• The Housing Act of 1949, which is now the law of the land, can be summarized very briefly. Title I authorizes HHFA to make loans (for planning, land acquisition, and land preparation) and grants (% of loss involved) to localities, to assist locally initiated, planned, and managed slum-clearance and urban redevelopment undertakings. Only money for construction in this Title is for short-term loans for schools or other public facilities in redevelopment areas.

• Title II extends FHA's small-loan authority and that agency's 608 rental housing activity.

• Title III authorizes FHA low-rent public housing not to exceed $10,000 units over a six-year period. Costs are to be not more than $1750 a room, which can be raised to $2500 where really necessary.

• Title IV authorizes HHFA to conduct technical research and studies. Title V allows loans, subsidies, and grants by Secretary of Agriculture to farm owners for needed building improvements. Title VI, among other things, orders a census of housing in 1950 and decennially thereafter.

• Indications are that public housing activity under bill will start sooner than slum clearance, which will require an entirely new set-up at federal and, in many cases, at local level.

• Building Research Advisory Board of National Academy of Sciences has named William H. Scheick, architect (who headed housing research at U. of Illinois) executive director. Industry groups sponsoring Committee's work hope it can be coordinated with research called for under new housing bill. About $15 million are now being spent annually in industrial research related to construction. Possibilities of coordination have never been better.

• John Knox Shear has been named head of the Department of Architecture at Carnegie Tech. U. of California has not yet named new Dean--President Sproule apparently can't make up his mind, the present faculty having been lukewarm to leading candidate.

• G. E. Kidder Smith has been granted President's Fellowship by Brown U., which allows him $7500 to study and photograph architecture in Italy and Mediterranean area. Columbia's Perkins Boring Fellowship has been awarded to William Fontaine Jones, who will travel and study architectural developments in South America. Arthur Emerson Burton received A.I.A.'s Langley Fellowship to perform research on atomic age architecture. He will work with AEC at Iowa State College.

• Ken Stowell, until recently editor-in-chief of "Architectural Record," has resigned that position to become vice-president in charge of eastern operations for Giffels & Vallet, Inc., and L. Rosetti, Detroit architects and engineers.

(Continued on page 2)
Construction in July reached $1,900 million, a 4% increase over June and a 2% increase over July last year. This is more than a seasonal increase. Most guessers say that prices will not drop much this year. It is still reasonable for architects to advise clients to proceed with work, taking advantage of present dip.

As NEWSLETTER has pointed out before, business scare in early part of year was largely due to fact that many manufacturers had forgotten how to sell. Lower prices have in most cases resulted in more business.

Unemployment increases nonetheless, in our field as well as others. Draftsmen can still find work somewhere, but their chance to pick the spots they want to work in has been curtailed.

Jess Larson, head of the new U. S. agency called General Services Administration (replacing Federal Works Agency) states that $100 billion in public works is needed over a period of 15 years to compensate for lack of public building during and since war.

Although government officials have said that public works will be used to ease employment slack, federal steps in this direction are not noticeable. Some states, however, have started work on long-delayed projects. N. Y. State, for instance, is "accelerating" some $575 million of public work, including many schools and hospitals.

Textile mills throughout nation have spent over $700 million in modernization since war's end, but in some areas--New England particularly--the job is only half done. Textile Information Service warns mill owners that mills ignoring plant improvement "are facing losses that would eventually force them out of business." Some architects are reinforcing that argument by studies in their own communities.

Expenditures for community recreational facilities have increased more than 81% in last two years, American Public Works Association reports. Capital expenditures last year set a record at $30 million.

Monsanto Chemical of St. Louis has a preparation called Redwood Rez which prevents discoloration of this highly resistant wood.

Roc-Wood Floors of Chicago announce that their material--Roc-Wood, made of plastic-bonded hardwood fibers--can be laid with a trowel over almost any surface, works well with radiant heat, costs about 22¢ a foot installed.

A report to the A.S.H.V.E. by Prof. Algren of Minnesota U. indicates that 16 ft. below the surface ground temperatures lag three months behind air temperatures. In tests at Edina, Minn., it was found that at that depth coldest temperatures were in April, warmest in November. Although frost line was 3 ft. for bare ground and only 1 ft. for sod-covered earth, Prof. Algren feels it is necessary to go to a depth of 14 ft. in that area to find a continuous heat source of 45 degrees, for an earth-source heat pump.

In fact, reports to the last A.S.H.V.E. meeting were discouraging about use of earth as heat-pump source. Three utility men who have done research on the problem found that so much pipe would be required to draw the Btu. needed from earth for a small house that "it is doubted that ground coils will be an economic heat source for general use." They recommend turning attention to other sources, especially air.
Mahon Insulated Steel Walls continue to gain favor throughout the country for certain types of industrial, commercial and special purpose buildings. For high expanses of wall, the Field Constructed type provides an unbroken wall surface of 60 ft. in height without horizontal joints. The inside surface is smooth with vertical interlocking joints at one foot centers, while the exterior wall surface has stiffening ribs projecting out at six inches on centers. Two inches of Fiberglas insulation produces excellent thermal properties. This type of wall construction in combination with a Mahon Insulated Steel Deck Roof costs less, provides a firesafe, permanent building which can be quickly and economically erected. Complete information and construction details appear in Sweet's Architectural and Engineering Files.

THE R. C. MAHON COMPANY
Detroit 11, Michigan - Chicago 4, Illinois
Manufacturers of Insulated Steel Walls, Steel Deck for Roofs, Ceilings, Floors, Partitions and Doors, Rolling Steel Doors, Grilles, and Underwriters' Labeled Rolling Steel Doors and Fire Shutters.

Coefficient "U" Equivalent to 28" Solid Masonry Wall

Typical Exterior Wall Effect Obtainable with Mahon Insulated Steel Walls. Note Pilaster Treatment Achieved by Reversing Wall Plates.
YOU CAN BE SURE .. IF IT'S

Westinghouse

Heating, Cooling, Ventilating Equipment

Precipitron* Unitaire* Room Coolers Home Coolers
Ventilating Fans Portable Fans Portable Heaters

Kitchen Equipment

Refrigerators Electric Ranges Roasters
Mixers Home Freezers Toasters Waste-Aways*

Laundry Equipment

Laundromats* Clothes Dryers
Irons Water Heaters Hot Plates

Power Distribution Equipment

Wire and cable Wiring devices Meters Load Centers
Power Centers Transformers Panel boards

Other Electrical Equipment

Vacuum Cleaners Fixtures and Lamps Radios Television Receivers Sterilamps*
Electric Comforters Passenger Elevators Freight Elevators

*Reg. U.S. Trademark
ONE SOURCE

for ALL electrical needs

For residential construction—both apartment buildings and housing projects—Westinghouse offers one source . . . one responsibility for everything electrical. You can benefit from this fact, whatever your part in the project may be.

Architects and engineers: We can help you develop the most efficient ways to distribute, control and utilize electric power. Our engineering specialists have broad experience covering all types of applications.

Contractors and builders: Simplify your buying procedures by ordering all electrical equipment and supplies from Westinghouse. Our organization is geared to give you prompt delivery for integrated installation.

Owners and operators: You get top performance from your electrical equipment because we co-ordinate the design and manufacture of related apparatus. And our nationwide chain of Renewal Parts Warehouses and Manufacturing Repair Plants provides unmatched maintenance service. If electrical appliances are included in the original project, you have the added assurance of ready acceptance by prospective buyers, or tenants. As the maker of nearly 40,000,000 electric home appliances, Westinghouse has won millions of loyal friends.

When you have CONSTRUCTION AHEAD . . . whether residential, commercial or industrial . . . call your nearest Westinghouse District Office or Distributor for full information. Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pa.

J-94783

Practical, Easy-to-Use Buying Data

This 362-page book contains detailed information on Westinghouse products for the construction industry. It was designed specifically to meet the requirements outlined by Architects and Engineers.

Industry-wide distribution has already been made. If you do not already have your copy, ask your nearest Westinghouse District Office to send you B-2161-D.
PITTSBURGH has recently perfected a remarkable instrument, which, when placed on the surface of one of the panes in a Twindow unit, measures to within thousandths of an inch, not only the thickness of that light of glass, but of the other pane of glass, and of the air space between the two as well. By using this instrument, the performance of Twindow units under all kinds of conditions, including heavy wind pressure, can be accurately determined, and product quality and performance better controlled. This is another example of Pittsburgh research, and the infinite pains taken to assure you of products which will not only look well but also perform well under field conditions.
modern residences

WHERE YOU WANT to admit well-diffused daylight generously—provide privacy—deaden outside noises—achieve additional insulation, Pittsburgh Corning Glass Blocks are ideal. They are available in 8 attractive patterns. Designed by and for Risch Building & Real Estate Company, St. Louis, Mo.

PITTSBURGH MIRRORS help make small rooms look larger, dull rooms look brighter, plain rooms look luxurious. Pittsburgh Mirrors offer a choice of various colors of Plate Glass and are available with silver, gold or gunmetal backing. Architect: Henry W. Johanson, Roslyn, New York.

COLORFUL CARRARA STRUCTURAL GLASS is perfect for walls and wainscots of bathrooms, as pictured here. Carrara is mechanically ground and polished. It assures joints that are true and even—without lippage. And it is entirely free of warpage. Available in 10 pleasing colors. Architect: Marcel Breuer, New York City.

See the complete listing and descriptions of Pittsburgh Plate Glass Company products in Sweet's Catalog Files.

* Design it better with Pittsburgh Glass

PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS

PITTSBURGH PLATE GLASS COMPANY
CRITICIZES CHURCHES

Dear Editor: Disclaiming to be a pioneer, admitting my sympathies with contemporary architectural effort were slow in coming and knowing a little about religious practices, I find justification in the church at Austin, Texas, with which you have illustrated your August number, for the charge of superficiality in design as a characteristic of much "modern design."

For a church of the old, inefficient cruciform plan to find its way into a publication describing itself as progressive is surprising indeed. The actions of devotion are twofold. Worship is offered towards the sanctuary, homilies are received from it. The altar, the priest at the altar, the crucifix on the altar are focal points. The congregation are an audience for receipt of works from the pulpit.

Obviously the auditorium form, properly designed, is the only progressive plan for a church. The action is comparable to that in a theater which is designed for easiest and maximum concentration of the audience on the local stage and the easiest and maximum receipt of sounds emanating from the stage. In this church, wall treatments are about the only thing characteristic of the "modern."

The church at Minneapolis, Minnesota, seems to me also to have missed an opportunity for more progressive religious thinking in one respect. The sanctuary wall as illustrated on page 44 composes poorly in my view. In the first plan the conventional window above the altar prevents concentration upon the altar, since light becomes the strongest feature at that end of the church. And very tiring to the eyes it is.

And something definitely seems to have gone wrong in the relation of the crucifix on the tabernacle to the top of the reredos which bisects the Corpus' head.

BERNARD HEATHERLEY
Rochester, N. Y.

BETTER LIGHTING

Dear Editor: Just a note to tell you what a swell article I think Williams has written in "Design for Sight Saving." (August 1949 P/A.) Having spent quite a little time on the technical phases of this same thing, this article expresses what architects should do about lighting better than any I have ever read.

KENNETH C. WELCH
Grand Rapids, Mich.

LEST ARCHITECTS FORGET

Dear Editor: The following letter (see page 31, June issue of Progressive Architecture) should be very helpful, but we feel that it restricts by omission, in discussion of many of the items.

The specification is designed to cover electric powered machines only. The Steam Air-Hydraulic Elevator, made famous by Craig Ridgway & Sons Co., could scarcely be pictured in the article, although its use in freight handling eliminates several of the limitations and difficulties described in the electric specification.

For instance, in regard to item four, we point out that, while increased car speed increases the rate of power use, it does not necessarily increase the connected electric load for our freight elevators. This may be a vital factor in multiple installations where peak loads are an important consideration.

Our freight elevators eliminate item 7 entirely, since proper leveling is an inherent part of the control system, and not an additional device.

Because these machines were powered by steam more often than compressed air, many architects, following the trend away from steam power in general manufacturing, have forgotten the many advantages and the fine performance records of the vapor-powered, hydraulic-controlled freight elevators.

Since these machines are being specified by property owners who have long (and frequently, comparative) records of their dependability and economy, it would be well for architects concerned with industrial buildings to refresh their memories on the freight elevator that has given them and their clients real satisfaction over half a century.

MARVIN C. MOFFETT, Manager
Moffett Manufacturing Co.
Catesville, Pa.

(Continued on page 10)
FOR THE FIRST TIME

Completely flexible Plywood

For curved walls and ceilings, paneling, column covering, partitions, displays

Introducing **SUPERFLEX**—the remarkable new flexible plywood that presents almost unlimited design possibilities for curved and flat surfaces. Now manufactured under license in the United States.

**INGENIOUS CONSTRUCTION!** Layers of veneer combined with ribs of solid lumber assure structural strength.

**VERSATILE!** May be used with either side out. So flexible it can be bent up to 360° without risk of breaking! Unequaled for curved surfaces.

**ECONOMICAL!** Saves up to 50% in time and labor over other materials used for same purposes.

**EASY TO INSTALL!** Requires only simple furring for paneling of curved walls or columns.

**STANDARD SIZES:** 4 x 8 ft. panels in 1/8", 1/4" and 1/2" thicknesses. Available in birch, oak, mahogany and walnut veneers.

Get all the facts now! See for yourself the tremendous possibilities that **SUPERFLEX** offers. Territories open for qualified distributors.

**SUPERFLEX PLYWOOD CORPORATION**
120 WALL STREET, NEW YORK 5, NEW YORK

---

**MAIL COUPON NOW!**

SUPERFLEX PLYWOOD CORP., Dept. C-2
120 Wall St., New York 5, N. Y.
RUSH full information on Superflex Flexible Plywood. Send details of Distributor franchise.

Name
Company
Address
City State
WELL, WHY?
Dear Editor: Among the P/A Awards competition—why are buildings inspired by Wright labeled Derivative, while buildings with Van der Rohe or Neutra antecedents are not so apologetically designated?
CARL MASTON
Beverly Hills, Calif.

ARCHITECT THE LOSER
Dear Editor: Liked your fine piece on the client. I guess we are pretty poor souls, too! I just wonder why nobody minds to go to the doctor without asking questions and paying any bill he'll get, by the next month. Although we might get an idea; if we should ask how much this operation or those injections will cost. No doctor is telling you what the total costs of his experiments will be or when you'll be cured, if ever. Of course, the doctor's patient is intimidated by fear. The architect's client doesn't consider it a matter of life or death whether he gets a good house. His money is worth more than his life.

HEINRICH H. WAECHTER
Brighton, Mass.

SIMPLER APPROACH
Dear Editor: May I add my congratulations to the thousands you should receive for your article on OFFICE PRACTICE, published in the July issue. I concur with your premise, that "two-bit" words, and perhaps thinking, will enhance our profession much more than $64 ones.

Your recent personal efforts in the interest of comprehensible sanity are a refreshing contrast to the too generally published nonsense; in particular, the oozy thinking of that great molder of minds, the "Forum of Equivocal Learner."

March on, Creighton, poor soul.
IVAN W. MEYER
Seattle, Wash.

MULTIPLE WINS
Dear Editor: "Speaking of Multiple Wins in Competitions," page 138, July P/A, you might be interested in the fact that the house designed by Chloeithel Woodard Smith for Dr. David Roiich and the one designed by the writer for his own residence were the residences selected in the Washington-Metropolitan Chapter's Honor Awards Judgment and were also the only residences given certificates in the "Washington Board of Trade Awards in Architecture," page 16, July P/A. Incidentally, both of contemporary design in a traditional city.

HARRY E. ORMSTON
McLean, Va.

NOTICES
NEW ADDRESSES
MESSINGEO & MESSINGEO, Architects, Suite 202, 114 N. 3rd St., Las Vegas, Nev.
DANTE J. D'ANASTASIO, Architect-Engineer, 1815 Federal St., Camden, N. J.
WILLIAM SCHORN ASSOCIATES, INC., and WILLIAM FRANCIS SCHORN, Architect, 501 Madison Ave., New York, N.Y.
Design the appeal and beauty of America’s most famous sink into the kitchens of your better modern homes. Whatever your plan, we’ll build a Tracy sink to fit it perfectly, flatteringly.

You know how a whole house takes on new glamour through the wear-defying beauty of these famous Tracy sinks and counter tops. And you know Tracy quality. They are fashioned with the painstaking craftsmanship that has distinguished Tracy sinks for over 20 years. Tracy sinks cannot crack, chip or warp. They are impervious to heat, food acids and hard usage. They never stain or discolor.

No wonder a recent survey shows that over 60% of American home owners have a definite preference for stainless steel equipment in their kitchens.

Tracy custom-built sinks offer you complete design flexibility. L and U shapes; special height back and end splasher; bowls and faucet holes located in various positions; special cut-outs provided. 30 day delivery from receipt of order. Send sketches and dimensions for complete information and prices.

Tracy manufactures a complete line of enameled steel kitchen cabinets and sink tops in stainless steel and deluxe porcelain.

TRACY MANUFACTURING COMPANY • PITTSBURGH 12, PENNSYLVANIA
World’s Largest Manufacturer of Stainless Steel Kitchen Sinks
out of school
By CARL FEISS

Launching a new column is like launching a ship. It may hit the water with a fine splash and float happily out into the harbor, or it may slide swiftly down the ways and sink smoothly beneath the waves, emitting a few inconsequential bubbles. For this launching, the champagne bottle is still to be broken and only heaven knows whether we will sink or swim.

You will wonder why we have launched this at all. One of the main reasons is that there are a lot of us in architectural education who are not certain that the profession itself knows what an architect should be doing. This being the case, it seemed necessary to find out whether the architect has any ideas as to what the educator should be doing.

I don't mean by this whether schools should be teaching working drawings or how many months should be spent on the history of the Gothic Revival in Pawtucket. Architectural schools are full of this kind of formula. Let's not worry about details for a while—gadget-minded architects are always more interested in detail than they are in broad-scale plans. Let us rather consider for a moment the question—education for what?

For what task should an architect be educated? There is a great deal of debate among architects as to their own importance. Among all others there is not much debate on the subject.

Hardly an architectural meeting takes place in which we are not preening ourselves, and yet if we conscientiously review the situation of architecture and the position of architects in the United States today in relation to other professions and other businesses, there is grave doubt that we stack up as well as we hope we do.

As I saw the cities through which I pass or over which I fly and see the great multitude of buildings composing these ugly, chaotic agglomerations of masonry, steel, and glass, I wonder why the American public has not been more severe with its architects and planners. Our vast areas of slums, our monotonous and stupid subdivisions are testimony enough that the practicing architect is not yet sufficiently educated to know how to make his enterprise felt (or isn't that in my opinion, a function of education?). Or the public is not sufficiently educated to know when to use design competency or technological proficiency, if either exists.

To the best of my knowledge, and I welcome the readers' assistance on this point, there is no accurate figure as to the amount of building in the United States for which architects are responsible. The figures range anywhere from 5 percent to a highly questionable 80 percent. Obviously if 5 percent is correct, the architect should be ashamed of his small performance. If 80 percent is correct, the architect should be ashamed of the quality of his performance. If 21 billion dollars are to be used for construction and capital goods expenditure in 1950 (as estimated in J. Frederick Dewhurst & Associates' invaluable book, America's Needs and Resources), what percentage of this expenditure falls rightfully under the jurisdiction of the architect?

If the architect has not had a large responsibility in the construction volume in the past, it would be a pretty good idea to find out why. If the architect cannot see the potential in urban redevelopment and many other forms of construction in the future, it would be useful to find out why. If architecture holds no significant place in the program for world order, it would be wise to find out why.

Granted that a world in revolt is difficult to understand and to live with; granted that the political and economic chaos and the tragedies of modern times naturally induce a desire on the part of all of us to find a nice little cave and pull it in on top of us; granted even the chaos of modern technological advance. The fact remains that an architect with a real interest in becoming an educated man should be encouraged to find out for himself where his talents lie, beyond what he has considered up to now his normal call of duty. And the fact remains, dodge it as we will, that in retiring into his self-defined "professional" shell the American architect has indulged himself with weak substitutes for responsible action as a citizen in his own community.

Schooling is a very small part of education; it also has other responsibilities. Education is the tattered remnants of our Beaux Arts manner system in formal architectural education which relates the drafting table to the modern world.

So this new column in PROGRESSIVE ARCHITECTURE will raise these questions: whether the architect in the United States is an educated man; for what role in the community he should educate himself and encourage education of neophytes; and how education—in the schools and out—should be conducted toward the ends that seem desirable.

Your definition of education and mine will undoubtedly differ. Probably every reader is certain in his own mind that in terms of his background and training he is as well educated, if not better educated, than the next man. So perhaps we should all think in terms of educating that next man. I am eager to explore with you the possibilities of expanding architecture into a responsibility beyond our present concepts, to enlarge our opportunities for service, and at the same time to broaden ourselves as wise men.

With this in mind as the purpose behind our column (and the insults I have just thrown at you) we eagerly solicit your ideas and we welcome discussion.

Better education for architects has been debated by many members of the profession in conventions, seminars, and periodic school conferences. But a continuing open discussion has not been offered to bring out the opinions and constructive suggestions of all those concerned. This column has been started to fill this need.

Carl Feiss, A.I.A., Director of the School of Architecture, University of Denver, and nationally known as a city planner and educator, will conduct this new feature of P/A. For this month it is given the position usually allocated to PROGRESS REPORT, which will be resumed in our October issue. Watch for the regular OUT OF SCHOOL in another section of the magazine.
PRoGREssivE ARcHlttEcttuRE

unifed s., es Jłe;
niOr chomber oF conlrnerce

PROGRESSIVE ARCHITECTURE
United States Junior Chamber of Commerce

Congratulations to J. Edward Luders, Hideo Sasaki, and James V. Edsall, Designers, associated with Harry A. Morris, Architect, members of the competent Midwest team that won First Prize, the commission to design and build a fireproof, air-conditioned office building at Tulsa, Oklahoma, to house national headquarters of the United States Junior Chamber of Commerce, in the recent P/A-Jay-Cee Competition; and

To winners of other Prizes and Honorable Mentions awarded the $7,000 in prizes for their entries, shown in this issue with the First Prize drawings;

To the hundreds of young architects of the country who submitted a variety of arresting designs for the proposed office building and the War Memorial honoring Junior Chamber of Commerce heroes of World War II;


To Jedd Stow Reisner, A.I.A., New York, New York, as able Professional Advisor, and to all who assisted him in setting up and conducting this national competition;

We offer our sincere appreciation.

SERVEL INC., Sponsor

GENERAL PORTLAND CEMENT COMPANY, Sponsor

IN THE

P/A-JAY-CEE ARCHITECTURAL COMPETITION

SEPTEMBER, 1949
Shoe Sales Jumped

When they Relighted this Showroom

Increased shoe sales immediately resulted from this unusual lighting installation using Litecontrol fixtures. And the sales curve kept right on climbing for the ample, glareless light brought out all the sleek beauty of the fine footwear... made buying easier, selling easier.

Whenever you have a lighting problem come first to Litecontrol. You'll find every good type of fluorescent unit in this wide line of graceful, sturdy fixtures. Furthermore, you'll find our Lighting Engineers a real help in supplying unusual ideas and complete lighting layouts.

...with LITECONTROL NO. 3234 FIXTURE

Used so successfully in this installation is a strikingly simple recessed unit that gives efficient utilization of all the available light. Merely pushing up on the Holophane Controltech® lenses, and sliding them out, gives access to the inside for maintenance.
there's always room for Crane quality

Take this kitchen, for example. Small ... compact ... only 38 inches for the sink.

But that's room enough for Crane quality—room to give your customers the name they prefer! Room here for deep double basins, for cabinet space aplenty. For Crane Dial-ese controls, just as on the more commodious Crane sinks. And commodious is the word! Crane sinks range all the way from this 38" Kitchen Pride to the six-foot Kitchen Queen. A style for every taste, a price for every budget—and a name that helps you sell!

You'll find this same breadth of line in Crane bathrooms, too. And in home heating, Crane supplies everything required for any system ... hot water, warm air, steam ... coal, coke, oil or gas.

See your Crane Plumbing & Heating Catalog for selections from the Crane line—and be sure to check your plans early with your Crane Branch or Crane Wholesaler.

MOST UNIQUE: *The Crane All-American*—the only countertop with all the features of Crane cabinet sinks. Retractable hose spray ... 4" shelf back ... Crane Dial-ese controls.

MOST COMPACT: *The Crane Kitchen Pride*—double basins in a 38" space!

Satinol Flutez panel makes an eye-catching background for display in this Photographic Studio designed by Alynne Whalen, Beverly Hills, Cal.


You can solve so many design problems...

with Blue Ridge patterned glass

Doublex partition provides privacy as well as light in Safe Deposit vault. Designed by: Bank Building & Equipment Corporation of America, St. Louis, Mo.

Light, privacy, lasting beauty! You assure all three with panels, partitions or entire walls of Blue Ridge Patterned Glass.

This glass is so versatile. It makes homes more inviting, adds character to offices, helps you solve design problems in buildings of all types. Because it is glass, it transmits light. Yet its patterns obscure views and create unusual decorative effects.

Blue Ridge glass is available in over 20 linear, square and all-over patterns. All may be Satinol® finished for greater privacy. Most may be Securitized (heat tempered) for greater strength. For exact descriptions see Sweet's File, section 7a/2 and consult your L-O-F Glass Distributor.

Yours on request...two "idea" books

1. "Patterned Glass for Modernization" is copiously illustrated with commercial installations. 2. "New Adventures in Decorating" shows ways to use Patterned Glass in residences. Write: Blue Ridge Sales Division, Libbey-Owens-Ford Glass Co., 8299 Nicholas Building, Toledo 3, Ohio.
The successful introduction of Otis AUTOTRONIC ELEVATORING is easy to explain. It is traffic-timed! It matches service to the changing traffic patterns of the entire business day. It is flexible! It adjusts itself automatically to all unusual traffic situations. It is easy to operate! The Elevator Starter simply sets a traffic flow dial to one of 6 traffic patterns...places the proper number of cars in service...sets the dispatching interval—then, devotes practically all of his time to doing a better job as a front line public relations man for the building. It is dramatic! A passenger merely "touches", not pushes, an electronic directional arrow in the landing fixture. The arrow lights up, the call is registered, and a car arrives—as if by magic! Otis Booklet B-721-P explains how AUTOTRONIC Traffic-Timed ELEVATORING will keep an elevator installation modern for decades to come. It can be applied to new or existing groups of elevators in office buildings, hotels, hospitals and department stores.

Otis Elevator Company, 260 11th Avenue, New York 1, N. Y.
Simplified method of recessing convectors

With the convector trend swinging toward the recessed type of installation, a new Trane booklet on "How to recess Type A Convectors" is of special interest and value.

Recessed Trane Convectors have always been preferred over free standing units for the better homes, but before the introduction of the all-purpose Type A, they were premium type, custom-built. Now it is practical to deliver this better-looking, space-saving kind of convector heating for lower priced homes as well.

Trane Type A Convectors—at regular prices—make this premium heating fit the modest budget. Trane Type A's—instantly available from distributors' stock—eliminate custom-built delays.

These units have universal appeal. Easy for the architect to specify; easy for the contractor and builder to buy, handle and install. And, with the distributors' stocking problems in mind, we made Type A an all-purpose unit, to be used on either steam or hot water, free standing or recessed.

Recess Trane Type A's! The new recessing booklet shows each step, with actual installation photographs. Short cuts, cost-reducing methods of providing this luxury heating at budget prices. Answers for your questions. Ask your Trane sales office, or write direct to the factory.

THE TRANE COMPANY...LA CROSSE, WIS.

Manufacturing Engineers of Heating, Ventilating and Air Conditioning Equipment—Unit Heaters, Convector-radiators, Heating and Cooling Coils, Fans, Compressors, Air Conditioners, Unit Ventilators, Special Heat Exchange Equipment, Steam and Hot Water Heating Specialties...In CANADA, TRANE COMPANY OF CANADA LTD., TORONTO.

The recessing questions of architect, builder, and heating contractor are answered by word and by picture in "How to recess Type A Convectors". Write for your copy.
VINYL CARPETING GIVES ARCHITECTS JUST WHAT THEY DEMAND IN FLOOR COVERING

An up-to-date survey among architects on their requirements in the specification of flooring has revealed the 6 points shown at the right... in that order.

Today, Southbridge Plastics Inc. offers a new floor covering that combines all six of these requirements...Vinatred, with an embossed multi-level surface, easy to install, easy to keep clean, easy underfoot. It is stain-resistant. It is laid on a sponge rubber base. It has been pre-tested for wear on one of R. H. Macy's active selling floors, and has been under constant test by the famous Macy Bureau of Standards for more than a year. It comes in high style colors, plain and patterned... and may be ordered in any color you wish.

May we show it to you?

Southbridge Plastics INC.

Please send me the Vinatred Installation Manual

name ..............................................................
street .............................................................
city .............................................................. zone state
Next time you're working on a job that involves big areas of open floor space remember Truscon Clerespan Steel Joists—the joists that can stretch 80 feet without "over-reaching" themselves!

A recent application of these remarkably rugged joists was made at Newtonville, Massachusetts. The Star Market Company needed a large, pillar-free area for its sales floor; Architects H. L. Feer & William E. Nast, together with engineer, Mark Linenthal, came up with the simple solution—Truscon Clerespan Steel Joists. Their solution was a sensible one because these joists not only provided the necessary 80-foot span, but were equally adaptable to roof and door construction... economical in cost... light in weight... fire-resistant... easily and speedily erected... allowed passage of pipes and conduits... could be accurately located in the structure and easily inspected. In addition, the electrically arc welded joists were completely shop fabricated... and reached the job ready to install.

Manufacturers of a Complete Line of Steel Windows and Mechanical Operators • Steel Joists • Metal Lath • Steeldeck Roofs • Reinforcing Steel • Industrial and Hangar Steel Doors • Bank Vault Reinforcing • Radio Towers • Bridge Floors.
The new NE 3-wire "Plug-in" Strip is a professional multi-outlet wiring assembly with an unusual new feature: Instead of the usual two slots, each receptacle has three.

Appliances plugged into the top and center slots are controlled by doorway switches, while appliances plugged into center and bottom slots will operate independently of the wall switches. Thus, you can turn off all lamps at once, but leave the electric clock, radio, and other appliances running.

- EASY TO INSTALL. At last, full switch-controlled service of every outlet with minimum switch-leg wiring. No complicated behind-the-wall installations.
- ARCHITECTURALLY CORRECT. An unnoticeable steel baseboard trim.
- SAFE FOR LIFE. No soldered or screwed connections... a solid copper electrical system from switch box to the very last outlet. Tamper-proof because the capping is locked on permanently.
- LISTED BY UNDERWRITERS' LABORATORIES, INC.


National Electric Products Corporation
1328 CHAMBER OF COMMERCE BUILDING • PITTSBURGH 19, PA.
Fenestra doors take punishment

without

Looking Wounded

School doors have to be tough. They get kicked. And carved. And slammed. Fenestra* Stock Hollow Metal Doors can't splinter. Can't be carved. A little paint makes them look like new.

Complete Unit — Door, Frame, Hardware

They come complete with frames and hardware. Mortising, drilling, tapping and prime-painting are all done at the factory. They are packed with insulation for quiet performance . . . to close with a gentle click. And each unit is carefully wrapped to protect the finish.

You Save 3 Ways

You save on first cost, installation cost, maintenance cost. And Fenestra Metal Doors are immediately available. Deliveries from local stocks are timed to reach the job when you're ready for them. No nerve-wracking delay in your builder's schedule. No unnecessary expense there, either.

To get strong, fine-quality doors that look better, longer — specify Fenestra.

For complete data on stock sizes, muntin and panel variations, entrance doors, doors with the Underwriters' B Label, and other types, see Sweet's Architectural File, Section 15a/7, or write to Detroit Steel Products Company, Dept. PA-9, 2253 E. Grand Blvd., Detroit 11, Mich.

*Trademark
**THEY'RE ACCURATE**
...in all 17 degrees

**THEY'RE STRONG**
...the lead is Pressure-Proofed*

**THEY'RE SMOOTH**
...the lead is Colloidal* processed

**THEY'RE VENUS**
...the world's largest selling DRAWING PENCILS

LOOK for the green crackled finish!

*Exclusive Venus patent

AMERICAN LEAD PENCIL COMPANY, HOBOKEN, NEW JERSEY... makers of famous Venus Pencils
Selectomatic

AND YOU'LL SELECT

CALLS

CARS

FLOORS

CHECK...AND YOU'LL SELECT
THE ELECTRICAL "BRAIN" THAT SOLVES QUICK-CHANGING ELEVATOR TRAFFIC PROBLEMS...INSTANTLY

SCIENCE'S GREATEST ACHIEVEMENT IN ELEVATOR TRANSPORTATION has a mind of its own for calculating correct answers to widely varying elevator traffic demand situations — calculating them instantly and automatically.

Take the "Off Peak" period for instance—the situation that exists during the greater part of the building day. Traffic is characterized by quick changes—light to heavy up and down, to heavier up and heavier down.

Set just one button and Selectomatic automatically solves all the variables in these "Off Peak" period problems...integrates calls, cars and floors. That one setting puts Selectomatic's electrical "brain" in action. It reacts automatically to all of the various "Off Peak" demands...keeps cars evenly spaced and hard at work giving your building the most efficient service possible on every floor every minute of the day.

Selectomatic, an exclusive Westinghouse development, is the latest and greatest advance in vertical transportation. Send for Book B-3597 and get its complete, remarkable story. Westinghouse Electric Corporation, Elevator Division, Jersey City, N. J.
"ISN'T THAT A SMOOTH-SURFACED ASBESTOS ROOF DOWN THERE?"

"SURE, AND THAT MEANS FIREPROOF, ROTPROOF, WEATHERPROOF FELTS"

Yes—it's a Flexstone* Roof
Each ply is a flexible covering of stone!

- The secret of a Johns-Manville Flexstone Roof is in the felts. They're made of fireproof, rotproof, enduring asbestos.

Flexstone Built-Up Roofs won't dry out from the sun . . . need no periodic coating. They're smooth-surfaced, too—permit thorough drainage . . . make any damage easy to locate and repair. They are engineered to each job . . . applied only by J-M Approved Roofers.

J-M Asbestos felts are perforated to make application easier . . . give you a smoother job and conform better to irregularities in the roof deck.

Send for Flexstone brochure BU-51 A.

Johns-Manville FLEXSTONE* Built-Up Roofs
CORRUGATED TRANSITE* • ACOUSTICAL CEILINGS
DECORATIVE FLOORS • TRANSITE WALLS • ETC.
More SELLEVISION * per front foot

The emphasis on Sellevision in advanced store front design is increasingly evident. Sellevision permits the shopper to see deeply into the store interior and to preview its alluring attractions. With the reduced height of Safety-Set metal sections, greater Sellevision is actually provided.

The largest plates of glass are held securely in the deeper grip which characterizes all Brasco sash. Heavy-duty bars, substantially reinforced, supply extra protection for enlarged and heightened areas. The complete line is expertly fabricated and handsomely finished in both stainless steel and anodized aluminum of heavy gauge.

Many additional features contribute to Safety-Set's superiority. For nearly four decades we have worked in close collaboration with the country's leading architects and store designers. Safety-Set Construction embodies their ideas as well as our own. That's why Safety-Set offers the utmost in practical construction and distinguished appearance, for wisely spent store front dollars. Write for catalog and details.

* Complete line for every design

Brasco MANUFACTURING CO.
Harvey • (Chicago Suburb) • Illinois
Specialists in Metal Store Front Construction for more than 35 years
For these two important reasons
specify American Welded Wire Fabric

First it is the most efficient reinforcement. Its many small members of cold drawn, high yield-point steel fortify all parts of the concrete structure. Rolls and flat sheets of American Welded Wire Fabric provide continuous reinforcement in buildings, bridges, tunnels, etc. It can be wrapped around pillars, beams and girders, laid in steps, stairs and other irregular structural shapes.

Second it is the most economical reinforcement. You need less steel, less concrete, when you specify American Welded Wire Fabric, for thinner slabs carry higher allowable stresses. The mesh can be placed quickly and easily, lies flat and stays in its proper place during all construction operations. All of which adds up to important savings in construction time, in material and labor costs.

These are the main reasons why so many architects and engineers specify American Welded Wire Fabric reinforcement for all types of concrete construction . . . not only in skyscrapers, hospitals, and schools, but in fine modern homes and in small home developments as well.

When you are planning any kind of concrete construction our technical staff will be glad to supply complete data on specific design and standard styles of fabric that are available. Write to our nearest office today, you incur no obligation.

AMERICAN STEEL & WIRE COMPANY
GENERAL OFFICES: CLEVELAND, OHIO
COLUMBIA STEEL COMPANY, SAN FRANCISCO
PACIFIC COAST DISTRIBUTORS
TENNESSEE COAL, IRON & RAILROAD COMPANY, BIRMINGHAM
SOUTHERN DISTRIBUTORS
UNITED STATES STEEL EXPORT COMPANY

Every type of concrete construction needs
AMERICAN WELDED WIRE FABRIC
reinforcement

UNITED STATES STEEL
ELECTRUNITE E.M.T.

PROVIDES WATER-TIGHT PROTECTION THROUGHOUT THE INSTALLATION

- Water-tight protection—particularly in concrete construction installations—is a vitally important factor in the specification of wiring raceway material. That's why more and more architects are specifying Republic ELECTRUNITE E.M.T.—the time-saving, light-weight rigid steel raceway.

With modern compression fittings, such as that shown in the illustration, properly applied and tightened, there can be absolutely no danger of joint seepage in an ELECTRUNITE raceway installation. Actual test and records of countless installations in concrete construction, have proved that fact many times over.

For complete information about all of the up-to-date advantages of ELECTRUNITE E.M.T., call your nearest Steel and Tubes Division Representative, or write today 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
Tarmac Enameling Iron
Electrunite E.M.T.
Frets-Moon Rigid Steel Conduit
Taylor Roofing Terms
Berger Lockers, Bins, Shelving
Berger Cabinets for Kitchens
Truscon Steel Windows, Doors, Joists
and other Building Products

Close up view of first-floor raceway installation in large midwestern hospital project illustrates typical application for ELECTRUNITE E.M.T.: "in concrete".
NOW YOU CAN SPECIFY

Floors to match the Architecture

Today you can give owners style and variety along with all the other advantages of Bruce Hardwood Floors. These lifetime floors are now available in modern block design, random-width planks, and traditional strip. For added beauty, durability, and economy . . . specify that prefinished Bruce Hardwood Floors be used.

See our catalog in Sweets, or write.
E. L. BRUCE CO. - MEMPHIS, TENN.

BRUCE HARDWOOD FLOORS
Products of the World's Largest Maker of Hardwood Floors

Other Bruce Products: Lumber and Wood Parts • Terminix • Bruce Floor Cleaner, Waxes, Finishes • Bruce Doazit
Because their owners wanted: Quick, dry, clean, noncombustible, quiet construction of Robertson steel Q-Floors... and the savings from fast construction, for Q-Floors with structural steel frame permit occupancy 15 to 20% earlier... and the extra revenue resulting from earlier completion date... and electrical availability over entire floor.

Tenants can have electrical outlets exactly where wanted on any six-inch area of entire exposed floor. An electrician drills only a small hole for a new outlet. With no trenches to dig, no muss, the whole job is over in a matter of minutes.

The cost of electrical alterations is almost eliminated. No matter how much new equipment, such as business machines, dispensing machines, projectors, communication devices, come into office routine, these buildings always will be electrically ready.

Find out how these other buildings cut construction cost and got permanently flexible floor layouts. Write for free Q-Floor catalog. Address H. H. Robertson Co., 2405 Farmers Bank Building, Pittsburgh 22, Pennsylvania.

Steel Q-Floor is shown here with suspended ceiling and a condensed presentation of mechanical equipment needed in a modern building. The steel cells are crossed by a raceway which carries wires for all electrical systems so that an outlet can be located on any six-inch area, in a few minutes. You can see Q-FLOOR fittings at any construction materials distributor for the GENERAL ELECTRIC CO.
Here's why so many architects now recommend resilient flooring made of VYNLITE Brand Resins!

- They have lighter, brighter tones and clearer colors than any other resilient flooring materials.
- They are highly resistant to soaps, cleansers, grease, oil, and to acid and alkali solutions.
- They're resilient, yet outwear other types of floor coverings.
- They're flexible, conforming to uneven floor surfaces and absorbing normal play of wood floors without cracking.
- They can be safely laid on concrete floors in direct contact with the ground.
- When waxed, they are more lustrous than any other resilient floor covering, yet wax is not necessary because the surface is non-porous and dirt cannot penetrate.
- They come in an almost infinite variety of stable colors.

VYNLITE Brand Resins give to upholstery materials, too, their phenomenal resistance to aging, cracking, flaking...their limitless colors...their resistance to abuse. These materials work, drape, and shape perfectly, and can be formulated to match the fire-resistant requirements of New York City and Boston.

No wonder more and more manufacturers are producing floor coverings and furniture upholstery made from VYNLITE Brand Resins. They are unsurpassed for offices, public buildings, and private homes. Let us send you a list of suppliers of flexible floor coverings and upholstery materials based on VYNLITE Resins. Simply write Department GS-58.

Data courtesy Thos. Moulding Floor Mfg. Co. and Goodall Fabrics, Inc.
FOR DOLLAR-WISE PEOPLE

When the careful man chooses drop-forged Von Duprin exit devices his choice may be prompted as much by his sense of thrift as by his desire for the utmost in safe, sure, quick exit.

He knows that with the Von Duprins the first cost is just about the only cost . . . that maintenance or repair charges are practically unknown . . . that the ultimate cost is far lower than that of less well made devices.

To the man who knows values, this long range economy may be as important as the satisfaction of having these superb devices on the doors. He is quite aware of the extravagance of buying shoddy, badly made, short-lived things . . . and he realizes fully the dollar advantage of getting top quality . . . genuine drop-forged Von Duprins . . . at the lowest known cost per year.

VON DUPRIN DIVISION, VONNEGUT HARDWARE CO., INDIANAPOLIS 9, INDIANA

Von Duprin
Honeywell Comfort begins with the blueprint...

ON COMMERCIAL ST., U. S. A.

The progressive owners of shops and office buildings on "Commercial Street" know that comfort is essential to attract trade and keep tenants satisfied. They realize that air conditioning, for example, is no longer a luxury—it is just plain good business. So, they are installing the most modern heating, ventilating and air conditioning equipment. Minneapolis-Honeywell, in its nation-wide advertising, is urging new building owners to consult you about the proper control systems while plans are still in the blueprint stage.

Whether you specialize in commercial buildings, hotels and apartments, schools or hospitals, industrial plants, or homes, you know that no heating or air conditioning system can be better than the controls that regulate it. Since 1885, Minneapolis-Honeywell has pioneered in the development of automatic controls and control systems. Honeywell-trained engineers are available for consultation on any of your control problems. Just contact the Honeywell branch office in or near your city or write to Minneapolis-Honeywell, Minneapolis 8, Minnesota.

ROOM THERMOSTAT
The Symbol of Modern Temperature Control

ELECTRIC, PNEUMATIC, ELECTRONIC CONTROLS:
For home heating • for hotels and apartments • for schools and hospitals • for commercial heating and air conditioning • for refrigeration • for industrial process • for aviation • for rail, highway and water transportation.
Arc Welding Cuts Construction Costs 20% on World’s Largest Harbor Shed

Fig. 1. Field welding truss sections to fabricate 200-foot span rigid frame, using 200-amp. Lincoln “Shield-Arc” Engine Driven Welders. Sections are lined up with a transit and tack welded prior to finish welding.

Fig. 2. All welded rigid frame Harbor Shed at Long Beach, California. Designed by R. D. Sandham under direction of R. R. Shoemaker, Chief Engineer, and R. J. Amar, Port Manager. Steel fabricated and erected by Pacific Iron and Steel Company of Los Angeles.

Simpler, faster construction made possible by arc welding, accounts for an estimated 20% saving in structural cost of the Harbor Transit Shed at Long Beach, California. Built entirely with arc welding, this 2,625-ton rigid frame structure was erected in only 90 days with a 32-man erection crew. By eliminating rivets and gusset plates, designers cut the structural weight by more than 7%, creating the world’s largest unobstructed single span harbor shed—1,200 feet long, with a 200-foot span and 40 feet high.

The 32 rigid frames used were shop fabricated in 30 working days using flame cut steel plate and standard rolled shapes. Seventy per cent of the arc welding was finished in the shop using fast, simple downhand welding techniques. Forty-foot sections thus fabricated were then trucked to the erection site for field welding.

Erecting operations were so planned that the 32-man crew could raise and connect the trusses with the I-beams at a rate of 8 frames in a six-hour shift, an erection speed considered impossible with riveted construction. Three 20-ton cranes raised the field-assembled 50-ton all-welded rigid frames, holding them in position while connecting I-beams and trusses by arc welding with 200-amp. Lincoln “Shield-Arc” Engine Driven Welders.

The unique Long Beach Harbor Transit Shed is built to withstand earthquakes. Each rigid frame rests on a 5-inch diameter hardened pin, thus compensating for any light movement or settling that might occur in the harbor area.

Fig. 3. Shop fabricating truss sections, using “Automatic Lincolnweld.” Fillet welds are made in single pass at 600 amps, and speed of 24 inches per minute.

Fig. 4. Hip girder connection to base plate. Five-inch diameter horizontal pin allows free movement in case of earthquake or settling in harbor area.

Fig. 5. Welding truss to hip girder. Butt joints are completed with ten passes on flange plate and two passes on web plate.

The above is published by THE LINCOLN ELECTRIC COMPANY in the interests of progress.

Architects and engineers are invited to write on their letterheads to be placed on mailing list for Structural Welding Studies.

The Lincoln Electric Company, Dept. 162, Cleveland 1, Ohio.
Correct air distribution means customer comfort . . . and customer comfort means more sales. That's why leading retail chains like Lane Bryant rely on Agitair Type R's noiseless, draftless air diffusion. These modern diffusers deliver 100% air distribution in any shape area from any location . . . blend perfectly with modern ceiling designs.

Write for Complete Data

AIR DEVICES, INC.
17 East 42nd St. • New York 17, N.Y.
AIR DIFFUSERS • AIR FILTERS • ROOF EXHAUSTERS
In the Scenic Far West
there's lasting beauty indoors too

Natives of the Far Western states often refer to this
scenic section as "God's Country."
They like the clean, colorful, permanently beautiful set-
tings nature has provided for their living and working.
Many Westerners like this atmosphere of fresh, lasting
beauty indoors too—which helps explain the great
popularity in the West of real clay Suntile.
Suntile brings fadeless beauty, in color and finish, to
any interior. Even after years of service it will appear
color-bright, unmarred, new!
And it's so easy to keep like new. No scrubbing, wax-
ing, polishing or refinishing, ever. You need only to
wipe off the surface with a damp cloth. What a time
and trouble saver in the home! What an economy in
business and industry!

Suntile OFFERS YOU BOTH —
Best of all, you can be sure of getting color-balanced Suntile at its very best every time you recommend or use it. It is always carefully manufactured for top quality in form and finish. You get durability, a rainbow range of easy-to-blend colors, and lifetime resistance to chipping and cracking. And you always get excellent installation, by a man thoroughly familiar with this fine tile—your Authorized Suntile Dealer.

Your Suntile Dealer is a good man for you to know. His name may be in your classified telephone directory. We'll be happy to send his name and our latest literature, if you'll write us at Dept. PA-9.

See our Sweet's Catalog for more detailed data on sizes and colors. The Cambridge Tile Manufacturing Company, Cincinnati 15, Ohio.
YOU HAD A HAND IN THIS!

Architects have long recommended better fenestration. Prominent in those recommendations have been Picture Windows and double glazing.

That's why we think you will be interested in answers Collier's magazine received when it asked its readers, "What sort of windows do you want?"

79.5% want Picture Windows

33.9% want Picture Windows with flanking movable sash

22.5% say they would pay more for double glazing...

... so, you see, your ideas have been well accepted.

NOW YOUR CLIENTS' DESIRES ARE EASIER TO FILL

Time was when you had to do special design work and order special fabrication to provide double glazing. Not any more. Now you can get ready-made stock sash for Thermopane®. It comes to the job either glazed or ready for glazing with Thermopane. Installation is the same as for regular single-glazed sash. You can choose wood or metal—

DOUBLE-HUNG CASEMENT PICTURE

... and other types of windows.

More than 60 manufacturers are now making standard sash for Thermopane® in a wide range of stock sizes. Write us for a list of sash manufacturers.

Thermopane

made only by

LIBBEY-OWENS-FORD GLASS COMPANY

2499 Nicholas Building, Toledo 3, Ohio
Remember! Celotex Insulating Sheathing is...

double-waterproofed

The Exclusive Celotex Way

1 WATERPROOFED INSIDE!
Every one of the millions of tough cane fibres which make up its insulating core board is coated with a waterproofing agent during manufacture.

2 WATERPROOFED OUTSIDE!
This remarkably strong, durable insulating board is then coated on both sides, and on all edges, with a thick, enduring "raincoat" of specially-treated asphalt which seals out moisture.

- Yes, double-waterproofed, yet it has more than twice the vapor permeability advocated by government agencies!
- Safe even under severe exposure during construction! Even cut edges are highly resistant to moisture penetration.
- Enables contractor to resume work more quickly after the heaviest rain, thus cutting costly delays.
- Protected against dry rot, termites, and fungus by the exclusive Ferox process.
- Combines exceptional structural strength and rigidity with high thermal insulation.
- Builds and insulates, all at one low cost.
- Yet costs no more than ordinary sheathing.
- Write today for full details!

Celotex Insulating Sheathing, double-waterproofed for greater moisture protection—and Celotex Insulating Lath, the superior plaster base—used in combination on opposite sides of the framing give you the "Ideal Wall," a superior wall structure plus built-in insulation.

CELOTEX
REG. U.S. PAT. OFF.
THE CELOTEX CORPORATION • CHICAGO 3, ILLINOIS
Through the years, the guiding principle at Youngstown has been to make quality steel pipe which is well suited to serve the needs of plumbing and heating contractors and their customers. That's why Youngstown Pipe bends accurately, cuts readily, threads surely, welds easily—properties designed into the product for efficient fabrication, installation and long, satisfactory service.

Youngstown

STEEL PIPE

THE YOUNGSTOWN SHEET AND TUBE COMPANY

Manufacturers of Carbon, Alloy and Yoloy Steel

General Offices Youngstown 1, Ohio

Export Office - 500 Fifth Avenue, New York

PIPE AND TUBULAR PRODUCTS - CONDUIT - BARS - RODS - COLD FINISHED CARBON AND ALLOY BARS - SHEETS - PLATES - WIRE - ELECTROLYTIC TIN PLATE - COKE TIN PLATE - RAILROAD TRACK SPIKES.
Lamps that make you hungry

REMODELING and relighting with General Electric fluorescent lamps helped increase business 136% in one of Thompsons Restaurants (Chicago) shown above.

Management says the new lighting "...attracts the attention of passersby ... makes the food appear more appetizing than ever before."

General Electric slimline fluorescent lamps in modern fixtures are used over the entrance and just inside the front window. Their high light output attracts customers. The long, unbroken lines of light give a clean, modern effect.

Other G-E slimline features important to owners are instant starting (no starters needed), ease and economy of maintenance and long life.

Whatever lamps your design calls for, specify General Electric. There are more than 10,000 types and sizes of G-E lamps to choose from, all constantly improved by research to STAY BRIGHTER LONGER.

You can put your confidence in—

GENERAL ELECTRIC
ONLY SERVEL PROVIDES ALL THESE ADVANTAGES

DRAFT-FREE WARMTH
EFFICIENT COOLING
POSITIVE DEHUMIDIFICATION
FINGERTIP CONTROL
DEPENDABLE PERFORMANCE
FILTER-CLEANED AIR
ECONOMICAL OPERATION
5-YEAR WARRANTY
NO MOVING PARTS IN COOLING SYSTEM

YOUR CLIENTS' HOMES CAN BE

COOL IN SUMMER
WARM IN WINTER
AT THE FLICK OF A FINGER

WITH SERVEL ALL-YEAR AIR CONDITIONING

One way you can provide your clients with more comfortable living is to include Servel All-Year Air Conditioning in the plans.

This amazingly compact unit provides summer cooling and winter heating... plus humidity control and filter-cleaned air. With a mere flip of a switch, the homeowner can have refreshingly, dehumidified cooling, or instantaneous draft-free heating. Between seasons, Servel circulates filtered air at prevailing temperatures. Damaging dust and dirt and irritating pollens are filtered out.

Servel All-Year Air Conditioning is ideally suited, also, to stores, business offices, doctors' clinics, and other small structures. For full facts, ask your local Gas Company, or write direct to Servel, Inc., 4909 Morton Avenue, Evansville 20, Ind.
On the roof of Western Electric's new Allentown, Pa. plant

PC FOAMGLAS . . . THE PERMANENT INSULATION

On many prominent plants, all over the country, PC Foamglas has won wide favor as roof insulation. Many plant owners have found that they can also insulate walls and floors the first time, for the last time, when they use PC Foamglas.

When next you face the problem of specifying insulation for either normal or low temperature applications, be sure you have the latest information on PC Foamglas. You will find it in our current booklets. Just send in the convenient coupon and your free copies will be mailed promptly.

Here are three important reasons why so many architects have specified PC Foamglas recently!

IT'S EFFECTIVE INSULATION!

PC Foamglas is a true glass in cellular form. That is why it has proved an effective aid in maintaining desired temperature levels in all sorts of structures. Foamglas withstands humidity, is a water seal, a vapor stop.

IT'S RIGID AND STRONG!

Foamglas blocks are so rigid that they readily support their own weight when built into walls. They do not pack down, check, shrink or swell. They are so strong that—when used under cover floors in residences and factories—they support heavier than ordinary loads without crushing.

IT'S PERMANENT!

PC Foamglas is moistureproof, fireproof, vaporproof and acidproof. Those are some of the reasons why — when properly installed — PC Foamglas retains its original insulating efficiency permanently.

This is FOAMGLAS®

The entire strong, rigid block is composed of millions of scaled glass bubbles. They form a continuous structure, so no air, moisture, vapor or fumes can get into or through the Foamglas block. In those closed glass cells, which contain inert air, lies the secret of the material's permanent insulating efficiency.

For additional information see our insert in Sweert's Catalogs.
Here is the excitement of apartment living—a fine modern building, planned for comfort in every detail. There's a sweeping view from every room through Lupton Casement Windows. Sturdy metal frames will not warp, swell, shrink or rattle. With Lupton Metal Windows, air flow is always natural, draftless. Ventilators open to any amount—even up to 100% of window opening. Equipped with beautifully designed locking hardware that allows finger-touch operation. Bronze wire screens with narrow metal frames available. There is a Lupton Metal Window for every type of building. 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
Now...for the first time!
CIRCULAR AIR DIFFUSION FROM A SQUARE OUTLET

NEW

SQUARE ANEMOSTAT
Aspirating Air Diffuser Type E

ARCHITECTS WANTED IT:
Because of its square shape, this new diffuser harmonizes perfectly with rectangular and straight line design. It fits readily into standard size acoustic and egg crate ceilings. It can be combined with all types of lighting fixtures.

The Anemostat Type E is available in nine different neck diameters ranging from 4 to 14 inches.

ENGINEERS WANTED IT:
Up to the present, using a square air diffuser meant sacrificing performance for appearance. Now Anemostat has developed an entirely new square air diffuser . . . the Type E . . . that provides draftless air distribution over a full 360° arc.

This new patented Type E Diffuser retains the exclusive Anemostat aspiration principle. It draws room air, equal to 35% of the supply air, into the device, where it is mixed, within the unit, with the supply air before it is discharged in a multiplicity of planes.

CONTRACTORS WANTED IT:
It can be installed and adjusted quickly and economically by a new labor and time saving snap-on method. Equalizing deflectors also easily snap onto the inner assembly.

By adjusting the equalizing deflectors in the new Type E Anemostat, air can also be diffused in long, narrow or angular patterns to suit various conditions.

SEND FOR BULLETIN 29
which shows smoke test photographs and gives full information on the new Type E Air Diffuser.

ANEMOSTAT®
DRAFTLESS Aspirating AIR DIFFUSERS
ANEMOSTAT CORPORATION OF AMERICA
10 EAST 39th STREET, NEW YORK 16, N. Y.
REPRESENTATIVES IN PRINCIPAL CITIES

"NO AIR CONDITIONING SYSTEM IS BETTER THAN ITS AIR DISTRIBUTION"

ANEMOSTAT CORPORATION OF AMERICA, 10 EAST 39TH ST., NEW YORK 16, N. Y.
Please send me a free copy of Bulletin 29 which fully describes the new Anemostat Type E Square Air Diffuser.

NAME ........................................
POSITION ........................................
COMPANY ........................................
ADDRESS ........................................
Insulux Glass Block is combined with clear-vision windows to bring superior daylighting to this new Standard Oil Company (Indiana) research laboratory at Whiting, Ind. Insulux (No. 551) bends light rays, directing them at ceilings for even distribution throughout the room.

Daylighting to laboratory standards: Research laboratory standards are unusually exacting — even when it comes to daylighting. That's why Insulux Glass Block, with its unique advantages, was selected for this job.

Insulux transmits daylight better, at the same time providing insulation. It protects against dust and dirt and permits rigid temperature and humidity control. Free from rot, rust and corrosion, Insulux Glass Block is easily maintained.

For construction details and installation data, consult GLASS section of Sweet's Architectural Catalog, or write Dept. F-55, American Structural Products Company, P. O. Box 1035, Toledo 1, Ohio.
Marble gives substance to the magic of good design. It is a practical, economical material, noiseless underfoot, safe, sanitary. No other material so completely unites essential, enduring beauty with long life and low maintenance.

The adaptability of Marble to every new trend in good design and its appropriateness for every type of building, makes Marble unique among flooring materials.

Write Managing Director for latest literature on Foreign and Domestic Marbles.
Dept. 39-B.

Marble Institute of America, Inc.
108 Forster Avenue, Mount Vernon, N. Y.
"Let's Eat!"

A & P's NEW CONCRETE WAREHOUSE EXEMPLIFIES EFFICIENCY OF WORLD'S GREATEST FOOD-SERVICE ORGANIZATION

In spanning the gap between thousands of fields and millions of tables, The GREAT ATLANTIC & PACIFIC TEA COMPANY employs the quality approach to quantity merchandising. Witness this new Produce-and-Meat Warehouse, covering an entire city block in Newark, N. J., linking food supply sources with great super-markets. Each kind of produce has its own storage conditions. Inside loading is provided—rail on one side—trucks on the other, with 21 motor-operated doors.

Top-grade construction—one of a number of projects built for A & P by Wm. L. Blanchard Co., Newark. The 6,000 cu. yds. of concrete were designed for 5,000 lbs. compressive strength—readily achieved with Lone Star Cement and concreting know-how. Such structures exemplify efficiency that makes A & P Number One on the Eat Parade!

FALL CONCRETING REMINDER: Use 'Incor'® 24-Hour Cement—protect against sudden temperature drops. Without protection at 50°, common Fall condition, 'Incor' concrete attains stripping strengths, is safe from freezing, 2 or 3 days sooner. For timely illustrated booklet, "Cold Weather Concreting," write us at 342 Madison Ave., New York 17.


LONE STAR CEMENT CORPORATION

Built by Wm. L. Blanchard Co., Newark, N. J.

Architects: STAAB & STAAB, Newark

Ready-mix Lone Star Concrete: J. P. Callaghan Company, Harrison, N. J.

Lone Star Cement through: F. Bowden Company, Newark, N. J.
The Jury was asked to consider 285 submissions, based on a program that called for an air-conditioned, fireproof office building to house the national headquarters of the United States Junior Chamber of Commerce, in Tulsa, Oklahoma. Competitors were asked to pay special attention to provision of a War Memorial. Functional requirements included spaces for administration, general office work, magazine staff, production, accounting, storage, mechanical, and miscellaneous services. Provision for future expansion was mandatory.

The first prize was the architect’s commission to design the headquarters building. Three other prizes and 20 honorable mentions were awarded, and 10 special prizes were given for the best use of the products of the two sponsors—Servel Inc. and General Portland Cement Company.

The Jury considered that the problem was a very difficult one for the time that was allotted to competitors. The site, sloping in two directions, was interesting but not an easy one to find a solution for: climate in Tulsa is extreme in both hot and cold weather; and the cubage limitations set by the program were tight. Considering these aspects of the problem, it was felt that the general quality of the drawings submitted was good. Many interesting and perfectly feasible plan solutions were included among the entries; many of them, on the other hand, made an essentially simple planning problem seem extremely complicated. All of the four top entries have the makings of exciting solutions, solve the technical aspects of the problem well, and show quite a range in feeling.

Of the buildings that remained in the final evaluation, almost none showed a complete realization of climatic conditions in the Southwest. Having provided large glass areas, many competitors then felt it necessary to indicate vertical or horizontal louvers which would obstruct vision. The Junior Chamber of Commerce had hoped that the memorial character of the building would be expressed by forward-looking solutions, and in most cases the contestants succeeded in this objective.

The sponsors were anxious to have the competition produce imaginative and practical solutions using their products (Trinity White Portland Cement and Servel air-conditioning equipment). Many of the entries succeeded in this respect—a number of excellent designs in concrete were submitted, terrazzo was often well used, and in a great many cases the air-conditioning problem was carefully considered and well solved.

**First Prize**

This solution appealed to the Jury as a practical, workable scheme which has an exuberance not apparent at first glance. The simple rectangular plan is monumental in itself and would be economical to build; the concrete frame is practical, consistent, and interesting, with a pleasant rhythm. Not only would the structure be easy to build, it would also expand simply and the expansion would not hurt the design.

The building lends itself to air conditioning but needs further study of this problem; the air-conditioning room should be relocated, and better advantage can be taken of unit-type conditioners.

The plot plan is good. Site contours are taken into full consideration and grading would be simple.

Some of the office space could be arranged more efficiently, but the building is flexible enough to allow this. The executive offices are directly accessible from the entrance terrace, and the parking area and truck entrance are well handled for access. In general the Jury preferred truck delivery from Main Street, but it is here well handled on the west side. The large storage area in the basement is accessible both to the rooms above and to trucking.

The skylight was criticized; in the actual building it would not be seen, and it complicates interior partitioning. A clerestory would be easier to handle and more economical.

The scale is appropriate to a small building. The perspective gives an overly generous feeling of space (particularly at the entrance terrace) which might not actually exist, unless the designers develop it carefully in their final drawings.

The Jury spent much time in detailed criticism of this building, simply because its members felt that

(Continued on page 136)
First Prize and Trinity White Special Prize

J. EDWARD LUDERS, HIDEO SASAKI, AND JAMES V. EDSALL, DESIGNERS, CHAMPAIGN, ILLINOIS
HARRY A. MORRIS, ARCHITECT, DETROIT, MICHIGAN
PROGRESSIVE ARCHITECTURE - United States
Junior Chamber of Commerce Competition

Second Prize and Trinity White Special Prize
WENDELL H. LOVETT, ARCHITECT, SEATTLE, WASHINGTON
PROGRESSIVE ARCHITECTURE — UNITED STATES JUNIOR CHAMBER OF COMMERCE COMPETITION

Third Prize

JOHN T. BLACK, ARCHITECT, CHICAGO, ILLINOIS
progressive architecture united states junior chamber of commerce competition

Fourth Prize
CHARLES D. WILEY, DESIGNER, CHICAGO, ILLINOIS
SKIDMORE, OWINGS & MERRILL, ARCHITECTS, CHICAGO AND NEW YORK
Honorable Mention and Servel Special Prize

P. Y. Chow, Designer, School of Architecture, Columbia University, New York
Perceval Goodman, Architect and Professor of Design
Honorable Mention and Trinity White Special Prize

NEWTON E. GRIFFITH, DESIGNER, CAMBRIDGE, MASSACHUSETTS
ROBERT B. CLOPTON, ARCHITECT, CAMBRIDGE, MASSACHUSETTS
Display and Sales Building: New York, New York
Honorable Mention and Special Prize

PROGRESSIVE ARCHITECTURE—UNITED STATES JUNIOR CHAMBER OF COMMERCE COMPETITION

Paul Ovshinsky, Architect, 1949
Honorable Mention and Special Prize

JUNIOR CHAMBER OF COMMERCE COMPETITION

PROGRESSIVE ARCHITECTURE UNILED STAGES

WILLIAM H. BREEGER AND STANLEY N. SALTZMAN, ARCHITECTS, NEW YORK

DALE C. BIRD, EL RENO, OKLAHOMA; WILLIAM H. BREEGER AND STANLEY N. SALTZMAN, NEW YORK, DESIGNERS
Morris Lapidus: New York University; B.S. Arch., Columbia U. Fifteen years with a firm specializing in designing and building stores throughout the country. Own practice established, 1943, specializing in stores, offices, showrooms, and factories. Architect of stores ranging in cost from $5000 to $3,000,000.

To convert an existing taxpayer, that housed several small stores, into an appropriate and eye-catching environment for display and sale of automobiles. A corner on upper Broadway, diagonally across from a dazzling movie house with which it has to compete for attention. Much traffic in both directions. Essentially a dramatic show window for very large-scale merchandise. Continuous in-sloping window walls (to minimize sky reflections) on both street-front walls; steel pipe guard rail outside to accommodate window shoppers (see Selected Detail, page 97); impressive rotunda and pylon treatment at the corner frankly designed to lure the eye of the passing motorist and help draw attention away from the flashing signs of the movie theater; display floor arranged on two levels; conscious use on the interior of materials and effects usually associated with the outdoors—brick, flagstone, wood siding, planting beds, etc.—in an effort to create a stimulating environment for the merchandise displayed. As the architect remarks: "It seems to me completely wrong to design for automobiles a showroom that looks like a salon or a night club."
DISPLAY & SALES BUILDING, NEW YORK, N. Y.

MATERIALS AND METHODS


EQUIPMENT: Heating and air conditioning: complete year-round system; automatic controls. Lighting: both incandescent and fluorescent.

Top: board-and-batten wing walls separate the patterned-glass partitions of the four sales "closing rooms" in the rear corner.
Above: five, wood-surfaced columns form the center of an upholstered seat for customers.
Bottom: the terrazzo-surfaced upper-level display space is two steps above the flagstoned entrance area.
Research Laboratory: New Providence, New Jersey

WIGTON-ABBOTT CORPORATION, ENGINEERS & CONTRACTORS
BOLTON, MARTIN & WHITE, CONSULTING ARCHITECTS

Above: general view from northwest; note louvered aluminum sunshades above window bands facing west. Researchers' offices occupy both floors of right-hand wing; ground floor of left-hand wing contains entrance and drafting room; upstairs are the administrative offices.

Below: view from southeast; the two-story area houses the big machine shop, apparatus-assembly, and cutting and scarfing laboratories; service garage, foreground.

Photos: Cortlandt V. D. Hubbard
program: A research laboratory for Air Reduction Sales Co., Inc., for research and for development of processes and apparatus for using industrial gases and the electric arc, especially in the cutting, welding, and treating of metals. Personnel to consist of approximately 150 engineers, metallurgists, physicists, chemists, and laboratory technicians.

site: Heavily wooded hilltop in the New Jersey countryside.

solution: A two-story scheme, with wings housing offices for various activities (both research and business) arranged in an L-shaped block at the northeast corner of the two-story laboratory-shop unit; a partial third floor consists of the cafeteria and a roof terrace. Offices and small labs are concentrated along north side of building, both for quick intercommunication and for ready access to the machine shop and to cutting-and-scarfing and apparatus-assembly laboratories at the rear. Movable steel partitioning provides maximum flexibility in arrangement of interior working space. Banks of process pipe lines (oxygen, acetylene, nitrogen, and other industrial gases) serve both the small laboratories and the large assembly and lab block, through numerous conveniently placed "stations." The concrete platform on the south side of the assembly laboratory accommodates special trailers that carry 20-foot-long tubes containing the gases used in the laboratories. Flexible pipes connect the tubes to the process-piping system.
Entrance to west-facing main lobby and exhibit room is sheltered by the canopy shown in the photograph above. Above the window bands that light the offices is a continuous louvered, aluminum sunshade. Angle of the fins is set for total exclusion of sun on June 21.

MATERIALS AND METHODS


Left and also above: detail of stairwell in the south wall of the block containing offices for researchers and engineering groups. Below: view showing relation of stairwell block to the large laboratory unit.
Martin, Martin & White—consulting architects on the job with Ion-Abbott Corporation, Engineers and Contractors.

Warren W. Bolton, Jr.: Cornell U.; assistant manager, Howe & Lescaze; served in Coast Guard Reserve during war.

Binton Martin: Yale U.; U. of Chicago; trained in office of Edmund Gilchrist; captain, Air Forces, during war.

Theo B. White: U. of Penn.; trained in office of Paul P. Cret; major, Corps of Engineers, during war.

Above: Physical Testing Laboratory, on north wall of ground floor.

Right: looking from cutting-and-scarifying laboratory (note process-piping station on wall at right) through to apparatus-assembly laboratory and machine-shop area.
The cafeteria and a roof terrace make up the partial third-floor area. Left: looking toward cafeteria along catwalk from stairwell on south wall.

Below: the windowed cafeteria commands a broad view of valley and mountains. Selected Detail of roof-terrace canopy, page 95.
How Does An Architect Get Jobs?

BY THOMAS H. CREIGHTON

H. H. Richardson is reputed to have told a young architect that there were three things he should know in order to be successful. One was how to get a job; the second was how to get a job; the third was how to get a job. We present herewith the results of a survey made among a number of successful architects from various parts of the country, to determine how they get jobs. They all do good work and seem able to keep it rolling in. Some of them are best known for large commercial or institutional buildings, some for residential work and smaller commercial work. Some have been established for a long while; some have begun their practice fairly recently. They all pass on to you, anonymously, their experiences in the most effective way to bring the client to the door.

There are four principal ways of getting jobs. Voting placed them in this order:
1. Clients who come because of work already done.
2. Social contacts and community activities.
4. Publicity and brochures.

It may be said, quite obviously, that a new firm must depend entirely on the second and third methods to gain work, while a firm that has established itself and has successfully completed commissions to point to can rely more on the first and fourth means. In fact, one older firm depends entirely on its reputation and on social contacts, never seeking publicity and never directly soliciting work. This is an exception, however; most of the architects who have been in business for a reasonably long time still depend largely on direct solicitation. In other words, one seldom reaches the point where it is possible to sit back and wait for work to fly in over the transom.

Social contacts, as one might suppose, loom important as a means of getting work. Opinions differ as to the effectiveness of community activities (club and civic association work, city planning interest, etc.), with general agreement that this is a desirable professional activity irrespective of its result in gaining commissions. To quote one man: "No matter how many or how few other contacts an architect may have, this channel is open to all who are willing to serve, and one doesn't have to beg the chance."

Direct solicitation of new business by the architect himself is one of the most effective single means of getting jobs, according to this study. Only a small minority use an agent—someone retained by the firm to solicit new business. (For a discussion of the legal and ethical aspects of that practice see IT'S THE LAW in August issue of P/A.) Several firms which have tried and dropped the use of a solicitor paid by salary or by commission spoke up strongly against it as being ineffective in the long run. Several others indicated that they were about to try it.

Newspaper and magazine publicity rated lowest among the four principal methods of getting business, but some firms find promotion of this sort extremely effective. Several complained that "the public doesn't subscribe to the architectural magazines," but several others pointed to effective use made of reprints from professional publications. One firm finds that articles by them and about their work in specialized magazines that reach client groups have been the most consistent source of new client contacts. The well-prepared brochure is an asset used most often in connection with direct solicitation.

Several individual methods of gaining work were turned up in the survey. For example, one man has established a service for industrial plants in his area, consisting of an analysis of their production methods and the physical plant which houses them. He gets a fee for this, of course, and "whether buildings are needed at the time of the survey or not, it usually results in future work." This is comparable, in another field, to the studies of educational facilities which a number of architects are making for a separate fee. Any such long-range planning activity pays off in future work, and when an immediate separate fee is obtained for it, it pays double.

A tabulated breakdown of the survey results follows. Numbers after the methods indicate cumulative preferential voting among those questioned, based on their own experiences.

| Recommendations From Old Clients | 1 |
| Repeat Clients | 2 |
| New Clients Who Have Seen Your Work | 3 |
| Social Contacts | 4 |
| Community Activities | 6 |
| Public Speaking | 11 |
| Direct Solicitation By Principal | 5 |
| Direct Solicitation By Agent | 12 |
| Newspaper Publicity | 7 |
| Magazine Publicity | 8 |
| Brochures | 9 |
| Other Means | 10 |
House: Pittsburgh, Pennsylvania
Compact, easily maintained home for a schoolteacher and her brother. "Plenty of storage space," a requirement.

Deep, interior city lot 45 feet wide. The site is level for most of its depth and it is seven steps above the sidewalk.

House organized within economical rectangle, placed well back on the lot. Side walls have minimum openings. Although south window wall of living-dining area faces street, sufficient privacy results from the following facts: the house is set back 55 feet from the street; the site is above the street level; and a well-developed hedge occurs near the front of the lot. Privacy for outdoor areas is provided by means of louvered wood screens—one at the entrance shelter, the other in front of the small flagged terrace outside the dining end of the main room. Placement of entrance door on side of house reduces hall space to a minimum. A free-standing storage-wall-folding-furniture (dining table) unit separates the living-room space from the kitchen-utility room (See Selected Detail, page 99). The generous provision of closets and a separate storage room are other notable features of the plan.
MATERIALS AND METHODS


Photos across page: top—looking from entrance toward south window wall; bottom—living-dining room, with mirrored, storage-furniture unit at right. This page: left—view toward dining end of living room; right—compact kitchen, set off from living room by multi-use case at right. Photos: Richard Garrison
program: Suburban home for a middle-aged couple that specifically wanted "a ranch house."

site: Flat, rectangular lot, 85 feet on the street front (toward southeast) and 115 feet deep.

solution: Use of simple, rugged materials (boards and battens on the walls; cedar shakes, etc.) that are typical of the traditional ranch house. Well-organized plan, with passageway circulation to all rooms. Large, sliding, glazed doors—in living room, dining area, and owners' bedroom—that open the house to the private terrace and garden at the rear. The circulation scheme seems particularly notable, as in the ranch-house prototype one often must pass through main rooms—usually the living room—to reach different parts of the house, or else, where hall circulation is provided, it is excessive. In this house, both errors are avoided.

Photos across page: top—general view from street; bottom—garden front.
This page: above—living room looking toward terrace; at left—terrace showing deep roof overhang above northwestern window wall. Photos: John H. Lohman

MATERIALS AND METHODS
CONSTRUCTION: Frame: fir. Walls: frame, surfaced outside with redwood boards (1 x 12) and battens (1 x 2); interior surfaces—stucco. Floors: 2 x 6 kiln dried, mill construction; oak surfaced. Roof: cedar shakes over frame.

House: Pittsburgh, Pennsylvania
RAYMOND VINER HALL, ARCHITECT

program: Modest home for a newly married couple. Guiding principles of the design were simplicity and economy, with a minimum of maintenance.

site: Spacious, gently rolling hillside, with a pleasant view of Pittsburgh's North Park.

solution: Enclosed space conceived as a two-zone area—one for conversation, reading, dining, etc., with compact cooking-laundry facilities at one side, partially set apart by open shelves and the fireplace; the other, for sleeping, with adjoining bath and dressing alcove. Emergency guest sleeping space is provided by screening one end of the living room. The architect comments: "This concept and planning approach assured a sense of continuity, unity, and comparative spaciousness... in a degree not usual in a small house."
MATERIALS AND METHODS


EQUIPMENT: Heating: radiant system, with copper coils in floor slab; oil-fired boiler; room thermostat to control circulator. Lighting: concealed, fluorescent.

Photos on facing page: top—general view from southeast; bottom—west end of living room, with built-in dining table and bench; glimpse into kitchen, right.

This page: top—the south window bay; below—the stone masonry of the fireplace wall continues on out along one whole side of the carport-shop.

Photos: Fred Gund
Choosing the Right Heating System
BY ROBERT H. EMERICK*

What is the cheapest heating system? Cost studies, on a wide variety of jobs designed and handled by the writer during the past three years, indicate that warm-air heating, on the present market, requires a substantially smaller capital investment than either circulating hot-water or steam systems. For schools, churches, fire-stations, residences, and other structures examined in this study, the average cost ratios, assuming warm air to have a value of 1, were 1.5 for circulating water and 1.65 for steam.

While these ratios may be expected to vary with particular designs and with changing market conditions for material and labor, they have obvious value for every architect and engineer who must discuss costs with a client. Redesigning a system can take all the profit out of a job, and to do so is particularly undesirable after structural plans are drawn.

Chart 1 is presented as an aid in estimating the cost of a central heating system for several types of structures. Note the influence of layout and construction materials on the costs, as evidenced by the investment range for any one class of heating.

To help us with our predesign discussions of heating systems, suppose we consider the peculiar advantages of each. With a warm-air system, for example, the freeing of floor space, and the adaptability of duct layouts to all-year conditioning are obvious. Not so obvious is its peculiar suitability to special conditions. Warm air under pressure from a fan, we know, can be directed downward with ease, and where floor space is precious, a heater in the attic literally can lift its load right off our worried minds.

Figure 1 illustrates a type of horizontal heater, originally developed for suspended installation, that fits admirably under the low rafters of a sloping roof. Since fire departments regard these high-set heating plants with definite favor, we are likely to see more of them as basementless houses increase in number.

Figure 2 shows the design of a warm-air system intended to hide all heating equipment in an historic synagogue. Main ducts are run under the floor, and the two stacks to the balcony are built into the walls.

Less favorable as a general rule is the consideration of warm-air heating, with the fan in a central position, for a group of buildings. The duct layout becomes bulky, lengthy, and involved—all undesirable features. An efficient air balance in such a system is all but impossible; other ways of heating will be simpler and better.

We can also advise our clients that warm air is not often our best choice for old buildings. Usually, the need for structural changes tends to complicate the installation and run up the cost. Alternately, the sight of exposed ducts will also be objectionable.

The Hot Water Picture
Why do we use hot water? To say that our client likes it and wants it is not an adequate answer. In many circumstances, hot water is the ideal medium.

For example, suppose we are faced with the necessity of concealing all piping, and the structural design is such that horizontal runs must be laid flat. With these requirements, the small piping needed for hot water, the absence of insulation requirements except in outside walls, and the exemption from gravity drainage demands, make circulating hot water our most suitable selection.

Another advantage of hot water is its ability to support uniform temperatures. We have quite close control of the temperature in our radiators, and the heat storage in the water maintains heat emission during “off” periods of the firing equipment. Whereas with steam, hot water’s major competitor, we are

* Consulting Mechanical Engineer, North Charleston, South Carolina
often conscious of the radiation cooling, when the furnace operates on an "off and on" schedule. We seldom perceive this change with hot water. Where control of temperatures within close limits is desirable, as in nurseries, hot water offers definite advantages.

From the standpoint of limitations, we must recognize that 1) hot-water radiation must provide more surface than steam due to its normally lower rate of heat emission per square foot; 2) a multiplicity of zones tends to produce a multiplicity of piping and pumps; and 3) friction and pipe sizes must be carefully considered or the system's balance will be faulty and the heating unsatisfactory.

For the architect concerned with space, the added areas of hot-water radiation is not a serious problem, for the ratio of 195°F water with an emission of 200 Btu per square foot per hour, to steam with 240 Btu emission, is only 1.2 to 1. Of course, with the obsolete gravity circulation systems that we prefer not to design for modern buildings, the ratio was much greater—1.6 to 1 being the accepted ratio. Generally, in modern design, the added area is readily acquired by increasing the height or number of tubes in the radiator.

Multiplicity of piping is of no im-

<table>
<thead>
<tr>
<th>Chart 1: Unit Heating Costs for Estimating</th>
</tr>
</thead>
<tbody>
<tr>
<td>building description</td>
</tr>
<tr>
<td>Residence</td>
</tr>
<tr>
<td>Residence</td>
</tr>
<tr>
<td>Residence</td>
</tr>
<tr>
<td>Residence</td>
</tr>
<tr>
<td>Church House</td>
</tr>
<tr>
<td>Y.W.C.A Group</td>
</tr>
<tr>
<td>School</td>
</tr>
<tr>
<td>School</td>
</tr>
<tr>
<td>School</td>
</tr>
<tr>
<td>School Group</td>
</tr>
<tr>
<td>School</td>
</tr>
<tr>
<td>Synagogue</td>
</tr>
<tr>
<td>Fire Station</td>
</tr>
</tbody>
</table>
portance in a boiler room with plenty of space, but it can present problems of trench size and interference, if the distribution is extensive. In these circumstances, costs may approach those of steam systems. This trenching and interference factor was a strong agent in causing the writer to use steam for a large group of school buildings in Florida.

Another sometimes troublesome factor, for radiators below the level of the main, is the resistance to the starting of circulation. The reason for this becomes obvious if we look at Figure 3 and realize that we are trying to push cold, high density water upward and out of the radiator with hot, low density water moving downward. In short, we are challenging a law of nature. Dense fluids seek the bottom of a container, and lighter fluids the top.

The best way to handle this situation is to avoid it. If many radiators must be located below the main, some other type of heating should be considered. However, for the occasional low radiator, we can secure adequate results by inserting a mechanical contrivance in the main at the point of radiator take-off. This fitting is designed to force a predetermined quantity of hot water downward into the radiator.

Since these diversion fittings add to the cost of the job, contractors in a highly competitive market may tend to leave them out. To avoid this possibility and later grief, specifications should demand them.

What About Steam?

Where extensive distribution is concerned, steam is our number one choice. Generally, we can expect it to go anywhere, provided that there is enough pressure on the boiler. District steam companies have been making a living from this characteristic for years.

Steam also permits us to use the smallest sizes of heat-emitting equipment, such as radiators, convectors, and unit heaters.

Where large groups of persons congregate, and especially if they congregate in irregular numbers, the sharp “off and on” control possible with steam is of definite advantage. We can heat and cool without the complication of the heat lag as in a body of hot water. Steam is quick and very positive.

On the other hand, the limitations of steam tend to be rather critical. For example, adequate drainage of the mains, by gravity, is essential. To provide the 1/4-inch per 10 feet of slope of the steam main, and the 1/2-inch per 10 feet of slope for the return, is sometimes difficult and costly. It is sometimes impossible.

Next, steam piping with its insulation presents a problem of physical bulk, not always accommodated with ease.

As a final item for thought, steam heating tends to be the most expensive method we can choose. This dollar factor grows under our very eyes in basementless houses, where return of the condensate to the boiler by gravity is impossible, and we must provide sumps, pumps, and perhaps a pipe trench under the floor.

Panel Heating

We have a choice of heating media for our panels: hot water, warm air, or electricity. All three have a common characteristic in that they are primarily applicable to new buildings only, and must be incorporated in the construction.

The effect on room occupants is largely the same. As floor temperatures must be limited to 85°F, supplementary ceiling or wall panels are frequently necessary to overcome winter heat losses. Such panels tend to complicate the installation. Indeed, many designers lean to ceiling panels exclusively, to take advantage of the higher permissible temperatures.

Panel heating costs more to install than conventional radiation. There is a conviction that operating costs are lower because of the nature of radiant heat. This writer considers such beliefs unwarranted at the moment, however, due to the many variables involved in any given installation. For instance, rugs, drapes, and the placement of furniture, introduced after the system is in operation, may completely upset the operating economy. Heat rays will not pass around corners. Figure 4 shows a wall installation for a hot-water panel.

Operating figures for electric panels used in the Pacific Northwest states are quite reasonable. In Seattle, the owner of a five-room house with attic reports a winter average of $13.75 per month for heating; a 1400-square-foot residence in northern California was heated with full comfort for $20 a month.

The electric cables, well insulated, may be located in the floors, ceilings or walls, and the current input is controlled by a thermostat. The number of installations is increasing, with several hundred now in the Seattle area alone.

Figure 5 illustrates the ceiling construction involved, if we heat with a warm-air ceiling panel. The basic idea is to build a warm-air chamber over each room wherein air movement is guided by metal baffles or channel-forming partitions. At present, this system is being recommended for one- and two-story houses; however, it seems suitable anywhere, if we can get the air to the chamber.

Baseboard Radiation

It is sometimes difficult to provide enough baseboard radiation to meet the heat losses from rooms with large exposures. For example, if we have a room heat loss of 8000 Btu per hour, we must place 16 feet or more of steam baseboard, and 20 feet if the medium is 195°F hot water. Considering that wall area must be allotted to doors, closets, etc., the situation sometimes becomes critical.

Baseboard radiation definitely conserves space, and can be made to present a good appearance. It responds quickly to weather changes. It is not cheap to install. From an operating standpoint, circulating water temperatures should be kept below 200°F in order to avoid the development of dust streaks on the wall above.

Gas Fired Wall Radiators

Figure 6 shows a more or less recessed wall radiator, gas fired. As these units only cost about $100 each, their adoption for small, one-story houses offers a definite investment saving with adequate heating. As the gases of combustion are vented outdoors, odors and water vapor in the rooms are not observed. These units appear to have definite advantages in regions isolated from electricity, but in which “bottled gas” is available. They are immune to storms that might disrupt service of electrically actuated units.

Floor Furnaces

A gas-fired, or oil-fired floor furnace can be provided for around $200, including oil tank and connecting piping. Some of these units have an air-circulating fan, others depend on gravity.

The conventional floor furnace is of small size; usually it will have a top output of 50,000 to 60,000 Btu per hour.

In the experience of this writer, they do not create warm floors, as is sometimes claimed. In fact, movement of air back to the heater has been observed to produce a noticeable draft at floor level.

Tests on temperature stratification at the National Bureau of Standards, Washington, D.C., indicate a 20°F differential between the floor and ceiling for gravity circulation, and 10°F if the heater is fitted with a fan.
and the returns are run under the floor.

**Heat Pumps**

An ordinary five-room house will require approximately five tons of cooling equipment, and for frame construction, 50,000 Btu. per hour for heating at 20°F outside temperature. A heat pump for these requirements, at $800 per ton means an investment of $4000.

According to Table 1, which has been compiled from manufacturer's data, this five-ton unit is going to be short on the heating side if the outside temperature drops below 20°F. If we live in a 0°F climate, we must buy a larger heat pump, or alternatively find another source of heat rather than outside air. Water or earth is good, since city water seldom falls below 40°F, and we can always dig below the frost line of the earth. Operating figures on a five-ton unit in St. Petersburg, Florida, retail clothing store, show that $29 per month was enough for an average winter month, where the average minimum temperature is about 40°F.

**Radiant Glass**

Radiant glass units are being built in 1000 watt, 220 volt, 4.5 ampere sizes for permanent installation, or with 110 volt, 9 ampere ratings for auxiliary heating in existing buildings.

Investment costs will average around $95 per unit. Operating costs will vary with local water rates and the hours of use. The manufacturer offers the following formula for estimating operating costs:

\[
\text{Tot. cu. ft. x degree days x 0.2} = \text{Total kw-h}
\]

In dollars and cents, this means about $12 to $13 a unit for a climate having 2400 degree days in a heating season, and an electric rate of 1.65 cents per kilowatt hour. Colder climates and other current rates should be estimated in proportion.

**Table 1: Heat Output of Heat Pumps**

<table>
<thead>
<tr>
<th>Temperature outside F</th>
<th>3k. p.</th>
<th>6k. p. per hour</th>
<th>15k. p.</th>
<th>10k. p.</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>30,400</td>
<td>50,600</td>
<td>75,900</td>
<td>101,000</td>
</tr>
<tr>
<td>30</td>
<td>33,400</td>
<td>55,500</td>
<td>83,300</td>
<td>111,000</td>
</tr>
<tr>
<td>40</td>
<td>36,700</td>
<td>61,000</td>
<td>91,500</td>
<td>122,000</td>
</tr>
<tr>
<td>50</td>
<td>40,200</td>
<td>67,000</td>
<td>100,500</td>
<td>134,000</td>
</tr>
</tbody>
</table>

*Using Atmosphere As Heat Source*
Arc-Welded Beam and Column Framing

By Ned L. Ashton

The recent erection of several outstanding all-welded steel frame buildings indicates the rapid advance of arc welding into the construction field. This advance is the result of original thinking and creative engineering by architects, engineers, and fabricators.

Arc-welded construction cannot be economically sound, if its design simply replaces rivets with welds. The problems of welded connections must be analyzed and solved by the application of new ideas.

As the details used in some of these recent structures are outstanding examples of sound engineering practice in welded construction, the principles involved can be studied with profit by all who have an interest in the progress of building engineering. The following paragraphs describe and illustrate the manner in which some heavy beam and column details have been accomplished.

Continuous Interior Girder

Figure 1 shows in trinmetric projection a continuous interior wind bracing girder and column connection. This typical detail was used for some of the heavier framing at the third-floor level of the new ten-story addition to the Register and Tribune Building in Des Moines, Iowa. Brooks and Borg were the consulting architects and engineers for this construction. C. A. Jenks, of Chicago, designed this detail for the Pittsburgh Des Moines Steel Company. It shows the junction of two 36 WF 260 girders with the flanges of a 14 WF 426 column, and two 16 WF 40 beams framing into the column web.

In this design, all holes were eliminated from the main columns by fillet and plug welding both erection brackets to the web and erection angles to the flanges. Thus the punching and drilling was confined to small pieces of angles easily handled for welding in the shop. Holes were provided, however, in the ends of the girder webs and in the outstanding legs of the erection angles. These holes were only used for drift pins and bolts in alignment and for temporary support during erection.

Full continuity was obtained at the bottom of the 36 WF girders. This was achieved by field butt welding the bottom flanges of the girder to the column flanges. The girder flanges bear opposite a stiffener that has been shop welded between the column flanges.

At the top of the 36 WF girders, the cover plates and the stiffener plates between the column flanges are shipped loose for convenience in erection. Tie beam erection brackets are provided on the column webs to support the 16 WF beams. The plates between the column flanges are field butt welded to the column flanges after the 16 WF beams have been field welded to these erection brackets.

The outside cover plates are then butt welded to the outside faces of the column flanges and fillet welded to the top of the 36 WF girders to complete the detail.

Typical Wall Column

Figure 2 is a similar sketch of a typical wall column in the same building.

In this detail, only one 36 WF 260 girder is supported by the column, and the heavy field welds are therefore confined to only one flange of the column. The stiffener plates are field welded to the inside flanges and the web of the column, but are not welded to the outside column flange.

Rigidity for Seismic Forces

Another ingenious and well-designed detail of this type, where equal rigidity was provided in both directions for seismic forces, is shown in Figure 3.

This detail is found in the new Los Angeles Times Building. Rowland H. Crawford was the architect and...
Holmes & Narver performed the structural, mechanical, and electrical engineering.

In this structure, 21 WF 82 beams were welded to all four flanges of a double 24 WF 110 cross type column. Shop welded plates, 1 1/8" wide, between the column flanges and opposite the beam flanges, provide full continuity. Tee-shaped bracket beam seats were shop welded to the column flanges and provided 7/8" bolt holes to hold the beam during erection. The 1 1/4" plates were single bevel welded to the inside of the flanges and to the web to provide diaphragms and back up plates.

Continuity is provided on the outside face of the column at the top of the girder flange by: 1) field butt welding 1 1/4" top cover plates to the outside face of the column; 2) fillet welding the plates to the top flanges of the beam.

At all bottom flanges full continuity was provided by fillet welding 1 1/2" x 3 3/4" plates on the top of each bottom flange and on each side of the web.

**Beam-to-Beam Connections**

Figure 4 illustrates how simple beam-to-beam connections with end connection angles were made with the arc in the Register and Tribune Building addition.

All of the smaller sized beams in this structure were designed as simple beams with two standard connection angles at each end.

In this type of connection, one angle is shop welded to the supporting girder and the other is shipped loose, bolted to the girder. The outstanding legs of both of these angles are punched with a minimum number of holes so that the beam can be temporarily supported until the rest of the connection is welded.

The beam web is also punched at the ends for the erection bolts. In this manner, the beams only have to be cut to length, coped or blocked for erection clearances, and to have the web punched. They are then ready for painting, shipment, and erection. The principal detailing is confined to the main girders and larger pieces.

The punched holes and connection angles allow adequate erection clearances, and yet insure exact beam span lengths, correct main girder spacing, and provide excellent support for each individual beam connection. This support is provided without interference, during erection, from the beam connection on the opposite side of the girder.

Table 1 shows a typical set of standard welded simple beam connections of the type used on the Register and Tribune Building. The table gives the number of bolt holes that were provided for the erection of various sizes of beams, and also the amounts of welding for the permanent connections.

All of the smaller sized beams were designed as simple beams. Flanges were not field welded except for the main wind bracing and continuous girder connections to the columns.

In designing beam or beam-to-girder connections, shop punching of the main members should be eliminated as much as possible. This will
materially reduce fabricating costs, as the beams or girders are large and heavy and are costly to handle.

**Beam-to-Column Framing**

At the wind brackets, the continuity of beam-to-column framing was gained in a unique manner as shown in Figure 5. 15½" x 4" x ¾" bent plate seat angles were shop welded to the column flange with the long leg outstanding. The ¾" plates were bent to a ¾" radius on the inside of the beam. Space was provided for about a ¾" butt weld between the back of the outside radius of the bent and the face of the column flange as shown in Figure 5A. At the same time, the 4" vertical leg of the bent plate is fillet welded to the column flange to help provide for shear. The rest of the shear is provided for by means of the end connection angles. One of these angles is shop welded to the face of the column with plug and fillet welds while the other is shipped loose and field welded to the column flange and beam web after the beam is erected in the field.

Continuity in the top flange of the wind bracing beam is provided for by means of the 7" x 1½" cover plate. This plate is shipped loose and then placed in position after the beam is erected. It is butt welded to the column first and then fillet welded to the top flange of the beam.

This connection provides for the bending moment capacity of the beam combined with an end shear of 65,000 pounds. Suitable backing plates are also provided between the column flanges, as necessary, to resist the tension and compression forces without bending the column flanges.

**Splices**

Figure 6 shows a typical splice also used on the addition to the Register and Tribune Building. The splice shown is the junction of a 14 WF 176 column and a 14 WF 228 column occurring 2'-0" above the third floor level.

The ends of both of these column sections are first milled for a square bearing surface. The two lower inside erection splice angles are then shop welded on opposite sides of the web of the heavier column section, so that they project beyond the end of the column. The outstanding legs of these angles are provided with holes for erection bolts. These holes match those in the outstanding legs of the two angles that are shop welded to the upper column section.

The flanges on the lower end of the upper column section are V beveled or J grooved for welding, and the field butt splice is completed by filling these spaces with weld metal. The bevels on both flanges are made from the same side to save handling and turning the column during fabrication in the shop and for ease of welding in the field.

Figure 7 exhibits a similar splice wherein a 12 WF 53 column is joined to the top of a 14 WF 87 column with the aid of two flange splice plates. This splice occurs just above the level of the sixth floor.

Two ¼" x ¾" x 1'-3" splice plates were first fillet welded to the web and inside faces of the 14 WF column flanges. The plates were then milled with this column. At the same time, one 14" x 1" x 1'-3" cover plate with the lower end prepared for welding was fillet welded to the outside face of the opposite flange of the 12" column.

In this manner, both flange welds are made accessible from the same side of the column. This is sometimes necessary for welding and convenience of erection, when new steel is erected adjacent to an old structure. The other details, splice angles, field bolts, etc., for this splice are similar to those previously shown in Fig. 6.

The column splice details used for splicing columns of the same depth were also similar to those of Figure 6. Table 2 gives the data for these other typical splices.

In the upper stories of the Register and Tribune addition it was found more economical to splice the columns with direct bearing and anchor bolts.
Co: with figs. 12, 14 WF 87t, 14 WF 136, 14 WF 142. 

The girder details, temporarily plates, stiffeners of to the girder.

Continuity in Both Beam and Column
Another interesting method of providing for continuity in both the beams and the column is shown in Figure 9. This detail was proposed for the main framework of a large British Nylon Factory of welded construction. This plant is three stories high, 1000 feet long, and 324 feet wide. The floor-to-floor heights were 19 feet for the first story and 13 feet for the second and third.

The column spacing formed 25 foot by 54 foot bays. The columns were formed by shop welding three plates together. Plate brackets were welded into the plane of the column flanges to form integral portions of the column flanges, projecting outward to support the girders. Plate brackets can be made to support loads equal to the load capacity of the column.

The main girders of this structure were made as twin continuous girders supported on the bracketed column flanges. In this manner, the girders may run by both sides of the column without interference. The columns can be completely fabricated in the shop and erected in the field as single units—units three stories high and without field splices. The girders are made to cantilever past the columns with field splices at the points of inflection.

These details saved from 4 to 5 percent of the weight of conventional riveted columns, and about 15 to 20 percent of the weight of the girders. The cost was no higher than the prevailing price per ton for columns and girders of riveted design.

The loads in the individual columns varied from 225 to 766 tons per column. As all columns were fabricated as three plate sections, the plate sizes for the column sections were varied to suit the individual load requirements at each story.

Four Angle Column Section
Figure 10 is similar. In this instance the columns are spread and single web continuous girders run through the four angle column section. This detail, designed by Maurice Saaso, consulting engineer, is found in the extension of the Los Angeles Bell Telephone Building.

The main girders are supported on cross channel batten plates and run directly through the main columns. The four angle column sections are only intended to provide temporary supports during erection. In the final structure, they comprise part of the composite steel and concrete columns.

Continuous Beam-to-Beam Framing
Figure 11 is a sketch of the continuous beam-to-beam framing detail also used in this building. The top flanges of the beams are extended across the top flange of the girder and butt welded together on the center line of the main girder. The additional negative moment flange requirements are made up by cover plates added to the edges of the flanges. The intensity of stress on the butt weld is reduced in proportion to this extra flange material.

The web and bottom flanges of the beams are cut to the profile of the main girders. During erection the beams are supported by the top flanges while the webs are being welded to the main girders for shear.
Stimulus Collection

Thirty-two hand-screened fabrics comprise the "Stimulus" collection recently introduced by Schiffer Prints Division of Mil-Art Company, Incorporated, New York. These printed fabrics, for drapery and upholstery use, were designed by six outstanding artists in the related fields of architecture, interior and industrial design, and the fine arts. The designers were Salvador Dali, painter; Ray Eames, sculptress; George Nelson, architect-designer; Bernard Rudofsky, editor-designer; Abel Sorensen, architect-designer; and Edward J. Wormley, furniture designer.

Each design is available in three different color schemes. All of the fabrics are vat-dyed, color-fast, and 50" wide. As the pattern repeats are either 27" or a multiple thereof, the fabrics may be used for slipcovers and upholstery with minimum waste.

The collection was produced in an effort to bring good contemporary design into the homes of the medium-income-bracket consumer. Retail prices will range from $3.95 to $6 per yard. The fabrics are now available to architects, designers, and decorators through L. Anton Maix, New York merchandising coordinator who originated and developed the program for the collection. Eighteen selected prints will be available to the consumer at leading retail stores throughout the country about September 1.

Aluminum Awning

An aluminum awning, made of curved louvers to keep out the direct sun rays and to permit the passage of diffused light, is being produced by the C-THRU Aluminum Awning Company of Los Angeles. Crowned louvers were designed by light engineers to give a maximum of diffused light. Light coming through the awning hits the louvers and is broken up into smaller rays which are reflected to the reverse crown above. The rays are diffused again before they are allowed to enter the home as glare-free light. A patented support post divides and holds the louvers in an open position.

A screwdriver and ten minutes' time is all that is required to assemble this awning. Other advantages claimed by the manufacturer are: shade without obstruction; better temperature control inside; no seasonal maintenance, sag, burn, rust, rot, or tear. Available in 36 sizes, they are said to save half the cost of having custom awnings installed.

Oil-Fired Floor Furnace

An automatic oil-fired floor furnace with an over-all height of only 34" is now manufactured by the Oran Company, Columbus, Ohio. Known as the Oran Shallow-well Model O-70 Super, this product is Underwriters-approved and rated at 70,000 Btu. The shallow depth greatly reduces building costs on new construction and simplifies installation in existing structures. Armco aluminized steel is used in the combustion assembly, stainless steel in the burner. The unit is finished in baked enamel.

An exclusive auxiliary cold air return draws cold air from hard-to-heat areas for more uniform comfort.

(Continued on page 140)
"Fractions," Bernard Rudofsky has used typewriter type to achieve this ingenious pattern.

this month's products

air and temperature control

Agitair "CNO" Exhaustor: weatherproof, heavy-gauge steel unit, with wide "venturi-type" orifice for real venting, vent flues, and chimney tops. Available in standard head sizes from 5" to 48". Air Devices, Inc., 17 E. 62nd St., New York 17, N. Y.

Electrolux Radiant Heat Panels: units composed of metallic alloy glass, fused into Temprex glass; infrared heat generated by current passing through the fluid. Flush wall installation possible for more efficient use of floor space. Portable models also available. Both operate on a.c. or d.c. 110 or 220 volts. Appleman Glass Works, Bergenfield, N. J.

Fire Chief: low-price, automatic boiler-burner unit, employing new cross feed principle and burners, simple, automatic, portable plate; ashes automatically spill into container, eliminating any ash removal mechanisms. Year-round hot water supplied from built-in tankless coil. Two sizes, one with 80,000 Btu. capacity, the other, with 150,000 Btu. Coal-O-Matic Co., Trucksville, Pa.

"Air-Wall" Heating: packaged forced warm-air heating system for small homes: standard 4" stovepipe ducts and adjustable grilles with registers and grilles for installation above basements. System can be used with either G-Z oil- or gas-fired furnaces. General Electric Co., Bloomfield, N. J.

Sahara Dehumidifier: low-cost apparatus for combating moisture problems in industry. Equipped with hopper filled with dehydrating chemical, unit draws in air by means of motor connected to small fan; excess moisture, disposed of in 2½ gal. container. Enclosed in two-tone mahogany cabinet about size of water cooler. Niagara Industrial Corp., 20 Vesey St., New York, N. Y.

10-Ton Air Conditioner: freestanding unit requiring no duct work; all-copper condenser, silver soldered throughout, adaptable for any water or water tower application. Over-all dimensions: 27 deep, 52 wide, 93 high. Typhoon Air Conditioning Co., Inc., 794 Union St., Brooklyn 15, N. Y.

construction

"Random Clear" Insulux Glass Block: non-geometric face design and subtle irregularities in contours give appearance of hand-finished product, although manufactured by precision methods. Especially adaptable for decorative purposes in windows, doors, stores, etc. American Structural Products Co., Ohio Bank Bldg., Toledo I, Ohio.

Bloxolite: plastic (Styron) block for building partitions, drop ceilings, displays, for installation in places where heavier materials would be prohibitive. No mortar, caulking, or adhesive required; urethane-polyester paint is desired. Bloxolite Co. of America, 706 Penn Ave., Pittsburgh 21, Pa.

Simplex Gym Ceiling: sectional units, composed of extra strong, thick aluminum (or bonded-steel), perforated panels, suspended by galvanized snap bars supported directly to building structure by rigid angles and accessories. Dent-proof panels easily removed for access or replacement; no point needed to protect easily cleaned surface. Noninflammable, uniform air distribution, 75% noise reduction. Simplex Ceiling Co., 550 W. 52nd St., New York 19, N. Y.

doors and windows

All-Aluminum Screen Door: will fit openings that may or are out of line; aluminum frame covers wood striping used to square and adjust opening to proper size. Manufactured in all sizes, with 1" variations in width and height. Aluminum Corp. of America, 1229 S. 41st St., Philadelphia 45, Pa.

No. 77 "Over the Top" Garage Door: low-priced, 24-panel plywood unit will fit openings 8' wide by 8' high, requires only 2' headroom. Equipped with all necessary hardware and steel weatherstripping. Frantz Mfg. Co., Sterling, Ill.

Spring-Cushioned Door Step: small metal gage with cushioning internal spring and self rubber bumper, for mounting on baseboard or door; helps overcome noise and damage when doors are slammed back. Wesco Electric Co., 5310 Milwaukee Ave., Chicago 30, Ill.

electrical equipment and lighting


Varylit: fluorescent lighting fixture claimed to combine large light volume with small cost. May be used as single unit or in continuous runs; battle-type louvers offer shielding angles of 20°-27°, easily removed for maintenance purposes. Housing and channel are of 20-gage steel with baked enamel finish. Suitable for offices, stores, classrooms. Leader Electric Co., 3500 N. Kedzie Ave., Chicago 18, Ill.

CL-296: 8-foot, lowered fixture utilizing two 75w T-12 instant start lamps, 20-gage steel construction, finished with baked white Miracoat, providing minimum reflectance factor of 86%. May be surface or pendant mounted, or joined to similar units to form continuous rows. Syn- vana Electric Products, Inc., 500 Fifth Ave., New York, N. Y.

finishers and protectors

Asepticote: interior wall coating, with chlorinated rubber content, will withstand frequent washings and still maintain uniformity. Available in popular deep colors and light pastels.

Truscott Laboratories, 1620 Canfield St., Detroit 11, Mich.

sanitary equipment, water supply, drainage

Softsan: two-tank water softener unit, furnished with ultra-high-capacity zeolite softening material, which is permanent and can be regenerated indefintely. Manufactured in four sizes, largest requiring floor space of only 25x25 in. Truscott H. C. Crane Co., 836 S. Michigan Ave., Chicago 5, Ill.

specialized equipment

No. 1518 Bull’s-Eye Lamp Type Supervisory Annunciator: gives both visual and audible alarm when trouble develops with overheated bearings, low fuel level, too low or too high pressures, etc., in industrial plants, refineries, etc. Designed for flush, surface, or panel mounting, open or closed circuit operation, on voltages from 55v to 250v, a.c. or d.c. Auth Co., 34-20 45th St., Long Island City 1, N. Y.

Claywood Contemporary Furniture: new gateleg drop-leaf dining table in solid Western maple, added to line of low-cost modern furniture. Claywood Design Products, 1515 Mill St., Springfield, Ore.

Circ-L-Scale: vest-pocket drawing instrument; combining 30 protractor, compass, square, scale, and lettering device. Made of Andover plastic, which will not distort, warp, or burn. L. A. Cusson, 9100 Rosewell Ave., Detroit 4, Mich.

General Chisel: combination electric refrigerator and two-burner range, available in 115v model. Both units plug into any circuit with one plug. General Air Conditioning Corp., 4542 E. Dunham St., Los Angeles 29, Calif.

surfacing materials

Vinatred: vinyl plastic carpeting with textured surface, applied on sponge rubber base, for use in stores, hotels, hospitals, or wherever constant traffic is factor; flame resistant, non-porous, will not absorb dirt. Comes in rolls 36" wide, in three qualities, seven colors. Southbridge Plastics, Inc., 470 Fourth Ave., New York 16, N. Y.

Lamidall: tough, stapled plastic surface material, bonded to Masonite Proudwood, for application on existing walls. Resists heat, moisture, abrasion, unaffected by water, soap, beverages, fruit juices, and common solvents. Can be applied by nailing or cementing. Comes in panel form, in range of sizes up to 4' x 12', in selection of colors, patterns, and wood grains. Service Products Div. Woodall Industries, Inc., 2055 S. Calumet, Chicago, III.
AIR AND TEMPERATURE CONTROL

1-299. Roto-Clone (277A), 20-p. illus. bulletin on dynamic precipitator of the hydro-static type; air cleaning action obtained with inverted S-shape water curtain. Operating principle, advantages, arrangements, dimensions, water level control, characteristics, capacity chart, other technical data; other dust control equipment and brief descriptions. American Air Filter Co., Inc.

1-290. Type “F” Worm-Feed Stokers, AIA 30C-I (S-41), 8-p. illus. bulletin on stokers with coal burning rates of 75 to 512 lbs. per hour. General information, data table, description of parts, diagrams. Brownell Co.

Booklet and two folders describing complete line of gas floor furnaces, forced air heating systems, and radiant type oil heaters. General data and specifications of models, construction, installation plans, operations. Coleman Co., Inc.: 1-291. Your New Measure of Low Cost Heating Comfort (Cat. 3A)

1-292. Blend-Air (A-957)

1-293. Fast Action Oil Heaters (A-921E)

Catalog describing line of air-conditioning, heating, and refrigeration equipment. Descriptions of types, data tables, features, photos, index. Also booklet on year-round air conditioner for residential installation. General information, operation drawings, advantages. Chrysler Airtemp, Div. of Chrysler Corp.: 1-294. Chrysler Airtemp (L-115)

1-295. Enjoy Resort Weather (L-127)

1-296. Counterfoil Forced Air Space Heaters, AIA 30C-I (Bul. 520), 12-p. illus. booklet on commercial and industrial warm air heater, providing not only all-year heating and ventilating, but also process drying, tempered makeup air, and heat curing. Descriptions of each function, analyses of mechanical parts, advantages, specifications, capacity and dimension table. Dravo Corp.

1-297. A Dream of Green Air (Bul. 118), 16-p. illus. booklet on air recovery unit consisting of canisters containing activated carbon, for installation in air conditioning systems. General information. W. B. Connor Engineering Corp.


1-299. The Nesbitt Syncretizer (258), 4-p. booklet on unit ventilator, especially adaptable to classrooms; can be integrated with storage cabinets to make proper use of space below windows. Features, operating performance drawing. John J. Nesbitt, Inc.

CONSTRUCTION

3-84. Bloxolite, 4-p. illus. booklet on lightweight plastic block, with framework of interlocking lattice-type wood strips, for construction of partitions, drop ceilings, and for decorative use. General Information, erection data. Bloxolite Co. of America.


3-86. Steel Buildings, AIA 13 (Cat. B-37), 12-p. booklet on industrial steel buildings; standard designs and large stocks of steel in centrally located warehouses provide quick delivery and facility of erection; claimed to have shorter time lapse between order and completion than any other type of building. Advantages, typical installations, details, typical plan suggestions, sections, fastening methods. International Steel Co.


3-88. Marble in the Hospital, AIA 22-A, 8-p. illus. booklet describing use of marble in hospital interiors. Advantages, photos, membership list of M.A. Marble Institute of America.


3-90. Salt-Glazed Dri-Speedwall Tile, AIA 10-B (SG-1)

3-91. Ceramic Glazed Vitrinite (PF 47)

3-92. Modular Glazed Vitrinite, AIA 10-B (4D-548)

3-93. Modular Box Cap-Mold, AIA 10-B (BCM 648)

3-94. Introducing Simmons Roto-Lock, AIA 17-F (NN), 4-p. illus. booklet describing new butt-joint panel fastener; special design permits its use for right-angle connections; fastener recedes completely into panels, leaving no exposed parts. Description, operating performance, load ratings. Simmons Fastener Corp.

3-95. Uni-Forms (S.A. 17), 34-p. illus. catalog on concrete forming system for all wall sizes. Description, general data, advantages, typical uses and photos. Universal Form Clamp Co.


DOORS AND WINDOWS


4-205. Flush Doors, AIA 19E (1-107), data sheet describing flush panel door with scientifically spaced rigid cylinders attached to core, to provide overall support for hardwood faces. Construction features, typical sizes and weights. General Plywood Corp.


4-207. Extruded Aluminum Store Front Construction, 4-p. illus. booklet containing construction details of sash, jambs, corner and division bars, and other parts. Typical installation photos. Martin Katz Co.

4-208. Kennatrack File, AIA N27-A, portfolio containing two booklets, two folders, and set of technical data sheets, describing single and double sliding door tracks employing patented expansion plug door mounting device. Description, advantages, details, sections, elevations, installation. Jay G. McKenna, Inc.

4-209. Windalume, 8-p. booklet on double-weatherstripped, double-hung aluminum windows. Standard sizes and types, specifications, details, installation instructions. Windalume Corp.

ELECTRICAL EQUIPMENT AND LIGHTING

Two booklets on fluorescent lighting equipment, combined incandescent-fluorescent fixtures, and flexible lighting units (Formilites). Descriptions, types, drawings, photos. Gotham Lighting Corp.:
5-208. Gotham Architectural Lighting (GLC-15)

5-209. Formlite (GLC-16)

Two booklets describing revolving armature generators and revolving field a.c. generators, both designed to carry 25 percent overload without exceeding allowable temperature rise. Also folder describing 2500w electric plant, built for two types of service: a.c. supply and as combination 32v battery charging plant and 110v a.c. Models, descriptions, ratings, technical data tables. Kato Engineering Co.:

5-210. Revolving Armature Generators (747)

5-211. Revolving Field A.C. Generators (314)

5-212. Katolight Plants (148-C)


5-214. Rambusch "Aura", AIA 31-F-1, 4-p. illus. booklet on incandescent lighting fixture for ceiling suspension; aluminum fabrication, swivel joint assuring vertical hanging. Descriptive drawings, lamps recommended. Rambusch Co.


5-216. Origins By Kurt Versen (KV 299), loose-leaf catalog containing descriptions, photos, of table, floor, and pin-up lamps of modern design, finished in baked enamel. Price list, color chart. Kurt Versen Co.

5-217. The Wiley Seminar, 4-p. bulletin on fluorescent fixture, for suspended or flush-to-ceiling installation; designed especially for classroom lighting, but adaptable to any commercial use. Description, laboratory test reports. Also specifications for individual use or in combination with Seminars. R. & W. Wiley, Inc.

FINISHERS AND PROTECTORS

6-171. Perma-Skin, 4-p. booklet on corrosion-resistant, protective vinyl coatings for application on metal, wood, stone, brick, and concrete structures and equipment. Advantages, characteristics, recommended applications. Also, underprimer for metal, which eliminates need for preliminary chemical treatment. Dennis Chemical Co.

6-172. Gold Leaf in Architecture, 4-p. bulletin briefly describing gold and other metallic leaf and their applications in architecture. Preparation, specification, maintenance, typical gold leaf applications. Hastings & Co., Inc.


INSULATION (THERMAL ACOUSTIC)


SPECIALIZED EQUIPMENT


Three folders illustrating contemporary furniture from the William Armbruster collection; designed for commercial purposes, for use in public lobbies, lounges, shops, etc. Photos, brief descriptions. Edgewood Furniture Co., Inc.: 19-448. For Smart Lobbies and Lounges 19-449. For Your Millinery Department 19-450. For Smart Shoe Salons


Two bulletins on lightning protection system for residential and public buildings; entirely invisible except for inconspicuous 10-in. air terminals; can be installed only during construction. Specifications, diagrams, typical installations. West Dodd Lighting Conductor Corp.:

19-454. Lightning Protection, AIA 31-D-8

19-455. Lightning Protection for Schools, Churches, and Public Buildings, AIA 31-D-8

SURFACING MATERIALS


19-458. Korina, 4-p. booklet showing new, light-colored plywood resembling Prima Vera, for cabinet and wall paneling. General data, specifications. U. S. Plywood Corp.

(To obtain literature coupon must be used by 12/1/49)

PROGRESSIVE ARCHITECTURE, 330 West 42nd Street, New York 18, N. Y. I should like a copy of each piece of Manufacturer's Literature circled below.

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

1-289 1-290 1-291 1-292 1-293 1-294 1-295 1-296
1-297 1-298 1-299 3-84 3-85 3-86 3-87 3-88
3-89 3-90 3-91 3-92 3-93 3-94 3-95 3-96
4-204 4-205 4-206 4-207 4-208 4-209 5-208 5-209
5-210 5-211 5-212 5-213 5-214 5-215 5-216 5-217
6-171 6-172 6-173 9-137 19-445 19-446 19-447 19-448

Name

Position

Firm

Mailing Address

City State

PLEASE PRINT

SEPTEMBER, 1949
TROUBLE always costs more than Revere Copper. That's why—in every type of building—it pays to let lasting Revere Copper guard those vital points where water will cause other materials to rust, rot or corrode.

ROOFING, GUTTERS, FLASHING. Copper is the most enduring of all the commonly used sheet metals when exposed to the elements. In addition, the Revere Research Laboratories have developed engineered specifications that help you combine quality and economy in every type of sheet metal construction. This data is in the files of most of the leading architectural offices.

PIPING. Used as piping for heating systems, water supply and waste lines, Revere Copper Water Tube provides a lifetime of trouble-free service. The interiors of this tube do not become clogged by corrosion; and remaining permanently smooth, they reduce frictional resistance to a minimum. In addition, because Revere Copper Water Tube bends readily, and joints are made quickly with solder fittings, this tube is easier to install.

ORNAMENTAL AND STRUCTURAL METALS. You can achieve unusual decorative effects—combined with sound, lasting construction—through the use of Revere panel sheets and extruded shapes. Revere panel sheets are made in architectural bronze, nickel silver and copper; extruded shapes in architectural bronze, nickel silver and aluminum.

The products above and other Revere products of copper, brass and bronze are available from leading distributors throughout the United States. A Revere Technical Advisor will always be glad to consult with you, without obligation.

REVERE COPPER AND BRASS INCORPORATED
Founded by Paul Revere in 1801
230 Park Avenue, New York 17, New York

selected details

Plan thru Mullion
1/2" SCALE

AIR REDUCTION SALES CO., INC.
New Providence, New Jersey

WIGTON-ABBOTT CORP., Engineers
BOLTON, MARTIN & WHITE, Consulting Architects

SEPTMBER, 1949
School Windows That Improve Child Health

Every architect knows the comfort of raising his eyes from the drawing board to a long view through a clear window.

Now, thoughtful investigators of child health have included among the necessities of interior design, if a school is to produce a superior health record for its pupils, (1) opportunity for the restfulness obtained by changing to distant vision along with natural daylighting (2) good handling of the brightness pattern and (3) well controlled natural ventilation.

Hope's Steel Windows give you all these advantages at the start, when you are planning a layout of school room fenestration. Always of interest to school administrators, also, is the fact that steel school windows cost less than any other windows giving the same benefits.

The experience of Hope's Engineering Department, who have taken part in hundreds of successful school window installations, is at your service. You are earnestly invited to write for Hope's Catalog.
AUTOMOBILE SHOWROOM: sloping window

"L" MOTORS
New York, New York

MORRIS LAPIDUS
Architect

SEPTMBER, 1949 97
Steel pipe is first choice

for the proud public buildings of the nation

Nowhere in the world can be found so many fine public buildings as in the United States. Symbolized by a state capitol, a public auditorium, a civic center, or a memorial to a cherished ideal, these buildings attest the perfection to which our architects, engineers, and building contractors have attained.

The modern dreamers in stone, steel, and concrete have incorporated new functional concepts and utilized new and better materials to achieve results believed impossible a half century ago. Of these none has contributed more to utilitarian values than steel pipe...for heating, plumbing, air conditioning, electrical transmission, and similar services.

Steel pipe is durable, adaptable, serviceable and economical. Because it combines all of these desirable characteristics, technical men who judge materials in terms of these qualities have made steel pipe their predominant choice.

Yes, of all the pipe used for plumbing and heating purposes—steel pipe is first choice!

Ask for your copy of the interesting story "Pipe in American Life."

COMMITTEE ON STEEL PIPE RESEARCH OF AMERICAN IRON AND STEEL INSTITUTE

350 Fifth Avenue
New York 7, N. Y.
INTERMEDIATE PROJECTED—1. Built-in weathering is integral with window sections. 2. When glazed, all glass is in same plane. 3. Frame section has 1/2" return on inside, permitting plastering and still providing space for attaching blinds and shades. 4. Extra strong—frame section is 1 1/2" deep and ventilator section is 1 3/4" deep. 5. Treated with Bonderite process.

ARCHITECTURAL PROJECTED—1. Same type of controlled ventilation as with Intermediate but more economical. 2. Frame section has similar 1/2" return on inside. This provides space for attaching window accessories. 3. Extra strength provided in frame—1 3/4" deep. Ventilator is even heavier—1 1/2" deep. 4. Treated with Bonderite process.
the Best Lighting for Schools

Consider the superiority of natural daylight... Our bodies and minds, in the main, evolved outdoors. In the recent dim past, man came inside. But since the eye evolved in natural daylight, it is just common sense that vision is best under daylight environment.

Investigate the availability of daylight in your area... It is important to know the amount of available daylight so you can plan for adequate illumination. The United States Weather Bureau records provide information showing the average number of clear days anywhere in the United States. For complete information, consult the United States Weather Bureau.

Explore the importance of distant vision... Medical science recognizes the importance of distant vision. Strain on the body, eyes and the mind is relieved through looking at distant views. Consult medical authorities for additional information on this important point.

Find out what type of window lets in the most daylight—assures distant vision... As a preliminary aid, consider these facts... steel windows admit more daylight than any other type of window design since they employ clear glass. Full height steel windows also provide more distant vision than any other window opening. There is less obstruction since frames and muntins are slender.

Determine what type of window gives the best ventilation... Steel windows provide more controlled ventilation than any other type of window opening. In fact, up to 100%. Stray breezes are captured and distributed all over the room. Drafts are controlled. Steel windows assure the greatest amount of life-giving pure fresh air.

Compare costs... The cost of steel window daylighting will vary according to localities. But, broadly speaking, comparisons show other types of window design cost from 10% to 200% more. In addition, the cost of artificial illumination is reduced and mechanical ventilation is eliminated.

Write for Ceco data booklet... Consider the 6 points above on illuminating schoolrooms. Then, for complete data, write Ceco for FREE descriptive booklet entitled "Better Environment Through Daylighting in Schools." The booklet covers other important subjects such as—Light Reflectance, Seating Arrangement, Light Control, Building Positioning.

CECO STEEL PRODUCTS CORPORATION
General Offices: 5601 West 26th Street, Chicago 50, Illinois
Offices, warehouses and fabricating plants in principal cities

CECO STEEL makes the big difference

Partial List of Ceca Products
METAL RESIDENCE CASEMENTS • INDUSTRIAL WINDOWS AND DOORS
• METAL FRAME SCREENS • ALUMINUM FRAME STORM WINDOWS •
ALUMINUM COMBINATION STORM WINDOW AND SCREEN UNITS
• METAL LATH AND ACCESSORIES • STEELDOORS • REINFORCING
BARS • STEEL JOISTS AND ROOF DECK • HIGHWAY PRODUCTS •
CORRUGATED ROOFING • ATTIC AND ROOF VENTILATORS
the architect and planning

A meeting of the Architectural Association in London last March examined the status of planning very thoroughly. (Architectural Association Journal, April 1949). The discussion was limited to physical planning, for they all admitted that economic planning above, say, the county level is beyond the province of the architect. They have a tremendous amount of town and country planning to do in England and they know by now that the routine of surveys and colored maps isn’t enough. There must be a three-dimensional grasp that only the architect, as a rule, brings to the problem, and every physical planning problem is the province of the architect. His training in control of space makes him the one professional equipped to give shape to the solutions worked out by the planning team.

As always in these British meetings and the reporting of them, the discussion developed ideas that were only suggested by the speaker. The relationship of professionals to public in the carrying out of the Town and Country Planning Act was explored. The greatest difficulty yet to be solved is education—especially education of the public, who can demand the best and support progressive programs only if they know the score.

Of course, it’s the same in this country. Techniques can’t thrive if they are isolated and technicians can’t put their ideas across unless they make sense to the customers.

data for hospital planning

Everybody is getting into the act—the Hospital Survey and Construction Act, that is. Latest is General Electric with the Hospital Handbook For Architects and Engineers (General Electric Co., Schenectady, N. Y. About 270 pp., color-tab index. $19.75). It’s a big, handsome volume compiled by the various G-E departments and affiliates in 10 separate sections, each offering advice and promoting its own line of products and (most useful of all) listing all the local field representatives with whom the architects and engineers can work. Biggest and best is the X-ray section. A good general discussion of a typical X-ray department and each room in it includes detailed discussions and illustrations of each item of equipment, together with the necessary wiring and X-ray protection. The plans suggested by the U.S. Public Health Service Division of Hospital Facilities for various types of health centers and hospitals are all reproduced with the appropriate G-E X-ray equipment and wiring added in color. The illustrations, both photos and dimensioned line cuts, are very complete and clear. The section ends with a check-list review of factors which affect plans for the hospital

 technical press

BY JOHN RANNELLS

THE BARCOL OVERdoor

FOR PUBLIC GARAGE SERVICE ENTRANCES

Barcol OVERdoors and Barber-Colman Electric Door Operators are the ideal combination for openings in public garages, automobile agencies, service stations, and other establishments where traffic is heavy. They operate easily, quickly, efficiently—provide convenience and valuable time-saving both to garagemen and their customers.

Only Barcol OVERdoors offer all these distinctive features: exclusive cam-controlled action for weathertight closing without sticking or binding; tailored twin-torsion springs for safe, accurate counterbalancing; and continuous vertical track brackets for strength and durability.

Couple these features with quality construction and guaranteed installation by factory-trained representatives and you have doors that give dependable, trouble-free service at lowest maintenance cost. Barcol OVERdoors are adaptable to existing buildings as well as new construction. Consult your Barcol representative for complete details.

Consult classified directory for local Barcol representatives.

FACTORY-TRAINED SALES and SERVICE REPRESENTATIVES in PRINCIPAL CITIES

BARBER-COLMAN COMPANY
100 MILL ST. • ROCKFORD, ILLINOIS

(Continued on page 104)
NOW...a doorway that has everything!

EVERYTHING IN ONE PACKAGE

Pittsburgh Doorways reach the job, ready for bolting into the opening. Twelve standard designs are available which, singly or in combination, will fit any job.

STURDY, HANDSOME FRAME

Fabricated of extra-heavy extruded aluminum, highly polished and anodized. It's reinforced with steel channel and tie rods, as partially shown here.

PITTCO CHECKING FLOOR HINGE

Only 61/4" x 61/4", it is an engineering marvel. Has positive door-speed control, separate checking control, built-in hold-open feature. It's sealed in oil for life.

WITH the new Pittsburgh Doorway you don't even need a screw driver; there's no drilling of holes in the frame. And there's nothing to assemble. You just unpack the frame, bolt it into the building opening, and hang the massive Herculite Tempered Plate Glass Doors—for which the frame is especially engineered. Everything is in one "package"—the famous Pittco Checking Floor Hinge, moldings for transom glass, supports for sidelights, strikes for locks, sockets for bolts, everything! No time-consuming calculations. No worries about setting and fitting. But this is only a small part of the story. For complete information, why not fill in and return the coupon? There's no obligation.

Pittsburgh
DOORWAYS

PAINTS · GLASS · CHEMICALS · BRUSHES · PLASTICS

PITTSBURGH PLATE GLASS COMPANY

Pittsburgh Plate Glass Company
2284-9 Grant Building, Pittsburgh 19, Pa.
Without obligation on my part, please send me a FREE copy of your booklet on Pittsburgh Doorways.

Name:__________________________
Address:________________________
City:__________________________State:________________________

SEPTEMBER, 1949 103
X-ray department, rounding out a very satisfactory handbook on this subject. The other sections do not fare so well. Hotpoint, Inc., for example, is content with listing and illustrating its products which fit into the U.S.P.H.S. typical kitchen plans; there is no information on kitchen planning generally, except a vague discussion and no information on kitchen equipment except Hotpoint products. For refrigerators or freezers one must turn to the  

Appliances and Merchandise Department (up to 10 cu. ft.) or to the Air Conditioning Department for large reach-in boxes or walk-in refrigerators. The discussion of air conditioning is very good. The Apparatus Department does a sound job presenting the power distribution picture and adds complete specifications for use. Secondary distribution systems are covered by a G-E affiliate—the Trumbull Electric Manufacturing Co., while the Construction Materials Department covers wiring systems and equipment very briefly. Telechron, Inc., has a separate section, as has the Chemical Department, which boasts but one product—Textolite—suitable for counter tops, push plates, and the like.

The Lamp Department, one of G-E's most important and most influential, has a big section on lighting but as they have no fixtures for sale they cover by furnishing a Buyer's Guide of available fixtures as a supplement. All in all there's a great deal of useful data in this collection, pointed specially toward the increase in building, which will be stimulated by the Hospital Survey and Construction Act. But it does not add up to a needed book. That would hardly be possible within the departmental format chosen for the presentation of the material. Goodness knows why they chose such an unwieldy format in the first place!

Similar to the G-E Handbook in smaller scope, is Planning the Hospital Laundry, by the Laundry Division of the U.S. Hoffman Machinery Co. It is similar, really, to the G-E X-ray section in that it covers its own subject completely, showing the equipment for each suggested U.S.P.H.S. layout and details of the equipment (U.S. Hoffman Machinery Co., 105 Fourth Ave., New York, N. Y. 30 pp., paper-bound, free).

The Eastman Kodak Co., of Rochester, N. Y., has contributed the same sort of thing in "Planning the Medical Photographic Department," reprinted from the Nov. 3, 1948 Medical Radiography and Photography. This material is more generally useful in that the needs are given in terms of space for various functions and equipment and number of workers so that the architect can plan intelligently himself without quite so much emphasis on stock plans. The stock plans given in this article are very good, however. They are available on separate sheets at eighth-scale to aid in determining space requirements.

It must be quite a puzzle to the big manufacturers—how to apportion their technical advertising outlay. The obvious first concern, after keeping their names on constant display, must be to put material in the hands of architects and engineers and administrators which will be valued for its usefulness and kept at hand. Presumably, everybody has Sweet's, plus odd catalogs, so the next step is toward further education of the professionals through general articles and manuals and handbooks, with benefit to all concerned. This idea is very well put in the first page of the X-ray section of the Hospital Hand-Book: "Admittedly, the General Electric X-ray Corporation has a selfish interest in seeing that the equipment which it sponsors is properly installed, so that the most satisfactory service will be obtained." That's constructive promotion. The news release for the handbook states that the book is a "nonpromotional text." That's a puzzle.
For your Next Job Specify...

WELDWOOD FIRE DOORS

the ONLY wood-faced fire doors

that bear this label!

ONLY WELDWOOD FIRE

DOORS GIVE YOU

THESE 8 UNIQUE ADVANTAGES

1. Increased Safety
   The only wood-faced fire door which bears
   the Underwriters' label. All Weldwood
   Fire Doors are approved for class B
   openings.

2. Beauty
   Because of their beautiful wood faces,
   Weldwood Fire Doors harmonize perfectly
   with any decorative scheme.

3. Durability
   The Underwriters' Laboratories tested a
   Weldwood Fire Door for durability by
   mechanically opening and closing it
   200,000 times. At the end of the test, the
   door was unaffected and still opened and
   closed perfectly.

4. Dimensional Stability
   Weldwood Fire Doors are so dimensionally
   stable that we guarantee them against
   sticking in summer or rattling in winter
   due to any dimensional changes in the door.

5. Light Weight
   At last...a real fire door that is not heavy
   or unwieldy. A standard 3 x 7 door weighs
   approximately 80 lbs.

6. Vermin and Decay Proof
   The mineral composition core used in
   Weldwood Fire Doors is permanently
   resistant to fungus, decay, and termites.

7. High Insulating Qualities
   Another noteworthy characteristic of the
   core is its high insulating value over a
   wide range of temperatures. It is efficient
   against temperatures from freezing up to
   that of superheated steam.

8. Moderate Cost
   Investigate these doors for use on your
   next job. You will be pleasantly sur-
   prised at the low initial cost, and the
   minimum of maintenance required.

United States Plywood Corporation

55 West 44th Street, New York 18, N. Y.

Distributing units in Albany, Baltimore, Boston, Brooklyn, Buffalo, Chicago, Cincinnati, Cleveland, Detroit, Fresno, Glendale, East Hartford, High Point, Indianapolis, Los Angeles, Milwaukee, Newark, New Hyde Park, N. Y., New York, Oakland, Philadelphia, Pittsburgh, Portland, Ore., Richmond, Rochester, San Francisco, Seattle, St. Paul, Toronto. Also

U.S.-Mengel Plywoods, Inc., distributing units in Atlanta, Birmingham, Dallas, Houston, Jacksonville, Kansas City, Louisville, New Orleans, San Antonio, St. Louis, Tampa.

In Canada: United States Plywood of Canada, Limited, Toronto. Send

inquiries to nearest point.

NOW... plan on permanent fire protection plus the rich beauty of real wood! Here at last is an absolutely fire-safe door that is also a decorator's delight.

Thanks to the handsome hardwood facing that distinguishes this unique Weldwood door, you can plan on bringing extra beauty to every room. Yes, these beautiful new Weldwood Doors help you to carry your decorative theme throughout the building

...while giving you lasting fireproof construction!

Write today for complete information. You'll also want full details about the Weldwood Standard Flush Veneer Door with

incombustible mineral core for use where a labeled door is not required.

UNITED STATES PLYWOOD CORPORATION

55 West 44th Street, New York 18, N. Y.
Council on Schoolhouse Construction have influenced school design for about 20 years. In some states these standards have been incorporated into legal regulations or required standards of design. Because of the authority exercised by this publication, most of the architects who do a considerable volume of school work, until recently, awaited this annual appearance with some apprehension. The 1946 tentative Guide embodied a changed philosophy compared to previous issues in regard to the establishment of standards, and this year's Guide continues with the same point of view. The current publication will deserve a warm welcome by forward-looking school architects.

The Council's older Guides tended to the practice of establishing dimensional and area standards with recommendations as to window sizes, building orientation, and other absolute and inflexible prescriptions for school designers. Improvement in quality and performance of school plants, and experimentation in design were not encouraged by such an approach to school planning problems.

This year's Guide and the immediately preceding 1946 Guide have adopted an outlook which will be helpful to creative architects. The emphasis is on objectives and performance standards which are analyzed competently. The book rightly assumes, I think, that when problems are completely understood, the first step towards a high quality solution has been taken. The Guide does not confine itself exclusively to building design matters but deals with such questions as procedures, policies, the selection of an architect, and school plant safety. Architects will be glad to know that full recognition is given to the value of competent architectural service.

It is difficult when writing such a Guide to maintain a general approach, to state problems and objectives, and yet to sustain strength and conviction in recommendations without becoming so unfortunately specific as to deter original thinking. For example, the article on "Visual Comfort and Efficiency" of Chapter VIII does this admirably. This subject is discussed so as to define clearly what constitutes a well-lighted room without once recommending a specific orientation, window arrangement, ceiling height, or lighting fixture. It invites the architect to find his own right solution. No architect who designs public school buildings should be without this year's Guide.


STAND-BY REISSUED


(Continued on page 108)
Today's trend is toward color in the kitchen—and Curtis cabinets make it easy for owners to have a color scheme they want, and to change it at will. Curtis wood cabinets have satin-smooth surfaces that take paint finishes readily—and hold them lastingly.

Freedom unlimited! That's what Curtis sectional kitchen units mean in planning any size or shape of kitchen for step-saving convenience. What's more, you can plan exactly the color scheme that suits the owner's taste. For these wood cabinets come prime coated in white—one finish coat of any desired color completes their decoration and satisfies the housewife.

Curtis kitchen units are made like fine furniture—for durability and easy maintenance. They are quickly and easily installed, not only in homes, but in institutional and commercial buildings as well—schools, churches, hospitals, hotels, restaurants, etc. Wherever storage space is required, you'll find the problem solved with Curtis cabinets.

Curtis kitchen units are readily available—no waiting, no delay. See your Curtis Woodwork dealer and he will schedule delivery as desired and give you complete price information. We'll gladly tell you more about Curtis cabinets—just mail the coupon.

CURTIS COMPANIES SERVICE BUREAU
PA-9K Curtis Building, Clinton, Iowa
Gentlemen:
Please send me your Curtis Kitchen Planning Book
Name: __________________________
Address: _________________________
City: _____________________________ State: __________
I am ( ) Architect, ( ) Contractor, ( ) Prospective Home Builder, ( ) Student.
(Please check.)

When in New York, visit the Curtis Woodwork Display at Architects' Samples Corporation, 101 Park Avenue

SEPTEMBER, 1949 107
Reviews
(Continued from page 106)

WIN. Goldsmith, American Institute of Architects, 1741 New York Ave., N.W., Washington 6, D.C. 134 pp. $5.00

Within the last few months, this is the second book in the specification field to be published by the American Institute of Architects. The Institute is to be lauded for its continuing efforts to improve specifications. The first edition of the book was published in 1935. It enjoyed wide circulation then and in the ensuing years, as will undoubtedly this revised second edition. Professor Goldsmith, with pedantic skill, hews unwaveringly to the "how to write architectural specifications" theme.

The book contains 20 informative chapters which analyze every detailed facet of the mechanics of specification writing. Chapter titles include, among others, such subjects as Qualifications for Specification Writing, Preparatory Systems, Organization by Trade Sections, Arrangement of Subheads and Subject Matter, Index System, How to Write Specification Clauses, General Conditions, Pertinent Points, Streamlined Specifications.

The student will enjoy its orderly presentation, as will any practicing architect.

B.J.S.

BUILDING WITH IRON

Until the publication of Sigfried Giedion's Space, Time, and Architecture in 1941, buildings of the Victorian Period were usually dismissed, in enlightened circles, with humorous allusions to jigsaw art. Of late years, however, appreciation of that remarkable age and its structures has been growing. The handsome new Gloag and Bridgewater volume adds a great deal to the historical and critical writing on the subject.

The authors trace the use of iron from prehistoric times. Of relatively recent record, cast iron in England can be first dated from early grave slabs and firebacks of that material. Modern foundry practice began in the early 18th century when Quaker Abraham Darby of Coalbrookdale first smelted with coke rather than charcoal. As the skill of the ironmakers developed, the quality of the product improved, the price came down, and use increased correspondingly. The first monument of the founder's art was a cast-iron bridge designed by a Shrewsbury architect named Pritchard and erected over the Severn River in 1779. Major employment in buildings began in 1801 with a Manchester cotton mill, seven stories high, which had interior cast-iron columns and beams throughout. It was widely copied as a model and, as technical progress was made in the study of beam sections, the design was gradually improved.

The decorative possibilities of molded iron also were appreciated, and it was used for railings as early as the great enclosure around St. Paul's Cathedral in 1714 (although not approved by Architect Wren). James Gibbs, however, found it suitable for use on some of his important works, as did Robert Adam. The Royal Pavilion by John Nash, on the shore at Brighton, built largely of cast iron in a spectacular Oriental manner, did much to prepare public taste for the stylish decorators of the Victorian Period. The middle of the century saw the boldest develop-

When COLOR is an Integral Part of Your Design...

Specify CABOT'S COLLOPAKES! These paints offer a wide variety of fresh, attractive colors among which you will find the suitable shade for any design in any site.

ARCHITECTS: Edelbaum & Webster, New York

Many of Cabot's colors, such as Longfellow Yellow, Williamsburg Blue, Haddam Barn Red and Moravian Gray are unique and available from no other source. Because no fillers or adulterants are used the colors remain true—even after years of exposure.

Cabot's Collopaakes are made by the patented Collopaaking process which gives them extraordinary durability. Their porcelain-smooth surface does not collect dirt...resists the elements...keeps its "just-painted" look for years.

Write today for Collopaakes color card and complete information. Samuel Cabot, Inc., 921 Oliver Building, Boston 9, Mass.

CABOT'S Collopaakes!

(Continued on page 110)
Embody the 
BEAUTY OF WOOD 
without the HAZARD!

FIREPROOFED 
with PROTEXOL

Unmatched as an architectural medium for beauty — wood offers even greater advantages when impregnated by the approved *Protexol process. The natural charm and greater attractiveness of wood . . . combined with the safety and strength added by the Protexol treatment creates an entirely new concept of wood as a construction material.

- **FIREPROOFED** . . . Wood can't burn when Protexol-impregnated . . . eliminating fire hazards . . . assuring safer, better construction.

- **ROTPROOFED** . . . Protexol-impregnated wood is protected against decay, mold, mildew and stain.

- **VERMINPROOFED** . . . Prevention of termites, powder post beetles, wood borers and other vermin helps wood retain structural strength and beauty.

- **DIMENSION-CONTROLLED** . . . Protexol-impregnation reduces shrinkage and warping to a minimum, stops grain raising and checking.

Write for colorful brochure A.I.A. No. 19
19A:33. Covers Fox-Made Wood Fire Door test and approval.

---

Sectional view of the Protexol-impregnated Fox-Made Wood Fire Door, approved for 60 and 90-minute fire exposures by the New York Board of Standards and Appeals, and Factory Mutual Laboratories.

*Accepted by national fire authorities.

FOX BROS. MFG. CO. *75 Years Experience

MANUFACTURERS OF ARCHITECTURAL WOODWORK

Custom-built Millwork

*2700 SIDNEY STREET
ST. LOUIS 4, MO.
WE CHALLENGE YOU
to specify THE DOOR that assures:

Beauty, that's more than superficial,
Endurance, that provides lasting value,
Minimum Maintenance,
+ the balance feature that lets traffic through QUICKLY

You have all this in Ellison, the BALANCED DOOR

ELLISON BRONZE CO.
Jamestown, New York
representatives in principal cities

ELEPHANT'S TRUNK

This reviewer has had the same sensation reading Contemporary Danish Architecture as one of the legendary five men describing an elephant. Architecturally, this is the trunk. It is a good beginning on what obviously is a large subject. Hiort confines himself to discussing nine building types that illustrate Danish architectural trends during the last 15 years. Because custom, war, and climatic limitations have had a retarding influence, the architecture shown is conservative. The author succeeds in making the reader want to know more about Danish architecture and see more examples of it, for his treatment almost exclusively pertains to materials: the traditional brick and the more modern reinforced concrete. Heating, construction details, furnishings, and other factors are purposely omitted for brevity. Perhaps the best, certainly the most interesting, chapter is the short, historical synopsis on brick construction.

HELEN MERCER

INSULATION

The trade associations seem to put out the best literature. The individual manufacturers are naturally pushing to sell their stuff quick but the association can take a steadier view, giving information and service and building up confidence and good will among the customers.

This manual is a model of clear information—the hows and whys (including the economics so important to engineers) of high-temperature insulation. Installation and maintenance practice is illustrated by clear line cuts and photographs of all sorts of jobs—a
WHY SHOULD INSULATION
HAVE AN INTEGRAL CONTINUOUS
VAPOR BARRIER?

Condensing vapor has always been a problem in building. But in today's tighter-built houses—with such modern improvements as air conditioning and humidifying equipment . . . extra bathrooms . . . automatic clothes washers and dryers . . . it is more of a problem than ever! That is why insulated construction must be protected from condensing vapor. Condensation, if it occurs within a wall, may result in wet insulation, reducing its efficiency, and may lead to decay, paint blistering, and other damage.

Balsam-Wool is completely protected from condensing moisture by an integral, continuous vapor barrier. This vapor barrier—the asphalt coated and saturated liner of Balsam-Wool—meets government specifications requiring a barrier on the warm side of the insulation having a permeability not exceeding 1 grain per square foot per hour at a vapor pressure difference through the material of one inch of mercury.

What's more, Balsam-Wool adds an EXTRA safety factor beyond requirements—a tough, cold-side liner which reduces convection through the insulating mat, reduces air infiltration, gives additional support to the mat, and helps protect it against rough handling and the penetration of free water during the construction process.

Years of research and constant testing are behind every Balsam-Wool feature—and no other insulation contains all of them:

- Continuous integral vapor barrier
- Sturdy wind barrier
- Double air spaces
- Special spacer flanges
- Double bonding of mat to liner
- Rot and termite treatment
- Highly fire retardant
- Rigid quality control

Send for Balsam-Wool Application Data Sheets, containing hard-to-get information you'll want for your file. A complete set of these sheets is yours for the asking, mail the coupon today!

Balsam-Wool
SEALED INSULATION
BALSAM-WOOL • Products of Weyerhaeuser • NU-WOOD®

Wood Conversion Company
Dep't. 117-99, First National Bank Building
St. Paul 1, Minnesota

Please send me a set of Balsam-Wool Application Data Sheets

Name.......................................................... Address..........................................................

City.......................................................... State...........................................
good thing for architects to look at, if only to get the picture in their heads that the little dots and fitting symbols on the heating plans may become big fat cylinders and strange bulky shapes taking up a lot of space in the building.

ALUMINUM STRUCTURAL DESIGN
Technical Service, Reynolds Metals Co.,
2500 S. Third St., Louisville 1, Ky.

ABOVE: Maximum ventilating area, 50%. Difficult to open and close. Mechanical ventilation necessary for uniform results.

RIGHT: 100% ventilating area. Natural no-draft ventilation. Easily operated by turning handle on worm- and gear mechanism.

Which Window Provides Better Ventilation...Greater Economy?

Before you approve conventional windows...before you specify expensive ventilating equipment,—investigate Gate City Awning Windows. Their adjustable open-out sash scoop air in on calm days, control it on breezy days.

Air currents flow ceilingward, "scouring out" hot, stagnant air, keeping lower air fresh. Even stormy weather ventilation is practical, thanks to the rain-deflecting sash.

Precision-built at the factory for greatest economy, Gate City Awning Windows are furnished complete (with glass and hardware in place) for simplest, most economical handling and installation. Special glass may be specified to eliminate glare and heat while providing adequate light and ventilation.

Write today for full information. Please address Dept. P.A.9. Our catalog is also in Sweet's.

EXHAUST SYSTEMS

Ordinary ventilation practice doesn't cover the industrial problems of dust and fume removal at all. This book shows how to design, build, or buy exhaust systems for removal of dust, shavings, fumes, etc. The same principles are applied to pneumatic conveying of lightweight bulk materials such as grain. The illustrations are very clear and thorough.

STEEL AND TIMBER

A general text for structural design of buildings and bridges in steel and timber with very completely worked-out examples of a variety of problems. The chief revision in this edition is in the coverage of timber engineering. The authors are dean of the faculty of applied science and engineering, and associate professor of civil engineering at the University of Toronto.

FILM
PIPE LINES

This 32-minute full-color film begins with scenes illustrating the importance of fresh water in the daily life of a typical community; moves into a general discussion of supply and distribution lines; then, more specifically, introduces John Manville's Transite Pipe. Steps in the manufacture of this asbestos-cement pipe and installation features are shown. The film is available to technical societies, organizations, and lay groups.

AWNING WINDOWS BY
Gate City

Offices and Factory: Fort Lauderdale, Florida • Export Sales Representative: Frazier & Company, 50 Church Street, New York 7, U.S.A. • Cable Address: Frazier, N.Y. • Agents in principal cities throughout the world.
Here's a leakproof flashing design that's practical

Base flashing in position with brickwork ready to receive cap flashing.

Cap flashing is made in two halves and may be shop-fabricated.

Cap flashing halves joined in position and showing continuation of brickwork.

Here's a chimney flashing design you will find useful. You may wish to pass it on to your draftsman or keep it in your file for future reference. It's a design that can't leak.

As the illustration indicates, the cap flashing is made in halves which are joined in position by a simple lock seam. Detailed drawings for flashing both center chimneys and outside chimneys are available. We shall be glad to supply them to you on request. Write to The American Brass Company, Waterbury 88, Connecticut. In Canada: Anaconda American Brass, Ltd., New Toronto, Ontario.

you can build it better with Anaconda Copper
Books and Buildings: 1449-1949

100 Great Architectural Books most influential in shaping the architecture of the Western World, exhibited in the Sterling Memorial Library, Yale University, February 22-March 16, 1949. Selected and arranged by Carroll L. V. Meeks.

A. FIFTEENTH CENTURY

1) Leone Battista Alberti (1404-1472). De Re Aedificatoria Libri Decem, Firenze, 1485 (composed 1449 ff.)


2) Vitruvius, De Architectura Libri Decem, First published in Rome in 1485.

INFRA Insulation
Pleases the Professors

Infra Insulation has had remarkably wide use in buildings of a long list of Colleges, Universities and Engineering Schools. They have access on their own campuses to the finest scientific talent, make thorough tests, base their selection on searching, impartial appraisal. In college after college, in test after test, Infra is selected because Infra’s superior insulating values are so quickly and decisively established.

JUST A FEW COLLEGES WHICH HAVE USED INFRA

Bowdoin College, Brunswick, Maine
Colby College, Waterville, Maine
Culver Military Academy, Culver, Ind.
Harvard University, Cambridge, Mass.
Massachusetts Inst. of Technology
Michigan State, Traverse, Mich.
Princeton University, Princeton, N. J.
Purdue University, Purdue, Ind.
Wells College, Aurora, N. Y.

Infra’s multiple separated aluminum sheets provide 4 reflective spaces and 4 reflective surfaces, each non-condensation-forming. Two sheets of aluminum and the accordant partition block convection currents. Infra’s triangular reflective air spaces and small mass eliminate conduction as a problem.

INFRA C FACTORS AND ROCKWOOL EQUIVALENTS

C.093 Heat Flow Down, equals 6” Rockwool.
C.093 Heat Flow Up, equals 3½” Rockwool.
C.100 Lateral Heat, equals 3 1/3” Rockwool.

Thermal Factors Printed on Every Infra Carton

MANY ACCORDION ALUMINUM & TRIANGULAR REFLECTIVE AIR CELLS

WRITE

Infra for details and FREE COPY of "Bulletin No. 38," issued by the National Housing Agency of the Government, reporting tests of Aluminum Insulation made by the U. S. Bureau of Standards, and dealing principally with the problems of heat transfer and condensation.

Address Dept. PA


also exhibited:

Leonardo Da Vinci (1452-1519). Photograph of model constructed from his manuscripts.


Colonna, Francesco, Hypnerotomachia Poliphili, Venice, 1499

B. SIXTEENTH CENTURY

3) Sebastiano Serlio (1475-1552). Editions exhibited: Regoles Generale de l’archi-
tecture, Book Four, Antwerp, 1542. Books 1-5 (Venice, 1551). Books 3 and 4, To-

4) Giacomo Barozzio called Vignola (1507-1573). Regole dei Cinque Ordini d’Archi-

Regole de Cinque Ordini, Rome, ca 1650.


Babel, (?) Paris, 1767.

Moisy, in Portuguese, Paris, 1885.

Tuckermon, A. L., New York, 1891.


Editions Exhibited:

Le Muet, Amsterdam, 1682.

Ware, (first edition in English by Leoni, 1715) London, 1738.


Gurlitt, Berlin, 1911.

Cabiati, (Milan, 1945).


When Helms Bakeries executives put their okay on the plans for this new plant, they knew from long experience, how well the vast areas of glistening-clean Northern Hard Maple Floors would serve them. They knew that neither nature nor man has yet produced another floor material so nearly perfect. Merchants, manufacturers, school authorities, home owners, by tens of thousands, know this, too. They esteem Northern Hard Maple for its lifetime endurance, its ever-modern beauty, its cheerful brightness, its permanent ease of cleaning and maintenance and the resilience that makes it so pleasant to stand on, walk on, work on, play on. MFMA is Northern Hard Maple Flooring at its splendid best—backed by rigid association grading supervision. It’s plentiful again. Specify it where your judgment dictates, in fullest confidence of quality, economy and delivery-per-schedule. For catalog data, see Sweet’s Arch. 13/g/6—Eng., 4/5/22. Write for latest listing of all the many MFMA-approved floor finishing products and processes.

MAPLE FLOORING MANUFACTURERS ASSOCIATION
Room 383 • 46 Washington Boulevard • OSHKOSH, WISCONSIN
G. SEVENTEENTH CENTURY


 others exhibited:
Giovanni Battista Falda: Li Giardini de Roma . . . 17th cent., Nuremberg [1690].

D. GERMAN BOOKS


 others exhibited:
Marot and others, Suecia Antiqua et Moderna . . . [ca 1700].
Thurah, Vitruvius Danicus, Copenhagen, 1746-49.

E. EIGHTEENTH CENTURY

Types of books included: treatises, pattern-books, travel and garden books.


(Continued on page 118)
You can frequently trace accidents, work spoilage and low production to insufficient ventilation. A large proportion of these problems in industrial buildings can be solved with gravity-type roof ventilators.

Swartwout-Dexter Heat Valve (above) and AIRMOVER (top right) are two of the most successful systems of this type. Scientifically designed to permit upward movement of hot air, smoke and fumes with least resistance, their construction also takes advantage of outside air movement and wind suction effect.

Weatherproof at all times . . . they can be closed when desired. Swartwout Ventilators are used on thousands of factories, foundries, warehouses, etc.

Write for complete ventilator catalog.

The Swartwout Company
18649 Euclid Avenue • Cleveland 12, Ohio

Use Ject-O-Valve for fast power ventilation of “Hot Spots”

Speeds heat and bad air up through roofs with powerful force. Always weatherproof. Patent applied for.

Zone control systems on hot water and steam heating installations require good, remotely-controllable valves for efficient operation. Barber-Colman Motor-Operated Valves have proved ideal for this service in thousands of buildings of all types and sizes. Barber-Colman Valves are ruggedly built for maximum performance with minimum maintenance. They are made in all standard sizes up to 6”, with globe screwed pattern from 3/4” to 4” and globe flanged pattern from 2½” to 6”.

Three types of motor-operators are available, the choice depending on service requirements. Barber-Colman Motor-Operated Valves are delivered completely assembled ready for installation. Motors operate on low voltage and valves may be remotely (and automatically) controlled by any three-wire circuit single-pole double-throw switch or its equivalent, such as a thermostat, pressure switch, or relay. Be sure your files include latest engineering data on these useful, dependable, economical Valves. Consult your Barber-Colman representative for any advice on applications.

Write for Literature

BARBER-COLMAN COMPANY
1230 ROCK STREET • ROCKFORD, ILLINOIS

SEPTEMBER, 1949 117
FLEXWOOD GIVES YOUR CLIENTS...

3 OUTSTANDING ADVANTAGES

- STRIKING DESIGN
You have a whole galaxy of bright ideas right at your pencil's point... when you design with Flexwood.

The fact that this modern material is made from fine veneers of real wood, permanently mounted on strong fabric backing, gives it flexibility... physically and design-wise. Use it on curved surfaces or flat... for traditional or modern motifs. Its unusual versatility makes Flexwood fit. Anywhere!

- EXTRAORDINARY DURABILITY
Flexwood's beauty never grows old. Indeed, like all fine woods, it takes on a rich patina as the years go by.

And keeping Flexwood installations in their rich, glowing, beautiful prime is merely a matter of following an easy, economical maintenance routine that calls for a minimum of care.

- SIMPLE INSTALLATION
Because Flexwood is quickly installed over any smooth, firm surface, you can plan extensive renovation with a minimum of expensive structural changes.

Get full details on Flexwood, and how you can use it to your clients' advantage. Write today for a list of available woods and complete data.

United States Plywood Corporation
Dept F, 55 West 44th Street, New York 18, N. Y.

Flexwood is manufactured and marketed jointly by United States Plywood Corporation and The Mengel Company.

(Continued from page 118)

33) Guarino Guarini (1624-1683): Architettura Civile... Turin, 1737.
35) Batty Langley (1696-1751): Ancient Architecture Restored, and Improved... (London, 1742).
37) Claude Nicholas Ledoux (1736-1806): L'Architecture... Paris, 1806. (Lacking this, Ledoux was represented by Ravel and Moreux, Paris 1943).  
39) Jean Mariette, L'Architecture Francaise... Paris, 1727.
40) Jean Morot, L'Architecture Francaise... Paris, 1727.
42) Jean François de Neufforge (1714-1791): Recueil Elementaire d'Architecture... Paris, 1757-68.
44) Charles Percier (1764-1838) and Pierre François Léonard Fontaine (1762-1853): Palais, Maisons... Paris, 1798.
46) Giovanni Poleni, Marchese, 1683-1761: Memorie Istoriche della Gran Cupola del Tempio Vaticano... Padua, 1748.
49) James Stuart (1713-1788) and Nicholas Revett (1720-1804): The Antiquities of Athens, London, 1762-1830.
51) Isaac Ware (d. 1766): A Complete Body of Architecture... London, 1756. Designs of Inigo Jones and others... (London, 1737).

Johannes Kip (1653-1722) and Leonard Kniff: Britannia Illustrata... London [1709].
George Louis Le Rouge:... Jardins Anglo-Chinois... Paris [1776-87].

(Continued on page 120)
"Such and such a brand... or equal". The term is necessary, sure. But there are so many things about a product...

Take Fenestra Intermediate Steel Windows. Look closely and you'll see that there is not even a hairline crack at frame and vent corner joints. Those corners are mitered, welded and smooth finished, giving the entire window a strength and rigidity hard to "equal". Lift the window and shake it. You'll see.

Notice, too, that weathering baffles are built in... not just "applied". Independent laboratory tests prove Fenestra Intermediate Steel Windows tough to "equal" for minimizing air infiltration.

Specially designed hardware brackets are welded, not screwed, to ventilators. They stay on, tight, for years.

Those are little things. But they add up to better performance, longer. And, naturally, client satisfaction.

Fenestra Windows' larger glass areas invite in extra daylight. Air-deflecting vents bring in draftless ventilation. Designed to modular standards, these beautiful windows can be installed economically as single units or as whole window walls of combined units. Maintenance costs are low. Cleaning and screening are done from inside.

Fenestra Projected and Casement and Combination Windows are going into schools and hospitals all over the country. Commercial buildings. And homes. Sometimes for one or two of their advantages, but mostly for the combination of all their advantages. That combination has no "equal".

See Sweet's Architectural File, Section 16a/13, for full information on types and sizes. Or mail the coupon. For immediate personal service, call your local Fenestra representative.
Protect textured vitreous porcelain finish. Rigid since introducing and pioneering tested materials or showers are available Here is WHS IntG. a modest basement clean-up in homes your yo.o Aohry bonderized, answer construction repair, to C0., cabinet shower are for and for more bathroom facilities in homes of every size and price class. Leakproof Weisway Cabinet Showers are available in models suitable for finest master bathrooms or a modest basement clean-up room. All are precision-built of service-tested materials to the high quality standard Weisway has maintained since introducing and pioneering the cabinet shower 27 years ago! Rigid metal construction with beautiful and durable baked enamel finish on bonderized, galvanized surface. Foot-grip, No-slip floor of textured vitreous porcelain enamel is safe and sanitary.

Protect your reputation—assure your clients' satisfaction—specify Weisway Quality Cabinet Showers. Write today for specification details.

HENRY WEIS MFG. CO., INC., 921 WEISWAY BLDG., ELKHART, IND.

Reviews

(Continued from page 118)

William Salmon (fl. 1745): Palladio Lon-

F. NINETEENTH CENTURY
53) William E. Bell: Carpentry Made Easy . . , Philadelphia [1858].
54) Asher Benjamin (1773-1845): The American Builder's Companion . . , Charleston,
55) Owen Biddle, (1774-1806): The Young Carpenter's Assistant . . , Philadelphia,
57) Luigi Canina (1795-1856): L'Architettura Antica . . , 1830-44.
64) Sir Ebenezer Howard (1850-1928): To-
morrow, London, 1898.
65) Heinrich Huebsch (1795-1863): Die Alth-
christlichen Kirchen . . , Carlshruhe, 1862-63.
68) Paul, Marie Leterouilly (1795-1855): Edi-
fices de Rome Moderne . . , Paris, 1840-
69) John Claudius Loudon (1783-1843): An Encyclopedia of Cottage, Farm, and Villa Architecture . . , (Second edition) Lon-
don, 1835.
70) Auguste Grandjean de Montigny (1776-
71) Peter Nicholson (1765-1844): The Car-

(Continued on page 122)
Here's Why It Pays To Specify

Pittsburgh Steeltex Lath For Plaster

You get low maintenance and high fire protection in your buildings with Pittsburgh Steeltex Lath for Plaster. This combination of galvanized welded wire mesh and absorbent backing makes possible positive embedment of the wire mesh and provides maximum reinforcement and protection against plaster cracks. Also this reinforcement has earned high fire ratings for Steeltex including Underwriters' Laboratories, Inc. test R-2258.

In addition Steeltex provides a rigid troweling surface which speeds its application and saves plaster. For better plaster construction see our catalog in Sweet's or write for Catalog D.S. 130 to Dept. PA, Pittsburgh Steel Products Company, Grant Building, Pittsburgh 30, Pennsylvania.

PITTSBURGH STEEL PRODUCTS COMPANY
A Subsidiary of Pittsburgh Steel Company
Pittsburgh, Pa.
UNISTRUT
all purpose metal framing-

NEW IDEA BOOK
FOR ARCHITECTS,
ENGINEERS AND
CONTRACTORS!

FREE ON
REQUEST

SIMPLE AND
COMPLETE,
EASY TO USE

SHOWS DETAILS OF
PRODUCT AND
APPLICATIONS...
HOW TO SPECIFY

THE MOST PRACTICAL
AND USEFUL IDEA BOOK
YOU'VE EVER PUT TO WORK!

Here are 24 pages packed with pictures, data and
detailed information on how to build frames,
hangers and supports for electrical, plumbing,
heating and air conditioning equipment of all
kinds, the fast, easy economical Unistrut way.

Write for your copy of Catalog 500—
fill in coupon and mail today!

DEPT. 62
UNISTRUT PRODUCTS COMPANY

Please send me your new Unistrut Catalog No. 500,
without obligation.

Name

Company

Address

City Zone State

U. S. Patent Numbers
2327587  2363382
2329815  2380379
2345650  2405631

Representatives in
Principal Cities

UNISTRUT
METAL FRAMING

Reviews

(Continued from page 120)


74) The Stones of Venice, New York, 1851.

75) Karl Friedrich Schinkel (1781-1841): Sammlung Architektonischer Entwürfe... (Berlin, 1829-35).


80) Gervase Wheeler: Homes for the People... New York, 1855.

also exhibited:


Orson Squire Fowler (1809-1887): A Home for All... (Second edition) New York, 1854.


Thomas F. Hunt: Architetturo Campestre... in the Modern or Italian Style, London, 1827.


Charles Percier (1764-1838) and Pierre François Léonard Fontaine (1762-1853): Recueil de Décorations Intérieures... Paris, 1812.

Samuel Sloan (1815-1884): The Model Architect... Philadelphia [c. 1852].

Austin A. Turner: Villas on the Hudson... New York, 1860.

G. THE ARCHITECTURAL MAGAZINES

During the nineteenth century the professional magazines gradually assumed some of the influential role hitherto exercised by books. The following list is selective:


(Continued on page 124)
Industry needs more low-cost plants like this!

and the industrial architect can serve more clients

—by planning new construction around STANDARD BUILDINGS by LURIA

Industrial housing needs are greater today than ever before. New industries want to build, old ones want to expand or decentralize. Nearly all are following the current trend to one-story buildings—and nearly all are faced with the problem of high building costs.

For a practical solution to this problem, more and more architects are designing around Standard Buildings by Luria. These permanent, one-story structures have saved many companies up to 30% on their building costs. Moreover, they are easy to erect, economical to maintain, and available now!

Far from limiting the imagination of the architect, Luria buildings actually create new opportunities for design, and widen the circle of his prospective clients. For here is a new and flexible medium to work with, offering the architect a wide choice of collateral materials, optional features and multiple arrangements.

And Luria buildings are by no means confined to industry. Shopping centers, schools, bus terminals, churches—these are just a few of the hundreds of applications where Luria buildings offer all the cost-saving advantages of standardization, yet give the widest possible architectural freedom. For information on the complete Luria line, send for our new, 20-page catalog.
Two jobs finished for the work of one... and both done right. Perfect window operation and better weather protection in one piece of equipment. Entirely eliminates pulleys, cords, weights and box frames. Master No-Draft Sash Balance—permanent, time-proven and trouble-free—saves labor, time and money. Can be installed quickly and easily. This is the modern way to counterbalance and weatherstrip all double hung windows—old or new.

Acting as a perfect weatherstripping for both sides of a window, Master No-Draft Sash Balance will automatically adjust itself to any amount of shrinkage or expansion in the wood.

The unit is made of highly tempered, rust-proof metal for long enduring service. Correctly tensioned springs give upper and lower sash perfect balance and easy fingertip operation.

Runways are completely metal covered and require no painting. (of course, cross members should be installed). Double contact prevents any rattle when windows are open.

The Master No-Draft Sash Balance gives a neater appearance to all windows and makes a more weather-tight window. Nothing to wear out or cause trouble.

SEE OUR CATALOG IN SWEET'S 1/2 A

MASTER METAL STRIP, INC.
1715 N. Kilbourn Avenue
Chicago 39, Illinois

MASTER NO-DRAFT SASH BALANCE
Please send me, without obligation, complete information about Master No-Draft Sash Balance.

Please send detailed literature at once.

Name
Title
Address
City
Zone
State

Reviews

(Continued from page 122)

84) The Architectural Review, volume 1, Boston, 1891.
85) The Architectural Record, volume 1, New York, 1891.
86) Der Architekt, volume 1, Vienna, 1895.
88) The Studio, Special Numbers such as "The Art Revival in Austria", London, 1906.

also exhibited:

H. TWENTIETH CENTURY

91) Hendrik Petrus Berlage (1856- ); Kadanken Uber Stil in der Baukunst, Leipzig, 1905.
94) J. Leslie Martin, Ben Nicholson (1894- ) and N. Gabo: Circle ... , London [1937].
95) McKim (1847-1909), Mead (1846-1928) & White (1853-1906): A Monograph of the Work of McKim, Mead & White ... New York (c1914-15).
99) Frank Lloyd Wright (1869- ); Ausgefuhrte Bauten und Entwürfe, Berlin (1910).
100) ... Modern Architecture ... , Princeton, 1931.

For aid in making the selections and choosing the items to be exhibited I am indebted to: John C. Coolidge, Walter Creese, Agnes Addison Gilchrist, Talbot Hamlin, Henry Russell Hitchcock, Philip Hofer, Fiske Kimball, Richard Krautheimer, Hugh Morrison, James Grote Van Derpoel, Heathcote Wooley.

My colleagues and students and the staff of the Sterling Library have rendered many services, especially Barbara Simson, and Henry Fuller but the responsibility for errors and omissions is mine.

C.L.V.M.
DUNHAM

DIFFERENTIAL HEATING
cuts fuel costs up to 40%

Provides unsurpassed comfort year 'round . . . in any climate

Whether you're planning a multi-story skyscraper . . . or a single-story structure . . . you can assure its operators substantial savings in fuel costs by specifying Dunham Vari-Vac* Heating.

Vari-Vac Heating has proved so successful in installations all over the country that Dunham has guaranteed, in writing, a fuel reduction of 25% for many buildings. Such savings are possible because this system automatically provides the precise amount of heat desired by utilizing a continuous flow of steam at temperatures that vary with the weather.

Job-scaled to Your Size

Dunham engineers recently perfected methods of job-scaling this variable vacuum system to fit any size or type of building . . . regardless of climatic conditions. Seven different systems . . . from a Basic to a Supreme installation . . . are available. A Dunham engineer can quickly tell you which size to specify.

If you wish to recommend a heating system that operates with utmost efficiency year after year . . . if you're interested in the all-important reduction in your client's operating costs . . . investigate Dunham Vari-Vac Heating today.

FREE BOOKLET TELLS ALL

Bulletin 509 gives you complete information for "Job-scaled" Vari-Vac Heating; tells you what it is, how it operates, how it may be fitted exactly to your clients' needs. For your copy, write

C. A. Dunham Co., 400 W. Madison Street, Chicago 6, Ill.
In Canada: C. A. Dunham Co. Ltd., Toronto.
Can a public housing development discriminate against any group in its choice of tenants? An early column of this series (December 1948 P/A) pointed out that a political entity such as the U.S. Government, a state, a city, or the like, could not do so. It further pointed out that courts were prohibited from enforcing racial restrictive covenants. The same column, however, reported a case then pending in a lower court in New York, involving a housing development called Stuyvesant Town and constructed by the Metropolitan Life Insurance Company at a cost of 90 million dollars. There the issue was whether Stuyvesant Town, a private company, could discriminate against Negro tenants although it had been substantially aided by the City and State of New York in the financing of the development. This column pointed out that the case was worth watching on appeal, since it involved an issue of vital importance not only to the public but also to the construction industry and to architects and engineers. The Court of Appeals of New York has, of recent date, handed down its decision on this appeal, and the case may now further determine the issue for the country, since it has been announced that an application will be made to have the case appealed to the U.S. Supreme Court.

By a four to three vote, the highest court in New York State held that a private corporation was free to discriminate in its choice of tenants even though it had been given substantial aid by the government before and during construction.

Stuyvesant Town, which houses 25,000 persons, was constructed in conformity with a contract between the City of New York and the Metropolitan Life Insurance Company, pursuant to a statute of New York State which concerned itself with the clearance, reconstruction, and rehabilitation of sub-standard and insanitary areas. Although Stuyvesant Town is a private corporation, it was built with the aid of the State and City of New York in that the real property upon which the project was built was obtained through the condemnation powers of the City and in that the development is entitled to receive certain tax exemptions.

The chief issue presented was whether the aid given by the State and City of New York to the project made its operation a “governmental” project and thus subject to the “equal protection of the law” provisions of the federal and state Constitutions. The question was put by the court as follows:

"Upon that characteristic of the constitutional inhibition these parties have joined issue. Respondents contend that they are private parties beyond the reach of the constitutional restraint and free to select arbitrarily the tenants

(Continued on page 128)
...Another Roof Insulated with

**ZONOLITE**
Vermiculite Concrete

More Architects Choose Zonolite for Lightness and Fire Protection

This is the age of lightweight aggregates. This new development makes possible countless ways for you to reduce building costs. Today, architects throughout the country are specifying lightweight Zonolite insulating concrete in roofs and floors. And featherweight Zonolite plaster is being chosen for walls, ceilings, and for fireproofing steel columns.

Send today for booklet, "Zonolite Vermiculite Insulation and Lightweight Aggregates." Contains complete data about Zonolite concrete and plaster, including current fire test reports.

Send coupon for full details:

**ZONOLITE COMPANY**
135 S. LaSalle St., Chicago 3, Illinois
Member of Vermiculite Institute

Zonolite Company
Dept. PA-99, 135 S. LaSalle St., Chicago 3, Illinois

Please send at once copy of your booklet, "ZONOLITE INSULATION AND LIGHTWEIGHT AGGREGATES".

Name: ____________________________
Address: __________________________
City: __________________ Zone: ______ State: ______

*Zonolite is the registered trade mark of Zonolite Company*
In new work or remodelling, the new Sylvania Shallow Recessed Troffers give the designer a fluorescent lighting medium that is flexible, truly architectural, easy to install, and economical to maintain. The same basic 4-ft. units may be equipped with one, two, or three 40-watt lamps— as single units or in continuous rows. Fixtures may be open, glass-shielded, or louvered.

The construction shown in the drawing (above) usually consists of 1½" or 3" channels suspended by rods or straps from the structural floor above. The location of these runners should be checked for possible interference with the troffer position. Under the runners at right angles are wired the ¾" furring channels, which should be cut to form an accurate rough opening 13" wide.

The Sylvania Plaster Frame sections may be joined to handle any arrangement of fixtures. Flanged lip of the reflector covers the edge of the opening and is drawn up to a perfect fit by the toggle bolts through the chassis and hanger.

Mail coupon today

SYLVANIA ELECTRIC

FLUORESCENT LAMPS, FIXTURES, WIRING DEVICES, SIGN TUBING; LIGHT BULBS; PHOTOLAMPS; RADIO TUBES; CATHODE RAY TUBES; ELECTRONIC DEVICES

500 Fifth Ave., New York 18, N. Y.

I would like to receive the complete series of Don Graf details on Troffers, as they are issued, for my files.

Name...
Address...
City..... State

Architect  
Engineer

Don Graf’s Details
for new shallow troffers in furred-down plaster ceilings

Plaster frames for individual or continuous troffers provide the support for the hangers that carry the fixture, by bearing on the ends of the furring channels to which they are wired. The plater frames make an accurate opening and the lower flange acts as a screw to insure a full ¾" thickness of either acoustic or regular plaster.

In determining, however, that Stuyvesant Town was free to choose its tenants in any way it saw fit, even if it discriminated, the majority opinion stated:

“Commissioner Robert Moses, active in the plan, stated publicly to the Governor and the Board of Estimate that if any requirement was imposed which deprived the landlord of the right to select its tenants, no private venture would go into the business. Certainly the general impression was created—which Metropolitan did nothing to dispel—that Stuyvesant Town would not rent to Negroes. For that reason and others, unsuccessful attacks were made upon the desirability of the project. In the Board of Estimate at least three votes were cast against approval of the contract on the ground that exclusion on racial grounds would be practiced. The contract was finally approved without any provision regarding discrimination in the selection of tenants...”

“The State of New York has consciously and deliberately refrained from imposing any requirement of non-discrimination upon respondents as a condition to the granting of aid in the rehabilitation of substandard areas. Furthermore, it has deliberately refrained from declaring by legislation that the opportunity to purchase and lease real property without discrimination is a civil right...”

“Tax exemption and power of eminent domain are freely given to many organizations which necessarily limit their benefits to a restricted group. It has not yet been held that the recipients are subject to the restraints of the Fourteenth Amendment...”

“To cite only a few examples: the merchant marine, air carriers, and farmers all receive substantial economic aid from our Federal Government and are subject to varying degrees of control in the public interest. Yet it has never been suggested that...”

(Continued from page 128)
The Complete Morgan Line has a size and style for all basic layouts, for dinettes, or custom arrangements!

1. The entire line is planned for efficiency and utility by home economics experts. Any assembly can be fitted to the job because a most complete range of widths and heights is available, with choice of drawers, or doors and shelves units.

2. Morgan Cabinets are natural wood, re-dried, precision-milled from select stock, adaptable to natural finish, painting, waxing or staining. Newest dullchrome hardware is included.

3. Morgan Cabinets meet home planners' specifications because their versatility makes possible the widest choice of conventional or non-conventional assemblies. Installation is simplified by precision cutting and shaping at the mill.

Write for Planning Books!
Here's how to plan efficient and beautiful kitchens; also how to use Morganwall Cabinets for living walls throughout the home.

MORGAN COMPANY - Oshkosh, Wisconsin
How SPEED helped catch "bugs" in the lacquer

Final finish on pianos mysteriously going "sour." Production halted. Lab needed X-ray diffraction camera to identify impurity. At 9 a.m., 10-lb. camera Air Expressed from 1100 miles away, delivered by 4 p.m. same day. Cost, only $3.58. Company uses Air Express as routine method to get supplies fast, keep inventory low.

That low $3.58 figure was total cost for Air Express and included door-to-door service. That makes the world's fastest shipping method exceptionally convenient, complete, and easy to use.

**FACTS on low Air Express rates**

Package of blueprints (4 lbs.) goes 800 miles for $1.54.
Special tools (21 lbs.) go 600 miles for $3.87.
(All kind of business finds Air Express pays.)

**Only Air Express gives you all these advantages:** Special pick-up and delivery at no extra cost. You get a receipt for every shipment and delivery is proved by signature of consignee. One-carrier responsibility. Assured protection, too—valuation coverage up to $50 without extra charge. Practically no limitation on size or weight. For fast shipping action, phone Air Express Division, Railway Express Agency. And specify "Air Express delivery" on orders.

**it's the law**

(Continued from page 128)

those and similar groups are subject to the restraints upon governmental action embodied in the Fifth Amendment similar to the restrictions of the Fourteenth... "We are agreed that the moral end advanced by appellants cannot justify the means through which it is sought to be attained. Respondents cannot be held to answer for their policy under the equal protection clauses of either Federal or State Constitution. The aid which the State has afforded to respondents and the control to which they are subject are not sufficient to transmute their conduct into State action under the constitutional provisions here in question."

Three of the judges of the New York State Court of Appeals came to an entirely opposite conclusion. The dissenting judges stated that the determination of the majority of the court—that the discrimination practiced had not been aided by the state, nor performed by private persons acting in a governmental capacity—was an argument without real substance. The dissenting judges stated:

"The average citizen, aware of that truth but unschooled in legal niceties, will, I venture, find the decision which the court now makes extremely perplexing. While the Stuyvesant Town housing project was in blueprint and under construction, the public understood, and rightly, that it was an undertaking on which the State and the City of New York had bestowed the blessings and benefits of governmental powers. Now that the development is a reality, the public is told in effect that, because Metropolitan and Stuyvesant are private companies, they are not subject to the equal protection clause, and may, if they choose, discriminate against Negroes in selecting tenants. That conclusion strikes me as totally at odds with common understanding and not less so with the facts and circumstances disclosed by the record."

The minority of the court argued that the concept of "state action" is an expanding one and that the activities of the state and city governments in this case were of such a nature as to bring the operation of this project within the proscription of the federal and state constitutional provisions providing for equal protection under the law stating:

"As long as there is present the basic element, an exertion of governmental power in some form, as long as there is present something 'more' than purely private conduct (see Shelley v. Kraemer, supra, 334 U.S. 1,13), the momentum of the principle carries it into areas once thought to be untouched by its direction."

"... the Fourteenth Amendment is no longer satisfied by a mechanical finding that the discriminatory conduct was not perpetrated by legislative, ju-
This Seal means:
quality materials
strong sections
sound construction
low air infiltration

It's the Seal of
Quality Approved

Aluminum Windows

Today, scores of manufacturers are trying to meet the ever-increasing demand for aluminum windows.

How can you—as an architect, contractor or owner—make sure of getting the finest quality when you specify or buy?

This "Quality-Approved" Seal is your assurance. The manufacturers permitted to use this seal supply aluminum windows that meet the highest standards for quality materials, strength of sections, sound construction, and minimum air infiltration.

Tested by the independent Pittsburgh Testing Laboratory, aluminum windows bearing this seal are good-looking, easy-to-operate... won't stick or rattle... never need painting... give years of trouble-free service.

For your protection, specify and buy aluminum windows with the "Quality-Approved" Seal. Consult Sweet's (Section 16/a) for complete specifications or write for names of manufacturers who can supply you with "Quality-Approved" aluminum windows. Address your request to Dept. P-9.

Aluminum Window Manufacturers Association
209 Cedar Ave., Takoma Park, Washington 12, D.C.
it's the law

(Continued from page 130)

dicial, or executive officials of the State. The concept of 'state action' has been vitalized and expanded; the definition of 'private' conduct in this context has been tightened and restricted. When private individuals or groups move beyond 'matters of merely private concern' and act in 'matters of high public interest,' the test is not, Mr. Justice Cardozo has written, whether they are the representatives of the State in the strict sense in which an agent is the representative of his principal. The test is whether they are to be classified as representatives of the State to such an extent or in such a sense that the great restraints of the Constitution set limits to their action.

The minority of the court further felt that the act of New York City in entering into the contract with the Metropolitan Life Insurance Company, which did not specifically provide against discrimination, constituted governmental participation in illegal discrimination. Before the contract was executed this very question was raised and the intention of Stuyvesant Town not to rent to Negroes was made clear. Therefore, in accepting such a policy, the government, said the minority judges, was actually participating in conduct which is not constitutionally sanctioned.

The minority opinion further referred to the provision of the New York State constitution which provides "no person shall be denied the equal protection of the laws of this state or any subdivision thereof." The dissenting judges argued that this provision did not refer to "state action" and was therefore broader in scope than the Fourteenth Amendment of the Federal Constitution which prohibits discriminatory state action. The minority in its opinion stated:

"It is impossible to perceive or conjecture a benefit from the creation of a private barony in the heart of New York City, free of constitutional safeguards and devoted to undemocratic practices. It is impossible to balance the essence of democracy against fireproof buildings and well-kept lawns. Fortunately, the Constitutions, Federal and State, forbid us putting the former into the judicial scales just as they forbade the City officials from putting it upon the bargaining table. The mandate that there be equal protection of the laws, designed as a basic safe-guard for all, binds us and respondents as well to put an end to this discrimination."

The points of view of the majority and minority opinions are stated at length because they reflect the fundamental disparity, well stated, between the conflicting points of view, that only the United States Supreme Court can determine.

The architect and builder will, even

(Continued on page 134)
Offer Your Clients All Three

for savings up to 52% on annual fuel bills, with modern automatic Anthracite heat

1. Automatic Anthracite Stokers—Installed in an existing boiler or furnace, or in new houses, automatic hard coal stokers deliver plenty of heat quickly... save up to 52% on fuel bills... eliminate fuel worries.

2. The Revolutionary Anthratube—The Anthratube saves on fuel bills... its proved efficiency is over 80%. This scientifically engineered boiler-burner unit, with "Whirling Heat" and other revolutionary features, produces quicker response and superior performance than units using other types of fuel. Fully automatic.

3. Anthra-Flo boiler-burner unit—An entirely new type boiler-burner which features a simple burner mechanism, attached by two bolts with all working parts outside boiler. Fully automatic, coal feeds direct from bin across single stationary perforated plate... ashes discharge by gravity into container within unit. Available for steam, hot-water and warm-air heating systems.

Today you can offer your clients modern automatic heat with Anthracite equipment.

You can show your clients how to save money... as much as $100 to $200 every year and yet have plenty of heat—even heat—and no worry about future supplies or deliveries.

For complete information about (1) New Anthracite Stokers (2) Revolutionary Anthratube or (3) Anthra-Flo boiler-burner unit, just fill in and return the coupon below.

ANTHRACITE INSTITUTE
101 Park Ave., Dept. 9C, New York 17, N. Y.

Please send me more information on
1. New Anthracite Stokers
2. Revolutionary Anthratube
3. Anthra-Flo boiler-burner unit

Name__________________________
Address________________________
City___________________________ Zone______State_____________________

PLEASE PRINT

ANTHRACITE INSTITUTE
101 Park Avenue • New York 17, New York
HOW TO BUILD GOOD WILL
HOW TO INCREASE INCOME

2 TIMELY TIPS...

1. A theatre equipped with modern, flexible lighting facilities can build good will and increase income through added off-hour use. Either by conversion, or by incorporating these facilities in new structures, any movie house can, in its off-hours, double as a place of assembly for a wide variety of community affairs, charity drives, rallies, lodges, clubs, open forums and similar events.

2. Civic meetings, conventions and even church services during off-show hours can add revenue and local stature — especially to theatres in suburbs, neighborhoods and small communities which cannot ordinarily afford civic auditoriums used only a few days a month. The use of theatres for such purposes can prove economical to sponsoring groups and profitable to theatre ownership and management.

POWERSTAT Light Dimming Equipment can help make any theatre suitable for these off-hour uses. With it, stage or houselights can be brightened, blended or dimmed to suit the occasion. It is easy and economical to install and operate. And it's dependable — built to withstand constant use and to give years of trouble-free service.

POWERSTAT Dimmers are designed for manual or motor-driven operation, for direct or remote, pushbutton control.

We'll be glad to send complete information on how POWERSTAT Dimmers can be used in your theatre. Write us today — then consult your illuminating engineer or electrical contractor.

WRITE 4099 DEMERS AVENUE, BRISTOL, CONNECTICUT

THE SUPERIOR ELECTRIC CO. BRISTOL, CONNECTICUT

POWERSTAT VARIABLE TRANSFORMERS • VOLTBOX A-C POWER SUPPLIES • STABILINE VOLTAGE REGULATORS

it's the law

(Continued from page 132)

after such a definitive legal solution, still have to struggle with the sociological problem this decision points up.

The practical implications of this case are not to be dismissed lightly. Congress has just provided for 1.5 billion dollars in loans and grants over the next five years for the rehabilitation of slum and substandard areas and for urban redevelopment. States will adopt or have adopted enabling legislation to take advantage of these subsidies. The right to select tenants without restriction or, contrariwise, the duty not to discriminate in the selection of tenants will have an important effect on the rate of development and the nature of the housing programs in the various states.

In many places the decision in the Stuyvesant Town case, as finally determined by the U. S. Supreme Court, will decisively determine the activities of private companies in redevelopment construction. Certainly no such construction can be planned or executed without a thorough consideration of the problem posed. In the interests of a definitive legal answer to the problem, on a national scale, it is to be hoped that the U. S. Supreme Court will permit an appeal. Only then will the construction industry and its architects know how best to approach the slum clearance and redevelopment housing program that is to be met in the future.

NOTICES

AWARDS
The John Stewardson Memorial Scholarship in Architecture for 1949 has been awarded to JOHN VON GUNTEN, University of Pennsylvania.

EERO SAARINEN has been awarded an honorary master's degree by Yale University.

JULIUS WALTER ROTH, recent graduate of the University of Pennsylvania, has been announced as 1949 recipient of the Henry Gillette Woodman Scholarship, which provides financial assistance for one year of travel in Europe.

EXHIBITION
The work of RICHARD J. NEUTRA is currently on exhibition at the Museu de Arte de Sao Paulo in Brasil. Other shows to be presented this year include Le Corbusier's "New World of Space" exhibit, Roberto Burle-Marx gardens, and a retrospective exhibit of Warchavchik works.
Now, you can protect your clients' homes for life against unsightly discoloration of painted surfaces due to bleeding and corrosion of roof drainage systems. Simply specify Berger Roof Drainage Products, made of Republic ENDURO® Stainless Steel.

A complete Berger ENDURO Roof Drainage System is a real beauty treatment. It is free from patina type corrosion; it resists corrosive atmospheres and does not rust or tarnish. In addition, it is stronger and more attractive than old-style systems, requires little or no maintenance and costs less in the long run. It blends well with every architectural style. And, although paint is not necessary as protection, it may be applied to conform with building decoration.

Berger manufactures a complete line of ENDURO Stainless Steel Drainage Products, including conductor pipe, eaves trough and gutters, plus all necessary fittings and hangers. Any competent sheet metal worker can install them—quickly and easily.

Give your clients the lifetime service and protection they want. Specify Berger Roof Drainage Products of Republic ENDURO Stainless Steel—the metal already proved by more than twenty years' service in buildings of every type.
it promised so well and had solved the major problems of planning and appearance so ably that they wanted to be sure it would be carried out to the best advantage in detail in the final drawings. For example, they cautioned the designers to study carefully the surfacing of the exposed concrete structure; they wondered if the trade entrance might be omitted to advantage, and pointed to the problems this would raise in transition from the entrance terrace to the lower grade; they suggested planting beds under the entrance roof, next the glass wall of the conference room and library; it was felt that the trellis at the entrance might be simplified.

second prize

The Jury was divided in its opinion of this project. Some found it the most stimulating of the winning schemes; others felt that its merits were overshadowed by its faults. To the majority of the Jury it would present an imposing view from the park; spaces created within and without the building seemed to be excellently handled in a creative manner. The long narrow form and the square form complement each other, and the construction indicated is consistent with each of those elements. In the division of columns and window space there is a studied casualness difficult to achieve. The building is raised up from the ground all along its length and actually utilizes the space underneath (it is one of the few plans which arranged for parking cars under cover).

However, there is an arbitrary plan separation in a building which is too small to be split. The inflexible plan, caused by the separation, would make the building function with difficulty. Office spaces are put in three different places, which would complicate day-to-day work, and would make future expansion difficult. In fact, the expansion that is indicated would destroy the very design quality that appealed to the Jury. Lighting would be poor on the ground floor, due to the excessive overhang. Air conditioning is well placed, but is insufficient as shown.

To most, the building had an emotional appeal and a quality of fluidity,
American-Standard Plumbing Fixtures go into another outstanding building! This time it's Southern California's largest office building, the new $11,000,000 home of General Petroleum Corporation in Los Angeles.

In keeping with the scores of engineering and architectural features that make this striking structure one of the nation's most modern, are the hundreds of fine quality American-Standard Plumbing Fixtures throughout the big building.

An interesting feature about this installation is that the fixtures are wall supported. This absence of floor obstructions makes for neater, cleaner rooms...and greatly reduces the important item of rest-room maintenance.

For more than half a century, American-Standard products have been enjoying the unqualified recommendation of leading architects and builders. Not only because of the fine quality and unvarying dependability of the products themselves, but also because the American-Standard line covers heating and plumbing for every type of installation.

Your Heating and Plumbing Contractor will be glad to furnish full information about the complete American-Standard line. American Radiator & Standard Sanitary Corporation, P. O. Box 1226, Pittsburgh 30, Pa.

FENWICK Lavatory, made of genuine vitreous china, fits neatly into one of the coat closets built inside many of the building's modern offices.

GLENCO Water Closets are ideal for public use. Quiet, thorough-flushing, easy-to-clean. Shown in off-the-floor partitioned compartments.

LUCERNE Lavatories and WASHAL Urinals, both of genuine vitreous china, make the Men's Rooms in this new building models of cleanliness...go far towards reducing maintenance time and costs.
A crisp white exterior of stucco adds beauty and distinction to any building. And when it's made with a matrix of Atlas White Cement (or Atlas White Duraplastic*), the result is a distinctive white finish with a durable beauty that smites at time and weather.

Such a matrix in white, or in one of an infinite variety of pigment-based colors, brings out the full beauty of stucco. It also sets off, in contrast or blend, the full color values of pigments used in portland cement paint or of aggregates used in terrazzo and architectural concrete slabs.

Atlas White Cement complies with ASTM and Federal Specifications for portland cement. It has the same advantages when used for concrete and is used in the same way. Concrete made with Atlas White Cement cleans easily. Maintenance costs are low.

For further information on the uses of Atlas White Cement, see SWEET'S Catalog, Section 4B/3 and 13C/5, or write to Atlas White Bureau, Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Bldg., New York 17, New York.

*DURAPLASTIC is the registered trade mark of the air-entraining portland cement made by the Universal Atlas Cement Company.

Left wing addition to house shown above was built with Atlas White Duraplastic air-entraining cement. Adds new advantages to stucco at no extra cost. Provides increased plasticity that makes application easier; insures greater durability; offers stouter resistance to weather. Ask for details.

**FOR BEAUTY AND UTILITY**

ATLAS WHITE CEMENT

FOR TERRAZZO, PAINT, SLABS, STUCCO

"THEATRE GUILD ON THE AIR"—Sponsored by U. S. Steel Subsidiaries

Sunday Evenings—NBC Network

P/A—JAY-CEE COMPETITION

(Continued from page 138)

but the Jury agreed that it had basic plan faults. They feared that it would be costly to construct and would not be a completely practical building in which to work.

third prize

In contrast to the dynamic quality of the Second Prize, this is an example of architecture in the classic understanding. It shows very good, rather static handling of form and space. However, the deftly handled abstract patterns shown in the elevations have little relationship to the interiors and the building in actuality would probably not look as it is indicated.

The building has a simple, good plan. The Memorial Hall is nicely related to the rest of the architecture without assuming undue importance; it is part of the very handsome functional lobby but is still out of the way. The entrance is very cleverly placed at the highest point. Construction is consistent, and well indicated. Though small, this would make an imposing building, very effective and monumental in character. However, the expansion would obviate the building's original simplicity.

fourth prize

This is a very handsome and well-presented building with clever handling of site possibilities. The ground floor approach is exciting and the memorial feature is well designed.

However, the garden court under the building would be spoiled by trucking and parking. Expansion could have been better handled if it had been shown generally to the east. The lighting was not well thought through: there is no light in the storage room, and none in the printing shop, where it could have been provided very easily.

Construction on the second floor and the support of the roof are not clearly shown. If this had been indicated, this drawing might possibly have had a higher placing.

jury of award

Pietro Belluschi, Chairman,
Karl Fred Kamrath, Hugh Stubbins,
J. Robert F. Swanson, Robert Law Weed,
Jedd Stew Reinsner, Professional Advisor.
Announcing the

GOLD BOND TWINS

TO ROUND OUT GOLD BOND’S COMPLETE INSULATION FAMILY!

Blankets are 8 feet long, Batts 4 feet long. Both have breather cover on 3 sides to hold Rock Wool in place during application. Both have double-strength stapling or nailing flange and built-in vapor barrier. Batts available in two thicknesses, Blankets in three. Both fireproof—as fireproof as the rock from which they’re made!

YES, we had twins at National Gypsum. Gold Bond Research has come up with two new insulation products... Enclosed Batts and Sealed Blankets... to make Gold Bond the most complete line on the market. Regardless of your insulation problem, new building or modernization, Gold Bond will fill the need.

Insulation is one modern improvement that pays for itself with fuel savings. Those savings are governed by the thickness of insulation installed. When you specify “full-thick” insulation you insure maximum savings. The heating plant will function more efficiently; the home will be warmer in winter and cooler in summer... which adds up to satisfied clients. So be sure you specify Fireproof, “Full-Thick” Gold Bond Rock Wool every time.

You have an added advantage in specifying the more than 150 Gold Bond Products exclusively. That way you eliminate “divided responsibility” and let one reliable manufacturer... the National Company... stand behind every product!

NATIONAL GYPSUM COMPANY, BUFFALO 2, NEW YORK

You’ll build or remodel better with Gold Bond

Over 150 Gold Bond Products including gypsum lath, plaster, lime, wallboards, gypsum sheathing, rock wool insulation, metal lath products and partition systems, wall paint and acoustical materials.
PRODUCTS

(Continued from page 90)

the device is used in the jambs only.

For concrete and masonry, the register is cut to size for the particular type and size sash being installed. A vice-like grip on the metal sash makes this installation weatherproof and eliminates need for future grouting and caulking maintenance.

Recent Product Announcements

• Paint manufacturers have been attempting to prevent paint from settling in the package ever since ready-mixed paint was offered to the public in 1873. Sherwin-Williams research chemists are now employing the principles of ultra-sonics to the dispersion of paint pigments and vehicles. They hope to place into lasting suspension these pigments and vehicles which in themselves are foreign to each other. Besides increasing the quality of the product, another possible important benefit may be lowered production costs.

• A 17-gun Nelson stud welding production unit is performing a strategic cost-saving function in the production of Lustron porcelain-enamelled steel houses. The machine is used to install studs on the bottom chord of roof trusses for the attachment of keeper strips which support roof insulation extending across the top of the plenum chamber. Seventeen welds in any single operating cycle can be completed in approximately six seconds.

• A new batt-type rock wool blanket has been added to its line of insulation materials by the Celotex Corporation. This improved paper-encased product will largely replace their open-faced batts, although the latter will still be available. Blankets are 15" x 24" and 15" x 48" and may be had in either full-thick or semi-thick types.

• Cedacote, crushed red cedar with binder added, is mixed with water and applied by brush or trowel to closet walls to give the advantages of a regular cedar closet. This material adheres to wood, plaster, wallpaper, and most known wall-covering materials. Manufacturer is the Ahmco Products, Cambridge, Massachusetts.
Help them start the day right...in a Bright
New Bathroom with TILE-TEX WALLS AND FLOORS

Next time you're designing a bathroom, take advantage of the sparkle, color and cleanliness of Tile-Tex® products.

Every Tile-Tex product is engineered with the realization of the importance of color in today's designs. Mura-Tex® Wall Tiles, for instance, come in a wide variety of sharp, true colors. Warm or cool...light or dark...primary or pastel...solid or marbleized...these plastic-asbestos tiles put a veritable rainbow right at your pencil's point.

And...color-schemed to go perfectly with Mura-Tex...are Flexachrome® Floor Tiles. You can carry your motif throughout the room, and be sure of color harmony.

Your opportunity for clever individualized patterns is limited only by your own imagination. Because each tile is laid individually...and you can even specify custom-designed inserts, like the monogram in the floor above.

Dust and dirt have a hard time sticking to the close-textured, satiny surfaces of these tiles.

Cleaning is quick and easy...especially important in a bathroom, where moisture and constant high humidity leave water spots and film. And Tile-Tex walls and floors are as durable as they are beautiful. You need never worry about recommending a sound investment for your clients when you specify Mura-Tex and Flexachrome.

Your local Tile-Tex contractor is a trained specialist in the installation of these modern wall and floor materials. He has complete specifications and product data on every Tile-Tex product. Look in your telephone directory for his name, or write us. We'll rush the information to you immediately. The Tile-Tex Division, The Flintkote Company, 1237 McKinley St., Chicago Heights, Illinois.

*Registered Trademark, The Flintkote Co.
SITUATIONS OPEN

WANTED—we have good position for experienced architectural designer, one who can make working drawings and details. Must have good experience and be able to earn top salary. Send full particulars, availability, etc. Box 239, PROGRESSIVE ARCHITECTURE.

WANTED—capable mechanical engineer who is able to design and make working drawings, and write specifications for plumbing, heating and air conditioning. Must have good experience and be able to earn at once. State salary, experience, etc., in answering. Box 240, PROGRESSIVE ARCHITECTURE.

WANTED—architectural draftsman with several years' experience in architects offices; capable of fair sketches, working drawings and details. Position leading to association in small, long-established office, in a wonderful scenic city. Submit samples of recent work, training, experience, architects worked with, availability, salary expected. Clarence T. Jones, 1102 James Building, Chattanooga, Tenn.

ARCHITECTURAL DESIGNER—draftsman—available now, large or small office. Exceptionally fine record; long interstate experience. Highest references. Thoroughly competent to produce results; sketches to completed working drawings and details; color perspectives, interiors, exteriors, educational, institutional, municipal, residential; theaters, banks and commercial interiors. Housing projects. Unimumbered. Box 246, PROGRESSIVE ARCHITECTURE.

REGISTERED CALIFORNIA ARCHITECT—desires position in Los Angeles or Southern California area. Twenty years' excellent experience with leading firms. Box 244, PROGRESSIVE ARCHITECTURE.

RECENTLY CHIEF DRAFTSMAN—on four public housing projects. Can make all preliminary sketches, and organize work for any similar large scale housing. Theodore Hart, 87-01 51st Avenue, Elmhurst, N. Y.

WANTED—top architectural designer by a large progressive mid-western architectural organization. Should be experienced on educational, institutional and commercial projects. Initiative, diplomacy and pleasing personality highly desirable. Permanent connection for the man who can qualify. Submit full details as to qualifications. Box 241, PROGRESSIVE ARCHITECTURE.

ARCHITECTURAL ENGINEER—age 39, Graduate. Registered. Presently in charge of structural department for firm doing important commercial and industrial work. Previous experience includes responsible charge of design of continuous and rigid frame bridges and important water front structures. Desires to relocate in position of responsibility. Box 237, PROGRESSIVE ARCHITECTURE.

SITUATIONS WANTED

Advertising Rates

Standard charge for each unit is Five Dollars, with a maximum of 50 words. In counting words, your complete address (any address) counts as five words, a box number as three words. Two units may be purchased for ten dollars, with a maximum of 100 words. Check or money order should accompany advertisement and be mailed to Jobs and Men, c/o Progressive Architecture, 330 W. 42nd St., New York 18, N. Y. Insertions will be accepted not later than the 1st of the month preceding publication. Box number replies should be addressed as noted above with the box number placed in lower left hand corner of envelope.

ARCHITECTURAL DESIGNER-DRAFTSMAN—established architectural designer, having good experience and be able to earn a top salary. Send full particulars, availability, etc. Box 239, PROGRESSIVE ARCHITECTURE.

ARCHITECTURAL DESIGNER-DRAFTSMAN—available now, large or small office. Exceptionally fine record; long interstate experience. Highest references. Thoroughly competent to produce results; sketches to completed working drawings and details; color perspectives, interiors, exteriors, educational, institutional, municipal, residential; theaters, banks and commercial interiors. Housing projects. Unimumbered. Box 246, PROGRESSIVE ARCHITECTURE.

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 fifteen years. Our complete Structural Engineering course well known for thirty-nine years.

Literature without obligation—write TODAY

WILSON ENGINEERING CORPORATION
College House Offices Harvard Square
CAMBRIDGE, MASS., U. S. A.

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.
Highly fire and sound retardant, ruggedly resistant to the hazards of heavy school traffic, Roddiscraft Solid Core Flush Veneered Doors exceed the exacting requirements of school boards everywhere. Hundreds of Roddiscraft installations throughout the country attest to the intelligent choice of specifying authorities.

Roddiscraft Standard 1⅛" Solid Core Flush Veneered Doors have consistently exceeded the 40-minute fire test and show an average sound transmission loss of 30.9 decibels in independent tests.

Roddiscraft standard construction specifies standard thickness face veneers*, hot press bonded with waterproof phenolic resin, as opposed to ⅛" or thicker because standard thickness face veneers reduce moisture penetration, eliminate the cracking and checking common to thick faces, and make possible more perfect book-leaf matching.

*1/28" for most types of wood.
Several advantages are gained in using Oildraulic Passenger Elevators:

1. You do away with the costly, unsightly penthouse that interferes with building design. 2. The lighter shaftway structure used with the elevator “that’s pushed up” means a substantial saving in construction costs. The powerful hydraulic jack supports the elevator and its load. 3. The compact electric power unit requires no special machine room.

The new, pulsation-free Rota-Flow pump makes Oildraulic Elevators the smoothest operating and quietest of all hydraulic elevators. Mail the coupon below for full data.

Mail coupon for new data file
ROTARY LIFT CO.,
1021 Kentucky, Memphis, Tenn.
Send complete data on Oildraulic Elevators to:
Name:
Address:
City & State:

The Most Economical Passenger Elevator
For 2, 3, or 4 stories

Include A...

STA-RITE

PUMP OR WATER SYSTEM
IN YOUR BUILDING PLANS

BETTER QUALITY
LOWER COST!

Just what you’ve wanted! Sta-Rite builds a complete line of pumps and water systems to meet every shallow well or deep well need. Get the most water from your clients’ wells...at less cost! They’re automatic, quiet, compact—hundreds of thousands in use today! Mount over, or offset from well. Complete specifications are yours for the asking. Write for our descriptive catalog.

Dept. PA99
STA-RITE PRODUCTS, INC.
DELAVAN, WIS.

Nailock

UNIVERSAL NAILING CHANNEL
FOR FASTENING ALL NAILABLE
MATERIALS TO STEEL, CONCRETE
AND MASONRY

Although used primarily for suspended ceiling construction, these nailing channels provide an ideal method for installing panels, slabs, sheets and other kinds of covering, flat or corrugated, in fact any nailable material, over steel or concrete. This method is as simple and safe as it is economical. Applications may be as varied as the engineer's or architect’s ingenuity in using Nailock Universal Nailing Channels.


USE

Nailock
FOR SUSPENDED CEILING
CONSTRUCTION


THE SANYMETAL PRODUCTS CO., INC.
1689 Urbana Road • Cleveland 12, Ohio

Oildraulic Elevators

144 PROGRESSIVE ARCHITECTURE
COPPERWELD STEEL COMPANY
GLASSPORT, PA.
SALES OFFICES IN PRINCIPAL CITIES

MAIL TODAY
Please send me your specification bulletin and prices on Copperweld Cavity Wall Ties.

Name __________________________
Company ________________________
Address __________________________
City ___________________ Zip _______ State ________

USE THIS PERMANENT TIE FOR
CAVITY WALLS

Here's a high-strength, non-rusting tie that links cavity walls safely and permanently. The Copperweld Wall Tie always retains its original breaking strength of nearly 2 tons. Its thick copper covering—inseparably molten-welded to a strong alloy steel core—permanently protects the tie against the corrosive action of moisture, lime and mortar. Copperweld can't rust—can't weaken.

This practical combination of copper and steel makes Copperweld Ties the choice of wise architects and builders. Play safe! Guard your reputation by using them. Copperweld Wall Ties are available for immediate shipment. They are made in two sizes—6" and 8" stems, both with 2" legs—packed 500 of one size to a box.

COPPERWELD STEEL COMPANY
GLASSPORT, PA.
SALES OFFICES IN PRINCIPAL CITIES

MAIL TODAY
Please send me your specification bulletin and prices on Copperweld Cavity Wall Ties.

Name __________________________
Company ________________________
Address __________________________
City ___________________ Zip _______ State ________

SEPTEMBER, 1949   145
Another achievement by Har-Vey Hardware engineers is the new design of the non-adjustable hanger, which guarantees positive locking of the hanger to the door. It's a simplified design, too, eliminating the locking plate and speeding installation time -- as well as reducing the working room required.

The adjustable hanger has also been designed for positive locking, and all Har-Vey Hardware has been made completely rustproof. Available in sizes to match any residential rolling door, Har-Vey Hardware is simply installed and good for a lifetime of smooth, silent rolling.

Send today for folder showing varied uses & installation details of rolling doors, & full information on Har-Vey Hardware.

Address: Hardware Division P

Metal Products Corporation
807 N. W. 20th St. Miami, Florida

Solvay Sales Division
Allied Chemical & Dye Corporation
40 Rector Street New York 6, N. Y.
CLEARPRINT


TRACING PAPER

Unchanging Transparency, Strength and Printing Quality

Clearprint is a scientifically designed technical paper, developed through years of intensive research and extensive experience. Architects and engineers across the nation rely on the superior qualities of this proven paper for finest results.

You save time, effort and money with the Clearprint Paper that meets your technical drawing requirements.

- No. 1000 "Clearprint" light tracing paper
- No. 1000H "Clearprint" medium tracing paper
- No. 1020 "Clearprint" heavy tracing paper
- No. 1025 "Papercloth" technical paper of cloth durability
- No. 141 "Pioneer" architectural tracing paper

Ask For a Sample From Your Dealer or Write to

CLEARPRINT PAPER CO.
15 FIRST STREET • SAN FRANCISCO 5, CALIFORNIA

FREE BULLETIN

on how to drain corrosives

This 12-page bulletin tells you how, why and where you should use Duriron acid-proof drain equipment for corrosive wastes.

It includes—the physical, mechanical and corrosion-resistant properties of Duriron compared to other materials... engineering data on Duriron equipment... application in chemical laboratories, engraving plants and industrial acid waste systems... proper installation practice.

Find out how you can protect your waste disposal system against costly corrosion. Use the coupon, today.

The Duriron Co., Inc.
Dayton 1, Ohio
Branch Offices in Principal Cities

---

The Duriron Co., Inc., Dayton 1, Ohio

Gentlemen:

Please send me your free bulletin 703.

Name __________________________
Company _______________________
Address ________________________
City ___________________ State _____
Architectural TERRA COTTA

Northwestern Terra Cotta is a burned clay building material of highest quality; used extensively for exterior and interior facing. It is obtainable glazed or unglazed in a variety of textures — is available in many colors — resists the stains of smoke and grime — is easily cleaned — is fire-safe, durable. Terra Cotta is ideal for ashlar walls — is most economical of all building materials for repeat ornament — brilliantly reflects floodlighting.

Architectural Services:
Descriptive literature; construction details; color samples; cost estimates from architects' sketches or drawings.

Northwestern Terra Cotta Corporation
1750 Wrightwood Ave., Chicago 14, Ill.

Try them on your toughest problems!
For years the Hool and Kinne Library has been providing structural engineers with the facts they need on problems concerned with the design and construction of civil engineering structures. This is a library that must be USED to be appreciated—that is why we want YOU to use it. We want you to forget the financial side of this proposition until you have solved some knotty problem that you may be up against—to find out how a specialist in that particular field would handle it. We want to prove to you that this library furnishes you with what amounts to the consulting services of 63 recognized structural engineering specialists.

HOO AND KINNE'S
STRUCTURAL ENGINEERS' HANDBOOK LIBRARY
The most complete compilation of structural engineering data ever published from records of actual practice. Covers the how and why of foundation and substructure design and construction, general theory of structural members, detailed design of such members and the design of their connection with other members—explains the principles of statics, reactions, moments and shears in beams and trusses, influence lines, methods of computing stresses in lateral trusses and portal bracing —gives details of design and construction of steel, timber, and concrete structures of all types.

WRITE FOR FREE EXAMINATION COUPON

If it's not the Artgum brand, it's not Artgum
Be sure to look for the name—it's the only way to be sure!
Why be "half safe" with shower mixers that only protect bathers from scalding caused by fluctuating pressures in hot and cold water supply lines—a frequent and important cause of shower trouble... but only ONE.

For SAFER and More Comfortable SHOWERS

Install

POWERS

THERMOSTATIC

SHOWER MIXERS

They protect shower users from scalding caused by both TEMPERATURE and PRESSURE variations. Both dangerous variables are present in all shower installations.

Be doubly safe. Get positive, accurate protection against both Temperature and Pressure changes. Use Powers mixers. They cost more. Their greater safety and economy make them worth more.

Cut Fuel and Water Bills with Powers mixers. Bathers waste no time or hot and cold water while waiting for a shower at the right temperature.

Phone or write for estimate

CHICAGO 14, ILL. 2789 Greenview Ave., Phone Buckingham 7100
NEW YORK 17, N.Y. 231 East 46th St. Phone Eldorado 5-2050
LOS ANGELES 5, CAL. 1008 West Eighth St. Phone Drexel 2394

THE POWERS REGULATOR CO.
OFFICES IN 47 CITIES • SEE YOUR PHONE BOOK
Over 55 years of WATER TEMPERATURE CONTROL

COMPARE FOR

Beauty, Quality, Economy

THEN RECOMMEND

VIKON METAL TILES

LOOK TO VIKON, THE LEADER IN TILE STYLE
FOR COMPLETE CLIENT SATISFACTION

Individual Vikon Metal Tiles, in a choice of sturdy steel, aluminum or stainless steel, are the perfect answer to any decorating problem where tiles are called for. Ideal for use on both walls and ceilings in new homes, excellent for remodeling existing homes and apartments. These are featherlight, individual tiles. You order only the number necessary to complete the job. No waste. For the smartest of baths, kitchens, utility rooms, investigate the wonders of the metal tile of lasting beauty—VIKON.

- 27 fade-resistant decorator colors and stainless steel
- will not warp, crack or craze
- resists heat and household chemicals
- fire-resistant, waterproof, seals out insects

"The Original Individual Metal Tile" Established 1926.
See our catalog in Sweet's Files

STEEL • ALUMINUM • STAINLESS STEEL

VIKON TILE CORPORAATION  Dept. 44
Washington, New Jersey

Please send me, without obligation or cost, a full-color descriptive brochure and sample of Vikon Metal Tile. I am interested in tile for:

My home [ ] As a dealer [ ] As a contractor [ ]

NAME [Please Print: ]
ADDRESS
CITY [ ] ZONE [ ] STATE

MAIL THIS COUPON TODAY

SEPTEMBER, 1949  149
equipped with . . .

SOSS INVISIBLE HINGES
"the hinge that hides itself"

THE ULTRA-MODERN HOME OF THE NORTH AMERICAN LIFE AND CASUALTY COMPANY
—Minneapolis 4, Minnesota
THE ARCHITECTS: LANG & RAUGLAND
—Minneapolis 3, Minnesota

Lang & Raugland, Minneapolis Architects, by using SOSS INVISIBLE HINGES, succeeded in creating modernistic interior effects in this building that could never have been realized with old style, butt type hinges!

These remarkable SOSS HINGES have NO UGLY, BULKY, PROTRUDING hinge butts to mar the graceful lines of modern design. They’re the only hinge that absolutely assures the architect of the soft, smooth, streamlined, harmonious interiors that are so very necessary to really modern architecture. There’s a weight-rated SOSS HINGE, operating on hardened steel links and roller bearings, for every type of installation.

Write for FREE CATALOGUE that gives complete details, blue print templates, and the many uses of this modern hinge to . . .

SOSS MANUFACTURING COMPANY
21771 HOOVER ROAD • DETROIT 13, MICHIGAN

the fact-packed Handbook to help you . . . DESIGN
BUILD
REMODEL
REPAIR

The New Don Graf’s DATA SHEETS
834 pages • 2nd edition, Revised and Enlarged • $8.00

The importance and value of Don Graf’s DATA SHEETS first became known to architects, designers, draftsmen and builders when they began to appear regularly in the magazine Progressive Architecture (formerly Pencil Points). So great was the demand for the DATA SHEETS that they were at first sold separately in loose-leaf form and later made into a book which quickly became a standard reference work the world over.

Now, in the new, second, revised and enlarged edition all data have been brought up to date and hundreds of new drawings added which never before appeared in print.

To gain some idea of the immense amount of information contained in this big book and to see the thousands of detailed drawings that will save you time and money . . .

Send For Your Copy On Approval

REINHOLD PUBLISHING CORPORATION
Dept. M-179, 330 W. 42nd St. New York 18, N. Y.
In the "DOUGH"

Rubber that picks up dirt, pencil and charcoal marks.

Weldon Roberts Eraser No. 666 Dough leaves no crumbs, smears or smudges; does not cling to fingers; leaves paper clean and sparkling.

Get Dough from your stationer or art supply dealer. Make sure it's Dough—the star performer of your drawing board.

Kneadable, plastic Dough comes in 2 sizes:
No. 666 Medium and No. 667 Large.

WELDON ROBERTS RUBBER CO. Newark, N. J.

Tiny... BUT SO IMPORTANT!

The pen that puts a punch into ideas

SPEEDBALL Drawing... PENS

Are built to give you longer service.
'A' square; 'B' round; 'C' flat; 'D' oval; 'F'B' hinged feeder.
A size and style for every use.

Where Piping Service Cannot Fail!

ARCHITECTS AND ENGINEERS
DURANT PRE-SEALED INSULATED PIPE. Specify on all your underground and exposed piping jobs; it is waterproof... reduces installation costs to a minimum... eliminates electrolysis and corrosion. Durant Insulated Pipe is the perfect pipe for these jobs. Write for catalogue and data book now. Following Western Representatives at your service:

Utah—Salt Lake City: Campbell-Keay Co., 236 Nesh Building.
New Mexico—Albuquerque: General Engineering Inc., 266 N. 2nd Street.

No More Dog-Eared Tracings

New Lifter Prevents Damage in Filing

Lifter removes all weight from tracings you are filing. Makes every sheet as easy to file as the top sheet.

Prevent mistakes from poor prints. Keep tracings smooth and new by eliminating tension in filing with Hamilton Tracing Lifter Files. It is hard to file a tracing under the weight of 22 lbs. of other tracings without damaging it. But new Tracing Lifter Device removes this weight and makes every sheet in the drawer as easy and safe to file as the top sheet. No tension. No dog-eared tracings. Send in coupon for details.

HAMILTON MANUFACTURING COMPANY
TWO RIVERS, WISCONSIN

HAMilton MANUFACTURING CO.
TWO RIVERS, WISCONSIN
PA-9-49

Send full information on the improved Tracing Lifter Files.

Name ____________________________
Address __________________________
City & State _______________________

HAMILTON MANUFACTURING COMPANY
TWO RIVERS, WISCONSIN

SEPTEMBER, 1949  151
Send for full story...

ENDURO-ASHLAR
ARCHITECTURAL TERRA COTTA

Combining maximum appearance with minimum maintenance, and possessing plasticity of form, color and texture as important added advantages, Enduro-Ashlar Architectural Terra Cotta is specified today by more architects than ever before—for monumental, industrial and mercantile construction, and for modernization. If you don’t have all the facts regarding this time-proved material, write us today.

Construction detail, data, color samples, estimates, advice on preliminary sketches, will be furnished promptly without cost. Send your inquiry to Architect Service Dept.

FEDERAL SEABOARD TERRA COTTA CORP.
10 EAST 40th STREET, NEW YORK 16, N. Y.
PLANTS AT PERTH AMBOY AND SOUTH AMBOY, N. J.

HEAVY-DUTY TRAVERSE CURTAIN TRACK

In homes, in hotels—any place where dependability and sturdiness are required—you can hide the curtain hardware with Gould Perfected Heavy-Duty Traverse Track #1226. The hidden, recessed track and carriers blend unobtrusively with modern, functional design. Works easily, smoothly, quietly every time.

Write today for our new, complete catalog

THE GOULD-MERSEREAU CO. INC.
35 West 44th Street, New York 18
Branch offices: 99 Chauncey Street, Boston 11

Are you specifying the RIGHT CEMENT FOR THE JOB?

MEDUSA "JOB-FITTED" CEMENTS

☐ MEDUSA WATERPROOFED GRAY
  Produces concrete that repels water at the surface.

☐ MEDUSA WHITE
  Gives a beautiful white or colorful tinted effect.

☐ MEDUSA WATERPROOFED WHITE
  Unsurpassed for a sparkling white water-resisting surface.

☐ MEDUSA BRIKSET
  Gives a beautiful finish for brick mortar.

☐ MEDUSA "MEDCO" HIGH EARLY STRENGTH
  Prepared for rush jobs and cold weather construction.

☐ MEDUSA AIR-ENTRAINING PORTLAND CEMENT
  Protects driveways and sidewalks against the scaling action of salt.

☐ MEDUSA STONESET
  A non-staining waterproofed cement for laying up stone and face brick.

For further information on any of these cements, simply check this ad, attach to your business letterhead and mail to us.

MEDUSA PORTLAND CEMENT CO.
1004 Midland Bldg. · Cleveland 15, Ohio
FIFTY-SEVEN YEARS OF CONCRETE PROGRESS
The Edge You Need...  
ON ALL  
1/4" MATERIAL  

Chromtrim #7010

Yes, for all-around utility, CHROMTRIM'S #7010, 1/4-in. quarter round cove moulding is the ONE shape that always gives you "the edge that you need." It can be used in the place of wood... and gives you an "extra profit edge," too!

Applications Galore  
... and you'll discover more!

Use it as cove, an edging... as a trim on any 1/4-inch material! Made-to-order for acoustical tile, wallboard, linoelum, plywood and all similar working materials.

Write for free sample of CHROMTRIM #7010.

R. D. Werner Co., Inc.  
295 Fifth Ave. • New York 16, N. Y.

HERMAN NELSON  
UNIT VENTILATORS

Herman Nelson Unit Ventilators maintain proper air conditions in schoolrooms, courtrooms, offices and other spaces occupied by relatively large numbers of persons. These heating and ventilating units not only provide heat when it is required, but also introduce cooler, outdoor air into the room to prevent overheating when body heat becomes excessive. Quiet, economical and attractive, these units permit automatic maintenance of uniform temperatures at all times.

Write for Bulletin 2853

The Herman Nelson Corporation  
Since 1926 Manufacturers of Quality Heating and Ventilating Products  
Moline, Illinois

ARCHITECTS — SAVE YOUR THEATRE CLIENTS 9 OUT OF 10 MAINTENANCE DOLLARS WITH

The REVOLUTIONARY INNER SERVICE PATENTED MARQUEE

Before you put theatre plans on your drawing board, investigate "Inner-Service." All work is done inside the marquee, eliminating hazardous ladders. Electricity costs are cut 75% by new lighting methods.

Write for further information TODAY!  

Herman Nelson Unit Ventilators

Trinity White  
is the whitest white cement!

You'll get fine results with this extra white cement. It's true Portland Cement made to ASTM and Federal Specifications. If your dealer does not have it, write the office nearest you: Trinity Portland Cement Division, General Portland Cement Co., 111 West Monroe St., Chicago; Republic Bank Bldg., Dallas; 816 W. 5th St., Los Angeles.

As white as snow

TODAY: SEPTEMBER 1949 153
Washrooms rank as one of the four most important factors in good working conditions—according to a survey of workers from 400 plants.

Well kept washrooms help demonstrate the consideration a company holds for its employees—and customers, too. Don't you feel a firm is inconsiderate when the washroom isn't right?

Clean, modern, carefully planned washrooms show thoughtfulness for the other person. You're doing your client a real service by making sure his washrooms are right.

ScotTissue Towels are a symbol of the right kind of washroom. Include ScotTissue Towel cabinets in your washroom planning. Send for our free booklet that's filled with helpful suggestions, well-tested plans and diagrams (by an architect specializing in this field) for large and small washrooms, etc. Write to the Scott Washroom Advisory Service, Chester, Pa.


SCOTTISSUE TOWELS
Symbol of the right kind of washroom
1950 Building Market Study

Completion of the 1950 Building Industry Market Study by P/A has offered an excellent opportunity to compare activities, trends, prices and the general business outlook as it exists now, and as it existed one year ago.

All architects interviewed, with but one exception, felt that business was going to get better. Even though 1948-49 saw the building industry operating at an unprecedented level of activity, the general opinion was that it would become even greater. For instance, architects pointed to the increase in the number of plans on their boards for stores, schools, theaters, hospitals, housing developments, etc. Coupled with many industrial buildings now getting underway, this continued activity promises well for 1950.

Last year, when architects were asked why a product specified wasn't used in actual construction, they replied that "availability", or "price", were the governing factors. This year "price" again came into the picture, but in a different way. This time there were price cuts, and changes in specifications were often made to take advantage of these cuts. Furthermore, availability was no longer an important factor, and architects were becoming "particular" about the products specified. They were expressing a desire to be sold.

This year, more than last year, architects are specifying the type of product very early in their design operations. When it comes to brand of product, the specifications are often made during the last few design stages—final specifications or detail drawings. These changes are significant, for they indicate that products are no longer in short supply, architectural firms are no longer waiting until the last minute to determine what is available, and price is an important factor only insofar as someone is selling the product cheaper. Even estimates on the probable cost of a new building are firmer, and architects are often pointing to the fact that a completed building cost less than their estimate.

As an example of the time required to conduct the study, it is estimated that more than 500 hours were spent in personal interviews with principals of 100 architectural firms throughout the country. Five hours is a long time to spend on an interview, and it requires patience on the part of investigator and respondent.

More complete reports on results of the Building Industry Market Study should be available this Fall, at which time the pertinent facts will be published in P/A. At this time we want to thank the many architects throughout the country who cooperated so splendidly in the personal interviews. Information required by the field interviewers was lengthy and complicated. Your patience was appreciated.
New Craftsman Grade Weldwood

BROADENS THE MARKET for
WOOD-PANELED ROOMS

Low in price, but high in quality . . . this new Weldwood panel puts hardwood plywood within reach of new masses of people!

How many times have you heard clients say, "Of course we want a wood-paneled room. But we just can't afford it."

Next time this happens call their attention to Craftsman Grade Weldwood. Here is a high quality decorative hardwood plywood at a price almost 30% lower than we were formerly able to offer.

New Mill Makes Economies Possible

Our new mill at Orangeburg, S. C., was built with one idea in mind: to cut the cost of hardwood plywood to the consumer. With every saving that the most modern equipment can provide...with every economy that careful planning can attain...with the efficiency that straightline production offers...this new mill turns out fine plywood panels at a price within the reach of every client.

Differences Between CRAFTSMAN and ALGOMA Grades

From the standpoint of quality and beauty, these new Craftsman panels are surpassed by only one grade of hardwood plywood made in this country—the superlative plywood produced at our Algoma plant.

In the production of Algoma Grade Weldwood Plywood, every panel is given individual selection—from the pains-taking selection of veneers, the careful matching of faces—right through every detail of manufacture.

At the new plant at Orangeburg, many of these costly refinements have purposely been eliminated. Veneers are not selected quite as carefully, although only sound, attractive flitches are used. In oak, for example, the Craftsman oak panel is made of flat sliced veneers of balanced figure; the Algoma oak panel is made of veneers of uniform color, expertly matched and free of defects.

Such differences in veneer selection, plus numerous manufacturing economies, mean greater veneer yields—lower costs—and lower selling prices for Craftsman Grade Weldwood.

Inspect Craftsman Panels Yourself

Next time you visit your local lumber dealer, ask him to show you a sample of Craftsman Grade Weldwood. Or, visit your nearest United States Plywood distributing unit and see the entire Craftsman Grade line. You'll be gratified at the quality of this low-priced plywood.

And, if you want the ultimate in decorative hardwood plywood, specify Weldwood Algoma Grade Panels, made from selected flitches of many different cabinet woods.

IMPORTANT ANNOUNCEMENT

Weldwood Moldings, with matching wood faces, are now available in a new, larger size which takes 3/4" and 15/16" Weldwood panels perfectly. These moldings, previously available only in 1/4" size, make it possible to achieve a beautiful, custom installation at minimum cost.

Write for complete information, sample and prices.

WELDWOOD Plywood
UNITED STATES PLYWOOD CORPORATION
NEW YORK 18, N. Y.


Weldwood® Hardwood Plywood
Tekwood® (paper-faced plywood)
Douglas Fir Weldwood
Protokwood
California Pine Weldwood
Weldwood Glue and other adhesives
Weldtex® (striped plywood)
Weldex®
Decorative Micarta®
Tekwood®
Flexwood®
Satinlac®
Firrite® and Satinlac®


Plastics and Wood
Welded for Good

Interior grade Weldwood Plywood is guaranteed for the life of any building in which it is installed.
I recently learned with great sorrow that Abner Symmons had died. I imagine that a fairly large number of you—certainly anyone who worked for a period in a New York City drafting room—had some contact with Abner. He sold magazine subscriptions and architectural books, and at times other things. He was a friend—sometimes an exasperating one—to every draftsman in the metropolitan area. And he had free access to the front and back offices of most of the firms in the city.

Abner started his career as a Shakespearean actor and, to the end, would willingly give out with any of the Sollyquies in his familiar quavering voice, with the moving, nostalgic ham flavor that only a roadshow Hamlet can summon. He could also tap dance, an accomplishment that not so many of his friends and tormentors (for Abner was unmercifully ribbed in the drafting rooms) knew about.

He began selling books of art and architecture, and ultimately magazine subscriptions, while he was on the road. It was not unusual in the early part of the century for a traveling Shakespeare troupe to be stranded in the sticks and to earn enough to get back to New York (in order to start out again) it was smart for the actors to have sidelines. In time, the side activity became Abner Symmons’s business and during the Twenties it was a very profitable one. There was a time when Abner’s wife drove him around town in a handsome car. There were many architects and architectural draftsmen in New York who would not think of buying a book or subscribing to Pencil Points until Abner showed up to take the order.

Abner must have been well into his eighties when he died. As he got older he fell on harder times. Competition entered the field in the form of more efficient subscription agents, and not all book publishers were willing to dole out a few copies at a time to a garrulous old man. His wife died, and he went to live at the Friars’ Club as a widowed trooper should.

He apparently never had much in the way of cash reserves—at least he never could resist an immediate cash sale. If subscriptions were sometimes slow in reaching the magazine offices, most of his customers were patient. I remember an instance while I was with Alfred Hopkins & Associates, just after I had written a book which was selling well enough so that Abner was getting occasional orders for it as he made the rounds. The publishers refused to give him a discount for three copies, for which he had specific orders and cash in hand, and he came in to see me. The only way I could help him was to sell him three copies I had, which I had gotten at the author’s discount, and to warn him that he had better not take any more orders. He departed happily with the three books under his arm, but in ten minutes he was back again.

“What will I do now?” he asked with tears in his voice. “I have sold the three books in your drafting room!”

However, Abner must have had money put away from his better days. Some six months before he died he was taken for about $10,000 in savings by a middle-aged woman who persuaded him to marry her and who then disappeared immediately after the ceremony. And yet the last time I saw Abner he looked altogether, but discouraged. He had come in to deliver some orders to our circulation department, and he danced a merry jig down the hall. “How are things, Abner?” I asked tritely. “Just fine,” he answered. “Sometimes days seem awfully long—but I have so many friends that I think I’m a lucky man. Architects are wonderful people.”

If some of those wonderful people are still saving book or magazine orders for Abner’s regular call, they will know now why he hasn’t shown up.

After awarding, judging, commenting on, or advising in any number of competitions for others, P/A has again won a coveted award of its own. The magazine Industrial Marketing each year gives awards for editorial excellence in the field of business, trade, and professional journalism. To our editorial staff went an Award of Merit this year for the “outstanding single issue” of the year—our June P/A Awards issue. Modestly, we have refrained from mentioning it before, but this is the third year in a row we have received an Award in this judgment.

Speaking of awards, we will publish next month the job, designed by Gruen & Krummeck, which won the Store Modernization Award this year. This despite the fact that Victor Gruen is mad at me, because of some remarks made in the jury report for the Southern California Awards judgment. I can’t quote those words which I helped write, because they haven’t been released by the Southern California Chapter, A.I.A., the sponsor, but it seems that our admonition that the boys in L.A. might practice a bit more restraint were taken hard, probably by those to whom they least applied.

Giving awards for completed work has many advantages. For one thing, it answers fully the griping of those who contend that architects today talk and don’t create. There is a lot of talk, I grant (and I complained in a recent editorial about the temptation to waste time on blind-alley verbal meanderings), but there is a great deal of good work being created and constructed at the same time. When someone like Jens F. Larson, the architect who is designing a new “Georgian” college in North Carolina (in the face of opposition from North Carolina architects), says that “the architectural schools and the publications” are attempting to dictate to the professionals “without creating through actual building,” he is merely confusing the functions of an architect, a magazine, and a school. But when he goes on to say that “modern architectural theory” is “another manifestation of mediocrity in which the trend is to short-cut creative effort by nonproductive thinking,” the statement becomes both silly and false. A lot of thinking has gone into the buildings which are winning awards in various judgments—including the A.I.A.’s—but it hasn’t been exactly nonproductive. It is producing many large and small structures in all parts of the country. Perhaps a few years from now the students and faculty of the brand new Wake Forest College, which Larson insists must be in the Georgian manner because that period “typifies the architectural traditions of Wake Forest and its relations to the state,” will wish that a bit more thinking had gone into the decision.

[Signature]

Thomas H. Ruark