Effect of Building Materials on Design
Designs for a Church, Philippines: RAYMOND & RADO

Structural
House, Los Angeles: GORDON DRAKE

Surfacing
Public Hall, Clichy, France: BEAUDOIN & LODS

Openings
Generator Building, Cambridge, Minn.: LONG & THORSHOV

Insulation, Thermal and Acoustical
Theater, Long Beach, California: HUGH GIBBS
Structural Insulating Material: DURISOL, Inc.

Effect of Building Equipment on Design
Factory, Grand Rapids, Michigan: ALLEN & KELLEY

Air and Temperature Control
House, Liverpool, N. Y.: SARGENT-WEBSTER-CRENSHAW & FOLLEY

Lighting, Electrical
Store, Washington, D. C.: BERLA & ABEL

Sanitation, Water Supply, Disposal
Lavatory, Chicago: GEORGE SENSENY, J. STEWART STEIN, Assoc.

Specialized Equipment
Service Station, Los Angeles: WILLIAM F. HEMPEL
From now on, you will continue to see the familiar Milcor trade mark on products of this company—but the *company name only* has been changed from Milcor Steel Company to Inland Steel Products Company.

This change is being made now for two reasons:

1. This company is not, and never has been, a steelmaker. The new name more accurately describes its business.

2. Since 1936, this company has been a subsidiary of Inland Steel Company. The new company name merely gives formal expression to this relationship of more than ten years' standing.

The Milcor trade mark on material purchased from Milcor dealers will continue to stand for the same high quality and outstanding value which you have come to expect over the years. Remember, *nothing is changed but the company name*.

Specify "Milcor" as always in describing any of this company's products.

INLAND STEEL PRODUCTS COMPANY
FORMERLY MILCOR STEEL COMPANY
MILWAUKEE 1, WISCONSIN

Baltimore 24, Md. • Buffalo 1, N. Y. • Chicago 9, Ill. • Cincinnati 25, Ohio • Cleveland 14, Ohio

Detroit 2, Mich. • Kansas City 8, Mo. • Los Angeles 23, Calif. • Rochester 9, N. Y.
Mr. David S. Miller, President
The Producers' Council, Inc.
Washington, D. C.

Dear Mr. Miller:

This is a special issue of PROGRESSIVE ARCHITECTURE -- our Annual Products Progress Issue. We thought you would be particularly interested in it, because its theme is the influence of available building products on architectural design.

I wonder how many producers and manufacturers of building materials and equipment realize the part they play in finished architectural design. It should be exciting to a guy who makes concrete blocks to know that his product helped produce Tony Raymond's church design on page 45. That's the point of this issue -- that architectural design is not something theoretical, but results largely from the right use of the right materials. Sometimes (not always, these days) this fusion of technology and esthetics is still as clear as it was in the case of the Greek temple, or the Gothic cathedral.

The producers in America, Mr. Miller, are in a unique position to influence contemporary architecture. The lists of new and newly available products that appear in this issue are going to be good news to the architects. They will design with these materials and design because of these materials. We believe that the manufacturers need the advice of the architects in development of their materials, and we know the architects need the help of the manufacturers in development of their designs. We hope that this issue helps to bring the two groups closer together.

Sincerely,

The Editors

P/A:czm

January, 1948
Practical, attractive glass

"PITTSBURGH'S" LINE of storefront products—Carrara Structural Glass, Polished Plate Glass, Pitco Metal, Herculite Doors, and Twindow, the window with built-in insulation—are being used with outstanding success in many "open vision" type storefronts. These materials can be depended upon to meet the most exacting demands made upon them by the new trend in storefront designs. Architects: Forsblom & Parks.

COLORFUL, ATTRACTIVE Carrara Structural Glass is the ideal material for walls, stiles and partitions of toilet rooms in commercial buildings. Carrara is sanitary, good looking, impervious to moisture, chemicals, pencil marks. It won't fade or stain or absorb odors and won't check or craze. It is easily kept spotlessly clean and perfectly reflective. Available in ten pleasing colors.

PITTSBURGH PLATE GLASS COMPANY
BECAUSE IT HAS BUILT-IN INSULATION, Twinow, "Pittsburgh's" latest window development is ideal for store, hotel and office windows, frozen food cabinets, refrigerated cases. When made of two panes of glass, Twinow cuts heat losses almost in half. And its insulating effectiveness becomes greater as additional panes are added. It virtually prevents steaming or frosting of windows. It minimizes downdrafts near windows. Cuts heating and air-conditioning costs.

PITTCO STORE FRONT METAL now includes a complete line of bars and sashes for use with Twinow. These members are extruded and assure rugged strength, clear, sharp profiles and a smooth finish, rich in tone and gloss. They can be used with all Pittco De Luxe standard frame mouldings, thus offering latitude of design for top quality store front installations requiring insulated windows. The most commonly used of the Pittco members—two sashes and a division bar—are themselves insulated, thus reducing heat loss through them.

SOME OF THE REASONS why Pittsburgh Corning Glass Blocks have become the mark of a modern building are: because they flood interiors with daylight . . . preserve privacy . . . add smart appearance to any type or style of building. The blocks also aid in temperature control and make heating more economical. 10 attractive patterns to choose from. Architects: Frantz & Spence.

We believe you will find much to interest you in our illustrated booklet of ideas concerning the use of Pittsburgh Glass in building design. Send the coupon for your free copy.

* Design it better with Pittsburgh Glass

PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS

PITTSBURGH PLATE GLASS COMPANY

Pittsburgh Plate Glass Company
2524 Grant Building, Pittsburgh 19, Pa.
Please send me, without obligation, your free booklet entitled "Ideas for the Use of Pittsburgh Glass in Building Design."

Name
Address
City State

JANUARY, 1948 3
ARCHITECTURAL TERRA COTTA

WITH THE ADVENT of steel-frame construction, modern architectural terra cotta began to grow as a major industry. It has been manufactured in the United States since 1879, and by Federal Seaboard Terra Cotta Corporation since 1888, adapted in form to the architectural styles of the various intervening periods.

The rise of modern architecture has brought about the greatest development in the use of architectural terra cotta. The almost limitless color, the plasticity of form, and the enduring beauty of terra cotta with its impermeable glazed surface, practically self-cleaning — all these recommend it to the architect in search of the ultimate in design and serviceability.

Forward plans or sketches to our New York office for quotations.

FEDERAL SEABOARD TERRA COTTA CORP.

10 EAST 40th STREET, NEW YORK 16, N. Y.

PERTH AMBOY, N. J.

SOUTH AMBOY, N. J.
C&L-Monarch panic devices are now available in brass and cast iron.

Cast iron devices, while painted black, have working parts and outside trim of brass. They are immediately available to dimension, or shipped knocked down for stocking.

Brass devices — standard sizes, shipped at once. Special sizes require make up time.

The C&L-Monarch panic exit device operates with only a slight pressure, yet gives complete security from the outside. Available in mortise, rim and vertical rod types. Matched design allows uniform building installations.

Send for illustrated circular and ordering information.

CLAYTON & LAMBERT MFG. CO. LOUISVILLE 10, KENTUCKY
What’s this...

.. delivering Roddiscraft doors from an Architect’s office?

YES — delivery of Roddiscraft Flush Veneer Doors actually begins at your door. The pattern for delivery is laid down on the architect’s board, because delivery largely depends on the specification of stock sizes by the architect.

Concentration on stock sizes permits us to get maximum production from men and materials. It means more doors for everyone — On the other hand, odd sizes and special details are a serious brake on door output.

Plan for stock sizes when you draw your plans. Then we can plan to meet your needs with warehouse stocks ready for delivery when and where you want them.
Here's a basement planned for year 'round picnics. And the smartly styled SEVERN Arcoflame Oil Heating Unit makes home heating practically a picnic, too. This efficient, automatic boiler-burner unit is designed for small to medium sized homes, and includes a host of engineering features for greater comfort and convenience.

Center of interest in this bathroom is the NEO-ANGLE Bath. Only about four feet square, the Neo-Angle is roomier than most baths, yet allows ample storage space without reducing bathroom floor area. The COMPANION Lavatory and MASTER ONE-PIECE Water Closet complete the ensemble. All three fixtures available in white and choice of many colors.

- American-Standard is first in heating equipment and plumbing fixtures, First in quality . . . First in styling . . . First in performance. That's why more American homes have heating and plumbing by American-Standard than by any other single company.

Yes, think of American-Standard first and be sure of getting products that are just right for your requirements. The complete line covers heating equipment and plumbing fixtures for every type of installation. For full information, contact your Heating and Plumbing Contractor. American Radiator & Standard Sanitary Corporation, P. O. Box 1226, Pittsburgh 30, Pennsylvania.

AMERICAN-Standard
First in Heating and Plumbing
**The Architects "Service"**

**Dear Editor:** I was interested in Shelden Brumbaugh's philosophy as set forth in "The Architect and His Community" in your October issue and in your accompanying editorial, "Architecture and Politics."

To me Mr. Brumbaugh's key words were two: "genuine service." In the minds of American architects what constitutes such service? I suspect that to many it means little more than the satisfactory completion of a business transaction, the "substantial completion" of a building that meets health and safety requirements and the client's program. But doesn't it mean much more than this? True architecture has always been the expression of the social, economic, political, and religious ideas of the times. Its main problem has been to find a proper relationship between the human being and the material world. In solving that problem architects of the past had not only to understand the building and business methods of their day; they also had to understand the physical and spiritual aspirations of their fellow men. I think it safe to say that few architects today think in such terms; they are thinking of the technical and economic. That seems to be the big trouble with architecture today; like most everything else it has overemphasized the technical and economic requirements at the expense of those which are infinitely more important, the human ones. Often they are completely overlooked.

For instance, it is obvious that the psychological needs of a New York suburbanite, who five times weekly literally claws his way on and off Manhattan Island, are vastly different from those of a Vermonter who leisurely walks from his home to his place of work in 10 minutes, and that these varying needs should exert a marked influence on the type of living and working spaces required by each and their respective families. In other words, the provision of adequate light, heat, ventilation, plumbing is only part of the problem. Again I say, how many architects go to the end of the problem?

How much longer can architects afford being considered the least essential of all the professions? Of them all, that of architecture is, from the long-range point of view, possibly the most important to society, in that it is the architect, who must also be a planner in the broad sense, who has the prime responsibility to direct the growth and development of the neighborhoods and cities in which coming generations will live. It is his job to evolve the type of community that will best promote healthy, constructive living. This all may sound too idealistic and theoretical to the more practical-minded, but I feel this attitude must be adopted by the profession if it hopes to regain its lost prestige and proper place in society.

I want to point to one example of the type of activity which I feel helps discredit the profession. A year ago last spring Congress was debating the Patman Housing Bill, one section of which proposed subsidy payments as a means of encouraging greater production of building materials. While the bill was under discussion in Washington, the Michigan Society of Architects permitted its Weekly Bulletin of April 16 to be used almost in its entirety by the Producers' Council, Inc., for a debatable attack on the subsidy provisions of the Patman Bill. I doubt if such use of the Bulletin by a self-interested, outside organization falls within the limits of "genuine service" as defined by Mr. Brumbaugh.

What the profession badly needs, as you stated in your editorial, is a lot more objective thinking about all issues affecting architecture, planning, and society, and discussions that go to the bottom of these issues. Most of all it needs a deeper understanding of what is best for society as a whole, and the realization that what is best for the latter is also best for itself.

**William W. Lyman, Jr.**
Cambridge, Mass.

**Progressive Citizens**

**Dear Editor:** It is indeed unfortunate that more of the men who have been trained in the large metropolitan architectural offices do not leave those offices when they have become matured in the very valuable experience which one obtains in such offices and settle themselves in the various small communities throughout the country. There

(Continued on page 10)

**Confusing and Appalling**

**Dear Editor:** Can't something be done about the proposed N.Y.U. Law Center?

Perhaps you already are doing something about it. Such as providing a delayed-action atomic bomb for the cornerstone. Or perhaps by pointing your own fine program of enlightenment at lawyers instead of architects for a while.

Seriously, as one of those who was educated at New York University's now defunct School of Architecture, a thing such as this is confusing and appalling, being so contrary to what we were taught in that school.

The most disturbing possibility is summed up in a reported quotation of Al Smith's while passing darkened Protestant homes on his way to 6 a.m. Sunday Mass. "Wouldn't it be a — of a joke on us if they were right."

**Harvey P. Clarkson**
Petoff & Clarkson
New York, N. Y.
they could take root and be not only invaluable architectural advisers, but outstanding and progressive citizens in these communities.

One of the crying needs of this country today is some movement which would give the general public, the "layman," as it were, a better understanding of architecture. Better service amongst architects to said public, in order that the average man and woman will feel that an architect can really help them to solve their building plans and problems would erase their general conception that he is a glorified professional specialist beyond their reach and more particularly their pocket-books.

L. Woodford Andrews
Arcadia, Calif.

 LIGHT ALL AROUND

Dear Editor: In your October issue of Progressive Architecture you published a very interesting article on Sheldon Brumbaugh and his practice. I believe there ought to be more men like him.

The floor to ceiling windows in the drafting room have made me quite curious, however. How do the draftsmen like this arrangement of light coming from both above and below the working level?

Gordon Dirkes
Pullman, Wash.

With regard to the light in the drafting room coming from the floor to ceiling windows, the best description of it would be that "it is like working outside under the trees." Fortunately, we never have any direct sunlight through these windows as they face directly north. We could very easily do without the fluorescent lights as the only time they are used is in the late winter evenings.

Sheldon Brumbaugh

PRAISE FOR ARCHITECTS

Dear Editor: It was indeed gratifying to see the article and the work of Mr. Paul R. Williams and his associate published in the November issue of Progressive Architecture.

Mr. Williams' work has been published numerous times in California magazines and his books on modern homes have been circulated in volume throughout the country. Thanks to Progressive Architecture that it recognizes his unusual talent. It is hoped that Progressive Architecture will continue to publish his work and that other nationally circulated architectural magazines will follow the example.

K. Roderick O'Neal
Chicago, Ill.

HELP THE DRAFTSMAN

Dear Editor: As you perhaps observed from your contacts with the practicing profession, architectural publications find their way into the drafting room within a day or so after delivery and the principal value of it is there determined. Therefore, may I suggest that you direct more of your articles or attention to the instruction of the drafting force.

My experience indicates, at least in recent years, that the average draftsman lacks the fundamental knowledge of the history of architecture, and what is more important, they lack detailed knowledge of the construction of a building. A series of articles in relation to this item is necessary for a draftsman to show on working drawings and details in order to enable them to convey exactly what results they wish to obtain through these drawings. For instance, the average draftsman may turn

(Continued on page 12)
TWO uses for the cost of one. Sheathing PLUS insulation. This is the smart, progressive, economical way of planning better construction. Results in more satisfied clients. Specify double-duty INSULITE.
DRAFTS and DAMPNESS Can be Avoided

Rain or snow simply can't beat through building joints that are sealed tight with Pecora Calking Compound. Freedom from drafts and dampness due to openings around window and door frames especially, makes for better living and working conditions—less need for medical attention—lower fuel bills.

See SWEET'S for suggested specifications, or write us for descriptive folders and detailed information.
STUYVESANT TOWN, Manhattan, N. Y.
A development of the Metropolitan Life Insurance Co. to provide apartments for 8,755 families. *Architects:* Board of Design, Gilmore D. Clarke, Chairman; Irwin Clavan, Architect. *General Contractors:* Starrett Bros. & Eken; *Flooring Contractor:* John T. Swanson Co.

**In Stuyvesant Town**
**AND OTHER BIG APARTMENT PROJECTS**

*It's Bruce Block Floors!*

- Millions of feet of Bruce Blocks have been used in leading apartment developments such as Stuyvesant Town, Parkchester, Hancock Village, Peter Cooper Village, Fresh Meadows, Riverston. Architects and owners have found this the most satisfactory of all floors for modern apartments. Simple installation over concrete is one very important advantage. High resistance to wear is another. Bruce Block Floors are a permanent part of a building—not something to be replaced every few years. And, to make tenants happy, these floors give beautiful, distinctive appearance... easy, economical maintenance... comfort, resiliency, warmth and quiet.

Bruce Blocks are so popular that production cannot match present demand. Specify this flooring on projects being planned now for future construction. Consult our catalog in Sweet's.

*E. L. BRUCE CO., MEMPHIS, TENN.*
World's Largest Maker of Hardwood Floors

---

*The ideal floor over concrete*—Bruce Blocks are quickly and easily installed directly over concrete by laying in mastic. No clips, screeds or wood subfloor used... a substantial saving in construction costs.

*BRUCE BLOCK*  
Hardwood Floors

JANUARY, 1948 12
Most encouraging progress in the contemporary furniture field is in growing consumer demand and in willingness of more manufacturers to devote their skills to whole collections worthy of the best designed new homes. Good furniture by some clear-visioned designers has been familiar for years to the design professions. Professional shows, the daring of a few manufacturers, and the persistence of the Museum of Modern Art in high-lighting each new furniture development have lessened timid or biased resistance to the new designs. This year will bring many more department store displays—less self-conscious than in the past—and the Museum is sponsoring a direct effort to bring out more low-cost contemporary furniture through its current Museum Design Project, Inc.

With a sensational advertising display, Drexel Furniture Company recently announced a new collection designed by Edward J. Wormley. The handsome pieces, all offered in silver elm or lacquer finishes, include this stool with folding top, which can be a coffee table or, set on a twin piece, a serving or lamp table. Also from the Drexel collection is this chair with loose cushions of foam rubber, which can be used singly or as a sectional unit of a sofa. This furniture, as well as Wormley's collection for Dunbar, also shown here, will be sold by the large stores throughout the country. Architect George Nelson has added new pieces to his collection, distinguished for its clean lines and special thought for ample storage spaces. This and furniture designed by Architect Charles Eames, Sculptor Isamu Noguchi, and Designer Paul Laszlo, are marketed (Continued on page 18)

New York Times Studio

ALVAR AALTO used natural birch for this bent wood table, top choice piece of his collection.

JENS RISOM recently designed this sturdy natural birch chair for office, shop, or home use.

T. H. ROBSJOHN-GIBBINGS chose white oak for this chair, with Koylon loose cushions, for Widdicomb Co.

KNOLL ASSOCIATES offer this new storage cabinet with sturdy hinged door-shelves to be hung on a wall or set on a walnut base.

EDWARD J. WORMLEY grouped these pieces from his collection for Dunbar Furniture Manufacturing Co. Chair and sofa runners are made of 21 laminations of mahogany; cushions are of Koylon rubber over springs.

GEORGE NELSON designed a complete collection, more than 80 pieces, for Herman Miller Furniture Co.

CHARLES EAMES commanded wide attention for his adroitly functional molded plywood chairs, offered in various woods and stains by the Herman Miller Co.

DAN COOPER creates fabrics and wallpapers, as well as furniture, readily adapted to sitting, eating, or sleeping areas. The free-form coffee table is a playful accent.
ENGINEERED AIR CONDITIONING

by the Men Who Wrote the Book

The "bible" of the air conditioning industry is a 376-page book, entirely devoid of commercialism. In it are clearly explained the terms, workings, and applications of all phases of air conditioning. So helpful and complete is this book—written by Trane Engineers at Trane expense—that it has worldwide use as a standard reference by architects, engineers, and contractors, and also as a text by students of air conditioning.

The same men whose experience made the Trane Air Conditioning Manual possible produce Engineered Air Conditioning. It is these men who engineer and build the most complete line of products for air conditioning and heating in the industry—products that are designed and built together for use together, and that reflect the high standards of Trane product engineering.

Because Trane manufactures a complete line, architects, engineers and contractors can plan entire Trane systems, obtaining all the necessary elements from one source, with one responsibility. Trane Field Offices in 85 principal cities offer these men their entire cooperation.

The Convector-radiator—modern successor to the old-fashioned cast iron radiator—has been engineered by Trane for universal application to steam and hot water heating systems, and is being produced in quantity so you can now secure it from local distributors' stocks.
throughout the country by Herman Miller Furniture Company. Also increasing is the collection by Architect Morris Sanders for The Mengel Company (see September 1946 PROGRESSIVE ARCHITECTURE) which also will soon seek to popularize the modular units as an interior building product. The furniture is already placed in 84 stores. Architect Alvar Aalto now offers his furniture through Finaven, Inc. in New York, and through Thomas Church in San Francisco.

T. H. Robsjohn-Gibbings has recently shown pieces upholstered in exotic fabrics, to supplement his collection for Widdicombe Furniture Company (see February 1947 PROGRESSIVE ARCHITECTURE), which are due to appear on the market early this year. Preferring to deal directly with architects are Jens Risom, whose chairs, tables, and storage pieces are shown in his own New York showroom, and William Armbruster, designer for Edgewood Furniture Company, whose slogan is "Designed by Architects for Architects." A popular

MORRIS SANDERS gave architectural thought to his modular furniture for The Mengel Co., producing a coherent system of interchangeable pieces of matching sizes.

A determined effort by L. Anton Maix to market low-cost furniture of good design has been initiated with this laminated maple (or mahogany) chair and stool, to retail for $12.50 and $7.50 respectively. And more to come, from the design board of Ewald Holtcamp! Others are tackling the price enigma with energy and frankness, so consumer acceptance may be steadily increased rather than nipped at the outset by dollar barriers.
THE FINEST BUILDINGS OF THE POSTWAR
HAVE Q-FLOORS

Mercantile National Bank,
Dallas, Texas. Tallest office
building in the South. Architect—
Walter Ahlschlager, Dallas.
Contractor—Hengen Construc-
tion, Dallas.

John Hancock Mutual Life In-
surance Co., Boston, Mass.
Largest office building in New
England. Architect—Cram and
Ferguson, Boston. Contractors-
Turner Construction Co., N. Y. C.

Waterman Steamship Build-
ing, Mobile, Ala. Most striking
office building of the postwar.
Architect—J. Platt Roberts,
Mobile. Contractor—J. P.
Ewin and Co., Mobile, Ala.

Federal Telecommunications
Laboratories, Nutley, N. J.
Largest all-metal commercial
group in the world. Architects—
Louis S. Weeks, N. Y. C.
groups 1 & 2); Giffels &
Vallet, L. Rosselli, Detroit
groups 3 & 4).

Burdine's Store, Miami,
Florida. Largest department
store in Dixie. Architect—E.
L. Robertson, Miami. J. R.
Weber, N. Y. C. Contractor—
Rodney Miller, Miami.

If you want to know why these architects specified
Robertson Q-Floors, please write for literature.

H. H. ROBERTSON COMPANY

2405 Farmers Bank Building
Pittsburgh 22, Pennsylvania

Offices in 50 Principal Cities
World-Wide Building Service
When manufacturing processes or employee operating efficiency depend on air conditioning, there's no need to restrict the use of larger window areas.

Thermopane, consisting of two panes of one-eighth inch glass separated by one-half inch air space, has a coefficient of heat transfer of .58 as compared with 1.16 for a single one-eighth inch pane. Thus, you can double glass area without increasing heat loss... without throwing excessive load on air conditioning equipment. Likewise, Thermopane permits greater use of glass in any building where heat loss, sound transmission and comfort are factors.

To make Thermopane more readily available and to effect important economies, Thermopane is made in more than 60 standard sizes—providing sizes for any building need. For insulation data, sizes and other pertinent information, see Sweet's Architectural File. Or write us for complete information, including Data Sheets by Don Graf. Libbey-Owens-Ford Glass Company, 3618 Nicholas Building, Toledo 3, Ohio.
Vertically operating Rolling Steel Doors are by far the most practical doors for large openings in industrial or commercial buildings... they conserve space, require less maintenance, and provide more positive protection throughout a lifetime of trouble-free service. A study of Mahon Rolling Steel Doors will reveal many exclusive developments which are very desirable from a standpoint of daily operation. See Mahon's Insert in Sweet's File for complete information and specifications, or call in a Mahon representative.

THE R. C. MAHON COMPANY
Detroit 11, Michigan • Western Sales Division, Chicago 4, Illinois
Representatives in All Principal Cities
Manufacturers of Rolling Steel Doors, Shutters and Grilles, and Mahon Steel Deck for Roofs, Sidewalls, Partitions, Acoustical Ceilings, Permanent Floor Forms and Oversize Doors.
Insulux makes daylight go to work for you!

Put light to work on all your jobs by specifying Insulux Glass Block—wherever functional daylighting is desired.

Prominent architects are finding more new and ingenious uses for Insulux every day. This functional building material has become the architects' right-hand man in helping to solve all kinds of daylighting problems. Perhaps it can help you, too!

For instance: Insulux daylights interiors and promotes privacy. It is fireproof and noncombustible, requires no painting and little maintenance. Its high insulating value helps cut heat loss in winter and heat gain in summer. Insulux adds light to usually dark corners . . . is functional as well as distinctive!

The Wrisley Company's new Chicago plant has used Insulux extensively for several reasons, all good: Insulux adds beauty, grace and simplicity to interiors and exteriors . . . improves working conditions with better lighting . . . costs little to maintain.

For complete technical data, specifications and installation details, see the "Glass" section of Sweet's Architectural Catalog, or write Dept. E-20, Owens-Illinois Glass Company, Insulux Products Division, Toledo 1, Ohio.

Ground to roof facade of Allen B. Wrisley Company, Chicago, has continuous panels of Insulux Prismatic Glass Block. Three face patterns and approximately 4500 glass blocks provide the ultimate in daylighting this modern and progressive plant. Architects: Fugard, Burt and Wilkinson, Chicago Ill.

Insulux Prismatic Glass Block turns light to ceiling for re-direction into this second-floor display room. Drapes over windows can be entirely drawn without loss of daylight in room. Same type panels give fine working light in factory areas.

**OWENS-ILLINOIS**

**INSULUX GLASS BLOCK**

Insulux is made in three sizes—many attractive and functional patterns. Investigate this modern material that has solved many complex daylighting problems.
Designers of Hancock Village—being built in Brookline, West Roxbury, Massachusetts—have provided the newest conveniences for future tenants of the mammoth 789-unit project. One of the most modern comfort features is Honeywell Personalized Heating Control.

A Honeywell thermostat in every apartment enables each tenant to select whatever temperature he desires for comfort. Wasteful over-heating is checked and fuel consumption reduced. Moreover, the 253 gas-fired boilers of the radiant hot-water panel heating plant are equipped with compensated control which varies water temperatures in the system according to outside weather conditions. These features mean true heating economy plus satisfied tenants.

And you can offer this same efficient heating control to owners and managers of existing rental properties. Explain to them how buildings already P.H.C.-equipped have reduced fuel consumption at an average rate of 20%. Meanwhile, just mail the coupon for complete information about Personalized Heating Control—the improvement that is fast becoming a “must” for every modern apartment building.
A Choice of Weather with

Flexible G-E Air Conditioning System

THERE'S NO DISPUTING about comfort...when you put G-E Personal Weather Control in every room. A flick of a switch or thermostat gives the desired temperature.

This versatile equipment is designed—not for one arbitrary system—but for many systems, to meet the wide variety of conditions encountered in the air conditioning of multi-room buildings.

In addition to individual weather control for every room, consider these other important advantages of General Electric Systems. The amount of ventilation air can be adjusted to meet the need in each space—

the room units can provide positive control of ventilation air. All the air handled by the units, both ventilation air and room air, must pass through the filter. This means cleaner air, less cleaning of the units themselves and easier maintenance.

There's a General Electric system for every type of multi-room or single space installation. Your local G-E air conditioning specialist will be glad to work with you in planning the proper system for any job.

General Electric Company, Air Conditioning Department, Section 85001, Bloomfield, New Jersey.

GENERAL ELECTRIC

Better Air Conditioning
An exclusive, outstanding feature of Ric-wil Pipe Units is the fact that they are not only pre-fabricated but are also completely insulated in the Ric-wil plant and are shipped ready for immediate, single-handling installation, per plans and specifications.

Ric-wil Foilclad Units, with pipe and insulation coated with asphalt and wrapped with aluminum or copper foil, are supplied for overhead single-pipe lines. For underground lines or overhead multiple pipe systems, or wherever high strength conduit is required, Ric-wil supplies units in which piping and insulation are housed in Helcor conduit. This helically corrugated galvanized iron conduit is full welded and pressure tight and covered with a heavy coating of asphalt and a wrapping of asphalt saturated asbestos for complete protection.

Either type unit is furnished complete with expansion loops, fittings, etc., in the same design, ready for field installation in minimum time and at minimum cost. In multiple pipe units, pipes may be insulated from each other or from the exterior only, as in the type of unit used for transmission of oil and process liquids. No matter how complicated the requirements of an individual job, Ric-wil is equipped to prefabricate and insulate in the factory, to meet individual plans and specifications.

The insulated pipe headers shown above are typical examples. Designed for a system of piping actified and foul solutions, they required special insulating and cutting, mitering and welding of pipe with flanges and conduit. One 28 ft. unit comprises 3 tee branches, 1 Y branch, 2 reducers and 4 slip-on flanges welded to the pipe. Only work required at job-site was simple connection of header to adjacent equipment.

If you have overhead or underground piping problems get helpful information by writing Ric-wil Dept. 1981.
This **NEW** Hermetically-Sealed COMPRESSOR

the Outstanding SELF-CONTAINED Unit

It's the most modern of its kind—completely new, designed throughout for quiet, vibrationless operation and field serviceability.

Motor and compressor are combined in one piece of equipment (eliminating belts, pulleys, fly wheels and couplings) and hermetically sealed against dirt and moisture. There are no shaft seals, and it is never necessary to oil the motor or make adjustments. When necessary, the equipment is readily accessible for servicing in the field.

**Other features:** dynamically balanced crankshaft, crankcase with removable cover, positive displacement gear-type oil pump, large oil filters in the lubricating oil line, pistons equipped with four piston rings, removable cylinder liners, Worthington Feather* Valves, refrigerant-cooled cylinder walls and refrigerant-cooled motor.

Models are available now in 3-ton and 5-ton sizes.

Get ahead with Worthington's Self-Contained Air Conditioner—the air conditioner with *all* the new features, that's going out front in 1948. Worthington Pump and Machinery Corporation, Harrison, N. J. Specialists in air conditioning and refrigeration for more than 50 years.


SEE IT AT
International Heating and Ventilating Exposition — Worthington Booths 30-31 and 44A-45.

WORTHINGTON

AIR CONDITIONING AND REFRIGERATION

A-7-27
More efficient use of roof areas is the order of the day. Garden roofs, outdoor decks for convalescents, recreational space for office workers, heavy traffic and storage roofs for factories—these are typical examples of this trend in modern architecture.

Ruberoid engineers have analyzed all these new roof developments, divided them into three basic types, and worked out sound practical specifications for each. No unfounded theorizing or guesswork here—they’ve been tested and proved in actual performance! Copies of these specifications and full details are available from your local Ruberoid Approved Roofer.

Your Ruberoid Approved Roofer stands ready to help you in the solution of any roof problem. His “know-how” is backed by Ruberoid’s years of experience and complete line of all types of built-up roofing materials.

The RUBEROID Co.

Executive Offices: 500 Fifth Ave., N.Y. 18, N.Y.
Asphalt and Asbestos Building Materials

The RIGHT roof for any job—from one source!

Remember that Ruberoid makes every type of built-up roof—Smooth Surfaced Asbestos, Coal Tar Pitch with gravel or slag surfacing, or smooth or gravel-and-slag surfaced Asphalt—in specifications to meet any need. Hence a Ruberoid Approved Roofer is not prejudiced in favor of any one type. His services assure you of one source for all materials, centralized responsibility, smoother operation, uniform quality!
because of Steel Pipe
her drink is pure and clear...

She's the healthiest child in the world—this regular American kid. Pipe had much to do with making her strong, straight and sturdy, and in keeping her so.

She drew her first breath in a modern hospital. Mile after mile of pipe made possible the sanitary and therapeutic facilities that gave her a head start over the children of other nations.

Her home sets the world's standards for comfort, convenience and healthful living, largely because of the thousand-or-so feet of pipe that provides pure water, heat and sanitation.

All through her life, steel pipe in one form or another will help to assure her health and happiness. She can take it for granted—we all can.

The interesting story of "Pipe in American Life" will be sent upon request.

COMMITTEE ON STEEL PIPE RESEARCH of American Iron and Steel Institute, 350 Fifth Avenue, New York 1, N.Y.

STEEL PIPE MAKES IT POSSIBLE!

... better living through pipes of steel for plumbing and heating purposes.
When Short Circuits Occur...

FIRST, REMOVE THE CAUSE OF TROUBLE...then —

Simply Flip the Handle to "ON" Position

...the improved @ Circuit Breaker goes into immediate action. Dangerous current is instantly and automatically interrupted and the handle of the circuit breaker trips to the "off" position indicating the circuit in trouble.

After the cause of trouble has been removed, you simply flip the handle of the @ Circuit Breaker back to the "on" position and full electrical service is restored. There's nothing to replace...no danger of shock.

The @ Circuit Breaker LOAD CENTER automatically serves you 24 hours a day by eliminating both the hazards and inconveniences of short circuits.

This automatic protection is the result of a positive thermal-magnetic action that opens the circuit at the first sign of a short circuit or dangerous overload...yet ignores harmless surges of current.

Shockproof and simple to operate, these modern circuit protectors also provide all the electrical capacity needed for household appliances and future circuits. Available in 2 to 16 poles, 15 to 50 amperes, for 120 volts AC service.

See your electrical contractor for details...or write for Free Bulletin No. 203.
Here is the "new look" in modern home building. In this recently completed home in Miami, Florida, Lupton Metal Windows offer greatly increased window area . . . harmonize with contemporary design. Slender steel frames admit maximum daylight and provide permanent weathertightness. Outswinging ventilators provide controlled ventilation at all times. Lupton Metal Windows meet the requirements of every climate. Neat metal frame screens are easily attached from inside. There is a Lupton Metal Window for every type of building—industrial, commercial, residential. Write for our Catalog or see it in Sweet's.

MICHAEL FLYNN MANUFACTURING CO.
700 East Godfrey Avenue, Philadelphia 24, Penna.
Member of the Metal Window Institute
FOR SKILLED HANDS
...a powerful tool!

The technical and artistic achievements of our modern world have this in common—they are born of the pencil point.
Engineer, artist, architect, draftsman, designer and student—all rely upon the drawing pencil to transfer their ideas onto paper, their visions into reality.
VENUS Drawing Pencils are engineered to give you drawing and drafting perfection. They are accurately graded to assure uniformity in all 17 degrees... strong in performance... smooth and clean in action.
three mistaken ideas about Sound Conditioning...

mistake #1
THAT SOUND CONDITIONING IS EXPENSIVE...
The fact is: The cost of Acousti-Celotex treatment in many installations hardly exceeds the budget for the finish costs of plaster and paint that it can replace. And where a suspended ceiling may be specified, Acousti-Celotex sound conditioning can often be added for only a few cents more a square foot.

mistake #2
THAT SOUND CONDITIONING IS A LUXURY...
The fact is: Letters and figures from thousands of different applications show that, far from being a luxury, Acousti-Celotex sound conditioning is a sound investment—because it increases output, cuts down errors, and reduces employee turnover.

mistake #3
THAT THE USE OF SOUND CONDITIONING IS LIMITED TO SPECIFIC AREAS...
The fact is: More and more architects are specifying overall use of Acousti-Celotex sound conditioning for truly modern buildings—offices, hospitals, schools, banks, and other structures. Incidentally, more sound conditioning has been done with Acousti-Celotex products than with any other material.

YOU ARE INVITED to submit your acoustical problems to a trained sound technician—your nearest distributor of Acousti-Celotex products. He brings you a judgment enriched by the accumulated experience of a quarter-century in sound conditioning...and the proved performance of Acousti-Celotex in more than 200,000 installations. Look for him in your classified phone directory, or drop us a line saying when you would like to see him. In the meantime, you'll find Acousti-Celotex products listed in Sweet's File, Section 17-A3.

THE CELOTEX CORPORATION, CHICAGO 3, ILLINOIS

ACOUSTI-CELOTEX
Sound Conditioning

PRODUCTS FOR EVERY SOUND CONDITIONING PROBLEM
HERCULITE DOOR-FRAME ASSEMBLY

AVAILABLE IN 12 STANDARD STYLES TO FILL ALMOST ANY REQUIREMENT

CONSTRUCTED to accommodate standard Herculite Tempered Plate Glass doors, "Pittsburgh's" new Herculite Door-Frame Assembly is supplied complete with checking floor hinges and top pivots, ready to bolt into the rough building opening. All clearances on the frame and doors are controlled by accurate factory gauges. These features combine to make possible the greatest simplicity of installation. When the building is ready to receive the doors, they are simply set on the hinge pivot, the top pivot is dropped into the top channel, and the entire structure is complete.

This new and unique Door-Frame Assembly is a handsome, rugged and easily installed unit - in a "packaged" construction. It eliminates all problems of setting and fitting; does away with time- and labor-consuming details about clearances and other bothersome matters usually encountered in such installation. It replaces the complicated custom-made frames which required scores of different materials and the services of many trades to install. And there are twelve standard styles available to meet almost any need.

To obtain further information about this revolutionary, prefabricated Herculite Door-Frame Assembly, fill in and return the coupon below. Do it now.

Pittsburgh Plate Glass Company
2053-8 Grant Building, Pittsburgh 19, Pa.
Without obligation on my part, please send me your descriptive literature on "Pittsburgh's" new Herculite Door-Frame Assembly.

Name: ____________________________
Address: _________________________
City: _____________________________ State: ____________________

PAINTS - GLASS - CHEMICALS - BRUSHES - PLASTICS

PITTSBURGH PLATE GLASS COMPANY

JANUARY, 1948 31
In a certain Ohio city, a bond issue was submitted to the voters for modernizing a school building. The most publicized item of the modernization program was a provision to install a complete new system of drinking fountains. In planning and erecting the building several years ago, those responsible had failed to specify and install steel pipe large enough to insure a free flow of water to the fountains on all floors.

How much cheaper for the taxpayers—and how much healthier for the children—if adequately sized pipe had been installed in the first place! Then, it would have cost only a few cents a foot more; now, it's costing thousands of dollars more to get fountains that work satisfactorily.

Youngstown pipe distributors are prepared to recommend and furnish steel pipe of proper sizes for any job, adequate for tomorrow's needs.
Schmidt, Garden & Erikson design a factory

Mesker Steel Windows

"Fulfilling all demands for adequate daylighting and ventilation, steel windows additionally offer a satisfyingly simple decorative treatment for modern industrial plants."

Designed and delineated by
R. Vale Faro
Schmidt, Garden & Erikson
Architects & Engineers
Chicago

For your copy of the Mesker Book of Industrial Windows, write to Mesker Brothers, 4340 Geraldine, Saint Louis 15, Missouri
Use all 3 products—Walls, Ceilings, Floors—
for Johns-Manville Unit Construction . . .

With this new method of interior construction, you can meet the problem of ever-changing space needs.

You can provide for endless revisions of space-use—at low cost. You can keep expanding, converting, or subdividing rooms as often as conditions require . . . with little or no interruption to routine activities!

Moreover, the J-M Unit Construction system now makes the complete interior available under one specification, one manufacturer's responsibility.

Three Johns-Manville materials, described at right, are the basis of this revolutionary development. The asbestos Transite Walls are movable, 100% salvageable. The Acoustical Ceiling Units are demountable . . . can readily be taken down and relocated as desired. And the Asphalt Tile Floors consist of small units which permit easy extension of the floor to meet changing conditions.

Write for colorful brochure, giving full details on the remarkable flexibility of J-M Unit Construction.
Flexible Interiors that look to the future!

1. TRANSITE WALLS—Movable!
Rooms when and where you want them... that's the magic of Johns-Manville Transite Walls—the attractive and sturdy asbestos walls that are movable. Now you'll never again need to send partition walls to the dump every time space changes are required!
With the least inconvenience—almost overnight—you can enlarge, decrease, or rearrange areas as often as your needs require. Transite movable panels are easy to handle, readily assembled, interchangeable, and can be used over and over again. Made of asbestos and cement, Transite Walls have all the qualities of solid and permanent construction. They provide rigid, double-faced partitions, and can also be used as the interior finish of outside walls.
To make sure your interiors will provide for change, write for booklet, “J-M Transite Movable Walls.”

2. ACOUSTICAL CEILINGS—Quieter!
There's a Johns-Manville acoustical material to give you the best in sound control, no matter what the type of interior.
To assure you the maximum in noise-quelling, Johns-Manville not only provides the correct acoustical materials for each specific condition, but follows through by installing the materials properly with its own construction crews. In other words, you get “J-M materials installed by Johns-Manville” for best results.
That’s the all-inclusive service... the undivided responsibility Johns-Manville gives your projects.
For further details, send for brochure, “J-M Sound Control.” Describes such J-M acoustical products as demountable Sanacoustic, Fibracoustic and Fibretone, Transite Acoustical Panels, and special materials for Broadcasting Studios.

3. ASPHALT TILE FLOORS—Colorful!
You spend no more to have quality floors like these —attractive and resilient... extra-long wearing... reinforced with indestructible asbestos!
That's the kind of flooring you get with Johns-Manville Asphalt Tile. It's easy on the eyes, easy on the feet, and easy on the budget, too.
Yes, you'll like everything about this modern flooring, including the unlimited range of color combinations—from striking patterns with strong contrasts to solid fields of marbled colors.
J-M Asphalt Tile does not originate dust... stays fresh and unmarred with practically no maintenance. Individual units permit easy repairs.
For areas exposed to oil or grease, use J-M Greaseproof Asphalt Tile. Send for full-color brochure, “Ideas for Decorative Floors.”

...for Offices
...for University Lecture Rooms
...for Laboratories
A Great New Escalator

AT A NEW LOW PRICE!

WIDE ENOUGH for adult and child—or traveler and luggage. The new Otis "32" carries 5000 people an hour comfortably. It is designed for any vertical rise up to 23 feet.

SAFETY FEATURES include narrow-gage metal treads, semi-circular extended newels, continuous pinch-proof rubber hand rails...the world's safest transportation.

A LIFETIME OF BEAUTY. The modern Escalator's graceful lines and gleaming aluminum balustrade combine to give buildings the New Look in level-to-level travel.

It's big in capacity
It's Otis throughout

HERE NOW — the new Otis "32", designed especially for the medium-sized and smaller building. The result of many years' research, this modern Escalator has all the time-tested features of earlier models, plus a wealth of post-war design features...it is truly the last word in Escalator design.

Capable of carrying 5000 people an hour, the Otis "32" handles more persons per dollar investment than any other moving stairway. Wide enough to comfortably carry an adult and child on one step, it is the ideal size for most stores, stations, plants, banks and other public buildings. Yet for all its spaciousness, the "32" requires less space and structural work than narrower moving stairways.

Best of all there has been no compromise with quality. In eye-appeal, in safety, in the inherent ruggedness that makes for long life and low upkeep, the new "32" is the equal of any Escalator we ever built. And remember, only Otis makes Escalators.

NEW FREE BULLETIN B-700 P tells the whole story. Write for your copy to Otis Elevator Company, 260 Eleventh Avenue, New York 1, N. Y.

"Escalator" is a U. S. Patent Office registered trademark of the Otis Elevator Company. Only Otis makes Escalators.

ELEVATOR COMPANY
Offices in All Principal Cities
When you plan larger daylighting areas, why not take advantage of the opportunity the larger wall opening affords for better ventilation?

With Fencraft Projected Windows, large steel-strengthened areas of glass flood the room with daylight. All-weather ventilation is provided by two vents in each window unit. One opens out to form a canopy over the opening—to shed rain and snow. A sill vent opens in—deflecting incoming air upwards to prevent direct drafts. This vent likewise sheds rain and snow to the outside.

They're economical windows, too. Lower cost—in both manufacturing and installation—has been accomplished by standardization. Fencraft Window units conform with modular dimensions of modern construction practice. Yet the variety that is achieved in making these windows of standard sections enables you to have all the design flexibility you wish, without the cost of "specials". There's a great range of types and sizes—in Projected, Combination and Casement Windows. That means a right window for every use—designed right... made right. See your Sweet's Architectural File for full information. Or mail the coupon.

FENCRAFT COMBINATION WINDOW
Generous fresh-air ventilation. Swing leaves deflect breezes into the room. In-sill vent protects against drafts. Both sides easily and safely washed from inside.

FENCRAFT CASEMENT WINDOW
Safe washing on outside, from inside. Easy to operate. Interchangeable inside screens, protected from outside dirt.

Detroit Steel Products Company, Dept. PA-1, 2253 East Grand Blvd., Detroit 11, Michigan
Please send me data on types and sizes of the new Fencraft family of Fenestra Windows:

Name
Company
Address

JANUARY, 1948 27
How To Cut Costs
Without Cutting Corners

AGITAIR TYPE R
The Only Air Diffuser
Especially Designed for
ACOUSTICAL CEILINGS

Acoustical Tile, Perforated Steel, or Glass
Brick ceilings? Then specify the logical air dif-
fuser—Agitair Type R. It's the only diffuser
made in standard sizes to fit acoustical ceilings.
Think of the all-around savings with this standard-
ized unit that fits every acoustical ceiling.

And Agitair Type R gives you 100% control
of air distribution — with no drafts, no blank
corners, no hot spots, no cold spots. Patented
construction permits Agitair Type R to be assem-
bled into numerous patterns which divide the air
and discharge it noiselessly in one, two, three or
four directions in proportion to the area served.

On that next air diffuser specification — can
you afford to overlook the beauty, efficiency,
and all-around savings of Agitair Type R?

Write for Complete Data

AIR DEVICES, INC. • 17 EAST 42nd STREET • NEW YORK 17, N. Y.
See Our Display at Booth 412-414, International Heating & Ventilating Exposition, New York, Feb. 2 to 6
THE SOLUTION

The architect analyzed his problem as follows:
(1) Since no elevator penthouse was desired, a push-up type elevator should be used. (2) Loading by power vehicles called for unusually accurate landing stops and for an elevator of very strong construction. (3) Initial cost of elevator, including construction provisions, must be held to a minimum . . . elevator operation and maintenance expense must be low. Result: A Rotary Oildraulic Elevator was selected because it met all these requirements.

Elimination of Penthouse Streamlines Building Design

The Oildraulic Elevator requires no costly, unsightly penthouse because it's pushed up from below by a powerful hydraulic jack . . . not pulled from above. This also makes possible a lighter shaftway structure . . . no need for heavy load-bearing supporting columns to carry the elevator and its load. No special machine room necessary either . . . the compact power unit can be located in any convenient space on any floor.

Oildraulic Controller Insures Accurate Landing Stops

Where loading and unloading is done by power vehicles, the Rotary Oildraulic Elevator is first choice. Guided by a highly efficient mechanism called the Oildraulic Controller, it operates smoothly and rapidly, stops at floor landings with accuracy, and holds the landings. Also important for this type of service is the rugged construction of the elevator car, with its heavily reinforced sling and platform.

For data to help solve your elevator problems:

Send data on Rotary Oildraulic Elevators to:

Name

Address

City and State

ROTARY LIFT CO.
1129 Kentucky
Memphis 3, Tenn.

January, 1948
PLANS should include provision for Explosion-Proof Surgical Lights

Explosion-Proof Operay Multibeam Light

Explosion-Proof Operay Surg-O-Ray Light

For more than 40 years architects and hospitals have received valuable assistance and authentic guidance in planning for many major items of hospital equipment manufactured by Scanlan-Morris. They have found this service especially helpful in planning for surgical lighting.

Efficient surgical lighting plus adequate protection against fire and explosion hazards in the anesthetic area is the dual accomplishment of Scanlan-Morris Operay explosion-proof surgical lights. These fixtures are approved by Underwriters' Laboratories for use in Class 1 Group C Hazardous Locations—a classification that includes operating and delivery rooms employing explosive anesthetic gases.

Scanlan-Morris Operay lights are widely used in prominent hospitals. The lights are made in two general types, as illustrated: Operay Multibeams and Operay Surg-O-Ray. The ceiling fixtures are furnished either with or without auxiliary ceiling lights for general illumination.

The Scanlan-Morris Technical Sales Service Department will be glad to supply complete information, including installation drawings, and will also welcome opportunities to cooperate with architects in correct planning for surgical lighting based on building plans. Such service is freely offered, without obligation, not only on surgical lighting but also on sterilizing equipment, recessed cabinets and other major items of hospital equipment manufactured by Ohio Chemical. Mail the coupon for detailed information.
Free!

Books of facts about PC Glass Blocks

Send the coupon for your copies

THE INDUSTRIAL BOOK treats comprehensively of the use of PC Glass Blocks in a wide variety of industrial plants to distribute light, to insulate, to exclude harmful dust and grit, to reduce maintenance and fuel costs.

THE COMMERCIAL BOOK deals with the use of PC Glass Blocks in office and public buildings, stores, cafes, schools and hospitals.

In each informative book you will find complete engineering data, charts, specifications and complete information on the application of modular coordination to the basic principles of Glass Block installations. Each book contains many photographs of actual PC Glass Block jobs. And there are also photographs of the various patterns of PC Glass Blocks and descriptions of their various functions.

Whether you are planning modernizing or new construction projects, you need this latest information on PC Glass Blocks. Why not send the coupon today and get these helpful books? Remember, they're free. Pittsburgh Corning Corporation also makes PC Foamglas Insulation.

PC GLASS BLOCKS
... the mark of a modern building

FOR ADDITIONAL INFORMATION SEE OUR INSERTS IN SWEET'S CATALOGS
IN A STRANGE NEW LAND they stood—these displaced persons. Silent men with grim tasks ahead worked purposefully and with little thought of the fatigue that racked their weary bodies. They were building a new community—their community.

Women, hollow-eyed, their white drawn faces mirroring pain, went about setting their humble homes in order. On every side was hunger, privation—the plight of desperate people—"A picture of Europe, 1948?" . . . you ask.

No—a picture of America, 1620.

For here, 101 displaced Pilgrims—men, women and children of the new America—freedom-loving people all, were beginning a new way of life. They were meeting critical shortages, and overcoming them—shortages of all the things that make for decent living—food, clothing, shelter . . . shortages that relatively were the greatest our nation has ever known.

There was a 100% shortage of almost everything on that day, 328 years ago, when their storm-battered ship nosed into the quieter waters of rock-studded coastal bays. Yes, a shortage of everything except COURAGE—a belief in the dignity of man—a passionate desire on the part of each to live as he liked.

Perhaps it was the strong driving force of the urge to be free men that enabled them to solve the critical shortages of their day. For you see, no one could pass a law providing new homes or schools . . . nor were there any homes here ready for them to occupy.

So, with bare hands and primitive tools, they individually dug from the earth and cut from the forests their own homes and schools. Ceaselessly and endlessly they worked at their simple tasks, struggling for necessities . . . looking ahead, not behind . . . building a heritage for millions of Americans to come.

Are we less courageous than they?
Is war-scarred Europe more destitute than they were?
Is there less hope in our time than theirs?
Are our shortages more acute than 100%?

There is a simple answer to those questions and to the problem they pose. It is a WORD. A short word, without glamour, but a virile word of dynamic force . . . a word, that in its simplicity, might be overlooked, but a word so powerful as to be virtually magic.

It isn't a new word to Ceco thinking, for in January 1947 we said this word was the key to better times—to security for all.

May we say it again?
It is W-O-R-K—a four-letter word for continuing prosperity, for preserving freedom in America and for providing hope throughout the world. As we said before, everyone must work more . . . produce more—management and labor.

Suppose we look at the simple mathematics of the problem. There just aren't enough homes, schools, hospitals, roads, to satisfy the needs of all—not enough steel, automobiles, freight cars, food . . . for America and the rest of the world. How can more of these scarce things be made available sooner, and at LOWER PRICES?

We, like you, have heard many so-called cure-alls. Some say too many have too much money . . . they bid against each other for scarce things and thus keep prices ever moving upward, so taxes must be raised, not lowered—must be kept high to draw off excess money. Credit must be curtailed so buying will be slowed down. Or prices must be regulated and goods rationed.

Others say don't buy unless your needs are desperate, quit eating certain foods certain days, don't build now . . . don't . . . don't . . . don't . . . verboten. It all has a familiar ring somehow. It's a creed of hopelessness—of negation.

Let's hear a new voice in America, raised high in a mighty crescendo, drowning out those voices of fear. Yes, a new voice of hope, which will say in clear unmistakable tones of triumph . . .

"Let's DO something . . . yes, let's trade DO for DON'T."

We of Ceco believe the American way to solve the problem of shortages and high prices is one of action . . . one of doing . . . of making more things, not buying less of what we have, of increasing prosperity . . . not dividing misery. And prosperity comes from making a lot for all . . . not dividing a little with all.
Look at it this way. There are some 60,000,000 adults—men and women—employed in the nation today, making things for the more than 140,000,000 Americans and the many, many millions in all the other countries of the world. Now we can't increase our 60,000,000 employed to any great degree very fast. They just about represent today's manpower capacity—but, if everyone of those 60,000,000 . . . executives . . . managers . . . labor . . . white collar people, ALL of America's working force, produced more individually, things would become more plentiful and prices would be reduced.

It's basically that simple.

Yes . . . we 60,000,000 Americans must work more, produce more, instead of less, and that goes for EUROPE and EVERY OTHER PART of the world. Everywhere we must increase man-hour output . . . bricklayers must lay more bricks, architects create more buildings, miners dig more coal, farmers raise more produce, stenographers write more letters, managers do more managing . . . and this must go clear back through the entire economy from raw materials to manufactured products.

Then, and only then, will scarce things be plentiful . . . will money stop bidding up prices . . . will inflation be halted and a sound basis be established for the security of all, both labor and capital.

Given a freer rein this past year, the building industry made real progress in cutting down building shortages. For example, twice as many homes were completed in 1947, as compared to 1946 . . . plant expansion is getting closer to demand. Ceco salutes construction men for the job they are doing.

We like to feel that in some measure we have been helpful in this progress. Here are some of the things we have done to help the building industry in 1947.

Our production in 1947 nearly absorbed manufacturing capacity, which was doubled in 1946 • New fabricating plants were erected in Hillside, New Jersey and Houston, Texas • Personnel in plants, offices and sales force increased more than 50% • More than 100 improvements were effected in our products • More than one-third of our new products developed since the war were put in production.

But what about the future?

Today, as was true a year ago, the building industry faces an imposing demand for all types of construction. People want more homes, schools, roads, and will get them if an unhampered building industry is permitted to provide them . . . could get them at lower prices, too, if ALL would WORK to produce MORE, not less.

We of Ceco believe in America's future, in its ability to meet the challenge of world leadership—for after all, a way of life that has given Americans more of the good things of earth than any other people anywhere doesn't have to be proven . . . it is proven . . . it is working.

As for the building industry, Ceco has confidence we can count on our architects, engineers, contractors, builders and industry labor, to provide the structural needs of our nation. To this end the industry—America—can count on Ceco.

CECO STEEL

PARTIAL LIST OF CECO PRODUCTS • METAL WINDOWS AND DOORS • METAL FRAME SCREENS • STEEL JOISTS AND ROOF DECK • METAL LATH AND ACCESSORIES • MEYER STEELFORMS • CONCRETE REINFORCING BARS • WELDED STEEL FABRIC • HIGHWAY PRODUCTS • CORRUGATED ROOFING • LOUVER VENTILATORS

CECO STEEL PRODUCTS CORPORATION
GENERAL OFFICES: 5701 West 26th Street, Chicago 50, Illinois
Offices, warehouses and fabricating plants in principal cities

JANUARY, 1948 43
BIG CITY traffic congestion is increasingly critical. J. C. Penney & Co., Inc., leading department-store chain, decided to do something about it. They tore out part of the ground-floor of their huge New York City warehouse, reinforced the entire structure to carry 350 to 400-lb. loads per sq. ft., built a modern concrete loading dock adjacent to main-building elevators, and concreted a 40-ft. transverse driveway from street to street. Now trucks enter from one street, back into the platform with a quarter turn, unload from both center and rear doors, drive out the other street.

Same kind of planning went into concrete work. The Bell Company, of New York, designed the job with 'INCOR' 24-Hour Cement... saved time, overhead and cold-weather costs... only one-day curing under hay and tarps. Safe, speedy, sub-freezing concrete work assured by faster thorough 'Incor'* curing. It pays to keep economies like these in mind on cold-weather work.

ACCEPTED DESIGN: concrete block, reinforced. Subtle differences between the schemes enlarge when studied.

EFFECT OF BUILDING Materials ON DESIGN

ALTERNATE DESIGNS FOR A CHURCH
NEGROS, PHILIPPINE ISLANDS

ANTONIN RAYMOND & L. L. RADO, Architects
PAUL WEIDLINGER, Structural Engineer

REJECTED SCHEME: reinforced concrete monolithic frame.
PROBLEM: A Catholic church (to seat 500, plus open porches) for the Island of Negros. Site: on a sugar plantation. Climate: hot, very high humidity, torrential rains. Structure: materials limited to reinforced concrete and concrete block masonry; the building must withstand hurricanes and earthquakes.

ACCEPTED SOLUTION: Concrete block, reinforced, for verticals; reinforced concrete beams and slabs.

REJECTED SOLUTION: Reinforced concrete monolithic framing, which leads to lofty proportions, thin verticals, a detached tower and baptistry.

COMMON TO BOTH SOLUTIONS: Church entirely open at sides on ground level, with walls of folding doors; pierced concrete block clerestories for ventilation, with wide roof slab overhangs and interior “shelves” to catch rainspray which penetrates.
IN THE INTERIOR, REJECTED SCHEME (at left), the design differences imposed by the two kinds of basic building materials become most apparent. Both designs unmistakably emanate from the same source; yet the rejected one is relatively mechanical and offers less opportunity for the personal, loving touch of the craftsman which has characterized successful church design in the past.
CONCRETE BLOCK CONSTRUCTION, detailed below, entails heavy supporting piers whose buttress-like masses are designed to resist hurricane and earthquake stresses. The concrete masonry is to be erected first and filled with mass concrete as work progresses, a procedure, well adapted to local labor capabilities, which eliminates some formwork. Note, in section, projection of aisle roof into interior to act as a gutter to catch the rain that is expected to penetrate the clerestory, which is a simple grille constructed of concrete blocks; the block will have slightly colored aggregate. Detail at left is being restudied; vertical reinforcing rods will be introduced in the central concrete core.
ACCEPTED CHURCH DESIGN, NEGROS, PHILIPPINE ISLANDS

ANTONIN RAYMOND & L. L. RADO, Architects

ANTONIN RAYMOND (right) is well known; LADISLAV L. RADO, born in Czechoslovakia in 1909, studied in Prague and at Harvard and practiced in Czechoslovakia as well as Boston and New York before joining Raymond. Of the accepted design they say: "(w)e felt that the resulting more humble character is more fitting in this particular case."

TOWER. The sanctuary is given a necessary dramatic quality by opening the space upward into the tower, which adds to the belfry's significance. Sanctuary and tower (resting on concrete beams supported by buttresses) are structurally detached from the main body of the church to avoid an eccentric center of gravity which is undesirable in earthquake-resisting design. The whole structural system, dictated by materials, results in a down-to-earth character and lower proportions. Into this technically conceived composition the contrast between deep, thin overhangs, massive piers, and pierced clerestories, as well as the overall fresco of the sanctuary wall, introduce essential emotional elements.
Seldom does one see work in which structure, site, and clients' needs merge so completely in the process of design. Conditioned by the particular circumstances, the construction system here is also the aesthetic concept; there is nothing superfluous, nor is the whole in any sense parsimonious. The simple elegance of pencil-thin shadows contrasted with heavy darks under the overhangs results from knowing use of structural essentials, and helps produce the feeling that this house grows from its site. The isometric shows the elements of the wood post-and-girder construction.
ON THIS SIDE the ground continues to rise. Hence, for privacy on the upper floor, the only openings in this wall are kitchen window, clerestory under the eaves, and entrance door (right). The small paved sitting space is the single important change in the natural site.

**Materials for '48**

**HOUSE**

**LOS ANGELES, CALIFORNIA**

GORDON DRAKE, Designer

SITE: North slope of a small, wooded canyon west of Los Angeles; lot only 35 ft wide and fronting on a steep, unpaved access road; buildable area a mere 30 ft deep, ending abruptly in a cliff-like hill. The buildable area was shut in by trees, so the designer decided to raise the principal floor to give the occupants a vista and more winter sunlight. This also made it possible to disturb the site very little, and to retain all the principal natural growth.

CLIENTS: Designed for one couple, built by a second, and lived in by a third—all three professional people, childless, and wishing to live informally.

DESIGN: Site restrictions led to the concept of an upper living plane anchored to the hill at one end and apparently supported at the other by the mass of the chimney, with all services on the lower floor. Wood framing had to be independent of the chimney to comply with earthquake design requirements.

BETWEEN THE 4" x 4" WOOD POSTS, 6 ft on centers, exterior grade Douglas fir plywood sheathing is employed as a structural skin. Posts not so braced have 2" x 4" stiffeners. Interiors are surfaced with white pine plywood, also used as a structural skin.
UPPER LEVEL is entered across a wood ramp, bridging from hillside to house. Interior trellis, projecting over the entry, dropped to door-head height, connects plan elements on this side as the first in a series of vertical space progressions.
EAST: Most of the east wall is a series of ill-glazed doors opening to a balcony at leads to a secluded garden terraced to the hillside. Clerestory (see preceding page) in opposite wall over the row of assets is hidden above the interior trellis provides cross ventilation.

RIGHT: Interior looking toward balcony shows some interior trellis sections open to relate tangibly to the ceiling above; others are lighting soffits of diffused glass. Beyond the trellis the living area opens to full story height in preparation for the balcony, where the sky is literally the ceiling. Floor is Chinese matting, over 3/8" plywood used as a structural membrane, as in the walls.

HOUSE, LOS ANGELES, CALIFORNIA
GORDON DRAKE, Designer

ENTRY from the car shelter is directly up a flight of wooden steps shielded by a vertical trellis. Between laundry room and chimney one can see completely through the lower floor to the paved terrace and natural growth beyond.
THE DESIGNER says: "I used the original isometric drawing to convince the local building inspector that the building actually would stand up. . . . Perhaps this house (satisfactory to three potential owners) points up the dominance of site rather than individual family in design, once typical needs of a group are met."

HOUSE, LOS ANGELES, CALIFORNIA

GORDON DRAKE, Designer

RIBBED OBSCURE GLASS gives privacy to the entrance corner yet admits outdoor light. The same glass is used in portions of the ceiling trellis to form lighting soffits.

KITCHEN, glimpsed far above, is separated physically from living room only by the chimney, yet the process of food preparation is not visible from the rest of the living area.

AT LEFT OF THE FIREPLACE is the built-in dining table, which seats four; at right, against the blank wall which affords privacy from the road, a built-in couch. Such devices increase the spaciousness of what is almost a "minimum" house.
New Materials for '48

WOOD

American Roof Trusses: custom-built with parabolic top chord, ensuring great strength. Spans 25 to 150 ft. Remodeling, interior walls, can be designed to cover existing roof supports. Eliminates interior columns. American Roof Truss Co., 6800 Stony Island Ave., Chicago 49, Ill.

Califormi Redwood Assn.: adopted new grading rules, effective 1946, annually improving into use during the current year. California Redwood Assn., 405 Montgomery St., San Francisco 4, Calif.


Lenk Tecus Truss: new, redesigned, timber construction, with 3 features—use of Truscon connectors; chord with redwood face in varying thicknesses; use of actual butt slats; steel tension used where desired. Can be utilized for any timber frame. Truscon Engineering Co., 3319 18th St., N.W., Washington, D.C.

Long Span Arches: Engineering Co., 1319 18th St., N.W., Washington, D.C.

Metal:


Plywood: higher performance standards for Douglas Fir plywood established by the industry on September 15, 1947. For plywood now in accordance with New U. S. Standard SM 175, Douglas Fir Plywood Assn., Tacoma Bldg., Tacoma, Wash.

TIMBERFRAMES: insulated, glazed arch; related, kiln-dried lumber. U. S. Dept. Agriculture tests indicate this type of arch is 4 times stronger than wooden arches of same size. For industrial, commercial, farm buildings. New Generation, Inc., Structures, Inc. Box 5782, Portland 8, Ore.

METAL

Clip-Grip steel studs, clips, and runners: fire-proof, clip-grip system of partition construction. Clip-Grip studs are nailed at ceilings and floor lines. Steel core contains fireproofing material. Available in 3 lengths; 12, 16, and 24 ft. Norton Metal Co., 113 W. 42nd St., New York 18, N. Y.

Portland 8, Ore.

Wood: stronger than nailed arches of same size. For higher performance standards for Plywood:

LaClede Steel Co., Arcade Bldg., St. Louis, Mo.


Modular clay units: additional new products to be introduced early in 1948. Elgin-Butler Brick Co., Austin, Tex.

Mul-Kro "Wbond" patented: a foundry material containing fiber and special mastics, is identical in appearance with concrete block. Many working properties assure; may be sawed, sanded, drilled, screwed. Laboratory tests conducted for making cavity concrete walls. Forms can be adjusted to vary thickness. Concrete Thermos Wall Co. Of America, Inc., 3319 18th St., N.W., Washington, D.C.

Steel floor and ceiling runners, V2" thick. Steel floor and ceiling runners, when bolted to floors and ceilings, serve as expansion joints. Nesto Metal Corp., 516 5th Ave., New York 18, N. Y.

LeClede steel joists redesigned in 1947 to a straight chord type, provided with 3 types of standard end joints. New Soldered, drilled, screwed. Laboratory tests conducted for making cavity concrete walls. Forms can be adjusted to vary thickness. Concrete Thermos Wall Co. Of America, Inc., 3319 18th St., N.W., Washington, D.C.


New brick: made from, blended with industrial smoke stack, and slag from soft-coal burning furnaces. Both are ground, mixed with plasterizer and water, forced through a brick die, then dried and fired. Considerably stronger than usual clay brick. Will soon go into mass production. New process announced by Dr. John R. Koeing, Dir. of N. J. Ceramics Research Station, New Brunswick, N. J.

Porex Plank: recent development in precast roof, wall, floor, insulation. No. 1 in limited quantities. Richkrait Co., Builders Bldg., Chicago 1, Ill.

Rigidized Metal: patented method of processing sheet metals to increase strength and rigidity. Attractive patterns are obtained. Process may be applied to metal, steel, aluminum, copper, brass, plated metals, etc. Material used for marine, architectural, industrial applications, boxes, boxes, and restaurant fixtures, other equipment. Rapid-Tex Corp., 6850 Stony Island Ave., Chicago 49, Ill.

V-Type Steel Joists & Roof Purlins: (available in two sizes, 10' 6" and 18' 6") to be removed without destroying roof structure. Amtex Engineering Co., Canton 1, Ohio.

Alumi-Drome, aluminum prefabricated building. Reynolds Metals Co.

Well Panels (for steel framed dwellings) jig- welded, nailable, steel-stud sections sawed to required length, for site fabrication or shop construction of 9' 6" wall panels; finished top, bottom with channels and trussed with roof bracing; thickness designed to accommodate cold weather. Many commercial steel framing. Macomber, Inc., Canton, Ohio.

Rigidixed Metals: patented method of processing sheet metals to increase strength and rigidity. Attractive patterns are obtained. Process may be applied to metal, steel, aluminum, copper, brass, plated metals, etc. Material used for marine, architectural, industrial applications, boxes, boxes, and restaurant fixtures, other equipment. Rapid-Tex Corp., 6850 Stony Island Ave., Chicago 49, Ill.

Portland 8, Ore.

Structural BOARD

Durock: building material made of wood chips and other wood fibers and cellulose and Portland cement binder. Perfected in Switzer­ land, and produced there by a company. Used in semi-structural, panels, slabs, blocks, light­ weight concrete masonry units, precast acoustical wainscotting, etc. Fluxural and bond strength, high in fire resistance. Also increased thermal insulation, and good sound absorption. Waylile, Inc., 11 W. Madison St., Chicago 2, III.

STRENGTH, DURABILITY, EASE OF INSTALLATION

STRUCTURAL BOARD

Durock building material made of wood chips and other wood fibers and cellulose and Portland cement binder. Perfected in Switzerland, and produced there by a company. Used in semi-structural, panels, slabs, blocks, light­ weight concrete masonry units, precast acoustical wainscotting, etc. Fluxural and bond strength, high in fire resistance. Also increased thermal insulation, and good sound absorption. Waylile, Inc., 11 W. Madison St., Chicago 2, Ill.

Durock building material made of wood chips and other wood fibers and cellulose and Portland cement binder. Perfected in Switzerland, and produced there by a company. Used in semi-structural, panels, slabs, blocks, light­ weight concrete masonry units, precast acoustical wainscotting, etc. Fluxural and bond strength, high in fire resistance. Also increased thermal insulation, and good sound absorption. Waylile, Inc., 11 W. Madison St., Chicago 2, Ill.

Durock building material made of wood chips and other wood fibers and cellulose and Portland cement binder. Perfected in Switzerland, and produced there by a company. Used in semi-structural, panels, slabs, blocks, light­ weight concrete masonry units, precast acoustical wainscotting, etc. Fluxural and bond strength, high in fire resistance. Also increased thermal insulation, and good sound absorption. Waylile, Inc., 11 W. Madison St., Chicago 2, Ill.

BULLDING PAPER

Economy Brownskin, which was off the market, and improved Ansulite; both immediately available for concrete joists and trusses, and metal lath for ceilings under slabs. Flat, level ceiling, unsupported, without water dam., reduces amount of plastering materials and other finishing. Norton Metal Co., 113 W. Madison St., Chicago 2, Ill.


Dispersors: new aggregate formed of globules of cellulose fiber, placed, spread over concrete or cement substrates. The cellulose fiber, in limited quantities. Richkrait Co., Builders Bldg., Chicago 1, Ill.

Bostwick Steel Lath Co., Niles, Ohio.

Bostwick Steel Lath Co., Niles, Ohio.


Dispersors: new aggregate formed of globules of cellulose fiber, placed, spread over concrete or cement substrates. The cellulose fiber, in limited quantities. Richkrait Co., Builders Bldg., Chicago 1, Ill.

Bostwick Steel Lath Co., Niles, Ohio.
in locations exposed to weather. Protocol Corp., Kenilworth, N. J.


Methods of Affixing, Assembly

(nails, clips, studs, glue, etc.)


Fafiramps (SDC) Adhesive Cements: thermoplastic elastic waterproof composition for bonding such as non-rubber and vinyl film or sheet to rigid surfacing material such as metals, ceramics, glass. Affixed by high temperature (190°F), requires no plasticizers or fillers. Dries completely in 2 hours. Du Pont Fabrics Div., Falmouth, Mass.

Kerk-Pek: expansion joint filler; nonextracting composition of bitumen and cork; resilient, tough, handling without breakage; recovers to composition of bitumen and cork; resilient, tough, handling without breakage; recovers to

Unichem Laboratory, 2 Park Ave., New York, N. Y.

Dilato: new, expanding mortar used for weatherproofing brick and stone buildings. Western Waterproofer Co., 1223 Syndicate Trust Bldg., St. Louis 1, Mo.

Hill Termite Control Systems: patented pipe companies with exclusive agency arrangement. N. Michigan Ave., Chicago, III.

Send Drains and Electro-namous: improved equipment for subgrade drainage. Dilato-In-Counsel Corp., 2 Park Ave., New York, N. Y.

Protectors (waterproofing, decay-resistance: expansion joints)

Cabel's Foundation Coating: black bituminous coating for pre-fabricating and waterproofing all types of masonry below grade; fills and seals pores and keeps water out; immediately available. Samuel Cabot, Inc., 141 Milk St., Boston, Mass.

Dilato: new, expanding mortar used for weatherproofing brick and stone buildings. Western Watertough Coating, Inc., 141 Milk St., Boston, Mass.

Lambe of waterproof wood preservative. New, improved product for building products. Available immediately. Special Cables, Inc., P. O. Box 5, Fairfield, Conn.

Dilato: new, expanding mortar used for weatherproofing brick and stone buildings. Western Waterproofer Co., 1223 Syndicate Trust Bldg., St. Louis 1, Mo.

Hill Termite Control Systems: patented pipe primer systems for permanent, positive control in new construction. In addition to pipe system, there is thorough poisoning of soil at all entry points, also removal of debris, tree roots, etc. System will be distributed nationally through large building supply companies with exclusive agency arrangement. Precipitex Mfg. Corp., Hill Termite Control Systems, Memphis, Tenn.

Hillyard's Caulking Compound: was off the market but is now available again. Hillyard Sales Co., St. Joseph, Mo.

Puro-Plastic Joint Sealing Compound: "Hot Porous Rubber Seal" used to seal expansion joints of all types of concrete construction; available in green, red, gray, cream, and white. Mfg. Corp., 6061 W. 65th St., Chicago 36, Ill.


Prufites: transparent waterproofing penetrates all pores, capillaries, hairline cracks in masonry walls, free of wrinkles, and is guaranteed not to bleed. Free from catalysts, solvents, etc., are unnecessary; all materials required for erection. Van-Packer Structures, Inc., P. O. Box 3782, Portland 8, Ore.

Pyresses: combination fire-, decay-, insect-resistant treatment. Increased permanence, especially made in 2 different pieces to be slid onto a bolt and fastened permanently without removing nut from bolt. Held together will not separate under shock or vibration. These waterlogged bolts eliminate. Timber Engineering Co., Washington 9, D. C.

Teco Trip-L-Grip Framing Anchors: secondary support made of 18 gage zinc-coated, corrosion-resistant steel. Used to secure wood to concrete, brick, or masonry. Teco Chemical Corp., 6605 W. 65th St., Chicago 36, Ill.

Teco Segmental Washers: of malleable iron

Materials Structural

tire protection, sound insulation. Goldsmith Metal Lath Co., 4501 Chickering Ave., Cincinnati 32, Ohio.

Metal Lath and Lathing Accessories were off the market but are now available. Goldsmith Metal Lath Co., 4501 Chickering Ave., Cincinnati 32, Ohio.

Micron Sealed Partition System: steel-reinforced vertical plaster slab, 2" thick. Hot or cold steel channels, running from floor to ceiling, reinforce partition vertically and hold metal lath to which plaster is applied. Metal lath reinforces partition horizontally and diagonally; also functions as plaster base. Hilti resists Classical impact, fire, wind, water, vibration. Limited quantities. Insulated Steel Products Co., P.O. Box 323, Milwaukee 1, Wis.


Foundation Construction Equipment

Battered Drilled-In Ceilings: for horizontal thrusts in foundations; new product. Also new, Drilled-In-Ceiling Corp., 2 Park Ave., New York, N. Y.

Send Drains and Electro-namous: improved equipment for subgrade drainage. Dilato-In-Counsel Corp., 2 Park Ave., New York, N. Y.

Prefabricated Structures and Sub-Assemblies

Alum-Drones: new, standardized, unit type, arch-shaped structures. Unique design for severe or rough weather conditions. No posts or other obstructions; entire floor area available for use. Can last year after year without maintenance; will not rust, rot, or deteriorate. Fire-, termite- and rust-proof. 6' sections allow length to vary as desired. Reynolds Metals Co., 2500 S. 3rd St., Louisville, Ky.


Cabinet-Wall: plywood, prefabricated closet for storage of clothing, linens, or household equipment. Entirely closeable, goes to closest space. Units may abut interior or exterior between and around 1' x 1' units. Can be custom-nibbering, 3 types available. All Cabinet-Wall units are for use in buildings with ceiling height up to 8 or more. Mill Products Co., 1507 M St., N. W., Washington 5, D. C.

Fabricon: precast concrete wall panel. 8' x 4'. Made of 2 to 10 inch sections of Reinforced concrete, surfaced with steel plate. Can be used in ventilating gable, prefab houses. 6 in. sections of reinforced concrete, surfaced with steel plate. Cannot be used in ventilating gable, prefab houses.

Lockset: permanent, fireproof, sectional steel stair unit of 14 steps. Can be erected in about 90 minutes. The Home-Ola Corp., 690 3rd St., St. Paul, Minn.


Multi-Weaving: process for weaving metal, plastic, fabric, or wood in which a wide range of decorative effects are obtained. Can be used in ventilating gable, prefab houses. 6 in. sections of reinforced concrete, surfaced with steel plate. Cannot be used in ventilating gable, prefab houses.

Van-Packer Structures, Inc., 153 S. Halsted St., Chicago 13, Ill.

Portable Blankets: new product. Timber Structures, Inc., P. O. Box 3782, Portland 8, Ore.

Rigid-Steel Construction: prefabricated rigid-framed construction. All prefabricated frames eliminate many members ordinarily required. Typical design is standard bois-tye, 14' x 24' x 24' in multiples. Suitable for agricultural, warehousing, single-story manufacturing purposes. Field fabrication is possible, much simplified. McCloskey Co., Pittsburgh, Pa.

Stainless Steel Room: 3-flbr bathroom and accommodation. Stainless steel room, complete floor to ceiling, ceiling to floor; includes closet, medicine and linen closets, combination toilet, shower, towel rail, soap dish, washbasin, compartment and tray, towel and grab bar, and ventilating equipment. Fully enclosed and air conditioned. Built in Steel Fabrication, Inc., 1600 W. Armitage, Chicago, Ill.

Timberline economy building, 80 ft span windows and doors, prefabricated 2-story, 2-story, ready for delivery. Can take on any architectural treatment for woodworking; possibilities endless. Optimal width of 60' or 50' in varying lengths of 16', 19', 20', 21', 20'; 16' x 20', 16' x 21', 21', 20', 20'. Used in Buildings, Structures, Inc., P. O. Box 3782, Portland 8, Ore.

Teco Lank Truss (E. S. Lank, structural engineer). Timber Engineering Co. 58 PROGRESSIVE ARCHITECTURE
PROBLEM: To provide in one block-square building a two-floor public market, a social hall and public meeting room for 1,500 to 2,000 people, a 500-seat moving picture theater, and a block of offices. The market had to have, on both floors, traditional openness to outdoors; the theater of course had to be designed to exclude natural light; but market, theater, or hall would never be in use at the same time.

SOLUTION: Movable interior walls, floor, and roof, motor-operated, make it possible to change the upper floor from market space to social hall or theater in less than an hour. Lower floor is devoted entirely to the market, except for a lobby which can be partitioned off to serve the upper floor. Walls of the lower floor are glass doors; of the upper, translucent plastic and glass. The office block, taller, is at the rear. The entire structure was prefabricated.
METAL WALLS

Walls of the office portion of the building, along one entire street frontage of the full-block site, consist of completely prefabricated metal panels which are held in place by spring cover strips. These are easily removable, allowing any panel to be taken out for examination and repair. Individual panels are composed of an inner and an outer sheet of steel, spot-welded together. Inner face of each sheet has an asbestos fabric lining; panels are filled with glass wool held in position by upholstery-type springs. Though built in 1939 and poorly maintained during the war, none of these panels shows signs of damage or rust today.

MARKET

Building arranged as a public market; lower floor for meat, vegetables, perishables; upper for textiles, clothing, etc. Entire construction was prefabricated in units of transportable size and assembled completely dry on the job. Steel frame is welded.
TRANSUCENT WALLS

To increase the apparent openness of the second floor when used as a market, thus furthering the French tradition of open-air retailing, it was decided to enclose the area with translucent walls. Glazed panels set between the vertical framing members have outer surfaces of glass, inner faces of translucent ribbed plastic, which admit a soft, diffused natural light. The air space between serves as thermal insulation.

In both metal and translucent walls, the vertical framing is covered with enameled sheet steel sections in standardized unit sizes.

PUBLIC HALL, CLICHY, FRANCE

AUDOIN & LODS, Architects

ROUND FLOOR; note sliding wall which shuts off foyer.

UPPER FLOOR (as a market); center wall is open to sky.
**Materials**

**SURFACING**

**PUBLIC HALL, CLICHY, FRANCE**

**INTERIOR, upper floor, skylight and floor panels in position, making the hall suitable for social or public meetings.**

**MOVABLE FLOOR AND ROOF**

When the upper floor center well is open, floor panels are stacked in the stage area. When the floor is to be filled in, the whole stack, powered by a 4 hp motor, moves out and deposits the panels in place one by one. For restocking, an 18½ hp motor is required. The balcony balustrade folds down before the floor panels are placed. Changing the floor takes about 45 minutes. Floor panels consist of steel girders and joists decked with sheet steel; over this are a cushion of asbestos secured with asphalt, and top surfacing of linoleum. The same finish is used over balcony floors. Ceilings are of enameled steel sheets. The sliding roof (5 hp motor) can be removed in about one minute. The projection room is housed in the fixed roof framing. The roof is also insulated with glass wool.

**SKYLIGHTS moved away to open the center well to the sky when entire building is being used as a market.**

**INTERIOR, upper floor, showing both floor panels and skylight opened on market day.**

**UPPER FLOOR, as a social or public hall, center well floor panels in position.**

**SAME FLOOR, as a moving picture theater; sliding walls drawn around theater area.**
MOVABLE WALLS

When a theater is wanted, a button is pressed and two sets of movable walls emerge from slots at either side of the stage, encircle the theater area, and meet at the opposite side. The walls, suspended from a track concealed in the ceiling, consist of metal frames surfaced with sheet steel dadoes, above which they are filled with mineral wool slabs faced both sides with fabric to act as an acoustic absorbent. When not wanted, walls are stored behind the movie screen.

It takes as long for the walls to move into position as it does the roof (about one minute), and requires a 5 hp motor.

INTERIOR of the 700-seat movie theater

THEATER

Upper floor arranged as a theater; floor units have filled the open well, interior walls enclose the seating space, and the roof is closed. The remainder of the floor becomes a promenade. In the lobby below are placed a portable ticket booth and checking facilities.
FLOORING, FLOOR COVERINGS


Consigners: new, heavy-duty mastic composed on asphalt-saturated felt backing, for industrial and commercial areas; inexpensive, resilient, easily maintained. May be fast laid on a Nairn Linoleum Paste. Suitable for above, on, or below grade installations. Consealum-Nairn, Inc., Kearny, N. J.

Flor-Ever Plastic Floor Covering: plastic floor covering which eliminates need of waxing and polishing. Fall-back Vinylite flooring, applied exactly like linoleum. Does not chip or crack; unaffected by alkali, does not support combustion; resists staining by water and grease. Available in wide range of excellent colors and patterns. Delaware Floor Products, Wilmington, Del.

Hardwood Floorings: 3-ply, cross-laminated hardwood flooring available 12" wide and in any length. Made in a continuous glue press from small-size, cut-type hardwood logs. Best part is used as top layer, remainder as other 2 layers. Laminted Wood Products Co., Knoxville, Tenn.

Latex Underlay: new leveling fill for use under resilient floorings; stabilized rubber latex emission and mineral filler. Requires no primer, easily applied. Provides sound deadening cushion withstanding slight structural movements without loosening or cracking. Johns-Manville Co., 135 E. 40th St., New York 16, N. Y.

Leatherfloor: natural cowhide capable of taking highly waxed finish. Applied in individual tiles by means of a mastic directly to smooth sub-floor such as plywood, cement, etc. Produced in 4", 9", 12" square or triangles. Promptly available. U. S. Plywood Corp., 55 W. 44th St., New York 19, N. Y.

Maple Flooring: new grading rules. Combination grades of wood. Second and better grade, combination of first, second grades developing in a strip without crosscutting for each grade. Lowest grade not less than second. Third and better grade, combining first, second, third grades developing in strip without crosscutting; lowest grade no less than standard third grade. Maple Flooring Mfrs. Assn., 45 Washington Blvd., Oakpark, Wis.

Nairn Marine Deck Covering: resilient flooring combining beauty and appearance, easy maintenance, resistance to severe wear. Research facilities developed only material which met critical Navy requirements for war vessels. Scotch-, alkali-, water-resistant unaffected by heat and humidity; good nonslip qualities when surface is wet. New product. Consealum-Nairn, Inc., Kearny, N. J.

Nairn Veltones: 15" burlap-backed commercial linoleum is now available. Consealum-Nairn, Inc., Kearny, N. J.

Parky wall and floor coverings: 2 styles (both in solid American oak). —Parky tile in 9" x 9" beveled sections to set with alternating grain patterns. Parky 6" wide Broadboard with chamfered edges, for floor-covering and wall paneling. Quickly installed, 1 room floored or paneled ready for use the next day. Promptly available. Wood-Mosaic Co., Louisville 8, Ky.

Serviced Safety Flooring: rubber composition into which is anchored Aluminum abrasive aggregate providing nonslip, durable walking surface. No grooves to catch dirt, resistant to chemicals. For installations where grease, gasoline are anticipated, different rubber base required. Consult Engineering Dept. for Serviced Gressproof Flooring. Serviced Products Corp., 6055 W. 65th St., Chicago 38.

Serviced Safety Floor Tile: available in various colors matched to Serviced Safety Treads for loadings and vestibules. 36" x 36" sheets or 9" x 9" or 12" x 12" tile forms. Serviced Products Corp., 6055 W. 65th St., Chicago 38, Ill.

ROOFING, SIDING (exterior)


Aluminum Alloy Roof Decking & Siding: improved product. Memoree, Inc., Canton 1, Ohio.

Cree-Dipt Double Wall Zephyr: deep, textured corrugations, leveling qualities of the bore. by Cree-Dipt Moisture-Resistant Insulation Board. Shingles are made from their insulating board, rustproof nails to cover 100 sq ft of surface. Immediately available. Cree-Dipt Co., Inc., North Tenawanda, N. Y.


Fiberglas Reeding Materials: glass fiber bonded into a uniform felted mat used as a carrying and reinforcing agent for bitumens in roofing. Unaffected by high temperature applications of bitumen. Owens-Corning Fiberglas Corp., Toledo, Ohio.

Flitec products: snow guards, roof strainers, leader bands and straps, skylight screening. These new items are for steep-sloping roofs of all kinds of materials. Davyd Levov, 308 W. 22nd St., New York 11, N. Y.

Ford-V-Neer: new siding material using Fiberglas as the base material. Weather-, fire-, and vermin-resistant. Available in brick or stone pattern, wide variety of colors, large sheets. Ford Roofing Products Co., Chicago 2, Ill.


Glasifib: waterproofing membrane made from Fiberglas yarn for roofing and other use in construction. Roofpit; not affected by hot tar or asphalt bitumen. Lexington Supply Co., Cleveland, Ohio.

Leadite "15": reintroduced in 1947, a lead-coated copper, neutral gray, noncorrosive, non-staining; for roofing, flashing, gutters, leaders, etc. Copper was coated both sides with 7 lb lead per 100 sq ft. Available in standard sizes of sheet, strip, parallel edge strip, and roll copper. Bower Copper & Brass, Inc., 239 Park Ave., New York 17, N. Y.

STAIRS

Ferr用人单位 Anchor Anchors On Ferron Abrasive Treads: improved products. Anchors shipped with treads, heretofore anchors were shipped separately from treads and assembled on the job. Available in 6 months. American Abrasive Metals Co., 460 Colt St., Irvington, N. J.

Serviced Safety Treads: with non-slip nosing; applied to concrete, stone or metal construction with equal ease. Laid in adhesive cement, yet can be repaired or replaced at will. 2-tone color effects obtainable by use of narrower treads and standard and improved product. Many more uses now in development. Durisol, Inc., 425 Lexington Ave., New York 17, N. Y.


Woodwelder: portable, high-frequency handheld; secures or welds without nails or screws. Used like an electric iron, operates on 1-kw generator. Woodwelding, Inc., 3000 W. Olive St., Burbank, Calif.
TILE (ceramic, linoleum, etc.)

Aluminized Steel: formed by application of molten aluminum to both sides of sheet steel. Resists corrosion, also high temperatures (250°F to 1000°F) without scaling or discoloration. Can be welded, bent without peeling or flaking. Not recommended for direct point application, but does hold point better than galvanized steel.

Miler Applied Cealings and Trim for residential construction. Fabricated from 22-ga rolled steel, also both sides with rust-inhibitive, light gray primer coat. Units cannot warp, split, warp, crinkle, or rot. Cannot be damaged by rats or vermin. 3 styles of casing trim, 2 styles of base trim. Immediately available. Inland Steel Products Co., P.O. Box 283, Milwaukee, Wis.

Plylite aluminum solder used to solder aluminum to aluminum without a flux or flux substitute. Resisted aging, other 26-hr salt spray corrosion test. Also showed excellent taxing, and electrical properties. Aluminum Solder Corp., 15 E. 52nd St., New York, N. Y.

Rigidized Metals: patented process of processing metals to increase strength and rigidity. Attractive patterns obtained, utility values improved. Process may be applied to stainless steel, aluminum, copper, brass, plated metals, etc. Material used for many products: machinery, appliances, hotel and restaurant fixtures, other equipment.

Rigid-Tex Corp., 658 Ohio St., Buffalo 3, N. Y.

GLASS, MIRRORS


One-Way Mirrors: for use where it is desirable to see without being seen. Produced by evaporating chromium in a vacuum, causing vaporized metal to condense on glass surface. Furnished in polished plate glass 13/64" thick, in 3 sizes, 12" x 42", 20" x 42", and 30" x 40". Pittsburgh Plate Glass Co., 622 Duquesne Way, Pittsburgh, Pa.

Glass: see "Openings"

PLASTICS

Biaxially Oriented Vinylite: new vinyl plastic sheeting impervious to spotting, staining, or abrasion. Available 48" wide in standard grade and in special grade treated on both sides for installing on form, smooth surfaces with special adhesive. Standard colors may be furnished to match any color chart. Promptly available. U. S. Plywood Corp., 55 W. 46th St., New York 18, N. Y.


Decorative Micarta: was off the market, now available. U. S. Plywood Corp., 55 W. 46th St., New York 18, N. Y.

Fomaloid Redwood: complete line of colors and patterns now being produced. Fomaloid laminated plastic sheets are immediately available to fabricators of sink tops, table and counter tops, etc., in all sections of the country. Fomaloid Insulation Co., 4141 Spring Grove Ave., Cincinnati 2, Ohio.

Neotem: new impregnated, pigmented pulp mache into a reinforced panel which can be laminated to any backing. Excellent chemical and heat resistance; easy to trim, ill. apply. Amply available. Macrolux, Inc., Houston, Tex.

Plastiglas: new plastic coating which hardens, toughens, and preserves paper, plywood, lumber, and plaster against water, oil, and mild most acid solution. Also affords high surface gloss. Celanese Corp., Fuller City, Calif.

Vimite: new material of reinforced plastic used to etch sides of buildings while under construction. Also used for terrapins which can be rolled away for storage and used indefinitely. Transparent, gives privacy without blocking light. 2 types: plastic mesh, wire mesh. Celanese Corp. of America, 190 Madison Ave., New York 16, N. Y.

Vinylite plastic: in various forms—door panels, upholstery, rest-fortified lacquers, flooring. Also paneling, cabinet-work, resin-bonded plywood, counter and desk tops. Bokelite Corp., 300 Madison Ave., New York, N. Y.

FABRICS, WALL COVERINGS

Checkwood: wall covering of 1" jewel-cut squares of plywood bonded to fabric backing. Suitable for moldings, trim, furniture facing, wall treatment; may be stained, painted, or finished with shellacs, waxes. Entire 26" square. New product designed by Bill Barringer. U. S. Plywood Corp., 55 W. 46th St., New York 18, N. Y.


Weatherall: for wall application, covering certain types of furniture, etc. Offered in 36" or 50" widths in continuous rolls, or to match any swatch. Promptly available.
Materials

SURFACING

U. S. Plywood Corp., 55 W. 44th St., New York 18, N. Y.

Nairn wall linoleum: surfaced with genuine linoleum underlayment, good backing of light rayon. Overall thickness .050". Stain-resistant; attractive colors permanent, cannot fade or wash off. Practically invisible seems to make cleaning easy. Conoleum-Nairn, Inc., Kearny, N. J.

"Plastic wallpaper" and matching fabrics: also improved plastic wallpaper and fabrics in matching patterns. All immediately available. Loewen Originals, 225 3rd Ave., New York 18, N. Y.

Plymouth Fire-Guard Fabrics: noncombustible Fiberglas yarns and flameproofed cotton combined to provide fire-resistive fabrics. Available in variety of colors, designs, can be cut, sewed, and inserted; will not stretch; can be dry-cleaned without losing their fire-resistant qualities. Plymouth Fabrics, Fall River, Mass.

Sensa-Wall new wall covering of plastic-treated sheets bonded to a cellulose fiber back. Dirt-proof, greaseproof; does not discolor or dull with cleaning. Available in the design or plain. Guaranteed for as long as it remains on wall. Sandco, Inc., Architects Bldg., Philadelphia 3, Pa.

TRIM, ADHESIVES

Chromedome Trims: metal trim's of channel strip; also threshold weather strips. Channel strips available in 3 sizes, all standard thickness, with glass plate glass. Weather strips designed to fit door bottoms of any size or thickness. Are drilled and countersunk assuring flush installations. Available in 24 different finishes. B & T Metals Co., 425 W. Town St., Columbus 6, Ohio.


Phenoplast: 100% phenolic resin coating cured with anhydride. Cures in 24 hours without heat. Was off the market, now available. Sika Chemical Corp., 35 Gregory Ave., Racine, Wis.

Lope-Trim: hollow steel quarter round with projecting grooves, can be used on baseboard trim, wiring raceway, etc. Pongs pushed behind baseboard hold trim without nails. Elbows for corners are available. Neutral gray finish, paintable. National Electric Products Corp., Pittsburgh, Pa.

Nu-Wall bonded plaster, a new method of reapplying old plaster. Available in tile design or plain. Plymouth Fire-Guard Fabrics, 55 W. 44th St., New York 18, N. Y.


Fire-Stop: new patented fire-resistant paint originally developed for the Navy. In laboratory tests, wall covered with Fire-Stop merely formed brown blisters when exposed to bunner heat. B. & T. Metals Co., 425 W. Town St., Columbus, Ohio.

Bamco utility enamels improved product for concrete, steel, or wood, indoors or outdoors. Waterproof, suprposed, withstands interior and exterior exposures; color retention. Reasonable quantities immediately delivered. B. & T. Metals Co., 182 Dey St., Jersey City 6, N. J.

Firelite: to prepare surfaces of lin plywood for improved finishing. Prepared in clear and pigmented grades, used to minimize "wild" grain showing through. Can be used for checking under painted work. Provides beautiful finish effects in combination with minimum of labor and material costs. U. S. Plywood Corp., 55 W. 44th St., New York 18, N. Y.


Gillespie Colors In Oil: triple-ground colors for tile, gesso, and optional pigments for wall covering and enamels; for or graining and graining. Available in 31 standard colors. Blackmer & Sons, Inc., 182 Dey St., Jersey City 6, N. J.

Glazenol: aluminum primer that provides a real-quality weatherproofing and summer cooling. Deflects 85% of sun's heat rays, can be applied to ashpalt shingles, smooth or slate roof covering, built-up slate or metal roofs, non-porous masonry, and outside metal work. United Gilcrete Co., 141 Milk St., Boston, Mass.

Glazecont Finish: for insulating board products, improved suprposing, durable, easy to clean; provides a durable weatherproof surface. Available at a minimum of labor and material costs. U. S. Plywood Corp., 55 W. 44th St., New York 18, N. Y.

Hillyard's new products: Star Gym Finish, All-Ball Bowling Alley Finish, All-Ball Bowling Alley Seal. Blackmer & Sons, Inc., 182 Dey St., Jersey City 6, N. J.

Hillyard's new product: Star Gym Finish. All-Ball Bowling Alley Finish. All-Ball Bowling Alley Seal. Blackmer & Sons, Inc., 182 Dey St., Jersey City 6, N. J.

Johnson's Waxed-Fortified Interior Finishes: for commercial establishments and industry. These are 1941-1942 products. However, patents were obtained on Waxed-Fortified Gels, Semi-Gloss, Eggshell Flat in 1944. New colors selected for strength and balance. Available for immediate shipment. L. S. Johnson & Son, Inc., Racine, Wis.

Kromex: fine granules, metallic compound for bonding mastic and asphalt, and water-resistant mortar. Was off the market, now available. Sika Chemical Corp., 35 Gregory Ave., Racine, Wis.

Phenolco: 100% phenolic resin coating cured without heat or pressure. Can be brushed on or sprayed on practically any surface, giving a ceramic-like finish that never needs waxing or cleaning. Hard, glossy. Lockrei Plastic Products Co., 20-16 50th St., Flushing, N. Y.


Racette: to prepare surfaces of lin plywood for improved finishing. Prepared in clear and pigmented grades, used to minimize "wild" grain showing through. Can be used for checking under painted work. Provides beautiful finish effects in combination with minimum of labor and material costs. U. S. Plywood Corp., 55 W. 44th St., New York 18, N. Y.

Firelite: to prepare surfaces of lin plywood for improved finishing. Prepared in clear and pigmented grades, used to minimize "wild" grain showing through. Can be used for checking under painted work. Provides beautiful finish effects in combination with minimum of labor and material costs. U. S. Plywood Corp., 55 W. 44th St., New York 18, N. Y.


Gillespie Colors In Oil: triple-ground colors for tile, gesso, and optional pigments for wall covering and enamels; for or graining and graining. Available in 31 standard colors. Blackmer & Sons, Inc., 182 Dey St., Jersey City 6, N. J.

Glazenol: aluminum primer that provides a real-quality weatherproofing and summer cooling. Deflects 85% of sun's heat rays, can be applied to ashpalt shingles, smooth or slate roof covering, built-up slate or metal roofs, non-porous masonry, and outside metal work. United Gilcrete Co., 141 Milk St., Boston, Mass.

Glazecont Finish: for insulating board products, improved suprposing, durable, easy to clean; provides a durable weatherproof surface. Available at a minimum of labor and material costs. U. S. Plywood Corp., 55 W. 44th St., New York 18, N. Y.

Hillyard's new products: Star Gym Finish, All-Ball Bowling Alley Finish, All-Ball Bowling Alley Seal. Blackmer & Sons, Inc., 182 Dey St., Jersey City 6, N. J.

Johnson's Waxed-Fortified Interior Finishes: for commercial establishments and industry. These are 1941-1942 products. However, patents were obtained on Waxed-Fortified Gels, Semi-Gloss, Eggshell Flat in 1944. New colors selected for strength and balance. Available for immediate shipment. L. S. Johnson & Son, Inc., Racine, Wis.

Kromex: fine granules, metallic compound for bonding mastic and asphalt, and water-resistant mortar. Was off the market, now available. Sika Chemical Corp., 35 Gregory Ave., Racine, Wis.

Phenolco: 100% phenolic resin coating cured without heat or pressure. Can be brushed on or sprayed on practically any surface, giving a ceramic-like finish that never needs waxing or cleaning. Hard, glossy. Lockrei Plastic Products Co., 20-16 50th St., Flushing, N. Y.


Racette: to prepare surfaces of lin plywood for improved finishing. Prepared in clear and pigmented grades, used to minimize "wild" grain showing through. Can be used for checking under painted work. Provides beautiful finish effects in combination with minimum of labor and material costs. U. S. Plywood Corp., 55 W. 44th St., New York 18, N. Y.

Firelite: to prepare surfaces of lin plywood for improved finishing. Prepared in clear and pigmented grades, used to minimize "wild" grain showing through. Can be used for checking under painted work. Provides beautiful finish effects in combination with minimum of labor and material costs. U. S. Plywood Corp., 55 W. 44th St., New York 18, N. Y.
AS IN MANY recent rural electric generating plants, the exciting process of manufacturing power is here displayed to the passing public through an entire wall of windows. The Diesel plant employed in this instance generates considerable heat, which necessitated ample ventilation.
APPWOX 4-6" CENTERS 
VERTICALLY

SPECIAL 5A*H WASH FORMED WITH PUTTY MULLIONS ON 14'-9" CENTER!

HEAD SECTION

Muntin

TRANSOM BARS APPROX. 4'-6" CENTERS VERTICALLY

SPECIAL SASH

SITE: Facing a major highway and the main line of the Northern Pacific.

PROBLEM: To display the Diesel generators to the passing public, and dissipate heat developed by the Diesel process. Problem was complicated because the building was constructed toward the end of the recent war; sufficient steel sash could be found only for the clerestory shown at right top.

SOLUTION: Special steel sash (shown at left) for the window-wall, with hinged vents rather than openable sash to save money.
Mr. Cerny, consulting architect, says:

"We felt the interior of a power plant is (a) most exciting place . . . (Interior) walls are golden tile and the network of pipes, valves, etc., is painted a variety of contrasting colors . . . (The) continuous horizontal vents . . . draw air through the entire building uniformly . . . (even) when it is raining . . . One or two louverers are left open even on the coldest winter day."

January, 1948
OPENINGS

WINDOWS


Bayley Aluminum Projected Windows, with double hung wood sash, are in extended sections; equally suited for converted or new projects. New products: Steel Commercial Projected Windows, Steel Pivotod Windows for Floating Housing Windows, and Aluminum Housing Windows for commercial buildings. All products are now available, except under special conditions. PC Solid Glass Blocks, St. Louis, Mo.

Bayley Detention Windows: for prisons, institutions, etc., with new material. Steel Pivotod Windows for commercial buildings. All products are now available, except under special conditions. William Bayley Co., Springfield, Ohio.


Herculite Metal Door Frame: new type; another new type will be introduced by Jan. 15, 1948. Arch Roof Components, Inc., Rockford, Ill.

Horizontal Gliding Window Units: improved, shaped to conform to modular requirements. Horizontal sliding action permits larger sizes than are practical in other types of ventilating windows that operate vertically or swing on hinges. Stock sizes amplified. Available only in limited quantities. Andersen Corp., Bayport, Minn.

Intermediate Casement Window: improved product, was off the market during the war, returned in 1946. Available from Jan. 15. Cello Doors, Inc., 3348 N. 10th St., Philadelphia 40, Pa.

“Orange” All Weather Aluminum Window: re-designed, with improved storage and ventilation features. New product made of extruded aluminum frame, storm sash and screen in 1 unit. Orange Screen Co., Dover, N. J.

Super-Vent Window: patented mechanism lowers sash upward to form insulated barrier of glass. Available in sizes to include 1 to 5 vents, depending on overall size of unit. National Steel Cabinet Co., 305 W. Monroe St., Chicago, III.

STORE FRONTS

Brasco Safety S&F Store Front Construction: with patented fingertip setting which eliminates glass-setting screws or springs. Full-visibility glass areas incorporating Brasco’s deeper grip. Rolled members in stainless steel or aluminum, for every structural requirement. Heavy-duty, reinforced bars for heightened glass areas. Immediately available. Brasco Mfg. Co., Harvey, Del.


Pitco Screen Door Catch: improved, designed to assure quieter operation. Complementary sliding door and window catch, which latch automatically as door closes; one catches window in sash. Kennapull is sold with Kennellek on doors which slide into a well. Hardware is furnished in bronze and stainless steel. Norris Corp., 573 Broadway, New York, N. Y.

Pitco floor checking hinge new, of small design (6 1/4" x 6 1/4" x 7/8") designed for heavy doors. Medium and heavy duty. Flexibility in design to assure quieter operation. Completely adjustable hinges, with upper and lower bearings, for use with heavy door and window hardware. Norris Corp., 573 Broadway, New York, N. Y.


AWNINGS, BLINDS

For many years, we have been in the business of supplying the highest quality awnings and blinds to the architectural market. Our products are designed to meet the needs of today's modern architectural designs, and we offer a wide range of options to suit any style or budget. Whether you're looking for a traditional awning or a contemporary shade solution, we have you covered. Contact us today to learn more about our products and services.
THEATER  LONG BEACH, CALIFORNIA

PROBLEM: Movie theater, 1300 seats, for Cabart Theaters, Inc. (a chain). In addition to the theater itself and the usual appendages, the building was to contain an ice cream bar and several stores. Most important, it was desired to provide the best possible conditions within the auditorium for hearing and seeing movies; goofy ornament for ornament's sake was to be eliminated.

SOURCE OF TECHNICAL DATA: Acoustic design is based on findings and recommendations of the Research Council, Academy of Motion Picture Arts and Sciences, and of the Theater Sound Standardization Committee.

SITE: Typical urban location requiring maximum profitable use of the land.
CONSTRUCTION

The structural system springs directly from acoustic considerations. Zigzag side walls (see plan), desirable in this scheme for proper hearing, were economically constructed of Gunite. Forms were erected on the exterior only; from these the reinforcing was suspended. Gunite was applied in two layers to the thickness detailed below, and screeded off against guide wires stretched to indicate finish wall thickness. Not only did this eliminate half the formwork; it also made possible the use of lighter form construction since there was no hydrostatic pressure. Note (below) development of wall angles into structural columns. Roof is supported by wood bow-string trusses.

PLAN. Auditorium is convex in general scheme to diffuse and control sound properly; staggered walls reflect sound into side seating areas. Extra wall at rear of stage is covered with 4" exposed rock wool to minimize reradiation of sound from back of loud-speaker or of reflections from rear auditorium wall. Auxiliary rooms form sound barriers or baffles to protect auditorium from exterior noises.
THE ARCHITECT, educated at U. of Southern California and in practice in Long Beach since 1923, is a member of the Architect's Advisory Board, Showman's Trade Review magazine. He says: "An effort was made to obtain a good view for all seats, to subordinate all architectural details that (might) detract from the picture itself."

AUDITORIUM. Parallel flat surfaces avoided to prevent undue reverberation; seats upholstered, aisles carpeted to reduce audience noise and approach constant sound absorption whether seats are filled or not; ceiling broken up, hard, reflective, for better sound distribution. Lighting fixtures recessed to prevent rattling or resonance; decoration obtained by use of various colors of lighting in vertical, concealed side wall sources, by dark blue-green ceiling and mulberry walls. Sound-absorptive materials, selected for smooth absorption characteristics particularly at low frequencies, were carefully used to maintain brilliance of sound: side walls of auditorium are faced with vermiculite plaster. For rear wall, see below.

PROJECTION ROOM. EQUIPMENT

Rear wall, convex, is partly broken up to prevent focusing sound reflections, surfaced with perforated metal sound-absorptive tile, and constructed of concrete plus 4" mineral wool to sound-isolate projection room. Projection room parts are sealed with optical glass; room itself has acoustic plaster walls and ceiling. Mechanical equipment: generators, light control equipment, etc., acoustically isolated; air conditioned by a large-volume, low-velocity system to reduce noise; fan and heater rooms have concrete walls, floors, ceilings for sound isolation.
First manufactured in Belgium, shifted to Switzerland at the outbreak of the recent war, now manufactured in Czechoslovakia and with an American pilot plant now operating, Durisol is expected to get into quantity production during 1948. Construction of the first American buildings employing the material started in July, 1947.

Durisol consists of wood chips, chemically treated and impregnated to mineralize the fibers, which after mixing with Portland cement are shaped under pressure and dried into panels, slabs, and blocks. Used as a semistructural curtain wall, or as floor or roof insulation, this material has proved itself thermally and acoustically, is fire-resistant, termiteproof, and will take many different types of surface finish.

LEFT, workman inserting in bottoms of cored 5” Durisol slabs impregnated felt to weatherproof the joint. ABOVE, post-girder-Durisol slab construction, details of one type of Durisol. Another is 2’ x 4’ x 2”; and coated slabs for exterior facing (laid up with mortar) are being developed in modular dimensions. The 2’ slab weighs approximately 7 psi; the 5”, 15 psi. Ultimate compressive strength is 145 psi; ultimate load-bearing capacity of 5” Durisol wall 8 ft high, approximately 130 psi (gross area); thermal conductivity, 0.75; sound absorption from 0.12 at 128 cycles to 0.77 at 4,096; noise coefficient, 0.65.
INSULATION, THERMAL AND ACOUSTICAL

STUCTURAL BOARDS


Comex: structural, fireproofing insulation slab made of treated long wood fibers coated and bonded with felt and treated with stabilizers and Portland cement. Permitted in Switzerland; will soon be available here. Used for semi-structural panels, slabs, blocks. Excellent insulation qualities; non-flammable. Many more uses of Durisol now in development, including vertical bearing panels for small house construction. Durisol, Inc., 420 Lexington Ave., New York 17, N. Y.


INSULATING CONCRETE

Pertholm 32: lightweight, concrete ill to insulate roots, ceilings, floors; fireproofing for steel, columns, girders; odorless, water-resistant, mineral and fungicide; does not deteriorate when continuously exposed to temperature extremes. Permanently heat and sound insulating values even under extreme conditions. Porete Mfg. Co., North Arlington, N. J.

Perex Flank: recent development in precut roof, floor construction. Weight (10 lbs sq ft) much lower than asbestos or lightweight concrete used in other precut slab construction. Lab tests proved it to be at least as strong as 3" thick asbestos. Porete Mfg. Co., North Arlington, N. J.

Lightweight Concrete: see "Structural Materials: Masonry"

GLASS

Fiberglass Insulation: highly efficient, inorganic insulation for use under built-up roofs. Redesigned product. Owens Corning Fiberglas Corp., Toledo 1, Ohio.


Glazing: see "Openings"

CORK


Kork-Pak: fiber insulation board effective against cold and heat, as well as being waterproof and resistant to condensation; light in handling, conveniently installed. Available in 16" x 24" x 1/2" sheets. Shipmen usually immediate, Serviced Products Corp., 925 W. 50th St., Chicago 35, Ill.

REFLECTIVE INSULATION

Alol asbestos: new product. 1/8" Airloc asbestos with one surface of Alol. Metallic reflecting surface, pure aluminum foil, withstands higher temperature than ordinary asbestos surface; reflects heat keeps surface temperature lower. For all high temperature insulation purposes. Reflected Corp., 155 E. 44th St., New York 17, N. Y.

Alol building blankets: reduce heat transmission by providing high resistance to heat transfer; reflect 95% of radiant heat, resulting in very rapid preheating, or precooling of insulated structures. Moistureproof, durable, insulating value constant. Reflected Corp., 155 E. 44th St., New York 17, N. Y.

Ferro-Therm Steel Insulation: now available to the public is Ferro-Therm Steel insulation for use in cold storage and all-weather rooms. Ferro-Therm reflects 90 to 95% of radiant heat, resists, being metal, is reinforcement, gives fire protection, and is odorless. Standard-sized sheets of 18" x 24" in 38 ga. For refrigeration heavier gage is obtainable. Americom Flange Mfg. Co., Inc., New York, N. Y.

Glimclume: aluminum roof coat that provides year-round weatherproofing and summer cooling. Deflects 95% of sun's heat rays, can be applied to galvanized shingles, smooth or slate roll roofing, built-up slate or metal roofs, non-corrosive masonry, and outside metal work. United Glimclume Laboratories, Scranton, Pa.

Infra-Insulation: reflective insulation of triangular, non-conductive air cells enclosed in double layer of thin aluminum foil. Applied between studs. Accretion construction and aluminum surfaces admit only 1/20 of heat of effective vapor barrier; extremely lightweight. 1 cu ft of 1/2" x 1/2" x 1/2" contains 1,000 sq ft of insulation. Available for 16" or 24" spacing. Effective for drop ceilings. Infra-Insulation, Inc., 10 Murray St., New York, N. Y.

COTTON

Cellulite-Type E1: completely enclosed blanket insulation. "Damproofed" cotton. Vapor seal on 1 side, tough paper covering on other, to provide greater convenience in handling. Made in same standard widths as regular Type II. Cellulite, Improved product. Gilman Bros. Co., Gilman, Conn.

New type of building and industrial insulation to be introduced shortly. Gilman Bros. Co., Gilman, Conn.

VAPOR BARRIERS

Presrite Barrier Paper: moisture- and vapor-resistant Kraft paper saturated and coated with coal-tar pitch, asphalt, and wax compound for protecting insulation. For frame and masonry construction, cold storage areas, and locker plants. Presrite Engineering Co., St. Louis, Mo.

PLASTER


PIPE INSULATION

Ric-Wil: Filled Insulated Pipe Units for outside overhead distribution of steam, hot water, oil, brine, etc. These new products are immediately available, as are the Ric-wil prefabricated insulated pipe units that were off the market. Ric-Wil Co., Union Commerce Bldg., Cleveland, Ohio.

ACOUSTICAL MATERIALS


Fiberglas Acoustical Tile: incombustible, efficient for use on ceilings. Fiberglas Acoustical Board: same material in board form for use with fluorescent lighting troffers. Both are new products. Owens-Corning Fiberglas Corp., Toledo 1, Ohio.


Kork-Pak: improved acoustical plaster, Kelley Island Lime & Transport Co., 1122 Leader Bldg., Cleveland 14, Ohio.

ENTRANCE TO THE OFFICE AREA of the plant: doors, trim, glazing members, etc., are stainless steel; walls are surfaced with green marble.

FACTORY  GRAND RAPIDS, MICHIGAN

ALLEN & KELLEY, Architects

CLIENT: Diesel Equipment Division, General Motors Corporation.

SITE: 76 acres, located just outside the city of Grand Rapids. Approximately half the acreage was to be utilized for building, parking, and recreational areas, leaving the remainder for future expansion.

OPERATIONS TO BE HOUSED: Manufacture of small precision products (highly sensitive fuel injectors for all types of Diesel engines, other Diesel equipment, parts for jet propulsion engines) which require extremely close tolerances. Every phase of production was to be carried on here. Space requirements were grouped as follows: manufacturing area, with powerhouse, testing and heat treat departments, and receiving and shipping space; office area; and employee facilities—locker rooms, cafeteria, toilets, showers, emergency clinic.
AT LEFT, one of the manufacturing processes: all fuel injector parts, after being machined, lapped, and thoroughly tested, are assembled. They are then sent to the calibration room for testing. Other processes range from metallurgical research, product design, production planning, etc., to machining, heat treatment, inspections. CENTER PHOTO shows truck portion of shipping and receiving area which was located to include an existing railroad siding right-of-way. AT RIGHT, powerhouse, which has two 500 hp oil-fired boilers and Diesel-driven Freon and air compressors.
FACTORY, GRAND RAPIDS, MICHIGAN

ALLEN & KELLEY, Architects

TESTING DEPARTMENT. This includes four dynamometer test rooms and one production test room; the latter requires separate air conditioning equipment. A similar condition obtains in the Heat Treat Department, where heat from furnace operations led to provision of a basement into which a separate ventilating system pulls air that is forced up through the floor around the furnaces and out through mechanical roof ventilators.

CONSTRUCTION: brick with stone trim, backed up with concrete block, over steel frame. In manufacturing area, roof is supported by light steel angle trusses and steel purlins, which carry steel roof decking insulated with two layers of 1" insulation board surfaced with 20-year built-up roofing (minimum insulation for economical operation of air conditioning). Columns are spaced 48 x 40 ft, determined by production requirements. Bottom chords of trusses are uniformly 15 ft above the concrete floor; manufacturing area is one huge room. The two-story office and cafeteria have conventional steel framing, acoustical metal pan ceilings, asphalt tile floors, and are laid out on a 4-ft modular basis so future alterations may be made by moving the flush-panel steel partitions without upsetting the recessed fluorescent lighting, fenestration, or air conditioning outlets.
EFFECT OF BUILDING ON DESIGN

PLANNING CONSIDERATIONS. For the precision manufacturing area a windowless, air conditioned building was decided upon. Shape was chosen because a square encloses the maximum floor area per lineal foot of wall. Existing railroad siding determined location of shipping and receiving. Manufacturing area was placed on north side. With the two main components (production, and facilities for receiving and shipping raw materials and products) determined, office and employee requirements were "wrapped around" one corner; a symmetrical facade was abandoned because space requirements for these areas were unequal. Powerhouse was located at the front to provide for future expansion of the production area on two sides without seriously interrupting plant operation.

MEDICAL FACILITIES. Excellent medical facilities, their worth proved on both humanitarian and dollars-and-cents bases, are staffed by a physician, three graduate nurses, and an X-ray technician. The clinic handles emergencies, but its principal functions comprise medical examination and careful check on health and medical problems of employees. Equipment includes emergency operating, X-ray, physiotherapy, diathermy, and laboratory installations.
AIR CONDITIONING. A prime requisite for the plant's precision processes is precise control not only of humidity but also of air cleanliness. Improper humidity may cause even a fingerprint to result in damaging corrosion of the accurately manufactured products; airborne dust does comparable damage. In this plant the air conditioning equipment, with humidity control apparatus and electronic precipitators for air cleaning, is located in penthouses on the roof. Air ducts are carried in the roof trusses and down to sub-floor areas. Constant temperature, also vital to the manufacturing process, is maintained the year around; this results also in comfortable, healthful working conditions in both offices and factory area. In offices, steam radiators are also installed for use when needed, and window sash are fixed in view of the air conditioning.

FACTORY, GRAND RAPIDS, MICHIGAN

LIGHTING. Fluorescent fixtures are used throughout the plant, varying in type in the different areas. In the factory portion 2,550 fixtures (two 100-watt tubes each) provide a uniform 35 foot-candles at working level. Fixtures and electric conduit are suspended from messenger cables clamped to bottom chords of trusses. Bus ducts are also carried in the trusses. In offices and similar areas, recessed fluorescent fixtures are carefully located in coordination with the acoustical metal tile ceilings to comply with the 4-ft modular scheme.

THE ARCHITECTS state: "This is what an architect calls 'a nice, clean job,' one in which he is given a set of requirements and enough ground to place it on."
THROUGH FACTORY ROOF TRUSSES are distributed electric power, compressed air, high-pressure steam, other services.

SUPER-GLASS-LIKE, precision-dimensioned finish applied in this department requires excellent lighting.

CAFETERIA (also office space) has recessed fluorescent fixtures.
SCREENED PORCH with roof half solid, half screened, provides outdoor sitting sheltered from afternoon sun. Bulkhead in foreground leads to fruit and vegetable cellar under toolshed greenhouse.
ONE OF THE FIRST solar-radiant heated houses in central New York, this job taught the architects much that has been invaluable in more recent work.

Equipment for '48
AIR AND TEMPERATURE CONTROL

HOUSE LIVERPOOL, NEW YORK
SARGENT-WEBSTER-CRENSHAW & FOLLEY, Architects

PROBLEM: This house is not only for architect Milo D. Folley and his family (wife, two sons aged 1 1/2 and 4 1/2 years, and dog) but is also a practical example to show the people of near-by Syracuse what contemporary architecture is all about, and what features the average client can expect in a medium-priced house. In central New York the late summer is quite hot, winter often severely cold; hence heating, ventilation, and thermal insulation required special attention. War-induced shortages of materials caused adoption of several abnormal expedients.

SITE: Liverpool, a semi-rural setting convenient to the owner's business in Syracuse, yet affording relief from the city. The site had been an orchard, through which there was a view to the south and east.

ROOFED WALK from service entry to screened porch serves not only as a breezeway, but also facilitates serving outdoor meals.
**RADIANT HEATING**

Subfloor plenum chambers convey forced warm air from the central heater room to floor ducts. There is a vermiculite underslab for insulation from the ground. In the living room, which has the southeast solar wall, ducts are formed of interlocked steel roof decking, a material chosen because its relatively small mass and ability to heat and cool rapidly were expected to reduce heating lag and overrun often experienced in solar-radiant installations. In other areas glazed structural tile forms the ducts. The top 1½” layer of concrete is surfaced with rubber tile, selected as the finish least likely to soften when heated.

The architects state that this system is too costly; in fact, that any radiant installations they have made have cost too much. In addition, there are condensation difficulties (see solar wall details); all this may be due to the experimental nature of the job, or perhaps radiant heating is not economical for a house of this size and price range; their answer will come with more experience.
VENTILATION

Functions of ventilation and vision are divorced; all sash are fixed and ventilation is obtained through permanently screened louver with interior doors. Burglar-proof, virtually weather-, insect-, and rodent-proof, these make it possible for the occupants to leave the house without shutting out all air circulation; in addition, the bottom-hinged vent doors discourage drafts.

HOUSE, LIVERPOOL, NEW YORK
SARGENT-WEBSTER-CRENSHAW & FOLLEY, Architects

32-year-old MILO FOLLEY graduated from Syracuse in '38, won a fellowship, got his Master's at Pennsylvania in '41, was licensed and joined the present partnership in '45. Of his house he says: "design is not as radical as I wished... but we have a sort of "lead-em-along" program to educate the Syracuse public along the modern path. It's working."

SOLAR WALL

As far as solar heating is concerned, the architects consider this solution very successful. Heating plant rarely operates during daylight. The roof projection over the living room solar wall, necessary for summer shade, was incorporated into the ceiling to add interior spaciousness. This also has been well liked. But even though all glass is double-A quality prefabricated double glazing, condensation has been considerable at certain times and causes serious moisture conditions at sills. This is believed to occur because air does not circulate past the glass surface to dry it. Possibly this is due to sill and muntin design, or to difficulty (with a forced warm air radiant floor) of concentrating heat sources beneath the solar wall, or to the wall's outward slope.
New Equipment for '48

AIR AND TEMPERATURE CONTROL

BOILERS. FURNACES

BCI Smokeless Furnaces: residential heating. Completely new. Casing and free-air draft system make it possible to use cut or sweet coal. Furnace is magnum type with fuel capacity for 12,000 Btu's per hour. Duct system installed requires little or no annual attention. Removal of objectionable smoke, fumes is accomplished by specially designed gribes. Natural draft from average chimney sufficient to operate furnace. Compendium of development, Illinois Coal Research Institute.

Coleman: automatic all-fired warm air furnaces in complete line. Entitles you to complete automatic operation. Oil and gas and gas-oil units. For new installations or improvements on all these items. LP-gas automatic warm air heater has been just introduced. Coleman Co., inc., Wichiota, Kan.

Drevo Counterflow Heaters: oil or gas-burning direct-fired heater with stainless steel combustion chamber. Need for a refractory lining within combustion chamber is eliminated because of high temperature capacity of stainless steel. This improved product is suitable for commercial and industrial buildings. Drevo Corp., 300 Penn Ave., Pittsburgh 22, Pa.

Free-Air Coal and Oil Heaters: new products, used as furnaces, wall units, gravity gas furnaces, and forced circulating systems and with Free-Aire minimum duct systems. Also, pipeless furnaces and apparatus for steam heating. Combustion Corp., Toledo 1, Ohio.

Gravity Furnaces: 2 sizes—75,000 Btu's, 100,000 Btu's—for immediate delivery. Available for immediate delivery. Kehm Corp., 335 S. LaSalle St., Chicago, Ill.


Types R and HI Ram-Feed Stokers: capacities from 20 to 1,000 lbs coal per hr. Stokers, oil or gas, for immediate delivery. Kehm Corp., 3179 W. 16th St., Cleveland, Ohio.


Hycrotherm gas-fired boilers: 600 ft net standing room, 150 ft net standing room for coal. Available for prompt delivery. Miniature hot water heating units. Kehm Corp., 335 S. LaSalle St., Chicago, III.

Lundstrom Safe-Flue disposes of all combustion products without use of flues. All aluminum construction, completely fireproof, heavy gauge. 3 boiler sections enter its sale from all standpoints. Heating Research Corp., 315 S. Wabash Ave., Chicago 6, Ill.


Springfield Type M Boilers: water tube boilers ranging from 75,000 to 300,000 Btu's per hr. Standardized dimensions for various size units. Springfield Boiler Co., Youngstown, Ohio.

Synchronomatic: new gravity warm air oil burning, vaporizing unit, for low cost housing. Forced warm air units for homes, propane gas, for immediate delivery. New high utility rotary room model for vaporizing, and gun type oil burner to be introduced before Jan. 15, 1948. Counter-flow design in all products; heavy steel construction. Mechine Heating Co., Inc., 1411 10th St., Watertown, Wis.

UNIT HEATERS

Chromolox Air Duct Heater: Type TDH for high-temperature recirculating air systems. air systems, air systems. Temperature up to 1000°F. An assembly of Chromolox electrical tubular heaters mounted in a steel channel. Thermostats provide regulation against overheating, rated at 220 volts, 6 to 90 amperes.

Model CB-05 Gas-Fired Unit Heater: cast iron ribbon type burners that offer quiet operation, and meet practically every space heating requirement. Compeatly automatic controls; ease accessibility to every part of heater. Tested and approved by American Gas Association. National Air Conditioning Corp., Dallas, Tex.

Modine Unit Heaters: new line of heaters in wide range of types and sizes for shop, warehouse, in beige-gray with chrome trim, deep-blue, white, or any other finish. Units meet practically every space heating requirement of industrial and commercial buildings. Modine, Racine, Wis.


Thermolator unit heaters: back on the market, and immediately available. Grinnell Co., Inc., 250 W. Exchange St., Providence, R. I.

Shaco Suspended Unit Heaters: compact suspension systems for commercial, for commercial and industrial buildings. Units are compact yet complete, for use in separate installations or in multiple installations. Shaco Distributing Co., 709 S. Marquette St., Racine, Wis.

Virtaflo: vertical discharge unit heater. Delivers low final air temperature, increased delivery capacity, heavy gauge sheet metal lining, high temperature resistance. Units may be had with adjustable vanes diffusers, high velocity jet nozzle, and approved for natural, LPG, or manufactured gas. Palmier Mfg. Co., Phoe­ nix, Ariz.

Wing Turbine Unit Heater: has fan driven by all-steel steam turbine. No electric motor or power needed. Fan stops when steam pressure stops. L. J. Wing Mfg. Co., New York, N. Y.

FIRE PROOFING

Evans Products Co., Detroit 27, Mich.

THERMOSHELLS

Duct-Type Weathermaster System: year-round air conditioning for hotels, apartments, offices, hospitals. Available in cabinet-type or furred-in units to harmonize with interiors. Carrier Corp., Syracuse, N. Y.

Compohealth Air Conditioners: sectional cabinets allow flexible installation. Optional equipment includes heating coil, humidifier, dehumidifier. Great National, 32-27 Lex­ suzg Avenue, Chicago, Ill.

Duct-Type Weathermaster System: year-round air conditioning for hotels, apartments, offices, hospitals. Available in cabinet-type or furred-in units to harmonize with interiors. Carrier Corp., Syracuse, N. Y.
Ducts

Single Wall Type Careyduct introduced in 1947 contains no asbestos. The thickness varies from 1/4" to 1-1/2", depending on size of the duct. The outer jacket of the 1-1/2" diameter duct is 3/16" thick. Variations in thickness of jackets are due to asbestos shortage. This addition to present types of Careyducts allows field installations to be made in areas of strong, relatively lightweight, less expensive than insulated asbestos Careyducts; sound deadening is not needed. Some anti-noise qualities as a type of Carey-Congray—immediate delivery. Philip Carey Mfg. Co., Lockland, Cincinnati 15, Ohio.

Air Filters, Cleaners

Precipitator: new, electrostatic air cleaner. Removes 98 to 99%, of all dust in circulating air from homes and offices. Best place to be used in compact cabinet model, or built into furnace unit. Uninest, new self-cleaned conditioning unit, is available in homes, 2 sizes available. Model 500 for houses up to 5 rooms. Model 200 up to 11 rooms. Operating costs less than 10% of heating bill. Tuttle & Bailey, Inc., New Britain, Conn.

Type "W" Well Anemostat: was off the market. New, improved, automatic, new Type CI adjustable Anemostat, universal unit for all types of heating equipment; control of heating surface, occupying little more than an inch of floor space when recessed. Available in 26 standard sizes, with grille and deflector handle. Tuttle & Bailey, Inc., New Britain, Conn.

HEAT EXCHANGERS

Heritage steel heat exchanger: new, designed to eliminate extra baffles that cause hot spots, and cold spots that trap condensate. Maintenance free; 250,000 Btu output; 3 times thicker than minimum A.G.A. requirements. Condensate is recirculated for further intense heating. General Engineering & Mfg. Co., 4417 Oleatha Ave., St. Louis, Mo.

Radiator, Convectors, Etc.

Baseboard Radiant Panel cast iron, replaces regular baseboard; forms a continuous length of heating surface, will require no maintenance. Will heat an inch of floor space when recessed. Available in 2 types: A panel of cast iron wall plate, 3 times thicker than minimum A.G.A. requirements, immediately available. Redesigned Webster-Nebbitt Cabinet-Type Unit Heater will be available shortly. John J. Nesbitt, Inc., 17th & Federal Sts., Camden, N. J.

Webster Baseboard Heating: our 1948 model, incorporating all the latest developments with resultant better heating effect. Also makes heating element invisible. Available in 2 sizes, with 3 sizes of baseboard. Combines radiant and convected heat for use where heating requirements are above average. Radiator, Radiator & Standard Sanitary Corp., P. O. Box 217, Chicago 45, Ill.

Nebbet Model U Universal Convectors improved unit for residential and commercial buildings. 4 sizes available. Type "S" or Longer Series or Syphon hot water. Ideal headers designed for all immediate applications. Redesigned Webster-Nebbitt Cabinet-Type Unit Heater will be available shortly. John J. Nesbitt, Inc., 17th & Federal Sts., Camden, N. J.

Webster Type W Extended Surface Radiation copper tubing and aluminum fins combined to provide 3 times the usual heat transference, maintaining maximum efficiency. Also improved models of Webster Type W, Type S Syphon Thermostatic Traps and Syphon Bellows Packless Valves. discontinued during the war, are now back in production, on approved design. Warren Webster & Co., 17th & Federal Sts., Camden, N. J.

Grilles, Registers, Diffusers


Agrilite Type B Air Diffusers: air distributor designed for control of almost any type or shape of ceiling. This unit aliquates the supply air stream by forcing it to be deflected from various vanes at different angles, air is discharged at a uniform velocity. Air Devices, Inc., 17 E. 42nd St., New York 17, N. Y.

D300 Series Register for located air systems. Industrial-type heavy-duty air device. A single- or dual-set of 6 sets of spiral diffusers. New product incorporates fixed angle tongue-and-groove vanes, set at 7 degrees to permit balancing at each register. Minneapolis-Honeywell Regulator Co., 2753 4th Ave., Minneapolis 8, Minn.

Kno-Draft adjustable air diffuser: improved; air can be controlled with simple wall controls. By means of adjustment features air distribution system may be altered instantly in accordance with changes in temperature and humidities. With this equipment, the only unit where operating mechanism and prover are separate. Diagrams can be positively locked in any position, immediately available. Minneapolis-Honeywell Regulator Co., New Britain, Conn.

Multi-Lever Damper No. 4: circular multi- lever type, designed to control large-volume diffuser. Balanced system ensured by minute adjustment of each lever. Operation: quick adjustment of any damper. Ventrypeed, levers can be positively locked in any position, immediately available.

T-266 Series Register: for floor systems, designed to avoid cutting of bricks as it is turned a quarter turn. Available in 16 standard sizes, with grille and deflector handle. Tuttle & Bailey, Inc., New Britain, Conn.

Ventric Vacuum Damper Panel: electric vent fan with 200c airflow for mounting in thick walls, steel sash, other small-panel sash. 350 cfm; selling price, $76.50. Designed for use where maximum heat and air movement is required; for use in large windows. Pryne & Co., Inc., 140 N. Howard St., Baltimore 2, Maryland.

Ventric Window Model Ventilating Fans—266 Series. new products, immediately available. Wilster, Inc., 3750 Detroit Ave., Cleveland 2, Ohio.

CONTROL DEVICES

Alnor Dewpointers: humidity control instrument, simultaneously measures and controls to within 1% of instrument standards, available in 2 cones—dewpoint and drypoint temperature. Both instruments, and minus 100°F to 80°F, Illinois Testing Laboratories, Inc., 450 N. LaSalle St., Chicago 10, Ill.

Blower Meter: first device to provide flexible buildup to any degree of air circulation. Control temperature for radiators, permitting room temperature to be kept at any desired point, to preference of occupant. Equipped on valves is a scale indicating the correct position. The movable indicator is rotated to point desired temperature. Minneapolis-Honeywell Regulator Co., 2375 4th Ave., Minneapolis 8, Minn.

Indoor-Outdoor Control: for radiant panel and radiator-convector heating systems. Operated by hydraulic action, 2 bulbs to measure indoor and outdoor temperature and water temperature. Control provides wasteful heating. 2 units available, 1 for radiant panel, other for radiator-con­ vector heating systems. Westinghouse Electric Corp., 1209 Cass Ave., St. Louis 6, Mo.


T140 Compensating Outdoor Temperature Control: for use with either mechanical or automatic control of heating plant in relation to outside temperature. Honeywell-Napoleon Regulator Co., 2753 4th Ave., Minneapolis 8, Minn.

Weather-Man: new, completely automatic thermostat, controlled by outside temperature, for controlling heating, oil or gas. May be used to operate gas or oil burners, stokers, circulating pumps, fans, motor, valves, or zone valves. For all types of heating systems. Bennett-Ireland, Inc., 53 W. Jackson Blvd., Chicago 4, Ill.

W127 Aquatrol Modulator: regulating reset con­ trol for any model of Indoor-Outdoor Control System. Automatically varies boiler water temperature to follow weather changes. New product especially designed for oil or gas panel heating. Minneapolis-Honeywell Regulator Co., 2753 4th Ave., Minneapolis 8, Minn.

Fresh-Aire Fireplace Unit was off the market, but is now available. An improved Fresh-Aire Fireplace Unit, No. 841, was introduced in 1947. Bennett-Ireland, Inc., Norwalk, N. Y.

Heating Equipment: new line of cleanout doors, ash dump, electric fan grilles, a complete line of gaskets, with gasketing and rubber strips. Introducing Fireflow. Bennett-Ireland, Inc., Norwalk, N. Y.

Heating fireplace equipment: new line of cleanout doors, ash dump, electric fan grilles, and all materials required for erection. Van- Packer Corp., 135 S. LaSalle St., Chicago 3, Ill.

Grilles, Registers, Diffusers
JOSEPH ABEL, well known with JULIAN BERLA for their apartment houses, is author of major portions of the newest volume of the Progressive Architecture Library; "Apartment Houses." Of this store the architects say: "Space above the showcases is extremely useful . . . (there was) no other storage space . . . crate was used to bring down room height."

EXCESSIVE HEIGHT was turned to advantage in lighting design: it permitted very deep members in the crate ceiling, which increases its value in shielding light sources; and rows of continuous fluorescent reflectors were mounted sufficiently high above the crate to afford an even intensity of light distribution. Over showcases at left is haberdashery storage up to the ceiling; at that point a ceiling walkway provides access to more storage cases above. At rear is an alcove fitting room with two dressing rooms, behind that an office. Workroom occupies the mezzanine.
PROBLEM: To remodel the interior of a store to provide a good, contemporary setting, not extreme, for a men's clothing shop. Considerable storage space had to be provided.

EXISTING CONDITIONS: A deep, narrow store, much too high in proportion. At the rear a mezzanine extended forward over one-third of the floor area; this is the maximum allowed by District of Columbia regulations. No other storage space existed for the client in the building.

SOLUTION: A "luminous ceiling" composed of a wood crate or light baffle, with continuous fluorescent fixtures above, was used to reduce apparent height. To provide storage, wall cases were extended up above the luminous ceiling—permitted because the construction is part of the showcase installation, not permanently secured to building structure.

FINISH WOOD in store fixtures is straight-grained American walnut. Crate ceiling is painted light blue-gray. Some maroon and burnt orange are used for accent. Floor is neutral, light gray-tan asphalt tile.
New Equipment for '48

LIGHTING, ELECTRICAL

LIGHTING FIXTURES AND LAMPS

Alumax Aluminum Luminaires: all are again available, after years of absence, including the No. 2000. Also shown, by Alumax, Inc., are the Incandescent/Recessed Luminaries of standard series and the Incom- cedent/Recessed Lighting Units for general use. See Curtis Lighting, Inc., 6135 W. 65th St., Chicago 38, Ill.

Bacterlo-Lite: cold cathode gaseous discharge lamp combining visible fluorescent and invisible ultraviolet light, in single sections. For hospitals, dental offices, restaurants, dairies, etc. Also improved Bacterlo-Lite pit-model fixtures. Lampa, Inc., 11-17 W. 43rd St., New York.

Alum Skylux: for two 40-watt fluorescent lamps per section. Made of aluminum and steel with Alumax—Curtis Lighting, Inc., 6135 W. 65th St., Chicago 38, Ill.

Bacterlo-Lite: cold cathode gaseous discharge lamp combining visible fluorescent and invisible ultraviolet light, in single sections. For hospitals, dental offices, restaurants, dairies, etc. Also improved Bacterlo-Lite pit-model fixtures. Lightolier, Inc., 11-17 W. 43rd St., New York.

Circus: new, semitransparent fluorescent lamp for portable lamps, merchandising displays, decorative lighting, etc. Rated 18 watts; operates directly on 120-volt AC lighting circuit. Manufactured by Westinghouse, General Electric, Sylvanite.


Day-Brite raccoon fixtures: snap-in type with 200 lumens, or incandescent lamps, can be socketed. Opaline glass, 2 1/4 x 4 inches. Also hinged fixtures 2 3/4 x 5 inches. Day-Brite Lighting Co., 5641 W. 65th St., Chicago 7. Sold out. Curtis Lighting, Inc., 6135 W. 65th St., Chicago 38, Ill.


Fry-lite: redesigned recessed lighting fixtures with special reflectors for maximum light. Many models have been brought out, for bathroom fixtures, also showrooms (for and for) utilizing luminaries and glass. Recessed fluorescent fixtures of standard series. See Curtis Lighting, Inc., 6135 W. 65th St., Chicago 38, Ill.

Circuit  Co., 2063 New York St., New York.

Colonial residential fixtures: have been made available again, Lightolier, Inc., 11-17 W. 43rd St., New York.

Day-Brite raccoon fixtures: snap-in type with 200 lumens, or incandescent lamps, can be socketed. Opaline glass, 2 1/4 x 4 inches. Also hinged fixtures 2 3/4 x 5 inches. Day-Brite Lighting Co., 5641 W. 65th St., Chicago 7. Sold out. Curtis Lighting, Inc., 6135 W. 65th St., Chicago 38, Ill.

Decoratives: new, carved glass or plastic panel set in shadow-box frame, to hang on bedroom wall. Frame conceals luminaire tubes of top and bottom that cost glareless downhill. Variety of decorative designs to go with every kind of bedroom decoration, period or modern.


4600 Luminaires: new, for 100-watt fluorescent installations, short or long. 480 watts per section; is recommended for office and store lighting. Also new are Curtis 2 3/4 x 5 inches, 600 watts; easy to install in existing wiring. Lightolier, Inc., 6135 W. 65th St., Chicago 38, Ill.

REFLECTORS, DIFFUSERS

Alux reflectors and louvers: new in this line. Reflectors offer better light distribution and lower surface brightness. Alumax louvers available for this manufacturer's lighting fixtures. Futurites and Tracolites. Alumax is a permanent surface, tough and durable, will not crack, peel, or break. Edwin F. Curtis Co., 2165 Washington Ave., St. Louis 2, Mo.

Permacolites: entire line of silvered-glass, also incombustible accessories, such as roundels, louvers, plaster rings, which were not available since before the war are once again in production. Painless 1000 luminaire system, housed in rigid steel. Standardized lengths and fittings.电费, 60, 100 amp. Available with 4-, 6-, 8-, 10-plug branches. Frank Adam Electric Co. St. Louis.

Tulip: fluorescent diffusers: Tulip tubing of Duco coated in transparent colors for spot and accent lighting, shielded by egg-crate louvers, cross baffles, or left open without any form of interference with light output. Many products are Type MO and Type BM4 Bulk-Breakers. Redesigned line of Service Cen
trol Switches, and Industrial Multi-Breakers equipped with conventional type enclosures in addition to special industrial types, available in the entire line of equipment. Cutler-Hammer, Inc., 315 N. 12th St., Milwaukee 1, Wis.

Westinghouse Electric Wall Switch: light switch equipped with a neon light in the handle that lights up when overhead lights are out. Available in ratings of 15, 20, or 30 amp. For dimmer switches, also as a branch circuit load center.

Skylux: fluorescent luminaire with hinged glass diffuser that swing open, for ease of cleaning and relamping. Available in 2-, 3-, or 4-foot sections. Can be mounted on or recessed, with or without arm supports to be held in position on either 6" or 18" centers.


Hinged- Glass Artilumiere: luminaire with hinged-glass diffusers that swing open, for ease of cleaning and relamping. Available in 2-, 3-, or 4-foot sections. Can be mounted on or recessed, with or without arm supports to be held in position on either 6" or 18" centers.

Luminaire: fluorescent luminaires for commercial or institutional work. Also 2 duplex convenience outlets, rated 15, 20, or 30 amp; 40 or 60V less and 2.5 or 5 amp; for medium voltage.

Plug-in Busduct: power distribution system; standard 10-4 bends. Capacities, 50, 100, 150, 200, 250V. See Curtis Lighting, Inc., 6135 W. 65th St., Chicago 38, Ill.

Switches, Circuit-Breakers


Double Throw Safety Switches: new line. Other products are the Type MO and Type BM4 Multi-Breakers. Redesigned line of Service Cen

New ELECTRICAL RANGES

Electric Ranges: see "Sanitation"; "Specialized Equipment"
Equipment for '48

SANITATION, WATER SUPPLY, DISPOSAL

LAVATORY FAIRBANKS-MORSE BUILDING, CHICAGO, ILLINOIS

PROBLEM: To design a men's lavatory and toilet in a modern office building. Room, partitions, and fixtures to be clean, easy to maintain, and attractive without use of extravagant materials.

DESIGN: Simple, good-looking fixtures set off by wainscoting and stall partitions of porcelain-enameded steel sheets, formed into panels. Suspended plaster ceiling. Floor and flush cove base of rubber tile.

REMOVABLE PANEL behind water closets gives access to pipe space. Porcelain enamel panels are veneered under pressure to insulation board core (plywood core for stiles and stall doors) and flanged for a neat butt joint.
PLUMBING FIXTURES (bath, kitchen, laundry)

Bendix Automatic Home Laundry: washing machine with minor production improvements; fundamentally the same machine as the 1945 model. Available at Bendix Home Appliances, Inc., South Bend 24, Ind.


Crane China Closets: 2 new models; saddle-type seat, quiet whirlpool siphon action bowl. Large trapway results in stoppage possibility. Complete units, of vitreous china. Also new: Criteria porcelain; aluminum, both with Deltoid, seat controls, with Vitreous China lakes with Virtue control, Laundrette tube made of Duracel, in 1 or 2 compartment styles, with Dicel-lure China. Crane Co., 636 S. Michigan Ave., Chicago 5, Ill.


Fornice sink tanks: made with Fornice laminated plastic that won't rust or corrode. It has been used to construct 4-piece table top and bar and counter top units for commercial use. Fornice Mfg. Co., 6143 Spring Grove Ave., Cincinnati 32, Ohio.

Four kitchen sink models: Camberley, Cymbria, Wheatland and Woodfield. All are made of iron base with white, easy-to-clean, acid-resistant enamel. Camberley, the new addition to the line, uses Duesteine, an easy-to-clean, acid-resistant enamel in which water can be added to make available in limited supplies. Redesigned Edge-wood sink tops and a variety of new sink accessories, also available. Kohler, Kohler, Wis.

Frigidaire: new line of home laundry equipment includes an automatic electric clothes washer. Equipped new with all-steel principles with use of a pulsator that creates up-and-down motion. Made of 1-piece welded steel, stainless steel cabinet, porcelain finish inside and out. Sealed, self-sealing motor and pulsator. Limited production. Frigidaire Div., General Motors Corp., 38 Taylor St., Dayton 1, Ohio.

Franklin: new line of kitchen sink cabinets which have off the market are available again. Production is limited. Frigidaire Div., General Motors Corp., 300 Taylor St., Dayton 1, Ohio.

General Electric automatic washers: free-standing type, fed by a hose to fill from 3 or 4, improved electric dishwashers; drop-in, free-standing type, filled from the backs. Mobile electric water heaters, heated by Celotad ribbons that are concealed and protected in the water heating element. All available, not for immediate delivery at this time. General Electric Co., 1205 Boston Ave., Bridgeport, Conn.

Hamiltion Automatic Clothes Dryer: with thermostat which maintains uniform temperature of 190° to 220° F., for any size of ironed or enamelled cabinet. In both gas and electric models. Height 96", width 37", depth 271/2". Available in limited quantities. Hamilton Mfg. Co., Two Plum St., Dayton, Ohio.


Remote Type Wall Fountain: Models C-250-N and C-250-NL. Available in limited production for immediate convenience and sanitation. Chrome-plated fittings, Moen chrome faucet, made of 10/100 Elast, Stream Reuber, providing feather-touch operation. Available in 15 models; 500 models. All with self-closing valves. Made of brass with chrome finishes. Available in limited quantities. All these products, are again available for immediate delivery. Ecost Mfg. Co., 401 W. Town St., Columbus 8, Ohio.

The Speakman Co.: production of pluming fixtures has been greatly improved since the war, they are adding to their list from time to time, whenever materials are available. By mid-1948 expected to be produced in quantities. In 1949, practically all items illustrated in their current catalog. Speakman Co., Storyville Works, Wilming­ton 99, Del.

Stansil Unit Bathroom: 3-fixure bathroom and accessories. Consists of 3-piece complete, close-set, medicine and linen closets, combination toilet paper holder-bookshelf with decorative com­partments. Also new: extra-large, removable mushroom­shaped shower heads, and wall-tight wall supports. All pipes are in Standard Steel Cabinet Co., 1400 W. Arnest­lage, Chicago, Ill.

Tracy stainless steel kitchen sink and cabinet combination new, 3 sizes—34" x 14", 54" x 14", 74" x 14". Available are stainless steel kitchen sinks and cabinet tops, custom-built to measure for every type installation. New Tracy Dure-Duble unit, with steel cabinet, featuring extra deep bowl. All available, not for immediate delivery at this time. Lower than 1941, Tracy Mfg. Co., 1211 Preble Ave., Pittsburgh 12, Pa.

PLUMBING FIXTURES, FITTINGS

Aquatemp: new automatic pressure balance valve, controlled hot and cold water fixture. Prevents scalding or chilling due to sudden water pressure changes. Available in various sizes. New Tracy Dure-Duble unit, with steel cabinet, featuring extra deep bowl. All available, not for immediate delivery at this time. Lower than 1941, Tracy Mfg. Co., 1211 Preble Ave., Pittsburgh 12, Pa.
SERVICe STATION  

LOS ANGELES, CALIFORNIA  

WILLIAM F. HEMPEL, Architect

PROBLEM: To provide, for the Craig Oil Co., the world's largest service station, with more gasoline pumps and lubricating racks than any other, plus usual facilities, salesroom for accessories, lounges for waiting patrons, and offices.

SITE: A full block on traffic-laden Wilshire Boulevard.

FIRST SCHEME: Pump islands in two rows curving from the normal entrance on Highland Avenue to permit cars to ease back into traffic on Wilshire; canopy over the foremost row; entrance and exit ramps directly at the two Wilshire corners; lubrication rooms glazed along Wilshire frontage with car entrance from rear; slim sign obelisk or light shaft 90 ft high; otherwise similar to final scheme shown.

FINAL SCHEME: Pump islands in straight rows to permit another bank of pumps; canopy omitted to save money; corner ramps forbidden by city regulations; rear lubrication approach abandoned on advice of other service station operators; sign tower height limited by regulations and design dictated by owner.
PLAN shows fire walls and doors separating hazardous areas, private office space on second floor above showroom in the cantilevered portion. Roof overhang reduces glare through the glass showroom wall, which is tilted out to increase interior spaciousness and improve visibility. Building is equipped with sprinklers.

VIEW FROM ROOFED TERRACE LOUNGE for patrons, showing lubrication racks, fire wall, and at right in distance, sign pylon. Roof is suspended from exposed light steel trusses to obtain a clean, flat ceiling, and has mineral wool insulation. Construction is steel, surfaced with porcelain enameled steel sheets, red and white in color. Roofing is perforated asbestos.
BATHROOM CABINETS

Lawson Bathroom Cabinets: new 1-piece drawn steel body finished in baked enamel, with first quality plate glass mirror, shelf supports, and removable razor blade box made of stainless steel. Tubular, glassless side lights held in chromium plated brackets. Cabinets wired. Also improved hotel-type bathroom cabinet with or without side lights. F. H. Lawson Co., Cincinnati 4, Ohio.

Park Lane, Parkway. Park View DeLuxe Bathroom Cabinets 3 new models, with end and without fluorescent lights and reflector shades. Complete new line of tiled braces, stumped brass, die-cast chrome bathroom accessories—bowl boy, soap dishes, hammer holders, toothbrush holders, shelves, robe hooks. Will be released very soon with advanced designs. Cabinets available for immediate delivery. Faries Mfg. Co., Decatur, III.

COMMERCIAL REFRIGERATORS

Frigidaire: complete new line of dry storage beverage coolers with extra work surface (48 sq ft), 7 large-capacity models, 3 large-capacity portable models. Also redesigned milk coolers for farm use. Limited production on beverage coolers. Frigidaire Div., General Motors, 300 Taylor St., Dayton 1, Ohio.

Frigidaire: new commercial products include sealed rotary Meter-Miser, simple refrigerating mechanism with only 2 movable parts, eliminating seals, belts, pulleys. Small powerful compressor. Well suited for cooling meat and vegetable display cases, reach-in refrigerators, milk, beer, and water coolers. Frigidaire Div., General Motors, 300 Taylor St., Dayton 1, Ohio.

Frigidaire: new line of commercial refrigeration includes 8' double-duty self-service display case, fully equipped with slide-away night covers which conserve refrigeration, save current. Also

DOMESTIC KITCHEN AND LAUNDRY EQUIPMENT


Automatic Washing Machine: cooks, washes, rinses, dries, at 1 setting of dial. May be some time before it is generally available. Hotpoint, Inc., Chicago 28, III.

Bendix gas and electric dryers: both fully automatic; thermostatic control varies temperature necessary for synthetic and delicate fabrics. Standard and DeLuxe automatic ironers. These products are new and available. Bendix Home Appliances, Inc., South Bend 24, Ind.

Bilt-In Electric Range: compact, stainless steel, 1-piece cooking unit with a separate standardized oven that can be built into existing cabinets at any height. Cooking top has 3 heating units, a 5-qt-deep well cooker. Oven has an automatic temperature control, Telectron Automatic Timer, and Minute Minder. I conduit with 3 wires provides connection for the cooking unit, the same for the oven. A built-in griddle, extra oven, and heating units will be available. Thermador Electrical Mfg. Co., S. Riverside Dr., Los Angeles, Calif.

Bilt-Well products: wide variety of new woodwork designs for large and small buildings—windows with potted weatherstrip, overhead spring balance. No-Style kitchen cabinets units for modern kitchens, made in graduated stock sizes to fit any size kitchen; adjustable entrance frames, each with several head designs to fit a standardized base. Carr, Adams & Collier Co., Dubuque, Iowa.


Built-In Home Dishwasher: new, semiconcealed unit to fit into kitchen cabinet with machine cover flush with drawer-bead. Has own motor-operated centrifugal pump, not dependent on pressure levels at city's pumping stations. Optional equipment includes electric immersion heater, thermostatic control. Jackson Dishwasher Co., 2903 E. 11th St., Cleveland, Ohio.

Drofoot-Aire: electric ranges incorporating a "retro-stall" which throws quick-frozen food in a fraction of the usual time, retaining flavor and food values. Estate-Heatrola Div., Home Electric Corp., New York, N. Y.

Fain Foldinette: built-in cabinet which opens into complete dining set. Plastic topped, chrome edged 26 x 48" table, and 2 backed-benches to seat 4 people. Cabinet can be recessed into 4" standard wall in new construction. Sierra Wood Products, 494 S. Arroyo Parkway, Pasadena, Calif.


Frigidaire: new line of home laundry equipment, including automatic clothes dryer, electric ironer. Dryer, thickly insulated, has electric heating units, 60 and revolving drum to "tumble" clothes. Ironer has new foot control and open-end roll 30" long. Special song-resisting construction. Limited production. Frigidaire Div., General Motors Corp., 300 Taylor St., Dayton 1, Ohio.

General Electric: new 8 cu ft chest-type freezer. Redesigned standard refrigerators (one & three stylized equipment.

NEW EQUIPMENT FOR '48

SPECIALIZED EQUIPMENT

8' 10" forced-air models, designed for clerk service. Production limited on oil. Frigidaire Div., General Motors Corp., 300 Taylor St., Dayton 1, Ohio.

DOMESTIC KITCHEN AND LAUNDRY EQUIPMENT


Automatic Washing Machine: cooks, washes, rinses, dries, at 1 setting of dial. May be some time before it is generally available. Hotpoint, Inc., Chicago 28, Ill.

Bendix gas and electric dryers: both fully automatic; thermostatic control varies temperature necessary for synthetic and delicate fabrics. Standard and DeLuxe automatic ironers. These products are new and available. Bendix Home Appliances, Inc., South Bend 24, Ind.

Bilt-In Electric Range: compact, stainless steel, 1-piece cooking unit with a separate standardized oven that can be built into existing cabinets at any height. Cooking top has 3 heating units, a 5-qt-deep well cooker. Oven has an automatic temperature control, Telectron Automatic Timer, and Minute Minder. 1 conduit with 3 wires provides connection for the cooking unit, the same for the oven. A built-in griddle, extra oven, and heating units will be available. Thermador Electrical Mfg. Co., S. Riverside Dr., Los Angeles, Calif.

Bilt-Well products: wide variety of new woodwork designs for large and small buildings—windows with potted weatherstrip, overhead spring balance. No-Style kitchen cabinets units for modern kitchens, made in graduated stock sizes to fit any size kitchen; adjustable entrance frames, each with several head designs to fit a standardized base. Carr, Adams & Collier Co., Dubuque, Iowa.


Built-In Home Dishwasher: new, semiconcealed unit to fit into kitchen cabinet with machine cover flush with drawer-bead. Has own motor-operated centrifugal pump, not dependent on pressure levels at city's pumping stations. Optional equipment includes electric immersion heater, thermostatic control. Jackson Dishwasher Co., 2903 E. 11th St., Cleveland, Ohio.

Drofoot-Aire: electric ranges incorporating a "retro-stall" which throws quick-frozen food in a fraction of the usual time, retaining flavor and food values. Estate-Heatrola Div., Home Electric Corp., New York, N. Y.

Fain Foldinette: built-in cabinet which opens into complete dining set. Plastic topped, chrome edged 26 x 48" table, and 2 backed-benches to seat 4 people. Cabinet can be recessed into 4" standard wall in new construction. Sierra Wood Products, 494 S. Arroyo Parkway, Pasadena, Calif.


Frigidaire: new line of home laundry equipment, including automatic clothes dryer, electric ironer. Dryer, thickly insulated, has electric heating units, 60 and revolving drum to "tumble" clothes. Ironer has new foot control and open-end roll 30" long. Special song-resisting construction. Limited production. Frigidaire Div., General Motors Corp., 300 Taylor St., Dayton 1, Ohio.

General Electric: new 8 cu ft chest-type freezer. Redesigned standard refrigerators (one & three

VIEW FROM OFFICE BALCONY down through showroom. Flooring is terra cotta tile in showroom, concrete in work areas. The fluorescent lights are controlled by circuit breakers, and heat is provided by electric space heaters.

JANUARY, 1948 93
Equipment
SPECIALIZED EQUIPMENT

8, one 10 cu ft models); electric ranges (opt. house-size: two 36", one deluxe 39") 2 cabinet rolling shutters for dumbwaiters were off the market, but are now available. Redesigned electric stair­
vendors; plunger construction; freight or pas­
inated electric plastic. Rapidesign, Inc., P.O.
automatically; pit stays dry without
2. Telehome two-way intercommunicating system. Webster Electric Co.
Shepard HomeLIFT: elevator for residences. Operations from lighting circuit; requires only the pressing of a button. Car is equipped with compact combination lift. Available in different color finishes, this elevator is adaptable to either single or double, 2- or 4­
room, all electric, with 21 dealer’s list. The HomeOla Corp., 9 S. Clinton
8, one 10 cu ft models); electric ranges (opt. house-size: two 36", one deluxe 39") 2 cabinet rolling shutters for dumbwaiters were off the market, but are now available. Redesigned electric stair­
vendors; plunger construction; freight or pas­
inative plastic. Rapidesign, Inc., P.O.
automatically; pit stays dry without
2. Telehome two-way intercommunicating system. Webster Electric Co.
Shepard HomeLIFT: elevator for residences. Operations from lighting circuit; requires only the pressing of a button. Car is equipped with compact combination lift. Available in different color finishes, this elevator is adaptable to either single or double, 2- or 4­
room, all electric, with 21 dealer’s list. The HomeOla Corp., 9 S. Clinton
8, one 10 cu ft models); electric ranges (opt. house-size: two 36", one deluxe 39") 2 cabinet rolling shutters for dumbwaiters were off the market, but are now available. Redesigned electric stair­
vendors; plunger construction; freight or pas­
inative plastic. Rapidesign, Inc., P.O.
FIRE PROTECTION

Albi-It fire-retardant paint, forming bubble-mass when exposed to flame which prevents penetration of heat. Said to exceed 20-minute burning test (Fed. Spec. 29522), also abated by brush or spray. Albi. Chemical Corp., 9 Park Place, New York, N. Y.

Cardox: general line same as last year. Improvements constantly made but largely in components, design, etc. Cardox Corp., 207 N. Michigan Ave., Chicago, Ill.

System for fire protection of Escalators: prevents building up of explosive gases in area where fire starts; draws heat and gases away; shuts down air conditioning, preventing circulation of fire gases and smoke; isolates the area where fire starts; draws heat and gases away; prevents fire from spreading. Otis Elevator Co., N. Y., and Westinghouse Electric Corp., N. Y.

Furnishing: new designs by Eames, Nelson, Lavinio, 80 pieces in walnut plastic case. Up to 24 Master Keys in a walnut plastic case. Uses "high security" master keying. Patented Mosler Insulated Recorder, also available. Patented Mosler Insulated Recorder, 320 5th Ave., New York 1, N. Y.

Fireproof fabrics: new patterns in decorative materials with fiberglass yarns. Other redesigned patterns; all are noncombustible drapery materials, for use in places of public assembly. Thorel! Fireproof Fabrics, 151 Park Avenue, New York, N. Y.

FURNISHINGS, FURNITURE


Panasonic: plastic upholstery material similar to leather; said not to crack, easy to tailor. Available in various colors. Colvin, Inc., and S-tone finishes. The Panasonic Corp. of N. J., 444 Madison Ave., New York 22, N. Y.

Rastetter Magnesium Chair: new, folding, upholstered, with magnesium frame, patented hinge construction, 450 lbs. capacity, 1 single motion. Louis Rastetter & Sons Co., 1300 Wall St., Fort Wayne 1, Ind.

INSTITUTIONAL EQUIPMENT


Bar-Ray: products; special X-ray protective equipment, for all persons coming within proximity of X-ray apparatus emitting X-rays. Land-included doors, partition blocks, panels, nails, etc.; lead-lined tanks, pipes, control booths, boxes for equipment or experimental work. Products, Inc., 205 25th St., Brooklyn 2, N. Y.

Blodgett's De Luxe No. 500 Series: new line of institutional ovens, stainless steel, including 3, 4, and 5,000-lb. capacities. All exterior and interior surfaces subjected to corrosive (acid) action. Designed No. 92; Series of Blodgett ovens, exclusive Monel metal, have new burner design and new type trim. G. B. Blodgett Co., Inc., Rochester, N. Y.

Capital Cubicles: for hospital wards, to enclose any size compartment required, for complete privacy. Designed with special Fire Blanket, a brass, chrome plated finish, each connected with all new, electrically operated switches which makes for a neat, even track. Curtains made of closely-woven, nonflammable, stainless-steel-brushed, plastic material. Rustproof eyestad will not pull out, hooks are replaceable. Priced for either open or catch. Capital Cubicle, 212-17thst., Brooklyn 25, N. Y.

Hylepsite: Lite Site Chalkboard: new, light, incombustible material, in proper distribution of classroom light, making classroom more pleasant in which to work. Manufactured in 3 colors, including jet-black. Weber Costello Co., 1210 McKinley, Chicago, Ill.

Lawson: improved hotel-type bathroom cabinet with or without side lights. F. H. Lawson, Cincinnati 6, Ohio.

Prison Equipment: new combination bunk, seats, and table for use in jails. Includes magazine, book, and small packages, complete with stand, secured to bottom side of bunk, requiring no manual operation. Only thirty minutes when bunk is folded up. When bunk is let down, other equipment permits mattress to be completely out of way. Rugged construction, cannot be torn or damaged. Available in new combination bunk, seats, and table model. Southern Prison Mach. Co., P.O. Box 2221, San Antonio, Tex.


Tri-Ware: disposable plastic service ware, for use in restaurants, motels, etc. Available in new products introduced, in 1947. Southern Prison Mach. Co., P.O. Box 2221, San Antonio, Tex.


Wallmaster: wall-washing machine of large capacity, for high pressure, for use in places of public assembly, for washing, rinsing, drying interior wall surfaces. Maintenance Co., Inc., 470 Locust St., New Haven 4, Conn.

Refuse Disposal

Burnham Disposal Unit: 16mm motion picture projector. Distributed in home. Exclusive features—cinecolor film, quick load of 16mm film, rechargeable battery, with attached speaker, complete in case. New York 18, N. Y.


Sycamore Motive: new Master Station Model 6064 (table model) and Model 6095 (wall-recessed model) 34-Days (room speaker) and 34D (door speaker) for use in hospitals, motels, retail stores, etc. School fire alarm relays and boxes are available again. Canada Electric Development Co., 2290 Humboldt St., Los Angeles 21, Calif.

Telehomes: home intercommunication equipment. New Master Station Models 6064 (table model) and Model 6095 (wall-recessed model). Sycamore Motive Station Models 34D (room speaker) and 34D (door speaker) for use in hospitals, motels, retail stores, etc. Speaker stations reply to calls without manual control operation. Master stations are available again. See A. & M. Karlfelddrum, Inc., Burlington, Vt.

Triumph model 60: 16mm sound motion picture projector for auditorium use. Features—full reproduction of phonograph records; hum-balancing potentiometer for proper distribution of classroom light, making classroom more pleasant in which to work. Manufactured in 3 colors, including jet-black. Weber Costello Co., 1210 McKinley, Chicago, Ill.

Wallmaster: wall-washing machine of large capacity, for high pressure, for use in places of public assembly, for washing, rinsing, drying interior wall surfaces. Maintenance Co., Inc., 470 Locust St., New Haven 4, Conn.

Refuse Disposal

Burnham Disposal Unit: 16mm motion picture projector. Distributed in home. Exclusive features—cinecolor film, quick load of 16mm film, rechargeable battery, with attached speaker, complete in case. New York 18, N. Y.


Sycamore Motive: new Master Station Model 6064 (table model) and Model 6095 (wall-recessed model) 34-Days (room speaker) and 34D (door speaker) for use in hospitals, motels, retail stores, etc. School fire alarm relays and boxes are available again. Canada Electric Development Co., 2290 Humboldt St., Los Angeles 21, Calif.

Telehomes: home intercommunication equipment. New Master Station Models 6064 (table model) and Model 6095 (wall-recessed model). Sycamore Motive Station Models 34D (room speaker) and 34D (door speaker) for use in hospitals, motels, retail stores, etc. Speaker stations reply to calls without manual control operation. Master stations are available again. See A. & M. Karlfelddrum, Inc., Burlington, Vt.

Triumph model 60: 16mm sound motion picture projector for auditorium use. Features—full reproduction of phonograph records; hum-balancing potentiometer for proper distribution of classroom light, making classroom more pleasant in which to work. Manufactured in 3 colors, including jet-black. Weber Costello Co., 1210 McKinley, Chicago, Ill.

Wallmaster: wall-washing machine of large capacity, for high pressure, for use in places of public assembly, for washing, rinsing, drying interior wall surfaces. Maintenance Co., Inc., 470 Locust St., New Haven 4, Conn.

SAVES

Mosler Insulated Chest: new patented item; the only money chest bearing Underwriters' Laboratories label, the only chest that is completely immune to fire and theft protection. Can be installed flush with walls, electrically welded heavy steel plates for the body, heavy lock with electric key. Can be concealed in fur­

REBUS DISPOSAL

Fuelless Incinerator Mascar No. 30: to be connected to furnace flue. Quickly reduces garbage, refuse to ashes, eliminating breeding spots for germs, flies, rats. Downdraft circulation through refuse dries it and prevents odor or smoke in house, or noise. Price, $195. Mosler Insulated Machinery Co., 3209 Humboldt St., Los Angeles 4, Calif.


SAVES

Mosler Insulated Chest: new patented item; the only money chest bearing Underwriters' Laboratories label, the only chest that is completely immune to fire and theft protection. Can be installed flush with walls, electrically welded heavy steel plates for the body, heavy lock with electric key. Can be concealed in fur­
Air and Temperature Control


Doors and Windows

4-110. Model C Radio Control, AIA 27-C-3 (F 1145-4 500 9-47), Barber-Colman Co. Reviewed December.


4-117. Builders' Cabinet and Sliding Door Hardware, 4-p. brochure on drawer slides, closet fixtures, shelf standards and supports, sliding door tracks, etc. Illustrations and descriptions. Dimensions; operation details. Knape and Vogt Mfg. Co.

4-113. Safe Builders' Hardware (Cat. 19), Safe Padlock & Hardware Co. Reviewed December.


Electrical Equipment and Lighting


5-109. National Electric Plug-In Strip, AIA 31 C 71 (Cat. CF-3, Form 551), 6-p. illus. booklet on a strip wiring protector, installed on top of baseboard to provide outlets every 18 in. Typical layout. Illustrations of various types and sections. Installation details; also Line-Trim. National Electric Products Corp.

5-104. Electric Plants (Form A-158-20M-457), D. W. Onan & Sons, Inc. Reviewed December.

5-105. Poisnoretat Theatre Dimmers (Bul. 219), Superior Electric Co. Reviewed December.


Finishers and Protectors


Insulation (Thermal, Acoustic)

9-96. Acoustic-Booths (179), 4-p. (9" x 4") brochure on acoustical telephone booths for factories, stores, offices, hotels, etc. Illustration of various models. Prices. Burgess-Manning Co.


Load-Bearing Structural Materials


Non-Load Bearing Structural Materials

14-51. Decorative Glass, a reprint on decorative glass panels: colored, translucent, intaglio motifs, appliqued design, etc., for hotels, stores, showrooms, residences, etc. Illustrations of works. Description; details. Harriton Carved Glass.

Sanitary Equipment. Water Supply, and Drainage

19-192. Central Fire Protection Equipment (Bul. S-8-12644-BC), 22-p. loose-leaf booklet on fire protection equipment for dry and wet pipe sprinkler systems. Illustrates various types of automatic and open sprinklers, accessories; alarm systems and devices for wet pipe systems; dry pipe valve; air exhauster; "electro-speed" sprinkler system. Operation and construction details; application. Purpose and installation.

Traffic Equipment

20-46. Murphy Elevators (Cat. 46), 108-p. loose-leaf reference book on passenger and freight elevator equipment. Illustrates traction engines, full floating type of alternating current brakes, controllers, governors, motors, penthouse installation, passenger and freight cars, accessories. Descriptions; capacities; ropings; speeds. Dimensions; details of construction; operation. Electrolift elevators; advantages; features; applications. (Price $4.00 per copy; make check or money order payable to Murphy Elevator Co. Free to members of architectural profession). Murphy Elevator Co.

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Firm</th>
<th>Mailing Address</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>PLEASE PRINT</td>
</tr>
</tbody>
</table>

PROGRESSIVE ARCHITECTURE, 310 West 42nd Street, New York 18, N. Y.
I should like a copy of each piece of Manufacturers' Literature listed.

We request students to send their inquiries directly to the manufacturer.

<table>
<thead>
<tr>
<th>No.</th>
<th>No.</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>

PROGRESSIVE ARCHITECTURE, 310 West 42nd Street, New York 18, N. Y.
I should like a copy of each piece of Manufacturers' Literature listed.
We request students to send their inquiries directly to the manufacturer.

<table>
<thead>
<tr>
<th>No.</th>
<th>No.</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>

PROGRESSIVE ARCHITECTURE, 310 West 42nd Street, New York 18, N. Y.
I should like a copy of each piece of Manufacturers' Literature listed.
We request students to send their inquiries directly to the manufacturer.

<table>
<thead>
<tr>
<th>No.</th>
<th>No.</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>

PROGRESSIVE ARCHITECTURE, 310 West 42nd Street, New York 18, N. Y.
I should like a copy of each piece of Manufacturers' Literature listed.
We request students to send their inquiries directly to the manufacturer.

<table>
<thead>
<tr>
<th>No.</th>
<th>No.</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>No.</td>
<td>No.</td>
</tr>
</tbody>
</table>
METHODS OF COVERING THE TOP OF PARAPET WALLS WITH REVERE COPPER

These five detail drawings were prepared by the Revere Research Laboratories to illustrate some of the approved methods of covering the top of parapet walls with copper coping covers. They are typical examples of the work Revere is doing to help you provide the finest sheet copper construction.

Revere's continuous research program, covering every phase of sheet copper construction, has developed important new facts that enable you to design or install copper flashing, roofs and gutter linings that give extra years of service. Much of these data have been compiled into a 96-page booklet that has been distributed to architects and sheet metal contractors. In all probability, there is a copy in your office files.

Look first to this Revere manual whenever you are faced with a problem concerning the design or installation of copper. If you do not find the answer there, the Revere Technical Advisory Service will be glad to help you. The chances are that they have already had experience in solving a similar problem. In any case, they'll do their best to help solve yours.

Revere materials are available from leading distributors in all parts of the country.

"Research Solves Problems of Stress Failures in Sheet Copper Construction."

REVERE COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801

230 Park Avenue, New York 17, New York

"We consider the Servel All-Year Gas Air Conditioner to be a worth-while investment, and do not hesitate to recommend it," says Sam Rubin, jeweler, of 323 De Siard St., Monroe, La. "Customers have been attracted to the conditioned space, and we have been able to keep our merchandise in better condition."

"Ideal for efficient work in medical offices," says Dr. Fred. L. Scott, of Huntington Park, Calif., about the temperature and humidity conditions maintained the year round in his offices by Servel.

"Very satisfactory in all respects," agrees W. D. Owen, Vice President and Cashier of the Bank of Beaumont, California, which is kept cool in summer, comfortably warm when needed, by the Servel unit.
praise all-year gas air conditioner

THEY SAY SERVEL All-Year GAS AIR CONDITIONER
PROMOTES HEALTH, EFFICIENCY, BUILDS PROFITS

Typical of hundreds of letters in our files from business and professional men all over the country are the testimonials on these two pages. Practically everyone who has a Servel All-Year Gas Air Conditioner is more than pleased with the results. In fact, as you'll see on the right, one enthusiastic user has installed three units—one in his home, one in his automobile agency, and one in a store he owns!

Everywhere, users agree that this wonderfully efficient year-round conditioner is worth every penny it costs. Some go so far as to declare it will actually pay for itself in a very few years! So you can recommend Servel All-Year Gas Air Conditioning to your clients with every assurance that it will perform up to expectations. And that your clients will be glad you brought Servel’s advantages to their attention.

Complete in one unit, the Servel conditioner refrigerates and dehumidifies the air in summer. In winter, the same unit heats and humidifies the air. In between seasons, it offers independent air circulation at prevailing temperatures. Year-round, it filters dust, dirt, and irritating pollen from the air. A “flick of the finger” controls all operation.

Check your list of clients today. Determine which are logical prospects for Servel All-Year Gas Air Conditioning. Then ask your local gas company for more detailed information about these types of application. Or, write direct to Servel, Inc., for application data and names and addresses of satisfied users with comparable installations. Address Servel, Inc., 4801 Morton Ave., Evansville 20, Indiana.

“If I could find another place to install Servel All-Year Gas Air Conditioning, I would do it,” says Frank M. Bowman, Alice, Texas, businessman. He already has three Servel units, one in his automobile agency (above), and one each in his store and home (below).

The bulk of this issue (about 60 pages) is devoted to planning, design, construction, and technical requirements of broadcast transmitter buildings of all sizes. It comprises an excellent guide to planning (including, of course, the choice of the site). Architects Deigert and Yerkes of Washington, D. C, have designed six very attractive buildings from 250 w to 50 kw, and six outstanding existing buildings of similar sizes are also presented in detail with outline plans, photographs, and data. A survey of 600 American buildings, photos of a variety of buildings all over the country, and catalog cuts of Western Electric transmitters and auxiliary equipment complete the picture.


Part of the research work being carried on in a test house at Purdue University. Under stabilized conditions (1.4 air changes per hr, 67F at 5 ft above floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Floor panel heating gives uniform air temperature throughout except for a couple of degrees warmer near the ceiling and several degrees warmer at the floor.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Floor panel heating gives uniform air temperature throughout except for a couple of degrees warmer near the ceiling and several degrees warmer at the floor.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Floor panel heating gives uniform air temperature throughout except for a couple of degrees warmer near the ceiling and several degrees warmer at the floor.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Floor panel heating gives uniform air temperature throughout except for a couple of degrees warmer near the ceiling and several degrees warmer at the floor.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Floor panel heating gives uniform air temperature throughout except for a couple of degrees warmer near the ceiling and several degrees warmer at the floor.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Floor panel heating gives uniform air temperature throughout except for a couple of degrees warmer near the ceiling and several degrees warmer at the floor.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Floor panel heating gives uniform air temperature throughout except for a couple of degrees warmer near the ceiling and several degrees warmer at the floor.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.

Ceiling panel heating is only a couple of degrees cooler toward the floor and four to six degrees warmer at 7½ ft above the floor, readings taken at night to eliminate solar radiation, etc.) the room air temperatures at all levels are given for heating by floor, ceiling, interior wall, and exterior wall panels. The room is nearly 8 ft high.
Look how ARKETEX CERAMIC GLAZED STRUCTURAL TILE fits into your picture!

Our picture will be "completed as planned" with versatile, beautiful Arketex Ceramic Glazed Structural Tile.

Arketex, with its wide range of sizes and textures, in your colors, ideal for interior and exterior use...for partitions or load-bearing walls. The first cost is the only cost—Arketex is permanent wall and finish all in one.

ARKETEX CERAMIC CORPORATION • Brazil, Indiana

"First with the Finest" CERAMIC GLAZED STRUCTURAL TILE

VISIT OUR DISPLAY-BOOTH 48

NATIONAL ASSOCIATION OF HOME BUILDERS’ CONVENTION
(Continued from page 100)

brightness engineering will soon result in a synthesis of techniques for realizing the rather simple objectives of good visual environment.

Conditioning Schoolrooms for Visual Comfort and Efficiency. Charles D. Gibson. The author is Field Representative, Division of Schoolhouse Planning, California State Department of Education.

The material in this paper is taken from his work on seeing for Guide for Planning School Plants, published by the National Council on Schoolhouse Construction. The article brings the reader up to date on “quality” lighting as compared with the old recommendations of quantity of foot-candles on the working level. The basic elements are clearly explained and recommendations given for reconditioning or new construction.

**Roto-Waiter by Sedgwick**

A new kind of fully automatic electric dumb waiter that never overtravels

The endless chain drive of the new Sedgwick Roto-Waiter makes it the perfect dumb waiter for stores, hospitals, hotels, restaurants, libraries, clubs, schools, banks, factories, residences, etc.—especially for two-stop installations.

The single direction motor helps cut costs by eliminating the need for special control equipment normally required when reversing motors are used—and, by reducing starting torque, it cuts current consumption.

And Sedgwick Roto-Waiters, . . .

1. Never overtravel
2. Are completely factory-assembled-and-tested
3. Require only minimum clearances
4. Have an overload safety device for safe operation
5. Require no heavy load-bearing supports except at the bottom
6. Are easy to install

The table of dimensions shown below lists three standard counterweighted Roto-Waiters. In addition, Sedgwick makes an uncounterweighted Roto-Waiter—capacity 150 lbs., car size 24" x 24" x 36"—which is ideal when a dumb waiter is to be installed in limited space as for undercounter use.

**STANDARD ROTO-WAITER DIMENSIONS**

<table>
<thead>
<tr>
<th>Size No.</th>
<th>2C</th>
<th>3C</th>
<th>5C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity, lbs.</td>
<td>200</td>
<td>300</td>
<td>500</td>
</tr>
<tr>
<td>Car width, in.</td>
<td>24&quot;</td>
<td>30&quot;</td>
<td>36&quot;</td>
</tr>
<tr>
<td>Car depth, in.</td>
<td>24&quot;</td>
<td>30&quot;</td>
<td>36&quot;</td>
</tr>
<tr>
<td>Holdway width, lbs.</td>
<td>33&quot;</td>
<td>39&quot;</td>
<td>45&quot;</td>
</tr>
<tr>
<td>Holdway depth, clear in.</td>
<td>27&quot;</td>
<td>33&quot;</td>
<td>39&quot;</td>
</tr>
<tr>
<td>Holdway depth, including doors, in.</td>
<td>26&quot;</td>
<td>35&quot;</td>
<td>41&quot;</td>
</tr>
</tbody>
</table>

So if you are stymied by perplexing lifting and lowering problems involving the vertical movement of material and merchandise—tell us about them. And write for complete details and specifications of the new electric dumb waiter that cannot overtravel—the Sedgwick Roto-Waiter.

SEDGwick MACHINE WORKS, 142 W. 15th St., New York 11, N. Y.

**ELECTRIC AND HAND POWER ELEVATORS AND DUMB WAITERS**

Having this up-to-date approach presented by the National Council on Schoolhouse Construction in its Guide should help greatly in improving the visual environment in American schools.

**School Lighting Appraisal and Recommendation Procedure Developed from Survey.**

Summary of results of survey of fourth-class schools (serving 5,000 or less population) in Bradford County, Pennsylvania. An excellent outline of procedure which might well be followed by public spirited citizens everywhere.

This work resulted from efforts of the Bradford County Federation of Women’s Clubs and was shared in by the State Department of Welfare, the local Lion’s Club, and the Northern Pennsylvania Power Company in cooperation with the County Superintendent of Schools.

**Current Articles on Lighting.**

List of titles and source of publication of nearly 100 recent articles on lighting and allied subjects appearing in nationally known magazines, technical and trade.

**BOOKS**

**YOU WANT TO BUILD A SCHOOL?**

Charles W. Bursch and John L. Reid. Reinhold Publishing Corp., 330 W. 42nd St., New York 18, N. Y., 1947. 128 pp., illus. $3.50

The procedures to be followed in developing a long-range master plan for school-housing and in initiating and carrying through an actual building project are often but vaguely understood by lay members of boards of education and building committees. The architect who designs a school building, who prepares contracts and supervises construction, is on familiar professional ground. He has in his files, or there is readily available to him, a wealth of material to aid him with special problems that may arise. The board or committee member, on the other hand, who is charged with responsibility for the administration of a building program, is more often than not undertaking the task for the first and only time in his life. His lot has been further complicated by a scarcity of informative material, in convenient form, to guide him through the maze of detail with which he must wrestle.

It is this void that the authors, Mr. Bursch and Mr. Reid, have set about to fill. That through their training and wide experience they are well qualified to do it is amply borne out by the success they have achieved. Although they cover their subject thoroughly and clearly, they manage to do it with a
refrigeration is no experiment in research laboratories

Control of temperature and humidity is paying its way for modern industrial laboratories in more and better research. Such exacting work demands precise control the year round. That is why so many industrial laboratories choose Carrier centrifugal refrigerating machines for their refrigerating and air conditioning requirements.

Recently Carrier centrifugals have been installed by such companies as Louisiana Division of Standard Oil Company of New Jersey, Sinclair Refining Company, and the B. F. Goodrich Company. Like other corporations operating extensive research laboratories, they find precisely controlled air conditioning and refrigeration permit more exact measurements, promote cleanliness, and help control chemical and biological reactions. And comfort of the research personnel encourages better work.

Compact, dependable Carrier centrifugal refrigerating machines are used all over the world in laboratories, industrial plants, hotels, office buildings. Their efficient operation, ease of maintenance and lack of vibration make them the choice for refrigeration and air conditioning applications.

Whatever the kind of laboratory or type of construction Carrier engineers will be glad to help you. They're the most experienced in the industrial field. And they've worked for years with architects and consulting engineers to unravel knotty problems.

Carrier Corporation, Syracuse, N. Y.
succinctness and singleness of purpose that is gratifying. Their scrupulous avoidance of such extraneous matters as philosophies of education and standards of design and construction adds to the effectiveness of the job they set out to do.

Following an orderly arrangement of material, the book opens with a section on the people, groups, officials, and agencies that enter into the planning and construction of a school building—their functions and their contributions. There follows then a description of the things that influence or affect building and planning procedure—regulatory laws, codes, bonds, and such instruments as plans, specifications, and contracts. Next in logical sequence is shown, step by step, how those people and agencies that have already been introduced, working with one another and with the instruments, laws, and codes that have been described, initiate and carry through the planning and construction of a school plant from the essential development of an over-all plan for future school plant growth to the completion of the building. Since, however, a completed building can be effective only through intelligent use, the authors follow through with a discussion of some of the problems and opportunities to be met in connection with the utilization of that new building.

Although the agencies, laws, and procedures described are specifically those of the State of California, the counterparts of those agencies and laws are to be found in many other states, while the principles behind the procedures are applicable anywhere. As a consequence, the book will be a valuable asset to all boards of education and building committees, regardless of where they may be, as a reliable guide to a better understanding of the duties that are common to them all.

To the architect who undertakes the design and construction of school facilities—and especially to the one who does not possess a backlog of wide experience in this field—there is offered an understanding of the work and the problems of those boards and committees with which he must work in close and productive harmony.

JOHN E. NICHOLS

YOUR SOLAR HOUSE

Compiled under the editorial supervision of Maron J. Simon, Architectural Consultant Talbot Hamlin, prepared with the technical assistance and cooperation of Libbey-Owens-Ford Glass Co. Simon & Schuster, 1230 Sixth Ave., New York, N. Y., 1947. 158 pp., illus. Cloth-bound edition, $3.00; paper-bound, $1.00

Libbey-Owens-Ford commissioned 49 representative architects (in all states and District of Columbia) each to design a house inspired by his own locality. No limitations were set except that they be medium-priced ($15,000 maximum, prewar) and that they should have extensive windows or even walls of glass "to unite interiors with out-of-doors in a spacious cheerful atmosphere." The 49 sketches, each with a statement by the architect, present an interesting composite view of our profession in the house field. No "regional" architecture is in evidence. Flat or sloped roofs and open or tight plans are scattered indiscriminately. There is a fair variety of plan types, also considerable repetition of the plan that spreads rooms out in a ribbon facing south. Certainly there is no "tremendous variety" as promised by the introductory chapter. The format is attractive, with overlays in color, but there is evidence of "chopping up" some drawings, greatly to their detriment. And plans reproduced at such various scales impair ready comprehension.

(Continued on page 106)
PRACTICAL, SOUND CONSTRUCTION

for DRAMATIC OPEN DISPLAY

CREATED BY BRASCO to enlarge the possibilities of full-visibility design, Safety-Set Construction permits new freedom of personal expression in store fronts of character and distinction. It provides improved structural and safety features for special architectural requirements such as heightened areas and larger glass loads.

In addition to an unusually wide variety of attractive sash and sill combinations, Safety-Set’s lowered sash height insures greatest visibility. For sound structural strength, heavier gauges in all sections plus stronger steel reinforcements. For improved safety, FINGERTIP SETTING, exclusive with Brasco, which entirely eliminates screws and other pressure devices and provides maximum glass protection.

Safety-Set installations require stock millwork only, effecting substantial savings in time and material. As with all Brasco Construction, it is available in both stainless steel and anodized aluminum. Our new illustrated catalog includes descriptive material and quarter-size details. Clip and mail the attached coupon for your copy.

A COMPLETE LINE FOR EVERY DESIGN

BRASCO MANUFACTURING CO.
HARVEY • (Chicago Suburb) • ILLINOIS

For your free copy pin coupon to letterhead and mail promptly

Please send CATALOG 48P to the attention of

Name ____________________________
Doors Swing Years Longer on

Milwaukee JAMB HINGES

- You've made a good choice when you recommend modern MILWAUKEE and NU JAMB Spring Hinges on your finest projects. They're engineered for long life—with "frictionless" bearings, tough tempered steel springs, reinforced web and other quality features. Twenty years hence they will be swinging as easily, smoothly as ever—building owners can prove this today.

NU JAMB Spring Hinges require no hanging strip. MILWAUKEE Giant Jamb Hinges are standard type for use where hanging strips are desired. Both types are attractively modern in design, available in Button Tips or regular Ball Tips. Single and double-acting types are both adjustable after installation.

The Milwaukee Line of Quality Builder's Hardware is stocked by leading Jobbers. Write for catalog information.

(Continued from page 104)

The architect will find much of interest in these drawings and statements by his 49 colleagues. In general their aim is to give the client a better house to live in without deferring to traditional styles. The collection has much the same reference value as a very good competition, but with more variety and higher average quality. However, this is decidedly a "consumer" book for the prospective house owner, not written for architects. Without a sound critical background a layman can be quite confused by contradictions and half-truths that are presented as explanation of solar houses in the chapters preceding the 49 designs.

Libbey-Owens-Ford is well aware of this, as is evident in the text, but it was decided that this "popular" book should not burden the reader with "deep stuff" (who decided is not apparent, for no author is listed). Instead, one is left with the impression of pseudoscientific hocus-pocus, the implication that any one of these designs will solve the house problem in a new and different "solar" fashion. (Some of the designs are quite definitely "old" fashioned.) Three pages of more-or-less foolish answers to more-or-less foolish questions don't improve the I.Q. of the book, either.

J. R.

Kindergarten Chats
AND OTHER WRITINGS

Louis H. Sullivan. Wittenborn, Schultz, Inc., 38 E. 57th St., New York 22, N. Y., 1947. 255 pp., illus., $4.50

This is Sullivan's own 1918 revision of the "chats," previously unpublished, together with seven essays and papers written between 1885 and 1906. It is a scholarly work, of which the present editor, Isabella Athey, may feel proud. If any architects have not read this, as is evident in the text, but it was decided that this "popular" book should not burden the reader with "deep stuff" (who decided is not apparent, for no author is listed). Instead, one is left with the impression of pseudoscientific hocus-pocus, the implication that any one of these designs will solve the house problem in a new and different "solar" fashion. (Some of the designs are quite definitely "old" fashioned.) Three pages of more-or-less foolish answers to more-or-less foolish questions don't improve the I.Q. of the book, either.

J. R.

BUILDING WITH EARTH


Rammed-earth construction is a "modern" technique applied to the most ancient of construction materials—"mud wall." More generally called Pisé in Europe, its use goes back to Roman times, but except in a few localities it has been forgotten until recently and "rediscovered" under press of material and transportation shortages. The more ancient techniques of building with clay lumps or a mud and straw mix (cob) or clay bricks (adobe) have continued in active use since prehistoric times in many parts of the world.

Rammed earth is much like mass concrete. For good results the mix should be proportioned in much the same way, with enough sand and clay to fill the voids between pebbles, and placed dry. Stones larger than about one inch should be removed, and organic matter should be avoided. "Stabilized" earth is a low-grade concrete.

(Continued on page 108)
There's insulation and there's INSULATION!

Many new homeowners boast that their places are insulated ... then get a terrific let-down when they learn that the insulation has been installed so thin that they will get only a fraction of the benefits that home insulation can provide.

NATIONAL GYPSUM COMPANY, BUFFALO 2, N. Y.

(Appearing in full color in the February 21st issue of The Saturday Evening Post.)

Puzzle: which house costs less to heat?

The house on the left costs a lot less to heat—the one with the snow on the roof. The snow is still there because this house is insulated with Fireproof Gold Bond Rock Wool. Furnace heat is kept inside instead of leaking through the roof to melt the snow. Heating costs are cut as much as 40%.

Naturally you'll want your new home insulated. But don't make the mistake of just saying you want "insulation". That's like going to the butcher and asking for a pound of meat—any meat. It will pay you to remember two points about insulation:

1. Specify Fireproof Gold Bond Rock Wool. This National Gypsum product is not just "fire-resistant", not just "fire-retarding" but as fireproof as the rock from which it is made.

2. Specify that you want full thick insulation—not 1 inch or 2 inches thick but full thick. With full thick insulation you get the full benefit that home insulation can and should provide. And because it completely fills the wall, only full thick insulation provides an effective fire stop.

Insulation is the one modern home improvement that pays for itself by reducing heating costs as much as 40% every year. Then during the summer it keeps rooms 8° to 15° cooler. The resale value of the house is automatically increased.

Gold Bond Rock Wool insulation is only one of over 150 Cold Bond Products—engineered to help you build or remodel better at no extra cost. Included are Gypsum Lath, Plaster, Lime, Shingling, Metal Lath, Insulation, Wallboard, Acoustical Products and Sundries, the one-hour wall paint.

Your local Gold Bond lumber and building material dealer is headquarters for all that's new in building products. See him first!
Just as fine chinaware patterns are set against WHITE...

Concrete craftsmen choose Atlas White Cement

Delicate colors and intricate patterns of fine chinaware stand out most strikingly against a white background. So, too, a matrix of Atlas White Cement sets off better the color values of pigments and aggregates in Terrazzo, Stucco, Cement Paint and Architectural Concrete Slabs. Such a background has the uniform clarity to complement the desired color overtones, whether in contrast or blend.

Atlas White complies with Federal and ASTM specifications for Portland cement. It has the same advantages for concrete and is used in the same way. Atlas White concrete gives a clean, fresh appearance. Cleaning is easy. Maintenance costs stay low.

For further information on the uses of Atlas White Cement, see SWEET'S Catalog, Sections 12B/7 and 13B/7, or write to Atlas White Bureau, Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York 17, New York.

―J. R.

(Continued from page 108)

Suitable material can generally be found on the site—otherwise, there’s no advantage in this technique.

Where only clay or fine loam are available, adobe, as in our Southwest, or clay-lump, as in the Ukraine, are the suitable methods using “no-cost” material. There is of course a great deal of heavy labor involved in all of these methods of building, and with rammed earth the cost of forms would be a considerable item unless the same forms could be used for several structures.

In the old days the necessity for good foundations was not appreciated nor was damp-proofing against ground moisture a general practice. With these improvements (and, of course, a good roof overhang) a rammed-earth wall can last forever. A great limitation (and the most interesting challenge to a clever planner) is the need for using very simple forms. Only one set of knockdown forms about 3 ft high and 10 ft long is necessary, with means of blocking off for openings and for rounded external corners. This gives a very big but fairly adjustable “building block” to work with. Adobe gives a modular unit on the old cubit measure (18 or 20 inches) while the other earth-walling techniques have no inherent requirements as to size except that they be massive.

Data available in this country (cited in the book) are: Terracrete—Building with Rammed Earth Cement, published by Francis Macdonald, Chestertown, Maryland; U. S. Department of Commerce National Bureau of Standards Report, BMS 78; and University of Illinois Bulletin No. 17.

The book was first published in 1919 with a lively introduction by J. St. Lee Strachey, then editor of the Spectator, who had been largely responsible for a revival of building with “pisé de terre” during the war. This introduction is so pat to the present building situation that it makes one wonder almost whether the year is now 1919 or whether this was written in 1947. A re-evaluation of the old earth-building methods is given in the body of the book and in this edition the added experience of the last 30 years or so is covered in detail. There are plenty of clear drawings of typical sections, forms, etc., and many excellent photographs. At first glance the book seems completely “old hat,” for the buildings illustrated all have a traditional English Cottage look about them. The book gets off to a rambling start and it takes a bit of digging to get it all straight and to find out just what technical problems might be encountered. But the information is there and a good contemporary architect could use earth walls as readily as any masonry to give this work the “new look.”

"THEATRE GUILD ON THE AIR"—Sponsored by U. S. Steel Subsidiaries Sunday Evenings—ABC Network

(Continued on page 110)
CAMELLIA HOUSE BEAUTY AND SECURITY BUILT WITH TRUSCON STEEL BUILDING PRODUCTS

Handsome New Denver Apartment House Adds Bright Note of Modernism to Mile-High City

The generous use of Truscon Series 138 Double-Hung Steel Windows in Camellia House offers its residents an opportunity to enjoy Colorado's brisk air and bright sunshine as desired. Smart and sparkling, too, is the pleasing window pattern achieved by the ample number of the windows across each facade and around outside corners.

This outstanding window was an original development by Truscon as an answer to the insistent demand for an economically priced steel window in the popular double-hung design. To attain a production volume permitting sale and installation at a price level comparable to that of the conventional type residential window, it was necessary to design and construct special manufacturing equipment capable of high quality fabrication in mass output, with a resulting minimum of manufacturing cost.

Of major importance in the Series 138 Truscon Double-Hung Steel Windows is the fact that the sash members are of welded tubular construction. This adds greatly to the strength, durability and finished appearance. Weights and cords are not used. Operation is controlled by motor type spring balances equipped with tapes of Enduro stainless steel. Quiet, positive action and long trouble-free life are assured.

Each window is completely factory weather-stripped in stainless steel. Screening is easily and attractively accomplished.

The low cost is reflected not only in the window price, but in all accessories. Frames are prepared to receive screens and storm sash of the simplest and most economical type. Shade, drapery, curtain or venetian blind fixtures, of standard types are easily attached to the interior side, in holes provided in all units.

Write for complete information.

New Literature
A 36 page catalog complete with installation details and specifications on Truscon Double-Hung Windows and Casements. Write for your free copy.

TRUSCON STEEL COMPANY
YOUNGSTOWN, OHIO
Subsidiary of Republic Steel Corporation

JANUARY, 1948 109
CUSTOM INSTALLATIONS
at No Extra Cost
NIAGARA
WITH WILEY STOCK MODELS

Companion Commercial Units in 2, 3, 4 and 6-lamp sizes provide various light capacities with uniform appearance.

Suspended or flush with ceiling... individual or continuous runs.

Universal Troffer in 2, 3 and 4-lamp sizes, completely assembled, may be used individually or in rows with open, louvered or glass base panels. Completely interchangeable.

Spot Lites... adjustable or fixed lens types... may be used individually or combined with Wiley Commercial and Troffer Models.

A complete line of quality Industrials... open, louvered or glass.

Write for Complete Catalog

R. & W. WILEY, INC.
Dearborn at Bridge Street
Buffalo 7, N. Y.

RESIDENTIAL LIGHTING
Myrtle Fakebender, D. Van Nostrand Co., Inc., 250 4th Ave., New York, N. Y., 1947. 269 pp., 8½" x 11", illus., index. $10.00

Here's a great big book for the lighting fixture dealer to have on his showroom table to help spend his customers' money. There's a lot of good material in it, useful to architects too, overlaid by such a raft of much-retouched photographs of period interiors, artsy table lamps, cute garden lighting, and such that the subject of the book is quite snowed under. The jacket blurb proudly cites "five hundred and sixty-nine vivid illustrations." Yeah! 31 big cuts of floor and table lamps in one chapter, all china vase-silk shade style or the equivalent. Another chapter, "The Influence of Period Styles on Lighting Fixture Design," has 57 cuts about equally divided between half-page photos of huge high-ceilinged period rooms (museum pieces, every one of 'em) and line drawings of "period" light fixtures and chairs.

Of course this is a "consumer" book, not written for professionals, and it does give the layman lots of information and suggestions on equipment, wiring, light sources, etc. The chapter, "Lighting the Rooms of the House," is entirely helpful. If the author had concentrated on "arrangement and design of home lighting" as the cover states and left the fancy fixtures to the dealers in such merchandise, the book would be half the size and have at least twice the value.

J. R.

NOTICES
NEW PRACTICES. PARTNERSHIPS
FRANK GRAD & SONS of Newark, N. J., and Washington, D. C., have announced a new member of the firm, JOHN HANS GRAHAM.

GEORGE G. GARTHORNE, A. L. BUONACORSI, and JOSEPH E. MURRAY have formed an association with offices in the Grant Bldg., 1095 Market St., San Francisco 3, Calif.

JOSEPH M. BARROW has opened a general architectural practice with offices at 713 W. Illinois St., Urbana, Ill.

LLOYD B. KNUTSEN has resumed his architectural practice with offices at 527 Hoeschler Bldg., La Crosse, Wis.

J. GILBERT BUVENS, architect, has resumed his architectural practice with offices at 327 Hoeschler Bldg., La Crosse, Wis.

ARTHUR F. DEAM, professor of design, has been appointed chairman of the Department of Architecture of the University of Pennsylvania. Professor Deam has taught design at University of Illinois and at Pennsylvania.

(Continued from page 108)
Chicago's Field Building keeps its youth with the help of ANACONDA NICKEL SILVER

Chicago's monumental Field Building, a gleaming incisor in Chicago's serrated skyline, provides an impressive example of the lasting beauty of Anaconda Nickel Silver.

In the strikingly handsome entrance lobbies and the block-long main arcade that connects them, brown marble walls with fluted white marble columns are set off with hand rails, balconies, elevator doors and trim of this satiny, lustrous metal.

In combining lasting beauty with ease of maintenance, Anaconda Nickel Silver plays its part in helping the management keep the building looking as though it had just opened its doors.

Anaconda Architectural Bronze and Nickel Silver in all wrought forms have been the choice of architects through the years for ornamental work of every description. These Anaconda Metals have likewise been the choice of leading fabricators for their easy workability and uniformity in dimension and composition.

Graham, Anderson, Probst and White, Architects; George A. Fuller Company, General Contractor. Architectural metal work by General Bronze Corporation and Flour City Ornamental Works.

Ingenious treatment of tower elevator lobby combines mail box with elevator dispatch board in the form of the building itself...all in gleaming Anaconda Nickel Silver.
Since 1905, National Electric has been a leader in meeting the ever-changing demands of the Electrical Industry.

Today National Electric enjoys an enviable reputation as a trustworthy source of supply for complete wiring systems and fittings for every conceivable electrical requirement.

All N. E. products are approved by Underwriters' Laboratories

- Sold nationally through Electrical Wholesalers

---

**Modern electrical systems for every requirement**

National Electric Products Corporation
Pittsburgh 30, Pa.
MEN WANTED

ARCHITECTURAL DRAFTSMAN — one or two men needed by office doing general practice in eastern Ohio city with population of 60,000. Salary and bonus based upon ability to produce. Only those interested in permanent employment should apply. Submit experience record; state salary expected and other pertinent information. Arthur F. Sidells, 310 Perkinswood Blvd., Warren, Ohio.


ARCHITECTURAL DESIGNER AND DILEINATER — for office doing large commercial and institutional work. Top salary for qualified person. Send photos of late work in delineation and give full experience record. 44-hour week. Leon B. Senter, A.I.A., 307 Philtower Bldg., Tulsa, Okla.

Two ARCHITECTURAL DRAFTSMEN — capable of taking preliminary sketches and developing working drawings and details on hospitals, schools, and commercial work. Inform fully in first letter as to education or training, experience, age, salary capable of earning, and availability. Apply to H. E. Kirkemo, Architect, Missoula, Mont.

ARCHITECTURAL AND ENGINEERING DRAFTSMEN — experienced in industrial plant or architectural building design. Salary commensurate with ability. Engineering office doing work all over the country. Location will be Buffalo, N. Y. Write full details to Reeccon Co., Jackson Bldg., Buffalo, N. Y.

ARCHITECTURAL DRAFTSMEN — excellent openings, permanent positions for qualified personnel. Good salaries and working conditions in ideal climate. Write P. O. Box 308, Santa Fe, N. M., stating qualifications in detail.

ARCHITECTURAL DESIGNER — fully experienced on theatres, stores and industrial work. Must be capable of executing working drawings and details and of directing such effort. Permanent connection can be offered to qualified applicant in large architectural-engineering organization. Send record of experience and samples of work. Marr and Holman, 701-703 Stahlman Bldg., Nashville, Tenn.

NOTICE: Insertions for this section will be accepted not later than the 1st of the month preceding publication. Legible copy, accompanied by check or money order for $3.00, must be addressed to Jobs and Men, c/o PROGRESSIVE ARCHITECTURE, 330 W. 42nd St., New York 18, N. Y. Insertions may not exceed 50 words.

ARCHITECTURAL DESIGNER AND DILEINATER — for office doing large commercial and institutional work. Top salary for qualified person. Send photos of late work in delineation and give full experience record. 44-hour week. Leon B. Senter, A.I.A., 307 Philtower Bldg., Tulsa, Okla.

WEISART

Compartments for Fine Buildings


Designed and engineered to harmonize with new trends in finest buildings, WEISART Flush Compartments are thoroughly field tested, and have won wide acceptance. The rigid, flush stile construction eliminates posts and head rails. WEIS cut-out type top gravity hinge permits doors and stiles to line up at top.

Doors, stiles and partitions are of highest class flush construction of bonderized, zinc-coated steel, with edges locked and sealed. Synthetic baked enamel finish is easily cleaned, available in any solid colors selected for desired color treatment. Partitions and stiles are supported clear of walls, eliminating dirt-catching corners.

Write today for your copy of Catalog No. 19 containing detailed information on WEISART and WEISTEEL compartments.

Replacement parts for the aviation industry must be received fast. This business is a big user of Air Express. Speed pays.

Everything from fountain pens to serums and medicines flies these days by Air Express. Importers and Exporters, too, find Speed pays.

Builders get what’s needed the fastest way — by Air Express. No holdups! Speed pays.

Speed pays in your business, too!

Air Express helps keep your business in high gear. Because your shipments go on all flights of Scheduled Airlines, there’s no delay. That, plus door-to-door service—at no extra cost—makes Air Express the fastest possible way to ship. Rates are low: 16 lbs. goes 1,000 miles for $6.66—4 lbs. for $2.04. Use it regularly.

- Low rates—special pick-up and delivery in principal U.S. towns and cities at no extra cost.
- Moves on all flights of all Scheduled Airlines.
- Air-rail between 22,000 off-airline offices.
- Direct air service to and from scores of foreign countries.

Just phone your local Air Express Division, Railway Express Agency for fast shipping action.

(Continued from page 113)

**STRUCTURAL ENGINEER**—with good experience who can design and make drawings for structural and reinforced concrete. Permanent position can be offered to properly qualified applicant in large architectural-engineering organization. Send record of experience and samples of work. Marr and Holman, 701-703 Stahlman Bldg., Nashville, Tenn.

**MECHANICAL ENGINEER**—fully experienced in making designs, working drawings, and writing specifications for heating, plumbing, and air conditioning. Permanent connection in large architectural-engineering office can be offered to properly qualified applicant. Send record of experience and samples of work. Marr and Holman, 701-703 Stahlman Bldg., Nashville, Tenn.

**EXPERIENCED ARCHITECTURAL DRAFTSMAN**—wanted by well established architectural firm in Minnesota employing about eight men. Top salary and opportunity of business participation. Housing in best district available. Box 82, PROGRESSIVE ARCHITECTURE.

**ARCHITECT OR DRAFTSMAN**—with well-rounded experience, wanted by small, well established office in Michigan. If you can assume responsibility, this may be the stepping stone to a fuller and quicker gratification of your ambition. Box 86, PROGRESSIVE ARCHITECTURE.

**ARCHITECTURAL DESIGNERS, DRAFTSMEN**—with experience and initiative. Good long-range opportunities. Box 87, PROGRESSIVE ARCHITECTURE.

**JOBS WANTED**

**ACOUSTICAL ENGINEERING CONSULTANT**—professional license; can solve your acoustical problems. Will consult with architects on either a daily or job fee basis to produce good architectural as well as acoustical results. Edward J. Content, Roxbury Rd., Stamford Conn.


**ARCHITECT-ARTIST AND DELINEATOR**—of long experience, offers services for freelance architectural renderings and perspectives, bird’s-eye views of architectural treatment of engineering structures such as highways and bridges. Theodore A. de Postels, A.I.A., 644 Riverside Drive, New York 31, N. Y. A’Dudbon 3-1677.
Everything

YOU NEED TO KNOW ABOUT
DRAINS AND PLUMBING DRAINAGE PRODUCTS

IS IN THE

NEW JOSAM CATALOG "J"

The new Josam Catalog "J" is the greatest catalog of information on drains and plumbing drainage products ever issued. You would expect this catalog to go far beyond the data provided by the ordinary catalog...and it does! It's the new encyclopedia...the new source of authoritative information on plumbing drainage products. It contains everything you need to know about the proper selection, application and specification of drains and drainage products for all types of buildings.

252 pages, containing hundreds of different products, are coordinated and indexed to give you desired information instantly. Illustrated, numerical and alphabetical indexes as well as adaptation schedules enable you to find the exact product and the exact style you need quickly and without question.

The Josam Catalog "J" not only covers all types of drains, interceptors, backwater valves, swimming pool equipment, shock absorbers, shower mixing valves but many other products. It will be a valuable reference book to anyone who specifies, orders or installs plumbing drainage products. It is free upon request to anyone in the industry. Send for your copy of the Josam Catalog "J" today! You'll be amazed at its contents!

JOSAM MANUFACTURING COMPANY
General Office, Ferguson Bldg., Cleveland 14, Ohio • Plant, Michigan City, Ind.
Representatives in all Principal Cities
JOSAM-PACIFIC CO., San Francisco, California
West Coast Distributors
EMPIRE BRASS COMPANY, LTD., London, Ontario
Canadian Distributors
See our Catalog in Sweets.
Member of the Producer's Council

JOSAM MFG. CO., 303 FERGUSSON BUILDING, CLEVELAND 14, OHIO
PLEASE SEND ME NEW JOSAM CATALOG "J".
YOUR NAME
YOUR OCCUPATION
FIRM NAME
ADDRESS
CITY AND STATE

JANUARY, 1948
SCALE MODELS—for architects far from our studio—are being successfully built and shipped without damage. Your requirements of scale and cost can be met, wherever you are. Write, without obligation, for estimates and pictures of similar models, to Musselman-Casey Studio, 2121 Cherry St., Philadelphia 3, Pa.

YOUNG ARCHITECT—graying rapidly turning the boss’s parti into pseudo-architecture—would like to do good contemporary architecture with his own parti, for a change. Does some rich, old architect need a young associate who has the know-how? You really don’t have to be so old! Or so rich! Box 88, PROGRESSIVE ARCHITECTURE.

YOUNG PROGRESSIVE ARCHITECT—licensed, National Council license pending, A.I.A.; graduate with high honors University of Illinois, 1941; desires association with established architectural firm in Southern California. Box 89, PROGRESSIVE ARCHITECTURE.

NEW YORK ARCHITECT—war veteran, engaged as industrial consultant and working on residences, alterations, interiors, etc., needs small office space badly. Would like to associate with progressive firm or rent one room or desk-space at modern architect’s or designer’s. Box 90, PROGRESSIVE ARCHITECTURE.

STRUCTURAL ENGINEER—desires sales agencies in building materials requiring engineering know-how. 15 years’ broad experience in plant maintenance and consulting engineering work. Registered professional engineer. New England territory desired on commission basis. Box 91, PROGRESSIVE ARCHITECTURE.

ARCHITECTURAL ENGINEER—B.S., architectural engineering. Registered architect (Illinois). Desires permanent position with progressive office, participating or partnership basis. Western U. S. preferred. Box 92, PROGRESSIVE ARCHITECTURE.

ARCHITECT—35, licensed New York, wide experience in residential and store work (design, detailing, supervision), desires association and eventual partnership with established architect in West or Midwest. Hard worker, values congenial atmosphere. Extensive cultural background. Familiar with contemporary technical methods, believes in individual design that follows regional requirements. Box 93, PROGRESSIVE ARCHITECTURE.

MECHANICAL ENGINEER—professional license. Industrial piping specialist for power plants, oil refineries, or chemical plants. 20 years’ design and field experience. Available to architects and builders on part-time basis. Specifications included. New York metropolitan area and adjacent vicinity. Box 94, PROGRESSIVE ARCHITECTURE.
Constant comfort uniformly maintained by CONTINUOUSLY CIRCULATED WATER

The Hoffman Series 90 Hot Water System with its automatic regulatory features, is the ultimate in precise control for any application of hot water heating—whether panels, radiators, convectors or radiant baseboards are employed. The Comfort Controller, or brain of the system, is activated by Outdoor and Water Temperature Bulbs which transmit temperature changes to its accurate balancing mechanism—automatically opening or closing the Hoffman Control Valve to maintain the desired temperature of continuously circulating water to meet the need for heat. Zoning of apartments or sections of large residences to suit personal preference or functional activities of the building may be obtained with Series 90 Systems. The diagram below shows the basic operating principle of this system. Thousands of installations now in operation acclaim its merits.

HOW THE HOFFMAN SERIES 90 CONTROLLE OPERATES

When the Control Valve is closed, continuously circulating water by-passes the boiler without withdrawing heat. When water has lost heat, as noted by the Water Temperature Bulb, the Comfort Controller slowly opens the Control Valve, permitting hot water from the boiler to enter the circulating stream. When sufficient hot water has been admitted to restore the proper temperature to the circulating water, the Valve is closed by the Controller. This cycle repeats automatically in anticipation of weather changes.

HOFFMAN SPECIALTY COMPANY
Dept. PF-1, 1001 York St., Indianapolis 7, Ind.
Of course, you can design the perfect fireplace. But will it be constructed exactly as you planned it? You can be sure of perfect fireplaces—when you specify the Bennett Fresh-Aire Unit. It serves as a complete form for smoke-free internal proportions of throat, damper, smoke chamber and shelf, etc. Fireplaces built around these units must be right.

Here are three additional reasons for specifying Bennett Fresh-Aire Units for the modern, insulated home:

1. They warm fresh air drawn from outdoors—eliminate the upsetting effects of the ordinary fireplace on the balanced central heating system...eliminate smoky back-drafts.
2. They allow complete freedom to detail the exterior design of any type or style of fireplace you plan.
3. Their moderate first cost is offset by savings in construction and perfect operation.

Bennett Warm-Aire Unit
—for perfect fireplaces in camps, southern homes, play rooms, etc. Draws cool air off the floor, heats and recirculates it evenly throughout the room—and to adjacent rooms or upstairs.

Write us at 148 Cedar St. for Catalog—or see Sweet's.

Automatically control the lights by opening and closing of doors as in closets, storage and refrigeration chambers, vaults etc. Numbers illustrated here are designed to switch on lights when door is opened; others available for lighting when door is closed. No. 6553 comes complete in an approved box with 23/32" and 1/2" knockouts and clamp for flexible metallic conduit. No. 2022 is mounted in a steel box, porcelain lined. No. 6550 is mounted in a porcelain base; fits all standard door switch boxes. Ratings: 6 Amps., 125 V.; 3 Amps., 250 V. Striker plates furnished with each switch.

Write for specification data on the complete line.
HI-DENSITY FOR UNIFORM OPACITY
Only VAN DYKE gives you HI-DENSITY lines that are uniformly opaque in drawings . . . and sharply white in prints.

SMUDGE-FREE FOR CRISP SHARP PRINTS
Blackness without thickness of lead deposit assures a minimum of smudging, and ghost-free erasures.

MICROTOMIC PROCESS ASSURES SMOOTHNESS
VAN DYKE Leads are made of pure crystalline graphite flakes chemically reduced 100 times finer than is possible by old grinding methods. That's why they're smoother.

STRONGER LEAD FOR LONGER WEAR
A thermostatically controlled heat treatment produces extraordinary strength throughout the entire lead.

PRECISION GRADING
Ninety-nine years of experience and carefully guarded formulas make every lead of the same degree identical.

MICROTOMIC
VAN DYKE
HI-DENSITY
DRAWING PENCIL

FREE SAMPLE for you to test.
Just mail the coupon and specify your favorite degree.

EGERHARD FABER
Dept. PA-1 37 Greenpoint Ave., Brooklyn 22, N. Y.

You'll be glad to try a Microtomie VAN DYKE.
Send me FREE a regular lead OR

a _______ (degree)  Chisel Point.

Name_____________________________Firm_____________________________
Street & No.______________________City & State_______________________
Dealer's Name_____________________

Facts you'll want to know about Cabot's Paints

By the patented Collopaking process the pigments in Cabot's Collopake Paints are reduced to particles many times as fine as in ordinary paints and colloidally dispersed in the vehicle.

Because of this, Cabot's Collopakes have tremendous hiding power and are extremely durable. And because pure pigments with no fillers or adulterants are used, Cabot's Gloss Collopakes retain their fresh, lively colors for years.

Cabot's Collopakes offer you a wide variety of colors 5 Greens, 9 Reds and Browns, 4 Blues, 2 Creams, 2 Grays, Old Virginia White and Cabot's famous Double White.

Write for color cards and complete information. Our laboratory will gladly help you with your color problems.

Samuel Cabot, Inc.
2100 Oliver Building, Boston 9, Mass.

HOSPITALS FIND ECONOMICAL TERRAZZO INHOSPITABLE TO GERMS

In the reception rooms, down the long corridors, in the operating rooms, up the stairs—even on the walls—terrazzo's smooth jointless surface paves the way to aseptic cleanliness. Its once-in-a-lifetime durability stands up to constant wear. Versatile as an architect's imagination, terrazzo gives you color, design, and pattern tailored to individual need.

Upkeep? Exactly zero! Specify terrazzo and you get the warm, easy to clean, inviting floor that needs no refinishing, no painting, and few, if any, replacements.

For free, complete reference work about TERRAZZO, the once-in-a-lifetime floor—write to:

THE NATIONAL TERRAZZO AND MOSAIC ASSOCIATION, INC.
1420 New York Avenue, N. W., Dept. H, Washington 5, D. C.
For WALLS — a single treatment that combines multiple time-tested advantages

WHEN YOU SPECIFY THE USE OF FABRON—
THE canvas-plastic-lacquer wall finish —
YOUR CLIENTS BENEFIT FROM THESE FEATURES:
• it decorates the wall permanently
• it protects and reinforces sub-surface materials
• it binds and strengthens weakened or patched plaster
• it prevents plaster cracks
• it prevents fire spread
• it is easy to apply • easy to clean • sunfast
• it affords years of uninterrupted service

THESE FEATURES MAKE FABRON THE MOST ECONOMICAL WALL FINISH.

FREDERIC BLANK & COMPANY INC.
Established 1913

230 PARK AVENUE, NEW YORK 17, N. Y.
Chromtrim has evolved 34 basic profiles and is mass-producing them at lowered cost for economy-minded builders.

Durable, dimensionally accurate — easy to cut and install, delivered with all necessary nails, Chromtrim shapes are expertly designed to fill the highest professional building standards.

The 34 basic Chromtrim profiles are illustrated in Sweets Catalog

Write for complete catalog sheet with full dimensions.

R. D. WERNER CO., INC.
295 FIFTH AVENUE • NEW YORK 16, N. Y.

In Canada:
R. D. WERNER LTD. • PORT DALHOUSIE, ONTARIO, CANADA

THE ARTIST DEMANDS AN ERASER THAT’S

Quick on the pick-up
Clean on the job
Careful to prevent paper abrasion
that’s why

For YEARS HIS CHOICE

only the genuine
bears the trademark

ARTGUM is the registered trademark of
THE ROSENTHAL CO., New York City U.S.A.

THERMAL INSULATION
of BUILDINGS
by PAUL DUNHAM CLOSE
Formerly Technical Secretary, American Society of Heating and Ventilating Engineers, New York, and Insulation Board Institute, Chicago.

This book provides information and data on the various economic and comfort advantages of thermal insulating materials, a description of the various types of insulation used in dwellings and many other buildings, and an explanation of how they are applied. While the book is not intended to be an exhaustive treatise on the thermal insulation of buildings, it is a technically competent but at the same time readily understandable discussion of the subject, well suited to use by architects, engineers, builders, insulation salesmen, students and home owners.

You will want this new book on your shelf for ready reference. It is spiral bound so that it will lie flat thus making it easier to use its charts, graphs, and other descriptive matter.

Price $2.00

REINHOLD PUBLISHING CORP.
330 W. 42nd STREET NEW YORK 18, N. Y.
PERMANENT INSULATED WALL
at less than $1 per square foot!

It can be done. Where do the savings come from? From the use of steel panels that are fabricated and insulation-filled at the factory ... from the speed and ease with which men, without special skill or special tools, build up the wall with large-area sections. Less handling. No waiting for drying. Naturally, numerous openings require additional framing and fitting costs.

Starting right after the structural steel work, the building can quickly be enclosed with Fenestra Building Panels. Type C for insulated walls ... Type D to get floors down fast so construction can proceed ... Holorib Roof Deck to get under cover faster whatever the weather.

Fenestra Metal Building Panels are made by America's largest steel window producer and the originators of insulated steel roof deck. You'll find full information in Sweet's Architectural File (Section 3c-1). Or mail the coupon below. And if we can help you apply these modern metal panels to your building needs, call us.

**TYPE C FOR WALLS.** Composed of two metal members pressed together, with felt at each side to prevent metal-to-metal contact. Filled with insulation at the factory. Standardized in 3" depth and 16" width, in 18 gage painted steel or 16 B & S gage aluminum.

**TYPE D FOR FLOORS.** Box beam formed by welding together two steel sections. Side laps interlock to form continuous flat surface. Cover plates available for open cells to provide two flat surfaces. Standardized in 16" width. Depth 1½" to 9". Gages 18 to 12.

**HOLORIB ROOF DECK.** Steel sheets reinforced by three integral triangular ribs on 6" centers. Provides flat surface for mopped application of insulation and roofing. Sheet 18" wide, in lengths as required for purlin spacing. Gages 18 and 20 are standard.
THIS IS AN ARTIST at his drawing board

Note that look of contentment on his face . . . that look of a job well done.

He works for a busy advertising agency and an hour or so ago the boss gave him an illustration to do with a very short deadline. He made it—with plenty to spare.

Now—note the pencil he's using. It's a KOH-I-NOOR, and while it didn't actually inspire him, it helped immeasurably by standing up under his first feverish strokes and giving smooth, dependable performance right to the finish.

You can depend on KOH-I-NOOR every time . . . it's made of straight grained cedar and the finest lead—a combination that assures long-life "staying power."

THE RIGHT pencil for the RIGHT job
KOH-I-NOOR PENCIL COMPANY, INC.
BLOOMSBURY, NEW JERSEY

WHY DO IT THE HARD WAY?

1. RECOGNIZED PUBLIC ACCEPTANCE
   Completely invisible...known quality leadership...backed by nation-wide advertising, it's easier to sell.

2. EASE OF OPERATION
   Finger touch control with full opening of both upper and lower windows appeals to every customer.

3. SIMPLIFIED INSTALLATION
   Just drive in two fasteners...screw in one screw...10 sizes fit 95% of all new or old windows.

4. LOWER COST
   Eliminates weight boxes and mortises. No special frame preparation.

5. NOTHING TO EXPLAIN AWAY
   No tapes...no cables...no exposed tubes...no corrosion...no sticking...no squeaking.

ADVERTISED TO 134,445,000 READERSHIP IN SUCH CONSUMER MAGAZINES AS—
Better Homes and Gardens, American Home, Farm Journal, Small Homes Guide, etc. . . . the bulk of the home building market.

FOR COMPLETE SPECIFICATIONS AND INSTRUCTIONS
Write today for new fully illustrated, specification and installation catalog. See how Grand Rapids Invisibles fit into your next set of plans!

GRAND RAPIDS HARDWARE COMPANY
Grand Rapids, Michigan

Quality Leaders in Sash Hardware for 50 Years

Grand Rapids Sash Pulleys
No. 103 face plate, cone bearing type and Nos. 175, 109, 110 sawtooth drive type sash pulleys cover 90% of all sash pulley requirements.
Strong links in a strong chain

Time is a great strengthener! The years establish and make habitual those practises and methods which are proven correct by public support and acceptance. The Fitzgibbons Boiler Company, Incorporated, with its enviable record of sixty-two successful years, is a clear illustration of this principle.

Quality and performance have become a habit in the building of Fitzgibbons steel boilers. Pacemaking progress in up-to-the-minute design has also become typically Fitzgibbons. These qualities are built on the solid-rock foundation of years, and will not change.

As a further link in the chain of quality, Fitzgibbon steel boilers are constructed in rigid accordance with the Boiler Code of the American Society of Mechanical Engineers; are inspected and approved by the Hartford Steam Boiler Inspection and Insurance Company; are sized on the basis of the Rating Code of the Steel Boiler Institute. These factors eliminate all question as to how Fitzgibbons Boilers will perform.

Thus we have forged the strong link of the strong chain of Fitzgibbons cordial relationships with heating contractors, architects, builders, and owners—made even stronger by the many years during which Fitzgibbons fair dealing has been traditional. These are the qualities behind every Fitzgibbons Steel Boiler—intangible, but as strong as the steel of the boiler itself.
NEW ALUMINUM WINDOWS

CASEMENT WINDOWS
PROJECTED WINDOWS
COMBINATION WINDOWS
PIVOTED WINDOWS
DOUBLE HUNG WINDOWS

LOW COST

A complete line of aluminum and steel windows engineered by a company that has served the building industry since 1876.

The most modern metal working facilities and production processes, coordinated by expert window engineering, have brought these fine, trouble-free, everlasting windows, down to a price that is surprisingly low.

Thorn windows add character and beauty to any building, from the most modest, low cost, to the most expensive.

Thorn aluminum windows are especially attractive and the sparkle of this fine metal and the extra depth of the sash framing bars, particularly in double-hung types, giving shadow lines that every architect desires, provide features found only in the most expensive windows.

Aluminum windows are not only low in cost to the builder, but their smooth operation, regardless of atmospheric conditions, the elimination of all painting and nearly all maintenance, forever, make them a source of everlasting satisfaction to the owner, and save considerable money over the years.

J. S. THORN CO., PHILA. 32, PENNA.

For Every Application
“STREAMAIRE” CONVECTORS
by YOUNG

- An increasing number of architects and contractors are specifying “Streamaire” Convectors because they give extras that spell heating satisfaction. “Streamaire” Units are highly efficient and truly economical. They respond instantly to modern thermostatic controls . . . are engineered to circulate warm air by controlled convection, to level off temperature peaks by natural radiation. “Streamaire” Convectors are easy to specify, easy to install because they’re standardized in four types, packaged individually to prevent damage. To aid identification, cartons are marked with model number and size. “Streamaire” Cabinets enhance the beauty of modern interiors. Fronts are removable for cleaning. Write today.

HEAT TRANSFER PRODUCTS

YOUNG RADIATOR CO.
Dept. 578-A, Racine, Wis., U.S.A.

For
HOMES
APARTMENTS
OFFICES
PUBLIC BUILDINGS
STORES
INDUSTRIES
INSTITUTIONS
SCHOOLS

Free Standing, Type W, easy to clean. Type S, easy to install in recesses.

Wall Hung, Type W, sloping top, no blocking of air. Wall Hung, Type C, no wall recesses required.

AUTOMOTIVE AND INDUSTRIAL PRODUCTS
Gas, gasoline, Diesel engine cooling, radiators, Jacket water coolers, Heat exchangers, Intercoolers, Condensers, Evaporating coolers, Oil coolers, Gas coolers, Atmospheric cooling and condensing units, Supercharger intercoolers, Aircraft heat transfer equipment.

HEATING, COOLING AND AIR CONDITIONING PRODUCTS
Convectors, Unit Heaters, Heating coils, Cooling coils, Evaporators, Air conditioning units.
Here's a drawing combination that's hard to beat—GENERAL'S Kimberly (graphite) and Multichrome (colored) Drawing Pencils.

Try a few details or sketches with Kimberly—feel the smoothness of every stroke . . . notice the clarity of line and mass.

Then try Multichrome's 50 vibrant shades. Let the color flow. Make your rendering a symphony of blending tones . . . enjoy an unusual freedom of expression.

Draw with pencils correctly suited to every drawing purpose — buy Kimberly and Multichrome from your dealer today.

If not available, write to us — Dept. P.

GENERAL PENCIL COMPANY 67-73 FLEET STREET, JERSEY CITY 6, N. J.
We do more than make a complete line of highest quality roof drains. We want to make sure WADE DRAINS are USED RIGHT — properly chosen, located, installed. So we have printed authentic, useful specifications on built-up roofing and drainage in a handy folder. An exclusive feature is a maximum hourly rainfall map of the U.S. with tables for area drained, outlet sizes, etc. Copies are available without charge to architects, engineers, building and plumbing contractors.

ALL-PURPOSE DRAIN

The W-3100 has extra-heavy cast iron body, locking non-tilt strainer, flaring ring with gravel stop, brass toggle bolts for easy installation. For all types of roof decks.

FOR COOLER ROOFS

The W-3100-D incorporates a cylindrical dam of varying height to hold a predetermined depth of water on flat roofs for summer cooling. Dams can also be added to existing WADE installations.

Send for your copies of ROOFING and DRAINAGE bulletin FC-1 today . . .

WADE DRAINS... it's another WADE plus value!

... And ... our brand-new, completely illustrated catalog and price list of the entire WADE line of drains and plumbing specialties is on the press. Better let us know the number of copies you can use.
Experience shows that, other things being equal, an Overhead Door Closer is most efficient, least costly!

A winter storm merely dramatizes and exaggerates what goes on every day in the damage to exposed equipment done by weather, water and dirt. Door closers especially get constant abuse which tends to keep maintenance high. But this can be avoided.

The Overhead Concealed Closer is up and away from possible harm

In 21 years of manufacturing and of watching results in use of exposed closers, floor concealed closers and overhead concealed closers, we are convinced that only the last-named offer true concealment AND true economy in use. Rain, snow, dirt and scrub water just can't reach the overhead closer box, snugly concealed in the head frame.

The Closer in the Floor is bound to get floor dirt and water

No floor type door closer can escape entirely the moisture and dirt from the floor surface. Drop by drop, grain by grain, they get in and foul the mechanism, causing frequent service calls, shortening the closer's life, increasing its total or yearly cost.

We cite these comparisons without prejudice. We make three series of LCN floor type door closers. Thousands have been in use for long periods. They are as efficient and durable as a floor closer can be made. But because of their natural handicaps we don't recommend them where overhead concealed closers can be used.

The Overhead Concealed Closer is simpler to install, to move and to keep in working order

The overhead concealed closer is easily secured in an opening prepared in the head frame (wood or metal). No chiseling of floors; no guesswork as to location; no interference with pipes or conduits. When a partition wall moves, the door and closer go with it. No boxed or cut thresholds needed. Job costs (and total cost) are kept down. Adjustments easily made without removing anything. Closer delivers long, efficient service.

Send for latest information

The LCN catalog 11-b is a handbook of good door control, showing applications of 10 types of concealed closers. May we send you a copy? No obligation. LCN, 466 W. Superior St., Chicago 10, Ill.
It's hard to believe, looking at a Copperweld Wall Tie, that it has a breaking strength of 4,000 pounds, but it's true. More important is the fact that this strength is permanent.

Under the heavy copper covering is a core of high-strength alloy steel. The two metals are molten-welded together to produce a perfect and inseparable union. The copper provides permanent protection against rusting and thus safeguards the original high-strength of the tie during the life of the structure.

When you want long-lasting cavity wall construction — use Copperweld Ties. They protect the building owner's investment. Write for our Specification Bulletin.

IMMEDIATE DELIVERY
AMERICAN BOWSTRING WOOD TRUSSES
REDUCE BUILDING COSTS
Your builders won't have to look for scarce labor . . . or hard-to-get materials. For American has the skilled truss men . . . finest materials . . . and the production capacity to deliver immediately or on the date you specify.

AVAIL A B L E
NOW
in 2 sizes
6" and 8"

ELLIOTT'S Lin-O-Blu Paper
WRITE FOR Free Samples
Lin-O-Blu is an Ammonia developed paper that affords advantages you'll not want to miss. Reproduces quickly, clearly, cheaply. Bright, brilliant blue, for direct blue line prints. Thin, medium and heavy. Write Dept. E-2 for samples.
Yes, for hospitals too, the broad Crane line covers all the many specialized plumbing needs. And here, as elsewhere, Crane is the best-known name in the field.

Crane Duraclay fixtures are specifically designed for the toughest service required of any plumbing equipment. Strong acids do not stain them ... abrasion does not mar them ... extreme changes in temperature do not crack or craze their gleaming surface. After years of round-the-clock usage, Crane Duraclay remains as bright and sparkling as the day it was installed.

Your Crane Branch will be glad to tell you anything you wish to know about the complete line of hospital fixtures.
The BEST time to STOP termites is before they START. The Hill termite control patented pipe sprinkler system installed at time of construction assures positive and permanent control of subterranean termites with annual maintenance service. Many members of Home Builders Assn. of Memphis installing this system in large subdivisions.

This house will be on display at NAHB show Chicago February 22-26.

Branch offices will be opened in 1948 and 1949 in principal cities.

Hill Termite Control Systems
W. B. HILL, PATENTEE
Memphis, Tennessee

Write for descriptive booklet.
no matter how large or small the installation

THERE IS A DUNHAM SYSTEM TO TAKE CARE OF IT—DUNHAM PRODUCTS TO MAINTAIN IT!

Dunham Baseboard Convectors are easily installed, take no more space than the baseboard. The piping is on the inside of the baseboard spreading the heat along the inside of the outside walls. Every room, every corner; even the floors in houses built without basements, are assured of comfortable temperatures. Finned radiation concealed behind the attractive baseboard with concealed louvers, is engineered to keep walls clean and decorating costs to a minimum. The Dunham Baseboard method of heating provides a blanket of warmth for the home using either hot water or steam. Bulletin 639P with complete details will be sent on request—C. A. Dunham Company, 400 W. Madison Street, Chicago 6, Ill.

The Dunham Differential Vacuum Heating System has the important advantage of sure immediate and automatic control or room temperature under all weather conditions including sudden and extreme changes. This system, circulating sub-atmospheric steam, has established both tenant satisfaction and reduced heating and maintenance costs in hospitals, hotels, large apartment projects, office and industrial buildings. Fuel savings from 33% and more are commonplace. Write for Bulletin 631P and get the complete story on satisfactory, trouble-free Differential Heating—C. A. Dunham Company, 400 W. Madison Street, Chicago 6, Ill.
BEAUTY and CHARM ... with SAFETY

PROTEXOL
FIRE RETARDANT WOOD
The above illustrates one of the countless possible applications for PROTEXOL Fire Retardant Wood ... the result of 60 years of research. For information write PROTEXOL CORPORATION, Kenilworth 1, N. J.

ROBERSON HEATSUM CABLE
between the underlayment and the topping when covering the wooden factory floor with magnesite flooring.

ARCHITECTURAL ENGINEERING
A Practical Course (HOME STUDY) by Mail Only
Prepares Architects and Draftsmen for structural portion of
STATE BOARD EXAMINATIONS
For many this is the most difficult section of the examinations. Qualifies for designing structures in wood, concrete or steel. Successfully conducted for the past fourteen years. Our complete Structural Engineering course well known for thirty-eight years.

SPRING BACK BINDERS
For
PROGRESSIVE ARCHITECTURE
(Formerly Pencil Points)
TWO INCH CAPACITY $2.50
REINHOLD PUBLISHING CORP.
330 W. 42nd ST. New York 18, N. Y.
THE MODERN WAY
IS THE ELECTRUNITE WAY

TIME-PROVED ELECTRUNITE
COMBINES E.M.T. CONVENIENCE
WITH POSITIVE DEPENDABILITY

Talk with contractors who have used ELECTRUNITE E.M.T.—the original lightweight rigid steel raceway. Let them tell you about its convenience, ease of handling and trouble-free, economical installation. Then consider these facts:

1. ELECTRUNITE E.M.T. is made of tough, strong open-hearth steel that withstands abuse.

2. Because its protective zinc coating is unbroken by threads, ELECTRUNITE E.M.T. provides continuous, unbroken corrosion-resistance—throughout the installation.

3. ELECTRUNITE E.M.T. meets Underwriters' Laboratories requirements for adequate mechanical and electrical protection...and is approved by the National Electrical Code for use in exposed, concealed and concrete slab construction.

All are good reasons for including Republic ELECTRUNITE E.M.T. in your wiring specifications. Like more information? Write to:

REPUBLIC STEEL CORPORATION
STEEL AND TUBES DIVISION • CLEVELAND 8, OHIO
Export Department: Chrysler Building, New York 17, New York

SEE SWEET'S FILE or write us for detailed information on these Republic Steel Building Products:
Pipe—Sheets—Roofing
Enduro Stainless Steel
Tecum Enameling Iron
Electrunite E.M.T.
Fretz-Moon Rigid Steel Conduit
Taylor Roofing Ternes
Berger Lockers, Bins, Shelving
Berger Cabinets for Kitchens
Truscan Steel Windows, Doors, Joists and other Building Products

LIGHTWEIGHT THREADLESS RIGID STEEL RACEWAY
INDEX TO ADVERTISERS

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adam, Frank, Electric Co.</td>
<td>27</td>
</tr>
<tr>
<td>Air Devices, Inc.</td>
<td>38</td>
</tr>
<tr>
<td>Air Express Division of Railway Ex-</td>
<td>114</td>
</tr>
<tr>
<td>press Agency</td>
<td></td>
</tr>
<tr>
<td>American Lead Pencil Co.</td>
<td>29</td>
</tr>
<tr>
<td>American Radiator &amp; Standard</td>
<td></td>
</tr>
<tr>
<td>Sanitary Corp.</td>
<td>7</td>
</tr>
<tr>
<td>American Roof Truss Co.</td>
<td>170</td>
</tr>
<tr>
<td>Anaconda Copper Mining Co.</td>
<td>111</td>
</tr>
<tr>
<td>Amencot Corp. of America</td>
<td>131</td>
</tr>
<tr>
<td>Arketex Ceramics Corp.</td>
<td>101</td>
</tr>
<tr>
<td>Arrow-Hart &amp; Hegeman Electric Co...</td>
<td>118</td>
</tr>
<tr>
<td>Barber-Colman Co.</td>
<td>128</td>
</tr>
<tr>
<td>Bennett-Ireland Inc.</td>
<td>118</td>
</tr>
<tr>
<td>Blank, Frederic, &amp; Co., Inc.</td>
<td>121</td>
</tr>
<tr>
<td>Brasco Manufacturing Co.</td>
<td>105</td>
</tr>
<tr>
<td>Bruce, E. L., Co.</td>
<td>13</td>
</tr>
<tr>
<td>Cabot, Samuel, Inc.</td>
<td>120</td>
</tr>
<tr>
<td>Cambridge Tile Mfg. Co., The 3rd</td>
<td>103</td>
</tr>
<tr>
<td>Carrier Corp.</td>
<td></td>
</tr>
<tr>
<td>Coca Steel Products Corp.</td>
<td>42,</td>
</tr>
<tr>
<td>Celotex Corp.</td>
<td>30</td>
</tr>
<tr>
<td>Cheney Industries</td>
<td>132</td>
</tr>
<tr>
<td>Clayton &amp; Lambert Mfg. Co.,</td>
<td></td>
</tr>
<tr>
<td>Monarch Hardware Div.</td>
<td>5</td>
</tr>
<tr>
<td>Committee on Steel Pipe Research</td>
<td>26</td>
</tr>
<tr>
<td>of American Iron &amp; Steel Institute</td>
<td></td>
</tr>
<tr>
<td>Copperweld Steel Co.</td>
<td>130</td>
</tr>
<tr>
<td>Crane Co.</td>
<td>133</td>
</tr>
<tr>
<td>Detroit Steel Products Co.</td>
<td>37,</td>
</tr>
<tr>
<td>Dunham, C. A., Co.</td>
<td>135</td>
</tr>
<tr>
<td>Duriron Co., Inc.</td>
<td>100</td>
</tr>
<tr>
<td>Eberhard Faber Pencil Co.</td>
<td>119</td>
</tr>
<tr>
<td>Elliott, B. K. Co.</td>
<td>130</td>
</tr>
<tr>
<td>Federal Seaboard Terra Cotta Corp.</td>
<td>4</td>
</tr>
<tr>
<td>Firthgibbons Boiler Co., Inc.</td>
<td>125</td>
</tr>
<tr>
<td>Flynn, Michael, Mfg. Co.</td>
<td>28</td>
</tr>
<tr>
<td>General Electric Co., Air</td>
<td>22</td>
</tr>
<tr>
<td>Conditioning Div.</td>
<td></td>
</tr>
<tr>
<td>General Pencil Co.</td>
<td>127</td>
</tr>
<tr>
<td>Grand Rapids Hardware Co.</td>
<td>124</td>
</tr>
<tr>
<td>Hart &amp; Hegeman Div.</td>
<td>118</td>
</tr>
<tr>
<td>Hill Termite Control Systems</td>
<td>134</td>
</tr>
<tr>
<td>Hillyard Sales Co.</td>
<td>116</td>
</tr>
<tr>
<td>Hoffman Specialty Co.</td>
<td>117</td>
</tr>
<tr>
<td>Inland Steel Products Co.</td>
<td></td>
</tr>
<tr>
<td>2nd Cover</td>
<td></td>
</tr>
<tr>
<td>Insulite Division, Minnesota &amp;</td>
<td>11</td>
</tr>
<tr>
<td>Ontario Paper Co.</td>
<td></td>
</tr>
<tr>
<td>Insulux Products Division, Owens-</td>
<td>20</td>
</tr>
<tr>
<td>Illinois Glass Co.</td>
<td></td>
</tr>
<tr>
<td>Ipik Plywood Co.</td>
<td>10</td>
</tr>
<tr>
<td>Jamestown Metal Corp.</td>
<td>16</td>
</tr>
<tr>
<td>Johns-Maisville Corp.</td>
<td>34,</td>
</tr>
<tr>
<td>Josam Manufacturing Co.</td>
<td>115</td>
</tr>
<tr>
<td>Kah-1-Noor Pencil Co., Inc.</td>
<td>124</td>
</tr>
<tr>
<td>LCN Door Closers</td>
<td>129</td>
</tr>
<tr>
<td>Libbey-Owens-Ford Glass Co.</td>
<td>18</td>
</tr>
<tr>
<td>Lone Star Cement Corp.</td>
<td>44</td>
</tr>
<tr>
<td>Mahon, R. C., Co., The</td>
<td>19</td>
</tr>
<tr>
<td>Mesker Brothers</td>
<td>33</td>
</tr>
<tr>
<td>Milwaukee Stamping Co.</td>
<td>106</td>
</tr>
<tr>
<td>Minneapolis Honeywell Regulator Co.</td>
<td>21</td>
</tr>
<tr>
<td>National Chemical &amp; Mfg. Co.</td>
<td>134</td>
</tr>
<tr>
<td>National Electric Products Corp.</td>
<td>112</td>
</tr>
<tr>
<td>National Gypsum Co.</td>
<td>107</td>
</tr>
<tr>
<td>National Terra Cotta Corp.</td>
<td>134</td>
</tr>
<tr>
<td>New York &amp;0.</td>
<td></td>
</tr>
<tr>
<td>Ohio Chemical &amp; Mfg. Co.</td>
<td>40</td>
</tr>
<tr>
<td>Otis Elevator Co.</td>
<td>36</td>
</tr>
<tr>
<td>Owens-Illinois-Glass Co., Insulux</td>
<td></td>
</tr>
<tr>
<td>Products Div.</td>
<td>20</td>
</tr>
<tr>
<td>Peck &amp; Harvey</td>
<td>132</td>
</tr>
<tr>
<td>Pemco Point Co.</td>
<td>12</td>
</tr>
<tr>
<td>Pittsburgh Corning Corp.</td>
<td>41</td>
</tr>
<tr>
<td>Pittsburgh Plate Glass Co.</td>
<td>2, 3</td>
</tr>
<tr>
<td>Protocol Corp.</td>
<td>136</td>
</tr>
<tr>
<td>Raydon Concrete Pile Co.</td>
<td>9</td>
</tr>
<tr>
<td>Rexall Publishing Corp. 122, 136,</td>
<td>139</td>
</tr>
<tr>
<td>Republic Steel Corp., Steel and</td>
<td></td>
</tr>
<tr>
<td>Tubes Division</td>
<td>137</td>
</tr>
<tr>
<td>Revere Copper &amp; Brass, Inc.</td>
<td>97</td>
</tr>
<tr>
<td>Richards, J. Merrill</td>
<td>136</td>
</tr>
<tr>
<td>Ric-Val Co.</td>
<td>23</td>
</tr>
<tr>
<td>Roberson, L. N., Co.</td>
<td>136</td>
</tr>
<tr>
<td>Robertson, H. M., Co.</td>
<td>17</td>
</tr>
<tr>
<td>Reddis Lumber &amp; Veneer Co.</td>
<td>6</td>
</tr>
<tr>
<td>Rosenthal Co., The</td>
<td>122</td>
</tr>
<tr>
<td>Rotary Lift Co.</td>
<td>39</td>
</tr>
<tr>
<td>Ruberoid Co.</td>
<td>25</td>
</tr>
<tr>
<td>Schloeg Lock Co.</td>
<td>104</td>
</tr>
<tr>
<td>Sedgwick Machine Works</td>
<td>102</td>
</tr>
<tr>
<td>Servel, Inc.</td>
<td>98,</td>
</tr>
<tr>
<td>Sieklak Kraft Co., Back Cover</td>
<td></td>
</tr>
<tr>
<td>Stedtler, J. S., Inc.</td>
<td>138</td>
</tr>
<tr>
<td>Standard Pressed Steel Co.</td>
<td>132</td>
</tr>
<tr>
<td>Thorn, J. S., Co.</td>
<td>126</td>
</tr>
<tr>
<td>Trane Co.</td>
<td>15</td>
</tr>
<tr>
<td>Truscon Steel Co.</td>
<td>109</td>
</tr>
<tr>
<td>U. S. Plywood Corp.</td>
<td>134</td>
</tr>
<tr>
<td>Universal Atlas Cement Co.</td>
<td>108</td>
</tr>
<tr>
<td>Wade Manufacturing Co.</td>
<td>128</td>
</tr>
<tr>
<td>Ware Laboratories, Inc.</td>
<td>116</td>
</tr>
<tr>
<td>Weis, Henry, Mfg. Co., Inc.</td>
<td>113</td>
</tr>
<tr>
<td>Werner, R. D., Co.</td>
<td>122</td>
</tr>
<tr>
<td>Wiley, R. &amp; W., Inc.</td>
<td>110</td>
</tr>
<tr>
<td>Wilson Engineering Corp.</td>
<td>136</td>
</tr>
<tr>
<td>Worthington Pump and Machinery Corp.</td>
<td>24</td>
</tr>
<tr>
<td>Young Radiator Co.</td>
<td>126</td>
</tr>
<tr>
<td>Youngstown Sheet &amp; Tube Co.</td>
<td>32</td>
</tr>
</tbody>
</table>

15 cents

"DEMAND THE BEST!"

J. S. STAEDTLER, INC.
53–55 WORTH STREET
NEW YORK, N.Y.
The editors of PROGRESSIVE ARCHITECTURE got to thinking about the need for a book on houses for architects to show to their clients. They write and edit each month for a professional audience; perhaps, for once, they should do a job which would appeal to—and, if possible, influence—the great consuming, home-building public. Maybe, they thought, they should do a book.

Here's the book. Working through many a spring and summer evening and top of the morning, they've come up with a collection of HOMES selected for their livability, their friendliness, and intimacy, their invitation to informal attractive living. They've done this for only one reason—to give you a useful book that will help you interest your clients in good residential architecture; to promote design progress yet further; to show in page after page what all of us know anyway—that today's architecture can be charming and beautiful and livable.

The book is cloth-bound with a cover designed by Stamo Papadaki. There are 287 handsome architectural photographs and 116 plan drawings by Elmer Bennett. All regions are represented, and many, many architects. There is just enough text to explain—in easily understood terms—what the trends are in home design, and why these houses are good, in planning, use of materials, and in many details of design and construction.

Price $5.00

REINHOLD PUBLISHING CORPORATION
Dept. P.A.-1, 330 West 42nd St., New York 18, N. Y.

Enclosed find $__________ for ____________ copies of HOMES. (Add 2% sales tax to your remittance for orders delivered in New York City.)

Name
Address
City
State

JANUARY, 1948 139
CLEVELAND, OHIO. A local firm of architects—Conrad, Hays, Simpson & Ruth—have been working for several years on a project for the Cleveland Zoo. Have you ever designed a solar home for a beaver? Byers Hays assures me that more research has gone into the living habits of animals than any architect ever spent on studying human requirements. This, I conclude editorially, is good for snakes, bad for slum dwellers.

COLORADO SPRINGS, COLORADO. A local architect points to another impact of behavior problems on design. No one has yet translated the increasing divorce rate (one divorce to four marriages) into architectural terms. This man, divorced and remarried, is finding it difficult to design his own home. "I have so many requirements," he complains: "I have to satisfy myself, my wife, her children, my children, and our children."

MILWAUKEE, WISCONSIN. A group of students from the Layton Art School, studying architectural design à la Beaux Arts, exhibited their work at an A.I.A. Chapter meeting. It's interesting to see (as I have in several places) conservative-minded practicing architects pleased as punch at the work of local students who know only the modern approach. One thing that does seem to alarm the older generation is a fear that history is not being taught in the schools. A small atelier, of course, can teach more acutely than it was when I was in school. Which brings us to the next item.

NEW YORK, NEW YORK. Tony Raymond, receiving the November A.I.A. Journal, boiled over at editor Henry Saylor's comments about Yale's lecture series on 18th century arts. Saylor remarked, "Perhaps the student is going to be allowed to look into the past occasionally in spite of its general diaparure." Raymond snapped back, "What utter nonsense and misrepresentation. . . . Modern architecture and its proponents lay more stress on study of the past and study of the principles underlying all great periods of arts and architecture than the teachings of Beaux Arts and its narrow eclecticism. Don't you ever read anything?"

For reading we recommend the current catalogs of the architectural schools. Plenty of history courses listed, Henry.

DENVER, COLORADO. Perhaps it's because Denver lies at that turbulent point where the Midwest plains begin to swell up into the Rockies; perhaps it's the exhilarating air; maybe it's just the talented people in town; whatever the reason, this city is moving very fast architecturally. There's a great deal of excellent work on the boards and under construction. There is, of course, the gracious master, Burnham Hoyt. There is new blood in the older firms (nephew Alan with uncle Arthur in the firm of Fisher & Fisher, for instance), and there are new men establishing themselves rapidly.

I like the atmosphere of friendly rivalry among the architects; I admire the way the architects boost the new school at Denver University, where Carl Feiss and his staff are off to a great start; I'm impressed at the way architects, sculptors, writers associate naturally, rather than theoretically or artificially as in so many places. In fact, as you may have guessed by now, I like Denver.

PITTSBURGH, PENNSYLVANIA. A local enterprise promises to be of great service to the architects in that town. Last year the Joseph Horne Co., local department store, sponsored a competition with full cooperation from the Pittsburgh A.I.A. Chapter. Ken Johnstone, director of the School of Fine Arts at Carnegie Tech, was professional adviser. Four plots characteristic of Pittsburgh's peculiar topography were described, and a house meeting the needs of a family with two children was the problem. Twenty designs were chosen as winners, and now the store is displaying ¼-inch scale models of these houses, for promotion purposes. The architects will benefit from the publicity campaign, the store will tie in the house plans with its home furnishing merchandise, and the Pitts­ burghers will presumably get better houses. Everyone wins.

LINCOLN, NEBRASKA. Kenneth Clark, designing a builder's group of houses for sale, produced a well planned, pleasant looking series of contemporary houses which are selling for comparatively low prices—and are selling well. He ran into builder trouble, though, in a minor way. A series of vertical wood slats shielding the entrance were "improved" by the addition of caps and bases. A brick wall running from outside to inside (into which a glass living room wall butts) was fixed up beautifully by the builder—he varnished it on the inside of the house, and again added base and cap molds. No interpretation of space for him!

Reexamining the Nebraska State Capitol, one is struck anew by its pleasing mass and by the reasonable verticality produced by corner piers blossoming into sculpture. It remains, however, a rather shockingly tall building set in a rundown residential neighborhood; a swell example of the fact that one building does not make architecture if it is not related to a larger plan. I tried to get an impression of the interiors, but I got lost in the gloom of the main lobby, and after bumping into several state office workers scurrying through the dark passages I sneaked out a side door and went back to the Cornhusker Hotel.

FONTANA, NORTH CAROLINA. Groups are forming all over the state in angry protest at Progressive Architecture's December issue, which placed Fontana Dam in Tennessee, instead of North Carolina, where it really is. P/A editors intend to leave town quickly as soon as the February issue has been put to bed, and take refuge in some safe, obscure, out-of-the-way place—perhaps Tennessee.

NEW YORK, NEW YORK. Progressive Architecture announced its jury for the 1947 P/A Awards. The members are: Henry Churchill, architect and city planner; Joseph Hodnutt, dean of Harvard's Graduate School of Design; Douglas Orr, architect, president of the A.I.A.; Antonin Raymond, architect known for his work here and abroad; Paul Weidlinger, engineer. As last year, it is a distinguished group, ranging from men interested in the larger community to those concerned primarily with technical advance.

Don't forget the deadline for submission of entries—March 1st. Details are on page 20 of the November 1947 issue of P/A. Entry blanks are available now. Begun last year, these Awards are already something for all progressive designers to aim for. Conditions, as you know, are carefully worded, so entered must have been constructed in the United States and completed during the calendar year 1947. Criteria of judgment are also simple: sound progress in all aspects of design—fitness, strength, beauty, purpose. Maybe you'll be this year's Gordon Drake.