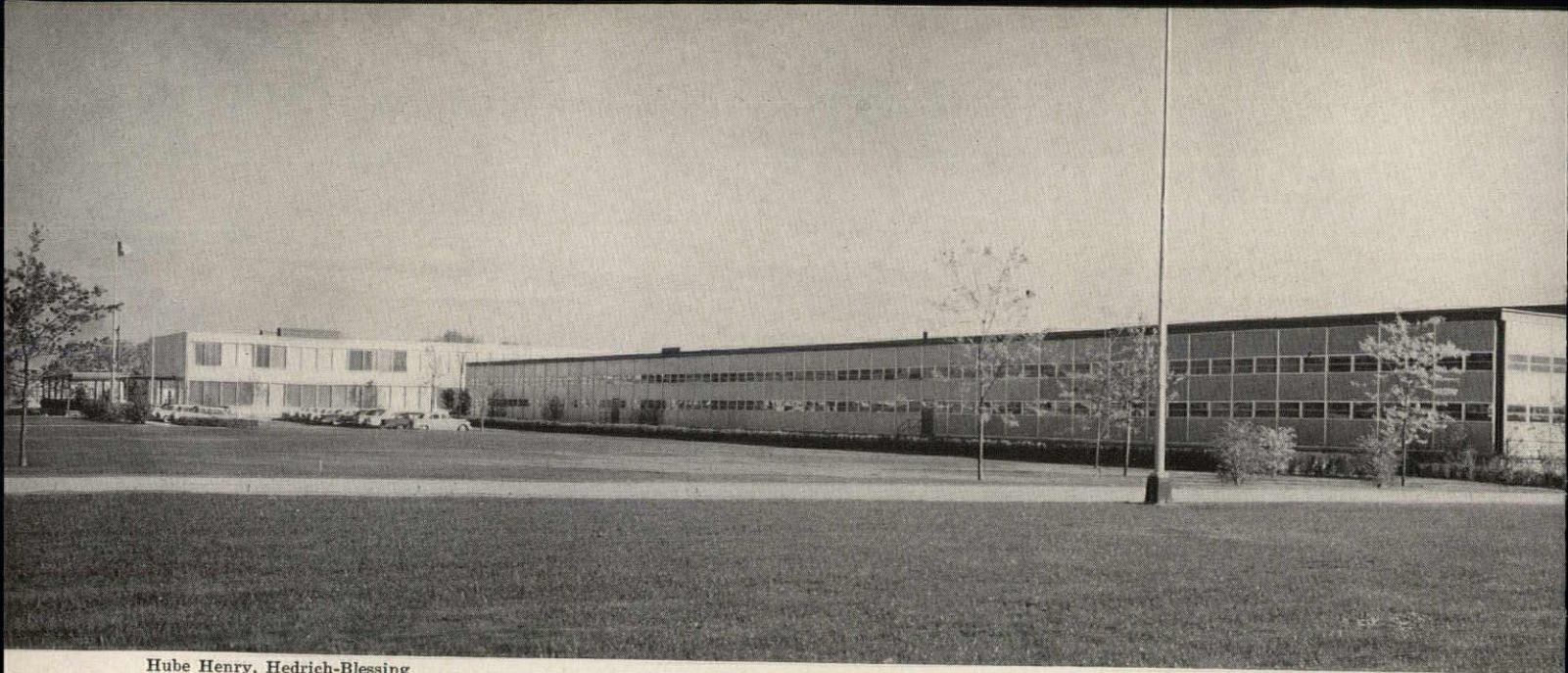
Near Chicago: A National Sales Center and Cosmetics Plant

*Avon Products, Inc.,
Morton Grove, Illinois
Skidmore, Owings & Merrill,
Architects and Engineers*

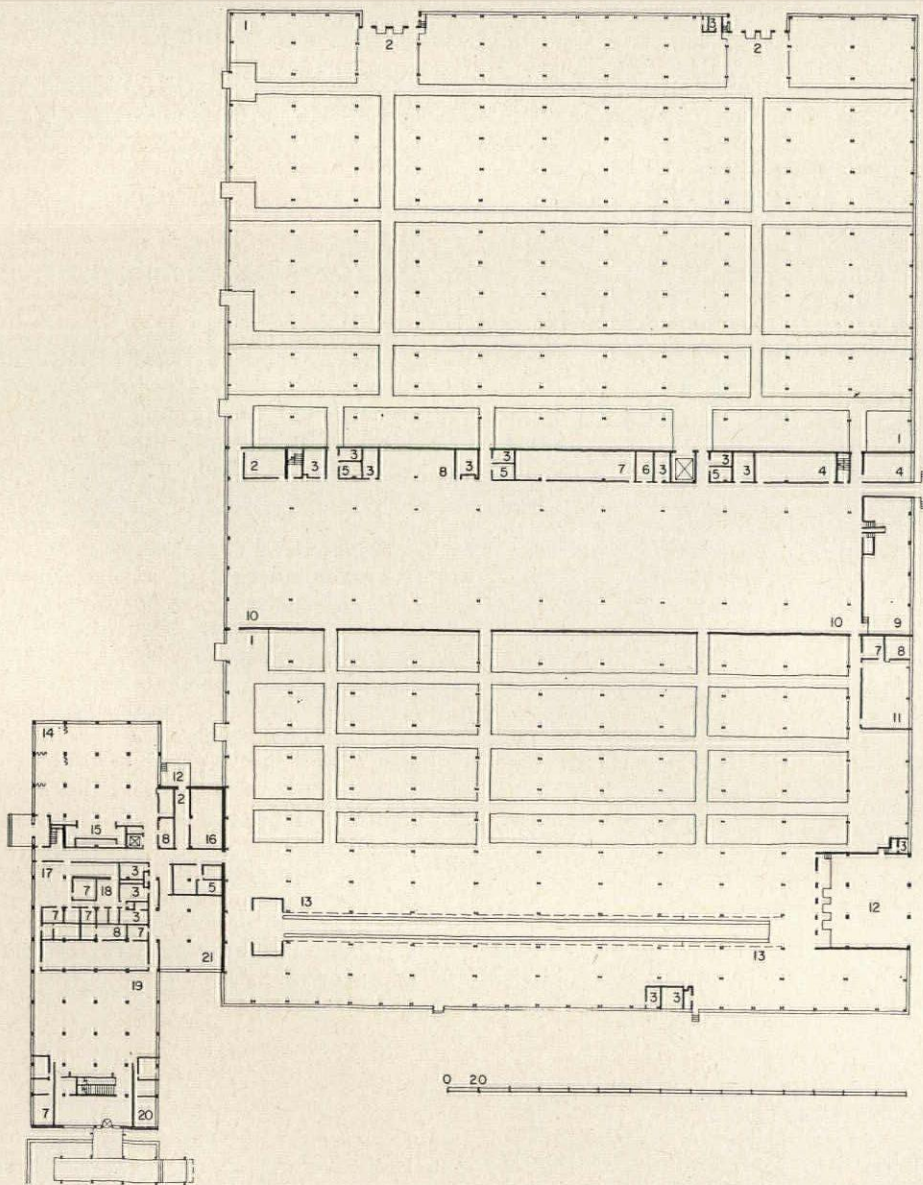
For this attractive midwestern plant, the architects provided what they describe as a "complete turn-key job"—an all embracing service that included architectural, structural, mechanical, electrical, process piping, landscaping and interior plans and details.

The owner's operation is an unusual one, consisting of a door-to-door sales organization composed of thousands of women throughout the country, plus a central manufacturing unit. Since members of the sales force are brought here—upon occasion—for meetings and indoctrination, the buildings, interiors, and landscaping were designed for both feminine approbation and smooth functioning.

The manufacturing-warehouse unit provides an effective flow from warehouse to production to shipping, and features an unobstructed open manufacturing floor area.



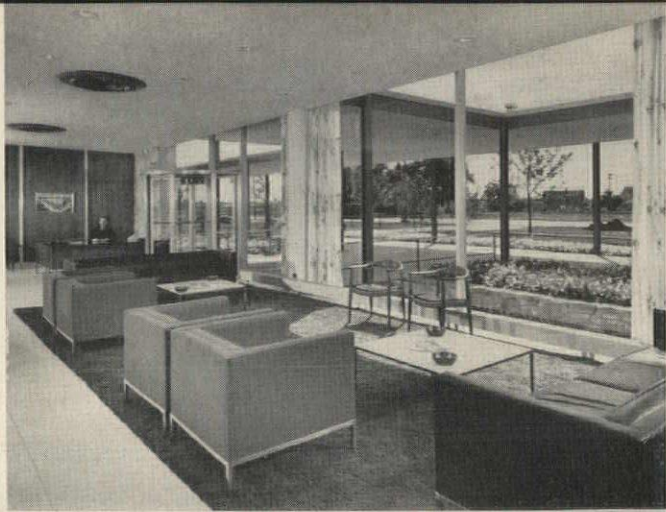
Hube Henry, Hedrich-Blessing



1. Warehouse
2. Receiving Area
3. Toilets
4. Lockers
5. Supervisor
6. Uniforms
7. Office
8. Storage
9. Boiler Room
10. Manufacturing
11. Maintenance Shop
12. Loading Area
13. Conveyors
14. Cafeteria-Dining
15. Kitchen
16. Mechanical
17. Personnel
18. Medical
19. General Office
20. Conference
21. Employees' Lounge



5



6



7



8



9

Avon Products, Inc.

In the production area, plan at left, trusses were utilized to provide large clear areas for manufacturing processes, in which cement finish floors are painted gray, machinery is painted white, walls are light gray glazed facing tile, and doors are painted in vivid accent colors. Plastic domes overhead furnish light and serve as smoke vents in case of fire. Special portions of the manufacturing building are air-conditioned.

The interiors of the office and meeting room unit (6) to (9) have received special attention. The lobby is finished in gray silk and walnut; conference rooms have charcoal gray or red carpeting, walls of gray or white silk, and teakwood furniture. Executive offices, gray carpeted and individually furnished, carry out a theme of aluminum frames with walnut or glass paneled walls. The architects were commissioned to select pictures for the executive suites.

The feminine-g geared manufacturing and administrative center for Avon Products, Inc. places dual emphasis on the efficient manufacture and handling of Avon's cosmetics and on the well-being of its employees—many of them women.

Air Conditioning

With the exception of a small island in the shipping space, warehouse shipping and receiving areas are heated to a serviceable 55 deg. by vertical projection-type unit heaters supplied with low pressure steam. Cooling is omitted. However, in the packaging area where women workers are engaged in filling packaging orders from storage bins on either side of a long narrow aisle, a "spot" air conditioning system was added to increase the temperature of the space to a more comfortable 72 deg.—and to provide for cooling during the summer months. This was accomplished, as shown below, by partitioning the aisle, dropping a ceiling over it, and installing a separate heating-cooling unit with an auxiliary compressor for the cooling cycle. Ducts were then run above the suspended ceiling, with 10 in. diffusers spotted at 15 ft intervals over the full length of the aisle.

The more conventional air conditioning system in the manufacturing and office areas uses multi-zone air handling units serviced by chilled water coils from a central refrigeration machine and cooling tower, and by low pressure steam from the

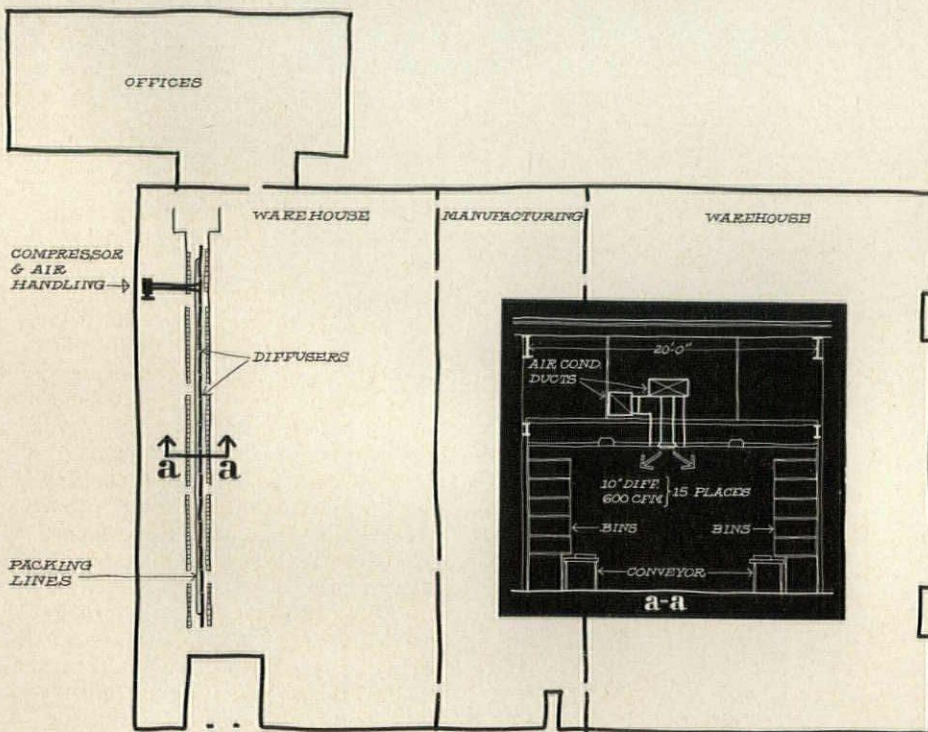
boiler plant. This central system, which is automatically controlled to maintain comfortable temperatures in occupied areas, is supplemented by forced hot water radiation around the periphery of the building and below large glass areas.

The steam generating units for the structure are three package type boilers. One of these supplies low pressure steam for the manufacturing and office areas; another generates high pressure steam for process work; and the third is arranged for dual pressure firing so that it can be used to deliver low pressure steam directly to the heating mains or to supplement the high pressure boiler should the demand for process steam exceed its capacity.

Structure

To provide a column-free area for production lines on the first floor, the record floor, mezzanine, equipment platforms and roof of the manufacturing section are supported by heavy 60 ft trusses whose design included an investigation of the secondary stresses produced by the oversized members and gusset plates. The low warehouse and shipping spaces on either side of the manufacturing area are roofed by a poured gypsum deck over semi-continuous girders and purlins. By cantilevering the girders over the columns and suspending hinged sections in alternate bays, substantial savings were achieved over conventional framing.

Avon Products, Inc.



West Coast: A Plant For Rebuilding Valves and Meters

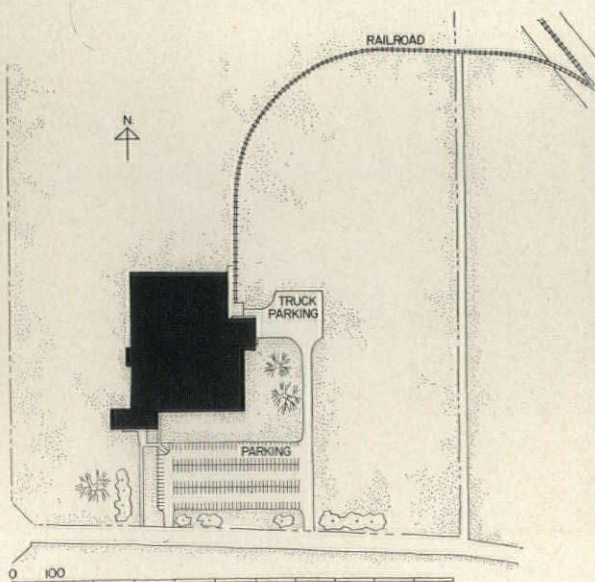
*Rockwell Manufacturing Co.,
Porterville, California
Walter Wagner & Partners,
Architects & Engineers*

*Will Thomas, Project Architect;
James A. Blayney, Mechanical &
Electrical Engineer; Edward Ave-
disian, Design Architect; William
Brooks, Structural Engineer; Burr
Garman, Landscape Architect*

This 106,000 sq ft plant for the re-
pair, rebuilding, and calibration of
meters and valves is located on a
33-acre site in a region which is



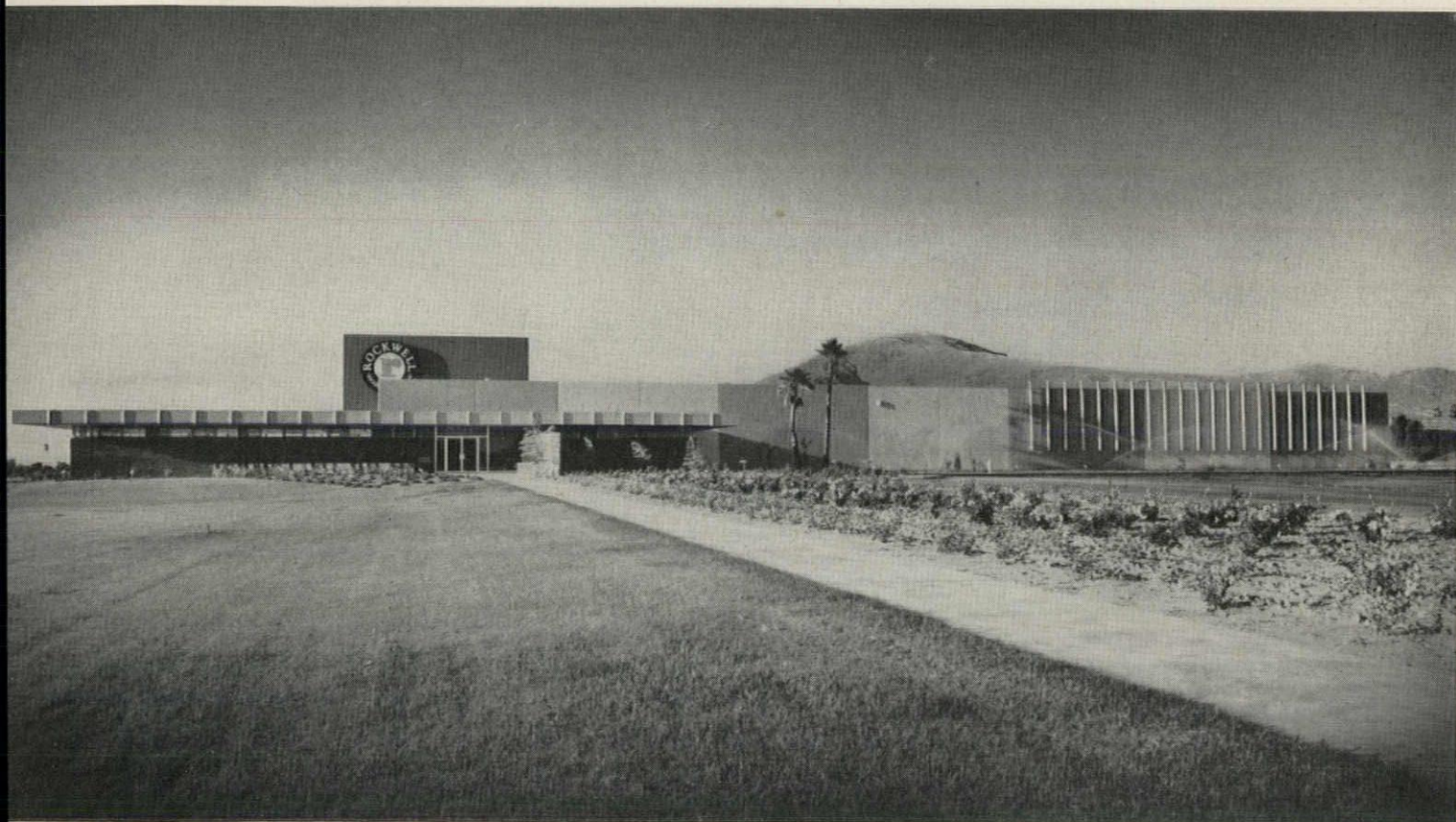
Julius Shulman



now rural, but developing rapidly. The exterior wall construction utilizes tilt-up 6-in. concrete panels, reinforced by $\frac{3}{8}$ in. rods running both ways at 7 in. o.c. The 20 ft wide by 22 ft high panels are painted both sides. Knockout panels are provided on the north and west sides for future expansion.

The decorative arrangement of the vertical exposed flues for the soldering iron furnaces—right, above—creates another exterior feature of considerable interest. These asbestos pipes—painted in a contrasting color—are necessary to plant operation in order to keep interior temperatures within close limits, since certain of the products function through temperature variations.

Rockwell Manufacturing Co.

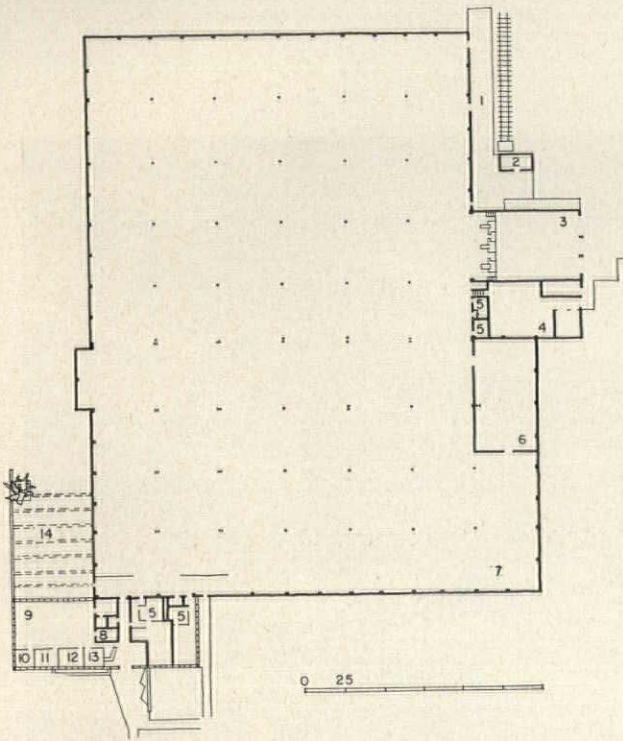


Julius Shulman

1



2



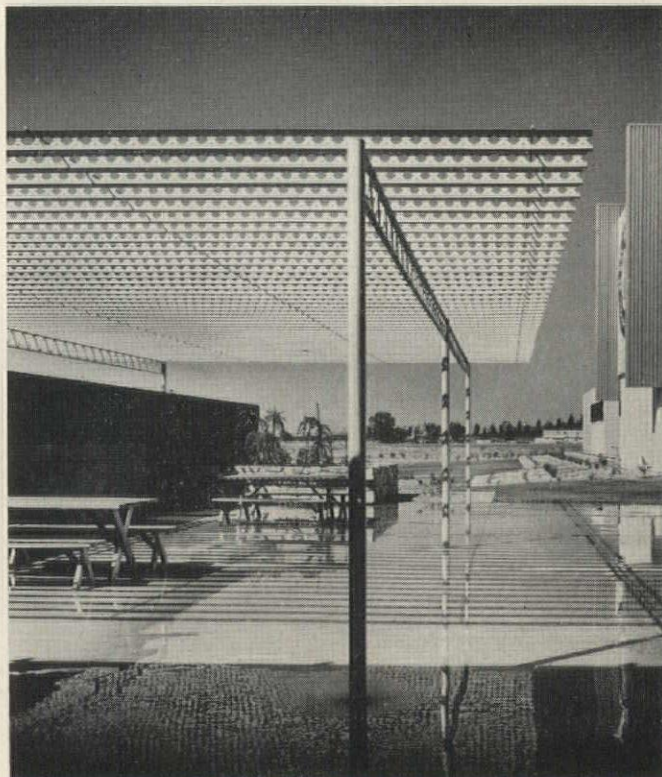
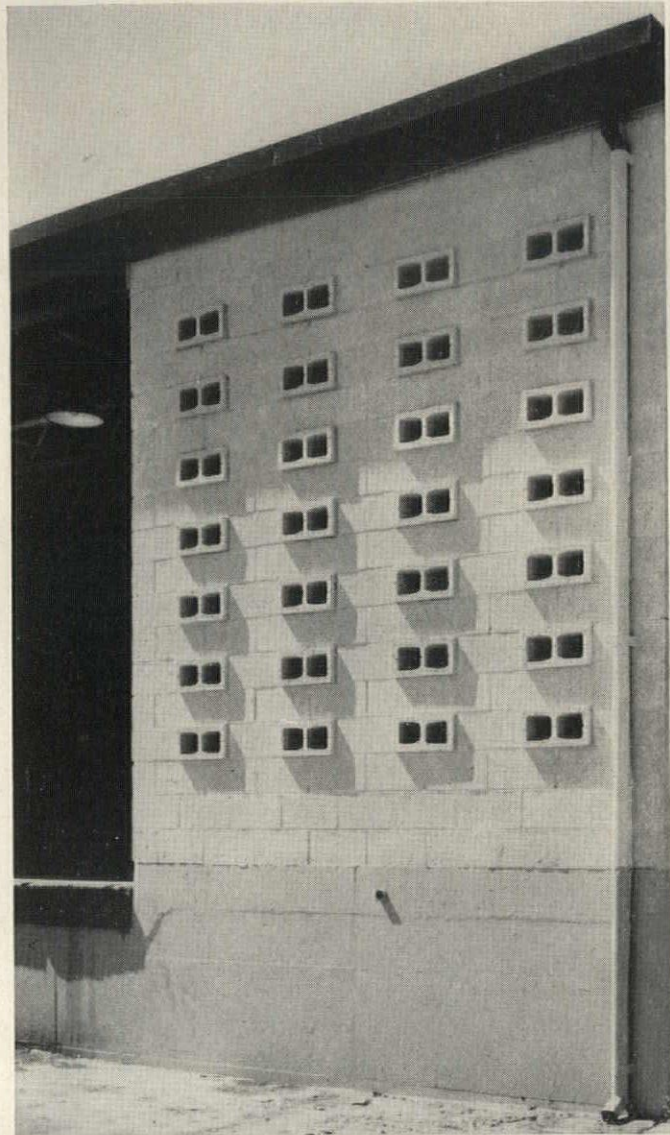
- | | |
|----------------------|-------------------|
| 1. Railroad Platform | 8. Vault |
| 2. Paint Storage | 9. General Office |
| 3. Truck Loading | 10. Office |
| 4. Boiler Room | 11. Conference |
| 5. Toilet | 12. Manager |
| 6. Cleaning Room | 13. Secretary |
| 7. Warehouse | 14. Patio |

(1) shows the south elevation, with office unit and entrance at left; the pattern of heat dispersing flues at the right.

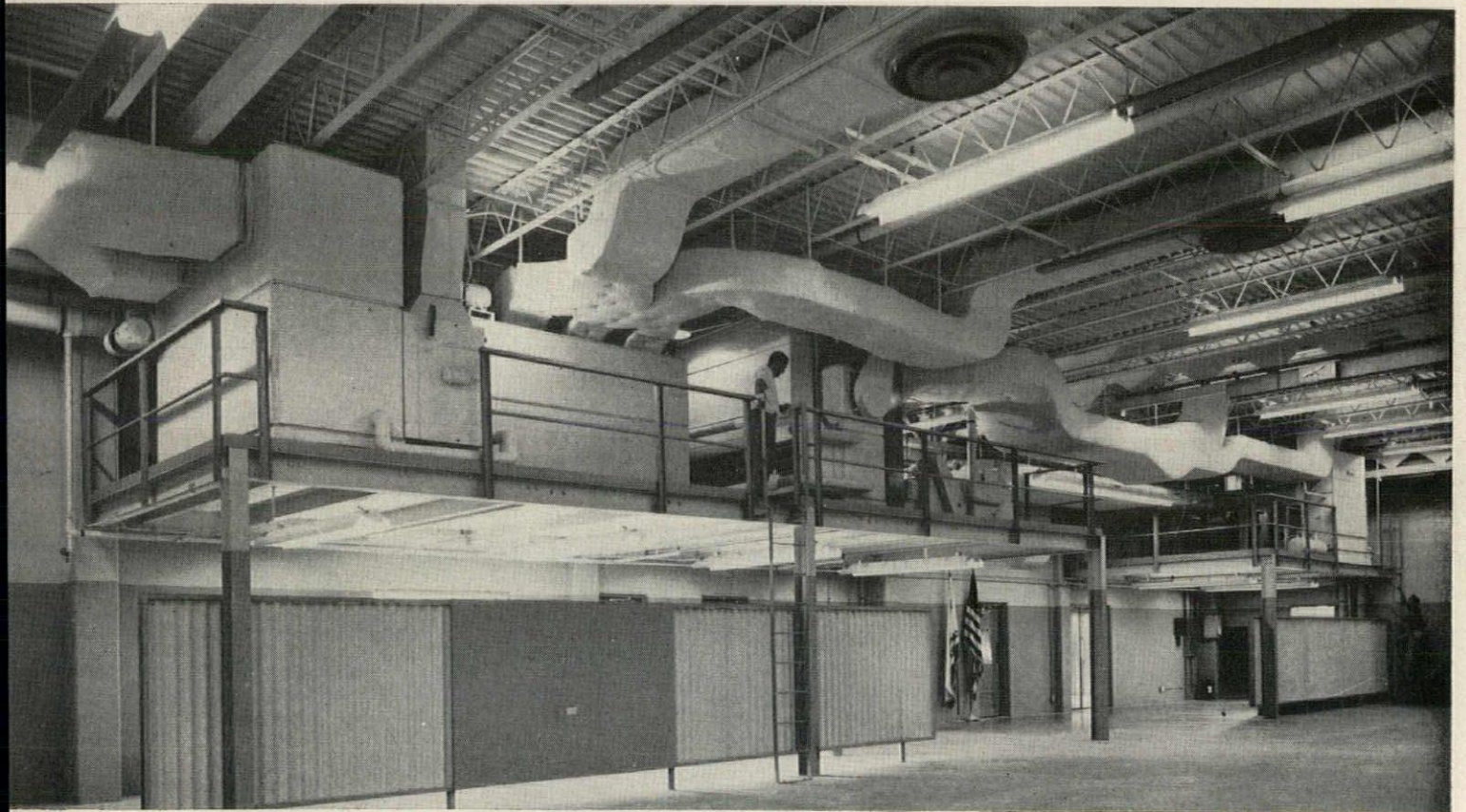
In the visitors' reception lobby (2) the floor is of natural quarry tile, the ceiling of perforated aluminum pans, and the walls variously of Palos Verdas stone or walnut paneling. The suspended perforated ceiling in lobby and office areas serves as a diffuser for the plenum space above.

The paint storage room (3), located adjacent the outside truck dock, is enclosed by an interestingly patterned wall made by structural tile laid flat.

A metal pergola (4) provides sun protection and a decorative accent for the employes' patio, popular at lunch time.



Rockwell Manufacturing Co.



Platform near employee entrance takes advantage of lower required clearance, supports blower units (three for nearby warehouse zones, one for offices) and air intake ducts. Adjacent smaller platform holds office air conditioning equipment—boiler, compressor, condenser and chiller—and domestic hot water supply. Separation of office system permits use of administrative areas when main plant and central boiler room are shut down

By skillfully weaving them into the total design, the architect-engineers for the Rockwell plant have coaxed its structural and mechanical elements to serve as "architectural" elements as well; flues required to disperse heat from soldering iron furnaces transform one elevation into a pipe organ (over page); the office air conditioning system puts an acoustical ceiling to work as a diffuser; and low cost tilt-up walls form a paintable surface on which to splash the bold panels of color that enliven windowless elevations—and disguise construction joints.

Foundation and Structure

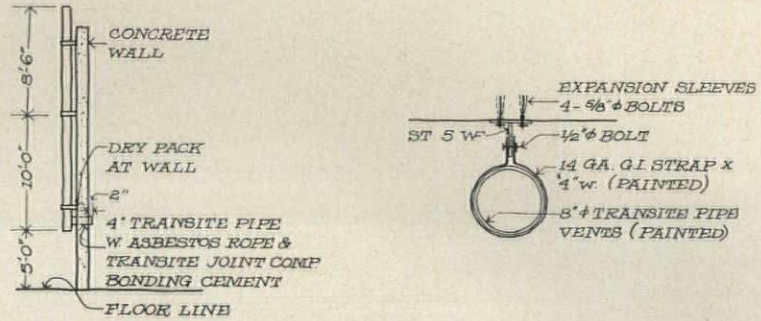
A special site problem of alluvial soil with a high content of fine sand—suitable neither for foundations nor for Rockwell's requirement of a floor free from settlement or cracks—was met by taking a cue from the highway engineer. The top four feet of soil were removed and recompactd with a light 2-ton high frequency vibrating roller of a type recently developed for highway work. True to road-building tradition, the 6 in. reinforced concrete floor slab was poured directly over the compacted earth fill, with special foundations provided only for large machine tools. It was then hardened with a heavy duty, absorption process floor to protect delicate meter parts from dusting of the concrete surface.

Except for the office portion of the building, all exterior walls are of tilt-up construction which eliminates 90 per cent of the forms required for poured in place concrete and results in a smooth, paintable surface inside and out. The ribbed steel deck roof, which is welded to steel bar joists supported at 4 ft intervals by flat steel trusses, also serves as a structural diaphragm to resist earthquake forces—thus eliminating the steel bracing rods usually required to meet the California building code. Its entire surface is covered with a built-up roof over fiber insulation. Except in the crane bay, columns are 6 in. diameter steel pipe spaced 40 ft apart both ways.

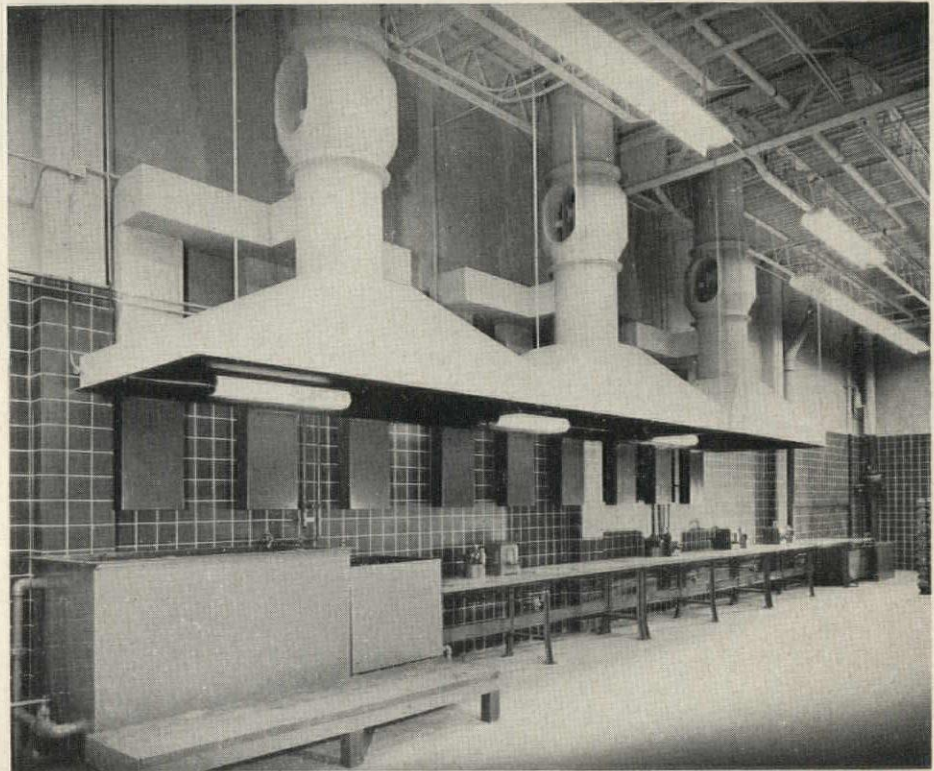
Heating and Air Conditioning

Because the entire building is air conditioned, no windows or skylights were required in the manufacturing area. This not only simplified construction, but also helped to reduce the air conditioning load, the amount of dust entering the plant—and maintenance expenses.

The shop and warehouse areas are air conditioned summer and winter by 23 fan coil air handling units suspended from the roof structure



Exposed flues on south wall (above) vent heat from soldering iron furnaces; in cleaning room, fan-equipped exhaust hoods (below) are used to free air of sand-blasting dust, acid vapor



Julius Shulman—also photo page 176

and zoned according to bays. For maximum flexibility in the use of interior space, each zone is served by a separate system consisting of the air handling unit, an integral duct system and individual temperature controls. Fresh air enters the units directly through the roof; hot or chilled water is piped to them from a central source. A steam boiler is the primary source of energy for heating and for the absorption unit which generates chilled water for cooling. Ducts are nested between the bar joists to maintain 15 ft clearance between the floor and the bottom of the trusses. The open steel trusses also permit the piping, electrical distribution system and lighting to be run both ways above the bottom chord of the trusses or bar joists.

In the administration areas, heat-

ing and cooling is provided by ceiling pans clipped to overhead radiant pipes through which hot water is pumped in the winter, chilled water in the summer. Heated or cooled air for ventilation is supplied to the area by a separate forced air unit, and diffused through the perforations in the metal pan acoustical ceiling, making it possible to relocate office partitions without changing the air distribution system. The acoustical control provided by the ceiling is supplemented by a thermal-acoustic blanket placed above the piping.

To reduce the load on the factory cooling system and draw the heat away from the operator, the transite flues for the soldering iron furnaces were bolted outside the south wall of the building, left exposed, and painted a contrasting color.

Factories



FLOOR SLAB

PROBLEMS IN FACTORIES AND WAREHOUSES

By J. L. STAUNTON, *Consulting Engineer, New York City*

Architectural Record survey

shows that on-grade concrete slabs continue to give trouble due to poor design and construction practices

The problems

and their relative importance are analyzed by the author

Too little attention has been paid to the design and construction of floor slabs at grade in factories and warehouses. This is obvious from the results of a survey conducted by ARCHITECTURAL RECORD among plant engineers which revealed that 61 per cent of the respondents had some sort of trouble with floor slabs in their buildings. A subsequent article will cover recommended practices to keep these troubles to a minimum.

Since most modern factories and warehouses are being designed as one-story structures for best circulation of both personnel and materials, the slab at grade should have become the most important part of the structure. Instead, with the possible single exception of airplane hangars, slab design frequently has been relegated to the rule of thumb design of using a 6 in. slab at grade with some nominal reinforcement. Where no importance is attached to design, it is likely also that little attention is given to construction or supervision. Such practice can only lead to trouble.

Sufficient information on how to construct on-grade floor slabs has been available for a long time: the construction is very similar to building a good road. For one thing, the kind of compaction given to road beds could serve as an object lesson for floor slab designers. The theory of floor slab design should be even less complicated than road design, since very little care need be exercised in connection with frost action and underdrainage (except in the case of basement slabs or slabs below grade). On the other hand, more care is necessary in the preparation of the soil due to the confined area of the slab and the presence of many utilities and structural foundations in the case of indus-

trial slab than is required for road construction.

It's strange that designers and builders of industrial buildings will take all the normal precautions on the rest of the construction—structural, mechanical and electrical—but neglect the floor slab which is the platform upon which the entire operation is performed.

Floor slab problems reported in this survey are about evenly divided between poor foundation conditions and poor concrete work. From the results of this questionnaire there is no way of knowing whether these conditions are due prevalently to design or construction deficiencies.

To summarize the results briefly, the use of the structure (manufacturing or warehousing), the type of operations, the type and weight of fork lift trucks—all seem to have no bearing upon whether there will be difficulties or no difficulties.

Apparently expansion joints are good things to use. Contraction joints do not seem to be as important as first thought. Especial care must be taken where the foundation conditions are found to be poor. It is relatively important to have pervious soil under the floor slab. The size of the structure does not seem to have too much pertinence. Apparently, present construction practices are better than they were in the past, and relatively less trouble is occurring in more recent structures.

Indications are that conservatism with respect to the thickness of the floor slab is well warranted, as is also the use of a better grade of concrete. The idea of compacting the fill prior to placing the floor is of primary importance, while the thickness of the fill under the floor is not of much consequence.

In evaluating this questionnaire, various extraneous answers were eliminated to arrive at the results. Thus, in various instances, responses such as "no answer," and incomplete answers were deleted prior to computing the percentages.

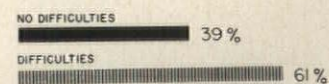
The questionnaire was in two parts—the first being general, and the second part semi-technical.

To evaluate the results of the questionnaire, answers to questions beyond No. 2, Part I were divided into two groups, each adding up to 100 per cent (except where noted). One group was comprised of all answers where difficulties were experienced; the other group had all answers where there were no difficulties. It was felt that this was the only way to get meaningful comparisons.

Following is the evaluation (solid bars indicate no difficulty; broken bars indicate difficulty):

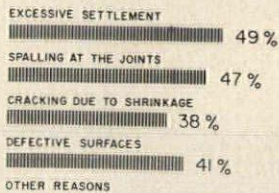
Part I

1. Have the on-grade floor slabs in your building caused you any difficulties?



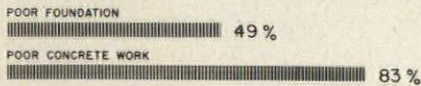
Approximately 2000 questionnaires were sent out and 390 replies were received. Of those returned, 237 experienced difficulties, while 153 had no troubles. Thus, the percentage of the plants experiencing difficulties will range between 61 per cent (based on all questionnaires returned) and 12 per cent (based on all questionnaires sent out). In either case it can be seen quite readily that not enough attention is given to these on-grade floors.

2. If yes was it due to: (a) Excessive settlement, (b) Spalling at the joints, (c) Cracking due to shrinkage, (d) Defective surfaces, (e) Other reasons?



In evaluating this question, the respondents that either did not answer, and those that answered as "other reasons" were eliminated. Following this, a tabulation was made under each defect and the sum in each column divided by the number that replied following deletions. A glance at the percentages reveals that a great number of structures had more than one trouble.

An attempt was made to divide the difficulties into two primary categories—those due to poor foundation conditions and those due to poor concrete work. On this basis all difficulties due to excessive settlement reveal a foundation deficiency while

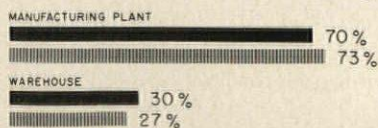


all those involving spalling, shrinkage, or defective surfaces should be attributable to poor concreting. It is our opinion that the 49 per cent due to foundation conditions should be fairly reliable, while the other percentage is felt to be on the high side for the following reasons:

a. If the concrete work were poor it is highly probable that more than one of the difficulties (spalling, cracking, etc.) listed would occur. Thus in the tabulation each respondent might have more than one answer indicating concrete quality was at fault.

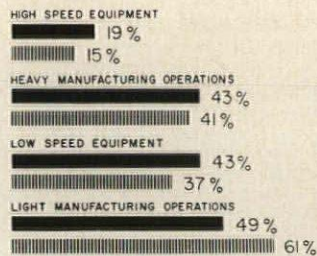
b. In cases where a poor foundation occurred, it is possible that this would also result in cracking, spalling, and defective surfaces.

3. Is the floor slab used primarily for manufacturing or warehousing?



There apparently is no greater tendency for manufacturing plants to give difficulties than warehousing and vice versa. Seventy per cent of the plants that had difficulties were manufacturing plants, while 73 per cent of the plants that had no difficulties were for manufacturing.

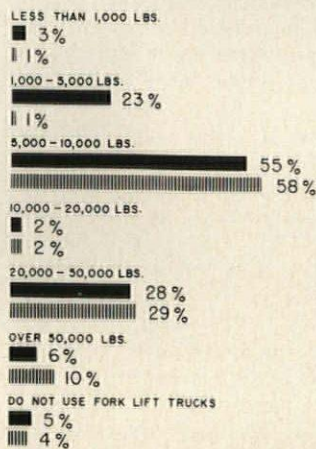
4. If manufacturing, which of the following categories does the operation consist of: (a) High speed equipment, (b) Heavy manufacturing operations, (c) Low speed equipment, (d) Light manufacturing operations?



From the results of this question it can be seen that the particular use of the manufacturing plant has no bearing on the tendency of the floors to be defective since the percentages of slabs causing trouble and not causing trouble are very close in each category, with the exception of the type of manufacturing plant engaged in light operations where apparently there is less trouble. This is what one would expect since these floors would not be as seriously loaded as others. However, enough reported things wrong so that caution should also be used in constructing slabs for these plants.

The percentages in each group add up to more than 100 because many of the answers listed the plants as being utilized for more than one purpose.

5. What is the capacity of the fork lift trucks commonly used: (a) Less than 1000 lb, (b) 1000-5000 lb, (c) 5000-10,000 lb, (d) 10,000-20,000 lb, (e) 20,000-50,000 lb, (f) Over 50,000 lb, (g) Do not use fork lift trucks?



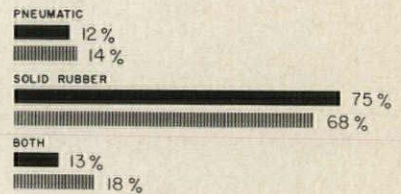
Here too there appears to be no apparent correlation between the weight of the fork lift trucks and the tendency to cause difficulties in floor slabs.

There is only one category (1000-5000 lb) where there appears to be

a preponderance of slab failures. For this difference to have been of any value it would have had to be part of a trend. Thus, either all those having a capacity of over 5000 pounds or all those having a capacity under 1000 pounds should also have a greater or lesser tendency toward causing difficulties. Since this does not occur and since all other percentages are close, it must be assumed that this result is a "sport" and should be disregarded. Probably no more is indicated than that this is one of the popular sizes of trucks.

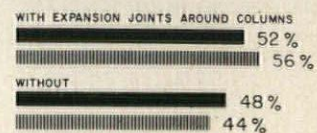
In these replies the percentages also add up to more than 100 per cent since many plants use a variety of fork lift trucks.

6. Do fork lift trucks have pneumatic tires or solid rubber tires?



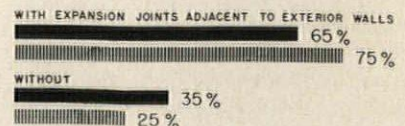
Here also there appears to be no correlation between the type of tires used on the fork lift trucks and the difficulties of the floor slabs. We see that 75 per cent of those buildings that had difficulties used rubber-tired trucks; also a very large percentage of those that had no difficulties (68 per cent) used solid-tired trucks. The only inference from this is that solid rubber tires are the most commonly used on fork lift trucks.

7. Are expansion joints placed around columns?



Here we see a very slight tendency of expansion joints around columns to help slab performance. Fifty-six per cent of those that had no difficulties utilize expansion joints around columns, while 52 per cent that had difficulties also had expansion joints around columns.

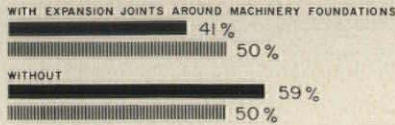
8. Are expansion joints placed adjacent to exterior walls?



Here again we see the case where expansion joints helped. Seventy-five

per cent that used expansion joints adjacent to exterior walls had no difficulties; while 65 per cent of those reporting difficulties indicate expansion joints adjacent to exterior walls.

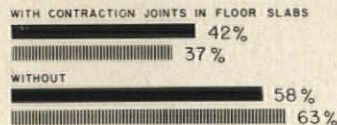
9. Are expansion joints placed around machinery foundations?



Expansion joints used this way also appear to be beneficial. Of the plants using expansion joints around machinery foundations, the percentage of those that did not have difficulties was 9 per cent higher than those reporting difficulties.

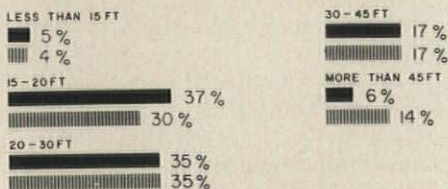
From the above three questions on expansion joints, it can be seen that, even though slabs with expansion joints are favored only slightly, incorporating them in these floor slabs is reasonably important.

10. Are contraction joints (dummy groove joints) provided in the floor slab?



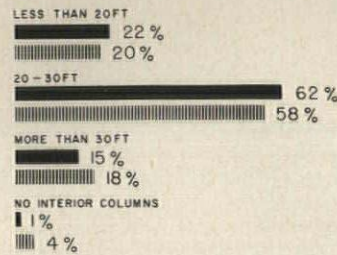
The inference that might be drawn from the figures here is that the use of contraction joints is relatively unimportant. The results would tend to indicate that the floor slabs without contraction joints give less trouble. In the first place, this seems contradictory to common sense: concrete shrinks as it cures, and in large areas such as slabs it will surely crack. Thus contraction joints are used so that cracking occurs in preferred locations. Also there is such a small difference between difficulties and no difficulties that no conclusion is possible.

11. If contraction joints are provided, what is their spacing: (a) Less than 15 ft, (b) 15-20 ft, (c) 20-30 ft, (d) 30-45 ft, (e) more than 45 ft?



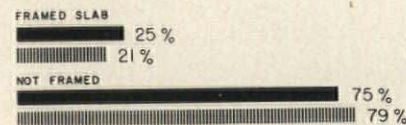
From the replies here, there is no correlation whatsoever between the spacing of the contraction joints on the floor slab and the question of having difficulties or no difficulties.

12. What is the column spacing: (a) Less than 20 ft, (b) 20 to 30 ft, (c) more than 30 ft, (d) no interior columns?



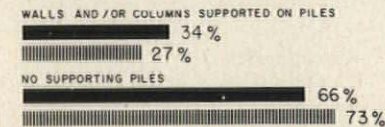
Here again there seems to be no correlation between the column spacing and the tendency to have difficulties or not. (Where column spacing is close, sometimes good compaction of soil is difficult to achieve.) The only conclusion is that most buildings have their columns spaced on 20 to 30 ft centers.

13. Is the floor slab structurally framed?



In this case the tendency towards difficulties or no difficulties doesn't have much connection with whether the floor slab is framed or not. However, it appears that framing of the floor slab has encountered, ever so slightly, a little more difficulty—4 per cent more. This can be attributed only to the fact that when it has been necessary to frame the floor slab, the soil must have been pretty poor, and there probably was some slight settlement in the foundations, causing cracking of the floor slab.

14. Are the walls and/or columns supported on piles?

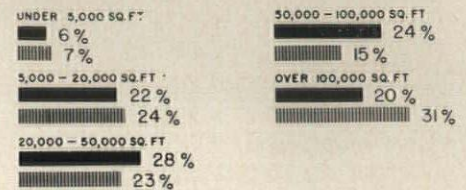


This is another case of special foundations where there was a slight increase in buildings encountering problems. This too is probably attributable to the fact that piles were necessary where there were poor foundation conditions.

No doubt the piles were used primarily under the walls, and if used for the floor slab, were not strong enough to take the entire load.

Answers to this and the previous question show that extra precaution should be taken where poor soil conditions exist.

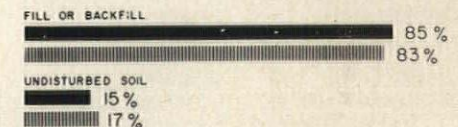
15. What is the size of the factory or warehouse slab: (a) Under 5000 sq ft, (b) 5000-20,000 sq ft, (c) 20,000-50,000 sq ft, (d) 50,000-100,000 sq ft (e) Over 100,000 sq ft?



The results show that there are more difficulties in structures between 20,000 and 100,000 sq ft in area than in the very large warehouses and factories.

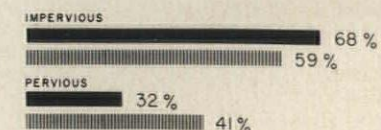
In the small factories and warehouses (up to 20,000 sq ft), the answers give no correlation. In the size between 20,000 and 100,000 sq ft, where difficulties are more prevalent, there may be a bit more slipshod construction. In the very large warehouses (those ranging over 100,000 sq ft) the size is so large that extra precautions probably are taken, perhaps using a highway type construction for the slab itself.

16. Is the floor slab placed on fill, undisturbed soil, backfilled material, do not know?



The answers to this question could not be clearly divided into the first three groupings listed. For example one person might consider a material fill, while another person might call it backfill. For this reason, these two groups were joined. The other category, undisturbed soil, was retained. The results do not indicate any difference between placing the floor slab on fill or backfilled material versus placing it on undisturbed soil.

17. Is the soil under the floor slab clay, sand, silt, gravel, rock, do not know?



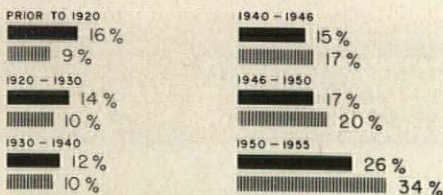
The answers to this question also could not be grouped in the original categories. It was decided, therefore, to delete all those answers that came "do not know" and to divide the others into the classifications of impervious material or pervious ma-

terial. Under pervious material were grouped all those answers which included sand and gravel, while under impervious were put answers of clay, silt, and rock. The combinations where clay and sand were used were reported in both categories and the percentages taken from that. On the basis of this analysis, slabs over impervious material—that is clay, silt and rock—will cause more concern and difficulties than slabs over pervious material.

18. What is the address of the factory or warehouse?

This question was asked in order to have geologic information available in case it was found useful. Unfortunately it was impossible to make any use of the answers—trying to find out whether the factory might be constructed over a meadow mat or a peat bog or something of that nature. The character of the replies, in general, was not complete enough to make such investigations worthwhile.

19. When was the building constructed, prior to 1920, 1920 to 1930, 1930 to 1940, 1940 to 1946, 1946 to 1950, 1950 to 1955?

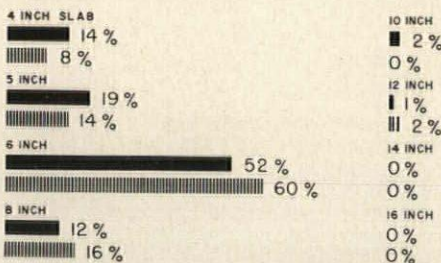


From the answers obtained here one could conclude that since 1940 our construction practices in regard to floor slabs have improved. It is interesting to note that the greater percentage of difficulties with respect to no difficulties occurred in the years prior to 1940. Then from 1940 up to the present, the tendency has been for fewer difficulties to be reported. Even so, 26 per cent of those having difficulties reported them in the period 1950 to 1955. This is unfortunate and shows that present construction practices still leave something to be desired.

Part II

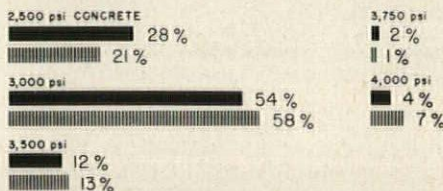
In this part of the questionnaire we attempted to find some correlation between the actual engineering design of floor slabs, and the tendency to cause difficulties. Unfortunately, in practice so many different design techniques are used that many questions turned out to have no value.

1. What is the thickness of the floor slab: 4 in., 5 in., 6 in., 8 in., 10 in., 12 in., 14 in., 16 in.?



The numbers reporting floor slabs over 10 in. were so small that no percentages could be assigned to 14 in. and 16 in. slabs. However, the deeper the floor slab the less tendency there is to have difficulties. When slabs were under 6 in. thick the number having difficulties was greater than those having no difficulties, and vice versa.

2. What strength of concrete was used in the construction of the floor slab: 2500 psi, 3000 psi, 3500 psi, 3750 psi, 4000 psi?



The answers here show that those floor slabs which had the better grade of concrete, 3000 psi or stronger, obviously stood up better. This could mean either that better concrete will prevent trouble, or that if better concrete is specified, more attention will be given to design and supervision.

Note: Questions 3 through 8 elicited either such a wide variety of answers or no answers at all that no meaningful analysis could be made.

3. What is the size and spacing of the reinforcing steel?

4. Where with respect to the depth of the slab was the reinforcement placed?

5. If expansion joints were used what was the size, material, and the spacing of these joints?

6. If intermediate contraction (dummy groove) joints were provided, were they made with a saw, and edging tool, or other means?

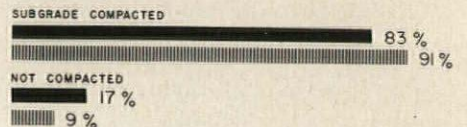
7. What was the width and depth of the contraction joint?

8. What precautions were taken at joints to minimize differential settlement: dowels, keys, slab thickening, other method, none, do not know?

9. Describe type and method of applying floor finish.

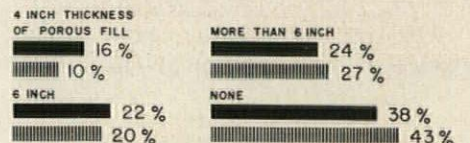
The variation in the answers to this question were so numerous that the quantitative values were useless. However, reading of the answers was sufficient to reveal that the use of a hardener alone is not enough to insure against having troubles with the floor surfaces.

10. Was subgrade below floor slab thoroughly compacted prior to placing concrete?



The description of compaction varied so much that there was no point in reporting in detail on this part of the question. However, 91 per cent of those not having difficulties compacted the subgrade as against only 83 per cent of those having difficulties. Therefore, it can be seen that compaction under the floor slab is important and will tend to minimize the tendency towards difficulties.

11. How much porous fill was placed under floor slab: 4 in., 6 in., give other thicknesses, none?



There is not much difference between the percentages of those having difficulties and those having no difficulties. There is a very slight tendency for slabs over either no fill or more than 6 in. of fill to give less trouble. It can be presumed that where fill is more than 6 in. greater care was taken; and in the cases where no fill was placed the soil generally was very sound and undisturbed and did not require any pervious fill.

12. What material was used for porous fill: gravel, coarse sand, cinders, crushed stone, other material?

Both the number of "no answers," and those giving various combinations were so numerous that no value could be obtained to whether gravel or sand, cinders, etc., were used in this porous fill.

The author acknowledges the assistance of Sydney Harris in tabulation of the questionnaires.

Giant Balloons Hoist Aluminum Stressed-Skin Dome

A unique factory glistening on the plains of Kansas marks the first industrial use of Kaiser Aluminum's stressed-skin dome—and the first use of balloons as scaffolding for a metal building.

The dome, which will provide 16,500 sq ft of manufacturing space for the Fi Fo Conveyor Company, is identical to the prototype dome built at Hawaiian Village last January (ARCHITECTURAL RECORD, March 1957, pp. 251-254). However the steel mast that hoisted the Hawaiian Village dome onto its foundation was replaced in this instance by two rubber-coated nylon balloons, one 95 ft in diameter, the other 50 ft in diameter.

To hold the panels which form the dome's crown, two 10 ft high "A" frames were set on the concrete foundation with a $\frac{5}{8}$ in. steel cable spanning some 50 ft between them. The pentagonal framework and sections which form the vent cover at the top of the dome were attached to a hook hung in the center of the

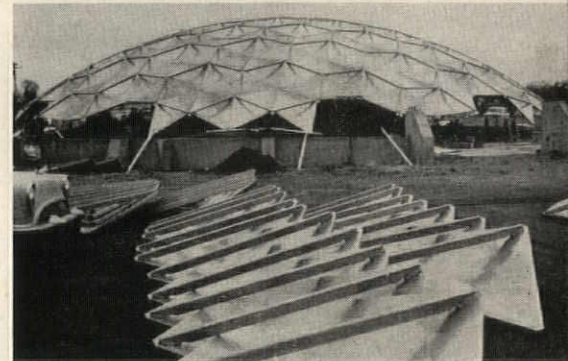
cable span, and the first five panels fastened around it. The balloons were then laid on the foundation, the smaller atop the larger, and anchored in place with chain ties. As additional panels were bolted together about the perimeter of the shell, the balloons were gradually inflated by a high-capacity blower, permitting work crews to fasten all the panels at ground level. Inflation was controlled so that the balloons' diameters remained constant while they expanded vertically to a height of almost five stories—taking the shell with them as they went. When all the panels had been attached, the dome was anchored to 25 concrete piers about its circumference, and the supporting balloons removed.

The shell was erected in 22 hours by a 38-man crew under the direction of the Fi Fo Construction Company, originators of the balloon erection method. The completed dome is 145 ft in diameter, 49½ ft high.

more roundup on page 196



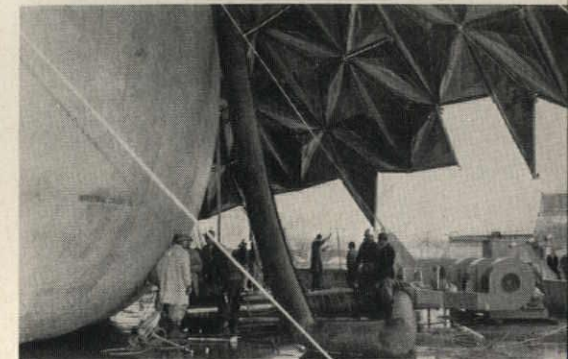
Supporting balloons expand



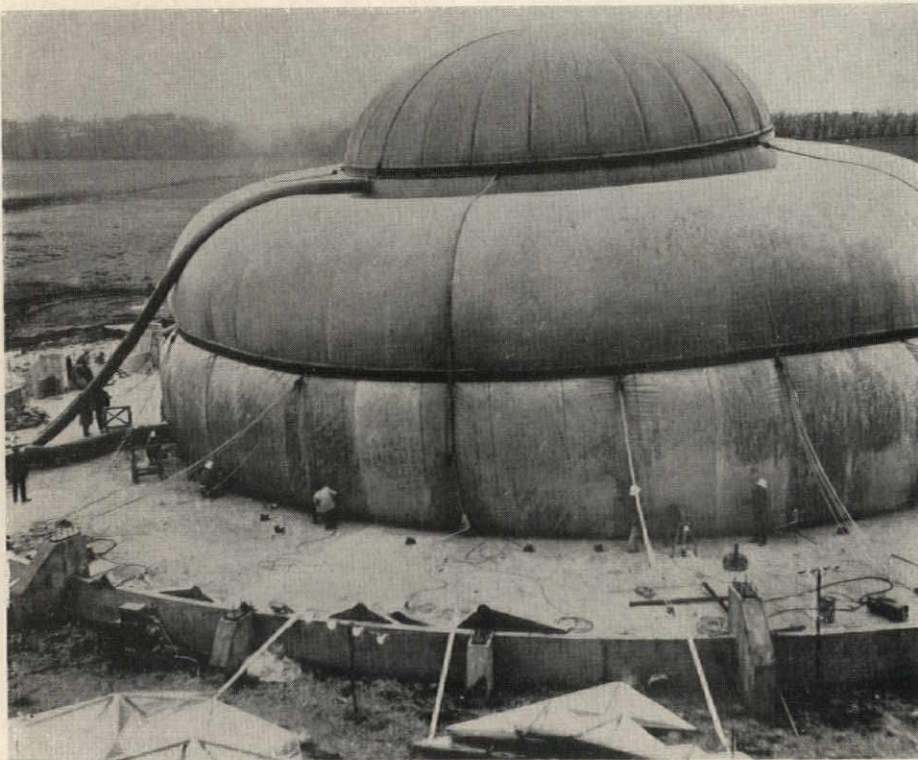
Shell is lifted gradually



Panels are bolted in place



Completed dome is anchored to base



Balloons, shown during a test, expand vertically to a height of 5 stories

Infrared to Heat Tomorrow's Factory

Industry's need for an economical method of heating such high-bay buildings as foundries, warehouses and aircraft hangars has increased markedly in recent years. Commonly-accepted space heating systems based on water, air, steam and electricity have become more expensive and less satisfactory as buildings grow in size and heating requirements grow more complex. Frequently, as at loading docks and other partially exposed areas, space heating is impossible.

Heating engineers recognize that conventional space heating systems operate indirectly, creating a blanket of air around a person to reduce body heat losses, rather than heating the person directly. In small, enclosed areas this is not a particular problem, but as floor space grows and roofs become higher, more and more Btu's are necessary to heat increased amounts of air for comfortable working conditions. Heating costs rise proportionately.

In its efforts to alleviate the high-bay heating problem, industry has tried a number of techniques, the most promising of which has been radiant heating. Because it heats surfaces and people directly rather than by convection from warm air, this type of system overcomes many of the shortcomings of space heating.

The two most common forms of radiant heating are panel heating and infrared heating from above. The former uses the floor or wall area as a radiator with the source of heat imbedded in it. This system has gained acceptance in homebuilding and similar applications, but cost considerations have caused drawbacks in industrial use. Installation cost is relatively high, owing to the tubing used to circulate heat through the floor or walls.

This cost factor is largely overcome in overhead gas infrared radiant heating because the source of heat is above the floor rather than inside it, eliminating the need for tubing. Heating technologists for several decades have attempted to capitalize on these advantages, but have been stymied in perfecting a simple, efficient gas infra-red generator. The chief problem lay in the fact that the generators' comparatively low operating temperatures did not produce infrared of sufficient intensity. These units utilize a standard gas burner to heat metal strips, tubes or louvers which emit infrared energy. This intermediate step in the

heat transfer process—similar to using a heat carrying fluid such as water or steam in conventional systems—further reduced the generators' efficiency.

A radically new approach to gas infrared generation by a German scientist, Guenther Schwank, has promised a solution to the problem. Generators based on his inventions were brought to the United States last year from Germany and are now being made here under license agreements. Their success in difficult and varied applications both here and abroad indicate that gas infrared radiant heating may well become the conventional method for heating the factory of the future.

The Schwank technique differs from previous gas infrared generators in that one stage in the earlier generation process is by-passed completely by using the structure which supports combustion as the infrared emitter. No metal strips or louvers are needed. Thus higher operating temperatures are feasible, and a maximum proportion of the Btu input is converted into usable infrared.

An operating temperature of 1650 deg. is achieved in the Schwank generator by combustion of gas on the surface of a patented ceramic mat. Each ceramic unit is perforated with 200 holes per square inch through which an air-gas mixture feeds. The large number of holes and the physical characteristics of the ceramic material make possible the relatively high surface temperature achieved. Because gas is converted into infrared energy in the wave lengths readily absorbed by most common materials, the generator is considered the most efficient and economical known today.

Conventional calculations for determining the amount of heat required for comfort heating of a building are not applicable to infrared. Its rays, like those of the sun, warm only the bodies which absorb them and not the air through which they travel. Once the energy waves emitted by the gas generator strike a person in their path or the floor, wall or machinery, they are transformed into heat.

The feeling of warmth created by infrared can be illustrated by stepping from the shade into sunlight on a cool day. The body is warmed instantly while the air remains cool. In an infrared heated building, a person is warmed by radiation from the generator and by radiation, con-



Closeup shows typical generator, with ignition, gas supply and control relay

duction and convection from the floor-wall-machinery surfaces which become radiators themselves. Workmen don't experience a sharp change in air temperature when they go outside or into unheated areas of the plant; tools and machinery are always warm to the touch. Additional advantages are absence of drafts, noise and odors.

Because infrared heat requirements are calculated in square feet instead of cubic feet, no single yardstick can be used to compare performance with conventional space heaters. Generally, gas-fired infrared can lower heating costs by 20 per cent in a building easily heated by other methods. In hard-to-heat buildings, heating costs can be reduced up to 50 per cent. In addition, infrared can provide spot heat in warehouses or other unheated buildings as well as at loading docks and other partially exposed areas. The infrared generators can be installed at any height as low as 7 feet and as high as 60 feet without sacrifice in efficiency. Sidewall mounting of infrared generators is also possible.

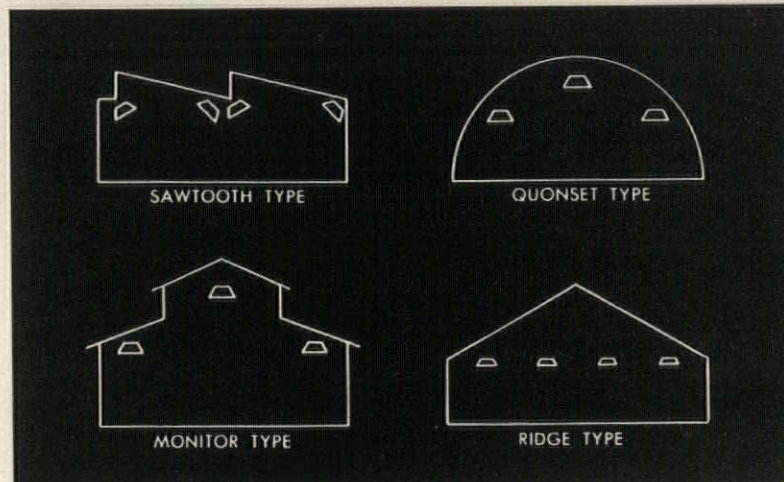
Operation of the new infrared generator on natural, manufactured or liquefied petroleum gas is extremely simple. Gas is metered through an orifice, passes through an air aspirating chamber and a mixing tube to a chamber under the ceramic mat where it is distributed uniformly through the ceramic. This is a 100 per cent primary air burner, requiring no pre-mix or blower.

U. S.-designed gas generators based on the Schwank principle are multiples of an eight-ceramic combination called a "rayhead." These rayheads are grouped in an aluminum reflector which helps direct infrared toward the surfaces to be heated. For installation in high-bay buildings, a large number of rayheads are combined in the same fixture to radiate over a large area.

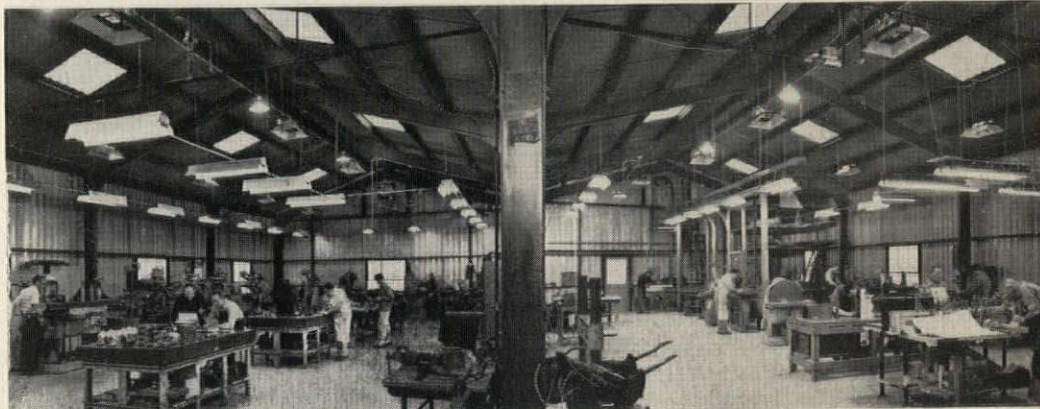
Generator models for indoor use have been approved by Underwriters' Laboratories. The zone thermostats normally used for heating are hidden from the rays of the generators so that heat rising from the floor controls the temperature. Life expectancy under normal service conditions is unlimited, with adjustments and repairs seldom if ever necessary. *Perfection Industries, Division of Hupp Corporation, 7609 Platt Ave., Cleveland 4, Ohio*
more products on page 208



Infrared generators—sans ducts, blowers and heat exchangers—maintain even temperature, dispel damp



Generators adapt to all types of building construction, may be wall mounted when structure so dictates



Infrared heating in this space averaged monthly fuel saving of \$36 over similar unit heated structure



Angle-mounted generators check condensation on steel stocks; keep temperature minimum 10 F above dew point

Geyser Curtain Walls (A.I.A. 17-A)

Twenty page technical manual contains detailed drawings, photographs, specifications and design recommendations for the Geyser Grid System for curtain walls and windows. Illustrations and descriptions of typical installations, and standard application details are also included. *E. K. Geyser Co., 915 Mc-Ardle Roadway, Pittsburgh 3, Pa.**

Swimming Pool Filters

Bulletin 626 presents typical installations, cross-section and operational drawings, size selection charts and other pertinent information on swimming pool filters designed exclusively for public, commercial and institutional pools. 24 pp. *R. P. Adams Company, Inc., 476 East Park Dr., Buffalo 17, N. Y.*

Redwood Grades

Describes and defines the seven major grades of redwood and illustrates each in available dimensions. 8 pp. *Georgia-Pacific Corp., Dept. 13-A, The Equitable Bldg., Portland, Oregon**

Raynor Overhead Type Doors

(A.I.A. 16-D) Presents selection data, specifications and details of overhead doors for industrial, commercial and residential installations. 28 pp. *Raynor Mfg. Co., Dixon, Ill.**

Ideas In Stone

File folder includes data sheets on preparing, detailing and setting stone; illustrations of typical wall, fireplace, chimney and flagstone patterns; full color reproductions of the various tones available; and detailed information on standard shapes and sizes in natural quarried sandstone. *Briar Hill Stone Co., Glenmont, Ohio*

Tile-Tex Floor Tile (A.I.A. 23-G)

All-Products Catalog contains color charts and descriptions of Tile-Tex's asphalt, vinyl-asbestos, greaseproof and rubber floor tile lines, with added information on adhesives and maintenance materials. 12 pp. *Tile-Tex Div., The Flintkote Co., 1232 McKinley Ave., Chicago Heights, Ill.**

Inductor Air Conditioners

Bulletin 8827 outlines features and characteristics of *Inductor* air condi-

tioners for perimeter air conditioning of multi-storied buildings. A special section covers unit selection; and installation data and specifications are also included. 16 pp. *American Blower Div., American-Standard, Detroit 32, Mich.**

Glued Laminated Douglas Fir

Two-volume *Standard Specifications for Structural Glued Laminated Douglas Fir Lumber* presents latest developments in design and fabrication of structural glued laminated lumber. The first booklet, *DESIGN*, includes engineering design data, information on standard sizes and appearance grades, and specifications. The second, *FABRICATION*, contains requirements for lumber grades, fabrication, and protection of glued laminated members. *West Coast Lumbermen's Association, 1410 S. W. Morrison St., Portland 5, Oregon**

Architects Manual

... for *Venetian Blinds* (A.I.A. 35-P-3) covers all types of venetian blinds, including skylight, motorized and audio-visual; and details both conventional and special installations. Supplementary material includes specifications, tabulated areas of weights and pulls, other technical data. 29 pp. *Levolor Lorentzen, Inc. 720 Monroe St., Hoboken, N. J.**

The Architectural Index

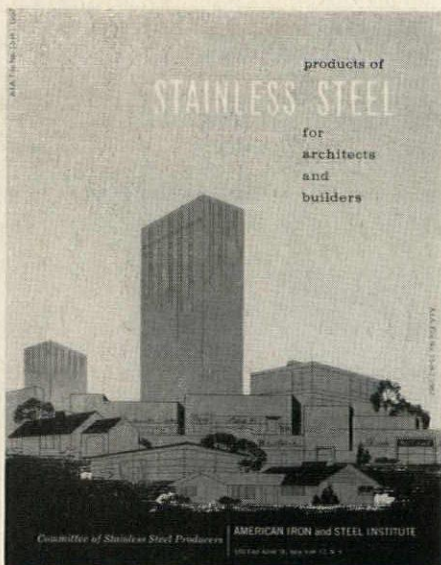
Annual index to articles appearing in seven major U. S. architectural publications quickly locates latest information on materials, methods, designs and the profession. Articles on buildings are cross-indexed under building type, architect or designer, and location. Technical articles are listed by subject. Published yearly in February, \$5. *The Architectural Index, Rm. 1000, 517 Bridgeway, Sausalito, Calif.*

Urethane Foam Resin

Technical bulletin cites property data and manufacturing limits for *Dulux* foam resin R-42, a polyester resin which can be foamed in place to make rigid urethane foam for heat insulation and sound proofing. *Room 7021-D, Du Pont Company, Wilmington 98, Del.**

*Additional information in *Sweet's Architectural File, 1958*

more literature on page 228



Products of Stainless Steel for Architects and Builders describes a wide variety of factory-made stainless steel components, for such architectural and construction products as store fronts, windows and doors, hardware, exterior walls, escalator parts, swimming pool appointments, signs, trim, residential kitchen equipment, commercial and industrial feeding installations, and many others. The 44-page reference manual is lavishly illustrated with photographs, detail drawings, profiles and exploded views showing the product in use; and includes a three and one half page listing of stainless steel component manufacturers, listed by component type. *The Committee of Stainless Steel Producers, American Iron and Steel Institute, 150 East 42nd St., New York 17, N. Y.*



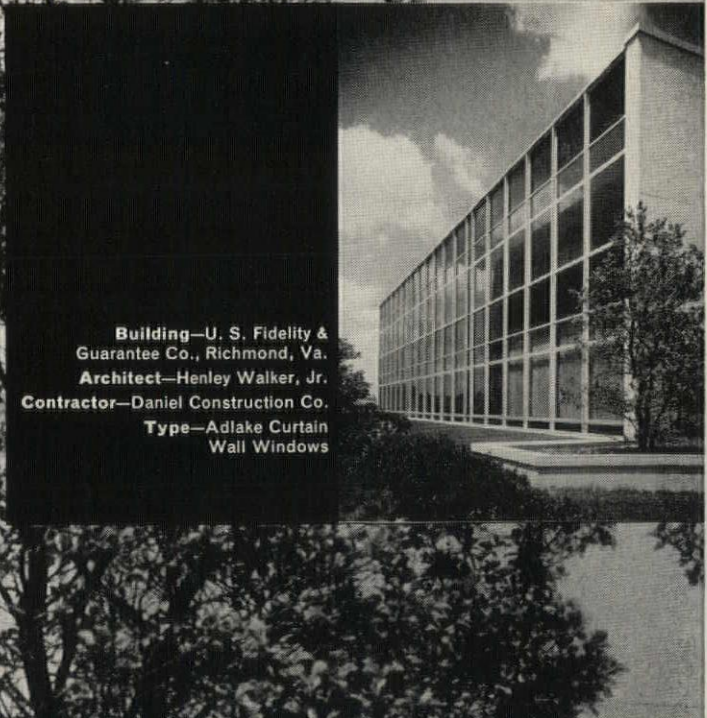
Adlake

America's Finest Windows

Only Adlake combines
these 6 basic advantages

- No warp, no rot
- Minimum air infiltration
- No painting, no maintenance
- Fingertip control
- No rattle, stick or swell
- Guaranteed non-metallic weather stripping

Also, Double-hung Windows with
Patented Serrated Guides

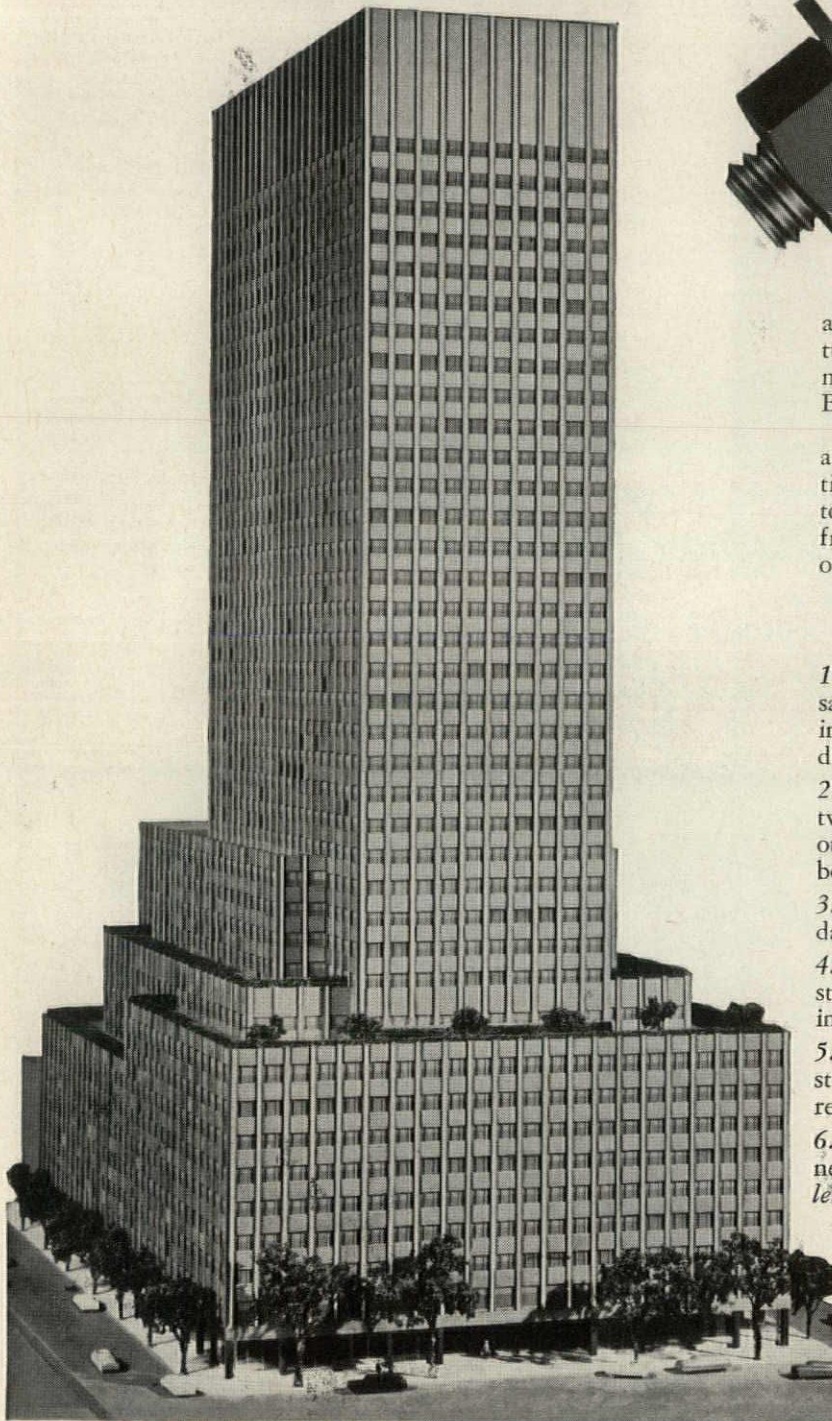
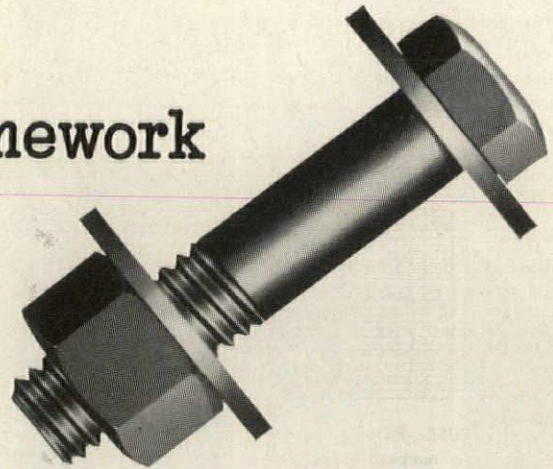


Building—U. S. Fidelity &
Guarantee Co., Richmond, Va.
Architect—Henley Walker, Jr.
Contractor—Daniel Construction Co.
Type—Adlake Curtain
Wall Windows

The Adams & Westlake Company

NEW YORK ELKHART, INDIANA CHICAGO

Another New Skyscraper in New York with Bolted Steel Framework



This is 666 Fifth Avenue, an office building destined to be one of the better known addresses in New York City. The 38-story structure has a 13,300-ton steel framework, the structural members of which are joined with thousands of Bethlehem High-Strength Bolts.

666 Fifth Avenue occupies the west side of the avenue between 52nd and 53rd Sts. This air-conditioned structure has a 14-story base and a 24-story tower. White porcelain mullions, set in narrow frames of polished aluminum, extend the full height of the building exterior.

Look at these advantages of Bethlehem High-Strength Bolts!

1. *Save time.* Bethlehem High-Strength Bolts save time in steel erection because they can be installed readily by ironworkers, using power-driven wrenches.
2. *Tight, sound joints.* The bolts are used with two hardened washers, one under the head, the other under the nut. When tightened carefully, the bolts produce high clamping power.
3. *Installed cold.* There's no chance of fire, no danger from tossed rivets which miss the target.
4. *Less noise.* Their use is relatively quiet. High-strength bolting is ideal for joining structural steel in hospital and school zones.
5. *Meet ASTM Spec. A-325.* Bolts are of carbon steel, and are quenched and tempered to meet the requirements of ASTM Specification A-325.
6. *Full size range.* They meet every construction need. *Full details can be obtained from the Bethlehem sales office nearest you.*

BETHLEHEM STEEL COMPANY
BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. *Export Distributor:* Bethlehem Steel Export Corporation

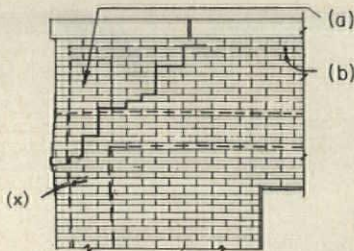
Owner and builder: Tishman Realty & Construction Co., Inc.; Architect: Carson & Lundin;
Structural engineer: Victor Mayer; Fabricator and erector: Bethlehem Steel Company.

BETHLEHEM STEEL



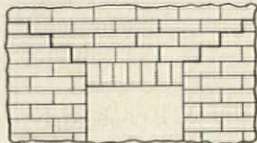
CRACKING OF MASONRY WALLS: 1

By ELWYN E. SEELYE, Seelye, Stevenson, Value and Knecht, Consulting Engineers, New York City



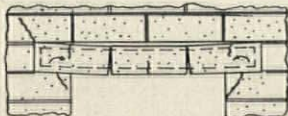
CAUSE: Parapet corner crack resulting from temperature expansion and contraction of parapet in relation to slab and walls below. (x) Elastic distortion of columns and spandrel beams.

PREVENTION: (a) Raise corner column stubs above roof; (b) Install horizontal reinforcing rods in joints of brickwork or (c) Omit a masonry parapet wall.



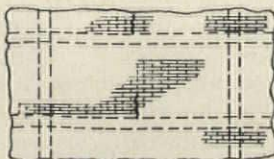
CAUSE: Lacks lintel or rowlock arch supports.

PREVENTION: Provide lintel or rowlock arch. (Flat masonry arches should not exceed 5 ft without lintel.)



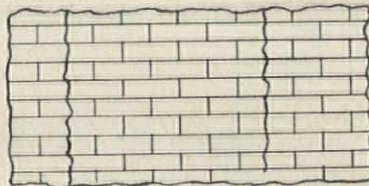
CAUSE: Deflection of a shallow lintel due to load, transfers stress to inelastic masonry over opening.

PREVENTION: (a) Use stiffer lintel; (b) Predeflect lintel by loading material on it prior to building wall above; (c) Mastic joints in vicinity of bearing.



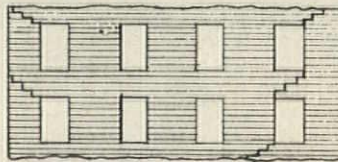
CAUSE: Deflection of spandrel beams carrying exterior masonry wall. Deflection of interior beams carrying masonry partition.

PREVENTION: (a) Use stiffer beams; (b) Prestress by loading material on beam prior to building wall.



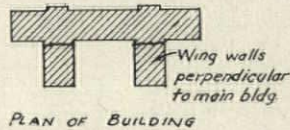
CAUSE: Random vertical cracks in face brick.

PREVENTION: (a) Do not permit use of mortar set accelerators; (b) Perforated face brick may be cause of this weakness.



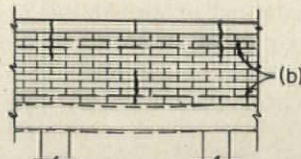
CAUSE: Cracks at wall openings a result of relief at weakest section, of longitudinal stress from shrinkage, or settlement.

PREVENTION: (a) For shrinkage control see (below); (b) Design adequate foundations.



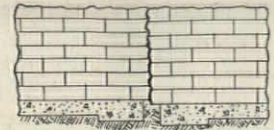
CAUSE: Shrinkage in cinder block back-up increases tendency of masonry keyed to it to crack, (see above example) and causes tendency of perpendicular wings to crack off. In block walls having no face brick, there is an increased tendency for the walls to crack from shrinkage.

PREVENTION: (a) Thorough curing of blocks (blocks should be at least 3 weeks old) and steam curing of blocks; (b) More expansion joints; (c) Specify lean mortar and avoid using mortar set accelerators; (d) Reinforce walls with horizontal rods placed in joints, at zones of weakness.



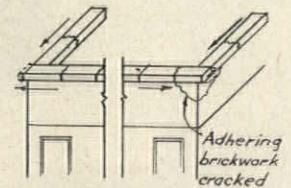
CAUSE: Parapet wall cracks at points of maximum positive and negative moment due to flexibility of spandrel beams; plus temperature expansion and contraction of parapet wall.

PREVENTION: (a) Use stiffer spandrels or predeflect them; (b) Install horizontal reinforcing rods in joints of brickwork.



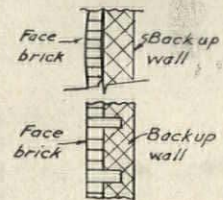
CAUSE: Cracks due to settlement of new building in relation to old.

PREVENTION: (a) Joint separating wall of new building from old; (b) Reduce the design unit load on the footings of the new building adjoining the old.



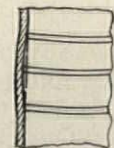
CAUSE: Shoved coping stones result from temperature expansion and contraction acting on parapet. Long coping stones, with thin non-compressible joints do not allow elastic adjustments.

PREVENTION: Use a watertight, elastic joint material. For example, pack occasional joint with oakum covered with caulking compound.



CAUSE: Bulging face brick resulting from inadequate headers or broken headers plus frost.

PREVENTION: Provide the standard amount of headers and/or galvanized anchors and keys.



CAUSE: Very dangerous situation. The thrust may be due to thermal expansion of contents in buildings; to foundation settlement, or to buckling from heavy loads without adequate ties being furnished by floor system.

PREVENTION: (a) Use wall anchors and straps to connect floor system with walls; (b) Use tie rods for granular storage or cold storage; provide adequate foundations.

Right Combination

FOR SALE AFTER SALE!



PRODUCED IN 41 DECORATOR COLORS PLUS SPARKLING BLACK AND WHITE

Here is the most wanted, therefore most *profitable* bathroom fixture combination you can offer. The industry's first Concave Lavatory* plus the famous Case Non-Overflow One-piece** Water Closet with the whispering flush.

The Case Wellington*** 300 Lavatory is the most wanted because it's the first *really comfortable* lavatory ever made for men and women. Gracefully curved for comfort and unusual beauty. Extra-spacious, wide, flat deck. Shown with art-designed wrought iron legs and towel bars all in one piece.

*Available with Wrought Iron or Chrome Legs

**Patented

***Patent Pending

Legs supplied in decorator colors and sparkling black and gold. You already know the Case One-Piece Water Closet and its customer-winning features like non-overflow bowl; safeguarding anti-syphon ballcock; pressurized cleansing rim flush; large water area; healthful seat height; time tested, with streamlined design in 41 colors and black and white. Ask your Case wholesaler or distributor or write:

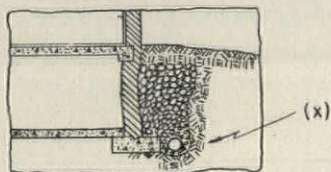
by **Case**

CASE MANUFACTURING CORPORATION

33 MAIN STREET, BUFFALO 3, NEW YORK

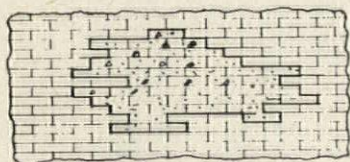
CRACKING OF MASONRY WALLS: 2

By ELWYN E. SEELYE, Seelye, Stevenson, Value and Knecht, Consulting Engineers, New York City



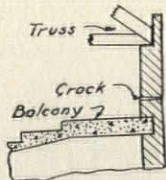
CAUSE: Very dangerous bulging basement wall resulting from inadequate section to act as retaining wall. Lack of drainage of base of wall causes build-up of hydrostatic pressure.

PREVENTION: Use adequate thickness to resist earth and frost thrusts (x). Provide for draining when ground does not drain away from wall naturally.



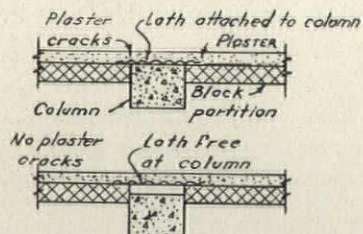
CAUSE: Surface shelled off because of under burned (salmon) brick.

PREVENTION: Specify that brick is to conform to an A.S.T.M. designation and send sample to lab. for civil testing. (Refer to *Data Book for Engineers Vol. II*) Elwyn E. Seelye, John Wiley And Sons, Inc., New York, 1951.



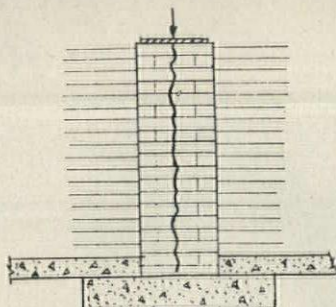
CAUSE: Top of wall overturned from roof truss expansion.

PREVENTION: Adequate structural design.



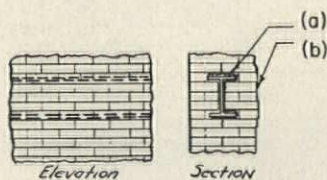
CAUSE: Short Lap. Not enough length of stretch for lath over each joint between column and masonry.

PREVENTION: Leave lath unattached to column and extend at least 8 in. beyond column and staple to partition.



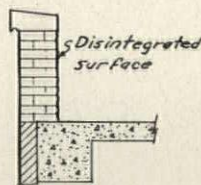
CAUSE: Danger signal of overloaded masonry pilaster or pier is appearance of vertical cracks. Also an indication of corroding of imbedded steel column.

PREVENTION: (a) Provide adequate section to reduce unit stress to within safe limits; (b) Parge column with cement or paint with bitumastic paint.



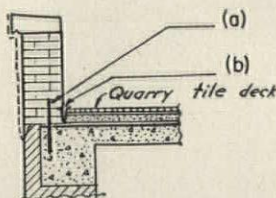
CAUSE: Rusting and resulting expansion of wall steel and lintels embedded in exterior masonry.

PREVENTION: Specify parging with 1/2 in. cement mortar, all steel embedded in exterior masonry.



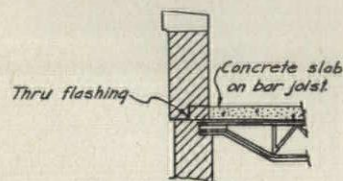
CAUSE: Disintegration of interior surface of parapet wall.

PREVENTION: (a) Use face brick on interior surfaces; (b) Do not waterproof inside surface with bitumen, so that surface is permitted to breathe.



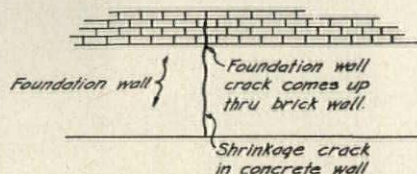
CAUSE: Parapet wall shoved on account of the expansion of deck.

PREVENTION: (a) Dowels between wall and spandrel beam; (b) Expansion joint.



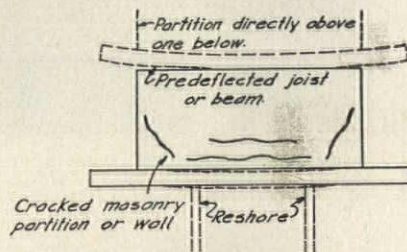
CAUSE: Expansion of concrete slab on bar joists thru flashing.

PREVENTION: (a) Provide lugs on top of joist; (b) Provide dowels; (c) Raise column stubs up into parapet.



CAUSE: Shrinkage in concrete.

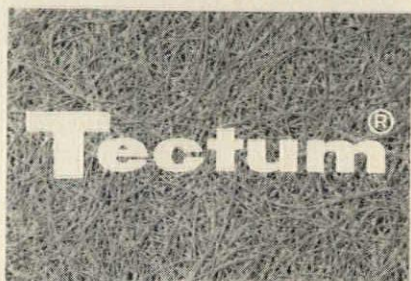
PREVENTION: (a) Provide adequate belt steel reinforcement; (b) Pour concrete wall in short alternate sections to take up initial set.



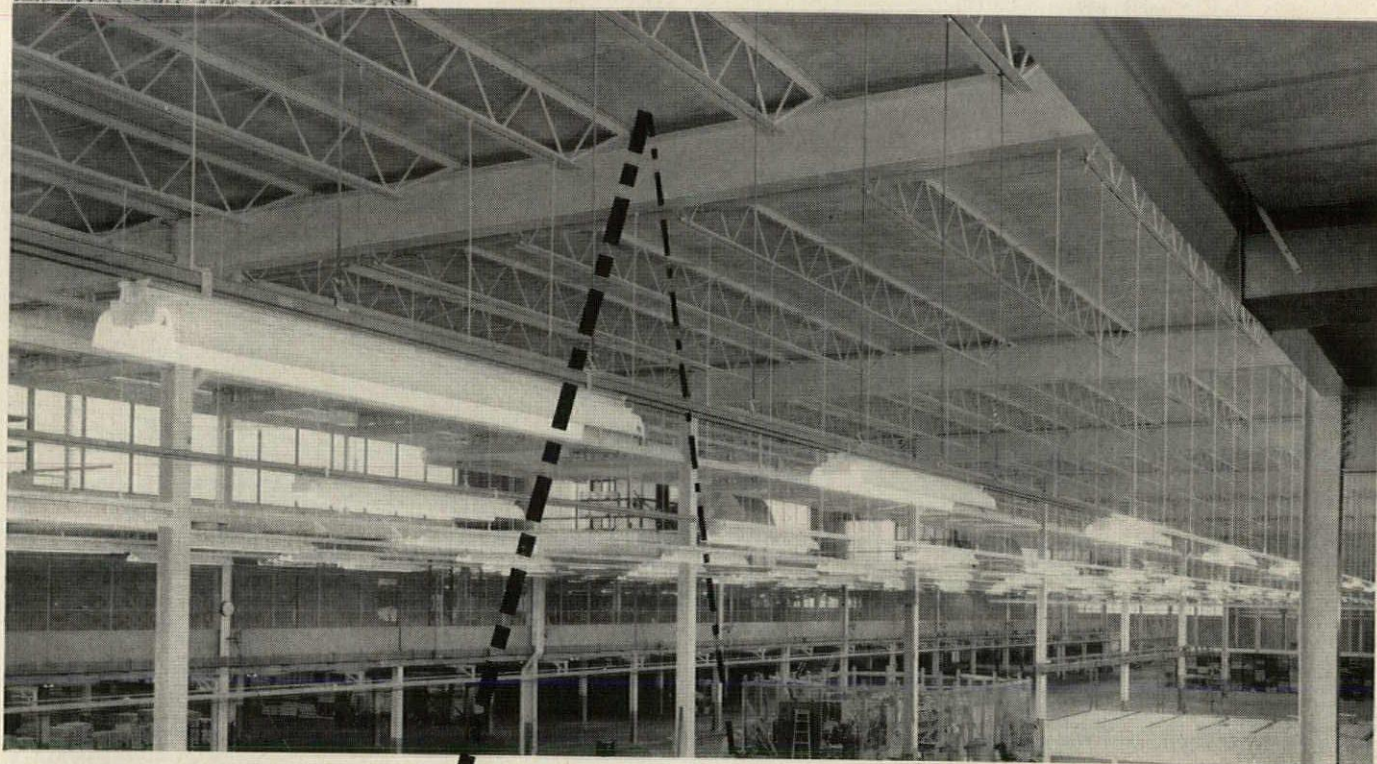
CAUSE: (a) Deflection of supporting double joist or shallow steel beam; (b) Leaving in reshores while building partition.

PREVENTION: Predeflect supporting beam by loading with partition material equal to the weight of partition before building same. Do not leave in reshores when partition is built. Where similar condition occurs above, predeflect supporting beam or joist before building partition up to same, or do not build partition up tight to beam or joist until deflection of beam or joist has taken place.

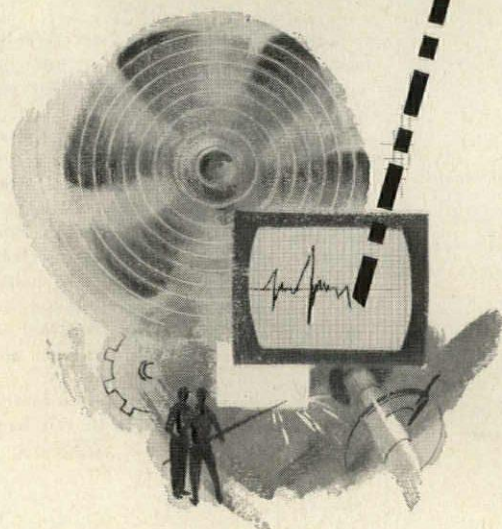
Note: Variations of this would be constructing offset exterior walls on flexible beams.



*a new dimension in
Roof Deck Construction*



Building: National Lock Co., Rockford, Ill.
Architect: Ragnor-Benson, Inc.



sound conditioning

The steady hum of motors, machines and mechanical vibrations can be greatly lessened when "sound bounce" is reduced. Tectum roof decks absorb sound as much as 85% for 3" material making busy plants more comfortable—better places in which to work. Tectum panels over exposed joist or beam makes an attractive interior ceiling without need for further finishing. Wood-toned, textured pattern is both attractive and durable; goes down fast, saves time and labor charges during erection. Tectum is now available in greater quantities than ever before. Ask for a complete file on Tectum for roof decks, sidewall and acoustical suspended ceiling usage, or see Sweets Architectural and Industrial Files.

TECTUM Corporation, 106 S. Sixth St., Newark, Ohio

Tectum®

Branch Offices in Philadelphia, Columbus, Atlanta, Dallas, Chicago, Beverly Hills and Seattle, with distributors in all leading areas. Factories in Newark, Ohio, and Arkadelphia, Arkansas.

CRACKING OF MASONRY WALLS: 3

By ELWYN E. SEELYE, Seelye, Stevenson, Value and Knecht, Consulting Engineers, New York City

For the prevention of cracks in masonry walls, it is recommended that the following requirements, where applicable, be added to standard masonry specifications.

WORKMANSHIP

1. Predeflection of Shallow Beams, Spandrels or Slabs Carrying Walls or Partitions:

Where called for on the structural plans, the material for partitions or walls shall be assembled adjacent to the structural member in order to predeflect same before the partition or wall is built.

2. Elastic Joints in Stone Masonry at Bearing Adjacent to Long Shallow Lintels and at Points of Maximum Positive and Negative Moments of Spandrel Beams:

Add a clause to standard stone masonry specification to provide for plastic mortar joints in these areas.

3. Under Cold Weather Protection add:

Accelerating or anti-freeze admixtures will not be permitted.

4. Reinforcing Steel:

Where called for on the structural plans, reinforcing rods and dowels shall be laid in the joints of the masonry work. The requirements for reinforcing steel as set forth in the "Structural Concrete" section of the specification, shall apply equally to this section.

5. Expansion Joints:

Expansion joints shall be provided in the masonry work where shown and in accordance with the details on the plans.

Note—Suggestions for locations and types of expansion joints:

(a) Provide expansion joint where the walls of a perpendicular wing join the main building, and where large units of a connected group of buildings join each other. How elaborate the joint should be will depend on whether the building is a monumental, utility or temporary structure.

(b) Provide expansion joint where the walls of a new addition connect to an old building. This can be a two-strip copper water-stop, allowing for vertical movement, or a mastic joint, depending on the probable life of the old building.

(c) Provide expansion joint where large area-way walls, retaining walls, and similar masonry structures abut and are perpendicular to the building wall. A mastic joint will usually suffice.

(d) Coping stones should be provided with a joint every 20 or 30 ft to be made ½ in. wide and caulked with oakum and covered with caulking compound.

(e) Provide expansion joints in quarry tile roofs and exterior quarry tile decks.

Joints of premolded asphalt, cork or metal should be called for about every 20 ft in both directions and at the junction of the deck with the parapet walls and other vertical surfaces.

6. Headers and/or Anchors:

(See Data Book for Civil Engineers—Volume II, Specifications & Costs, Elwyn E. Seelye, John Wiley and Sons, Inc., New York 1951)

7. Parging of Embedded Structural Steel:

Steel members, embedded in exterior masonry, shall be "battered" with not less than ½ inch of setting mortar on all surfaces that are not indicated to be fire-proofed with concrete.

MATERIAL

1. Face Brick:

Face brick shall conform to the Standard Specification of the A.S.T.M. C 216, latest edition.

Note—The type of face brick selected should be one with a reasonably porous surface in order to obtain good bond with the mortar. For common brick and sand lime brick specifications, refer Page 3-09, Data Book for Civil Engineers—Volume II.

2. Mortar for Concrete Block Back-up Walls:

Specify concrete block back-up walls to be laid in lime-cement mortar, not Portland cement mortar. The lime cement mortar should be weak to permit wall to take up volumetric changes locally rather than in large cracks. A mortar such as 1 part cement, 1 part putty and 12 parts sand by volume is suggested.

GENERAL DESIGN NOTES

The following notes on general design are offered to assist in preventing cracks in masonry:

1. Lintels:

Provide lintels for flat masonry arches exceeding 5 feet in clear span.

2. Footings:

When designing the footings for an addition to an existing building, it is good practice to reduce the relative settlement by using smaller unit loadings on the design of the new footings than were used on the old.

3. Parapet Walls:

When a masonry parapet wall is to be used, design the corner columns and exterior columns to extend above the roof level one or two feet to prevent shoving of the parapet corners and the cracking of the parapet wall. As an extra precaution also provide ¼ in. rods in every other horizontal brick joint from the line

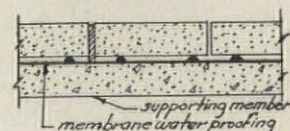
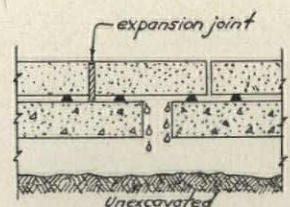
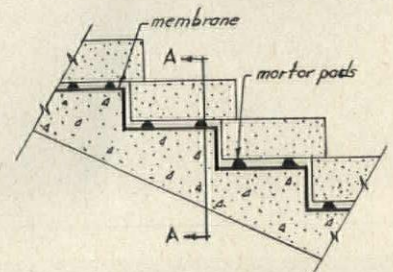
of the top floor window heads to the top of the parapet wall. These rods should extend back from corners 20 ft on each side. Rods should also be inserted in the parapet wall at locations where they will take the tension in the masonry over the points of maximum positive and negative moment in the supporting spandrel beam. Where there is a possibility of thrust from expansion of a roof covering, such as quarry tile, provide vertical dowels between parapet wall and spandrel beam.

4. Exterior Concrete Block Walls:

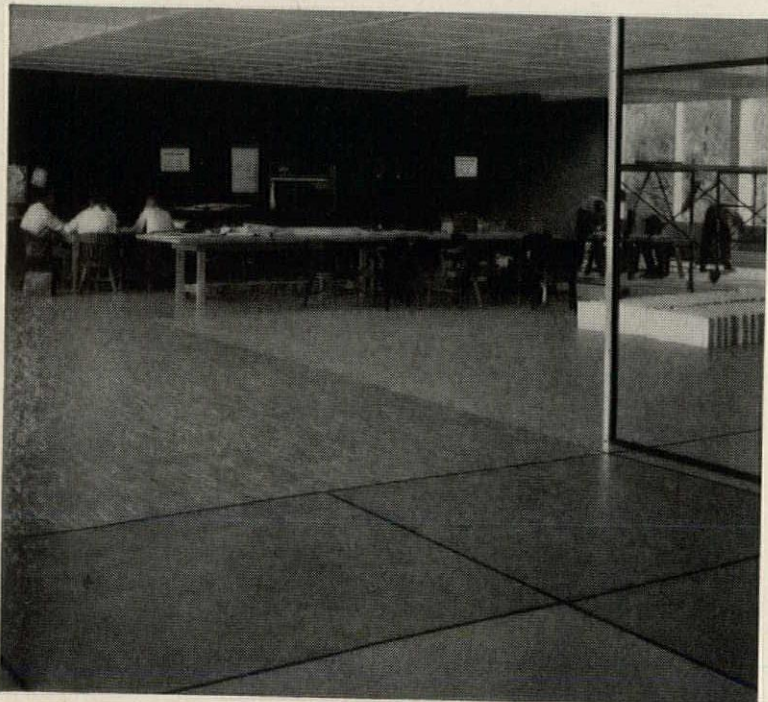
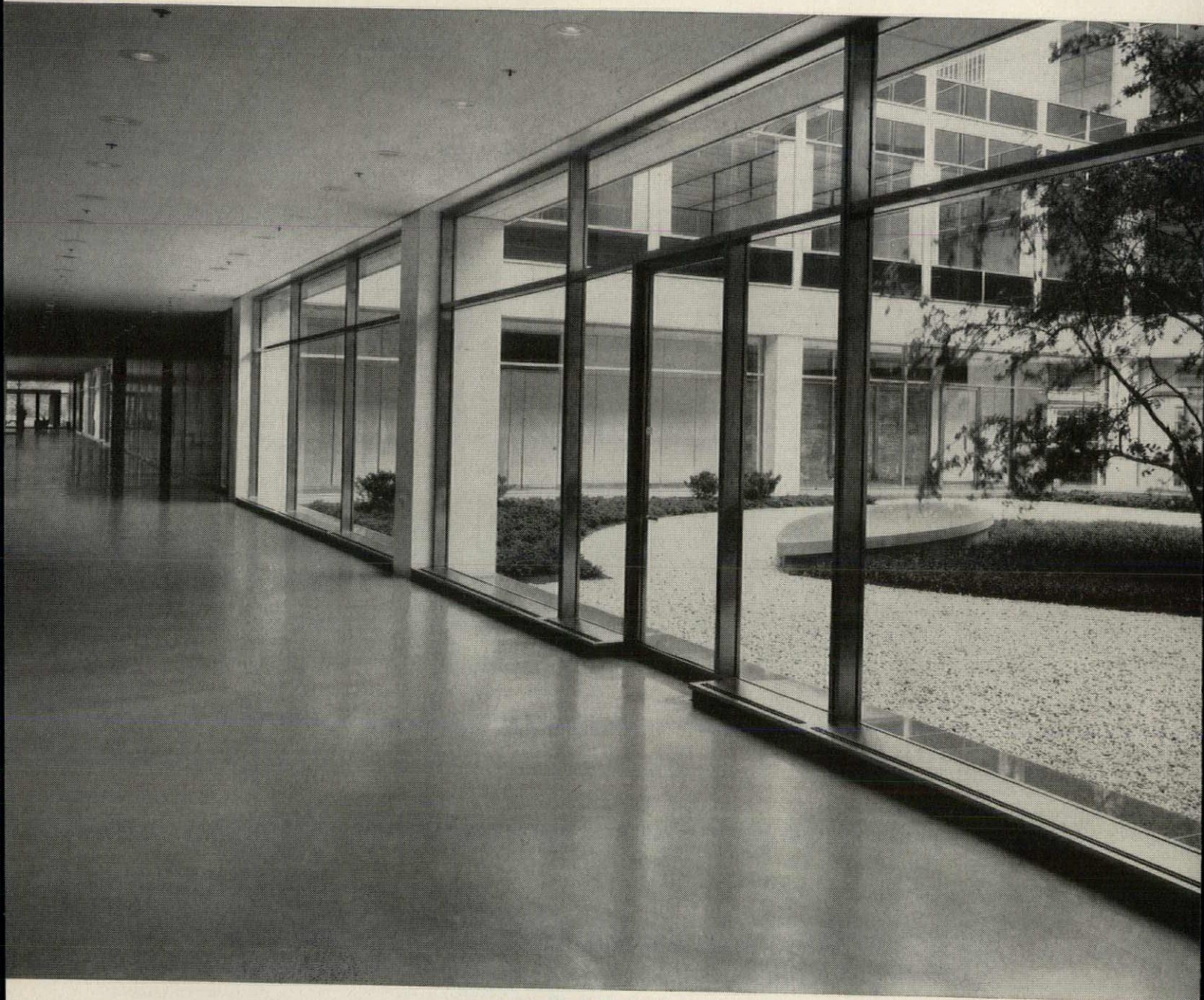
In exterior concrete block walls having no face brick, the decided tendency for the walls to crack from shrinkage at the zones of weakness should be counteracted by placing ¼ in. rods in the horizontal joints at the corners of the building from ground level to top of parapet, and extending back 20 ft on each side. Also, continuous rods should be placed around the perimeter of the building at the level of the window heads and sills.

5. Ashlar Steps:

Lay ashlar steps on mortar pads ½ in. clear of concrete supporting member. Provide plastic or premolded expansion joints at intervals of not more than 20 ft in each direction. The water that will come through can be drained off into the sub-grade if the space below is unexcavated. Where space under steps is occupied, a membrane waterproofing must be provided.



CONNECTICUT GENERAL



Connecticut General Life Insurance Company,
Bloomfield, Conn.
architects: Skidmore, Owings and Merrill, N.Y.C.
consultant on interiors: Florence Knoll
Knoll Associates, Inc., N.Y.C.
general contractors: Turner Construction
Company, N.Y.C.

LINOTILE PRE-TESTED IN MOCK-UP

←-----

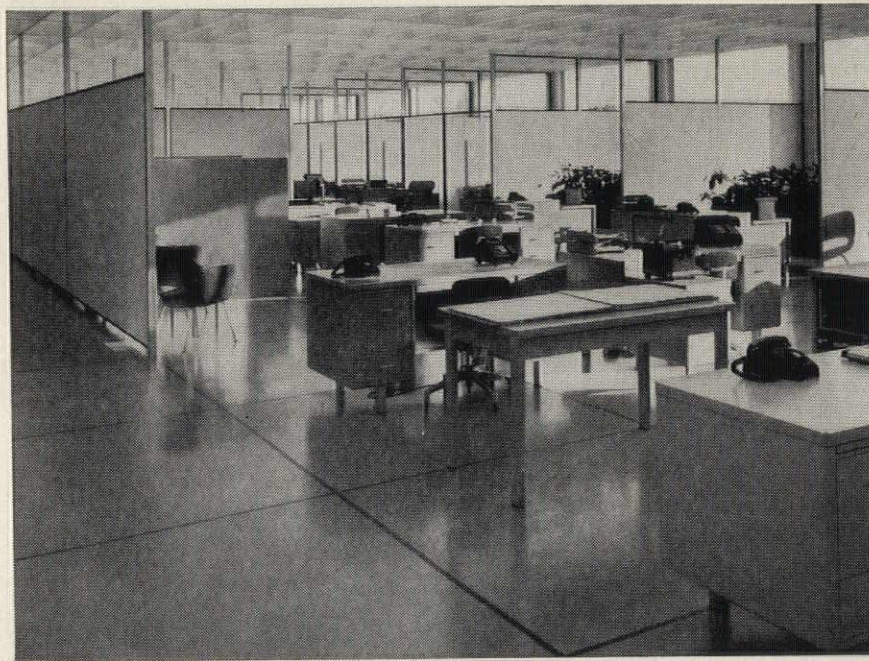
In this detailed, full-scale mock-up built by the general contractor, structural materials were subjected to painstaking examination for long periods. Of the many resilient floors tested here, Armstrong Linotile proved itself by every measure of appearance and function. Especially impressive was the evidence that Linotile's beauty is actually heightened by use and maintenance. Despite the fact that Linotile increased flooring costs 4% over other materials considered, the test data convinced Connecticut General officials that the extra cost was a sound investment.

LIFE INSURANCE COMPANY

flooring spec: Armstrong Linotile

LASTING BEAUTY

The recently completed headquarters of the Connecticut General Life Insurance Company have been cited by the AIA as one of the "Ten Buildings in America's Future." The Armstrong Cork Company is proud that Armstrong Linotile—a floor which has been tested in use for many years—was chosen for virtually all the important areas of this most modern building. A single coloring, No. 169 Graphite Gray, is used throughout. Its subtle graining makes a perfect background for the modern architectural features. And because Linotile is regarded as one of the most durable and serviceable of all resilient floors, it will retain its beauty for many years to come.



EASE OF MAINTENANCE

Even in busy work areas, maintenance is always fast and economical because Linotile is specially processed for easy care under severe traffic conditions. Because Linotile is very dense, it has remarkable resistance to abrasion, indentation, and staining. Heavy furniture won't mar the good looks and smooth surface of Linotile. Employees are pleased with the floors because Linotile is comfortable and quiet underfoot, restfully diffuses light.



Armstrong Linotile—an exclusive Armstrong floor—has an enviable record of more than 40 years for ease of maintenance, exceptional durability, and decorative versatility. Linotile should not be confused with linoleum cut into blocks. A full 1/8" thick, the wearing surface extends through the entire thickness of the tile; it has no felt or burlap backing. Linotile is capable of withstanding furniture loads up to 200 lbs. per sq. in. without showing permanent indentation. It comes in two stylings—an unusually bold marbleizing and a subtle tone-on-tone effect; in many colors and sizes; and may be installed on all types of suspended subfloors.

Armstrong makes all types of resilient floors and can therefore offer unbiased recommendations for every flooring need. For information, samples, specifications, design assistance, call the Armstrong Architectural-Builder Consultant in an Armstrong District Office, or write direct to Armstrong Cork Company, 701 Rock St., Lancaster, Pennsylvania.

Armstrong FLOORS

Approximate Installed Prices per Sq. Ft. (Over concrete, minimum area 1000 sq. ft.)

20¢ to 35¢	Decoray® Linoleum Tile Asphalt Tile, 1/8" (A, B, C, D) Linoleum, light gauge Asphalt Tile, 3/16" (A, B)	35¢ to 45¢	Linoleum, standard gauge Asphalt Tile, 3/16" (C, D) Linoleum, 1/8" ("Battleship") Greaseproof Asphalt Tile Cork Tile, 3/32"	45¢ to 60¢	Corlon® (Sheet Vinyl) Linoleum, 1/8" Cork Tile, 1/8" Excelon® Tile (Vinyl-Asbestos) 1/8"	60¢ to 70¢	Rubber Tile, 1/8" Cork Tile, 3/16" Linotile® Corlon (Hydrocord® back)	70¢ to 90¢	Custom Corlon Tile (Homogeneous Vinyl) 3/32", 1/8" Cork Tile, 5/16" Rubber Tile, 3/16"	95¢ to \$1.30	Custom Vinyl Cork Tile Imperial® Custom Corlon Tile
------------------	--	------------------	---	------------------	--	------------------	--	------------------	---	---------------------	--

Technical Roundup

continued from page 183

Transistorized High-Frequency Systems Developed for Lighting

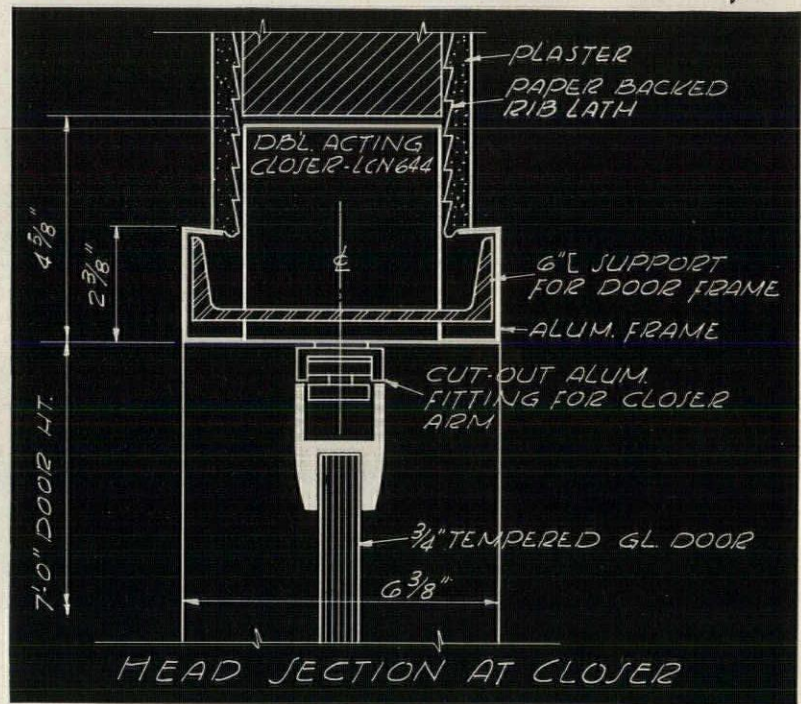
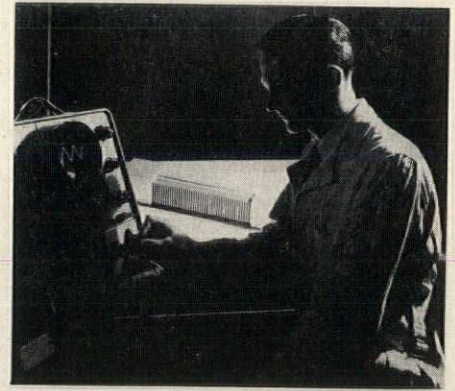
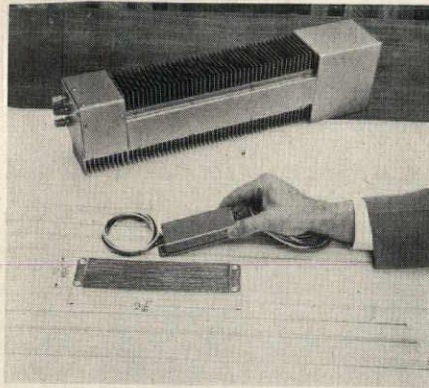
Engineers at Westinghouse Electric corporation's lighting division have announced the development of a transistorized high-frequency power source—soon to be incorporated in standard lighting equipment—which is expected to eliminate many of the technical and economic obstacles now inhibiting indoor and outdoor use of high frequency lighting.

Prototypes currently operating in a Westinghouse pilot installation supply power at 1500 cycles and 150 peak volts to 64 standard 40 watt rapid start fluorescent lamps. The new 1½ kw. frequency converters measure 5 by 4 by 19½ in., weigh 11 lb.—and operate at a full load efficiency of about 94 per cent.

Incoming three-phase power at normal distribution voltages is first rectified by a diode bridge, then converted by two groups of power transistors which conduct alternately and work with auxiliary circuits to provide a 150v alternating peak output. Frequency can be fixed at virtually any point in the audio range, with the shape of the wave form determined by the circuitry of the final stage. (Output shown on the scope in the photo at right above is a 1500 cycle sinusoidal wave peaking at 150 volts.) The use of semiconductors in the design assures frequency stability over a wide load and input voltage range; and the transistorized frequency converters can be installed very near to the lighting load without long high-frequency distribution runs.

The possible reduction in ballast size—a major advantage of high-frequency systems—is shown in the photo above left. The black rectangle represents the area occupied by a 60 cycle ballast for two 40 watt 48 in. rapid start lamps. The equivalent 1500 cycle ballast above it is about the size of a package of king-size cigarettes and weighs only a few ounces. Its four watt loss is about 25 per cent that of the best 60 cycle ballasts for the same lamps. Thus for any given level of illumination, the high-frequency system requires less power input, reduces the heat dissipated in the ballasts, and needs less overhead space and ceiling structure to house and support the luminaires. A promising implication is that changing the geometry of the ballasts will open the way for major changes in luminaire design.

more roundup on page 200



CONSTRUCTION DETAILS

for LCN Overhead Concealed Door Closer Shown on Opposite Page

The LCN Series 644-666 Closer's Main Points:

1. Flap-free control for double-acting doors
2. Handles exterior doors of normal height up to 3'6" wide; interior doors to 4'0"
3. Power applied by a lever arm; in-swing and out-swing are adjustable separately
4. Used for wood, metal or tempered glass doors having top members 1¾" thick or more
5. Pivots included. Hydraulic back-check. No special threshold needed.

Complete Catalog on Request—No Obligation
or See Sweet's 1957, Sec. 18e/La

LCN CLOSERS, INC., PRINCETON, ILLINOIS

Canada: Lift Lock Hardware Industries, Ltd., Peterborough, Ontario



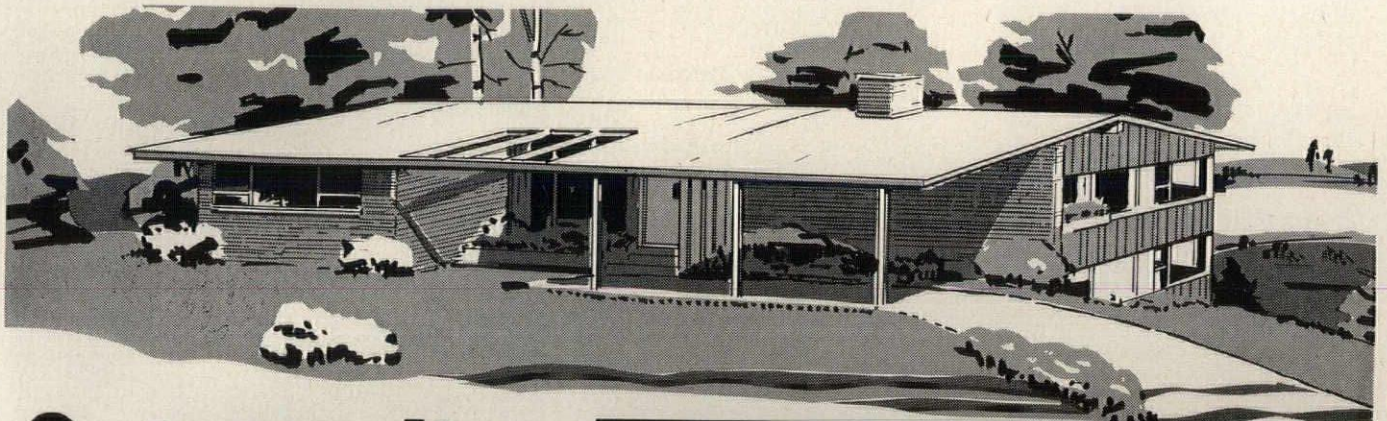
The Austin Company, Engineers and Builders

MODERN DOOR CONTROL BY *LCN* · CLOSERS CONCEALED IN HEAD FRAME

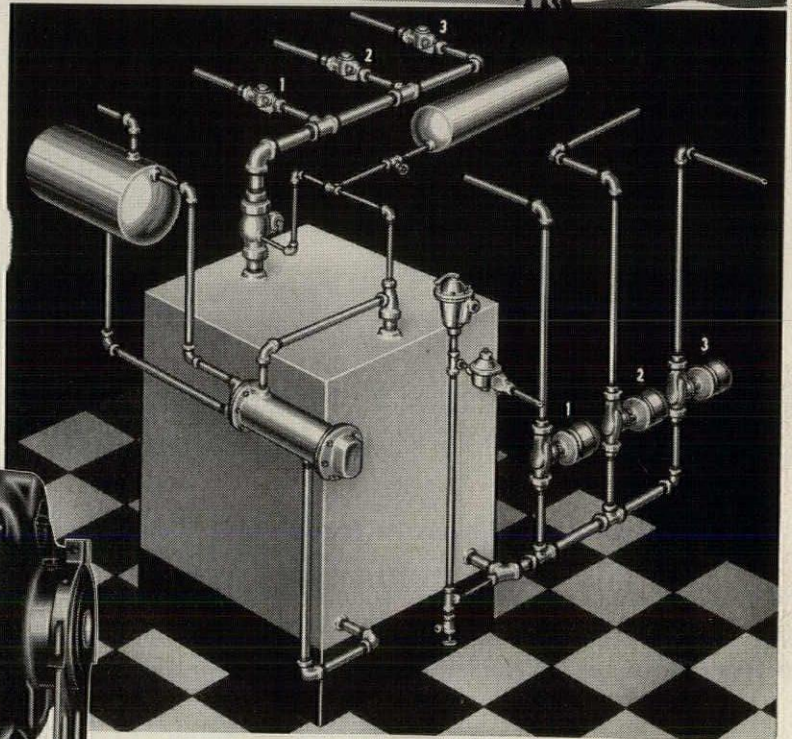
OFFICES OF AUTOMATIC ELECTRIC COMPANY, NORTHLAKE, ILLINOIS

LCN CLOSERS, INC., PRINCETON, ILLINOIS

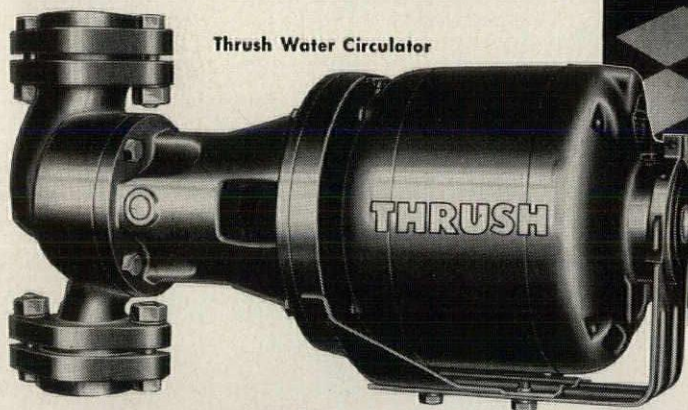
Construction Details on Opposite Page



Outstanding Sales Feature for Today's Homes!



A three-zone Thrush Hot Water Heating System



Thrush Water Circulator

THRUSH *Radiant Hot Water Heat*

ONE REAL VALUE that will sell a home quicker and at a greater price is Radiant Hot Water Heat. Home buyers recognize the greater comfort it provides, the fuel economy and the fact that the home retains a higher resale value for years longer.

A zoned system with Thrush Forced Circulation provides constant radiant heat and uniform temperatures in each zone, regardless of outdoor weather changes. That's a real sales feature that can be provided at lowest cost with Thrush equipment.

See our catalog in Sweet's or write Department J-1 for more information.

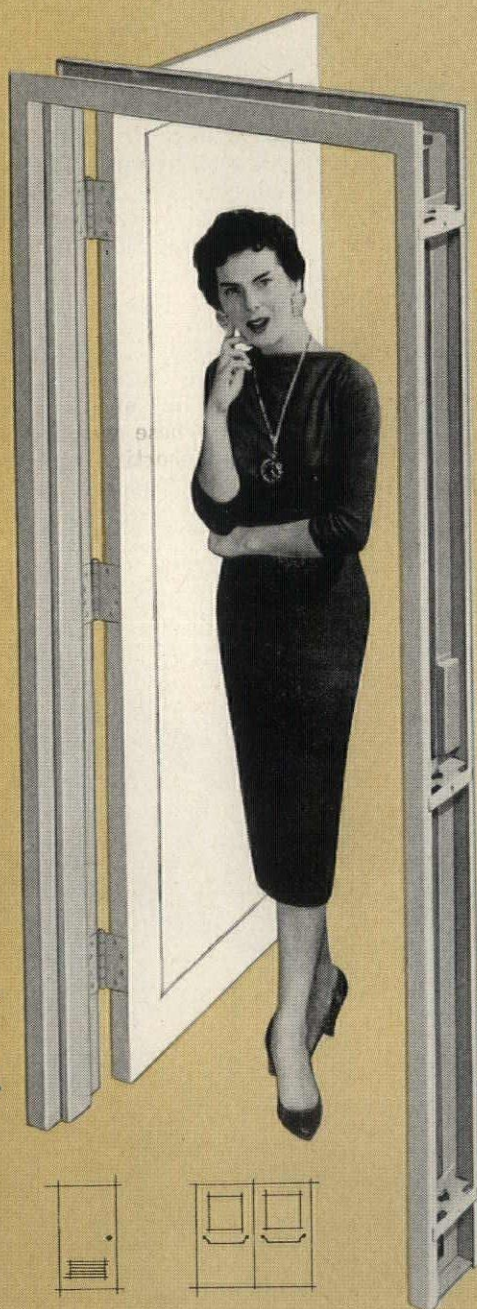


Free Booklet
on Request

H. A. THRUSH & COMPANY
PERU, INDIANA



WHAT'S NEW IN DOORS AND FRAMES?

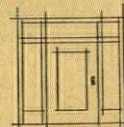
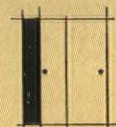
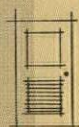
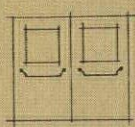


Amweld® takes on new dimensions with its newest line of steel doors and frames. An entirely different concept has been applied to these building products designed for architects and contractors who are finding commercial and light construction a profitable complement to their other building activities.

Amweld's new commercial doors and frames offer durability, low cost installation, and freedom from call-backs — plus practical contemporary styling. Both flush and recessed panel doors will be available in rail and style construction — many unique innovations in frame design.

Be sure to see the latest thing in steel doors and frames when you are in Chicago. Preview showing at the N.A.H.B. Builders Show, Booths 25 and 26, Conrad Hilton.

For complete information on Amweld's doors, frames, and closet units, send for free catalog today.



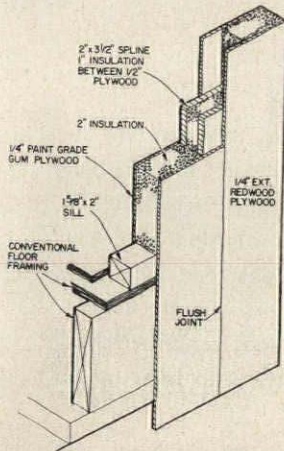
AMWELD® BUILDING PRODUCTS DIVISION
The American Welding & Manufacturing Co.
340 Plant Street Niles, Ohio

Technical Roundup

Prefab Panels Frame Walls, Roof of Michigan Residence

Above its conventional masonry basement and floor framing system, the residence designed by architect Daniel W. Toshach for himself, his wife and four small children departs radically from standard frame construction.

Its walls are made up of load-bearing panels prefabricated from 2 in. cores of plastic foam sandwiched between sheets of $\frac{1}{4}$ in. plywood—redwood on the exterior, paint grade



gum plywood on the interior. As shown below, the panels are glued to the sill at the floor line, and secured to one another with 2 by 3 $\frac{1}{2}$ in. splines made up of $\frac{1}{2}$ in. plywood laminated to both sides of a one inch foam core. The use of sandwich construction for the splines as well as for the panels themselves produces a continuous envelope of insulation—and a virtually perfect vapor barrier—around the perimeter of the house.

To form the roof, Toshach used similar panels of 2 in. plastic foam cores between thin (.018 in.) sheets of polyester fiberglass. These were glued directly to the supporting 4 by 8 and 4 by 10 in. beams, their

butt joints glued and a glue bead formed over the joints. The roof was then edged with a fiberglass channel and flashed with an angle section, both of which were glued to the structural roof panels.

Opaque blue-tinted panels of white-pigmented fiberglass over a blue fire-retarding core roof most of the house—performing multiple duty as structure, insulation, vapor barrier, finished ceiling and finished roof. In the laundry, interior bathrooms and basement stairwell, however, translucent “skylights” of unpigmented glass fiber over a white insulating core replace the opaque panels. *more roundup on page 204*

**HOW
LONG
IS A
LONGSPAN
JOIST?**

HAVEN-BUSCH
Company

DESIGNERS — FABRICATORS — ERECTORS

SINCE 1888

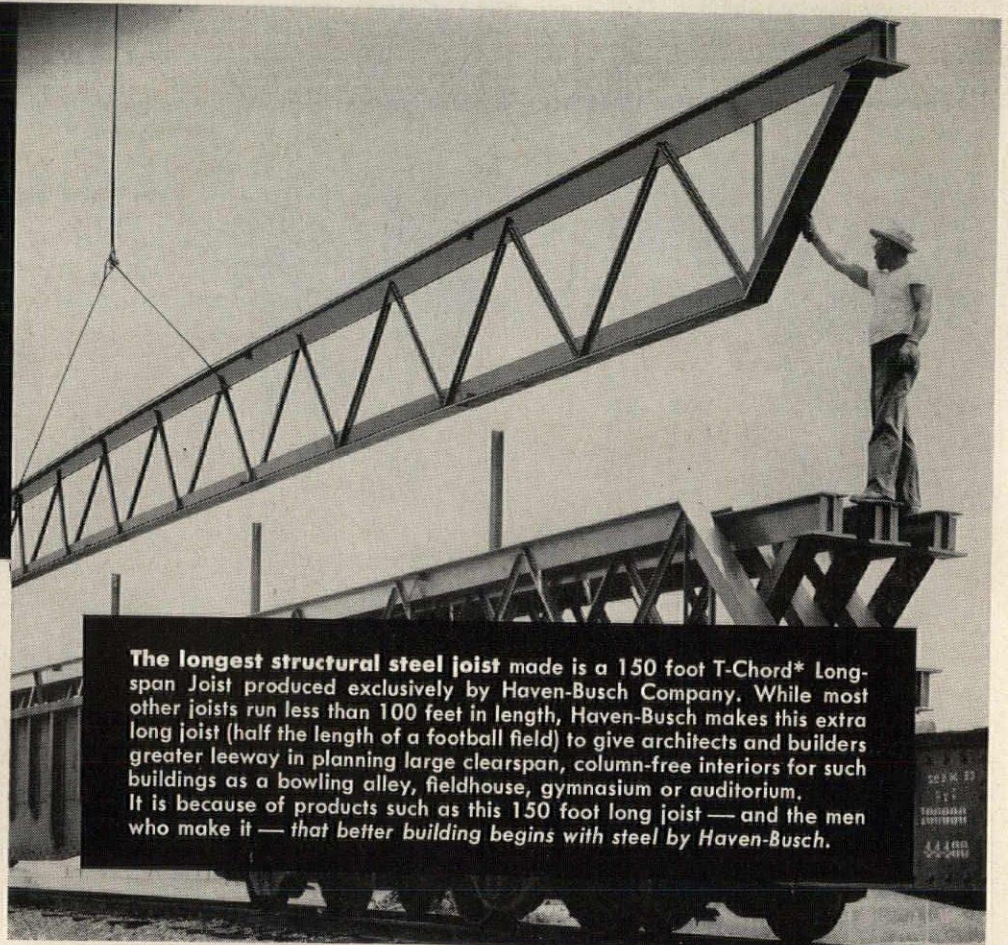
T-Chord® Longspan Joists Structural Steel

Miscellaneous Iron

3443 CHICAGO DRIVE, S.W.—GRANDVILLE, MICH.

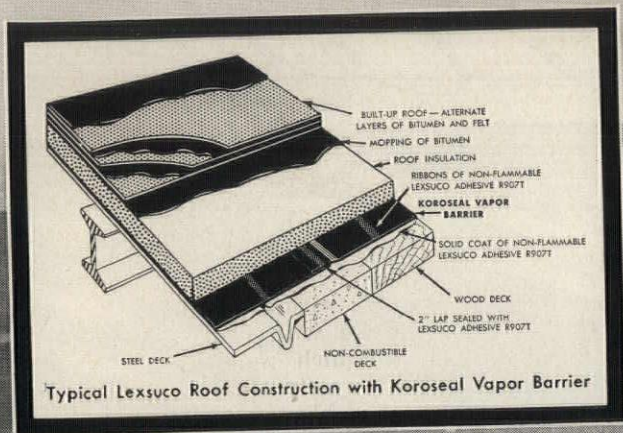
PHONE: LEnox 2-3641

*T.M. Reg.



The longest structural steel joist made is a 150 foot T-Chord® Longspan Joist produced exclusively by Haven-Busch Company. While most other joists run less than 100 feet in length, Haven-Busch makes this extra long joist (half the length of a football field) to give architects and builders greater leeway in planning large clearspan, column-free interiors for such buildings as a bowling alley, fieldhouse, gymnasium or auditorium. It is because of products such as this 150 foot long joist — and the men who make it — that better building begins with steel by Haven-Busch.

B.F. Goodrich



Three Jobs in One Pass. This Lexsuko applicator applies non-flammable Lexsuko Adhesive R907T to the underside of Koroseal Vapor Barrier, lays and secures the Koroseal, and places ribbons of adhesive on top of the Koroseal for securing insulation—all in one easy operation.

Lexsuko roof construction with Koroseal ... easily installed—won't feed a fire

LEXSUCO Fire-Retardant Roof Constructions with Koroseal Vapor Barrier will not feed a fire. That's because there is no asphalt between roof deck and insulation to give off flammable gases. Exclusive non-flammable Koroseal replaces asphaltic materials, and may be secured between deck and insulation with either Lexsuko clips or non-flammable Lexsuko Adhesive R907T.

Lexsuko Roof Constructions are fire retardant with a Factory Mutual Class I rating, and can often influence insurance rates and reduce sprinkler requirements,

depending upon building contents.

Installation is simple, fast and economical. The illustration above shows a typical installation procedure on a large job. Small installations are fast and easy, too.

To protect building investment against fire disaster as well as moisture damage, always specify a Lexsuko Roof Construction with Koroseal Vapor Barrier. There is no "or equal". Koroseal Vapor Barrier is a specially compounded fire retardant material made by *B.F. Goodrich Industrial Products Company, Marietta, Ohio.*

B.F. Goodrich

INDUSTRIAL PRODUCTS CO.
MARIETTA, OHIO

LEXSUCO, INCORPORATED Dept. AR-1
4815 Lexington Ave., Cleveland 3, Ohio
Please send me free informative folder on the Lexsuko system of roof construction.

Name _____

Company _____

Address _____

City _____ Zone _____ State _____

New

In Extruded Aluminum

by **TITUS**

A COMPLETE LINE OF DISTINCTIVE

Linear Type

AIR DIFFUSING GRILLES

These new grilles have all the characteristics necessary to open a vast new field of design opportunity—TRUE ARCHITECTURAL BEAUTY—OUTSTANDING PERFORMANCE—REAL VERSATILITY.

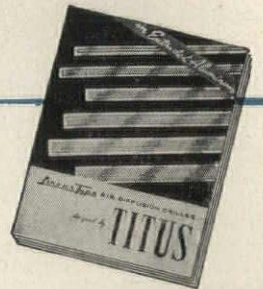
Titus new linear type diffusers are *perfect for continuous line use in sidewalls—window sills—floors . . . IN BANKS, SCHOOLS, HOSPITALS AND OTHER PUBLIC BUILDINGS.*

Now available in *1½, 2, 2½, 3, 3½ and 4-inch widths—with rear set of individually adjustable Airfoil louvers, multi-shutter and opposed blade dampers. Furnished in any width or length on special order.*

WRITE FOR NEW FREE 16-PAGE CATALOG

TITUS MFG. CORP. WATERLOO, IOWA

Rush me new FREE Catalog that gives complete information (including engineering data) on Titus Linear Type Grilles.



Name

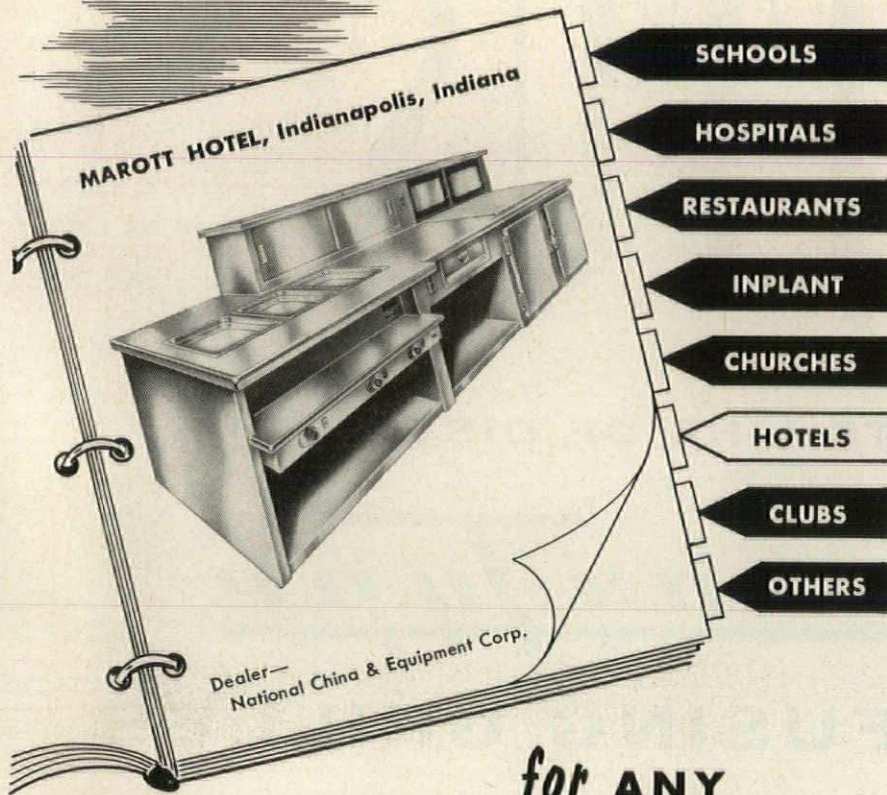
Company

Address

City

State

Custom-Bilt



for ANY FOOD SERVICE OPERATION!

For years Southern has consistently and successfully created special food serving equipment to meet the most unusual performance demands. "Custom-Bilt by Southern" equipment can be designed, engineered, fabricated, installed and expertly fitted to available space for any food service operation. Get expert help today—call your "Custom-Bilt by Southern" Dealer, or write to Southern Equipment Company, 4550 Gustine Ave., St. Louis 16, Mo.

84 National Award Winning Installations
SOUTHERN
EQUIPMENT COMPANY



"CUSTOM-BILT BY SOUTHERN" DEALERS: ALABAMA, BIRMINGHAM—Vulcan Equip. & Supply Co.; MOBILE—Mobile Fixture Co. ARKANSAS, LITTLE ROCK—Krebs Bros. Supply Co. FLORIDA, DAYTONA BEACH—Ward Morgan Co.; JACKSONVILLE—W. H. Morgan Co.; MIAMI—J. Conkle, Inc.; ORLANDO—Turner-Haack Co.; ST. PETERSBURG—Staff Hotel Supply Co.; TAMPA—Food Service Equip. & Engr. Corp. GEORGIA, ATLANTA—Whitlock Dobbs, Inc. ILLINOIS, PEORIA—Hertzel's Equip. Co. INDIANA, EVANSVILLE—Weber Equip. Co.; INDIANAPOLIS, MARION—National China & Equip. Corp. IOWA, DES MOINES—Bolton & Hay. KENTUCKY, LEXINGTON—Heilbron-Matthews Co. LOUISIANA, NEW ORLEANS—J. S. Waterman Co., Inc.; SHREVEPORT—Buckelew Hdwe. Co. MICHIGAN, BAY CITY—Kirchman Bros. Co.; DETROIT—A. J. Marshall Co. MINNESOTA, MINNEAPOLIS—Aslesen Co., Joesting & Schilling Co. MISSOURI, KANSAS CITY—Greenwood's Inc.; ST. LOUIS—Southern Equipment Co. MONTANA, BILLINGS—Northwest Fixture Co. NEBRASKA, OMAHA—Buller Fixture Co. NEW YORK, ALBANY—Lewis Equip. Co. NORTH CAROLINA, ASHEVILLE—Asheville Showcase & Fixture Co.; CHARLOTTE—Hood-Gardner Hotel Supply Corp. NORTH DAKOTA, FARGO—Fargo Food & Equip. Co. OHIO, CINCINNATI—H. Lauber & Co.; CLEVELAND—S. S. Kemp Co.; COLUMBUS—General Hotel Supply; TOLEDO—Rowland Equip. Co.; YOUNGSTOWN—W. C. Zabel Co. OKLAHOMA, TULSA—Goodner Van Co. PENNSYLVANIA, ERIE—A. F. Schultz Co. SOUTH CAROLINA, GREENVILLE—Food Equipment Co. TENNESSEE, CHATTANOOGA—Mountain City Stove Co.; KNOXVILLE—Scruggs, Inc.; MEMPHIS—House-Bond Co.; NASHVILLE—McKay Cameron Co. TEXAS, CORPUS CHRISTI—Southwestern Hotel Supply, Inc.; SAN ANTONIO—Southwestern Hotel Supply, Inc. UTAH, SALT LAKE CITY—Restaurant & Store Equip. Co. VIRGINIA, RICHMOND—Ezekiel & Weilman Co. WEST VIRGINIA, CLARKSBURG—Parson-Souders Co. WISCONSIN, MILWAUKEE—S. J. Casper Co. CUBA, HAVANA—Equipos de Bar y Cafeteria, S. A.

Technical Roundup

Field-Assembled Aluminum Sandwiches Cut Industrial Wall Costs

At three recently completed American Can Company plant construction projects, wall installation costs were cut a minimum of 30 per cent through the use of field-assembled insulated aluminum sandwich walls. All elements of the walls—aluminum or steel inner skin, fiberglass insulation and aluminum exterior skin—were installed with Nelson *Setlok* shoulder-type studs, end-welded to structural girts. Because all work was handled from one side, there was no need to drill structural members nor to use tees or channel spacers.



The inner skin of .024 in. aluminum or 24 ga. steel was first impaled over the studs and held in place with speed clips. One or 1½ in. thick fiberglass insulation was then similarly impaled and the outer sheet—usually .032 in. ribbed embossed aluminum—driven over the studs. To finish the walls, aluminum caps were hammered into position on the tips of the studs, the aluminum of the caps flowing into and gripping serrations on the stud tips.

Least expensive of the three projects was a coil processing plant and warehouse at Tampa, Florida, which was bid at \$1.22 per sq. ft for a field-assembled sandwich wall with galvanized steel inner skin and one inch insulation.

On a similar curtain wall job in San Antonio, Texas, bid price was \$1.342 per sq ft for a wall with 1½ in. fiberglass insulation, an inner skin of corrugated embossed aluminum sheet, and exterior sheets of ribbed embossed aluminum extending 22 ft from wainscoting to eaves.

The stud-secured curtain wall used for a third installation at Hillside, N. J., made possible a labor saving of 30 per cent over an alternate fastening procedure which would have required sub-girts and self-tapping screws. In spite of such additional features as a vapor barrier between the insulation and inner skin, the wall was bid at \$2.00 per sq. ft.



Mr. Scholz (left) at the site of one of his nationally distributed "Mark 58" prefabricated homes with Ken Sprengel of the Telephone Company

"Concealed telephone wiring adds sales appeal to our homes"

—says Mr. Don Scholz, of Scholz Homes Incorporated, Toledo, Ohio

"I compare selling new homes with selling new cars," says Mr. Scholz. "New homes have to be more attractive and more modern than what the public has had before, or they won't sell.

"Concealed telephone wiring is a feature that helps give prefabricated homes such as we manufacture the added sales appeal that attracts buyers. We merchandise it with the many other modern conveniences we offer. It's a valuable sales aid, and we take full advantage of it as such."

Mr. Scholz began manufacturing prefabricated homes in 1953, and last year sold 1500 units at an average completed sales price of \$30,000 each.

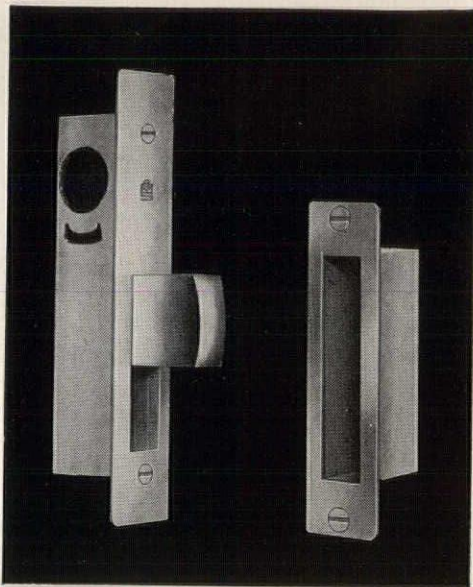
This year Mr. Scholz's "Mark 58" home will be nationally advertised and distributed. In today's competitive market, Mr. Scholz, like many other trend-minded builders across the country, recognizes concealed telephone wiring as an indispensable modern sales feature.

* * *

Your nearest Bell Telephone business office will help you with concealed wiring plans. For details on home telephone wiring, see Sweet's Light Construction File, 8i/Be. For commercial installations, Sweet's Architectural File, 32a/Be.

Working together to bring people together . . . **BELL TELEPHONE SYSTEM**





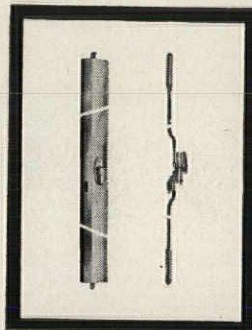
Maximum Security Narrow Stile Locking Devices

For New or Replacement Installations

Whether you specify, install, or sell narrow stile locking devices, you can be confident that Adams-Rite offers the utmost in design, construction, simplicity and safety. Check these advanced ideas that insure top performance and lasting customer satisfaction:

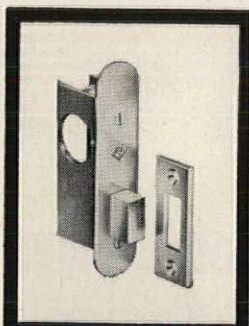
Illustrated above — Maximum Security 1850 Deadlock:

This is the unit that provides Maximum Security for modern narrow stile swinging glass doors. The pivoted bolt actually bridges the opening with a bar of steel, retaining as much bolt within the lock stile as is projected. Its protection is so great that forced entry is impossible without destruction of the door itself.



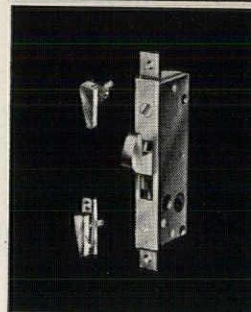
MS 1849 Two-Point Door Bolt:

The modern method for locking the inactive door of a pair of narrow stile doors. Top and bottom bolts are locked or unlocked by natural operation of an attractive turn conveniently located on the inside surface. Positive deadlock of both doors is automatically provided when cylinder deadlock is thrown.



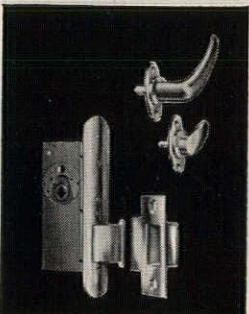
970 Minimum Backset Deadlock:

This unit provides economical deadlocking for rigid narrow stile swinging doors. Like all Adams-Rite narrow stile locks, the 970 Series operates with standard mortise type cylinders of any make.



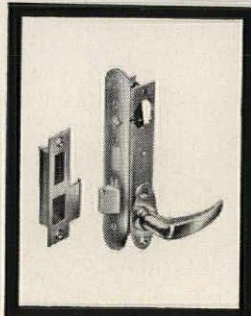
1848 Deadlock for Narrow Stile Sliding Glass Doors:

Every sliding glass door deserves the same protection demanded of any other exterior door. The 1848 gives security with an adjustable heavy hook type bolt with which turn and cylinder controls are used. For added safety, the bolt collapses if the door is accidentally shut while bolt is projected.



1450 Deadlocking Latch:

Traffic control is made possible in a narrow stile swinging door entrance by use of the 1450 Series Deadlocking Latch. Two-way traffic flow or restricted entrance is achieved by a simple selector. Ideal for any public area with a closing-hour problem, such as banks, markets, apartment houses, etc. It satisfies building and safety regulations.



1340 Series, Deadlock and Latch:

Combination deadlock and latch for narrow stile swinging doors. A simple selector changes the unit from free swinging to latch action. The positive latch action helps prevent air losses when temperature control systems are used.

Specify, Sell, Install the Finest

ADAMS-RITE

MANUFACTURING COMPANY

540 West Chevy Chase Drive, Glendale 4, California · Dept. AR-18

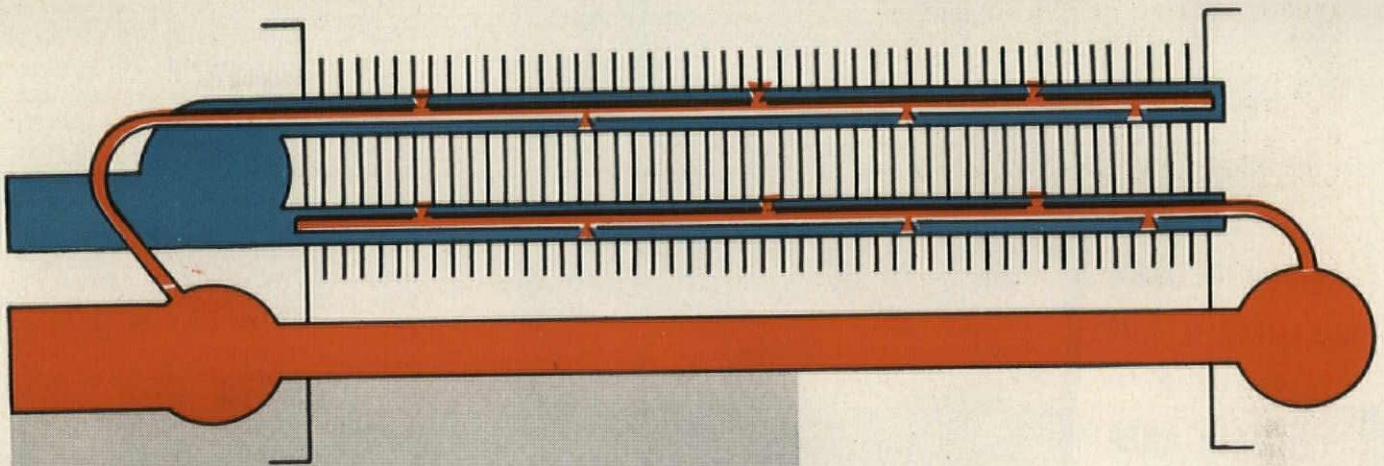
Specialists in Narrow Stile Locking Devices



Complete specifications and information on request.

A COMPLETELY NEW STEAM COIL DESIGN

Marlo EVNTTEMP Distributing Steam Coil

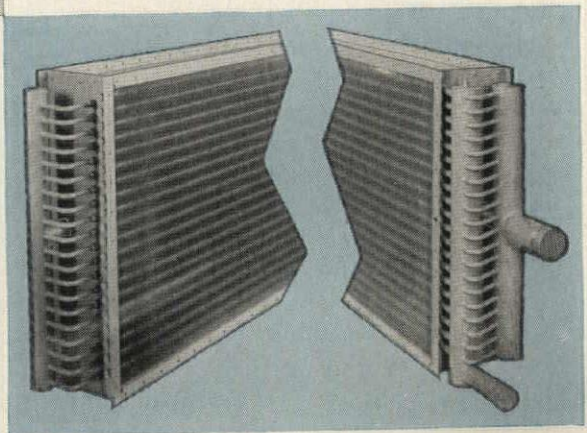


**Uniform Surface Temperatures
Regardless of Fluctuating Load
Demands**

This unique new steam coil provides uniform leaving air temperatures, free of all stratification. The design also gives maximum possible protection against freeze-ups not available before.

Fins of the new Evntemp coil are of the continuous-plate type which contact the entire surface of the condensing tubes, assuring efficient, uniform heat transfer. Tubes are pitched in the casing for rapid condensate drainage and ease of installation.

Complete information on the new Evntemp steam coil is available on request. Write today.



MARLO coil co.

SAINT LOUIS 10, MISSOURI

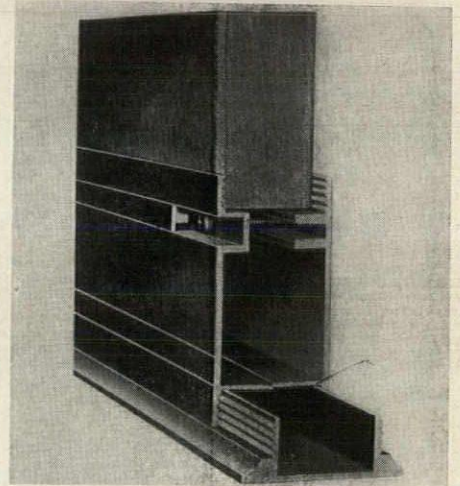
Quality Air Conditioning and Heat Transfer Equipment Since 1925

Product Reports

continued from page 185

High-Strength Insulation Board

Strongbord, a new $\frac{1}{2}$ in. insulation board sheathing that can be used without corner bracing, is made of pine and other wood fibers bonded together with special bituminous compounds to form a dense rigid sheet of exceptional strength and high moisture resistance. The 4 ft wide sheets come in 8 and 9 ft lengths which can easily be handled by one man. Suitable for either interior or exterior use, they can be painted with polyvinyl acetate paint or covered with finished sidings of brick, wood, stucco or asbestos. Because the sheets are thoroughly asphalt-impregnated, they are highly weather-resistant and can be used without building paper except where required by code. *Johns-Manville, 22 East 40th St., New York 16, N. Y.*



Movable Interior Wall System

A unique new interior movable wall system is designed around a series of simple aluminum extrusions, each with an elongated threaded slot into which a bolt can be threaded at any location along the extrusion. To erect partitions, a base plate is attached to the floor and an aluminum batten strip locked over it. A $1\frac{1}{8}$ in. panel is fitted into the batten and gripped firmly in place by tightening the concealed bolts. The batten strip will accommodate vertical or horizontal wiring, and base or wall outlets may be located wherever required. If windows are not desired, the wall is finished with a small batten at the top of the panel, and a cap plate which fits against the ceiling. When the extruded members are cut to desired lengths, only a screwdriver is needed to assemble the walls. *H & B Enterprise Corp., 1150 Southard St., Trenton 6, N. J.*

more products on page 212



At top of page, new bearing ring plant of The Fafnir Bearing Company of New Britain, Conn., at Newington, Conn. Below is view of locker and washroom. Design and construction by The Austin Company.

Note Use of Both Circular and Semi-Circular Bradleys

In this new Fafnir bearing ring plant, wash-up facilities are located in the locker-room. Note, too, that the area where a column is located is not wasted. Two Bradley semi-circular Washfountains, back to back, solved the problem. Ordinarily the semi-circular fixtures are used in narrower rooms and are installed at wall.

With all Bradleys, fewer piping connections are required—just three to serve 8 to 10 persons. Space is saved and water consumption greatly reduced because each Washfountain, while serving groups, uses no more than an individual wash basin. And with foot-control, *water is cut off immediately* foot is lifted from the control ring at base.

There are no faucets to manipulate or maintain. Hands need touch nothing but the clean tempered water coming from the central sprayhead.

For new buildings—for extensions to present plants, and for modernizing old washrooms—you get greater economy and user satisfaction with Bradleys.

For dimensions and complete specifications, write for Catalog 5601. BRADLEY WASHFOUNTAIN CO., 2227 W. Michigan St., Milwaukee 1, Wis.



Write for
Catalog
5601

BRADLEY Washfountains

Distributed Through Plumbing Wholesalers

Growing need for CAT standby power means more ways to serve your client



A 175 KW Cat Electric Set takes over within seconds if commercial power fails at Baptist Memorial Hospital, Jacksonville, Fla. Emer-

gency generator handles 35% of normal load including boiler, 12 operating rooms, 2 elevators and electric facilities for 300 beds.

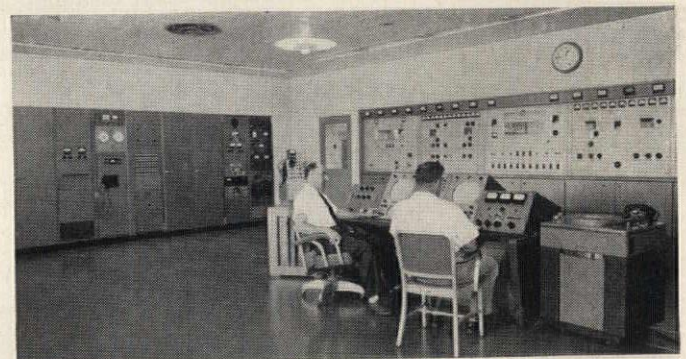
Dependable CAT* Diesel Electric Sets give emergency power protection in installations *big or small*. And increased acceptance of standby power gives architects and consulting engineers a sound opportunity to serve clients better.

Many businesses need emergency power—hospitals, hotels, banks, radio and TV broadcasting facilities, processing industries, airports (including structural additions) and shopping centers.

Your client may assume that your design will include standby power. Or, he may not have considered protection against power failure and will be impressed with your foresight in designing his facility to include a Caterpillar* diesel generator. Either way, you do a more complete job by protecting your client against costly power failure.

Engine Division, Caterpillar Tractor Co., Peoria, Ill., U.S.A.

*Caterpillar and Cat are Registered Trademarks of Caterpillar Tractor Co.



A dependable Cat D375 Diesel Electric Set (approximate 190 KW) serves as standby for the 100,000-watt transmitter of WWJ-TV in Detroit. If commercial power fails, the standby unit insures against costly loss of programming time.

ENGINE POWER BY CATERPILLAR



Two Cat D397 Electric Sets, capacity 600 KW, protect this mammoth refrigerated vault of Food Fair Stores in Miami. 70,000 sq. ft. of food storage serve 52 Food Fair Stores in the area. Without emergency power, disrupted power could be very costly.

Dept. AR1, Engine Division
CATERPILLAR TRACTOR CO., Peoria, Illinois, U. S. A.

Send me more information about Diesel Electric Sets for standby use in government, industry and public service applications.

- I am interested in learning more about these units in general.
 I am interested in learning how to obtain government matching funds for purchase and installation of a Cat Emergency Power Unit.

Name _____

Company _____

Address _____

City _____ Zone _____ State _____

AUTOMATION

to the Nth power



MATERIAL FLOW IS AUTOMATIC

into and out of special designed Montgomery Elevators installed in midwest refinery of one of the nation's leading oil companies. Power driven roller conveyors, built in the car floors, turn until car is loaded . . . doors close and car proceeds to floor indicated . . . levels automatically, doors open automatically and conveyor starts again to unload car.

proof that "SPECIAL" is standard with MONTGOMERY

Design and construction of unusual industrial elevator installations such as these palletized material handling units are regular events for Montgomery engineers. Equally unusual requirements have been met to provide elevators for giant testing machines in famous research laboratories; for cross-over bridges in plants divided by railroad tracks; in the nation's leading parking garages; in plants requiring double-duty elevators to handle widely varying loads. Unusual, yes, but you can depend on Montgomery for all types of elevators, including passenger and attendant operated electric and hydro-electric passenger and freight elevators.

... and P. M. service

Montgomery Preventive Maintenance—P. M. Service is available across the country. Provides maintenance by highly skilled, especially trained men for all types of elevators.

AR-158

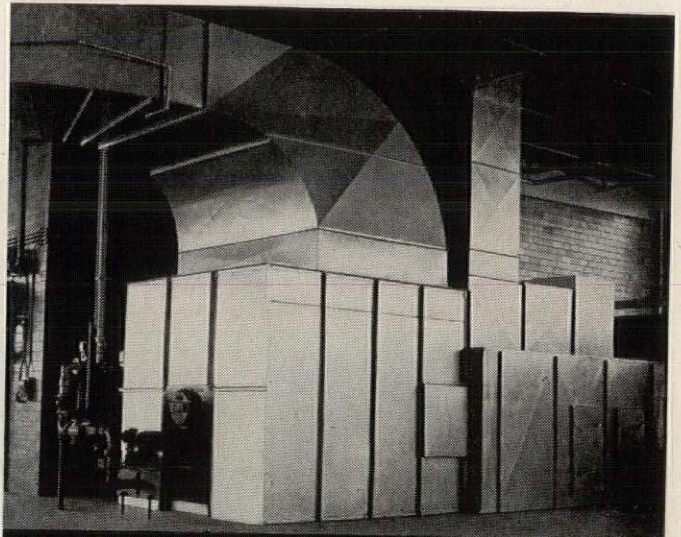


MONTGOMERY
ELEVATOR COMPANY

Moline, Illinois — Branches and Representatives in principal U. S. cities, Canada and Mexico

Export Office: Elevator Equipment Export Co., New York 1, N. Y.

See Sweet's Catalog for Detail Data



Jackson & Church furnaces

solve difficult heating problems of new Crown Cork and Seal plant —

INSTALLATION DATA

PLACE:

New lithograph plant of Crown Cork & Seal Company's Can Division, Philadelphia, operating five of the latest litho presses and five coaters and ovens

REQUIREMENTS:

Dependable heating designed to supply large volume of fresh outside air replacing oxygen consumed by lithograph equipment. Summer air conditioning to utilize same ducts and fans

HEATING UNITS SPECIFIED:

Three JACKSON & CHURCH GA-4750 units, having a total air delivery of 120,000 C.F.M. and 14,250,000 Btu input

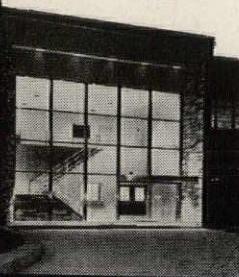
MANUFACTURER:

JACKSON & CHURCH - Div. of YORK-SHIPLEY, INC. York, Pa. (J-C furnaces - America's largest & most complete warm air heating line)

DISTRIBUTOR:

Furnace Distributors, Inc. Philadelphia, Pa.

INSTALLER: Consolidated Air Conditioning



Modern facade of Crown Cork & Seal Company's new plant in Philadelphia.

J-C

JACKSON & CHURCH

Division of

YORK-SHIPLEY, INC.

P.O. BOX 349, YORK, PENNSYLVANIA

Eye-rest green channel with necessary VHO ballast and lamp-holders. Color finish is baked onto 20-gauge steel.

All-white reflector—porcelain finish on vitreous steel—is slotted for 10% upward light component.

Green-tinted louvers of rugged 20-gauge steel give needed eye-protection from high-intensity lamps.

Sylvania VHO-2V14,
New 4-foot fixture holds 2
of the new Sylvania 100-watt
Very High Output fluorescent
lamps (VHO 25). (Also in 8-foot
unit for 2 new 200-watt lamps.)

NOW—Light Output Doubled!

New Sylvania VHO Special Fixture Series

for quality lighting with the sensational new fluorescent lamp

Sylvania's new VHO Special Fixture Series harnesses the tremendous light output of the sensational VHO lamps and puts it to work effectively for you.

These higher wattage VHO lamps—recently developed in the Sylvania laboratories—mark a milestone in today's industrial lighting revolution. Though no larger in size, they deliver more than double the light output of regular fluorescents of the same length.

Sylvania's new VHO Special Fixture operates these lamps with a minimum of

glare and a maximum of eye comfort. Its "eye-rest" green channel and green tinted louvers add cool chromatic eye-comfort. Its white porcelain reflector is slotted for 10% upward light component to mellow harsh contrasts overhead.

Picture, in your own plant, where these fixtures might work effectively for you . . . in inspection areas or precision machine locations . . . for close tolerance work or for general high-bay areas.

See for yourself what Sylvania's new VHO lighting can do for morale and plant

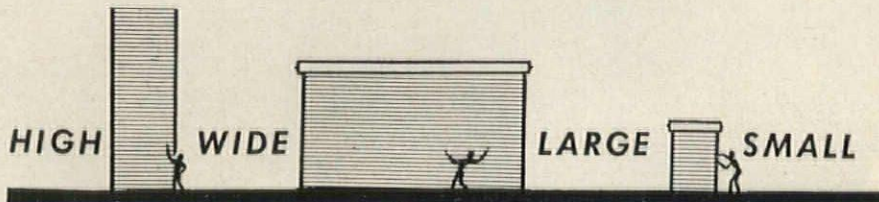
production rates, reducing the number of rejects. See how its one-man maintenance features will cut down operating costs. Talk to your local Sylvania Fixture Specialist, or write direct for full details.

SYLVANIA ELECTRIC PRODUCTS INC.
Dept. A 20, Lighting Division—Fixtures
One 48th Street, Wheeling, W. Va.

SYLVANIA 
... fastest growing name in sight

LIGHTING • RADIO • ELECTRONICS • TELEVISION

• METALS & CHEMICALS



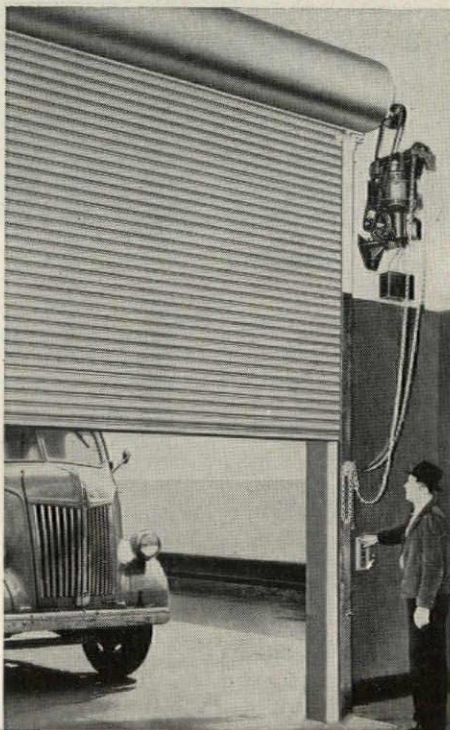
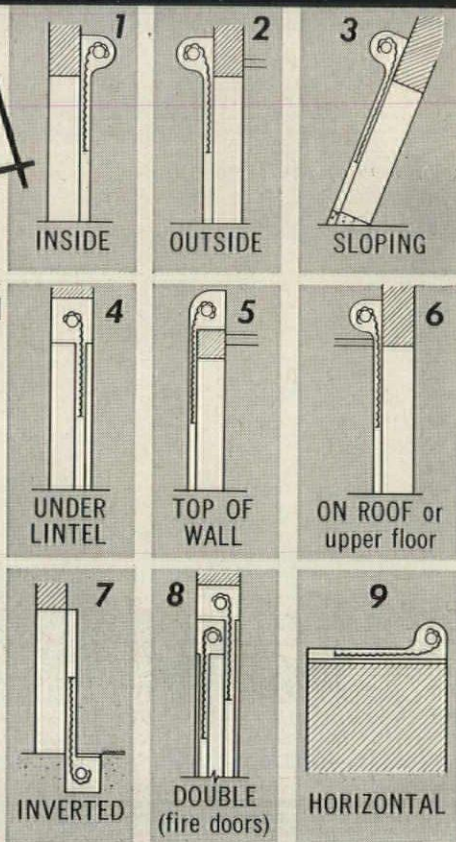
Quick Guide to
Kinnear Door
Versatility

Kinnear Steel Rolling Doors

Whether your door needs are standard or special, Kinnear Rolling Doors offer you more efficiency *more different ways* than any other type of door. For example, the coiling upward action of Kinnear's interlocking steel curtain can be applied:

1. Mounted on inside wall; coils overhead.
2. On outside wall; leaves ceiling clear.
3. Sloping doorway (chutes, hoppers, etc.).
4. Hood under lintel or concealed in wall.
5. Hood above lintel or on top of wall.
6. Hood above roof or upper floor level.
7. Inverted mounting (coil below door sill).
8. Kinnear Rolling Doors (automatic fire type) on both sides of wall for maximum fire protection.
9. Horizontal mounting (openings for observatory, ventilator or similar eqpt.).

In every installation, Kinnear Rolling Doors open *out of the way* . . . need no usable space for either storage or operation . . . give extra protection against fire, theft, wind, weather or vandalism. Extra heavy galvanizing assures corrosion-free durability. Built any size. Motor or manual operation. Write for full information!



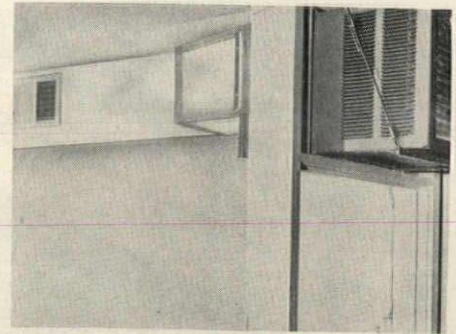
KINNEAR
ROLLING DOORS
Saving Ways in Doorways

The KINNEAR Mfg. Co.
FACTORIES:

1860-80 Fields Avenue, Columbus 16, Ohio

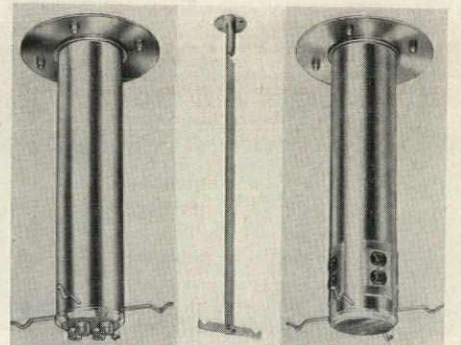
1742 Yosemite Ave., San Francisco 24, Calif.

Offices and Agents in All Principal Cities



Store-Office Air Conditioner

Designed to fit into the transom of small store or office buildings, the 2 hp *Ductaire* delivers 590 cubic feet of cooled air per minute, can completely air condition up to 1400 sq. ft of floor space. The self-contained conditioner requires only electrical connections (no connections for water or drains), and comes equipped with prefabricated insulated duct-work for simple, flexible, inexpensive installation. The standard duct kit contains six 4 ft sections of duct and two outlet grills; additional duct sections can be added to the system as required. *Westinghouse Electric Corp., P. O. Box 2099, Pittsburgh 30, Pa.*



Overhead Hospital Equipment

More efficient use of floor space in surgical and recovery rooms is made possible by overhead installation of gas, vacuum, intravenous and electrical services. Three new products which clear floors of stands, tanks, hoses and wires are shown above. The surgical gases dispenser unit at right can be used with any standard coupler to dispense gases, surgical air or vacuum; the overhead intravenous equipment support (center) eliminates cumbersome tripod stands; and the overhead electrical unit (left) provides electrical service where it is needed, clears floors of wires and outlets. Both electrical unit and gases dispenser unit can be had with intravenous hooks attached. *Logan Hospital Equipment Co., P. O. Box 751, Glendale, Calif.*

more products on page 216

ANOTHER HOMASOTE **FIRST**

THIS IS ONE PANEL
4' WIDE
8' HIGH

FOR
WALLS
AND
CEILINGS—

Panel-Tile

PLAIN OR PERFORATED

—on each 4' x 8' panel
thirty-two 12" tiles or
eighteen 16" tiles

—PLUS 75 wholly new tile sizes
from 8" to 48" on a side

The architect and builder have long known the beauty of tile—whether ceramic or of any other material. They have also known its three major handicaps: (1) only a master craftsman can approximate true alignment; (2) the costs of both materials and labor are high; (3) limitations in tile size and shape tend to limit creativeness in wall or ceiling design.

Panel-Tile meets all these former limitations. We would like to send you three informative pieces of literature. The first gives the answers on both economy and true alignment and pictures 27 possible color treatments. The second shows 75 patterns whereby you can create your own tile designs in terms of sizes and shapes—from 8" to 48" on a side. The third suggests 111 different ceiling designs and the exact materials list for each.

Add to these your own color sense—and the infinite possibilities for 3-dimensional

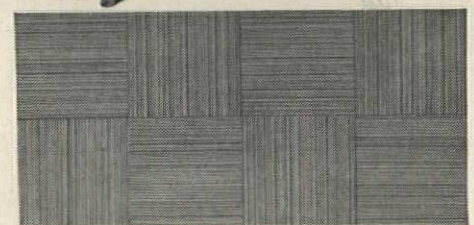
surfaces (through your judicious use of moldings)—there is no limit to your design possibilities.

A 3-stage groove-lap joint—on all four edges—assures both the alignment and a weather-tight joining. Since Panel-Tile is weatherproof Homasote, you have the usual high qualities of structural strength, insulation, sound-deadening and the perfect surface for any paint or stain.

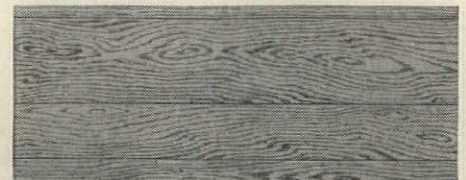
For increased sound-deadening value, Panel-Tile is available—in the 12" x 12" and 16" x 16" tile sizes—with funnel-like perforations. Less costly than true acoustical panels, but far more effective than plaster or most other materials.

In ceiling applications, the economical "Wilson Air-Float" method adds sound-deadening protection and reduces sound transmission from above.

Use coupon below to secure full details on this and other Homasote products.



STRIATED OR WOOD-TEXTURED PANELS combine beauty with insulation and structural strength. Cut and position the STRIATED for basket-weave, herringbone or straight design. The WOOD-TEXTURED panels are individually molded from actual spruce boards. Both types are made in 16", 32" and 48" widths—in 8' lengths. Packaged—2 of each width or 128 sq. ft.



HOMASOTE COMPANY

In the U.S., kindly address
Trenton 3, New Jersey. In
Canada: Toronto, Ont. — P.O.
Box 35, Station K • Montreal,
P.Q.—P.O. Box 20, Station N



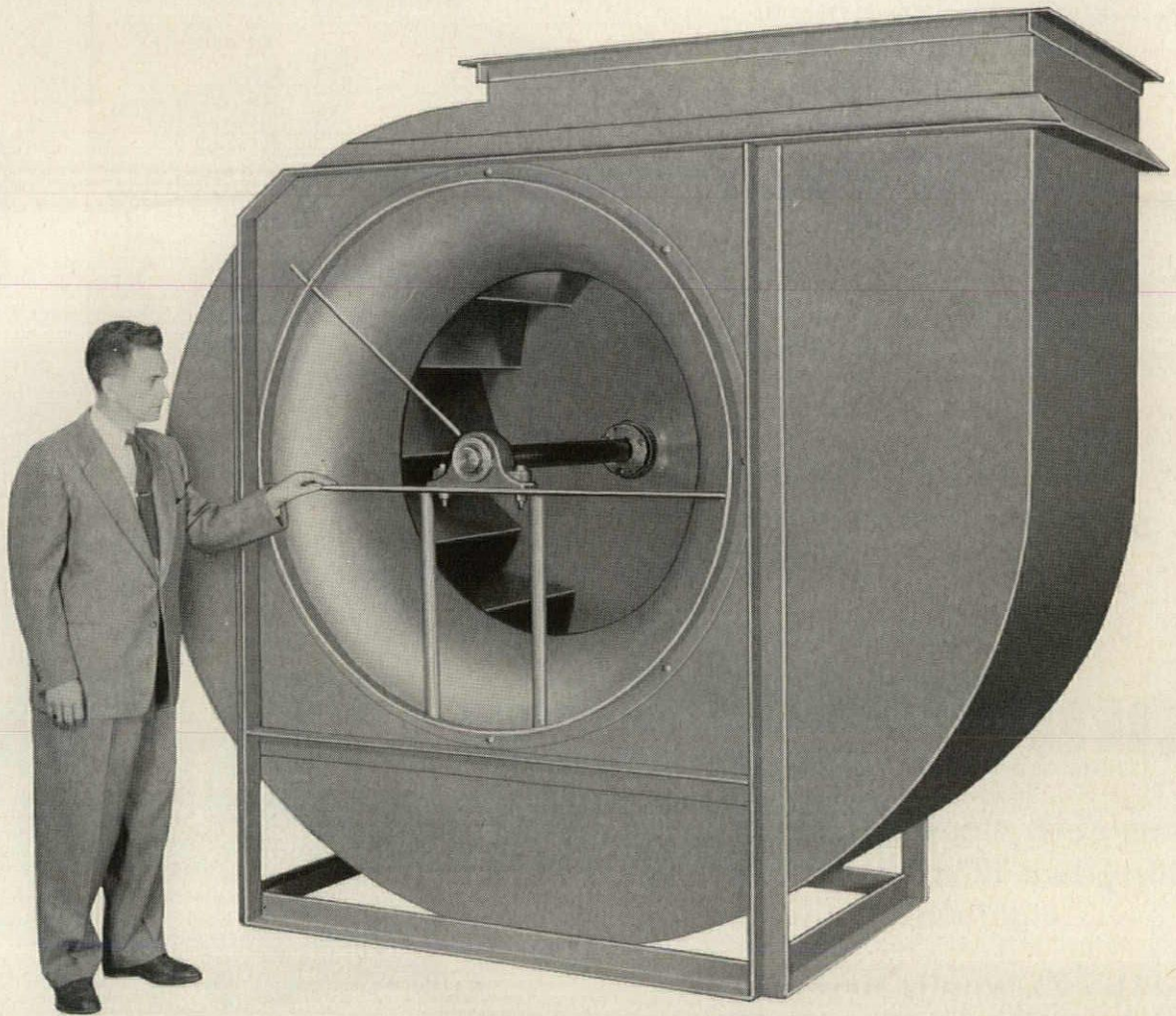
Send the literature and/or specification data checked:

- | | |
|---|--|
| <input type="checkbox"/> PANEL-TILE | <input type="checkbox"/> UNDERLAYMENTS |
| <input type="checkbox"/> WILSON AIR-FLOAT CEILINGS | <input type="checkbox"/> GROOVED VERTICAL SIDING |
| <input type="checkbox"/> STRIATED AND WOOD-TEXTURED | <input type="checkbox"/> HOMASOTE (72-PAGE) HANDBOOK |

Name

Address

City Zone State A-8



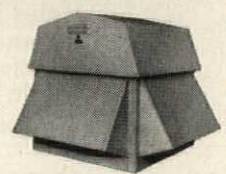
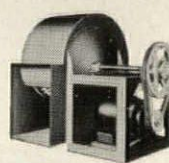
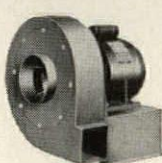
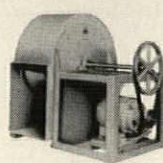
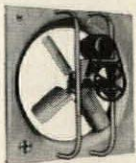
BIG BLOWERS ARE BIG BUSINESS WITH PEERLESS

QUIET! • TROUBLE-FREE! • DEPENDABLE! • HEAVY DUTY! • GUARANTEED!

Versatility in size, application, and engineering has always been a Peerless strong point. Peerless builds its own motors and matches them to the specified blower requirements. Peerless blower frames and housings are usually heavier than any competitive products. Result—a quiet, vibration-free unit.

These are not "off-the-shelf" units, but built to customer rotation and discharge specifications. Each one receives 100% inspection before it leaves the Peerless factory. Each unit is built to NAFM standards. Motors are built to NEMA standards. Each unit is ready for operation when received at the installation site.

A COMPLETE LINE OF AIR MOVING EQUIPMENT



Charter Member of the Air Moving and Conditioning Association, Inc. (AMCA)



FAN AND BLOWER DIVISION

THE Peerless Electric[®] COMPANY

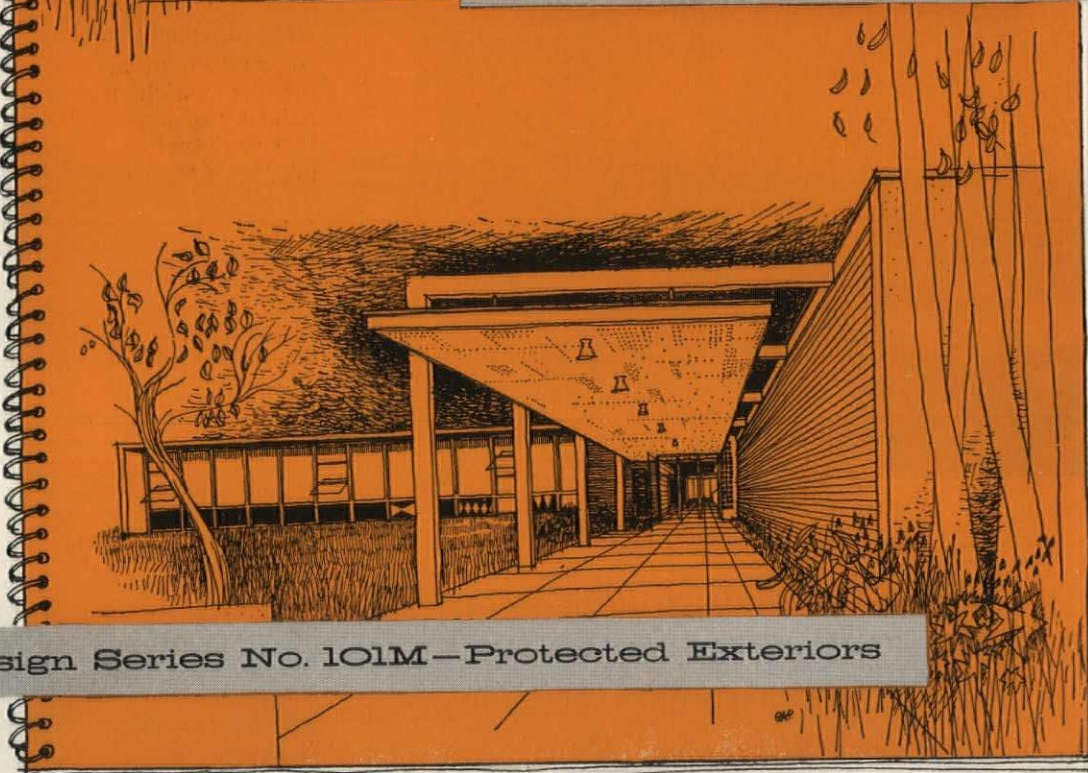
1448 W. MARKET ST. • WARREN, OHIO

FANS • BLOWERS • ELECTRIC MOTORS • ELECTRONIC EQUIPMENT

Write Today for
Bulletins SDA-220,
SDA-200 and SDA-160.



Masonite Contemporary Studies



Design Series No. 101M—Protected Exteriors

MASONITE® PEG-BOARD® again demonstrates its potential in contemporary design...this time, protected exteriors. Peg-Board here illustrates just one of the many ways it can complement your finest designs. Unlimited possibilities...exterior, interior...commercial, industrial, residential.

An important consideration for you is

Client Satisfaction. Masonite's contribution to design that satisfies is a completely versatile line of hardboard panels plus a continuous development of products for new architectural applications.

For current product information, consult Sweet's Architectural File and your Masonite Representative, or send the coupon.

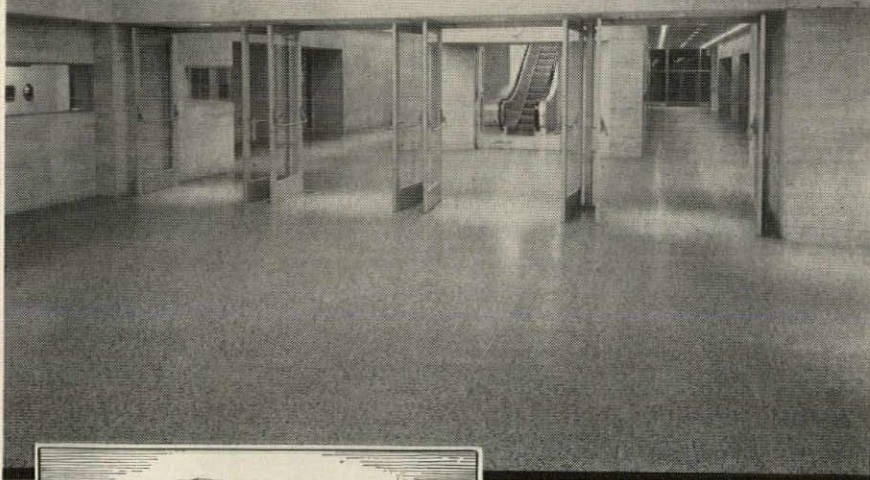
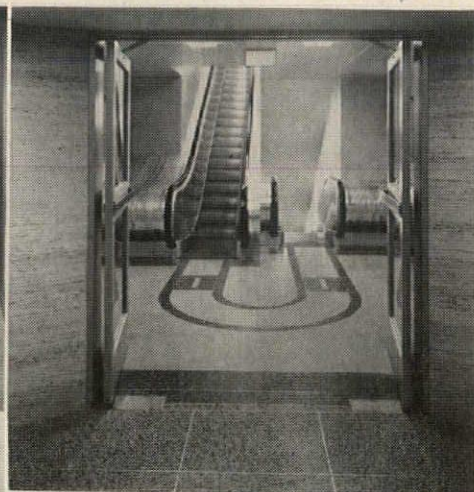


©Masonite Corporation—manufacturer of quality panel products.

Masonite Corporation, Dept. AR-1, Box 777, Chicago 90, Illinois
 In Canada: Masonite Corporation, Gatineau, Quebec
 Please send more information about 1/4" heavy-duty Masonite Peg-Board panels and other Masonite exterior panel products.

Name.....
 Firm.....
 Address.....
 City..... State.....
 Zone..... County.....

STATE MUTUAL Assures WALKING SAFETY



Architects: Hoyle, Doran and Berry

**Multi-million dollar
new home of**

**State Mutual Life Assurance Company
of America, Worcester, Mass.**

Lobbies, escalator landings, twenty-six stairways (pre-cast treads) are made safe in any kind of weather by terrazzo containing ALUNDUM Aggregate. These safe, long wearing walking surfaces are in keeping with the beauty of this outstanding structure.

See our catalog in Sweets or
write for a copy of No. 1935 R.

NORTON

NON-SLIP FLOORS

**NORTON COMPANY
WORCESTER 6, MASS.**

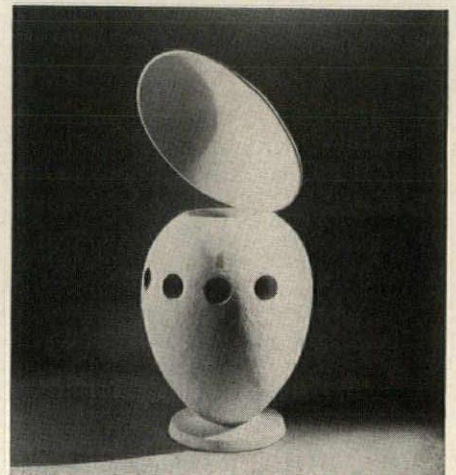
ALUNDUM AGGREGATE for Terrazzo and Cement • ALUNDUM STAIR and FLOOR TILE

Product Reports



Reproductions on Canvas

A new photomechanical printing process which makes possible the printing of up to 18 colors with perfect registration is being used to reproduce—on canvas—many of the world's most famous paintings. In addition to providing the architect or interior designer with a valuable decorating tool, these exceptionally fine facsimiles have the advantage of being virtually maintenance-free. They are impervious to dampness, water or fading, require no glass or varnish, and can be cleaned with a vacuum cleaner. A wide range of canvases—including paintings by Monet, Cezanne, Renoir, Van Gogh, Gauguin, Utrillo, Modigliani and Corot—are currently available. *Artistic Imports, 225 Fifth Ave., New York, N. Y.*

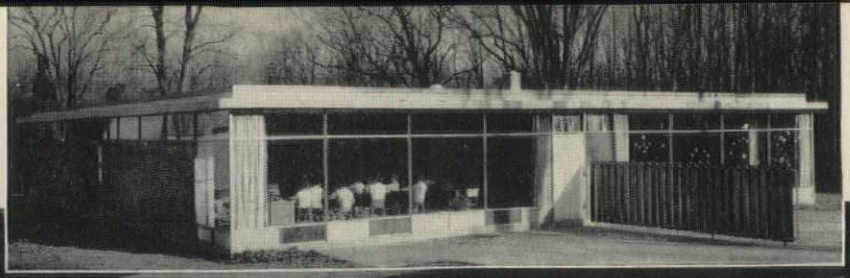


Dual Element Speaker System

Essentially a convertor of acoustic radiation, the *Amphora* is said to reproduce bass frequencies without parasitical resonance, and treble without overtones. The dual element device is comprised of two principal

continued on page 218

This school was a top award winner in the Fifth Annual Competition for better school design sponsored by the School Executive magazine.



WILBERT SNOW ELEMENTARY SCHOOL, MIDDLETOWN, CONN.

Architect: Warren H. Ashley

Contractor: Wadbams & May Company

HOPE'S WINDOWS were chosen for this award winning school



● An unusual feature of Wilbert Snow School is that administrative offices, cafeteria facilities, a large gymnasium and the classroom units (see insert above) are all housed in separate buildings as shown in the small aerial view at left.

The adaptability of Hope's Windows to any type of building design is well illustrated by their application to the various buildings of this school. For example, in the classroom units a full window wall elevation, plus an upper ribbon of windows encircling the entire unit, provides abundant controlled daylight with healthful comfort for young eyes in each classroom. Note that a door for each classroom has been included as a safety factor and traffic convenience in the window wall elevation.

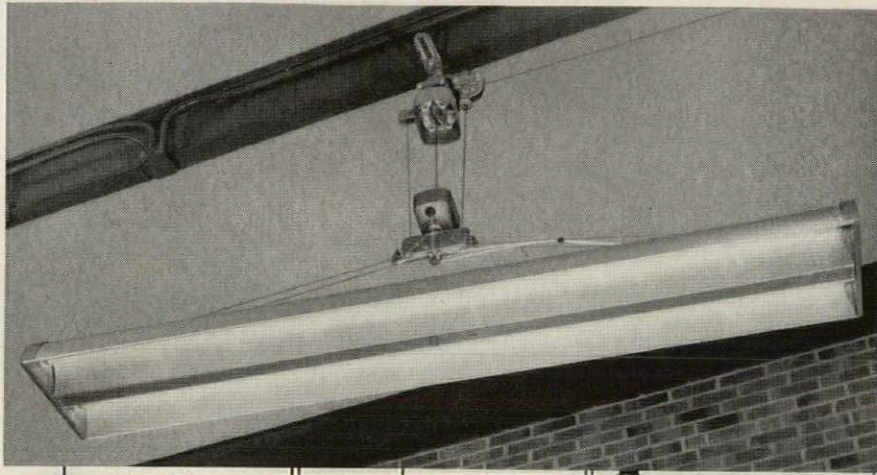
Write for our new Window Wall catalog No. 152R or call your local Hope's representative where additional information and planning assistance are always available without obligation.

Since **HOPE'S** *1818*

HOPE'S WINDOWS, INC., Jamestown, N. Y.

STEEL WINDOWS HAVE THE STRENGTH AND RIGIDITY THAT NO OTHER WINDOW CAN MATCH

NOW!... ONE MAN CAN MAINTAIN HEAVY LUMINAIRES AT FLOOR LEVEL WITH **THOMPSON TRIPLEX HANGERS**



A Only a detachable handline is required to disconnect and lower a luminaire.

B Relamping and cleaning are accomplished in minutes at floor level.

C After servicing, luminaire is quickly and positively repositioned by handline.

Designed to handle hi-bay luminaires weighing up to 120 pounds, the new Thompson TRIPLEX Hanger is the most practical means of servicing heavy fixtures quickly, safely, economically. It is recommended for use with new fluorescent luminaires featuring ultra-high output lamps and clusters of mercury and incandescent fixtures.

TRIPLEX Hangers permit one unskilled man to relamp and clean a luminaire without climbing or electrical hazards . . . extra manpower . . . space-consuming scaffolds . . . costly auxiliary equipment.

Featuring a new multiple-fall pulley system with a 3-to-1 mechanical advantage, the TRIPLEX Hanger is fabricated from durable corrosion-resistant components to assure years of dependable service and trouble-free performance.



For specification details, write today for Bulletin TR-57.



THE THOMPSON ELECTRIC CO.

P. O. Box 873-C

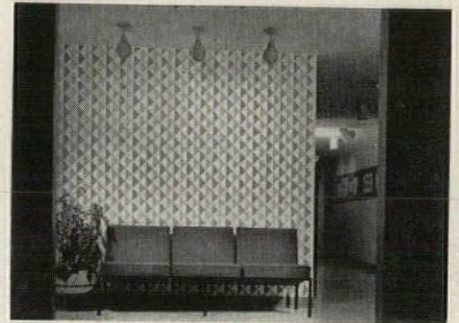
Cleveland 22, Ohio

7861-TE

Product Reports

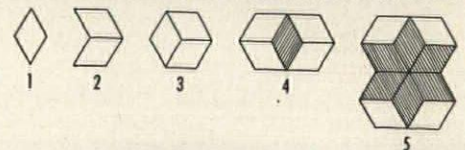
continued from page 216

components: the ellipsoidal "shell" or reflector which concentrates and diffuses all frequencies above 800 cps.; and the double-cavity resonator which corrects and assists the spread of unbroken and uncolored bass. Height of the speaker without reflector is 23 in., its greatest outside diameter is 17½ in. According to its manufacturer, the *Amphora* conveys unusual "presence" effect, an almost three-dimensional impression and outstanding intelligibility. It is said to be particularly suitable for stereophonic sound. *Ultra Co., 11 West 42nd St., New York 36, N.Y.*



Byzantine-Styled Ceramic Tile

Armed with camera, notebook and new ideas on an old subject, Kenneth Gale, Director of Design for the Mosaic Tile Company, arrived in Italy in March, 1955, to study the ancient art of mosaics. Three years later, the flavor of the Byzantine motifs was recaptured in Mosaic's new *Byzantine* line of ceramic tile. The basic tile shapes are diamonds, squares and diagonal halves of squares, each available in a palette of seven earthy colors—pebble white, black, dark gray, light gray, light beige tan, light buff and red. By combining these shapes and colors, Mosaic has developed a number of basic patterns on which a multitude of variations may be based. The photo above illustrates a typical design composed of squares and diagonal halves; the sketches below trace the development of a *Byzantine* design from a single geometric figure. *The Mosaic Tile Co., Zanesville, Ohio.*



more products on page 224

Rx

Prescription for Water Hammer:



SHOCK TREATMENT



SHOCK ABSORBERS


keep pipe lines quiet

Unwanted noise has no place in a hospital. Yet, a midwestern hospital tried almost everything to eliminate the noise of water hammer occurring in pipe lines from the institution's laundry machines. When Josam Shock Absorbers were installed and pressure surges reduced, the water hammer disappeared. This is only one case out of hundreds where Josam Products have been called on to do the extraordinary task because they have "more" with which to do it. That is why they also perform better and last longer. Send coupon for complete details on Josam Shock Absorbers.



Series No. 1480
For installation on supply lines having normal pressures.

Series No. 1480-DP
is pressurized for installations on supply lines having static water pressures up to 125 p.s.i.

JOSAM DOES EVERY JOB BETTER BECAUSE ONLY  HAS THE RIGHT PRODUCT FOR EVERY JOB



JOSAM MANUFACTURING COMPANY

General Offices and Manufacturing Division
MICHIGAN CITY, INDIANA

REPRESENTATIVES IN ALL PRINCIPAL CITIES

West Coast Distributors
JOSAM PACIFIC COMPANY
San Francisco, Calif.

Canadian Manufacturers
JOSAM CANADA LIMITED
Toronto, Canada

Josam products are sold through plumbing supply wholesalers.

JOSAM MANUFACTURING COMPANY
Dept. AR-1, Michigan City, Indiana

Please send copy of Manual SA on Shock Absorbers

Firm.....
By.....
Address.....
City..... Zone..... State.....

Growth and progress brought about Inland's need for a headquarters building. It was only natural that the final design, worked out for Inland steelmen by architects, Skidmore, Owings and Merrill, should reflect that progress in its architecture, choice of materials and concept of construction.



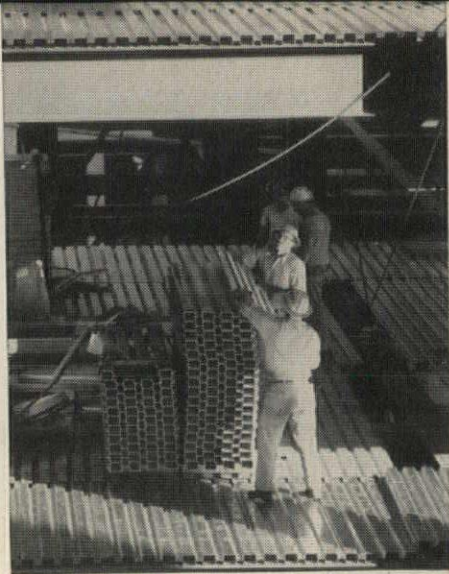
Chicago..Steel..and a new idea

Growing with the Midwest, the Inland Steel Family of Companies Builds a Unique Home Office in Chicago

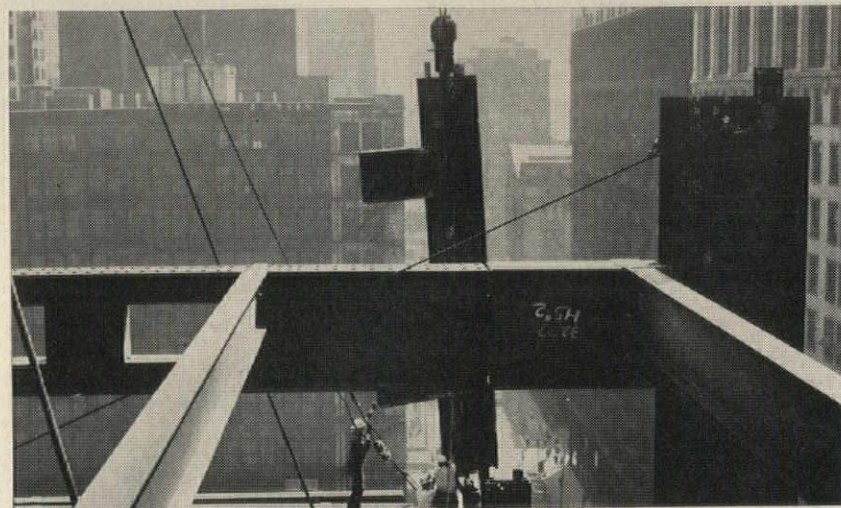
The new headquarters building of Inland Steel Company in Chicago's Loop is the only building of its kind in the world. It is steel from the top of the 25-story service tower to three levels below Dearborn and Monroe Streets. The architecture is bold—and different. So was the en-

gineering necessary to erect it. Important contributions toward its construction were made by members of the Inland family . . . each one a steel specialist. The end result is an unusual building . . . a building in which no columns obstruct or interfere with interior space, in which

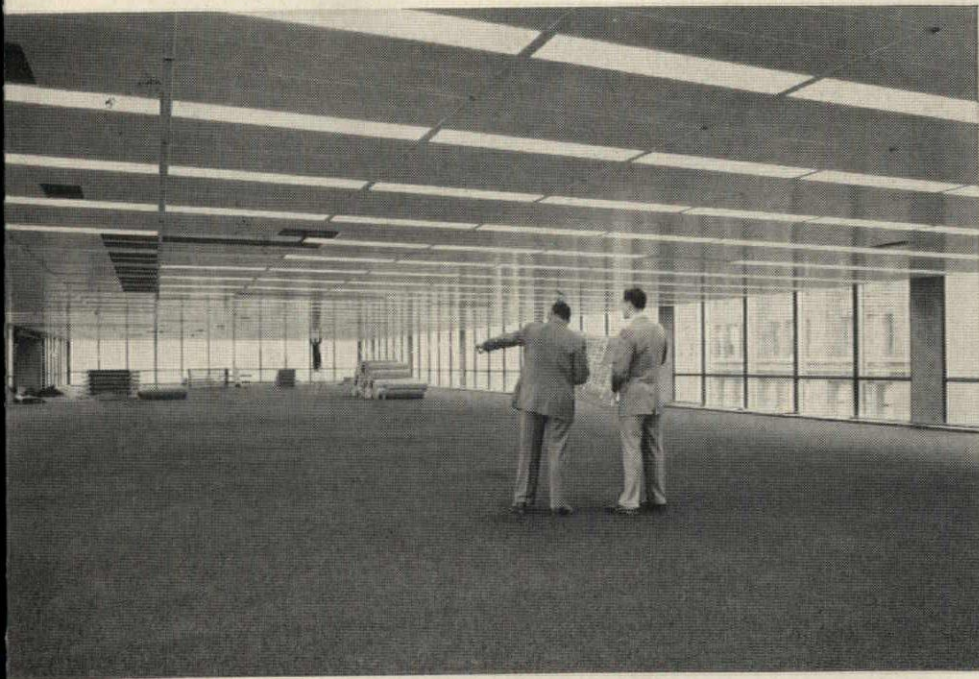
office planning and arrangement is completely unhampered. Sheathed in stainless steel and glass, with clean and simple lines, the Inland building has a "look of the future", symbolizing Inland's faith in steel and in a growing Chicago and Midwest.



Cellular steel sub-flooring carries utility services. ▲ Milcor Cellufloor®, 750 tons of it, supplied by Inland Steel Products Company, sheet metal manufacturing member of the Inland family, helps make possible an uncluttered interior. All utilities, power and light, communication lines, hot and cold air are distributed through the cells in this steel sub-flooring made of Inland TI-CO® galvanized sheets.

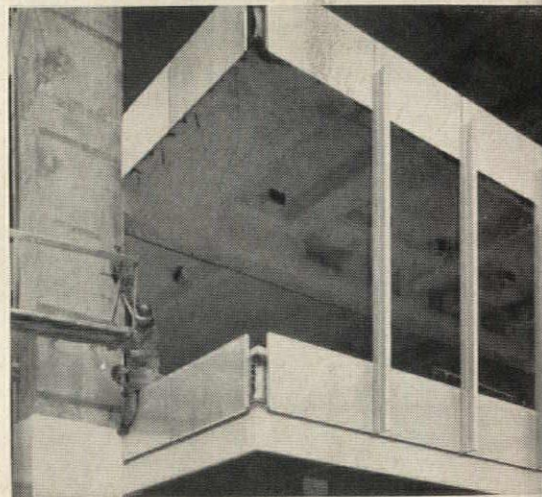


A unique example of welded construction. The main load-bearing girders that span the 60-foot width of the building are welded to the fourteen vertical columns. The girders and columns were made up from angles, beams and plates using submerged arc welding in the Joseph T. Ryerson Chicago plant. Shown here, a two-story section of one of the supporting columns is hoisted into place. Inland Hi-Bond® reinforcing bars for concrete walls and basement slabs were also fabricated by Ryerson, steel distributing member of the Inland family. ▼



▲ *Widest clear span multi-story building.* The Inland Steel Building is literally turned inside out. The supporting vertical columns are on the exterior leaving the inside completely unencumbered. This new design concept, plus the removal of all elevators, stairs, washrooms and other vertical risers to an adjoining service tower, means a completely flexible, open office area in the main building.

Curtain walls of stainless steel. One of the lightest, thinnest curtain walls ever used, made of 16 gage, flat stainless steel panels bonded to 2 inches of concrete fireproofing, helped to save 200 tons of structural steel in the Inland building. Ryerson supplied the stainless steel (over 400 tons) and the technical assistance on its fabrication. The main building's exterior surface is 70% solar-tinted, double-pane glass and 30% glistening stainless steel. ▼



INLAND STEEL

30 W. Monroe St., Chicago 3, Ill.

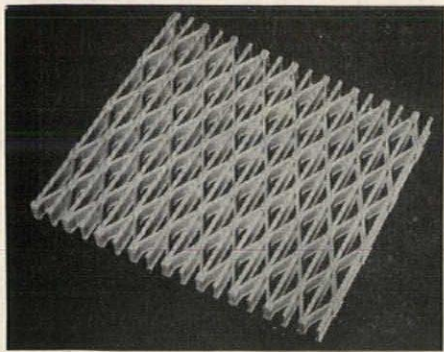
INLAND STEEL COMPANY—producer of basic open hearth sheets, plates, bars, structural shapes, tin plate, rails and coal chemicals.

JOSEPH T. RYERSON & SON, INC.—the nation's largest supplier of steel from stock—with 18 plants serving the major industrial areas.

INLAND STEEL PRODUCTS COMPANY—manufacturer of Milcor Cellufloor® and a broad line of other steel products for the building industry.

INLAND STEEL CONTAINER COMPANY—manufacturer of carbon steel and stainless steel shipping drums and pails.

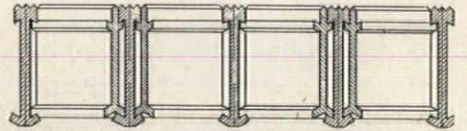
INLAND LIME & STONE COMPANY—producer of high purity limestone for steel-making, construction, agriculture and paper making.



Roll-Locked Aluminum Grating

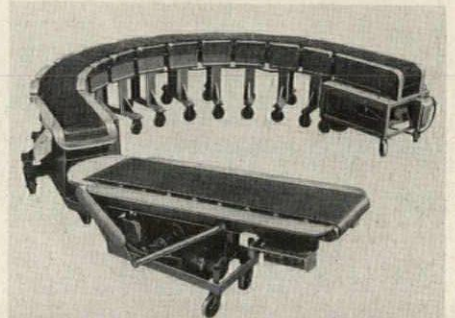
A unique roll-locking process replaces conventional joining methods in the manufacture of a new aluminum grating designed by Pittsburgh engineering designer G. G. Greulich. As shown right, its bearing bars and crimped secondary bars are joined by interlocking their surfaces into a solid, one-piece rattle-proof unit sans bolts, screws, rivets or welds. The *Roll-Lock* grating, which will be available in sun-fast colors as well as in the standard aluminum

finish, is expected to find wide architectural use as grills, sunshades, wall panels, decorative spandrels and column facings in addition to such workaday applications as flooring and stair treads. *Kerrigan Iron Works, Nashville, Tenn.*



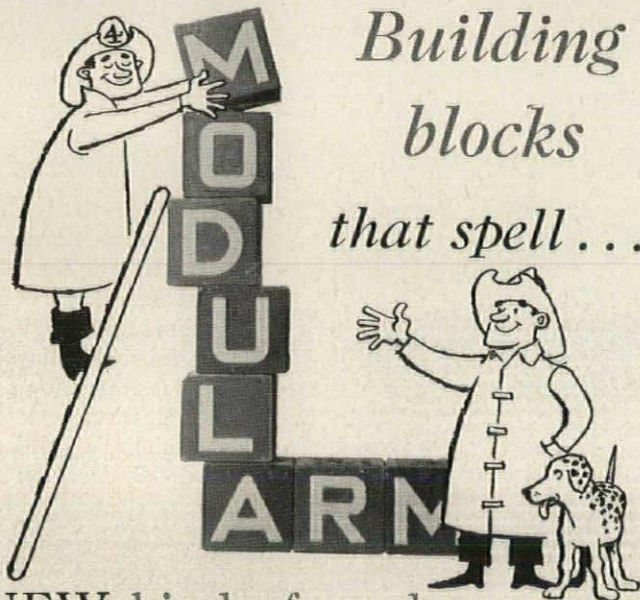
Perma Products Changes Name

Effective January 1, 1958, the Perma Products Company became the Shakertown Corporation, adopting as its corporation name the "Shaker-town" trade mark which identifies its products. *Shakertown Corporation, 20310 Kinsman Rd., Cleveland, 22, Ohio.*



Portable Conveyor and Stacker

Primarily designed for efficient loading and unloading of box cars and highway trucks, the push-button controlled, electrically-powered *Flex-Bend* portable conveyor and stacker also provides advantages for many warehousing and manufacturing applications. Its ability to bend horizontally in either direction makes it useful for mechanically carrying material around stationary objects; and, because it is easily moved from one location to another, it can also be frequently used for a variety of short run handling assignments. Standard unit components of the *Flex-Bend* conveyor and stacker are a power stacker car, a belt drive car, a power traveler car, and as many center conveyor cars as are needed to meet the overall length requirements of individual applications. The combination of powered forward and reverse travel, conveyerized movement of materials, push-button controlled up and down movement of the stacker, and easy horizontal bending of the conveyor (down to a radius of 5 ft) provides for easy mechanical handling and stacking of materials in many otherwise difficult manual handling situations. *Jervis B. Webb Co., 8951 Alpine Ave., Detroit 4, Mich.*



Building
blocks
that spell...

... a NEW kind of modern
fire protection

Modularm is a completely new fire alarm system of building block design. The building blocks are compact, modular units called Alarm Initiating Panels, Alarm Signal Panels, and Power Panels—all standardized and designed for economy. Combined, they produce any of these wide variety of UL-approved systems:

- Manual, automatic, and/or pre-signal non-coded systems.
- Manual or automatic common-code or zonal code systems.
- Manual or automatic selective-code, selective-code continuous-alarm after code, or selective-code pre-signal systems.

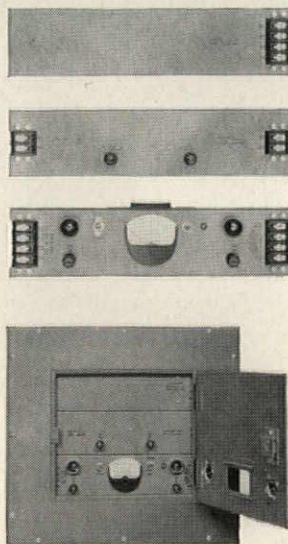
Modularm has these additional features—

- Provisions for automatic alarm connection to municipal fire stations.
- Dead-front design of control panel isolates high voltage, permitting installation anywhere.
- Single or double supervised power supply.
- Auxiliary test switches — pilot lamps.
- Automatic fire detection for non-supervised areas.

Integrated design, easy installation and superior performance make *Modularm* the most modern and complete fire alarm system available today. Write for Couch's *Modularm* Brochure #131.

Simplified Systems of Communication

S. H. COUCH COMPANY, INC.,
NORTH QUINCY 71, MASS.



**California
redwood
at home
in Florida...**



Residence, Miami Beach, Florida Nims & Browne, Associated Architects

Ezra Stoller Photo

North, south, east, west... the natural beauty of California redwood enhances fine homes, while the ingrown durability of its heartwood assures resistance to decay. For architectural use, be sure to specify "CRA-Certified Kiln Dry."



CALIFORNIA REDWOOD ASSOCIATION • 576 SACRAMENTO STREET • SAN FRANCISCO 11

Fesco Board[®] is part of the new



For Fire Resistance: New Materials with a "Forward Look"

This new 34-acre Chrysler roof deck brings together the most modern materials to establish a new level of fire-resistance and fire-containment. Specifications: Walcon steel deck, Koroseal vapor barrier and non-flammable Lexsuco cold adhesive R907T—(manufactured for Lexsuco, Inc., Cleveland, by B. F. Goodrich), Schundler's Fesco Board Roof Deck Insulation, and Koppers 4-ply tar and gravel built-up roof.

ARCHITECT and ENGINEER: F. A. Fairbrother and George H. Miehl with Albert Kahn ASSOCIATED ARCHITECTS and ENGINEERS, CONSULTANTS, Detroit. GENERAL CONTRACTOR: Hunkin-Conkey Construction Company, Cleveland. ROOFING CONTRACTOR: Industrial Roofing and Sheet Metal, Inc., Cleveland. LEXSUCO ROOF construction engineered and distributed by Lexsuco, Inc., Cleveland.

**Non-flammable Lexsuco adhesive R907T

*TM B. F. Goodrich Co.

Forward Look" in roof design

In every way, Fesco Board lent itself to a new concept in fire retardant roof design employed on the 34 acre roof of Chrysler's Twinsburg, Ohio body stamping plant. Teamed up with Lexsuco's non-flammable adhesive, and the modern vapor barrier, Koroseal*, Fesco Board contributed these important properties:

Incombustibility — Fesco Board is rated incombustible, with a flame spread of only 20.5, and a smoke contribution factor of 0.

Moisture Resistance — Fesco Board absorbs only 1.5% moisture by volume on 24 hours total immersion.

Permanence — Fesco Board is not subject to rot, fungus or decay.

Mechanization — With a compression factor of 174.8, rigid Fesco Board holds up under heavy traffic, is packaged for mechanized handling.

Workmanship — Light, only 9 oz. PBF, and 24" x 36" sized, Fesco Board handles fast. Protective packaging, true-square corners, and dimensional stability assure good craftsmanship.

Designing for greater fire-resistance? You'll find Fesco Board at home with the newest materials, the newest highspeed application techniques, the newest concepts of fire-control. Write for engineering data.

F. E. SCHUNDLER & COMPANY, INC.

504 RAILROAD STREET • JOLIET, ILLINOIS

RATED FIREPROOF MATERIALS, ACOUSTICAL & INSULATING
Developers and producers of incombustible mineral products including Ebbstone Acoustical Tile, Fesco Insulation Board, Coralux Acoustical Plaster, Coralux Perlite Aggregates, Mica Pellet Vermiculite, High Temperature Insulating Blocks and Insulating Cement.

TAR & GRAVEL

FESCO
INSULATION
BOARD

NON-FLAM. ADHESIVE**

KOROSEAL BARRIER*

NON-FLAM. ADHESIVE**

STEEL DECK



Office Literature

continued from page 186

How to Design Pole-Type Buildings

Technical manual gives correct design procedures for proportioning structural members of pole-type buildings of all sizes, kinds and uses. Typical examples are described and illustrated with line drawings showing construction details. 68 pp., 5 $\frac{3}{4}$ by 8 $\frac{3}{4}$ in. \$1.50. *American Wood Preservers Institute, 111 W. Washington St., Chicago 2, Ill.*

The Balanced Door (A.I.A. 16-A-1)

Presents photographs of typical installations of Ellison *Balanced Doors*, with specifications and details. 12 pp. *Ellison Bronze Co., Inc., Jamestown, N. Y.**

Directo-Lens (A.I.A. 31-F-23)

Four-page bulletin and six photometric data sheets detail the new Phoenix *Directo-Lens* line of prismatic glass lenses for high-intensity, low-brightness controlled illumination. *The Phoenix Glass Co., Monaca, Pa.**

Flex-A-Power Plug-in Busway

Bulletin GEA-6172 lists features, application data, ratings, construction information, dimensions, weights, installation instructions and guide-form specifications for new 100 amp, plug-in *Flex-A-Power* busway. 12pp. *Advertising and Sales Promotion, Distribution Assemblies Dept., General Electric Co., Plainville, Conn.**

Centrifugal Fans (A.I.A. 30-D-1)

Bulletin 257 describes, illustrates and gives complete engineering data on Ilg *BC Airfoil* centrifugal fans for all types of ventilating and air conditioning installations. 32 pp. *Ilg Electric Ventilating Co., 2850 N. Pulaski Rd., Chicago 41, Ill.**

Lightsteel Structural Sections

(A.I.A. 13-G) General catalog includes tables giving physical and structural properties, dimensions and uniform loads for light steel structural sections, including joists, studs, zee sections, channels, channel studs, track and bridging. 24 pp. *Penn Metal Co., Inc., 40 Central St., Boston, Mass.**

Steel Chalkboard (A.I.A. 35-B-1)

Revised specifications sheet includes methods of installation, types of *Korok* steel chalkboard, and standard and special sizes and colors. 8 pp. *Korok Div., The Enamel Products, Co., 341 Eddy Rd., Cleveland 8, Ohio**

Metal Grating Handbook (A.I.A. 14-A-1)

Contains informative text, schematic drawings, tables, and installation photographs, as well as complete standards and specifications for metal grating and treads. A glossary of terms and definitions used in the metal grating industry is also included. 32 pp. \$1. *Metal Grating Institute, Inc., One Gateway Center, Pittsburgh 22, Pa.*

People Who Care

... *About People Who Eat* explains the services of the food service consultant—who he is, what he does, how he works, how much he costs, why he is needed. 12 pp., Ill. *Integrated Design Associates, 400 S. Beverly Dr., Beverly Hills, Calif.*

Underwater Lighting

Bulletin 2638 describes two principal types of underwater floodlights for swimming pool lighting, with diagrams and dimensions of both types. *Crouse-Hinds Co., Wolf & Seventh North Sts., Syracuse, N. Y.*

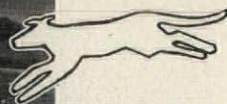
*Additional product information in *Sweet's Architectural File, 1958*

more literature on page 232

In Miami it's Halsey Taylor

Supervising Architects: Parmelee & Whiddon, Miami
Design Eng'rs & Arch'ts: Freeland & Bird, San Diego, Calif.

Gen'l Cont.: Edw. M. Fleming Co., Inc.
Plumbing Contractor: F. H. Inscho



Fountains, as shown
as well as coolers,
were specified



Porcelain top
coolers, shown,
were specified



Architects:
Steward-Skinner Associates, Miami

Contractor:
Alex. Orr & Associates, Miami

Here, in America's year-around playground, Halsey Taylor drinking-water fixtures are the popular favorites of architects, contractors and building owners. Not only is this true of the structures shown, but of many of the area's hotels, and in schools throughout the state.

fountains • coolers by Halsey Taylor

The Halsey W. Taylor Co., Warren, O.

100

Why modern hospitals are being equipped with Sarcotherm heating control systems

Why hospitals find
Sarcotherm Systems ideal.



1. *Flexibility* — these systems, because of their great adaptability, can be applied to satisfy the varying heating control requirements of a specific hospital.
2. *Dependability* — because of simplicity, no complicated mechanisms. Only a few simple, rugged instruments. Minimum of wiring and piping. Self-powered mixing valves require no electricity or compressed air. Result: uninterrupted heating comfort, long service life.
3. *Ease of temperature setting* — regular hospital maintenance men quickly, easily make adjustments.
4. *Practically no maintenance* — rugged construction and few parts insure long trouble-free operation. Self-powered thermostatic system embodies performance stability developed through half a century of Sarco experience.

SOME TYPICAL HOSPITALS EQUIPPED WITH SARCOTHERM SYSTEMS

		Number of Zones
Chatooga Hospital	Summerville, Ga.	4
Children's Hospital	Washington, D. C.	5
Community Hospital	Cumberland, Wisc.	4
Copiah County Hospital	Hazelhurst, Miss.	3
Delaware State Hospital	Farnhurst, Del.	11
Embreeville State Hospital	Embreeville, Pa.	53
Freeport Hospital	Freeport, L. I.	4
New Leake County Hospital	Carthage, Miss.	5
North Carolina State Hospital	Goldsboro, N. C.	4
Milledgeville State Hospital	Milledgeville, Ga.	13
Rabun County Hospital & Health Center	Clayton, Ga.	5
Rowan County Medical Center	Salisbury, N. C.	5
Springfield State Hospital	Syskeville, Md.	5
V. A. Hospital	Clarksburg, W. Va.	4
Woodville State Hospital	Woodville, Pa.	18
York County Home	York, Pa.	13

FOR COMPLETE CONTROL SYSTEM CATALOG, write Sarcotherm Controls, Inc., 635 Madison Ave., New York 22, N. Y.

Why architects, engineers,
contractors find
Sarcotherm Systems
ideal for hospitals...



1. *Application engineering* — Sarcotherm engineers, backed by years of experience in hospital heating control systems, assist consulting engineers with individualized system diagrams.
2. *Easy to install* — drawings and diagrams of the complete system are furnished for each job.
3. *On-the-job assistance* — to contractors, from Sarcotherm's field engineers.
4. *Low installed cost* — because of simplicity; minimum of wiring and piping.
5. *Undivided responsibility* — complete control system plus heating specialties and accessories from one dependable source — Sarcotherm.



Hempstead General Hospital, Hempstead, L. I., N. Y.

One of the recently completed hospitals equipped with a Sarcotherm Weather-Compensated Control System for hot water heating. Installation includes 5" Sarcotherm 3-way modulating mixing valve, programmed timer, radiator valves, balancing fittings, automatic air vents and other heating specialties.

Architects — Samuel Paul and Seymour Jarmul, Jamaica, N. Y.
Heating Contractor — Seaboard Installations, Inc., New York City.

4016-B

Sarcotherm

AN AFFILIATE OF SARCO CO., INC.

Weather-Compensated control systems for steam, hot water and radiant heating

Coming in mid-May for Architects, Engineers, Home Builders

RECORD HOUSES

“RECORD HOUSES” *will focus on...*

*the three **A**'s of quality*

Apppearance the use of form, color and texture to achieve outstanding character and beauty.

Arrangement spatial organization for maximum comfort and convenience.

Amenities notable achievements in planning for such facilities as air conditioning and heating, electrical systems, lighting and plumbing.

From hundreds of outstanding new architect-planned houses Architectural Record's editors have selected *twenty* of exceptional merit for presentation in a 120-page editorial section.

These twenty houses priced at \$16,000 or more are located in many different parts of the U. S. and represent the work of twenty different architects—some well-known, others whose work will be published nationally for the first time.

Each house, regardless of price, is rich in design ideas which can be adapted to houses in almost any price range.

of **1958** featuring ...

*a selection of the
finest architect-planned
houses of the year*

house design

A six-page presentation of each house will demonstrate in pictures (many in full color), plans, drawings and text ...

1. the visual impact of the design
2. over-all spatial organization
3. one especially noteworthy aspect of the house design—be it the quality of the finishes, a bathroom or kitchen, an electrical or mechanical system.

In addition, Record Houses will feature ...

The Future and The House—a timely and stimulating study by the editors of Architectural Record of house design problems and trends imposed by rapidly increasing land scarcities and population densities in many communities—with emphasis on the positive contributions architects of custom houses are now making toward more congenial and unified neighborhoods and toward influencing developers and builders.

New Products (and Manufacturers' Literature) **for the Quality House**—a round-up of intense interest to the architect-innovator who is constantly seeking new and better ways to serve individual owner and merchant builder clients.

"Record Houses of 1958" will be of interest and usefulness—over a long period of time—to the largest architect and engineer audience in America plus a most influential segment of the home building and buying public.

HOW "RECORD HOUSES" WILL BE DISTRIBUTED



"Record Houses of 1958" will come to Architectural Record subscribers—in addition to the regular May issue—as part of their subscription. Also, a minimum of 10,000 copies, with identical editorial and advertising content, will be available to the home building and buying public through the nation's bookstores at \$2.95 per copy.

an
F. W. DODGE
CORPORATION
publication



ARCHITECTURAL RECORD

119 WEST 40TH STREET, NEW YORK 18, NEW YORK

"workbook of
the active
architect and
engineer"

Office Literature

Incinerator Manual

Detailed instructions on the installation, operation and maintenance of domestic gas-fired incinerators, gas piping, flues and vents. 12 pp. 15¢. *Gas Appliance Mfgs Assoc., 60 East 42nd St., New York 17, N. Y.*

Fluorescent Luminaires (A.I.A. 31-F-2)

Photometric data for Gotham Series 83 and 84 fluorescent luminaires. 8 pp.

Gotham Lighting Corp., 73-01 Thirty-First St., Long Island City, N. Y.

Expansion Joint Manual

Design Practices and Uses of Pre-moulded Joints in Concrete Pavements include comprehensive technical data, illustrations, application and installation information on pre-moulded expansion joints. *Expansion Joint Institute, 121 Hill Ave., Aurora, Ill.*

Design Concepts in Acoustical Ceilings

Portrays ten ceiling patterns that

may easily be made with fissured and striated mineral fiber acoustical ceiling tile. *Armstrong Cork Co. Lancaster, Pa.**

Curtain Wall, Veneer Construction

(A.I.A. 17-A) Includes sections on panel types, big-panel construction and curtain wall remodeling; typical construction details; and specifications for curtain wall and veneer panels of architectural porcelain enamel on steel and aluminum. 8 pp. *Ingram-Richardson Mfg. Co., Beaver Falls, Pa.**

All Aluminum Sliding Glass Doors

Provides complete drawings and technical details for complete line of Ador sliding glass doors, including the Thermo Door for one inch dual glazing and the budget-priced Zdor. 16 pp. *Ador Sales, Inc., 2345 W. Commonwealth Ave., Fullerton, Calif.**

Aluminum and Fiberglass Skylights

(A.I.A. 12-J) Incorporates detailed information, drawings and specifications for complete line of Marco-lite aluminum and fiber glass skylight products. Descriptions of major installations are also included. 12 pp. *The Marco Company, 45 Greenwood Ave., East Orange, N. J.**

Unitary Air-Conditioning Standard

Standard 210-57, a new standard for unitary air-conditioning equipment, applies to factory-made residential, commercial and industrial air conditioners or matched assemblies as defined in the standard, and includes performance and safety standards and methods of rating and testing. 35¢ *Air-Conditioning and Refrigeration Institute, 1346 Connecticut Ave., N. W., Washington 6, D. C.*

Fuel Oil Heaters

Bulletin 743 describes and illustrates complete line of fuel oil heaters, with each type detailed in tables of capacities, dimensions and weights. Installation procedures are also covered. 20 pp. *Manning & Lewis Engineering Co., Dept. P, 28-42 Ogden St., Newark, N. J.*

Lighting Fixture Catalog

Illustrates and describes advance items from new line of residential and commercial lighting fixtures. Complete specifications are included. *Markstone Mfg. Co., 1531 N. Kingsbury St., Chicago 22, Ill.*

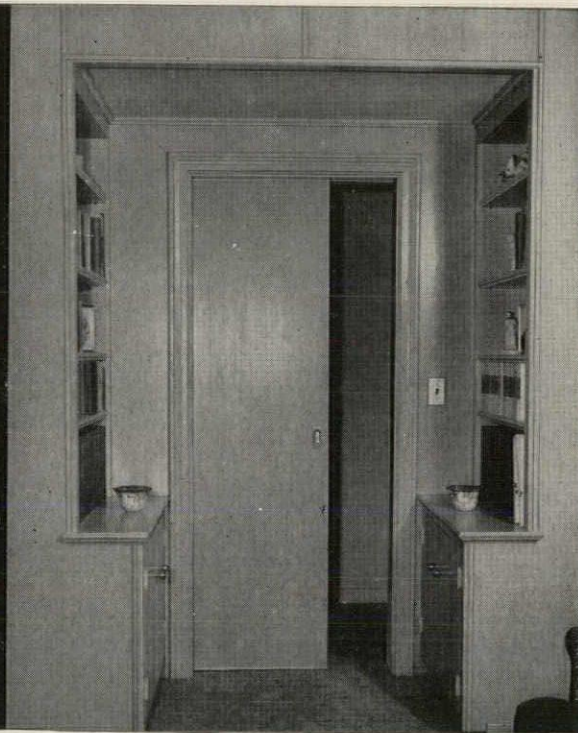
Wiring Devices (A.I.A. 31-C-7)

Catalog 60 presents complete line of electrical wiring devices in handy, indexed pocket size booklet. 80 pp. *Dept. SD-8, Pass & Seymour, Inc., Solvay Station, Syracuse 9, N. Y.**

*Additional product information in *Sweet's Architectural File, 1958*

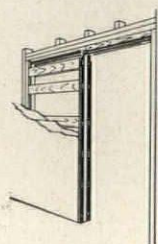
WALL POCKET DOORS

make better
use of the
space inside
and outside
the room



Sterling®

Pocket Door T-Frame



Write for complete details of the Sterling Pocket Door T-Frame ... modern structural hardware for modern buildings.

This *all-steel* Pocket Door T-Frame makes the wall rigid and warp-proof . . . provides the simplest and lowest-cost pocket door installation. It enables you to plan a door where it really belongs . . . *in the wall when not in use!* Not only will many square feet of space be saved, but doorways can be made as wide as desired without cramping quarters.

OUR CATALOG IS IN SWEET'S FILES

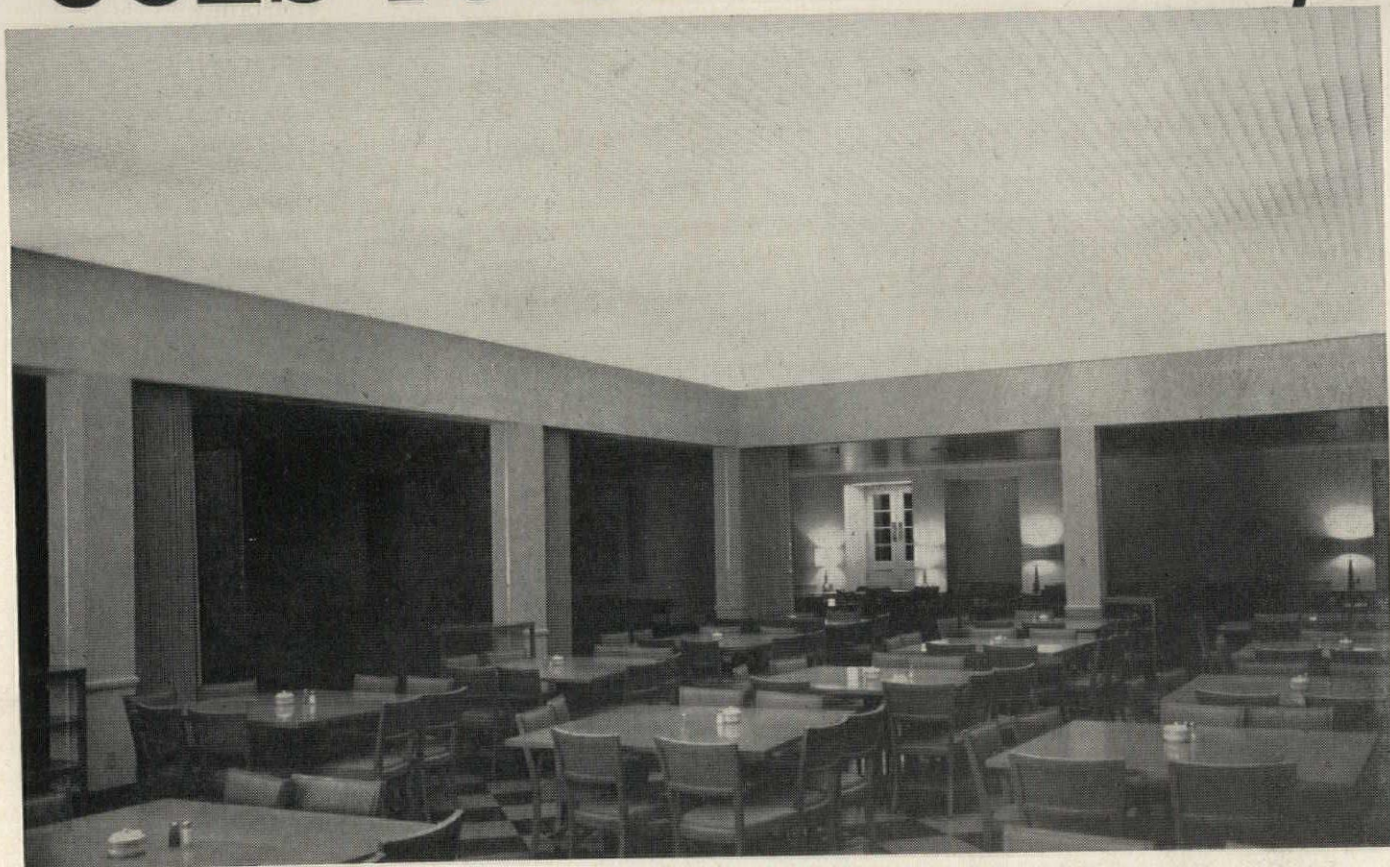
John Sterling Corporation
RICHMOND, ILLINOIS
(McHENRY COUNTY)

FORMERLY STERLING HARDWARE MFG. CO. OF CHICAGO

NEO-RAY LOUVRED
CEILING



GOES TO COLLEGE*



*DINING ROOM CEILING AT SUZANNA HALL, ALBION COLLEGE, ALBION, MICH.

* Here's beauty and efficiency combined in an unusual application for NEO-RAY LOUVRED CEILINGS: It's a college dining room with a sky-lite. The glass in the sky-lite is stippled with green to allow a very light green color to come through and reflect on the white louvres. After the sun has gone down, pink lamps are lit to give a completely different color scheme.

Yes — there's no limit to the interesting lighting combinations you can create with NEO-RAY LOUVRED CEILINGS.

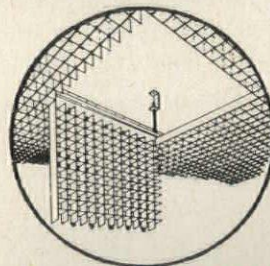
ARCHITECT:
FRANK DEAN
Albion, Mich.

CONTRACTOR:
LEGGETTE & MICHAELS CO.
Grand Rapids, Mich.

Send for NEW LOUVRED
CEILING catalog No. 544

See our catalog in Sweet's Architectural File sec. 31a
NE

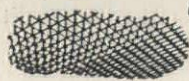
IN THE SOUTH
See Our Permanent Display At
ARCHITECTS & ENGINEERS INSTITUTE
230 Spring St., Atlanta, Ga.



SPECIAL LOUVRE DESIGNS?

Neo-Ray is recognized as the pioneer in the development and manufacture of louvred ceilings . . . with years of louvred ceiling experience. Let the "know-how" of our engineering department assist you. No obligation, of course.

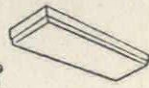
MANUFACTURERS OF LIGHTING FIXTURES INCLUDING



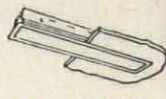
Louvred Ceilings



Roto-Strip

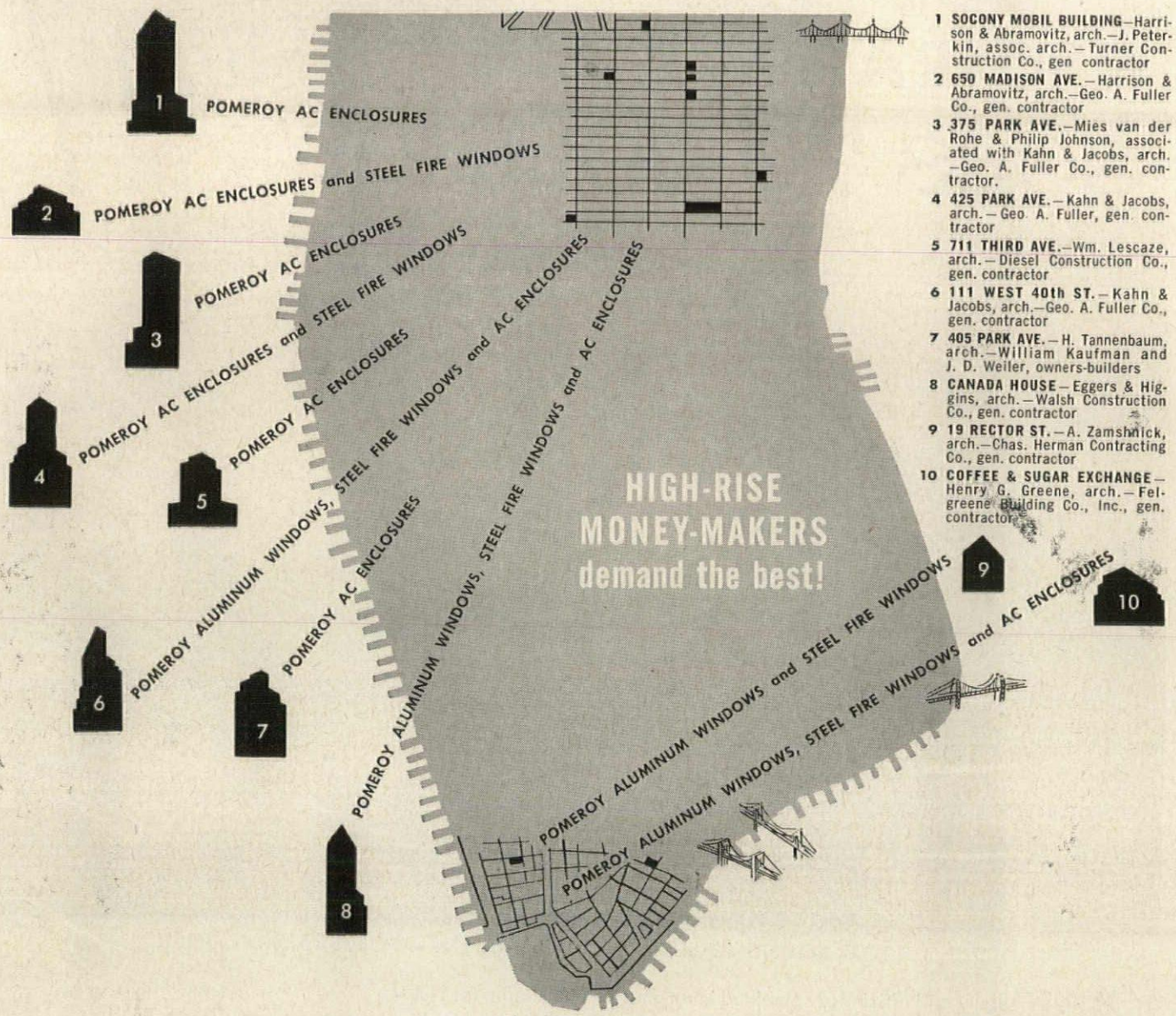


Luminette



Klean-VU KVT Troffers

NEO-RAY PRODUCTS, Inc.
315 East 22nd St. • New York 10, N. Y.



- 1 SOCONY MOBIL BUILDING—Harrison & Abramovitz, arch.—J. Peterkin, assoc. arch.—Turner Construction Co., gen. contractor
- 2 650 MADISON AVE.—Harrison & Abramovitz, arch.—Geo. A. Fuller Co., gen. contractor
- 3 375 PARK AVE.—Mies van der Rohe & Philip Johnson, associated with Kahn & Jacobs, arch.—Geo. A. Fuller Co., gen. contractor
- 4 425 PARK AVE.—Kahn & Jacobs, arch.—Geo. A. Fuller, gen. contractor
- 5 711 THIRD AVE.—Wm. Lescaze, arch.—Diesel Construction Co., gen. contractor
- 6 111 WEST 40th ST.—Kahn & Jacobs, arch.—Geo. A. Fuller Co., gen. contractor
- 7 405 PARK AVE.—H. Tannenbaum, arch.—William Kaufman and J. D. Weiler, owners-builders
- 8 CANADA HOUSE—Eggers & Higgins, arch.—Walsh Construction Co., gen. contractor
- 9 19 RECTOR ST.—A. Zamshnick, arch.—Chas. Herman Contracting Co., gen. contractor
- 10 COFFEE & SUGAR EXCHANGE—Henry G. Greene, arch.—Feligreen Building Co., Inc., gen. contractor

Since the turn of the century POMEROY custom-built products have been recognized by the leaders in this industry for quality and dependability. Rely on POMEROY to serve you as it does the builders of today's modern structures designed to be money-makers for years to come.

COMPLETE ENGINEERING SERVICE AVAILABLE FOR ANY SIZE PROJECT.

See the NEW
1958 Sweet's Catalogs
for POMEROY PRODUCTS

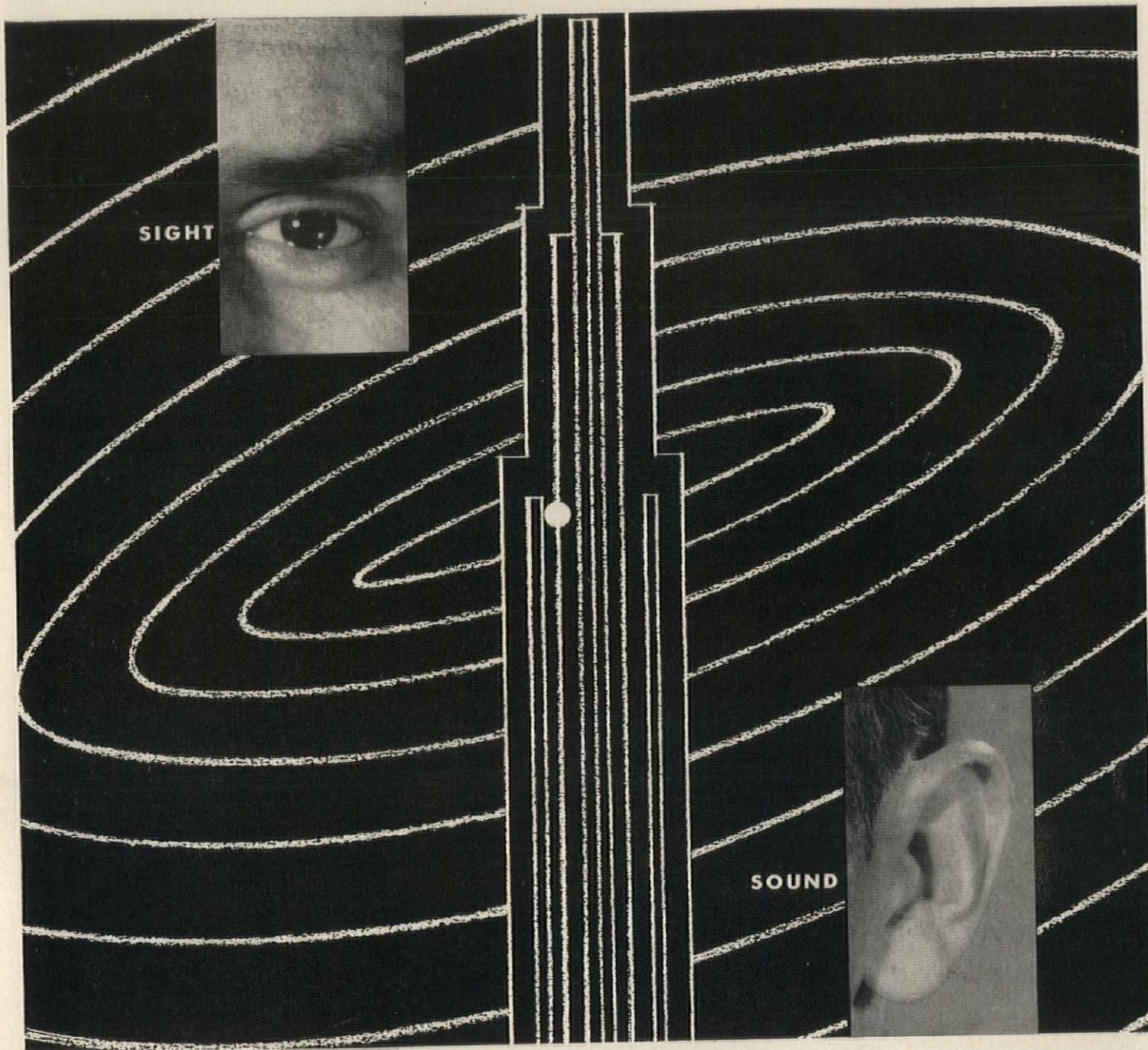
SINCE
POMEROY
1897

S. H. POMEROY COMPANY, 25 BRUCKNER BOULEVARD, NEW YORK 54, N. Y.

manufacturers of

- | | | | | | |
|---------------------|-------------------------|--------------------------|-------------------------|---------------|---------------------------------------|
| DOUBLE-HUNG WINDOWS | 360° REVERSIBLE WINDOWS | FIXED and HINGED WINDOWS | CUSTOM-BUILT ENCLOSURES | CURTAIN WALLS | ACOUSTICAL CEILING SUSPENSION SYSTEMS |
|---------------------|-------------------------|--------------------------|-------------------------|---------------|---------------------------------------|

FABRICATION IN ALUMINUM — STAINLESS STEEL and COATED STEEL



Specialists in:

- Fire Alarm Systems
- Electrical Clock Systems
- Hospital Systems
- Hospital Patient Observation
(Closed Circuit TV)
- Audible Signals
- Annunciators
- Coded Paging Systems
- Synchronous Clocks
- Transformers
- Contact Devices

our business is communications

*...a gentle chime...a blasting horn...
or a complete audio-visual communication system*

Sperti Faraday leads in the instant sound or sight communication systems that speed today's business or institutional contacts. Whatever your problem, whether simple or complicated our engineers are at your service to assist you in designing the system that suits your needs.

This service is available to architects without obligation. Simply call your nearest Sperti Faraday representative or write to Sperti Faraday, Inc., Adrian, Mich. In Canada, write Sperti Faraday, Ltd., Montreal.



**SINCE 1875 DESIGNERS AND PRODUCERS
OF VISUAL AND AUDIBLE SIGNALS**

ADRIAN, MICHIGAN

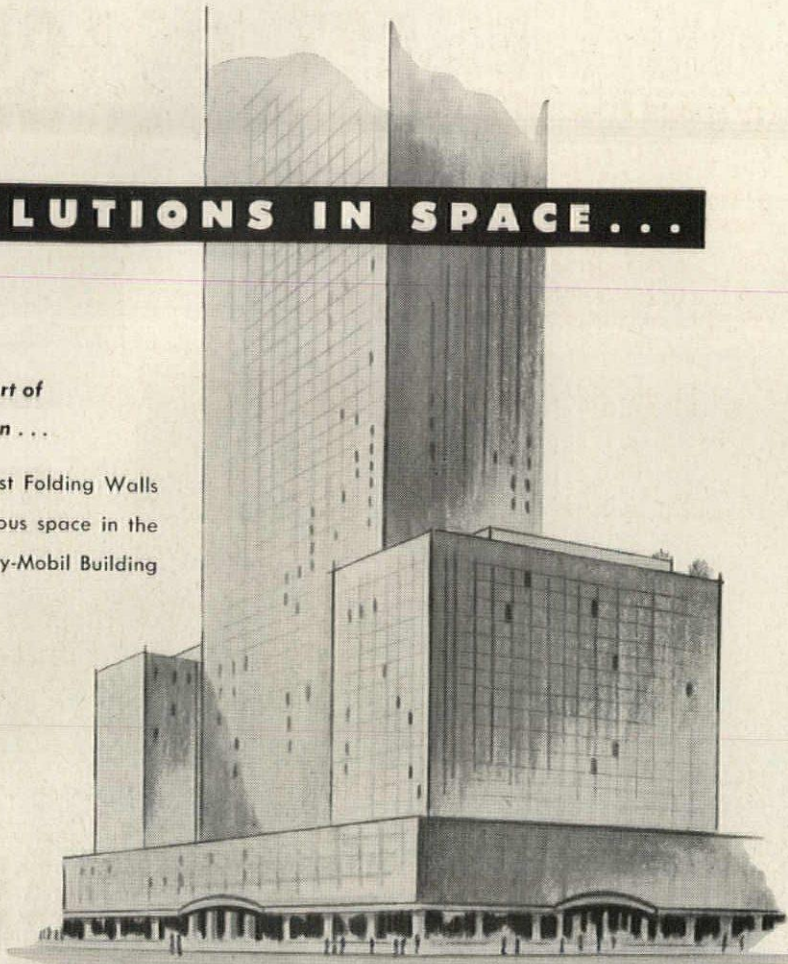
The Record Reports

continued from page 28

SOLUTIONS IN SPACE...

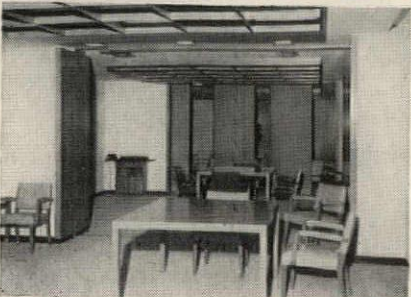
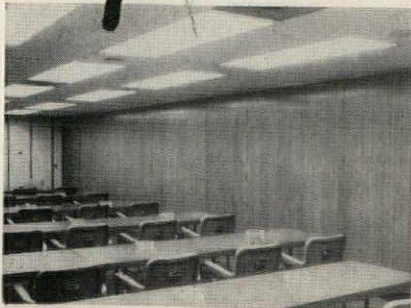
In the heart of
Manhattan...

18 Fairhurst Folding Walls
save precious space in the
new Socony-Mobil Building



Fairhurst®

Unitfold & Unitslide®
FOLDING WALLS



Room areas gain the utmost in flexibility through the Fairhurst principle of "Space Engineering." Separate, rigid wall units create unusual effects, exclusive with Fairhurst: sound resistance equal to a 10" to 12" fully plastered SOLID BRICK WALL is possible . . . walls may turn at right angles . . . walls may travel within an inch of pillars.

Knotty space problems have been solved by Fairhurst for over 45 years in the hotel and commercial fields. Write Dept. AR for estimates; no obligation, of course.

Top: Unitfold Wall in Socony-Mobil offices is concealed in pockets when not in use. J. Gordon Carr, Arch. Bottom: 2 movable walls at the 1st Nat'l City Bank permit 4 room combinations in a long, narrow area. Shreve, Lamb & Harmon, Archs.

John T. Fairhurst Co., Inc.

45 West 45th Street New York 36, N. Y.

housing characteristics survey conducted by the Bureau of Labor Statistics and paid for by the manufacturers.

A month ago, the marketing research committee had under consideration a material survey in the non-residential field, one in the alterations and repair field, a marketing report from local chapters (there are 42), an architects' preference study, sales reports from members, and cooperation with government agencies in the development of Federal statistical programs.

Cooperative promotional activities also include the organization's exhibitions such as the Caravan of Building Products which toured the nation for three years. A similar display was planned on a large barge which would tour the East coast and the inland waterways and would be known as P.C.'s "Waterama." Plans for a 1958 tour of this nature have been canceled, but the Waterama project is still being considered for 1959.

P.C.'s merchandising catalogs for builders, award of merit programs and ideas for home builders competition are other "cooperative promotion" activities.

In the category of cooperative activities with architects fall the widely known building products literature competition sponsored annually in cooperation with the A.I.A., chapter informational programs and the new technical seminars launched last fall with curtain walls as the first subject. Twenty-six such seminars have been scheduled through 1958. Spokesmen said the Council presently is expanding its activities with the architects.

Joint committees are maintained with A.I.A., N.A.H.B., the Consulting Engineers Council and Construction Specifications Institute; and "stand-by" joint committees are in existence with the Associated General Contractors of America, Inc., and the National Retail Lumber Dealers' Association.

The P.C. has been one of the prime movers in the effort to establish a permanent modular measure organization. This is now developing with the formation last summer of the Modular Building Standards Association.

John Haynes is the Council's managing director and the current president is Fred M. Hauserman.

GLARE REDUCING SHEET GLASS

Architects specify **American Lustragray**
for efficiency, comfort, appearance, economy



Photo from interior. LUSTRAGRAY glazing reduces sun glare.

With AMERICAN LUSTRAGRAY, large window areas, which increase occupants' efficiency by creating a feeling of space and freedom from confinement, can be designed without detrimental effects. This neutral gray glass:

- Reduces sun glare 50%, minimizing eyestrain and fatigue
- Reduces heat transmission
- Provides exterior skin wall effect and interior "clear glass" vision
- Makes permanently attractive appearance
- Assures maximum economy

AMERICAN LUSTRAGRAY is available through more than 500 glass jobbers. Thicknesses: 3/16", 7/32", 1/4". Maximum size: 6' x 10'. Check your classified telephone directory for listing. For literature, write our Architectural Promotion Department.



Photo from exterior. LUSTRAGRAY glazing enhances appearance of new office building of Aetna Life Insurance Co., Denver, Colo. Architect: Thomas J. Moore. Glazier: Gump Glass Co.

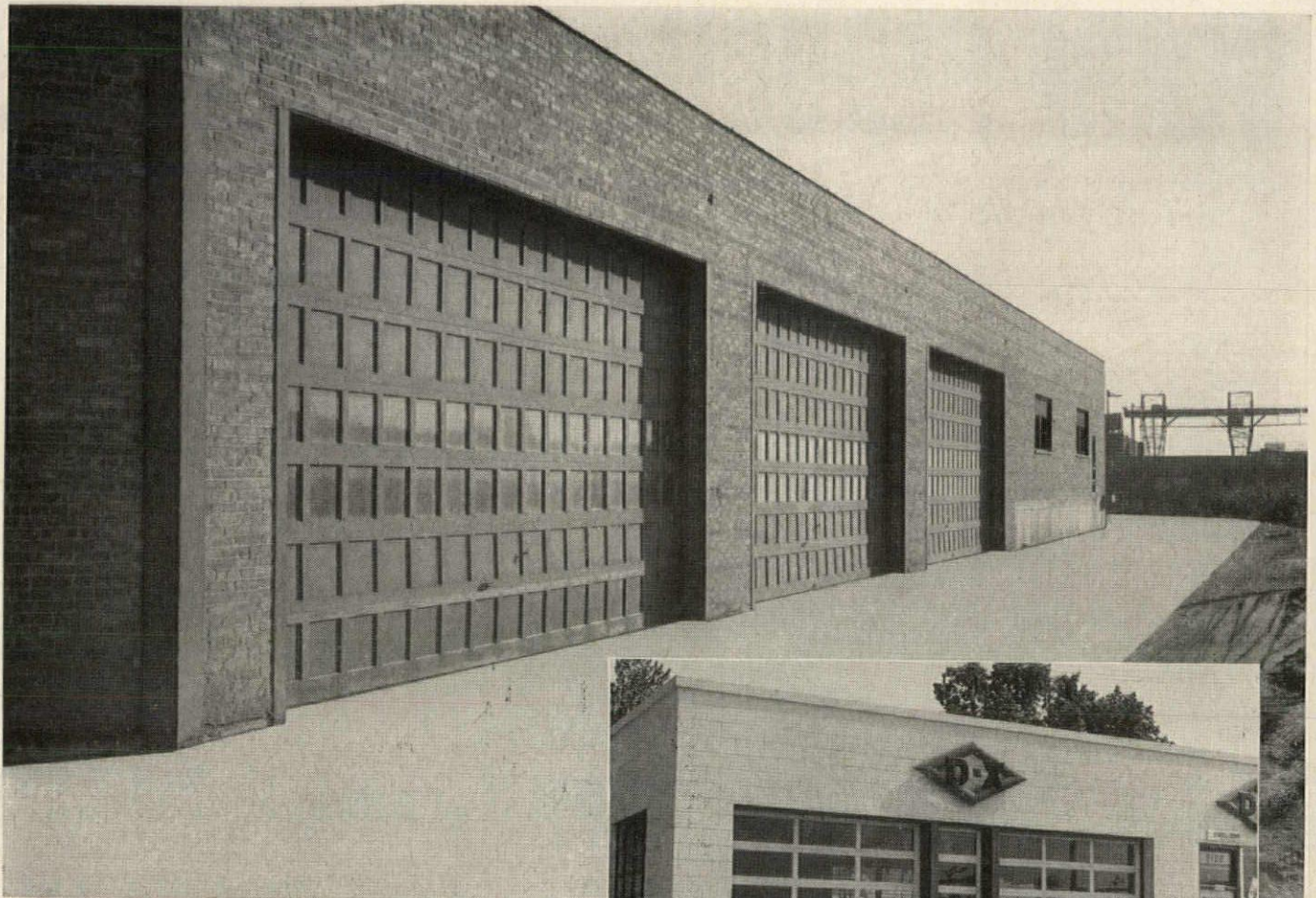
MODERN GLASS
Best at a Glance



American
WINDOW Glass COMPANY
PITTSBURGH, PA.

PLANTS: ARNOLD, PA. • ELLWOOD CITY, PA.
JEANNETTE, PA. • OKMULGEE, OKLA.

WSW 6958A



Feature for Feature,

Rō-Way Doors Give Extra Value

Check the specs on all overhead type doors. Make your own point by point comparison. You'll see, as hundreds of architects and builders have, that Ro-Way sets the pace for quality and value.

Ro-Way combines handsome appearance, rugged construction and beefed-up components to assure years of smooth, trouble-free service under the most punishing conditions.

Heavier millwork, for example. Brawnier hardware. And look at the features you'll find in *every* Ro-Way door. Seasoned west coast woods. Masonite® Dorlux®

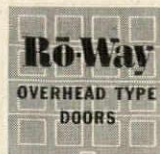
panels. Taper-Tite track and Seal-A-Matic hinges for weather-tight closure and instant opening. Ball bearing rollers for quiet, dependable operation. Big. Power-Metered springs, tensioned to the weight of each door. Rugged electric operators for fast, efficient service. Heavy duty hardware both Parkerized and painted to prevent rust and corrosion.

Yes, Ro-Way features add up to the greatest overhead door value on the market. So specify Ro-Way overhead type doors for all your commercial, industrial and residential buildings. They're available in standard and special sizes to meet any design problem.

there's a Ro-Way for every Doorway!



COMMERCIAL • INDUSTRIAL • RESIDENTIAL



ROWE MANUFACTURING COMPANY

1293 Holton Street, Galesburg, Illinois



Elevator Doors Open Quickly to Unload Passengers



No Door-Flutter During Entire Unloading



Doors STAY Motionless While Car Is Loading



Traffic Sentinel Closes Doors Quickly After Last Passenger Enters

WESTINGHOUSE TRAFFIC SENTINEL® DOORS DON'T "SCARE" SHOPPERS



AT BLOCK AND KUHL CO., in Peoria, Illinois, Westinghouse Operatorless Elevators with Traffic Sentinel Doors offer the finest in passenger comfort. Ride them yourself and see.

Operatorless elevators in a department store? You can see and ride them at Block and Kuhl Co.—where Westinghouse Operatorless Elevators equipped with magic Traffic Sentinel Doors handle heavy traffic day in, day out. Traffic Sentinel Doors open quickly at your floor—and stay open wide until all passengers are safely in or out. No “scary” threats of premature door closing.

Westinghouse Operatorless Elevators with

Traffic Sentinel Doors mean quick, safe, trouble-free vertical transportation of customers to upper sales floors. Ask your Westinghouse Elevator representative for the full details on the ultimate in this profit-building service.

YOU CAN BE SURE...IF IT'S
Westinghouse

two superior open steel FLOOR GRATINGS

BY GLOBE



Safety

GRIP-STRUT®



**FOR MAXIMUM
SAFETY ALL OVER
YOUR PLANT**

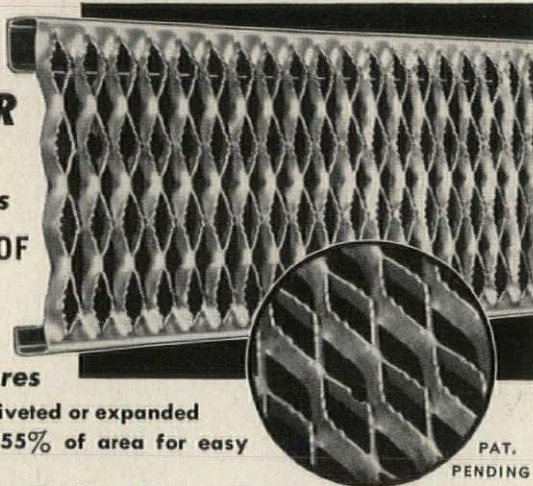
Important Safety Features

- ★ FIRE PROOF ★ SLIP PROOF
- ★ MAXIMUM STRENGTH
- ★ MINIMUM WEIGHT

Important Economy Features

- ★ All one piece, not welded, riveted or expanded
- ★ Open space in excess of 55% of area for easy access of light and air
- ★ No extra supports necessary—channels are integral part of the material. ★ Self cleaning
- ★ Cut and installed like lumber by your own maintenance force. ★ Low in original cost. ★ For balconies, no secondary sprinkler heads needed

Ideal for work platforms, stair and ladder steps, flooring, balconies, catwalks, machinery guards, fire escapes and for original equipment safety treads.



PAT.
PENDING



GOLD NUGGET® WELDED grating

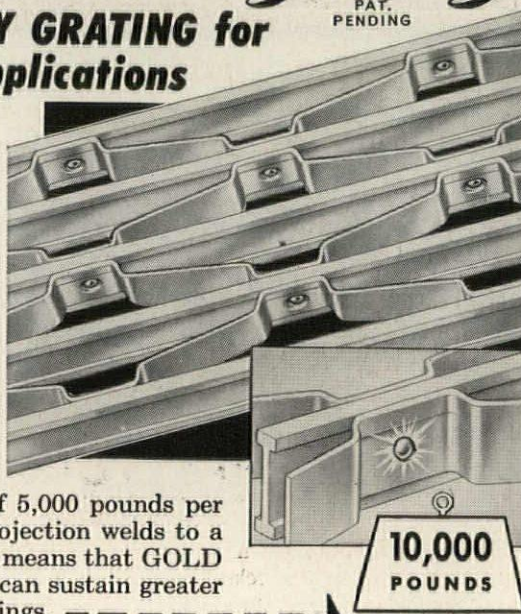
PAT.
PENDING

**The QUALITY GRATING for
Heavy Duty Applications**

- ★ 3/8" projection weld nugget for greater rigidity and strength
- ★ Vertical alignment of the main load bar assured
- ★ All bars are load carrying bars including secondary bars
- ★ Anti-skid pattern

PROJECTION WELD

Each secondary load bar (A), as projected welded to the primary load bar (B) has a shear strength of 5,000 pounds per weld. There are 28 such projection welds to a square foot of grating. This means that GOLD NUGGET Welded Grating can sustain greater shock loads than other gratings.



**10,000
POUNDS**



For the complete details of these revolutionary new gratings, write for new catalogs today. Distributors in all principal cities. Consult the yellow pages in your phone book under "GRATING".

108

PRODUCTS DIVISION

The GLOBE Company

MANUFACTURERS
SINCE 1914

4020 SOUTH PRINCETON AVENUE • CHICAGO 9, ILLINOIS

The Record Reports

On the Calendar

January

- 3-4 Meeting of Executive Committee, Board of Directors, American Institute of Architects—The Octagon, Washington, D. C.
- 19-23 Annual convention and exposition, National Association of Home Builders—Conrad Hilton and Sherman hotels and Coliseum, Chicago
- 27-29 Annual meeting, American Society of Heating and Air-Conditioning Engineers—Pittsburgh
- 27-29 Home Improvement Products Show—Hotel Sherman, Chicago
- 27-30 Plant Maintenance and Engineering Show—Chicago
- 30 Annual meeting, Society of Architectural Historians and College Art Association; through February 2—Washington, D. C.

February

- 4-6 13th annual technical and management conference, Reinforced Plastics Division, Society of the Plastics Industry Inc.—Edgewater Beach Hotel, Chicago
- 9-12 Eighth annual convention, Mason Contractors Association of America—Sheraton Park Hotel, Washington D. C.
- 11-12 Meeting of Building Research Advisory Board (invitation session) to focus on building industry problems and long-range solutions—National Academy of Sciences-National Research Council Building, Washington, D. C.
- 18-20 Conference on Church Building, sponsored by the Department of Church Building, National Council of Churches, and the Church Architectural Guild of America, in cooperation with the Detroit Council of Churches—Veterans Memorial Building, Detroit
- 22-26 Regional convention of the American Association of School Administrators—St. Louis
- 24-27 Annual convention, American Concrete Institute—Morrison Hotel, Chicago

continued on page 244



Weldwood butternut paneling. Philadelphia National Bank. Architects: Harbeson, Hough, Livingston & Larson. Installed by A. Witt and Sons.

How to create a favorable business climate with Weldwood real wood paneling

Traditionally, wood paneling provides a handsome, dignified setting for every kind of business. Whether you are designing for public building or private office, you can offer the low-care warmth and beauty of wood with one of these three Weldwood real wood interiors:

WELDWOOD PANELING—easy-to-install plywood panels, unfinished or prefinished to a fine furniture

FREE WELDWOOD BOOKLET. "Functional Beauty for Business and Institutional Interiors," has 25 pages of photographs showing Weldwood Paneling, Flexwood, and movable partitions installations in offices, stores, and institutions. Write for your copy and a list of Weldwood lumber dealers in your area. Or we will be glad to have a Weldwood Architects' Service Representative consult with you—no obligation. United States Plywood Corporation, Dept. AR1-58, 55 W. 44th St., N. Y. 36, N. Y.



Weldwood teak Flexwood® in office of the President, RKO Theatres, Inc., N. Y. So flexible you can wrap it around a pencil, Flexwood comes in more than 40 choice woods. Matching moldings achieve traditional effect.



luster that resists dirt and wear—guaranteed for the life of the building.

WELDWOOD FLEXWOOD—over 40 selected wood veneers, cloth-backed. Permits wood interiors in any room—even those with curved walls.

WELDWOOD MOVABLE PARTITIONS—rich-grained real wood paneled partitions, with mineral cores; office layouts change easily overnight.

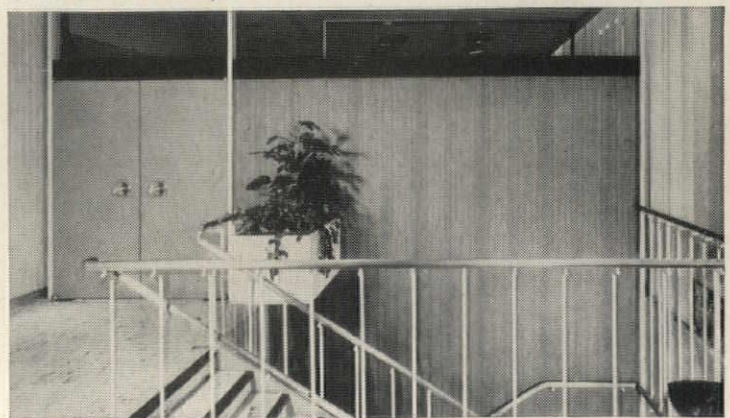


Weldwood®

PANELING • FLEXWOOD • PARTITIONS


Offices in 106 principal cities in the United States and Canada

Weldwood quartered walnut at offices of Munsingwear, Inc., New York, is easy to keep beautiful, even in high-traffic areas. Architects and Designers: von der Lancken & Lundquist.





Now, like wearing
 "Magic Gloves"...
Golden-Touch Typing

Never before such Golden Ease... 
even the underscore is automatic!

Only The Underwood Golden-Touch Electric gives your hands such skill, such effortless speed, such print perfect letters and really readable multiple carbons! It's as though you'd suddenly put on "Magic Gloves". That's Golden-Touch... and no other kind of typing in this world comes even close to it! The Golden-Touch Electric does more work for you — even the underscore is automatic!

Golden-Touch Electrics come in 5 office-scheme colors — with your choice of personalized type styles.

Golden-Touch Keys: Finger-tip shaped for smoothest automatic typing.

Golden-Touch Carriage Return: Tops in automatic efficiency to save your strength.

Golden-Touch Margin-Setting: Automatic action from keyboard. Ends wasteful hand-travel.

Golden-Touch Ribbon-Rewind: Easier and faster! Truly automatic ribbon changing!

Golden-Touch Copy-Dial: Just set it to get all the crisp, clear carbons you need.



Call your Underwood Showroom today! It's listed in The Yellow Pages.

underwood... the only electric typewriter with *Golden-Touch*



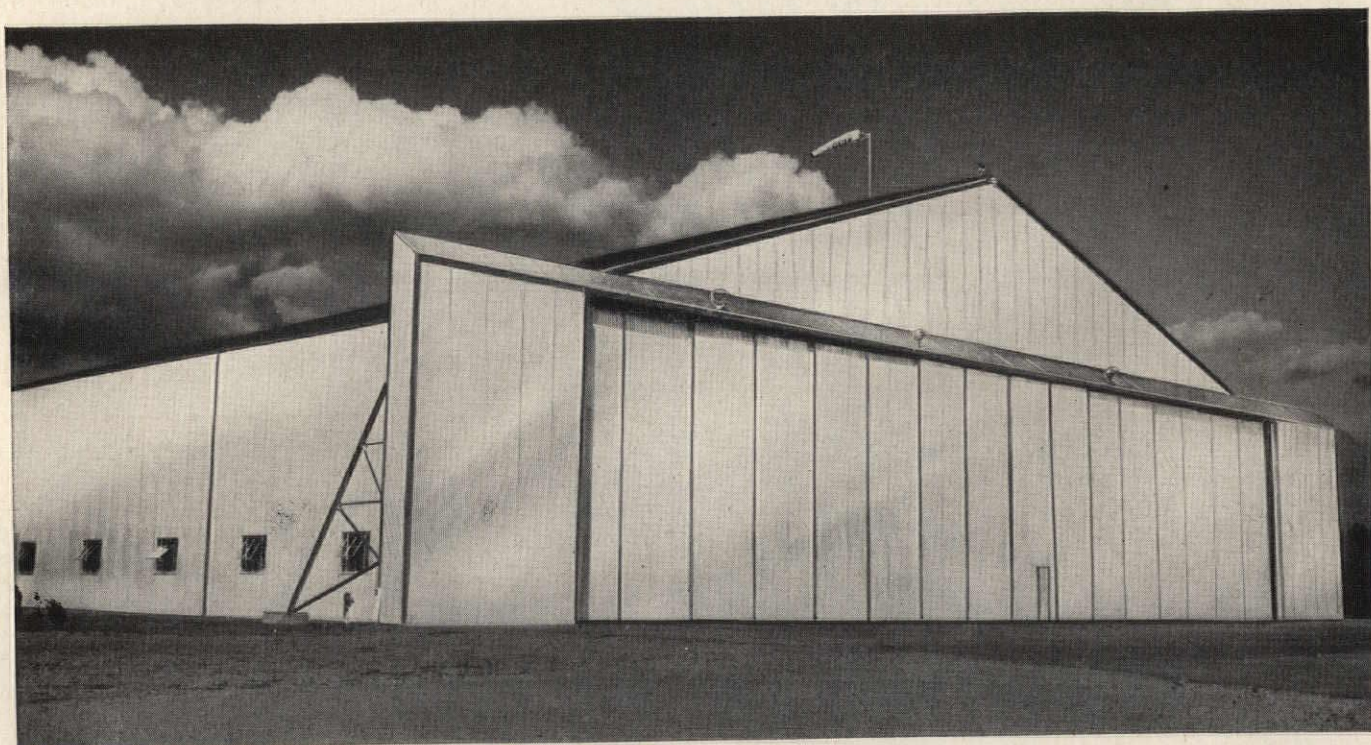
NOW IN LENGTHS UP TO 14'6"!

Reynolds Aluminum Industrial Corrugated is now available in lengths from 5' to 14'6". .032" thickness, mill finish or embossed. Standard widths 35" and 48 $\frac{1}{3}$ ". Corrugations are 2.667" center to center and $\frac{7}{8}$ " deep.

For the Best in Plane Cover...

REYNOLDS ALUMINUM

INDUSTRIAL ROOFING AND SIDING



The cover for a hangar like this must be as functional as an airplane skin—and both are aluminum. Rustproof and corrosion-resistant, aluminum needs no painting. Its light weight cuts both erection cost and time—pays off every time the mammoth hangar doors are opened.

Reynolds Industrial Corrugated is the strongest, simplest form of aluminum roofing and siding. Extra-deep corrugations give the .032" sheet extra rigidity—extra resistance against winds and snow

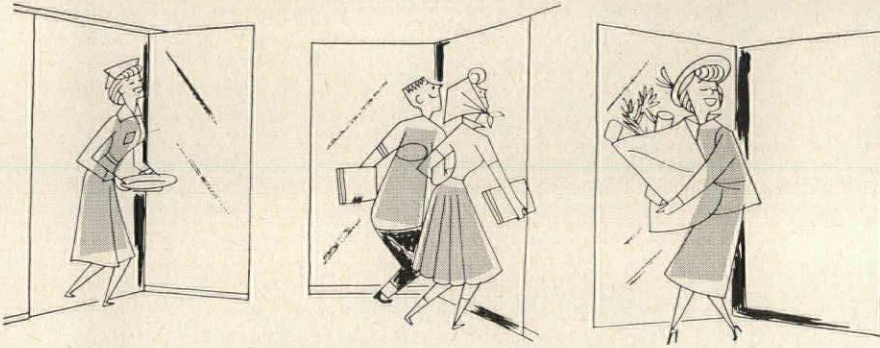
loads. This hangar, with 53,500 square feet of Reynolds Industrial Corrugated, is a standing demonstration of the best possible protection for valuable equipment. Truly the *best* in plane cover!

A complete installation service is available. For name of your nearest franchised Jobber-Erector, call the Reynolds office listed under "Building Materials" in classified phone books of principal cities. For literature, write Reynolds Metals Company, General Sales Office, Louisville 1, Ky.

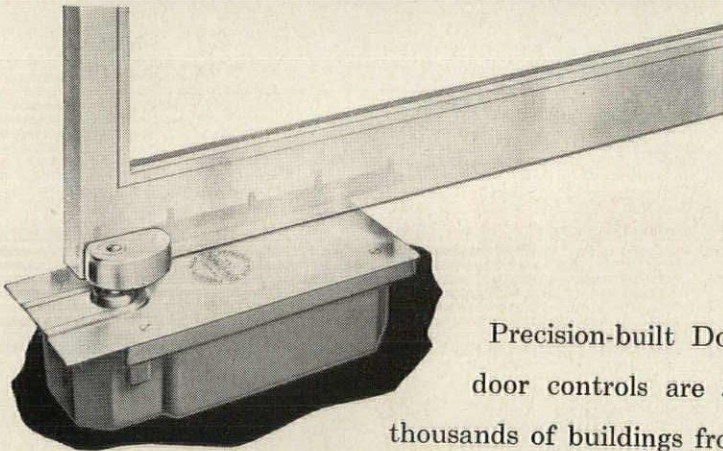
Watch Reynolds all-family television program "Disneyland", ABC-TV.

REYNOLDS ALUMINUM

Positive Door Control is a **MUST**
where there's heavy traffic



use **DOR-O-MATIC**
CONCEALED IN FLOOR
Manual Door Controls



Precision-built DOR-O-MATIC door controls are at work in thousands of buildings from coast to coast . . . providing vital positive door control under even the heaviest traffic conditions. Designed for long service and complete adaptability to contemporary design and function, there are 31 models to choose from . . . one for every type door in any kind of building. Write for detailed information.

DOR-O-MATIC INVISIBLE DOR-MAN for completely automatic door controls—available in either carpet or handle actuated models

SEE OUR CATALOGS IN SWEET'S



Sales and Service in principal cities—see Yellow Pages of your phone book 6916



DOR-O-MATIC division of REPUBLIC INDUSTRIES, INC.
7358 West Wilson Avenue
Chicago 31, Illinois

CANADA: Dor-O-Matic of Canada, 550 Hopewell Avenue, Toronto 10, Ontario
EXPORT: Consultants International, 69-77 Bedford Street, Stamford, Connecticut

The Record Reports

26-28 National convention (first of three in 1958), American Society of Civil Engineers—New York City

March

8-12 Regional convention of the American Association of School Administrators—San Francisco

9-12 First National Lighting Exposition, sponsored by Lighting Lamps and Electrical Manufacturers Salesmen's Association—The Coliseum, New York

17-18 The Building Industry's Role in Urban Renewal; a joint conference sponsored by ACTION and the National Housing Center—National Housing Center, Washington, D. C.

17-21 Annual conference and exposition, National Association of Corrosion Engineers—San Francisco

29 Regional convention of the American Association of School Administrators—Cleveland

Office Notes

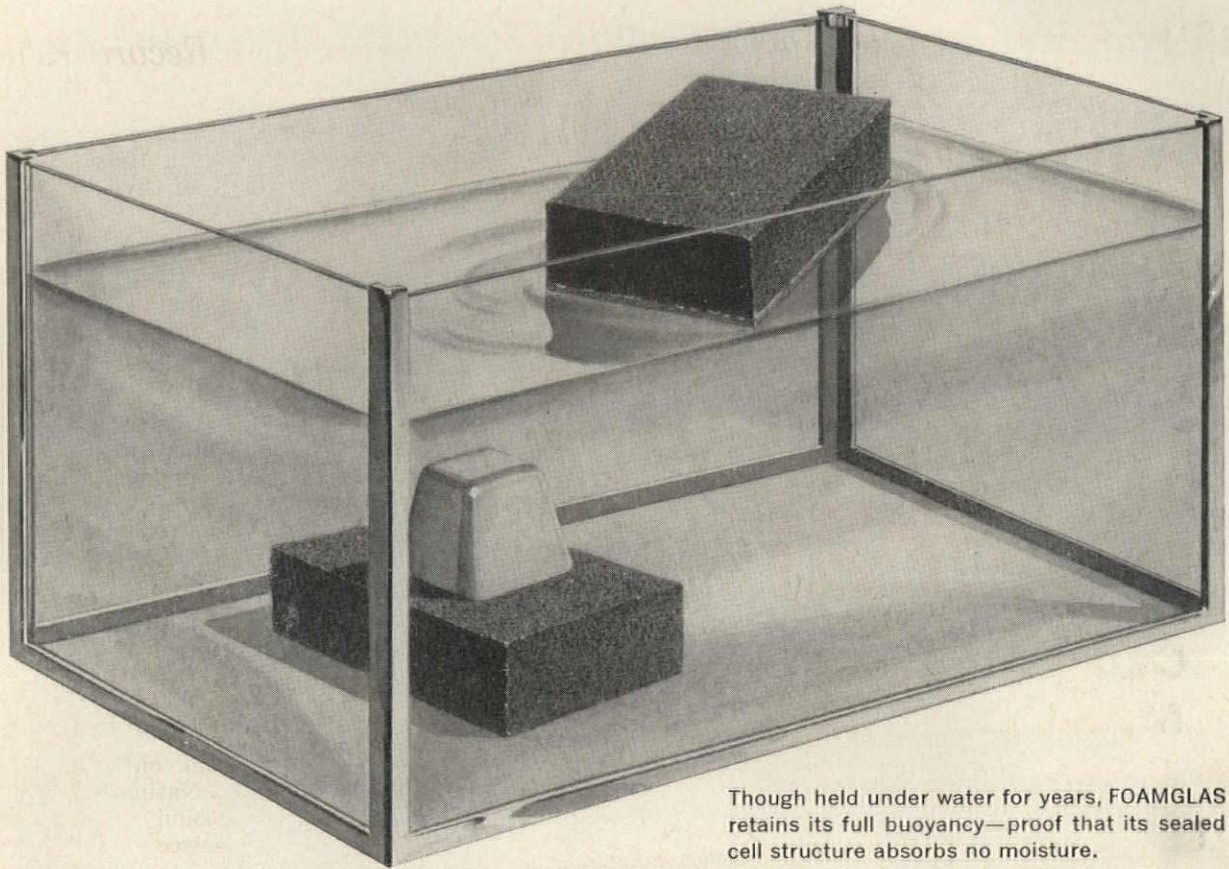
Offices Opened

The firm of Herbert L. Kartiganer, Consulting Engineers and Designers, announces the opening of an office at 75 Second Street, Newburgh, N. Y. The principal design staff of the firm consists of Herbert L. Kartiganer, professional engineer; Kenneth Goldfarb, architect; and Charles Bernstein, landscape architect.

Fred G. Owles Jr. announces the opening of his office for the general practice of architecture at 1401 Edgewater Drive, Orlando, Fla.

Frederick P. Wiedersum Associates, Architects, have opened their new offices in a building of their own design at 65 Roosevelt Avenue, Valley Stream, L. I., N. Y.; two offices formerly maintained in Valley Stream are consolidated in the new building. The firm will continue to maintain its offices in The Coliseum, New York, and Clifton, N. J. The firm has also announced appointment to its staff of Sanford H. Calhoun, who retired in June after 22 years as supervisory principal of the Mephram Central High School District No. 3, L. I., N. Y.

continued on page 248



Though held under water for years, FOAMGLAS retains its full buoyancy—proof that its sealed cell structure absorbs no moisture.

FOAMGLAS[®]

INSULATION

is waterproof

... not just water-resistant!

FOAMGLAS roof insulation stays dry before, during and after application—lessens the chance of water damage to the roof, the building or its contents. With its high strength, FOAMGLAS provides a firm base for built-up roofing. It's light in weight and easy to cut. Write for latest literature.



[®] Pittsburgh Corning Corporation

Dept. B-18, One Gateway Center, Pittsburgh 22, Pa.

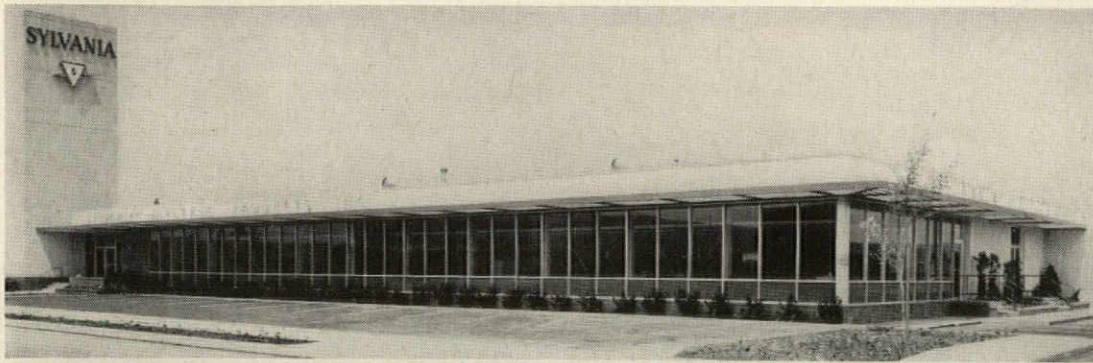
In Canada: 57 Bloor Street West, Toronto, Ontario

Electric Protection for a Leading Manufacturer of Electrical-Electronic Products

Sylvania's Distribution Centers

from Coast to Coast

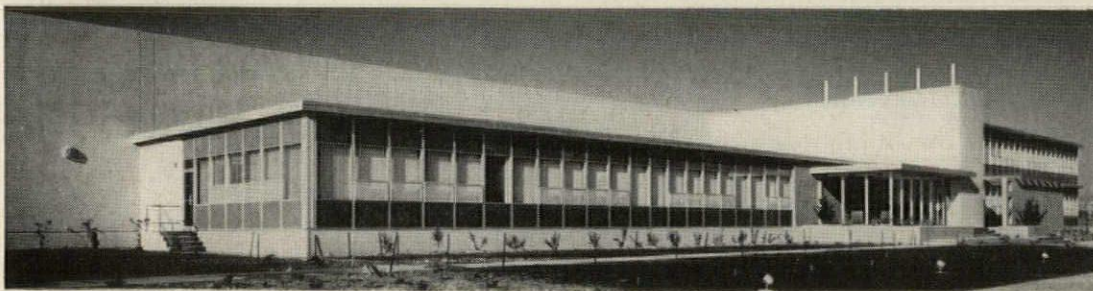
protected *Automatically* by **ADT**



Los Angeles, Calif.

Architect:
Paul H. Van Wert,
Williamsport, Pa.

Engineer and
General Contractor:
John J. Moore Co.,
Oakland, Calif.



Burlingame, Calif.

Architect:
Paul H. Van Wert,
Williamsport, Pa.

Associate: **John S. Bolles,**
San Francisco
General Contractor:
**Associated Construction
and Engineering Co.
of California,**
San Francisco



Melrose Park, Ill.

Architect and
General Contractor:
**Clearing Industrial
District,**
Melrose Park, Ill.

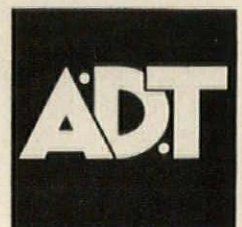
Outstanding examples of modern industrial construction and architectural beauty, the new distribution centers for Sylvania Electric Products, Inc., pictured above, are but three of thirty-two Sylvania properties protected against fire, burglary and other hazards by ADT.

The ADT *automatic* safeguards in Sylvania's centers from coast to coast, are a combination of Sprinkler Supervisory, Waterflow Alarm, and Burglar Alarm Services, providing a higher degree of protection than other methods, and *at lower cost.*

ADT Sprinkler Supervisory and Waterflow Alarm Service maintains a constant *automatic* check on shutoff valves and other points con-

trolling the water supply to sprinklers, and signals the fire department *automatically* in case of fire. ADT Burglar Alarm Service *automatically* detects attempts to enter at protected points and summons police. In plants employing watchmen, ADT supplies Watchman's Reporting and Manual Fire Alarm Service.

Thousands of business concerns from coast to coast rely on ADT to protect property, profits and employees' jobs. Whether your project is large or small, there is an ADT Protection Service to meet every requirement. Our local sales representative will be pleased to discuss your problems. Call us if we are listed in your phone book, or write to our Executive Office.



Controlled Companies of

AMERICAN DISTRICT TELEGRAPH COMPANY

A NATIONWIDE ORGANIZATION

Executive Office: 155 Sixth Avenue, New York 13, N. Y.



R. H. Macy & Co., Roosevelt Field, L.I., N.Y. Architects: Skidmore, Owings, and Merrill; Consulting Engineers: Syska and Hennessy, Inc.; General Contractor: Turner Construction Co.; Mechanical Contractor: J. E. Schechter Corp.



Comfort-conditioned shopping insures profitable customer and employee relations, effective store merchandising. American Blower fans and air-conditioning units help make this possible at Macy's.



C. V. Scott, of American Blower; A. L. Windman, of Syska and Hennessy, Inc.; and J. E. Schechter, of J. E. Schechter Corp., review blueprints used in installing Macy's air-conditioning system.

Macy's newest serves one million thrifty shoppers in air-conditioned comfort

A PROBLEM: How do you air-condition a three-level, 144-department store and maintain every inch of sales space — especially when you want to keep the roof clear for future expansion?

THE SOLUTION: Designers for Macy's new Roosevelt Field, L.I., suburban store found the answer by locating the equipment in a plenum area between roof and ceiling. Space was at a premium. Equipment had to fit within very close tolerances.

RESULT: American Blower's experience and engineering know-how enabled them to meet the challenge of this unusual installation. Air-conditioning and air-handling units were selected to give the required capacity within the size and space limitations.

Are you planning to air-condition? If so, call your nearest American Blower branch office. You'll get dependable, quality products — helpful service all the way! American Blower Division of American-Standard, Detroit 32, Michigan. In Canada: Canadian Sirocco products, Windsor, Ontario.

AMERICAN BLOWER

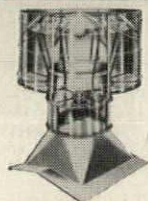
Division of **AMERICAN-Standard**



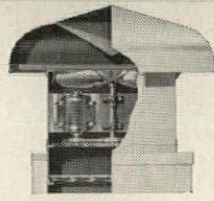
QUALITY PROTECTS YOUR INVESTMENT . . . **AMERICAN-Standard** QUALITY IS AVAILABLE AT NO EXTRA COST

Burt

ROOF VENTILATORS WALL LOUVERS



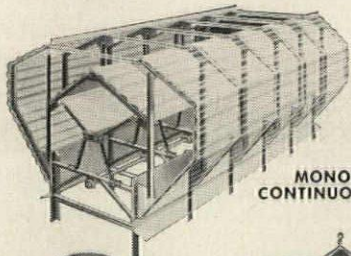
FREE-FLOW FAN



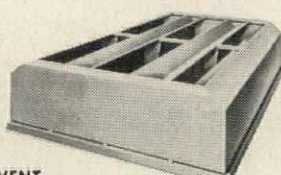
LOW TYPE



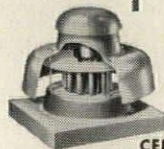
FREE EXHAUST FAN



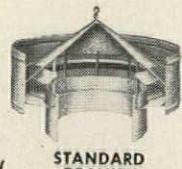
MONOVENT
CONTINUOUS RIDGE



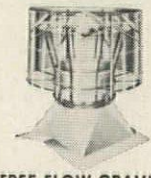
THERMOVENT



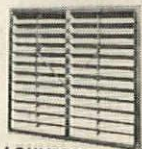
CENTRIFLOW



STANDARD
GRAVITY



FREE-FLOW GRAVITY



LOUVERS



MONITOR TYPE

SEND FOR FREE DATA BOOK

BURT'S complete ventilator line includes a type and size to put air to work most efficiently and economically for your specialized needs. BURT'S engineering skill and know-how from more than half a century designing and building ventilators is your assurance of satisfaction. Your inquiry will receive prompt and qualified attention.



The Burt Manufacturing Company
FAN & GRAVITY VENTILATORS LOUVERS •
SHEET METAL SPECIALTIES

48 E. South St., Akron 11, Ohio

MEMBER POWER FAN MANUFACTURERS ASSOCIATION

The Record Reports

Firm Changes

Harold S. Cassidy has announced that he will continue the practice of architecture at the same location as heretofore under the name of Harold S. Cassidy, 1961 West Market Street, Akron 13, Ohio. The partnership of Firestone & Cassidy has been dissolved by mutual consent as of October 1, 1957.

The appointment of Marvin J. Kudroff to the post of Director of Engineering for Daniel, Mann, Johnson & Mendenhall, Architects and Engineers, has been announced. Mr. Kudroff has been for ten years chief structural engineer for DMJM and has been project manager for many major projects.

DeYoung, Moscovitz & Rosenberg, Architects, have announced the appointment of the following associates: Louis H. Friedheim, Benjamin Markowitz, Irwin Safer and Leonard Scheer. The firm's offices are at 205 East 42nd Street, New York 17, N. Y.

Adolph Lancken Muller, president of Halsey, McCormack and Helmer Inc., Architects, 286 Fifth Avenue, New York 1, N. Y., has announced acquisition of full control of the firm from the survivors of his late partners. Mr. Muller has also announced that Arthur P. Simon will continue as vice president and that Paul Dobbs has been appointed secretary to replace William E. Brundage, who retired last month after 51 years in architecture.

Morris Lapidus, Leo Kornblath, Associate, announce the change of the firm name to Morris Lapidus, Kornblath, Harle & O'Mara, Architects, Engineers, Interior Designers. The firm has offices at 940 Lincoln Road, Miami Beach, and 256 East 49th Street, New York.

N. Jack Huddle, Architect, has been made an associate of the office of Robert A. Little and Associates, Architects, 1303 Prospect Avenue, Cleveland 15, Ohio. Mr. Huddle has been with the firm since 1955.

Stanley M. Smith, A.I.A., has joined the Palo Alto, Cal., office of Ernest J. Kump. Mr. Smith has been for the last six years working as an architect and planning consultant for the Arabian-American Oil Company and the Aramco Overseas Company in Rome, The Hague and Saudi Arabia.

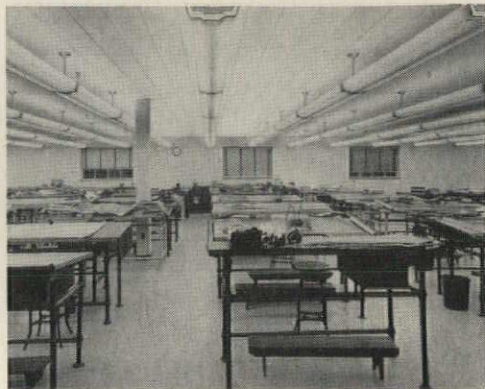
Karl M. Waggoner, who has continued to operate the firm of Hansen

continued on page 252

THE SOURCE FOR EVERY INDUSTRIAL LIGHTING NEED !



"LID NECK LINE" Sturdy, attractive one-piece units provides quality illumination at low cost for **Factories** and **Warehouses**.



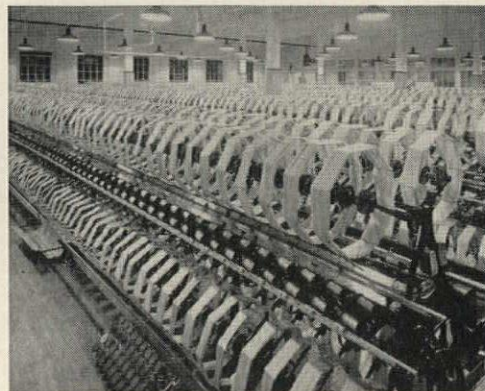
"FLO-LINER" Smartly styled shallow lighting units for any **Commercial** or **Office** installation.



"BI-FLO UPLIFTER" 72% downlight — 28% uplight, provides greater seeing comfort for industrial areas such as **Assembly Lines**.



"NECK LINE" High efficiency, all-purpose fixtures with upward component of light to give severe brightness contrast. Ideal for **Machine Shop** and **Factories**.



"DURATACH LINE" Rugged fixture that offers easy, low cost maintenance plus complete interchangeability. Widely used in **Industrial** and **Textile** plants.

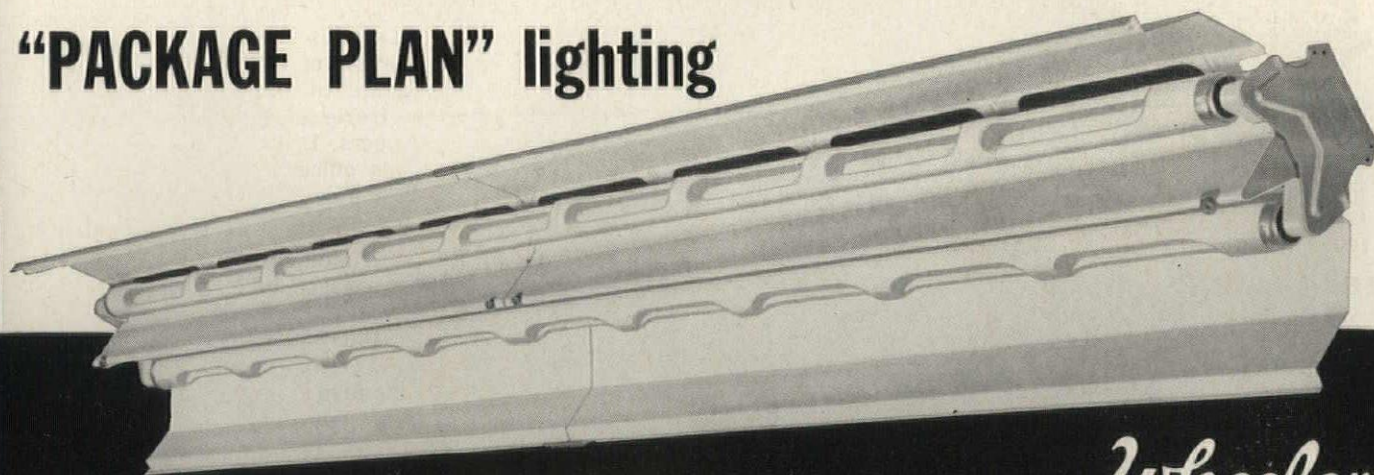


"DUST-TIGHT" and **"VAPOR-TIGHT"** Specialized fixtures for hazardous and non-hazardous locations such as **Printing Plants**, **Flour Grain Mills**, etc.

and now **Power-Lume**

latest addition to *Wheeler*

"PACKAGE PLAN" lighting



Power-Lume by Wheeler — a new fixture in 2 types of Construction "F" and "V" . . . specifically designed to utilize fully the extra illuminating power of the new Power-Groove lamps. Delivers **TWICE** the amount of lumen output per foot of lamp length! For complete details, write for New Product Data Sheet No. 100 D.

Wheeler

REFLECTOR COMPANY

(Division of Franklin Research Corp.)

**275 CONGRESS STREET
BOSTON 10, MASS.**

Distributed Exclusively Through
Electrical Wholesalers

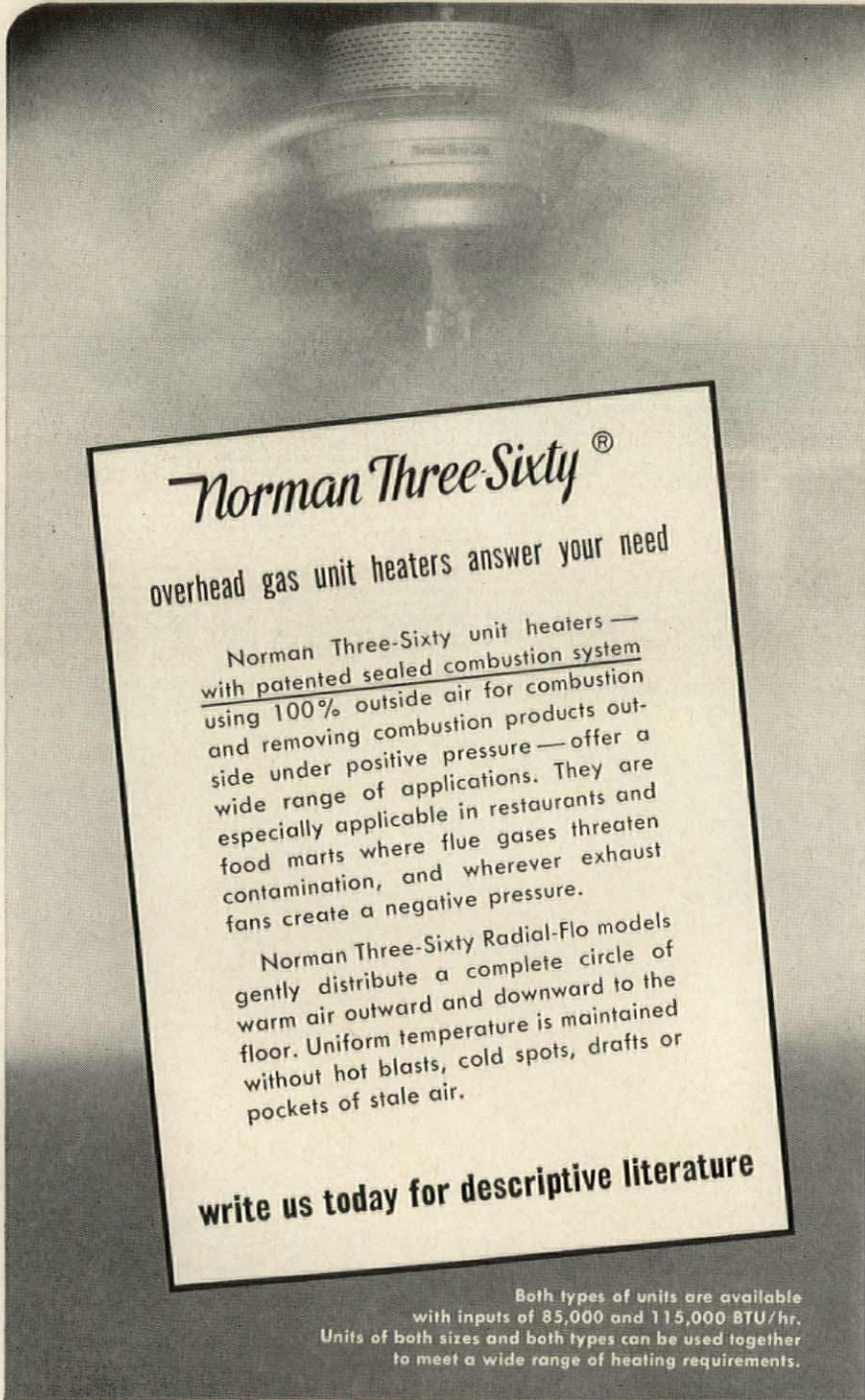
AN UMBRELLA OF COMFORT ... OR

Norman Three-Sixty®

WITH SEALED COMBUSTION



SPOT HEATING



Norman Three-Sixty®

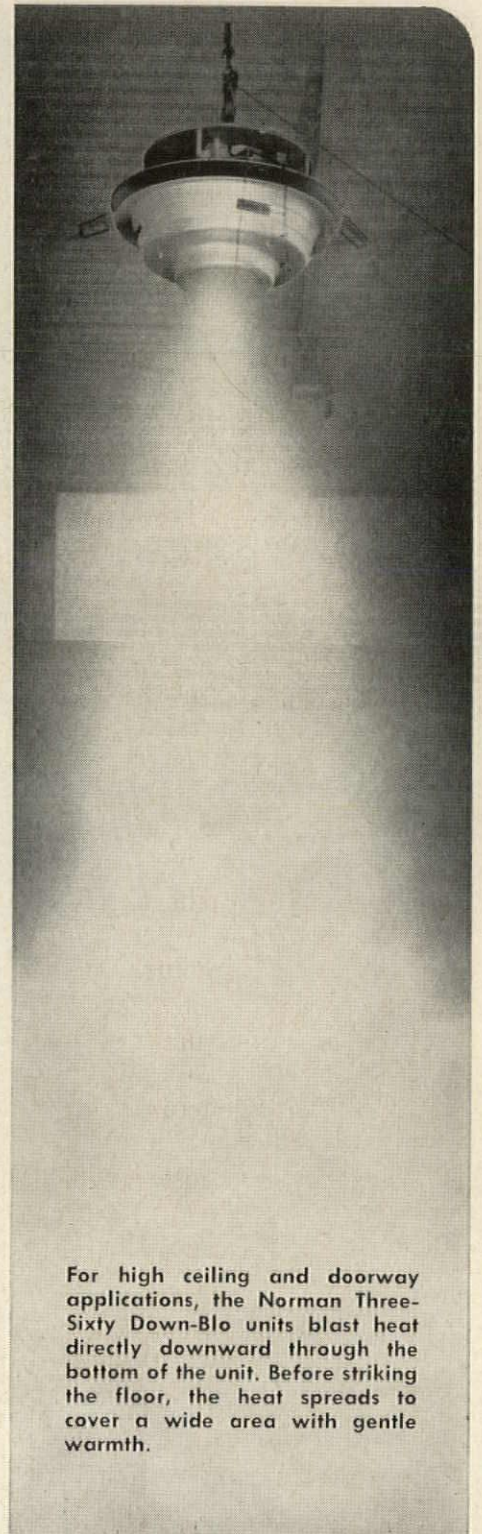
overhead gas unit heaters answer your need

Norman Three-Sixty unit heaters — with patented sealed combustion system using 100% outside air for combustion and removing combustion products outside under positive pressure — offer a wide range of applications. They are especially applicable in restaurants and food marts where flue gases threaten contamination, and wherever exhaust fans create a negative pressure.

Norman Three-Sixty Radial-Flo models gently distribute a complete circle of warm air outward and downward to the floor. Uniform temperature is maintained without hot blasts, cold spots, drafts or pockets of stale air.

write us today for descriptive literature

Both types of units are available with inputs of 85,000 and 115,000 BTU/hr. Units of both sizes and both types can be used together to meet a wide range of heating requirements.



For high ceiling and doorway applications, the Norman Three-Sixty Down-Blo units blast heat directly downward through the bottom of the unit. Before striking the floor, the heat spreads to cover a wide area with gentle warmth.

Norman®

products company

• 1152 Chesapeake Ave. Columbus, Ohio



IN CANADA: A. D. PALMER & CO., Lethbridge, Alberta • Port Credit, Ontario



A dramatic "change of pace". Waylite walls need never be monotonous or dull...there is always an architectural treatment or form that harmonizes with the function of the structure. In addition Waylite provides an insulative structural wall that needs no acoustical treatment—all at one low cost. The Waylite Company, 20 N. Wacker Drive, Chicago, Ill.; P. O. Box 30, Bethlehem, Pa.



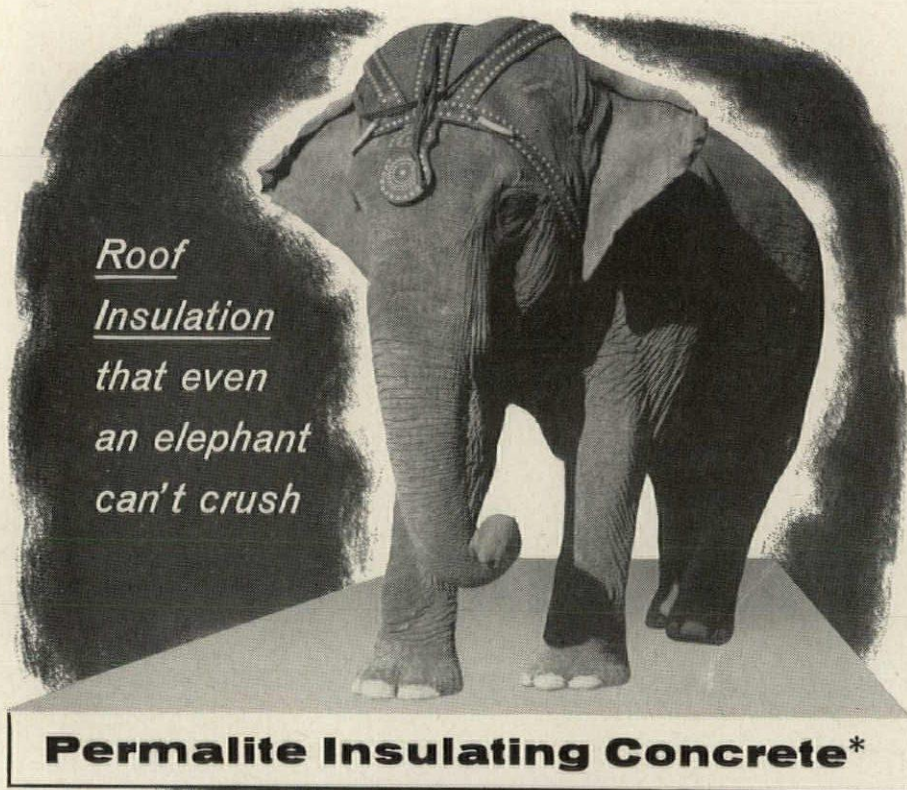
HOW ACCOMPLISHED:

Textured 8 x 8 x 8 inch Waylite Units stacked diagonally. Some units set in wall at different level for shadow effect.

CREDITS:

Pub Bar and Restaurant, Philadelphia. Architects: Armand Carroll and Wm. J. Stephenson. Mason contractors: Casper Bros.

STRENGTH



*Roof
Insulation
that even
an elephant
can't crush*

Permalite Insulating Concrete*

With compressive strengths as high as 31 tons per square foot, Permalite concrete has time-proven advantages in light structural roof decks as well as in insulating fill. Does not crush or compact under the built-up roof... maintains its full insulating value... provides a rigid base for the built-up roofing... gives added protection under necessary roof traffic.

Up to 20 times more insulating value than ordinary concrete... "k" factors from 0.77 to 0.58.

Light in weight... 4½ to 6 pounds per square foot 2" thick... saves on steel.

Fire-safe. Can be poured in place, job-mixed or transit-mixed, or pre-cast. Can't rot... vermin-proof... termite-proof.

For the complete story, see your Sweets File, or write

*Perlite Department, Great Lakes Carbon Corporation
612 So. Flower St., Los Angeles 17, California*

Permalite®
THE LARGEST-SELLING PERLITE AGGREGATE IN THE WORLD

FOR

STRENGTH
INSULATION
LIGHT WEIGHT
FIRE SAFETY

*The term Permalite concrete, as used here, means lightweight insulating concrete made with portland cement and Permalite expanded perlite aggregate.

The Record Reports

continued from page 248

& Waggoner, Architects, since the death of Harry P. Hansen, and Thomas M. Waggoner, his son, announce the formation of a new partnership, Waggoner & Waggoner, Architects, 15 South Federal Avenue, Mason City, Iowa.

New Addresses

Charles N. Agree Inc., Architects, 14330 West McNichols, Detroit 35, Mich.

Cox and Forsythe, Architects, 1341 Market Avenue South, Canton 4, Ohio.

Lucian M. Dent, Architect, Room 209, 3340 Poplar, Memphis, Tenn.

Edward J. Kuntz, A.I.A., 121 Shippen Street, Weehawken, N. J.

Stuart M. Mertz, Landscape Architect, 8230 Forsythe Blvd., St. Louis 24, Mo. (Clayton)

Yamasaki, Leinweber and Associates, 1025 East Maple Road, Birmingham, Mich.

A Washington Report

continued from page 32

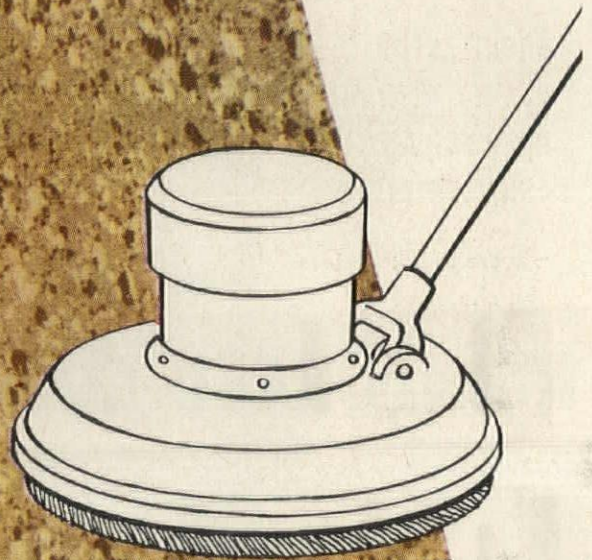
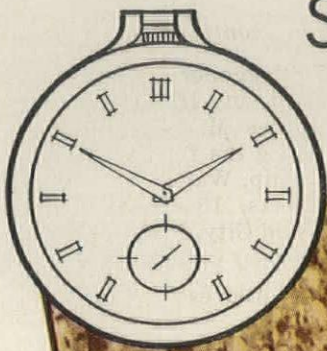
They would work within the framework limitations but could enforce their own decisions within precise limits. Subordinate planning levels within the District of Columbia would plan their own specific projects with criteria established by NCPD. Then, specific urban redevelopment projects and private and public building projects would proceed within limits set by all the preceding levels.

It is proposed that a diversity of planning methods within the various geographical jurisdictions permit useful experimentation. The key to the framework for planning is the proposed Federal City Corporation; its organization and its administrative personnel.

The report concludes: "Our present planning procedures are degenerating into mere obstructionism and our plans are without that quality which rises above statistical argumentation and creates an urge for genuine civic achievement."

Mr. Justement heads the A.I.A. Committee on the National Capital. Other members—Henry Shepley, John Harbison, Eero Saarinen and Edward Stone. This committee approved the report at its first meeting before the full board acted on it.

Superior CLEANABILITY



Color Shown: VK-381, Light Cork

Save Time...Save Money...Save Labor

Vina-Lux[®] FLOORS IN NATURAL CORK HUES

Vina-Lux is formulated to clean easier, quicker, better... its tight-textured surface shrugs off scuffs, stains and spills. This vinyl-asbestos tile will definitely save you more in labor and material cleaning costs, per foot per year.

Vina-Lux solves many floor problems. It's greaseproof, durable, slip-safe, easy to maintain. Solve *your* floor problems with this outstanding resilient tile. Available in 31 colors and 4 styles. Samples are yours without obligation.



AZROCK FLOOR PRODUCTS DIVISION
UVALDE ROCK ASPHALT CO. | 511A FROST BANK BLDG. • SAN ANTONIO, TEXAS



MAKERS OF VINA-LUX • AZROCK • AZPHLEX • DURACO

- LOW MAINTENANCE
- FIRE PROTECTION
- FLEXIBILITY
IN DESIGN
- LOW FLOOR-TO-FLOOR
HEIGHTS
- SPEED
OF CONSTRUCTION
- ARCHITECTURAL
BEAUTY WITHOUT
NEED FOR AUXILIARY
ORNAMENTATION

... were major factors
in the choice of

REINFORCED CONCRETE

for Buffalo's four new
parking ramps



Today, more and more parking garages are being built, and more and more are being constructed of reinforced concrete. Four outstanding examples of this trend are the new reinforced concrete parking ramps in Buffalo, New York. Among the reasons the architects and consulting engineers specified reinforced concrete are lower insurance rates... especially in the exposed structural systems where the inherent fire-proof qualities of reinforced concrete are particularly required. Another, reinforced concrete requires practically no maintenance, needs no painting or other protection. Also, with reinforced concrete, construction proceeds to completion faster because all necessary materials and labor are readily available from local sources.

Consulting Structural Engineer
on all four jobs pictured below

James N. De Serio, P.E.



◀ BROADWAY MARKET & PARKING RAMP
Architects: James, Meadows & Howard
General Contractor: Siegfried Construction Co.



SENECA PARKING RAMP
Architects: James, Meadows & Howard, and
Abbott, Merkt & Company
General Contractor: Siegfried Construction Co.

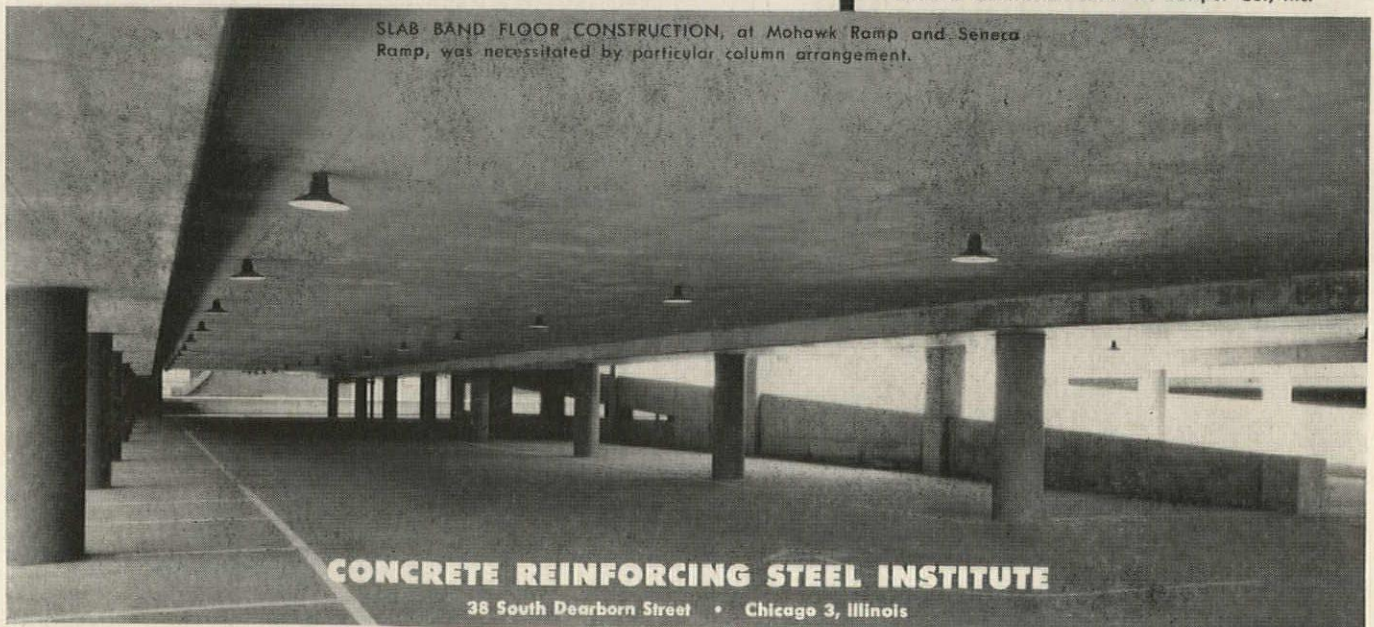


MOHAWK PARKING RAMP
Architects: James, Meadows & Howard, and
Abbott, Merkt & Company
General Contractor: John W. Cowper Co., Inc.



EAGLE PARKING RAMP
Architects: James, Meadows & Howard, and
Abbott, Merkt & Company
General Contractor: John W. Cowper Co., Inc.

SLAB BAND FLOOR CONSTRUCTION, at Mohawk Ramp and Seneca Ramp, was necessitated by particular column arrangement.



CONCRETE REINFORCING STEEL INSTITUTE

38 South Dearborn Street • Chicago 3, Illinois

CLEAN WINDOWS *the Fast, Efficient* CLEVELAND TRAMRAIL WAY

MODERN buildings not only have more and larger windows than ever before, but because of air-conditioning, they are often non-opening. This necessitates providing some means for reaching them when washing the outsides, and sometimes for the insides also.

Even where provision is made for reaching the outside of a window from the inside, this usually is not desirable when a building is air-conditioned. Open windows quickly unbalance

an air-conditioning system, in warm weather and, of course, are undesirable in cold weather.

Cleveland Tramrail Window Washing Equipment offers a solution to the problem. It enables a man to reach every window quickly and wash them with complete safety. In addition, it facilitates other outside building maintenance such as pointing up, painting, minor repairs. The equipment is available for hand or electric operation.

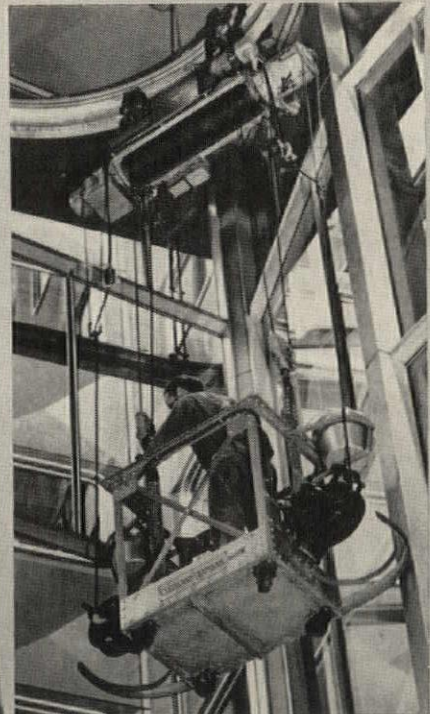
Write us for free
illustrated booklet
No. 2022
giving details.

CLEVELAND  **TRAMRAIL**

Overhead Materials Handling Equipment
2516 EAST 290TH ST., WICKLIFFE, OHIO



This modern glass-walled office lobby in the super-modern office building of Aluminum Company of America in downtown Pittsburgh is 4½ stories high. Cleveland Tramrail track circles the lobby both outside and inside. A motor-driven carrier and electric hoist is provided for each track loop. When a cage is attached to a carrier, a window washer can position himself at any part of a window by operating the simple hoist and travel controls.



Washing windows on the inside of the lobby. The same cage is used both outside and inside.

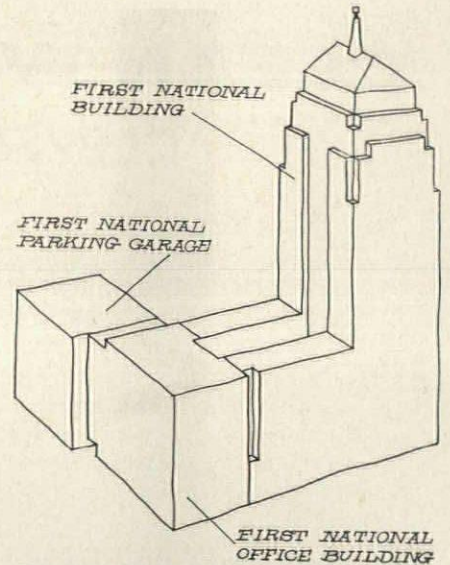
Downtown Bank Adds Garage With Drive-in Service

The First National Bank of Oklahoma City has provided for motoring customers in a 13-story extension which combines parking facilities for 465 cars and seven drive-in teller positions; the new building, on a site 125 x 140 ft, also includes 21,000 sq ft of office space, file rooms, an auditorium and a cafeteria. Sorey, Hill and Sorey were the architects, with Mack S. Martin Jr. of that of-

fice directing the project.

The building spans an alley to the rear and connects with a 14-story office building extension (now under construction) facing the street one block north, which in turn will connect with the existing 32-story First National Office Building. The main problems, the architect reports, were space and circulation requirements for the bank and garage—entirely independent operations. Building height was governed by the capacity

continued on page 258



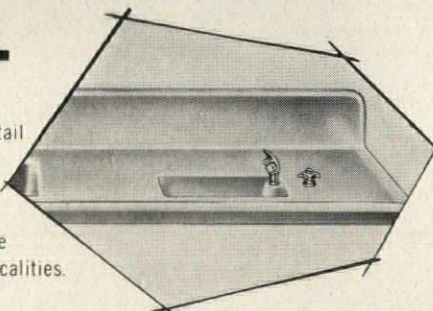
Drawing shows relationship of parking building to new office extension and existing 32-story bank. Below: exterior of parking building and views of basement level drive-in teller windows



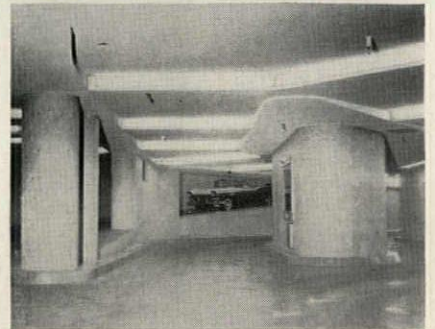
HAWS Series 2500 for versatile school applications.

ONE-PIECE INTEGRAL UNIT
 deck-top, receptor and fountain
 in lightweight, tough fiberglass.
Color, too, at no extra cost.
Look—no rims, no cracks, no
joints. It's all One Piece for
ultimate ease of maintenance
and sanitation.

Get the full story: write for detail sheets for Series 2500. A drinking fountain separate from main receptor is provided on Series 2700 "two receptor" units, to meet code requirements of certain localities.



HAWS DRINKING FAUCET CO.
 1443 FOURTH STREET (Since 1909) BERKELEY 10, CALIFORNIA





Daylight Research House, Ann Arbor, Michigan. Architect: Harris Armstrong, A. I. A., Kirkwood, Missouri. Decorator: Marian Quinlan, Chicago, Illinois



SEE HOW THESE NATURAL WOOD PELLA FOLDING DOORS harmonize with the walls, floor, ceiling, and furnishings of this room. And PELLA DOORS contribute to over-all excellence of room design, too—you can close for privacy, open to create attractive spaciousness. Handsome veneers of birch, pine, oak and Philippine Mahogany are available. Easy-to-install, doors are factory assembled, and come complete with all hardware.

WOOD FOLDING DOORS

ROLSCREEN COMPANY
Dept. J-11, Pella, Iowa
Please send literature featuring PELLA
WOOD FOLDING DOORS.



FIRM NAME _____

ADDRESS _____

CITY _____

ZONE _____

STATE _____

ATTENTION MR. _____

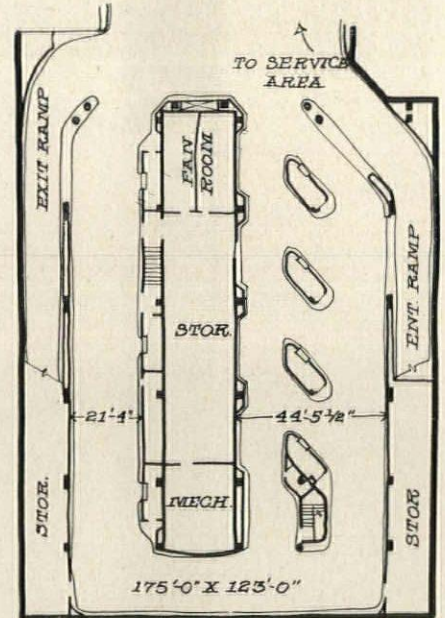
TEL. NO. _____

of the vertical transportation system.

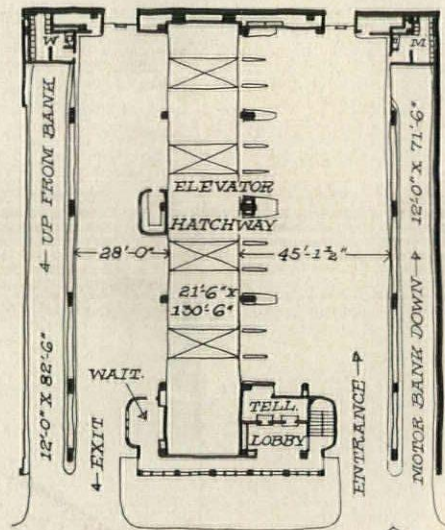
Access and egress were possible only from the front (see plans this page). Tellers' booths for drive-in banking service are located in basement; autos enter down approximately eight per cent slope from the east and circle around to any of the seven tellers' booths, exiting up a ramp on the west side to Main Street. Tellers' booths are serviced by pneumatic tube system. On the first floor is the elevator hatchway 21 ft 6

in. by 130 ft 6 in. servicing the four elevators used for parking automobiles on the 2nd through 12th floors.

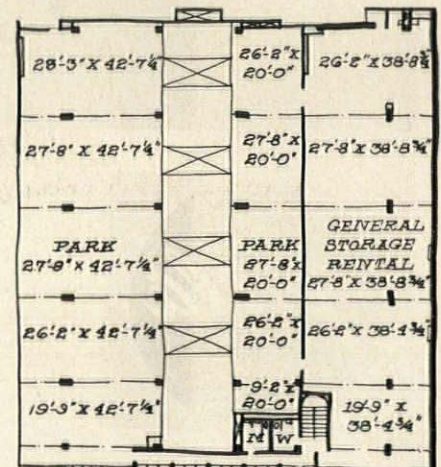
Structure is reinforced concrete throughout, substructure concrete piers to rock—approximately 50 ft. Cantilever of 13 ft on east and west property lines was to provide maximum space for entry and exit of automobiles. Exteriors are concrete, with yellow precast concrete aggregate and gold anodized aluminum panels on main facades.



BASEMENT



FIRST FLOOR



TYPICAL FLOOR

leading industries
use Robbins
maple floors*



Architects: Waasdorp and Northrup, Rochester, New York
Ritter Company, Rochester, New York

HERE'S WHY these leaders in their fields choose Robbins Ironbound, Continuous Strip, Northern Hard Maple Floors:

- Exceptionally long life (50 years or more)
- Hardness with resilience
- Smoothness and cleanliness
- Maximum ease of maintenance
- Lower cost in the long run
- Beauty and warmth of color

Sold and installed by approved and experienced flooring contractors only. Write Robbins, Reed City, for complete information. Attention Department AR-158.

ROBBINS FLOORING COMPANY

WORLD'S LARGEST MAPLE FLOORING MANUFACTURER

Reed City, Michigan

Ishpeming, Michigan

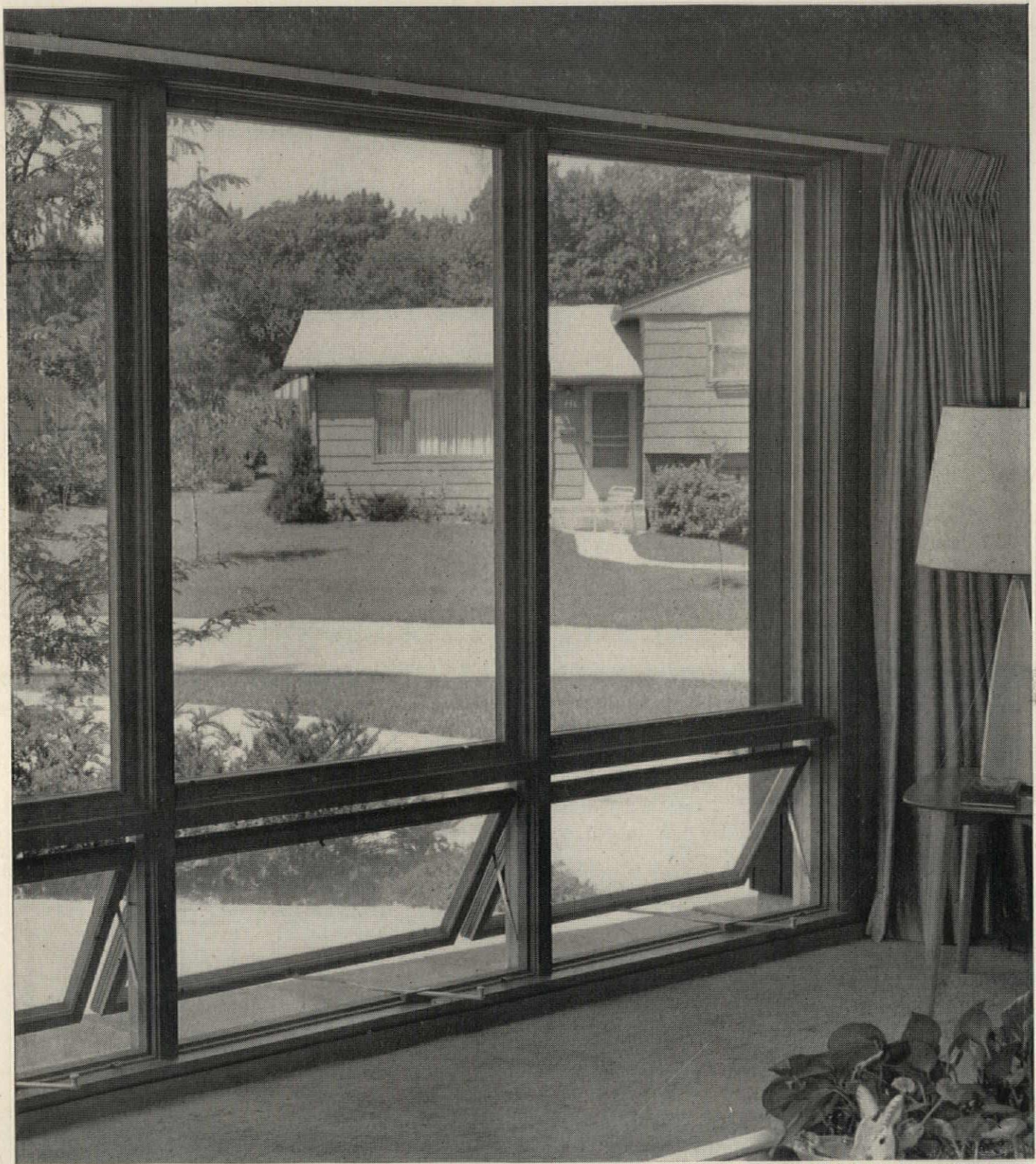
T.M. Reg. U.S. Pat. Off.

See our Catalog in Sweet's File



- American Bridge Co.
- American Can Co.
- American Tobacco Co.
- Chrysler Corp.
- Eastman Kodak Co.
- Ford Motor Co.
- General Motors Corp.
- Hart, Schaffner & Marx
- International Business Machine Corp.
- International Harvester Co.
- Liggett & Myers Tobacco Co.
- P. Lorillard Co.
- The Maytag Co.
- National Biscuit Co.
- Phillip Morris Tobacco Co.
- Radio Corporation of America
- Remington-Rand
- Saony Mobile Oil Co., Inc.
- Standard Oil Co.
- Stromberg-Carlson Corp.
- Studebaker-Packard Corp.
- United States Tobacco Co.
- Westinghouse

MILLIONS
WALK DAILY
ON
ROBBINS
FLOORING



G. B. Cox, Architect. Harvey Construction Co., Builder.



DRAMATIC WINDOW EFFECTS

like this are possible with PELLA MULTI-PURPOSE WINDOWS. 15 fixed and vented sizes can be combined to form numerous arrangements. And these are the *harmonious* windows—of warm, friendly wood. Not expensive either. PELLA'S exclusive GLIDE-lock underscreen operator is supplied *at no extra cost*. Self-storing inside screens and storms can be specified. Mail coupon today for literature.

WOOD MULTI-PURPOSE WINDOWS

ROLSCREEN COMPANY

Dept. J-10, Pella, Iowa
Please send literature on PELLA
WINDOWS.



FIRM NAME _____

ADDRESS _____

CITY _____

ZONE _____

STATE _____

ATTENTION MR. _____

TEL. NO. _____

ciple to high rise construction.

The brick and clay tile producers, and members of their auxiliary organization of dealers and distributors, heard Harry C. Bates, president of the Bricklayers International Union, warn of the encroachment of "other materials" on the market, and say in connection with the panel development that he would use all the power of his union to see to it that union men set these panels wherever they might be used.

S.C.P.I. members in attendance were told that the new educational program of the Institute was about ready to go and would be launched in the nation's collegiate schools of architecture in a few months. The purpose of this is to bring more information on brick and clay tile products to architectural students.

New Program Aims at Students

C. T. Grimm, assistant director of S.C.P.I.'s engineering and technology

department, explained that the need for such a program had been well established through a survey of the schools. This revealed, he said, that 80 per cent of the schools responding (about half those in the country replied) said they spend less than nine hours on structural clay in their courses, and half said they spend less than six hours. Most of the schools are located where there has been no promotional effort. The Institute's engineering department now hopes to go into these schools with a detailed brick and tile message.

Harold Hauf, dean of the School of Architecture at Rensselaer Polytechnic Institute, heads an advisory committee on this program.

The survey also turned up the fact that 77 per cent of the schools' libraries are without *Brick and Tile Engineering* and that 60 per cent would like to have lecturers come into their classrooms from the industry. Lecturers are desired, too, for student chapters of the American Institute of Architects, Mr. Grimm said.

Actual work demonstrations will be provided and wall and panel samples will be furnished.

More than half the schools answering S.C.P.I.'s questions said they wished their students could tour an operating brick plant. There was an indication that very few architectural students now in the collegiate schools do tour such plants.

Field trips for students to demonstrate clay product performance in comparison with other materials will be a part of this program as will "modern masonry" seminars and the training of brick and clay tile product salesmen.

Architect Urges Better Specs

An architect addressing the delegates was Frank Crimp, A.I.A., of Adden, Parker, Clinch and Crimp, Boston, Mass., who spoke on what the specification writer expects from industry. His speech embodied a mild reprimand for lack of clarity in some of the printed standards from which the specification writer and the architect must work. He said he would like to see S.C.P.I.'s engineers prepare a number of simple specifications on several different products with each spec custom-written.

"In writing specifications bear in mind that I (the architect) want a file reference which I can use, as nearly as possible, the way it is written," Mr. Crimp said. "I don't want to have to rewrite what is supposed to be your own specification."

continued on page 262

Monarch Door

Sold thru installing dealers only

SECTIONAL OVERHEAD DOORS

COMMERCIAL
AND
INDUSTRIAL
DOORS

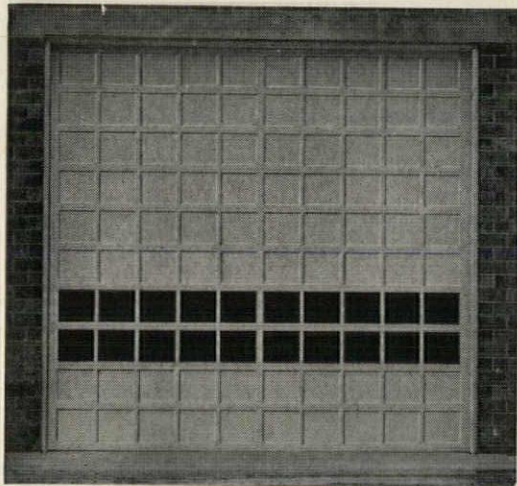


Monarch Sectional Overhead Doors can be installed in any industrial plant, wherever an opening is available, interior or exterior. Monarch Sectional Overhead Industrial Doors are the finest that experience and engineering skill can produce. They are usually BIG doors, involving elements of operation and safety that only real "Know-How" can successfully master. Hundreds of such doors, including some of the largest ever built, furnish evidence that MONARCH means the ultimate in efficiency, safety and satisfaction.

Various types of MONARCH Sectional Doors and equipment involved in their construction and use are described in our 45 Page Catalog. Yours for the asking.

New York Office
400 West St.

Telephone WAtkins 4-6511



Manufactured by

THE MONARCH DOOR, INC.

FOLSOM, PENNA.



WHAT...MUNTINS THAT SNAP IN AND OUT?

To speed window cleaning or painting, PELLA CASEMENTS now have muntins that can be easily snapped in and out! They are held securely to the sash by hidden ball-and-socket connectors, and their position between the exterior glass and interior dual glazing panel protects them from the elements. This optional removable feature is available in both regular and horizontal muntins, lending a traditional appearance to the window while offering the convenience of

an unobstructed pane of glass whenever it is desired.

Other new features of these *wood casements* include a narrow, 4 $\frac{3}{8}$ " over-all frame, continuous cove at head and sill for composite groupings, and a new *wood* operator sill. The ROLSCREEN, with its convenient window shade action, has a new, simplified catch.

The steel frame, which makes the PELLA CASEMENT an exceptionally rugged unit, is, of course, retained.



For news of design improvements on all PELLA WINDOWS, see our catalog in Sweet's or fill out and mail coupon today.



WOOD CASEMENT WINDOWS

ROLSCREEN COMPANY, Pella, Iowa
Dept. J-9

Please send your 1958 catalog of PELLA CASEMENT, MULTI-PURPOSE and TWINLITE WINDOWS.

FIRM NAME _____

ADDRESS _____

CITY _____

ZONE _____

STATE _____

ATTENTION MR. _____

Inadequate and confusing specifications often mislead builders, he remarked, noting that today's buildings are larger and more complicated; that it is harder now to define responsibilities of the various trades; and that architects have less and less time to learn about materials. He held that specifications should indicate the type and quality of materials desired; should show clearly whether perfection is required or standard quality, or if price is

the controlling factor. And in his opinion, no architect should become too deeply involved in specifications writing. This work should be delegated to office specification writers to leave the architect free for overall development of final plans.

Mr. Crimp called upon the design professions to provide leadership in the industry and he urged S.C.P.I. and the Producers' Council, Inc., to work with architects and engineers in developing new materials as the

architect and engineer define new needs.

The Military Building Outlook

The course for military expenditures in construction was outlined by H. B. Zackrison Jr., chief of the engineering division office of the Army Corps of Engineers. He indicated the outlays would level off rather than diminish in 1958. Caught by an expenditure ceiling, the services can obligate additional construction only within a narrow range dictated by obligations already incurred in relation to the ceiling.

The Army's limit is around \$350 million for the current fiscal year ending June 30. Only \$40 million to \$50 million more can be obligated, meaning contract awards will be deferred to May or June and no actual expenditures made on the projects this fiscal period.

The Air Force ceiling approximated \$1 billion, Mr. Zackrison said. As with the Army, the difference between already generated expenditure requirements and the ceiling is such that only nominal amounts of added contract awards will show up prior to May or June.

But these limitations have the effect not of diminishing the volume of material required for the programs but rather of leveling off these requirements, the speaker said.

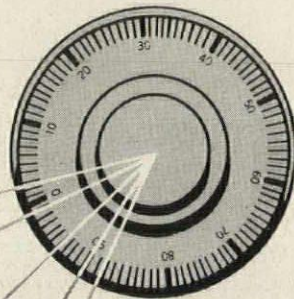
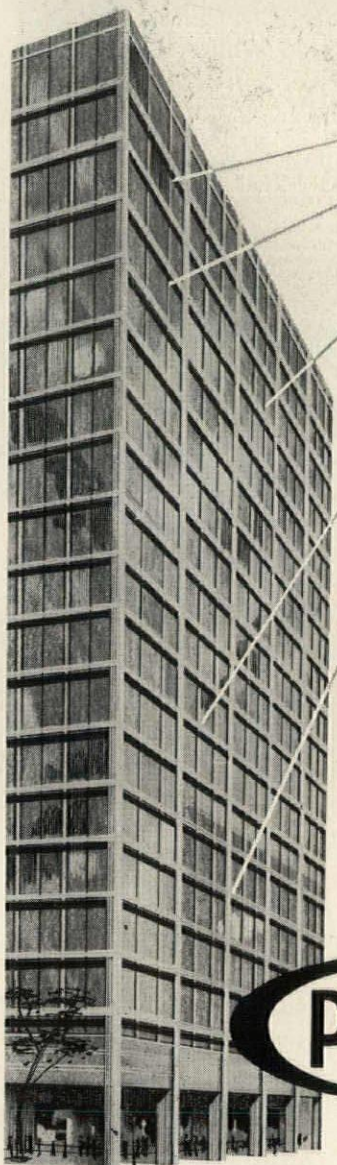
The percentage of volume apportioned for building construction in the programs is somewhat less now than it has been in previous years. Improved standards are evident in both exterior appearance and quality of structure, the Corps spokesman asserted. Current military designs, said Mr. Zackrison, for both barracks and bachelor quarters specify brick exteriors. Inside, engineers have called for a greatly increased use of glazed tile, particularly in halls and latrines. Standard plans and definitive drawings for many other types of buildings—post restaurants, guest houses, Army Reserve Centers, regimental dispensaries and post exchanges—embrace increased use of brick, he said.

Still other improvements noted by Mr. Zackrison were use of more overhangs at eaves, improved fenestration, architectural treatment of the main entrances, and improved interior finishes. An increased number of these improved types are coming up for bidding soon, Mr. Zackrison said.

The 40,000 Capehart housing units programmed by the military are generating a far larger demand for brick and clay tile products than are projects to be built with approx-

continued on page 264

"MODULUS CONTROL"
in curtain wall construction



it's in the combination—

COAST PRO-SEAL caulking and glazing compounds and expansion joint sealants, based upon Thiokol* liquid polymers, are so chemically formulated that they *will not create* within themselves or at their contact faces undue stress which would destroy their sealing qualities. COAST PRO-SEAL sealants are known for their "built-in" properties which relieve their own stresses, maintaining a low permanent modulus as the materials sealed expand and contract with temperature changes and variations in environmental conditions.

*For Caulking, Glazing and Expansion Joints:
Curtain Walls . . . Tilt-Up Panels . . . Window Glazing
Porcelainized Metal Panels . . .*

Stone, Brick and Masonry Sealing

ADHESION WILL ALWAYS BE GREATER THAN COHESION
Colors Available—Black, Grey, Aluminum, Tan and Gold

*The registered trademark of the Thiokol Chemical Corporation

See our catalog in SWEET'S
1958 Architectural and
Industrial Construction File

Coast Pro-Seal & Mfg. Co.

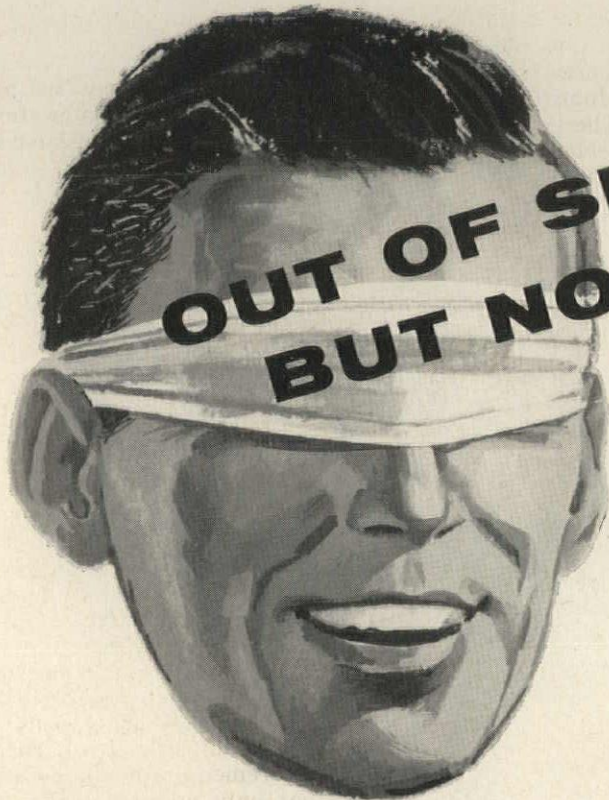
2235 Beverly Boulevard, Los Angeles 57, California



"To Seal and Protect"

Chemical Division:
Los Angeles, California

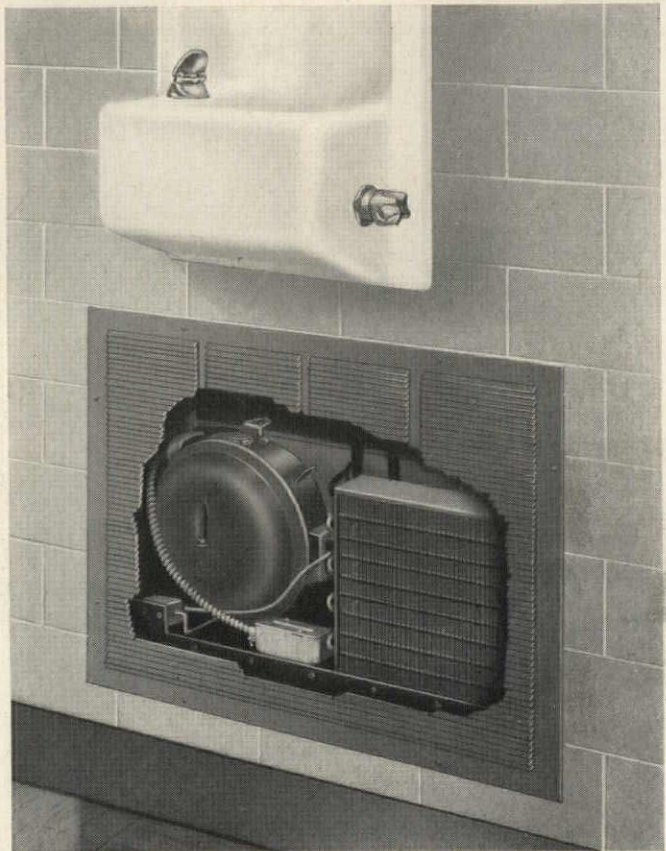
Metals Division:
San Marcos, California



**OUT OF SIGHT...
BUT NOT OUT OF MIND**

**The sensational, new
OASIS
IN-A-WALL
Water Cooler**

So thin, an 8" wall can hide it!



The Oasis In-A-Wall Water Cooler is new, slender, inconspicuous . . . so thin it can be specified for mounting in an 8" wall. It supplies refreshingly cold water—'round-the-clock—to as many as four new or already installed remote drinking fountains, in restaurants, office buildings, factories, institutions, *even homes*.

The In-A-Wall Water Cooler is super-compact, extremely versatile. It mounts and performs equally well on joists, in closets, or on-a-wall.

Oasis engineers endowed the In-A-Wall with the capacity and endurance of a giant, the slenderness of a nymph, the versatility of an acrobat, and enough design potential to kindle a gleam in an architect's eye.

Comes in two models—IW-5 supplies 5 GPH, sufficient for 60 persons in offices or schools, 35 in light industry. IW-10 supplies 10 GPH, enough for 120 people in offices and schools, 70 in light industry.

OASIS Water Coolers for Every Requirement

The complete Oasis Water Cooler line includes models with capacities from 2 to 35 GPH, hand or foot operated, pressure or bottle, stainless steel, heavy duty, explosion proof, air-sealed industrial, juvenile, refrigerated compartments, and the famous Oasis Hot 'n Cold which makes piping hot water as well as cold.

For complete specifications and roughing-in details, mail coupon below



OASIS

WATER COOLERS

The EbcO Manufacturing Company, Columbus 13, Ohio
Manufacturers of the most complete line of water coolers
DISTRIBUTED IN CANADA BY G. H. WOOD & CO., LTD.

**THE EBCO MANUFACTURING COMPANY
Dept. 3-G, Columbus 13, Ohio**

Send Oasis In-A-Wall specifications and roughing-in details.

name _____
company _____
address _____
city _____ zone _____ state _____

priated funds; 27,000 of these were either under design or construction in November.

Altogether, several hundred different types of plans have been developed so far in the Capehart housing program—and all new designs are being prepared on the basis of modular measure. The Corps official explained that "we are currently studying the best of all these plans with the idea of adopting a relatively few as standards."

Dunwoody Heads Institute

Kenneth W. Dunwoody, Cherokee Brick and Tile Co., Macon, Ga., was elected president of the Institute, succeeding John H. Stewart of Canton, Ohio. The new vice president is Paul B. Belden, Jr., Canton, and George Gammie of Chicago was re-elected treasurer. Joseph J. Cermak of the Washington headquarters office continues to serve as secretary, and Douglas Whitlock as chairman of the board of general counsel.

Conventional Mortgage Aid System Proposed by Cole under FHA

Housing Administrator Albert M. Cole's tentative proposals for a partial mortgage insurance system in the Federal Housing Administration stirred up many shades of comment in the home financing industry and on Capitol Hill. There were accusations that the Federal agency was presenting essentially the same plan that the U. S. Savings and Loan League had proposed earlier, and Rep. Albert Rains (D-Ala.), housing subcommittee chairman, challenged the plan on grounds it would not achieve its objective.

Mr. Cole claimed that a partial canvass of industry had convinced him there would be no major resistance to the scheme.

Essentially, the FHA would supplement its present home loan insurance programs with the new scheme—a partial insurance of otherwise conventional mortgages. FHA would be insuring perhaps the top 20 per cent of these loans and with a minimum of participation feels it could dispense with much of the processing details attached to handling 100 per cent insured paper.

The housing administrator stresses the flexibility of such a plan and claims it could free large amounts of money for home mortgages that are not now attracted to this market. Application would be to single family units only.

Perhaps the most controversial feature of the plan is the fact that FHA would not specify any interest charges on such loans. The FHA commissioner would have the power to "take remedial action" in regard to rates, however, if he found it in the public interest to do so. Mr. Cole thinks that under this plan the small builder and small lender concerned with his own portfolio would be drawn toward its asserted advantages. He does not think that the loans should be made eligible for purchase by the Federal National Mortgage Association. Mortgage writing would be primarily the concern of the lender and this would be one reason that FHA itself would have less detail work to perform. As the plan was announced, not even the Minimum Property Standards which are essential in the operation of present FHA programs would apply to the new partially insured properties.

But Mr. Cole insisted the interests of the buyer would be fully assured under terms of the proposals. He adds that, like the Certified Agency Program now being tested in several

continued on page 266

Prevent Leaks
... in curtain walls

New glazing and sealing techniques and products developed by Tremco research can insure leak-free curtain wall installations.

You'll find important information and specifications in a brand-new publication "SEALING GLASS AND PANELS IN CURTAIN WALL CONSTRUCTION."

Ask your Tremco Man for a copy, or write: The Tremco Manufacturing Company, 8701 Kinsman Road, Cleveland 4, Ohio, or The Tremco Manufacturing Company, (Canada) Limited, Leaside, Toronto, Ontario.

"When You Specify a Tremco Product — You Specify a Tremco Service!"

TREMCO
 PRODUCTS AND METHODS FOR BUILDING MAINTENANCE & CONSTRUCTION

Sealing Glass and Panels in CURTAIN WALL CONSTRUCTION



How Gold Bond's WIRETITE CEILING SYSTEM earns up to 4-Hour fire ratings

This workman is snapping up a field clip on the Gold Bond Wiretite base for a ceiling with a one-hour fire rating. The same basic system is used for ratings *up to four hours*.

One-hour. 2" reinforced concrete floor slab; SJ-102 open web steel joists, 24" o. c.; $\frac{3}{8}$ " perforated gypsum lath field-clipped to $\frac{3}{4}$ " c. r. furring channels, 16" o. c.; wire-tied to joists. Plaster thickness — $\frac{5}{8}$ ".

Two-hour. Same as "1" but with SJ-103 joists and supplementary 14 gauge diagonal wire reinforcing. Plaster thickness — $\frac{1}{2}$ ".

Three-hour. Same as "2" except $\frac{3}{4}$ " furring channels 12" o. c. Plaster thickness $\frac{3}{8}$ ".

Four-hour. Same as "3" with supplementary 1" 20 gauge hexagonal wire mesh reinforcing replacing diagonal wires. Plaster thickness — 1".

Specify Gold Bond Gypsum Lath, Plaster and Finish Lime with Gold Bond® Wiretite Ceiling System—benefit from "Undivided Responsibility." National Gypsum Company, Buffalo 2, N. Y.



NATIONAL GYPSUM COMPANY

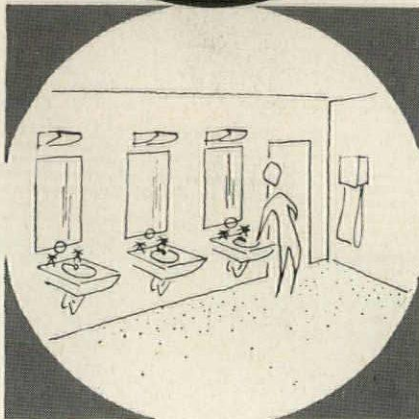
new

lighting
design
by

mcPhilben



37-60 LINE



mcPhilben's new 37-60 line designed by E. Allan Rothman provides the most efficient lighting of fitting rooms, mirrors, stair landings, telephone bookstands . . . wherever localized illumination is desirable.

Available in both fluorescent and incandescent models offering these exclusive features: continuously hinged doors for easy relamping . . . all metal construction . . . baked on grey enamel finish . . . removable reflectors for easy access to electrical components.

37-60 Two 60 watt lamps

37-65 Two 15 watt T-8 fluorescent lamps

Contact your mcPhilben representative for full details. See our insert in Sweet's file 32a or write for data sheet C/27 mc

mcPhilben

LIGHTING COMPANY

1329 WILLOUGHBY AVENUE, BROOKLYN 37, NEW YORK

Washington Topics

remote areas, the new partial insurance plan would "extend the area of service and broaden the base" of the government's housing operations.

A number of questions have been posed since this trial balloon ascended. Will Congress approve a system of government insurance of a loan, no matter how small the portion is, without a prescribed interest rate range? Can it draw more money into the market through its features of a reasonable down payment (10 per cent was talked about), longer amortization periods, the single mortgage, and low monthly payments? Will the plan provide substantially more housing for people of modest means? Mr. Cole believes there is an affirmative answer to these questions but admits that only trial in the marketplace could prove his convictions.

Looser Money

The housing agency announcement came on the heels of Federal Reserve Board action reducing rediscount rates at member banks. There were those who considered the FRB action a recognition that the nation's economy was pointing downward. Among these were representatives of organized labor. Said George Meany, AFL-CIO president, "The FRB's action is in the direction of encouraging economic growth at a time of declining employment and production, but it is merely a partial step as well as a belated one. A general reversal of the government's tight-money policy is needed to bolster the economy. . . . Long-neglected Federal public service and social welfare programs should be started as soon as possible. Such programs include Federal aid for education, Federal assistance for communities of chronic economic distress and a concerted Federal effort to provide public housing for low income families and to stimulate private and cooperative home construction for middle income groups."

—And Tightening Spending?

But the Federal government was not about to plunge into a program of "socialized" constructions. The signs pointed the other way. The Civil Aeronautics Administration was delaying its call for airport project applications for fiscal 1959. The announcement usually comes around September 1. Some observers read into the delay a disinclination on the part of the Administration to

continued on page 270



I specified

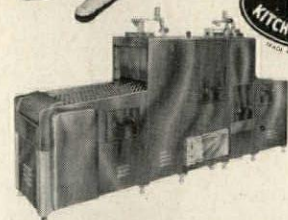
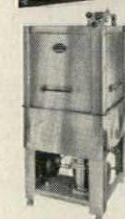
BLAKESLEE KITCHEN MACHINES



"IT PAYS TO
SPECIFY THE BEST!"

Architects everywhere receive commendations when they specify Blakeslee. SAVINGS IN LABOR and FASTER SERVICE are built-in features on Blakeslee Kitchen Machines. Write for complete file of specifications and engineering data. It will pay for you to "Specify the Best."

Since 1880



G. S. BLAKESLEE & CO.

1844 S. LARAMIE AVE.

CHICAGO 50, ILL.

NEW YORK • LOS ANGELES • TORONTO

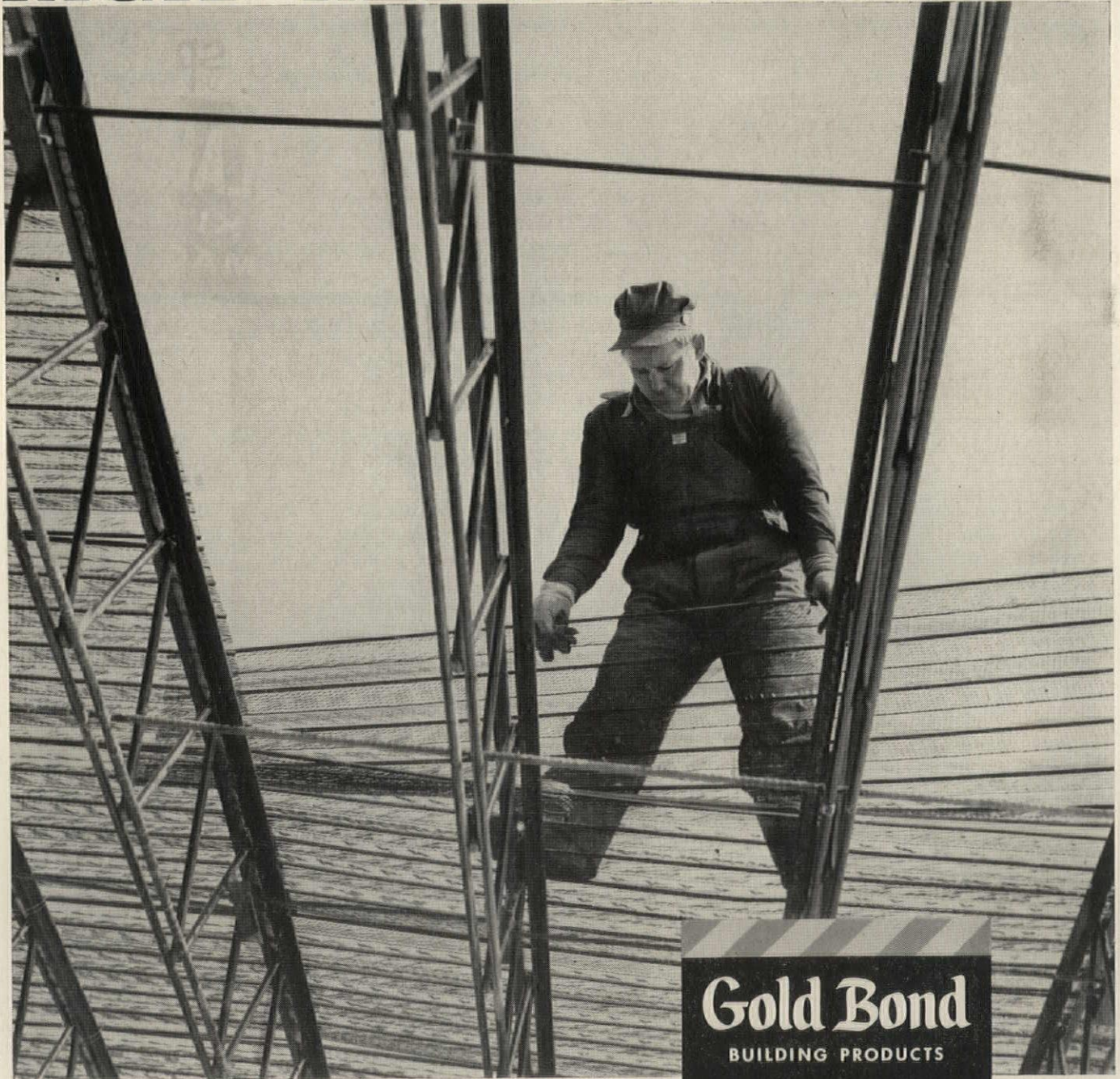
Gold Bond Metal Lath Centering

You combine a rigid pouring form with excellent slab reinforcement when you specify Gold Bond $\frac{3}{8}$ " Rib Lath for centering in poured concrete roof and floor slabs.

Gold Bond® $\frac{3}{8}$ " Rib Lath offers exceptional reinforcing for concrete because it is mechanically bonded to the very bottom of the slab — the place where tension stresses are greatest. And there's no need for stretching or for erecting costly temporary bracing — the lath is simply laid across the joists and easily clipped in place.

For complete technical data, write Dept. AR-18, National Gypsum Company, Buffalo 2, New York.

RIGID REINFORCEMENT

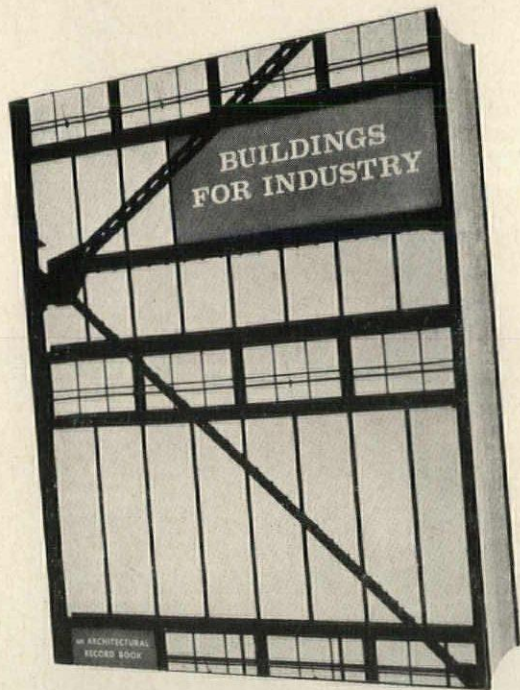


Gold Bond
BUILDING PRODUCTS

NATIONAL GYPSUM COMPANY

JUST PUBLISHED—7 years of new
developments in industrial building technology

BUILDINGS FOR INDUSTRY



315 pages, large 8¾ x 11⅝" size
Over 500 photographs; over 200 drawings
Complete 7-page master index
Contains the work of leading
architects and engineers
Includes 74 detailed building studies

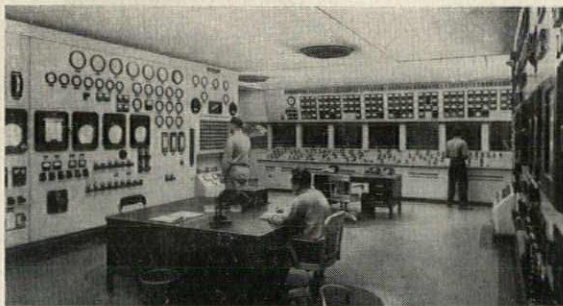
only \$9.75

SUPPOSE you were to take a tour of some of the finest new industrial buildings in the world — 74 of them in all. These plants are in widely scattered locations, and engaged in scores of different operations. In each plant your tour would be conducted by the architect, engineer, and management personnel. They would thoroughly analyze the building — show you how it meets the needs and policies of the company, explain their choice of site, plan, lighting, colors, loading docks and rail spurs, employee facilities, and many more features.

IN ADDITION suppose that you could also attend a conference on industrial architecture. Here architects, engineers, and experts in allied fields would discuss hundreds of today's problems in the field. For example, an electrical engineer would discuss the planning of electrical systems, a restaurant consultant would give you the latest information on employee cafeterias, and the president of a large corporation would define the guiding principles used in the design of all his firm's factories. Nine other experts on industrial building design would speak.

SOUND WORTHWHILE? Of course. Yet a tour of this sort would cost you a great deal in time and money. Now, however, every bit of the knowledge you would gain from such a tour can be found in one new book — **BUILDINGS FOR INDUSTRY**. With over 500 photographs and 200 drawings and illustrations, it analyzes 74 new industrial buildings in great detail, and discusses hundreds of today's problems in industrial building design.

To order this new book, just fill in the coupon below and mail it to us. We'll send your copy right away on ten-day free trial.



organized into 7 important sections

1. DESIGN PRINCIPLES—New trends and factors in industrial building planning. Points up the vast changes in planning resulting from our advanced technology coupled with new relationships between the employee and the company.

2. WAREHOUSING—Technical studies of 12 superior new warehouses, showing new methods of materials handling, the architect's role, and trends. Fully illustrated.

3. LIGHT INDUSTRY—Analyzes 17 new light industrial projects. A lumber yard, steel fabricating plant, dye and ink works, others. Some special attention to tilt-up and lift-slab construction.

4. CONSUMER GOODS—Case studies of 17 plants where economical, efficient movement and processing of materials from receiving to shipping are paramount. Special attention to exterior design and landscaping.

5. MANUFACTURING LABORATORIES—In these 6 projects the exacting requirements of light, air conditioning, sanitation, and other environmental controls were diligently solved.

6. UTILITIES AND SERVICE INDUSTRIES—13 of these plants where design and function have been carefully integrated. Includes power plants, telephone building, and a maintenance shop.

7. HEAVY INDUSTRY—Detailed studies of 9 large projects producing such items as machine tools, finished automobiles, and helicopters. Demonstrates many new factors in industrial architecture such as the dramatic effect of automation on design.

DODGE BOOKS, F. W. Dodge Corporation
119 W. 40th Street, New York 18, N. Y.

Send me copies of *Buildings for Industry* @ \$9.75 each.
After ten days I will either remit the price plus a few cents
postage, or return the book without cost or obligation.

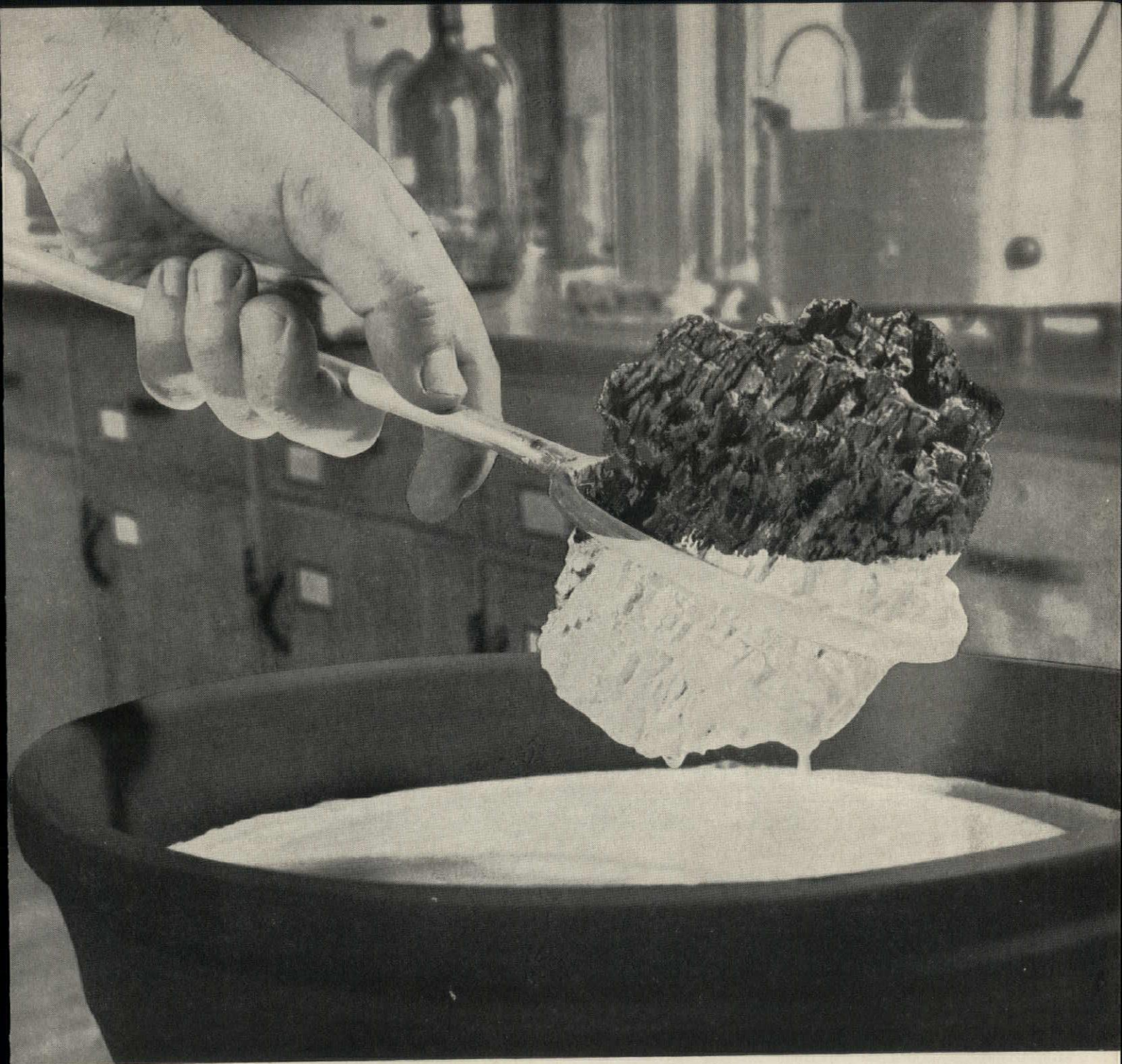
NAME

ADDRESS

CITY Z STATE

Check enclosed. Same return privilege; Dodge pays postage.
951

**MAIL THIS COUPON
FOR PROMPT DELIVERY**



Dye maker brightens fuel cost picture

Burning coal at Toms River-Cincinnati saves 20% on fuel costs, permits clean steam generation

The ultra-modern Toms River-Cincinnati Chemicals Corp. plant in Toms River, N. J., produces millions of pounds of dyes a year. A large, dependable steam supply is necessary in this operation for chemical processes and heat. To fill these requirements, the firm's power plant burns *coal*—since the cost of the nearest competitive fuel runs 20% higher. In addition, thanks to automatic operation and modern equipment, the power plant meets the rigid standards of cleanliness required

in such manufacturing operations.

Consult an engineering firm

If you are remodeling or building new power facilities, consult a qualified engineering firm. Such concerns—familiar with the latest in fuel costs and equipment—will effect great savings for you in efficiency and fuel economy over the years.

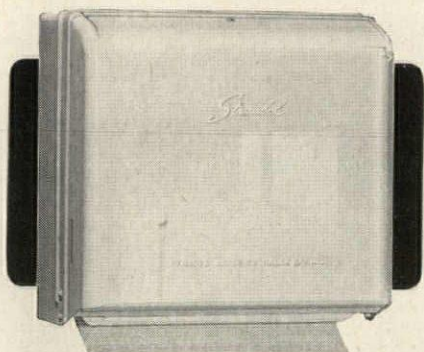
Facts you should know about coal

Not only is bituminous coal the lowest-cost fuel in most industrial areas, but

up-to-date coal burning equipment can give you 10% to 40% more steam per dollar. Today's automatic equipment pares labor costs and eliminates smoke problems. And vast coal reserves plus mechanized production methods mean a constantly plentiful supply of coal at stable prices.

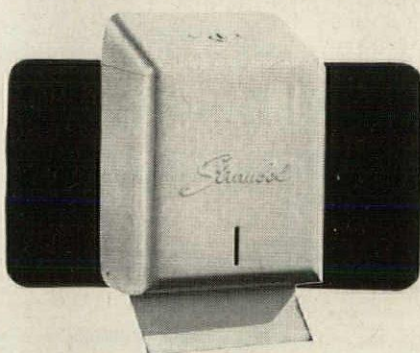
For additional case histories on burning coal the modern way or for technical advisory service, write to the address below.

There's **MORE** to These
Dispensing Cabinets
Than Just Appearance



Singlefold Towel Dispenser
Holds Two Full Packages!

Large capacity and full front opening permits quick loading of more than 500 towels — enough to cut servicing costs in half. Heavy gauge steel with baked-on White enamel finish. Positive dispensing of any standard size singlefold towels. Key lock, 11 $\frac{3}{4}$ " square, 6 $\frac{1}{4}$ " deep — Specify No. 82-2. In Chrome, No. 82-4.



Dual-Purpose Toilet Cabinet
Dispenses Singlefold
or Doublefold Tissues

Attractively designed cabinet of heavy gauge steel with baked-on white enamel finish. Hinged front opening for easy loading. Positive dispensing of any standard size singlefold or doublefold tissues. 8" high, 4 11/16" wide, 3" deep — Specify No. 22. In Chrome, No. 24.

**SATISFY CUSTOMERS WITH THESE AND
OTHER STRAUBEL DISPENSING CABINETS**

There's a Straubel cabinet or fixture made for any standard size hand towel: or toilet tissue of either roll, inter-folded or recess type packet. All are durably constructed, streamlined in appearance and beautifully finished. Write for complete descriptive literature, BOX AR-57.



STRAUBEL PAPER CO. • GREEN BAY • WIS.

Washington Topics

seek an extension of the program beyond its expiration in fiscal 1959. If such was the intention, it would be indicated by a delay of the sort occurring, they pointed out. The CAA and the Undersecretary of Commerce for Transportation continued non-committal on the point. There was a fear the delay would push bond sales so far back that much of the spring construction season would be lost.

Meanwhile, state representatives on the President's Federal-State Task Force agreed that the states could take over gradually the government's program of advance planning grants for urban renewal projects. Public housing seemed to be the one field in which these state representatives felt the responsibility should remain primarily that of Uncle Sam. They voted down a proposal that states take over a small portion of the Federal subsidy payments on future low rent housing projects. A new study of the entire public housing and urban renewal picture in reference to Federal-state responsibilities is in prospect, however.

**50,000 Brochures Recruit for
Modular Building Standards**

The new Modular Building Standards Association launched its initial membership drive by sending out some 50,000 brochures inviting affiliation. The four sponsoring organizations shared the task of mailing the membership invitations, each sending out a batch under covering letters. Sponsors are the American Institute of Architects, Associated General Contractors of America, National Association of Home Builders, and the Producers' Council, Inc. All segments of the construction industry have been covered—architects, contractors, home builders, suppliers, dealers, etc.

The M.B.S.A. has been described by its first president, Cyrus E. Silling, F.A.I.A., Charleston, W. Va., as a national nonprofit organization dedicated to the promotion by education and other means of the acceptance and application of the principles of modular measure and related subjects. It aims to apply MM to the field of planning for construction, and to the dimensioning of the materials, appliances and items of equipment employed in construction and related activities.

Any person, association, firm or corporation in sympathy with these objectives is eligible for membership.

continued on page 274

Specify
HUNTINGTON CONCRETE SEAL
FOR DURABLE FINISHES



ELIMINATE

- EFFLORESCENCE
- DUSTING
- BLOOMING

Floors treated with Huntington Concrete Seal have an attractive, colorless, anti-slip sheen that lasts. The tough, rubberized film protects against pitting and chipping, resists water, grease and oil stains. Huntington Concrete Seal is easy to apply, dries rapidly to permit traffic within 4 hours. Floors need no pre-etching and the sealed surface may be painted.

Concrete floors have a rough surface that grinds off with ordinary wear, and is tracked on to other floors. Floors treated with Huntington Concrete Seal are free from this irritating "dusting." Since it forms a waterproof film on the porous surface, Huntington Concrete Seal also eliminates unsightly "blooming" and efflorescence.

If you are planning concrete floors for any building, we urge you to investigate Huntington Concrete Seal . . . the durable finish that simplifies maintenance.



See our catalog in
Sweet's
or write for copy

**WRITE TODAY FOR
FREE CATALOG**

. . . or see listing $\frac{13m}{Hu}$
in the Sweet's
Architectural File.

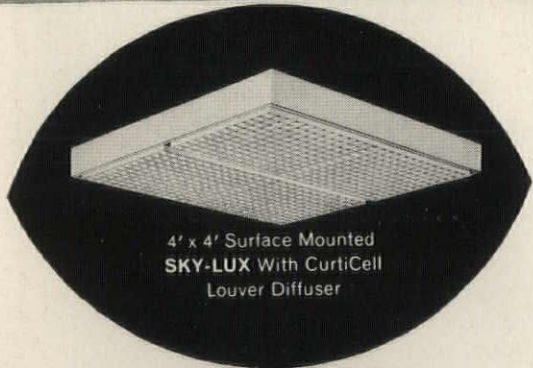
HUNTINGTON LABORATORIES

INCORPORATED

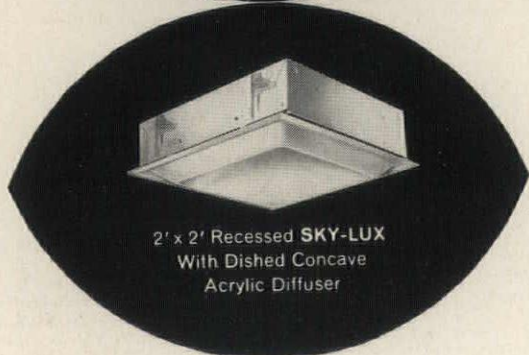
Huntington, Indiana
Philadelphia 35, Pa. • Toronto 2, Ontario

Foresight is a habit
with Curtis . . .
Visioneers in planned lighting

Curtis **SKY-LUX** fluorescent luminaires bring out the natural brilliance of displays in the China department, Dayton's Southdale Regional Shopping Center, Minneapolis, Minn. Architect and Engineer: Victor Gruen & Associates.



4' x 4' Surface Mounted
SKY-LUX With CurtiCell
 Louver Diffuser

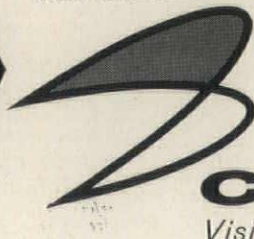


2' x 2' Recessed **SKY-LUX**
 With Dished Concave
 Acrylic Diffuser

*High-level illumination in modern low-ceiling design
 achieved with Sky-Lux Luminaires*

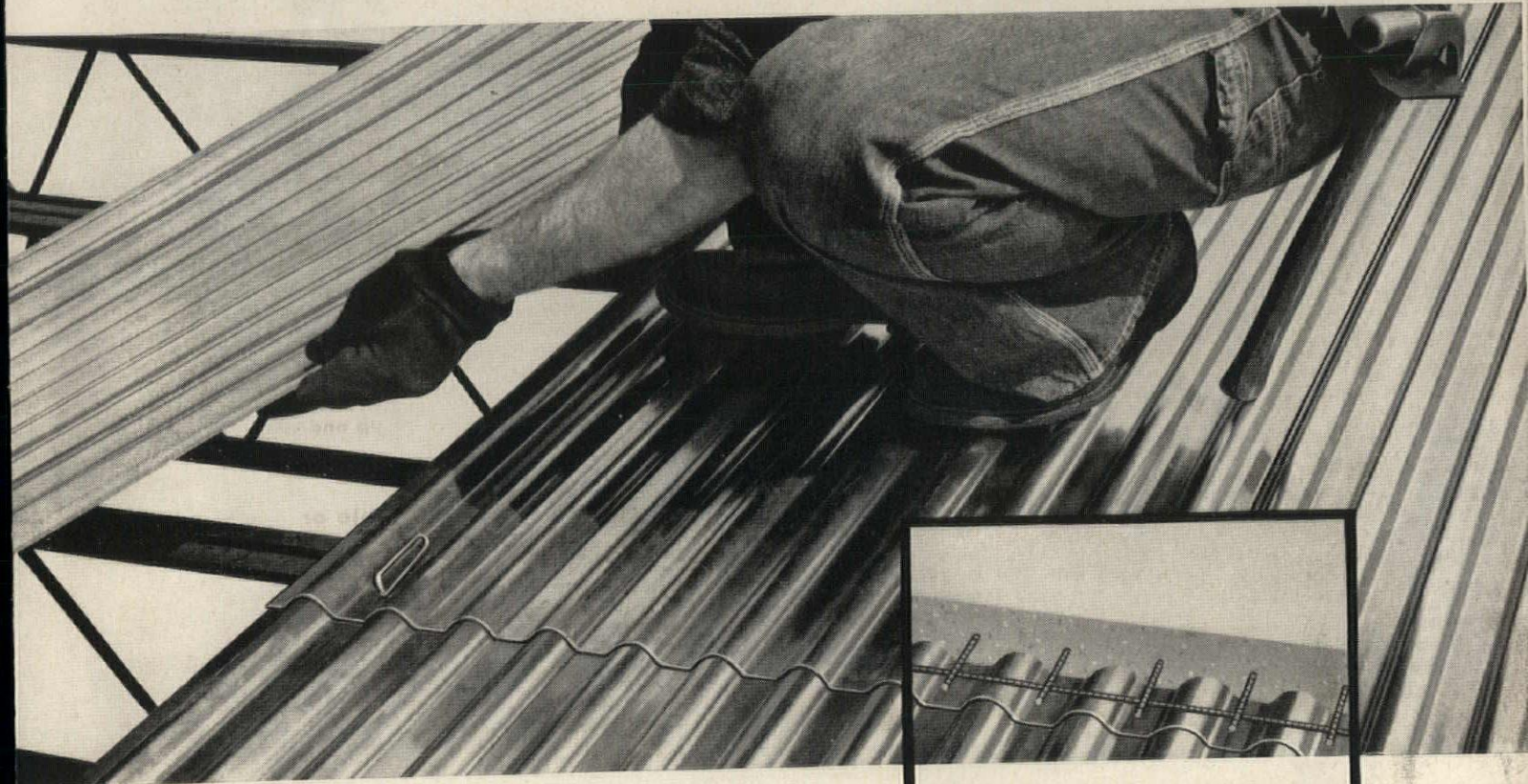
The evolution in modern building methods challenges the skill, originality and versatility of product manufacturers as well as designers and engineers. Anticipating the trend to low-ceiling structural design in today's commercial interiors, Curtis visioneers meet the demand for large area fluorescent lighting that combines overhead beauty with properly diffused general illumination. Curtis **SKY-LUX** luminaires complement all the esthetic qualities of modern architectural form . . . provide controlled high-level illumination void of objectionable shadows. Curtis can supply many types of bottom enclosures in many sizes of large area fluorescent luminaires, either recessed or surface mounted. Write today for complete information

about Curtis **SKY-LUX**. Curtis Lighting, Inc., 6135 W. 65th St., Chicago 38, Illinois. In Canada: 195 Wicksteed Ave., Toronto 17, Canada.

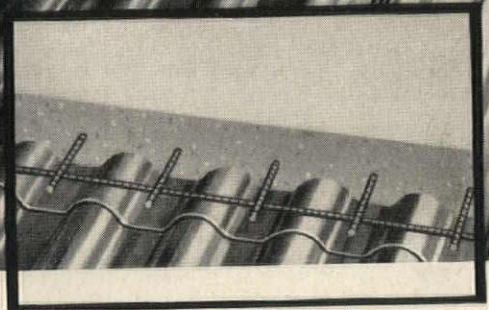


CURTIS
Visioneers in Planned Lighting®

HERE'S WHY BETHLEHEM SLABFORM Saves You Time and Money



Bethlehem Slabform provides a safe working platform

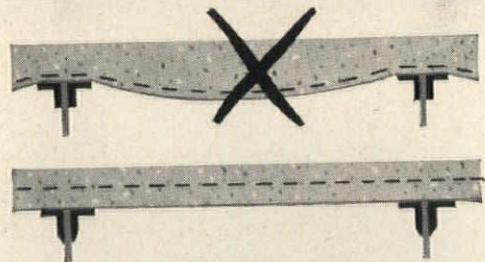


Finishing operations start sooner

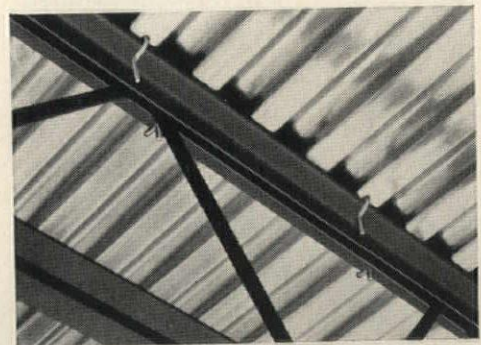
Here are seven reasons why you can save both time and money by using Bethlehem Slabform, the steel form for concrete floors and roofs over steel joists:

- 1. The solid Slabform permits concrete finishing to start much sooner than is possible with "flexible" centering. You can pour, level, screed, and finish without time lag, saving considerable time and labor.
- 2. Eliminating the sag that occurs with "flexible type" centering saves $\frac{1}{2}$ in. or more of concrete. For a $2\frac{1}{2}$ -in. slab this represents a concrete saving of approximately 20 per cent.
- 3. Slabform prevents concrete leakage and greatly reduces clean-up costs.
- 4. Slabform prevents rapid run-off of water, permitting proper "hydration" during curing period, resulting in stronger concrete.
- 5. Slabform prevents formation of "incipient cracking" which often occurs with "flexible type" centering in poured areas adjacent to those being concreted.
- 6. Just an ordinary pair of tin shears is all that's needed to cut and fit Slabform around special openings.
- 7. Slabform can easily be installed with clips (illustrated) or by welding through wing washers or by means of self-tapping screws.

Bethlehem Slabform makes the pouring of floors and roofs simple and rapid. Made from steel having a yield point of approximately 90,000 psi, Slabform provides a strong, stiff formwork. Slabform comes in laying widths of 24 in. and in lengths of 6 ft 3 in., 8 ft 3 in. and 10 ft 3 in., including 3 in. for end laps. Gage is 0.0156 in.



Eliminates sag, saves concrete



No leakage, reduces clean-up costs

BETHLEHEM STEEL COMPANY, BETHLEHEM, P.A.
On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. Export Distributor: Bethlehem Steel Export Corporation

BETHLEHEM STEEL



FOR SWIVEL LIGHTS

PRESCOLITE IS PREFERRED

HERE'S WHY...

EXCLUSIVE "DieLux"
DIECAST CONSTRUCTION

Heavy duty
swivels
hold
tension
indefinitely



9 beautiful
finishes to
choose from

A-14

Choice of metal cones; or Fabriglas
cones, with embedded maple leaves,
ferns, or rattan. (Also available in
white.)

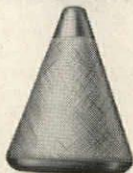
These are just a few of the features
that make Prescolite Swivel Lights the
finest available.



A-1393
WITH NATURAL
MAPLE LEAVES



B-1394-2
WITH NATURAL
FERN LEAVES



B-1396-3 WITH
EMBEDDED RATTAN



AX-14 WITH
PERFORATIONS

Swivel lights are
available in single,
double or triple
mountings.

WRITE FOR YOUR COPY OF OUR
CATALOG ON THE COMPLETE LINE OF
PRESCOLITE LIGHTING FIXTURES.

PRESCOLITE MANUFACTURING CORP.

2229 4th St., Berkeley 10, Calif.
Easton Road, Neshaminy, Penna.

Washington Topics

Housing Inventory Shows Increase Below New Construction Total

Preliminary figures from the 1956 National Housing Inventory have just been released by the Bureau of the Census showing a net increase of 9.4 million dwelling units (farm houses included) in the United States between April 1, 1950 and December 31, 1956. The Census effort preliminarily places the total number of dwelling units in the country at 55,340,000, an average annual gain of around 1,390,000 units for the six and three-quarter years.

While this was the most concentrated and complete effort to date to measure housing quantity, there were housing questions in connection with the regular 1940 and 1950 censuses and these showed an average annual gain of only 870,000 units between those years.

Perhaps the most significant finding from the latest housing census is that the net increase—9.4 million units—was less than the total new housing construction for the period, 10,920,000 units. The more than 1.5 million unit difference, Census explained, reflects net effect of losses to the inventory through demolition, merger, and other types of withdrawals and additions through conversions.

The greatest proportionate increase in the inventory was found inside standard metropolitan areas—23 per cent—while the number of units outside these metropolitan locations was increased by 16 per cent.

It was the first time that comprehensive figures have been collected on the kinds of changes that affect the housing supply. The recent enumeration was a sampling survey conducted during December 1956.

The Bureau cautioned that the NHI data should not be compared directly with the Bureau of Labor Statistics series on new permanent nonfarm dwelling units of the same period. The NHI results, for example, include 200,000 new trailers and 590,000 new farm houses which would not appear in the BLS series. After allowances for these and other differences, the NHI series was found to be approximately 25 per cent greater than the BLS series. Sampling variation, it was thought, might account for part of the difference.

Census officials were already in conference with representatives of the home building and financing industry preparing questions to be asked on housing in the 1960 census.

MAKE ANY HOME MORE
LIVABLE AND SPACIOUS
WITH EXPERTLY-DESIGNED
BUILT-INS



HOW TO MAKE BUILT-IN FURNITURE

by Mario Dal Fabbro

Your Key to Greater Living Space

Expertly-planned built-ins can play a major part in the livability and desirability of today's house. Valuable living space can be saved in houses where economy has already trimmed floor space to a minimum. Floor layouts can be greatly improved by proper placement and installation of carefully selected built-ins. And handsome, but inexpensive built-ins provide vivid features for even the most modest house.

Mario Dal Fabbro, famous furniture designer and author, has produced the most complete book of its type ever published. With its superb designs and meticulous attention to details, this book is a must for the working library of any architect, home builder, interior designer or furniture designer.

THREE REASONS WHY YOU NEED THIS BOOK

1. Complete plans and instructions for constructing 102 contemporary built-ins from common grades of lumber.
2. Special data for adapting these projects for any room or usable space.
3. Comprehensive details and vital information for designing your own special built-in projects.

259 pages • 7 1/8 x 9 3/4 • \$6.95

DODGE BOOKS, F. W. Dodge Corp.
119 W. 40 St., New York 18, N. Y.

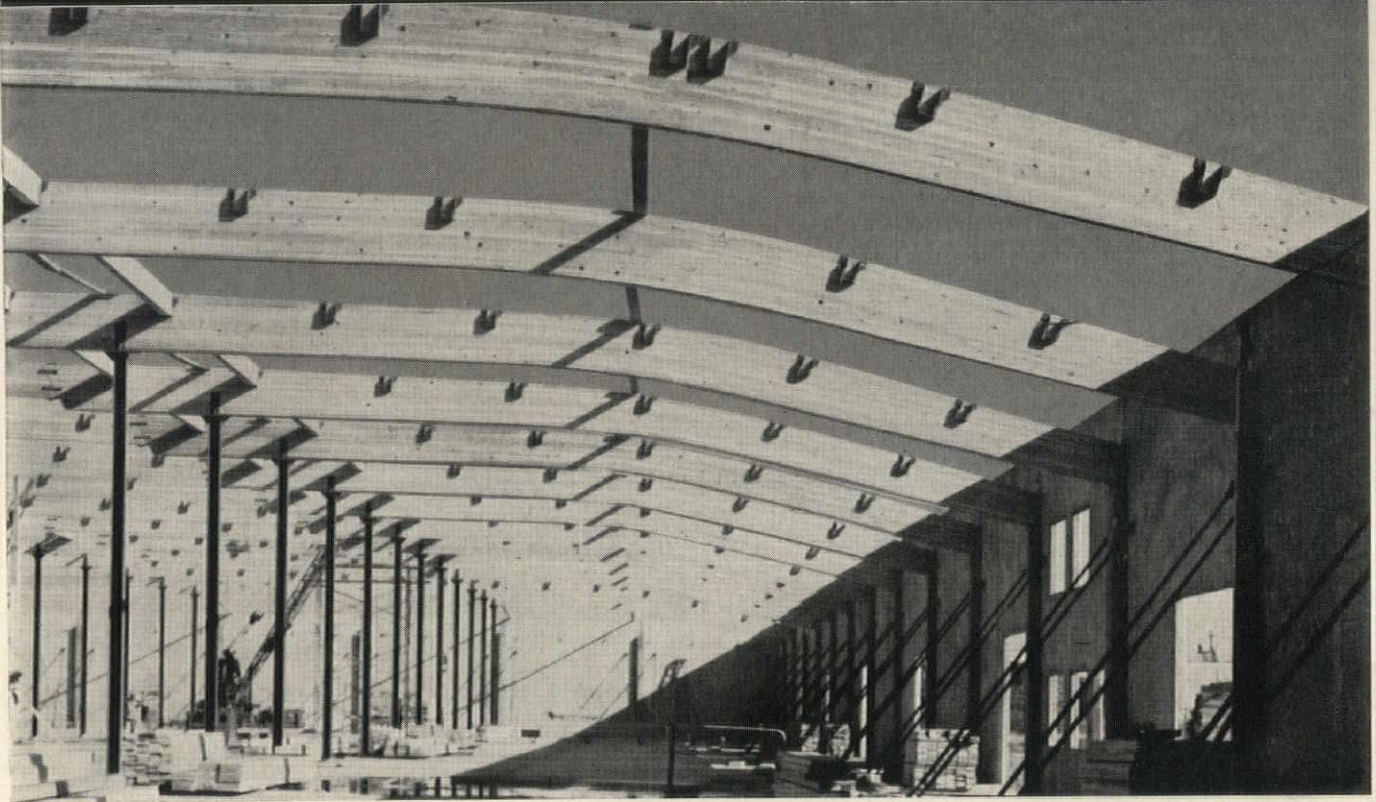
Send me _____ copies of *How to Make Built-in Furniture* @ \$6.95 each. Within ten days I will remit payment and a few cents postage or return the book without obligation.

Name _____

Address _____

City _____ Zone _____ State _____

50-foot bay of 200' x 500' warehouse of Holman Transfer Company, Portland, Oregon. Cost averages \$3.00 a square foot including sprinkler system. Architect: G. K. Cochran, Portland. Contractors: Monson & Sivers, Portland.

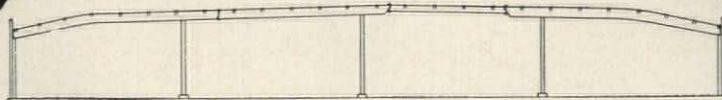


*Industrial
Buildings with*

LOW ROOF

LINES

AND DRAINAGE OF AN ARCHED ROOF



This truly economical structure provides clear, moderately wide bays with the efficient roof drainage of an arched surface. There is no waste space overhead to increase wall height or to create the expense of heating and cooling unusable space.

In consultation with Timber Structures engineers, the architect designed glulam beams with curved end members which accomplish these cost-saving results. No maintenance will be required, and resistance to destruction by fire is among the best of all unprotected materials. Cantilevered beam arrangement decreases section dimensions and lowers costs.

Other units of engineered timber construction available at Timber Structures, Inc. include arches, rigid frames, domes, trusses and columns. All are expertly laminated of dimensionally stable timber, precision

fabricated for fast erection, and backed by the responsibility of the world's largest manufacturers of engineered structural timbers. For detailed information and working data, ask your nearest Timber Structures representative for booklet "Buildings for Tomorrow" or write directly to us.

TIMBER STRUCTURES, INC.

P. O. Box 3782-A, Portland 8, Oregon

Offices in Ramsey, N. J.; New York City; Boston; Philadelphia; West Hartford; Cleveland; Charlotte; Chicago; Centerline, Mich.; Kansas City; St. Louis; Minneapolis; Des Moines; Wichita; Memphis; Dallas; Houston; Birmingham; Seattle; Spokane; Denver.



Local Representatives throughout the United States and Canada

TIMBER STRUCTURES, INC. OF CALIFORNIA
Richmond • Beverly Hills • Sacramento



23 Cubic Feet of Storage in New Manitowoc Built-in 2-Zone



Acting on the belief that most freezer-refrigerator combinations are too small to be practical, the manufacturers of the built-in 2-Zone have designed a new square-styled unit with 10 cubic feet of refrigerator space and 13 cubic feet of freezer space. The freezer compartment, which holds 455 pounds of foods, is likely to meet any family's present and future storage needs.

The new built-in 2-Zone, surprisingly compact for its high capacity, requires little more space than a conventional refrigerator.

It is 82 inches high, with a cabinet 36 inches wide and 24 inches deep. Architects can easily match the new unit to any kitchen by specifying right- or left-hand doors and their choice of frost white, rich antique copper, lustrous Satinized stainless, or a prime coat for special color styling. Simple six-step instructions make installation quick and easy.

The approval seals of both Good Housekeeping and Parents' Magazine have been granted the 2-Zone, which reportedly sells at the lowest price per cubic foot of capacity. Complete information is offered to architects who write the manufacturer, Manitowoc Equipment Works, Manitowoc 38, Wis.

NOW! Fingertip Portion Control

Speeds up SELF-SERVICE MILK DISPENSING!

Completely Dependable Performance Proven in Daily Use at Leading University Cafeterias!

Fast service is vital to efficient mass feeding—so let Meterflo push-button self-service keep your lines moving! Several units have been in constant service for over three years at Brody Hall, Michigan State University. Each unit serves approximately 672,000 refrigerated glasses of fresh milk annually... an efficient, cost-cutting operation! Only one location in a campus-wide installation of 40 plus Meterflo units dispensing a total of over 2,000 gallons per day.

Meterflo® DISPENSERS
Dept. AR, Niles, Michigan

- Fully automatic, refrigerated!
- 1 to 32 ozs. portion control!
- Utmost in sanitation!
- Simplified handling cuts labor costs!
- Pushbutton or coin-operated!

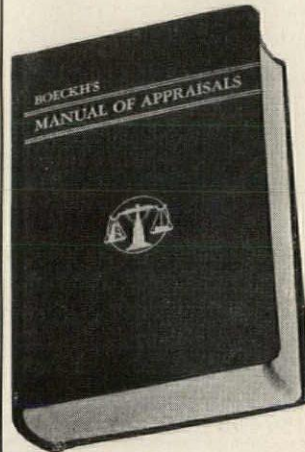
Write today!
Learn how to improve your university, hospital or industrial milk serving problem automatically

Photo of installation in Brody Hall, M.S.U.



**you can
figure
building
costs**

QUICKLY and ACCURATELY

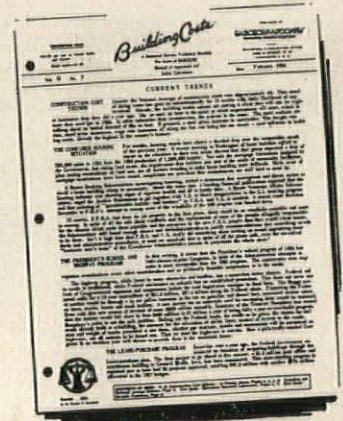


**BOECKH'S
MANUAL
OF
APPRAISALS**

OVER 100,000 individual unit costs—more than 300 buildings, with hundreds of variations, all easily converted to local cost conditions through the supplementary service, BUILDING COSTS.

BUILDING COSTS
Published Monthly

A supplementary service giving an analysis of current market conditions and the latest cost indexes for the major metropolitan areas of the United States and Canada to convert the estimating Manual to local cost conditions.



SEND TODAY FOR COMPLETE DETAILS

E. H. Boeckh & Associates
1406 M Street, N.W.
Washington 5, D. C.

Please forward to the undersigned, brochure containing full details of your building estimating and appraisal services.

NAME _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

RESEARCH DATA RELEASED BY DUR-O-WAL

Independent Study Now Available to Industry

In an effort to obtain pertinent information as to how joint reinforcing actually affects the strength of masonry construction, Dur-O-wal sponsored a program of research carried on by the Research Foundation of the University of Toledo in 1956.

A total of 39 walls, 9'-4" x 4' were built and tested. More than two dozen tension tests were made on plain and deformed wires; 80 pull-out tests were made to determine bond characteristics.

Guide for Comparison

Three points of importance in comparing quality —

1. Weight of material
 - a. Comparison of actual weight per 1000 lineal feet.
 - b. Flexural strength in relation to weight of steel in wall.
2. Deformation
 - a. Report of tests

3. Mortar Locks
 - a. Report of comparative tests

You are invited to send for your copy of the research findings to learn how this truss design member provides superior lateral and horizontal reinforcing.

Manufacturing and Distributing Facilities

More than 8,000 dealers stock Dur-O-wal, which is distributed in key markets throughout the United States. It is readily available in your area now.

Dur-O-wal is manufactured by the Dur-O-wal Division, Cedar Rapids Block Company, Cedar Rapids, Iowa; Dur-O-wal Products, Inc., Box 628, Syracuse, N.Y.; Dur-O-wal of Illinois, 119 N. River Street, Aurora, Illinois; Dur-O-wal Products of Alabama, Inc., Box 5446, Birmingham, Alabama; Dur-O-wal Products, Inc., 4500 E. Lombard St., Baltimore, Md.; Dur-O-wal Div., Frontier Mfg. Co., Box 49, Phoenix, Ariz.; and Dur-O-wal, Inc., 165 Utah St., Toledo, Ohio.

Advertisement



Emil A. Schmidlin, Architect • Ellis Leigh, Designer • East Orange, N. J.

For Enduring Charm Specify

Since 1858, Architects have relied upon Fiske for the widest choice of artistic designs, materials, craftsmanship and dependability. Now, more than ever, Architectural Metal Work by Fiske . . . in Aluminum, Bronze, Stainless Steel and Iron . . . represents the finest obtainable.

Write for our complete catalog of designs or send blueprints for quotations.

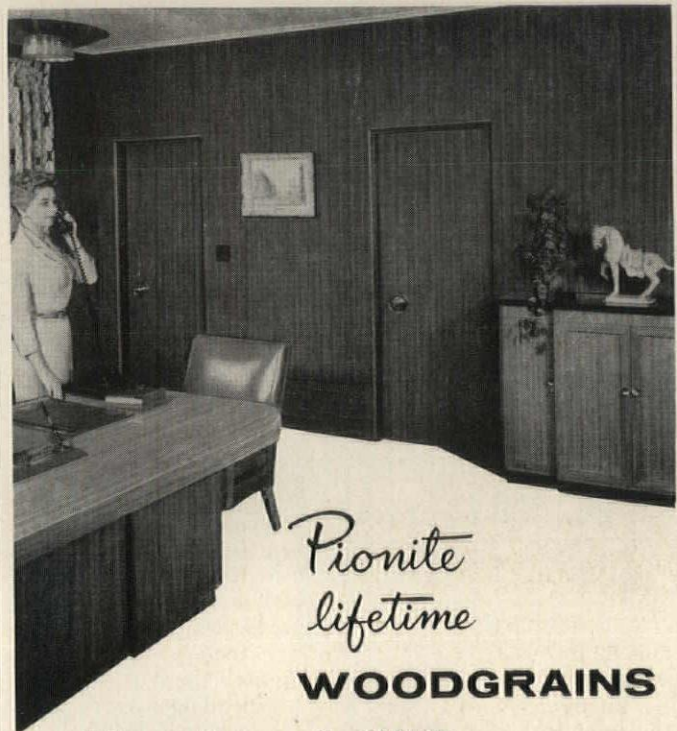
Architectural METAL WORK by Fiske

Aluminum, Bronze
Stainless Steel
and Iron

J. W. Fiske ARCHITECTURAL METALS, Inc.

113-115 Pennsylvania Avenue, Paterson 3, New Jersey

ESTABLISHED 1858



Brown Walnut on walls
Platinum Walnut on desk

*Pionite
lifetime*

WOODGRAINS

*a new
dimension in
beauty...*



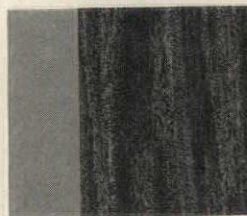
Pioneer Walnut



Colonial Maple



Cherry Wood



TV Mabogany

Where surfaces must appeal to fastidious tastes, yet stand the test of time, Pionite is the woodgrain for the job. Whether it's an executive's office, a restaurant counter, a hotel lobby, or a kitchen installation, Pionite offers the finest selection of true-to-life woodgrains, as well as a distinctive group of decorative patterns and solid colors. Pionite's melamine-armed, heat-and-cigarette defying surface will never be marred by scuffs, dents, scratches, chipping, cracking and breaking. You'll find Pionite economical, too. Send for new brochure today.

Pionite

LIFETIME LAMINATES



PIONEER PLASTICS CORP.

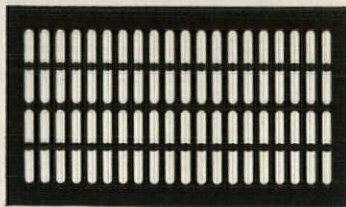
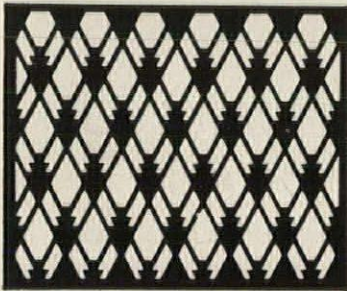
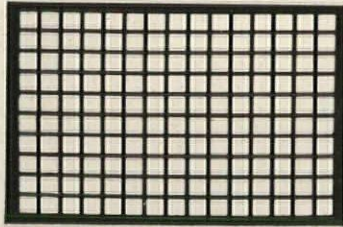
Salem, Mass. Sanford, Me. Los Angeles, Calif.

Classic or MODERN

there is an

H & K GRILLE

for every application



For the next building you plan, specify architectural grilles from the many designs available at Harrington & King. Grilles can be furnished in practically any type and gauge of metal in the finish desired.

H & K grilles are perforated and finished in accordance with the architect's specifications and details. Perforated holes are clean and free from burrs. Margins are in alignment with the pattern. H & K grilles are leveled and inspected before shipment.

Wherever architectural grilles are required, specify "Grilles by H & K."

See our file in
Sweet's—30f/Ha

Write for H & K
Grille Catalog
No. 33—Today!



Listed under "Grilles."

THE Harrington & King
PERFORATING CO. INC.

Chicago Office and Warehouse
5624 Fillmore Street
Chicago 44, Ill.

New York Office and Warehouse
106 Liberty Street
New York 6, N.Y.

The Record Reports



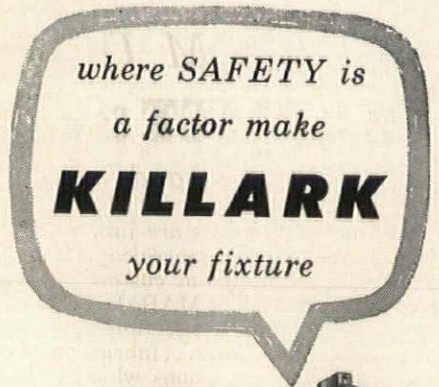
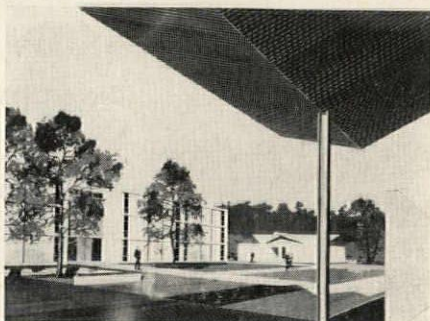
Campus-Type Navy BOQ Separates Living and Messing Areas

A campus plan which groups separate living, messing and recreation facilities around a central patio and the use of lift-slab construction distinguish the first permanent Bachelor Officer Quarters at Philadelphia Naval Base, now under construction. Vincent Kling is the architect.

The Philadelphia project, described as a prototype for future Navy BOQ's, consists of four buildings—two three-story structures to provide living quarters for 144 officers; a one-story unit for kitchen and dining hall; and a one-story lounge unit. Beyond the functional advantage of separating sleeping quarters from areas of noise and traffic, the plan also was seen as an opportunity to gain architectural interest for a flat, square site through the separate expressions of their functions. Cost is "in excess of \$1 million."

The living quarters will house 72 officers each, in private rooms of 180 sq ft with shared baths between. Concrete floor and wall slabs are poured on ground, one above the other, then lifted into place, with upper floors supported by the wall slabs below; it is believed this is the first application of this structural system in military housing.

Dining building (8926 sq ft) and lounge building (2025 sq ft) both will have screened outdoor courtyards and "floating" roofs, the lounge roof in the form of a star-shaped concrete shell.



EXPLOSION PROOF

Killark Allumalloy construction combines strength with lightweight compactness. Fixture has safety factor of 4 to resist internal explosions. Easy to relamp. In 60W to 500W; ceiling, bracket and pendant styles.



VAPOR TIGHT

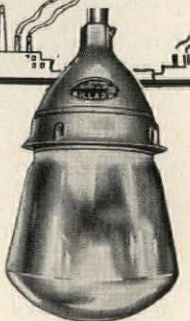
Absolutely vapor and weather tight. Designed to meet any lighting need in moisture-laden areas. Reflectors

in standard dome, shallow bowl or angle style.



DUST TIGHT

Graceful "ledge-free" design can't accumulate dust. Close-fit fixture parts exclude any dust particles. Complete with lamp receptacle, clear globe. Ceiling, bracket and pendant styles.



WRITE FOR ILLUSTRATED LITERATURE

Killark
ELECTRIC MANUFACTURING CO.

Vandeventer & Easton, St. Louis 13, Mo.

CUSTOM DESIGNED LOOK—at budget prices!

MARMET Series 1100

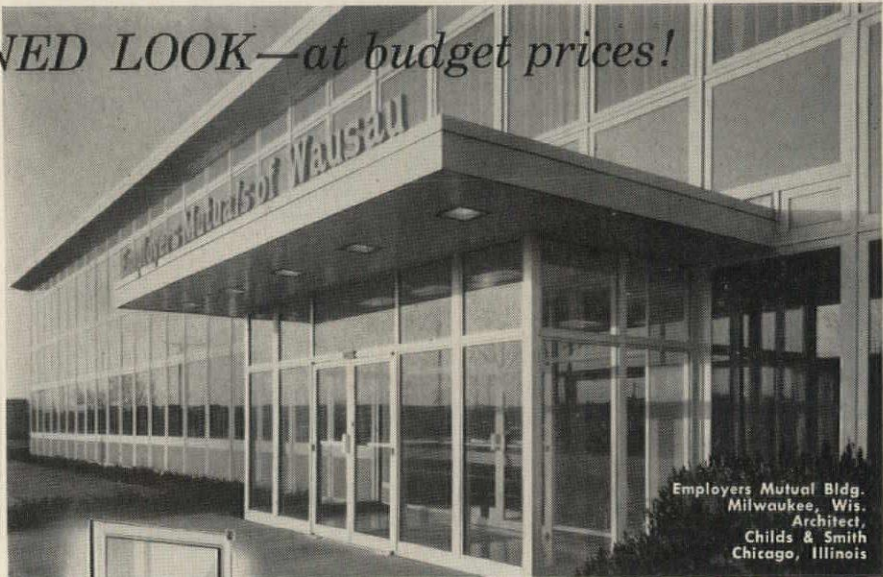
Stock doors and entrances

First impressions are important... but building entrances can be impressive without custom designing and fabrication. MARMET's modular entrance sections are made in a variety of sizes... fabricated from aluminum extrusions which match MARMET's beautiful "Narrowline" stock doors.

Designed to insure faster delivery at lower cost, MARMET entrances are engineered to meet all conditions. Shop drawings are eliminated... saving time and allowing the construction of the masonry opening to proceed. Clip anchors furnished with the frame sections, allow the aluminum to be adjusted to the masonry opening.

Both doors and entrances have a lustrous alumilite finish (etched in a special dip treatment) that "stays new" indefinitely... never requires painting.

For detailed information on the complete line of MARMET products — consult Sweet's Catalog File No. 3a... or write to MARMET for Catalog 58-D. Mar



Employers Mutual Bldg.
Milwaukee, Wis.
Architect,
Childs & Smith
Chicago, Illinois

Marmet Series 600
Curtain wall construction

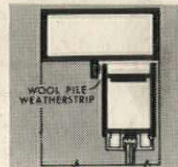
NO HALOS—only a hairline

Tubular door sections plus a Thru-Weld process that fuses the members with complete penetration of the metal, provides great strength, maximum glass area... and leaves no halos, no exposed screws... only a neat hairline joint.



Wool pile weatherstripping

Plastic backed wool pile weatherstripping mounted on the door frames assures effective protection against the elements.



MARMET

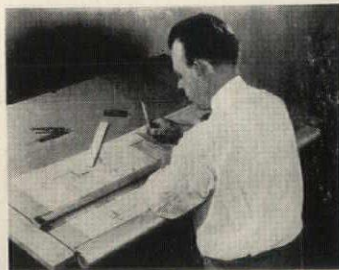
Corporation

300-P Bellis St., Wausau, Wis.

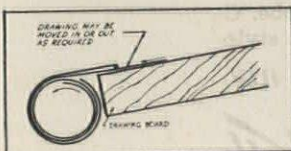
SPIROLL®



Engineered to fill a long-felt need SPIROLL is a new drafting accessory that literally takes the stretch out of drafting. Easily attached to the front edge of any drawing board it enables the draftsman to work on any section of the drawing while seated or while standing in the most natural position. By sliding the drawing down into SPIROLL the bottom section of the sheet is coiled safely out of the way, then the top section can be worked on easily. SPIROLL saves draftsmen's time, keeps drawings free from elbow smudges and torn edges. The result is less eyestrain, fewer backaches and faster, more accurate drawings.



Non-corrosive sheet steel, gray enamel finish.



42"	Note: actual lengths	\$9.25	ppd.
48"	are 1 1/2" less than nominal lengths shown.	10.50	ppd.
54"		12.00	ppd.
60"		13.50	ppd.

Consult your drafting supply dealer or order direct.

Spiroll Products Company

1 Concord Road Dept. R South Sudbury, Massachusetts

COST CHART



This new glass-protected smokestack bulletin... can be the answer to your stack problems

Write today to Dept. AR-1 for Bulletin No. SS-202 graphically illustrating comparative smokestack savings!

Through research... a better way

A.O. Smith
CORPORATION
PERMAGLAS SMOKESTACK SALES
PROCESS EQUIPMENT DIVISION
Milwaukee 1, Wisconsin

Katolight
EMERGENCY GENERATOR
Selected by men who know POWER!

New...
 B.C. ELECTRIC BUILDING
 VANCOUVER, B.C.



Yes . . . Selected by men who know power, this Katolight 300 KW Standby Generator stands guard over electrical operations of the beautiful, new, 21 story B.C. ELECTRIC BUILDING in Vancouver, B. C.

This Katolight Standby Unit provides sound assurance that all vital electrical equipment will continue to operate without interruption in spite of normal power failure. Never a shut-down of elevators, heating, refrigeration, communications, lights and other electrical equipment when power blackouts strike.

KATOLIGHT STANDBY PLANTS IN SIZES UP TO 100 KW . . . UP TO 400 KW ON REQUEST

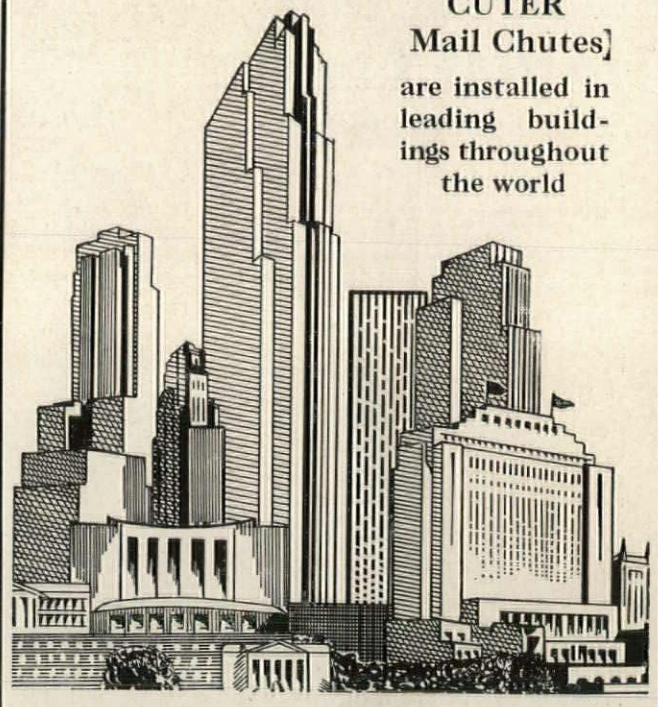
Refer To Sweet's Architectural File

Katolight CORPORATION
 Box 891-116 Mankato, Minnesota

STANDBY CONTINUOUS PORTABLE POWER PLANTS

WRITE TODAY FOR FOLDER! IT'S NEW!

CUTER Mail Chutes]
 are installed in leading buildings throughout the world



ESTABLISHED 1963

Cutter Mail Chute Co
 ROCHESTER 7, N. Y.

THIS -- NOT THIS



SAFETY IS NO ACCIDENT with CLOSED DECK Vertical Front ROLL-OUT GYM SEATS

HUSSEY SAFE SEATING

Specifically engineered for maximum safety so that lower over-all public liability rates are justified according to Safety Engineers of a leading insurance company. Now available in GENUINE MAHOGANY.

FOR SPECIFICATIONS SEE SWEET'S CATALOG 23J
 OR WRITE, WIRE OR PHONE HU

Hussey Mfg. Co., Inc., 587 R.R. Ave., North Berwick, Maine

Bonded "Electro-Sheet" Copper in
CONCEALED FLASHING
 Gives Enduring Protection

"Electro-Sheet" is pure thin copper produced by electro-deposition in long, wide rolls—in weights of from 1 to 7 ounces per sq. ft.

Durable and Economical—When bonded to other materials, for flexibility and easy handling, it provides a lasting product for concealed flashing and damp-proofing uses at relatively low cost.

In a Variety of Forms—"Electro-Sheet" is furnished to manufacturers who bond it to high-grade building papers and fabrics, or coat it with asphaltic compounds. The finished products are available in long lengths, and widths to 60". For names of manufacturers, write: The American Brass Co., Waterbury 20, Conn. In Canada: Anaconda American Brass Ltd., New Toronto, Ont.

ANACONDA® "Electro-Sheet"
 COPPER

NEW Coil-Wal®

AUTOMATIC PARTITIONS

**CUT STORAGE SPACE
SIMPLIFY DESIGN PROBLEMS
REDUCE INSTALLATION COSTS**



Covina High School, Covina, Calif.
23' high x 98' wide bi-part
Coil-Wal, plus 23' high x 42'
wide Coil-Wal with pass door.
Architects: Kistner, Wright & Wright

Cudahy Municipal Building,
Cudahy, Wisc. Coil-Wal
14' high x 48' wide separates
council chambers.
Architects: Grasshold and Johnson

FOR SCHOOLS • HOSPITALS • HOTELS • OFFICE BUILDINGS
wherever a large, low-cost movable partition is desired!

● The modern version of a famous 40-year old room divider idea . . . with automatic electrical-mechanical action. Coils completely in its own storage box . . . smoothly, quietly. Requires minimum storage space . . . less than any other type. Durable, beautiful Douglas Fir wood blends with any decorating scheme. Custom made to any size and structural requirement.

Free, 24-page detail brochure D-1.

SEE OUR CATALOG



WRITE FOR FREE CATALOG AND SPECIFICATIONS

DUBUQUE PRODUCTS, INC. • DUBUQUE, IOWA

WAL-LOK (MORTAR JOINT REINFORCING) 6 POINTS of SUPERIORITY



1 WAL-LOK is Deformed, Knurled and welded without impairing tensile strength—Assures positive bond for full length of structure.

2 Cross Bars hold WAL-LOK up—for complete bond with mortar all the way around.

3 WAL-LOK is packaged (25 twelve foot sections per bundle) for easy handling, fewer splices, less waste.

4 SuperStandard has 8 ga. side rods—more bonding surface, greater tensile strength than 9 ga. and is the minimum recommended by the National Bureau of Standards.

5 WAL-LOK and only WAL-LOK gives the same bondage per square inch of surface with SuperStandard grade as with the Extra Heavy grade.

6 WAL-LOK is manufactured in one factory—quality control is strictly maintained—immediately available, everywhere through leading distributors and dealers.



WRITE FOR YOUR COPY OF THIS 4-PAGE FOLDER TODAY !!

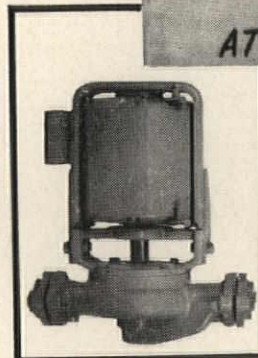
ADRIAN PEERLESS, INC.
1406 E. Michigan • Adrian, Michigan



MORE Durability

AT

LOW COST..



WITH TRIPLEX SIMPLIFIED
CIRCULATORS

- LIGHTWEIGHT
- COMPACT
- QUIETER
- INSTALL IN ANY POSITION...VERTICAL OR HORIZONTAL

The H. V. U. Hot Water Circulator (Motor Shafts Operates In Vertical Or Horizontal Position) Is The Answer To Low Cost Heating Installation. It Makes An Old System Operate Like New And At The Same Time Reduces Fuel Costs.
The Only Maintenance Necessary Is That Of Oiling Motor Bearings.

TRIPLEX FLOW CONTROL VALVES...
...Stay on the job longer!



Angle Pattern Flow Control Valve.



Horizontal Pattern Flow Control Valve.



Horizontal Pattern Flow Control Valve.

Triplex HEATING SPECIALTY CO.,
INCORPORATED
PERU, INDIANA

NOTHING BEATS SURCO PLASTER



... IN SERVICE
... OR SAVINGS

56 heavy hammer blows only slightly dented the SURCO plaster wall above.

SURCO Latex Binder gives an entirely new range of strength, watertightness, adhesion and resiliency to plaster.

SURCO plaster in your plans gives you a plaster that's capable of wide spread new applications and much longer service life. Because it's tough, SURCO plaster permits 1/32" - 1/8" thin coats that stand up against cracking. Low shrinkage sharply reduces hair lines.

SURCO's elasticity absorbs the shock of temperature changes from low sub-zero to well above 100°. Even at 350° no spontaneous combustion occurs. SURCO plaster applies to concrete, clays, gypsums, cork and other insulation materials.

Because it is strong, resilient and adhesive, SURCO plaster cuts costs. Savings up to 60% are possible. SURCO plaster requires no metal lath. Roughing up of surfaces and other expensive preparations are eliminated. SURCO Feathercoat, a complete plaster premix, offers a more functional, more economical finish where light weight insulation material is planned.

Write today for more information on the increased service, the economy and the new applications that SURCO plaster offers. In Sweet's Architectural File refer to SUR/13h.



SURCO
International
Corporation

1330 W. Peachtree Street, N.W.
Atlanta 9, Georgia

Required Reading

continued from page 62

Acoustics

... *For the Architect*, by Harold Burris-Meyer and Lewis S. Goodfriend. This handbook is intended to give the architect enough information to handle acoustics and noise control without examining the basic physics involved. *Reinhold Publishing Corp.* (N. Y.), 1957. 126 pp., illus. \$10.00.

Handbook of Layout

... *And Dimensioning for Production*, by Hyman H. Katz, is designed to help the skilled draftsman do detail work with less supervision; the emphasis is on engineering drawing. *Macmillan Company* (N. Y.), 1957. 479 pp., illus. \$15.00.

Welding Handbook

Edited by Arthur L. Phillips, this first section of the fourth edition deals with fundamentals. (Four other sections will be published later.) *American Welding Society* (N. Y.), 1957. 560 pp., illus. \$9.00.

Fabricating Houses

... *From Component Parts: How to Build a House for \$6000*, by Norman Cherner, is aimed at both the layman and the professional. Five basic structural systems—panel, bent, girder, masonry and foundation, and Quonset—are demonstrated in fifteen expandible houses. *Reinhold Publishing Corp.* (N. Y.), 1957. 208 pp., illus. \$7.95. (Paper-bound edition published under subtitle at \$2.95.)

Modern School Shop

... *Planning*. This revised and enlarged edition includes check lists of standards for evaluating shop plans and facilities. *Prakken Publications* (Ann Arbor, Mich.), 1957. 184 pp., illus. \$3.85.

Housing

... *Through Non-Profit Organizations*. A report of a seminar sponsored by the United Nations and the government of Denmark, this publication includes detailed descriptions of a number of Danish housing projects and much general information on social and economic aspects of the topic. There is a summary of the seminar's main conclusions on action that should be taken by various levels of government, trade and craft organizations, communities in general, and individuals; also a bibliography. *United Nations* (N. Y.), 1956. 121 pp., illus. \$1.25.

The Library

DELUXE

STEEL SHELVING

IN COLOR



Four handsome pastelle colors with lifetime baked-on enamel finish: canyon coral, mist green, office gray, and sandalwood. Other colors to your specifications.

FLEXIBLE—Deluxe boltless steel shelving can be adjusted on 1" centers. Add sections as you need them—no tools required.

FINISHED APPEARANCE—Correctly proportioned, simple, functional lines with corniced top.

SHELF SERVICE—Your local Deluxe Steel Shelving Dealer will help you lay out your library and provide quick service when adding sections.

Call your Deluxe dealer or write the factory for full-color library shelving bulletin #503.

DELUXE

DELUXE METAL FURNITURE CO.
Warren 11, Pa.

A division of Royal Metal Mfg. Co.

- Relgrit Abrasive Gratings and Treads
- Steel, Stainless and Aluminum Grating
- Lightweight Bridge Flooring
- Steel Mill Equipment

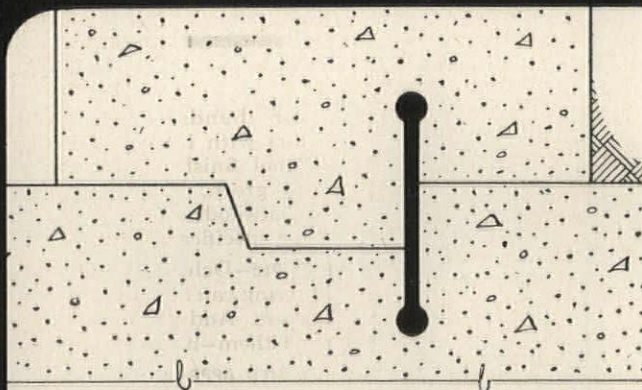
*you can't slip on Relgrit**

*Patent applied for

RELIANCE Steel Products Company

P. O. Box 510-F, McKeesport (Pittsburgh District), Pa.

RUBBER WATERSTOPS



for CONSTRUCTION and EXPANSION JOINTS

Williams Efficiency Waterstops are specially designed to completely seal joints connecting cast-in-place concrete members—wall section to wall section, walls to footings, walls to floor slab, floor slab to floor slab. The rubber waterstop in the joint permits movement of the individual slabs without breaking the water seal. Williams Efficiency Waterstops are furnished in long lengths, to be field cemented and bolted together for positive seal at end joints. They will bend around corners, will not tear from shear action, and the bulbs are set deep enough in the concrete to insure a positive water seal.

See SWEET'S Files, or write for information.

WILLIAMS EQUIPMENT and SUPPLY COMPANY
6001 E. McNichols Rd., Detroit 12, Michigan

comfort and cleanliness
PLUS
heat savings*
WITH
THERM O WHEEL

The EFFICIENT Heat Exchanger for Heating, Ventilating & Air Conditioning Systems

*Look to THERM-O-WHEEL, when looking for savings in your fuel bill! Don't let your exhaust system throw away precious heated (or cooled air) when exhausting air which has been contaminated by use.

TESTS SHOW THAT THERM-O-WHEEL YIELDS
80% to 85% HEAT TRANSFER EFFICIENCY!

Heat transfer with Therm-O-Wheel is a continuous process—made most economical by the recovery efficiency of this proven money saving unit!

Installations among Schools, Factories and Commercial Buildings include:

Johnson & Johnson
Kroger Warehouse & Bakery Co.
Merck & Co. Ltd.
National Research Council
Minn. Pulp & Paper Co. Ltd.
West Hill Mines

Abrasive Products Co., Inc.
Westmount Public School
Aluminum Co. of America
Ecola Polytechnique
Elmendorf Air Force Base
General Aniline & Film Corp.
Hudson Pulp & Paper Co.



Write today for Complete Details

P. O. Box 577
Far Rockaway, N. Y.

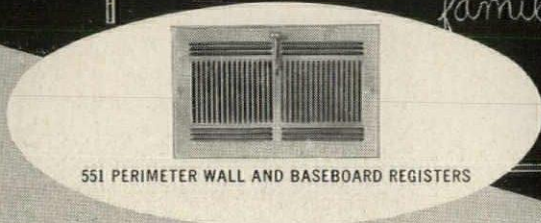


Comfort
designed to fit
your plans

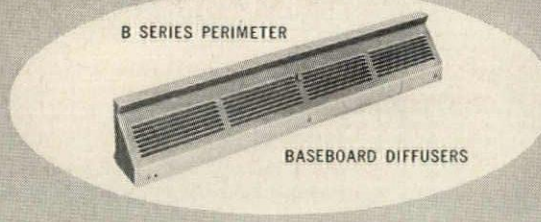
STANDARD STAMPING



CEILING AIR DIFFUSERS

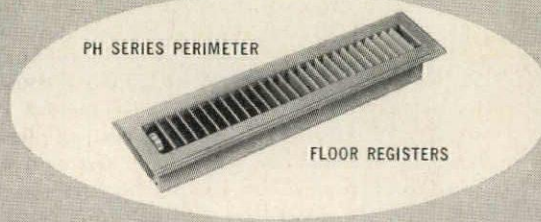


551 PERIMETER WALL AND BASEBOARD REGISTERS



B SERIES PERIMETER

BASEBOARD DIFFUSERS



PH SERIES PERIMETER

FLOOR REGISTERS

for two-way heating-air conditioning systems!

For every size and shape of conditioned space, there's a Standard Register engineered to turn warm or cool air into draft-free comfort, without blasts, hot spots, or cold corners.

Mail coupon now for new free catalog!



STANDARD STAMPING & PERFORATING CO.

3131 W. 49th Place, Chicago 32, Ill., Dept. 1

Please send your new Registers & Grilles catalog.

Name _____

Firm _____

Address _____

City _____

Zone _____

State _____

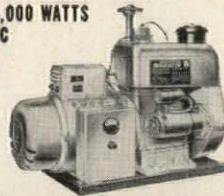
PUT A WARM AIR REGISTER UNDER EVERY WINDOW



KILL ALL POWER FAILURE WORRIES WITH **WINPOWER**

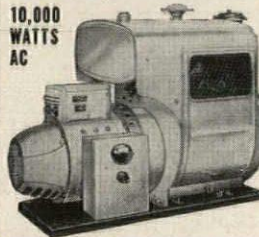
Here's Stand-by Power When You Need It Most

5,000 WATTS AC



OTHER MODELS FROM 500 WATTS to 100 KW— all voltages and phases.

10,000 WATTS AC



For Homes... Estates... Hospitals
Schools... Stores... Hotels
Resorts... Theaters... Buildings

Power failures always occur when you least expect them. When a WINPOWER Plant is on the job, it takes over instantly through automatic line transfer controls when regular power fails. No interruption to lighting, heating, refrigeration, elevator operation or other electrical services.

Get the facts about WINPOWER LOW COST STAND-BY GENERATOR PLANTS without cost or obligation. Attach this ad to your letterhead and mail today for illustrated literature and complete information.

WINPOWER MFG. CO.
Dept. C-61, Newton, Iowa

FOR BUILDINGS OF ALL TYPES
... first in efficiency, economy
and client satisfaction



TODD BURNERS
GAS OR OIL



PRODUCTS DIVISION
TODD SHIPYARDS CORPORATION

Headquarters:

Columbia & Halleck Streets, Brooklyn 31, N.Y.

Plant:

Green's Bayou, Houston 15, Texas



GRIFFIN HINGES



GRIFFIN[®]

For handsome appearance during life-long hinge performance. A full line of top-quality butts in all popular finishes. Well-designed buildings deserve fine hardware. Why not specify Griffin hinges?
GRIFFIN MANUFACTURING CO., ERIE, PA.
 SINCE 1899

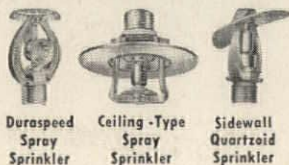
PROBLEM: Find the Grinnell Automatic Sprinklers.

SOLUTION: Hardly noticeable, they extend but an inch and a quarter below the ceiling — ideally fit the modern design of this building.



Grinnell has been a leader in the engineering, manufacture, fabrication, and installation of fire protection systems for more than 85 years. For architecturally right solutions to your fire protection problems, contact Grinnell Company, 277 West Exchange St., Providence, Rhode Island.

GRINNELL
 Whenever Fire Protection Is Involved



*You're out of
 this noisy world...*



*when you telephone
 in a*
BURGESS-MANNING
"Hear-Here"
ACOUSTI-BOOTH

Many Years of Acoustical Research and Development Make the Difference



Model 211



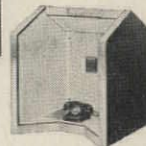
Model 45SL



Model 45



Model 601



Model 602

Each model of the Burgess-Manning "Hear-Here" Acousti-Booth is designed and built to needs in institutions, commercial buildings, schools, hospitals, stores, air and rail terminals, or other noisy, hard-to-telephone locations. Every Burgess-Manning Acousti-Booth incorporates highest quality acoustic material, scientifically applied, with the net result that extraneous noises are shut out in the noisiest spots — understandable conversation is locked in to give you the privacy of home. You are actually out of this world when you phone in an Acousti-Booth — even if you are right in the middle of a boiler factory. There is only one answer for your noise plagued telephone locations — a Burgess-Manning "Hear-Here" Acousti-Booth.

Write for
Bulletin A-142-2A

for complete details and prices on all Models of Acousti-Booths.

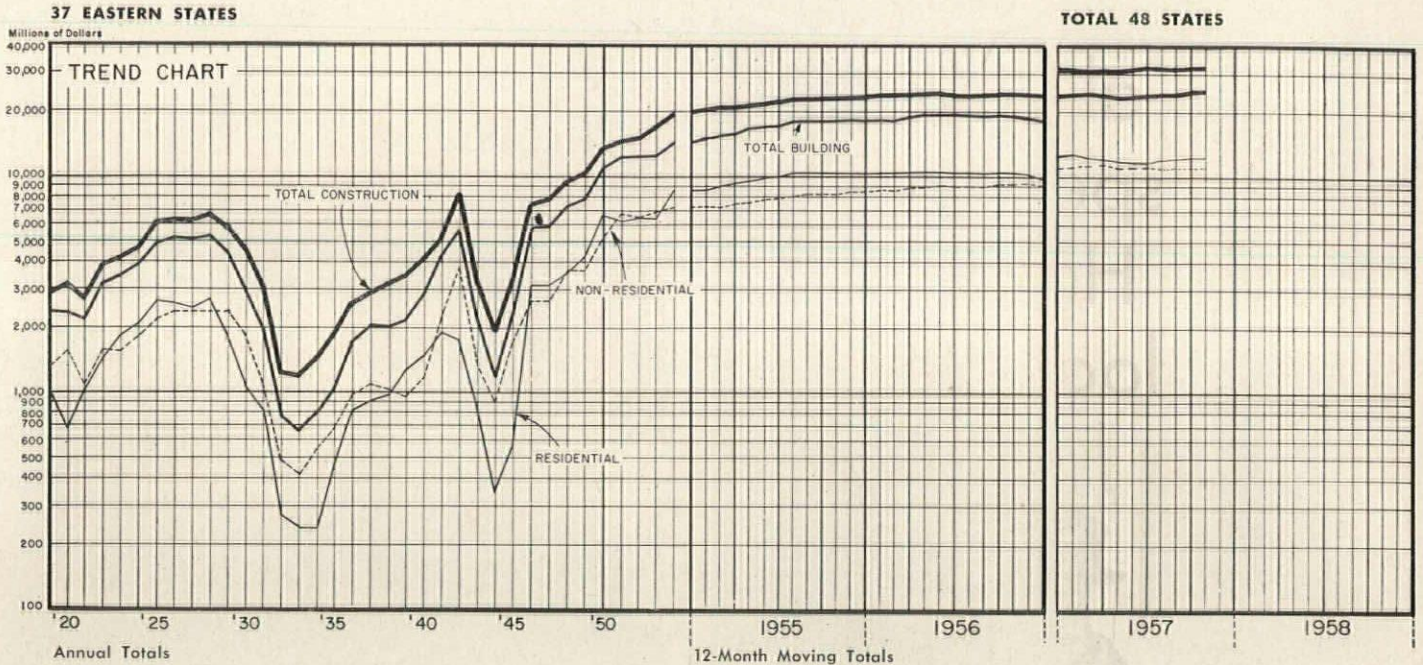


BURGESS-MANNING COMPANY

Architectural Products Division
 5970 Northwest Highway, Chicago 31, Ill.

Current Trends in Construction

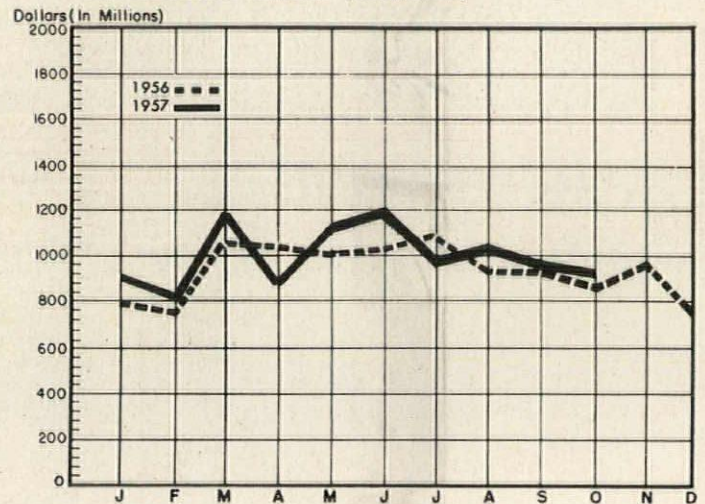
As Reflected in Contracts for Future Construction in the U.S. Reported and Tabulated by F. W. Dodge Corporation



Monthly Tally Shows General Rise

An increase of seven per cent in total contracts for future construction was registered in October, as compared with October 1956, F. W. Dodge Corporation reported. The total for all categories was \$2,613,791,000 for the month. The three basic Dodge categories all reflected the upward trend: residential building, at \$1,165,380,000, up 11 per cent; nonresidential, at \$910,219,000, up five per cent and heavy engineering, at \$538,192,000, up two per cent. The October figures were felt by Dodge Vice Chairman Thomas S. Holden to "indicate renewed strength in the construction industry with probably favorable implications for the months ahead." Mr. Holden also considered it "encouraging to see contracts for industrial building rising after several months of decline" (see table). The cumulative total for all construction for the first ten months of 1957, at \$27,840,371,000, was two per cent above the 1956 period. Ten-month totals: residential, \$11,370,438,000, up one per cent; nonresidential, \$9,715,753,000, up two per cent; and engineering, \$6,754,180,000, up five per cent.

NONRESIDENTIAL BUILDING (VALUATION)



MANUFACTURING BUILDINGS

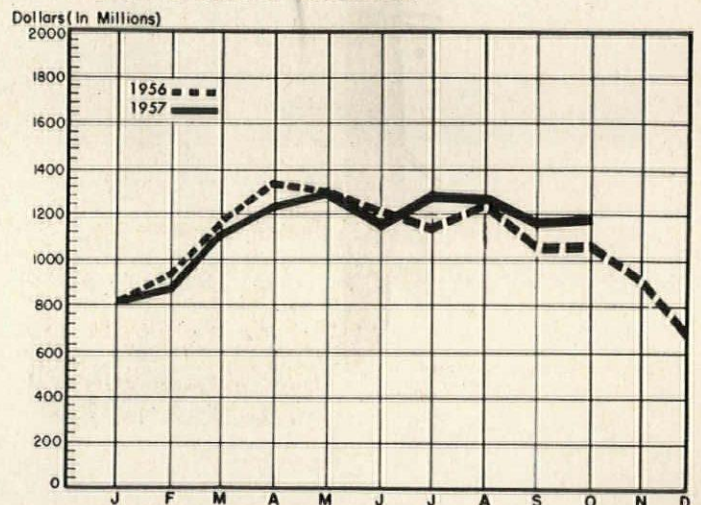
Construction Contracts—Regional Comparison

Valuation (in thousands of dollars)

REGION	1957 10 MONTHS	1956 10 MONTHS	% CHANGE
I Boston District	117,662	85,555	+38
II Buffalo, NYC, Phila.	322,182	329,106	-2
III Atlanta, Birmingham	182,022	204,643	-11
IV Cincinnati, Cleveland, Pittsburgh	282,453	291,592	-3
V Chicago, Detroit, Minneapolis	365,874	426,876	-14
VI New Orleans, St. Louis	134,765	171,698	-22
VII Dallas, Kansas City	151,758	174,002	-13
VIII 11 Western States	327,172	386,623	-15
48 STATE TOTALS	1,883,888	2,070,095	-9

* Factories are the subject of Building Types Study No. 254, pages 151-182

RESIDENTIAL BUILDING (VALUATION)



"I always
specify
Hako
floor tile"



Builder: "Individuality. That's what the buyers want. Got any more suggestions?"

Architect: "Yep—floors. Give them color, pattern. A real personal effect."

Builder: "How do you do it within MY cost structure? I've got to meet competitive prices!"

Architect: "Easy. Use asphalt tile—the colors and floor patterns make every home different inside. And the material is economical."

Builder: "Sounds good. We'd have no trouble putting it in and I'll have something that gives me a selling plus. I suppose any tile will do the job?"

Architect: "Oh no! I want you to be satisfied with color, price and value. That's why I always specify HAKO."

HAKO BUILDING PRODUCTS

A DIVISION OF MASTIC TILE CORPORATION OF AMERICA
Houston, Tex. • Joliet, Ill. • Long Beach, Calif. • Newburgh, N. Y.

Asphalt Tile • Vinylflex • Polykrome • CorkAtile
Parquetry • Coronet Plastic Wall Tile



Hako Building Products
Division of Mastic Tile Corp. of America
Dept. H8-1, P.O. Box 128, Vails Gate, N. Y.
Please send me full details and specification data
on Hako Asphalt and Vinyl-Asbestos Tile.

NAME _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____

For best results we recommend
Milmark® wax... cleaner... adhesives

Index to Advertising

PRE-FILED CATALOGS of the manufacturers' listed below are available in the 1958 Sweet's Catalog Files as follows: (A) Architectural File (green), (IC) Industrial Construction File (blue), (LC) Light Construction File (yellow).

A-IC-LC	Acme Industries, Inc.	118
A-IC-LC	Adam, Frank Electric Co.	220
A	Adams-Rite Manufacturing Co.	206
A	Adams & Westlake Company	187
A	Adrian-Peerless, Inc.	281
A	Aerofin Corporation	72
A	Aetna Steel Products Co., Inc.	66-67
A	Ainsworth-Precision Casting Co.	13
A	Air Devices, Inc.	90
A	Alberene Stone Corporation	272
A-IC	Allegheny-Ludlum Steel Corp.	45
A-IC	Allen, W. D. Mfg. Company	26-27
A	Alumiline Corporation	17
A-IC	American Air Filter Co., Inc.	84-87
A-IC	American Blower Corporation	247
A-IC-LC	American Brass Company	280
A	American District Telegraph Co.	246
A-IC-LC	American Hardware Corp.	57
A	American Machine & Metals, Inc.	48
A-IC-LC	American-Standard	247
A-IC-LC	American Tel. & Tel. Co.	205
A-IC-LC	American Welding & Manufacturing Co.	199
A-IC-LC	American Window Glass Co.	237
A-IC-LC	Andersen Corporation	38-39
A	Anemostat Corp. of America	65
A-IC-LC	Arcadia Metal Products Company	95
A	Architectural Record	230-231
A-IC-LC	Armstrong Cork Company	18-19-194-195
A	Azrock Products Division	253
A-IC	Balfour, Walter & Co., Inc.	62
A-IC	Barber-Colman Company	122-123
A-IC-LC	Bell & Gossett Co.	70-71
A-IC-LC	Bell Telephone System	205
A-IC	Bethlehem Steel Company	188-273-290
A	Bituminous Coal Institute	269
A	Blakeslee, G. S. & Co.	268
A	Blank, Frederic & Co., Inc.	20
A	Boeckh, E. H. & Associates	276
A-IC	Borden Metal Products Co.	105
A-IC	Bradley Washfountain Co.	208
A-IC-LC	Bruce, E. L. Co.	49
A-IC-LC	Bulldog Electric Products Co.	31
A-IC	Burgess-Manning Company	285
A-IC	Burt Manufacturing Company	248
A-IC	Byers, A. M. Company	4
A-IC-LC	California Redwood Association	225
A	Carpenter, L. E. & Company, Inc.	63
A-IC-LC	Carrier Corporation	92
A	Case Manufacturing Corp.	190
A-IC-LC	Caterpillar Tractor Co.	209
A-IC-LC	Cedar Rapids Block Co.	277
A	Cleveland Crane & Engineering Co.	255
A	Cleveland Tramrail	255
A	Coast Pro-Seal & Mfg. Co.	262
A-IC	Concrete Reinforcing Steel Institute	254
A-IC-LC	Corbin, P. & F. Division	57
A-IC-LC	Couch, S. H. Company	224
A-IC-LC	Cupples Products Corporation	111
A	Curtis Lighting, Inc.	271
A	Cutler Mail Chute Co.	280
A	DeLuxe Metal Furniture Co.	282
A	Dodge Books	268-274
A	Dor-O-Matic Division	244
A	Dubuque Products, Inc.	281
A	Duriron Company, Inc.	102
A-IC-LC	Dur-O-Wal Products, Inc.	277
A	Eagle Pencil Company	101
A-IC	Ebeo Manufacturing Co.	263
A	Economy Engineering Co.	106
A	Electro-Silv-A-King Corporation	51
A-IC	Eljer Division	115
LC	Emerson-Fryne Company	107
A	Engineered Products Co.	272
A	Fairhurst, John T. Co., Inc.	236
A	Fiske, J. W. Architectural Metals, Inc.	277

A	Flynn, Michael Manufacturing Co.	60-61
A	General Bronze Co.	53
A-IC	General Electric Co., Air Conditioning	289
A	General Electric Co., Textolite 3rd Cover	59
A	Gering Products, Inc.	56
A	Globe Company	240
A	Goodrich, B. F. Industrial Products Co.	201
A	Goodyear Terrazzo Rubber Flooring	1
A-IC	Granco Steel Products Co.	14-15
A-IC-LC	Great Lakes Carbon Corporation	252
A	Griffin Manufacturing Co.	285
A-IC	Grinnell Company, Inc.	285
A	Gustin-Bacon Manufacturing Co.	17
A	Guth, Edwin F. Company	99
A	Hako Building Products	287
A	Hall-Mack Company	88
A-IC	Hanley Company	16C
A	Harrington & King Perforating Co., Inc.	278
A-IC	Haven-Busch Company	200
A	Haws Drinking Faucet Company	256
A-IC	Hendrick Manufacturing Co.	272
A-IC	Hexcel Products, Inc.	81
A	Hillyard Chemical Co.	120
A	Hobart Manufacturing Co.	77
A-IC	Homasote Company	213
A	Hope's Windows, Inc.	217
A	Hubbell, Harvey Incorporated	68
A	Huntington Laboratories, Inc.	270
A	Hussey Mfg. Co.	280
A	Ideal Cement Company	80
A	Inland Steel Company	222-223
A-IC-LC	Iron Fireman Mfg. Co.	42-43
A	Jackson & Church Co. Division	210
A	Jamison Cold Storage Door Co.	114
A-IC	Josam Manufacturing Co.	221
A	Katolight Corporation	280
A-IC	Kentile Company	16A
A-IC-LC	Kevstone Steel & Wire Co.	116-117
A-IC-LC	Killark Electric Mfg. Co.	278
A-IC-LC	Kinnear Mfg. Co., The	212
A	Kohler Co.	50
A	LCN Closers, Inc.	196-197
A	Lehigh Portland Cement Co.	64
A	Lexsuo Inc.	201
A-IC-LC	Louisville Cement Company, Inc.	89
A-IC	Macomber, Inc.	94
A-IC	Mahon, R. C. Company	82-83-103
A	Manitowoc Equipment Works	276
A	Marble Institute of America, Inc.	121
A-IC	Marmet Corporation	279
A-IC	Marlo Coil Company	207
A-IC-LC	Masland Duralaether Co.	33
A-IC-LC	Masonite Corp.	215
A-IC	Master Builders Co.	2nd Cover
A	McPhilben Lighting Co.	268
A	McQuay, Inc.	37
A	Medart, Fred Products Co., Inc.	7
A	Meterflow Dispensers	276
A-IC	Modine Mfg. Co.	96
A	Monarch Door, Inc.	260
A	Montgomery Elevator Co.	210
A	Murray Corporation	115
A-IC-LC	Nateo Corporation	219
A-IC-LC	National Gypsum Company	265-267
A	Natural Slate Blackboard Co.	16B
A	National Steel Corporation	73
A	Nelson Herman	84 to 87
A	Neo-Ray Products, Inc.	233
A	Nesbitt, John J., Inc.	78-79
A	Nieholsen, W. H. & Company	104
A	Norman Products Co.	250
A-IC	Norton Company	216
A	Norton Door Closers	110
A	Nudor Mfg. Corp.	69

A-IC-LC	Owens-Corning Fiberglas Corp.	93
A-IC-LC	Pass & Seymour, Inc.	29
A-IC	Peerless Electric Company	214
A-IC	Pioneer Plastics Co.	277
A-IC	Pittsburgh Corning Corporation	245
A-IC-LC	Pittsburgh Plate Glass Co.	100
A	Pomeroy, S. H. Company	234
A	Powers Regulator Co.	108-109
A	Pratt & Lambert, Inc.	91
A	Prescolite Manufacturing Corp.	274
A-IC	Reliance Steel Products Company	283
A	Republic Industries, Inc.	244
A-IC-LC	Republic Steel Corp.	34-35
A-IC-LC	Reynolds Metals Company	243
A	Reznor Manufacturing Co.	46
A-IC	Richmond Fireproof Door Company	40
A-IC-LC	Richmond Plumbing Fixtures Division	55
A	Rileco Laminated Products Company	98
A	Rixson, Oscar C. Company	47
A-IC	Robbins Flooring Company	258
A-IC	Robertson, H. H. Company	119
A	Rolscreen Company	257-259-261
A-IC	Rotary Lift Company	2-3
A	Rowe Manufacturing Co.	238
A-IC-LC	Ruberoid Company	124
A	Sarco Co., Inc.	229
A	Sarcotherm	229
A-IC	Schunder, F. E. & Company, Inc.	226-227
A	Seamloc Carpet Company	30
A	Seaporel Metals, Inc.	76
A-IC	Sloan Valve Company	4th Cover
A	Smith, A. O. Corporation	279
A	Southern Equipment Company	204
A	Sperli-Faraday, Inc.	235
A	Spircl Products Company	279
A	Standard Stamping & Perforating Co.	284
A	Steelcraft Manufacturing Company	112-113
A-IC	Steel Joist Institute	22-23
A-IC-LC	Sterling, John Corporation	282
A	Straubel Paper Company	270
A-IC	Structural Slate Company	16B
A-IC	Sunbeam Lighting Company	41
A	Surco International Corp.	282
A	Sylvania Electric Products, Inc.	211
A-IC	Taylor, Halsey W. Co.	228
A-IC	Tectum Corporation	192
A	Therm-O-Wheel Inc.	283
A	Thompson Electric Co.	218
A-IC-LC	Trush, H. A. & Company	198
A-IC	Timber Structures Inc.	275
A	Titus Manufacturing Corp.	202-203
A	Todd Shipyards Corporation	284
A	Tremco Mfg. Company	266
A	Triplex Heating Specialty Co.	281
A	Troy Laundry Machinery Division	American Machine & Metals Inc.
A-IC-LC	Truscon Steel Division	34-35
A	Underwood Corporation	242
A-IC-LC	United States Plywood Corp.	241
A-IC	United States Steel Corporation (subs.)	97
A-IC	Universal Atlas Cement Co.	97
A-IC	Upco Company	44
A	Uvalde Rock Asphalt Company	253
A-IC-LC	Ware Laboratories Inc.	8
A	Waylite Company	251
A	Weirton Steel Company	73
A	Western Pine Association	52
A	Westinghouse Elevators & Electric Stairways	239
A-IC	Wheeler Reflector Company	249
A-IC	Williams Equipment & Supply Co.	283
A	Winpower Mfg. Co.	284
A	York-Shipley Inc.	210
A-IC-LC	Zonolite Company	74-75

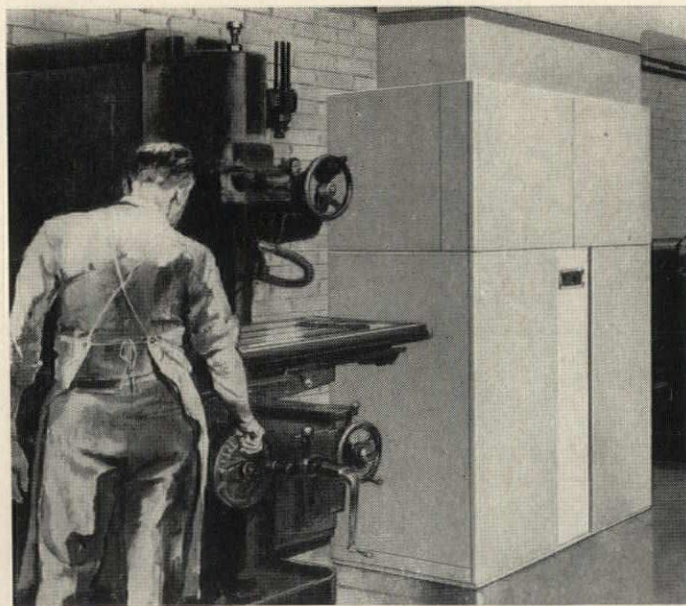
NEW YORK—H. Judd Payne, Publishing Director; Robert F. Marshall, General Manager; Tom Tredwell, Advertising Mgr.; Blake Hughes, Promotion and Research Mgr.; Richard C. Crabtree, Sales Service Mgr.; Benton B. Orwig, Director of New Business Development; M. A. Murphy, Advertising Production Mgr.; Harry M. Horn, Jr.; James E. Boddorf, 119 W. 40 St.; BOSTON—Harry M. Horn, Jr., 855 Park Square Bldg.; BUFFALO—Benton B. Orwig, 70 Niagara St.; CHICAGO—Claude B. Riemersma, Regional Sales Mgr.; Robert T. Franden, David K. Bortz, James A. Anderson, Charles L. Reed, Jr., 700 Merchandise Mart; CLEVELAND—John C. Jackson, Regional Sales Mgr.; Joseph F. Palmer, Louis F. Kutscher, 321 Hanna Bldg.; LOS ANGELES—Bob Wettstein, 672 South Lafayette Park Place; MIAMI—Benton B. Orwig, 302 N. W. First St.; PHILADELPHIA—Tom Tredwell, James E. Boddorf, 1321 Arch St.; PORTLAND—Bob Wettstein, 921 S. Washington St.; ST. LOUIS—Claude B. Riemersma, John I. Howell, 721 Olive St.; SAN FRANCISCO—Bob Wettstein, Howard Bldg., 209 Post St.

GENERAL ELECTRIC TAKES A



GIANT STEP

Simplifies Air Conditioning for Big Projects ... with New G-E Factory-Assembled Central Station Units ... Water-Cooled and Air-Cooled



New General Electric 30-Ton Unit. Note smooth lines—no outside fan motors, filters, controls or other protruding parts. This unit is up to 2000 lbs. lighter than competitive 30-ton units. Features two G-E hermetic compressors.

Installation after installation has proved convincingly that large projects can be air conditioned *more efficiently, at less cost* with General Electric Factory-Assembled Central Station Units—now available in 20, 25 and 30-ton capacities.

Efficiency and low cost are only the beginning. Planning is greatly simplified—minimum need for fittings and piping—no elaborate equipment rooms—more free floor space. Air-cooled units (up to full 20 tons) eliminate cooling towers, water lines. Hermetic compressors minimize service problems. Installation in existing buildings requires no major alteration to premises, no serious interruption to business—and you get all the advantages of real Zone-by-Zone air conditioning.

Why not prove to yourself that it makes more sense to use General Electric Factory-Assembled Central Station Units for the big jobs. For complete data and specifications on all General Electric Commercial and Industrial Air Conditioners, write to: Mr. E. R. Pierce, General Electric Co., Commercial and Industrial Air Conditioning Dept., 5 Lawrence St., Bloomfield, N. J.

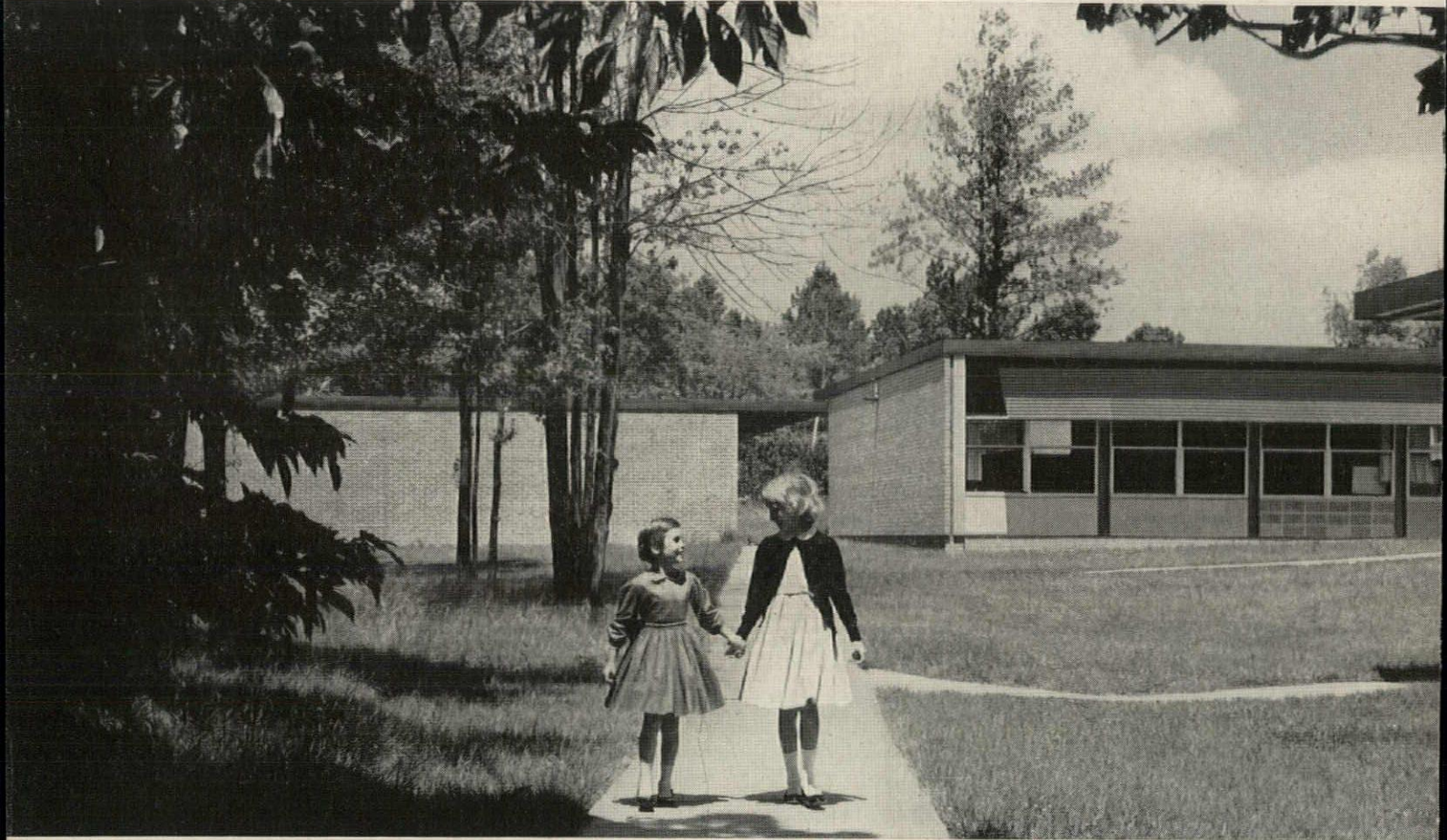
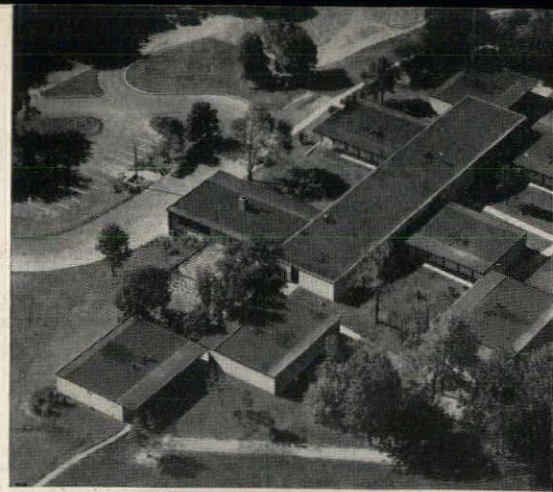
Progress Is Our Most Important Product

GENERAL  ELECTRIC

In Canada: Canadian General Electric Co., Ltd., Montreal

HOLLOW TREE SCHOOL

DARIEN, CONNECTICUT



AWARD WINNER - 1955 Top Award "The School Executive"

"A part of the requirement for this school was 'deliberately to avoid any expenditures not related immediately to the educational program.' In our opinion, the steel framing which was used materially contributed to the economy achieved as well as to visual success of the buildings.

"An aspect of unity on uneven terrain was accomplished through simple, repetitive steel framing of constant spacing throughout the design. Variation from building to building of color on the exposed steel joists lends gaiety and identification to the 'home' of each age group. The children and teachers make continual use of the steel joists for suspending art work or decorations of the season in classrooms. As designers, we have a high regard for the versatility of structural steel."

General Contractor:
Sam Grasso Co., Inc.

Structural Engineers:
Severud, Elstad, Krueger

Steel Fabricator:
Port Chester Iron Works

Structural Shapes:
Bethlehem Steel Company

J. Stanley Sharp

Ketchum, Giná & Sharp, Architects

A SIGNIFICANT NEW STRUCTURE . . . FRAMED WITH STEEL

This is the second in a series by Bethlehem Steel Company, Bethlehem, Pa.

