PROGRESSIVE ARCHITECTURE

newsletter

September 1949

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Re-entered as second class matter, January 22, 1947, at the Post Office at New York, N. Y., under the Act of March 3, 1879. Volume XXX, No. 9, September 1949. Indexed in Art Index.

- 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 (⅔ 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 PHA low-rent public housing not to exceed 810,000 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)

newsletter

- 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.

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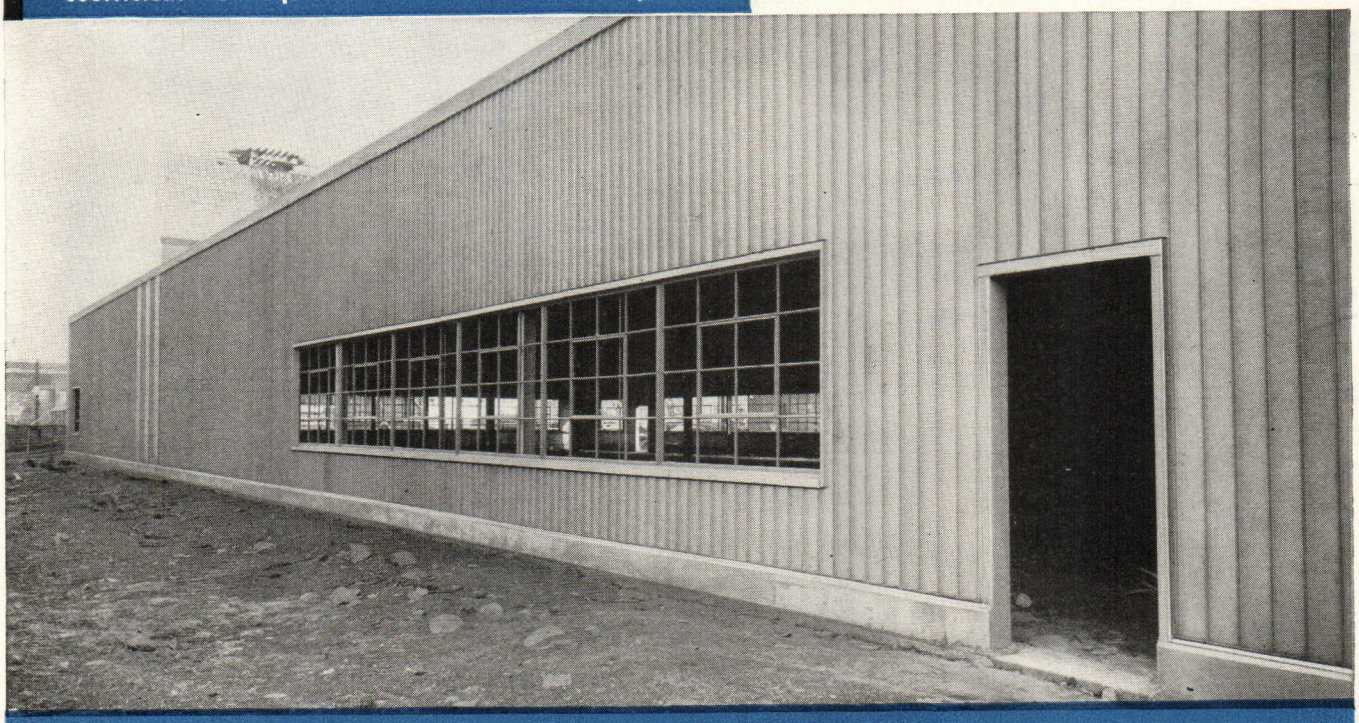

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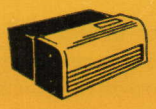

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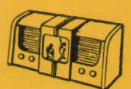
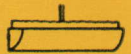


Television Receivers



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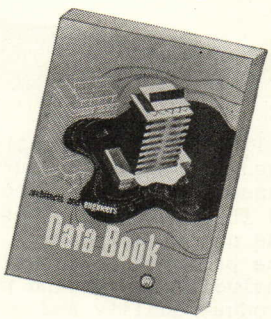

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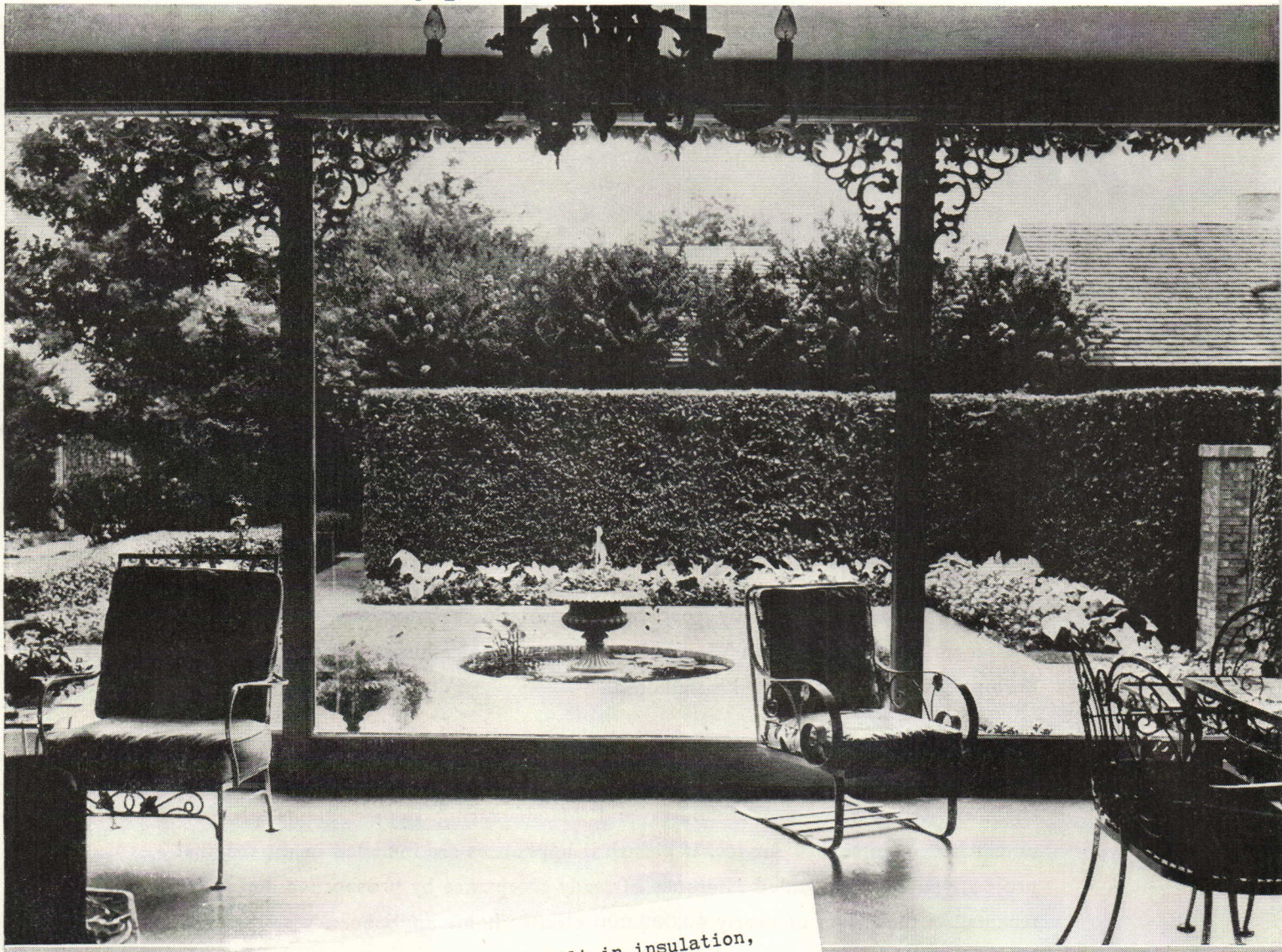
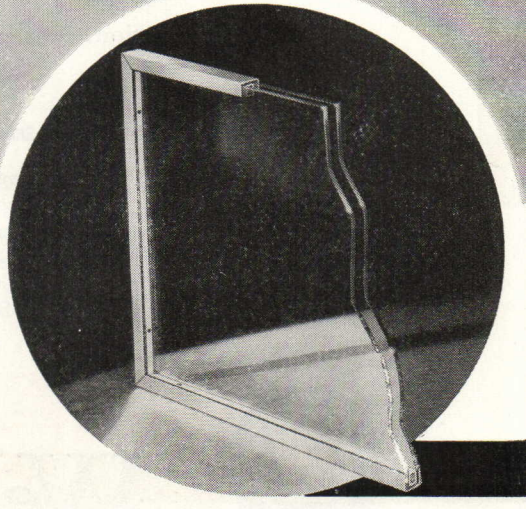
Attractive *Glass* applications in

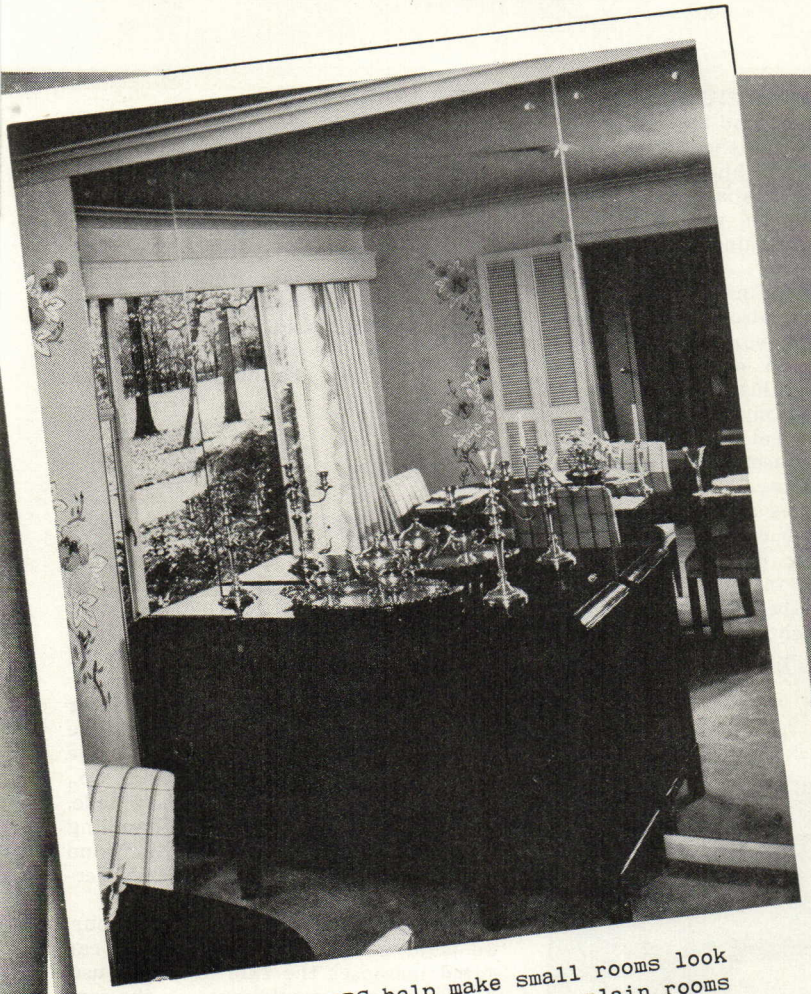


TWINDOW, the new Pittsburgh window with built-in insulation, is made up of 2 or more panes of Pittsburgh Glass with a sealed-in air space between. Twindow cuts heat losses through windows. It minimizes downdrafts near windows. And it virtually eliminates fogging and frosting of windows. Architect: Wilson McClure, Dallas, Texas.

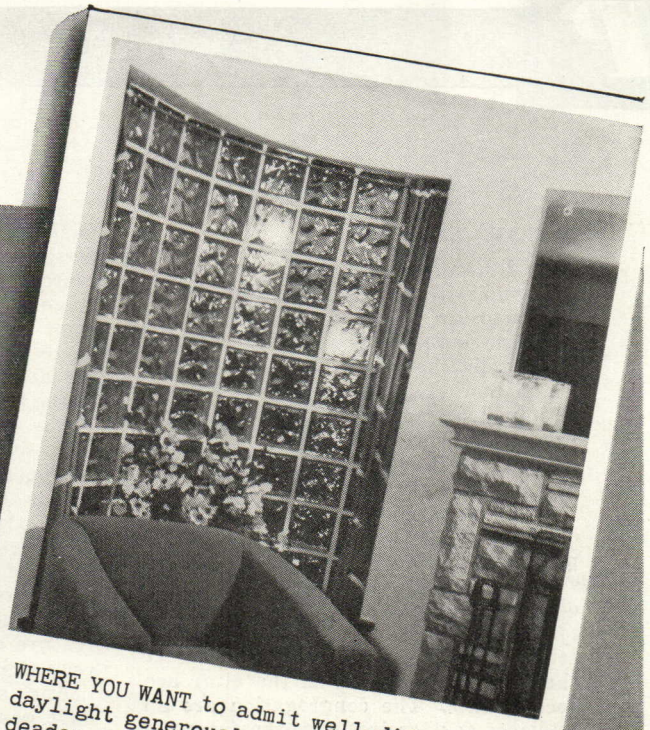


PITTSBURGH has recently perfected a remarkable instrument, which, when placed on the surface of one of the panes in a Twindow unit, measures to within thousandths of an inch, not only the thickness of that light of glass, but of the other pane of glass, and of the air space between the two as well. By 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



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.



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.

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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.

Views of contemporary architects noted for their stimulating work in the San Francisco Bay area were heard last month in a forum sponsored by Macy's San Francisco department store, highlighting an exhibition of architectural drawings and photographs which included the 11-panel exhibit of prize winners and mentions in the P/A Awards, 1948 (see June 1949 P/A). Another event of the exhibition period, which extended from August 8 to August 20, was a similar forum on decorating problems. The architects participating, shown above with Moderator Hal Cruzan (right, holding one exhibit under discussion), included Henry Hill, Fred Langhorst, Donn Emmons, Ernest J. Kump, and Mario Corbett. *Photo: Macy's San Francisco*

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 Minimum Elevator Specification described in the 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 elevator.

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.
Coatesville, Pa.

(Continued on page 10)

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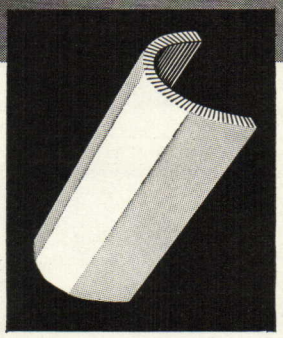

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Views

(Continued from page 8)

WELL, WHY?

Dear Editor: Anent 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 comprehendable 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 Learnen."

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 Chloethiel Woodard Smith for Dr. David Rioch 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

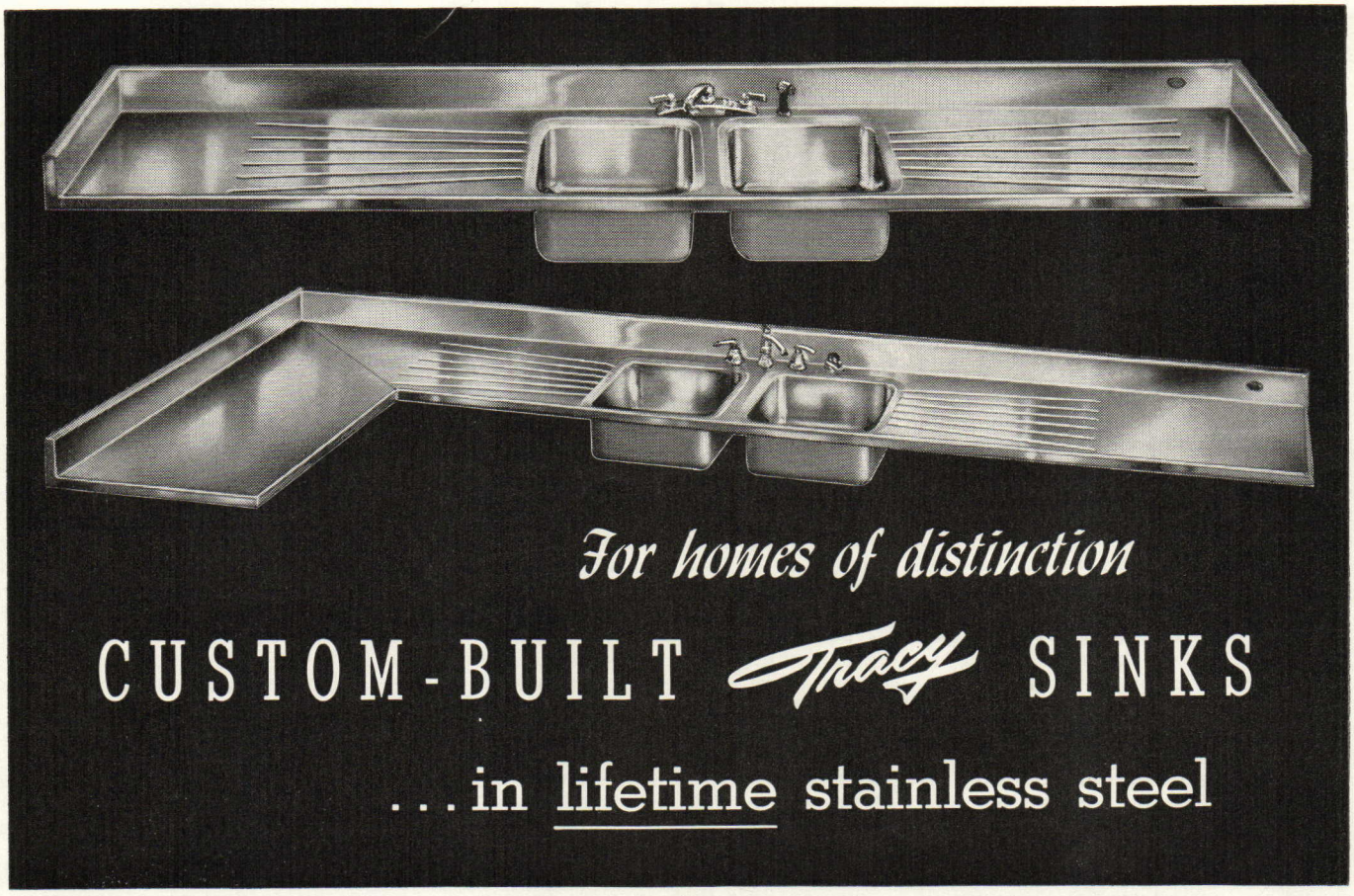
NEW ADDRESSES

MESSINEO & MESSINEO, Architects, Suite 202, 114 N. 3rd St., Las Vegas, Nev.

DANTE J. D'ANASTASIO, Architect-Engineer, 1815 Federal St., Camden, N. J.

W. POPE BARNEY & ROY W. BANWELL, Architects, 2408 Girard Trust Co. Bldg., Philadelphia 2, Pa.

WILLIAM SCHORN ASSOCIATES, INC., and WILLIAM FRANCIS SCHORN, Architect, 501 Madison Ave., New York, N.Y.



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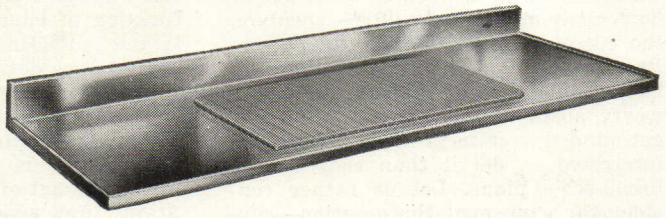

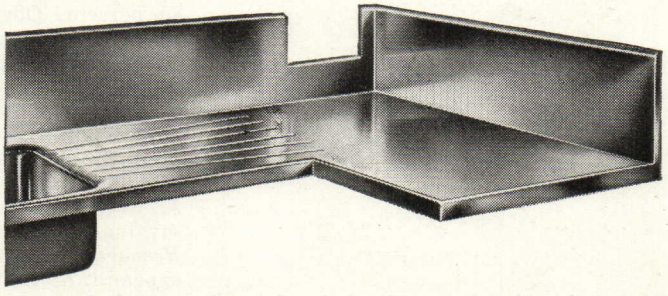

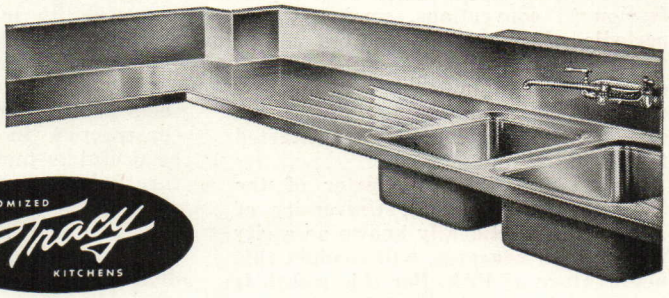

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out of school

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.

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.

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 scan 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 your 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; also schooling becomes obsolete overnight as world conditions change. In the not too distant past we have many examples to indicate that the school training of the average architect was inadequate to make him adaptable to fluctuations in either the economic or social norm. In fact there are few better examples to be found of overspecialization in modern society than in the architectural profession. There is almost nothing in the tattered remnants of our Beaux Arts atelier 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.

Thanks TO ALL PARTICIPANTS

PROGRESSIVE ARCHITECTURE

ARCHITECTURAL COMPETITION

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 the notable Jury of award — Pietro Belluschi, A.I.A., Portland, Oregon; Karl Fred Kamrath, A.I.A., Houston, Texas; Hugh Stubbins, A.I.A., Cambridge, Massachusetts; J. Robert F. Swanson, A.I.A., Birmingham, Michigan; and Robert Law Weed, A.I.A., Miami, Florida — for their careful professional evaluation of all aspects of the competition problem;

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.

John A. Gilbreath

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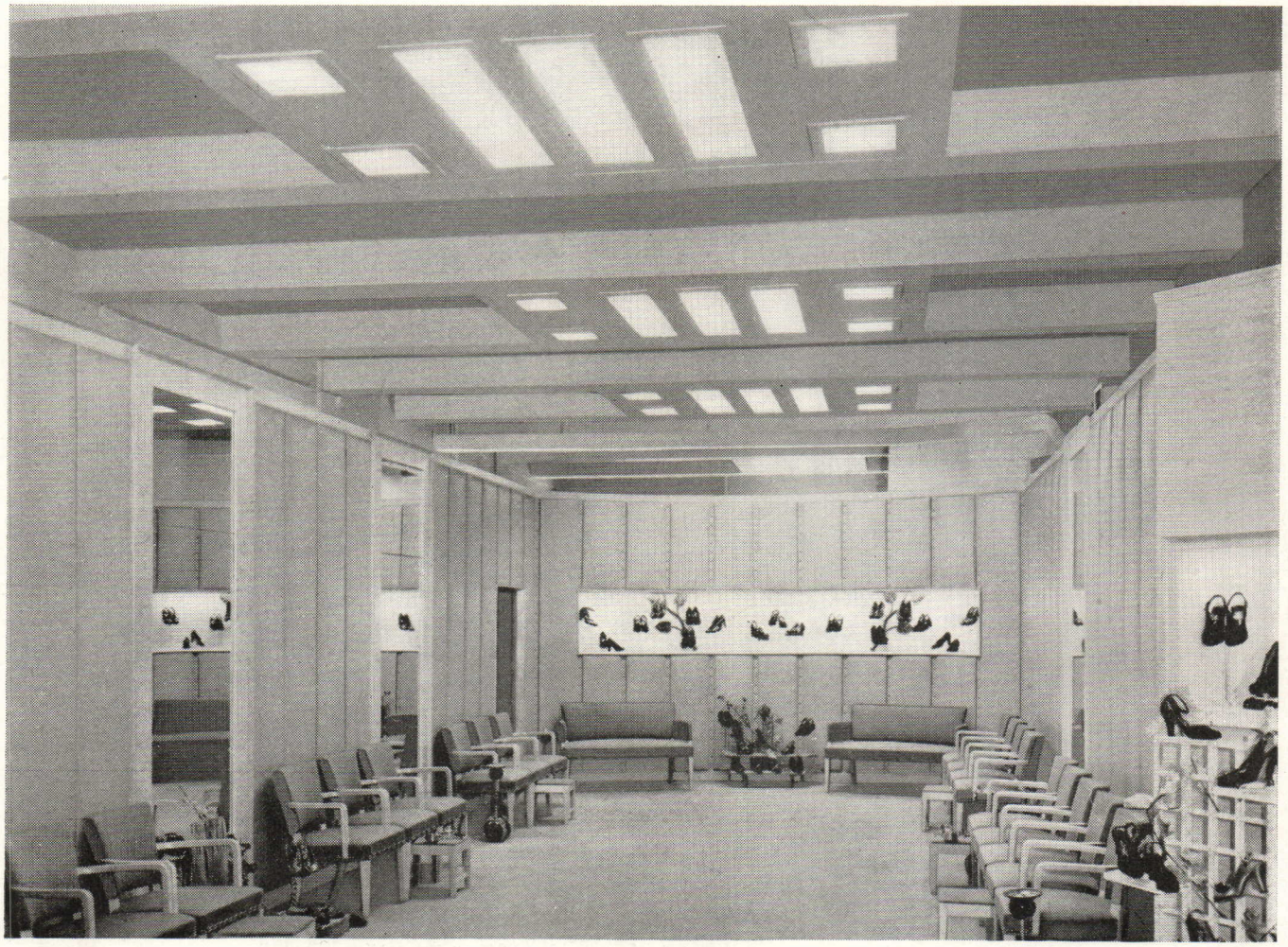
IN THE

P/A-JAY-CEE ARCHITECTURAL COMPETITION



. . . at BERRY-BURK & CO.
Richmond, Virginia

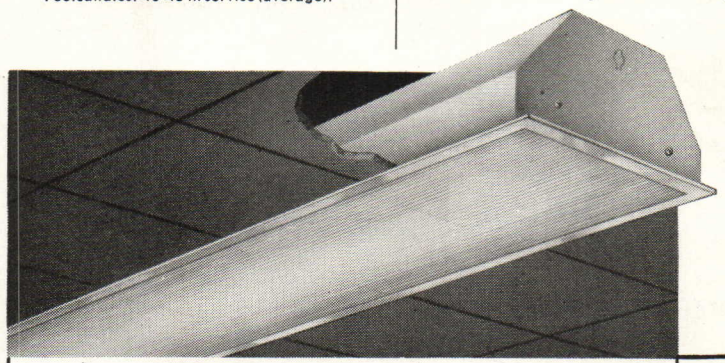
Architects: Marcellus Wright and Son
Consulting Engineer: Mr. George Wagner, V.P. of Morris Hunter Inc.
Electrical Contractor: Morris Hunter Inc.
Lighting Equipment: Litecontrol No. 3234 troffer-type lens unit plus recessed lens boxes.
Lamps: 40 watt, white, fluorescent; 200 watt incandescent.
Wattage per fixture: 150 fluorescent; 200 incandescent.
Footcandles: 40-45 in service (average).

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 Controlescent® lenses, and sliding them out, gives access to the inside for maintenance.

Cat. No.	Lamps	HOUSING Length	Width	Height	TRIM Length	Width	Approx. Weight
3224	2-40W	48"	11¾"	6¾"	50½"	13⅜"	38 lbs.
3234	3-40W	48"	11¾"	6¾"	50½"	13⅜"	43 lbs.

3200-3 End Cap; or 3200-6 Suspension Strap

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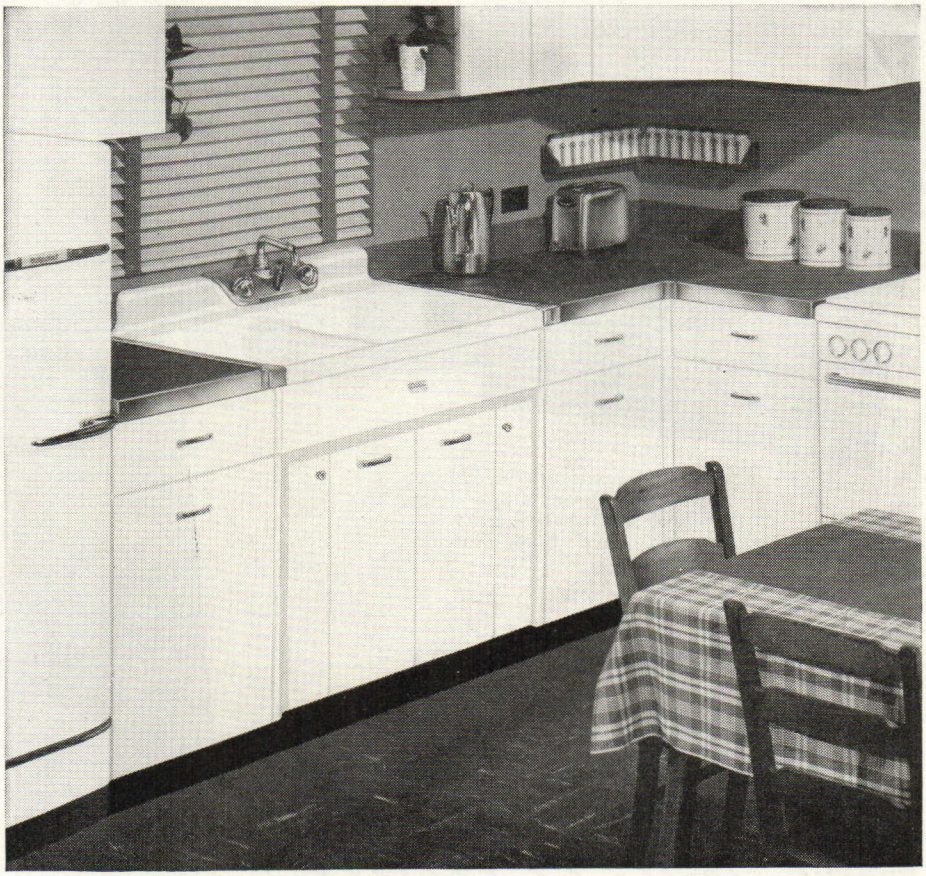
DESIGNERS, ENGINEERS AND MANUFACTURERS OF FLUORESCENT LIGHTING EQUIPMENT DISTRIBUTED ONLY THROUGH ACCREDITED WHOLESALERS

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!

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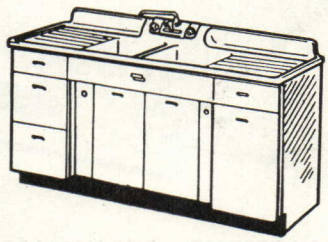
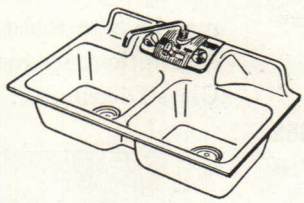
MOST COMPACT: *The Crane Kitchen Pride—double basins in a 38″ space!*

MOST LUXURIOUS: *The Crane Kitchen Queen, America's finest. Double basins, double drainboard—six feet of quality. Available with automatic dishwasher, General Electric Disposall.*



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.*



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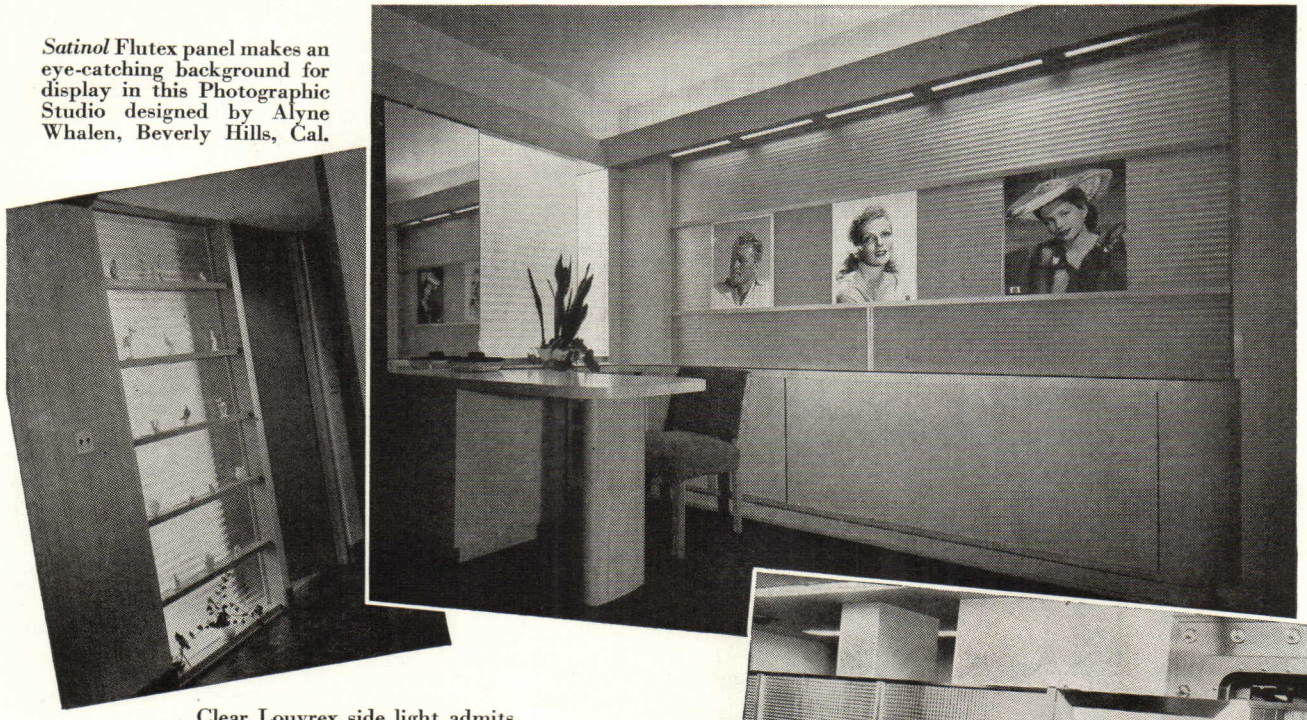

Clear Louvrex side light admits light to hall, forms a sparkling backdrop for whatnot shelves. Architect: Ned Cole, Austin, Texas.

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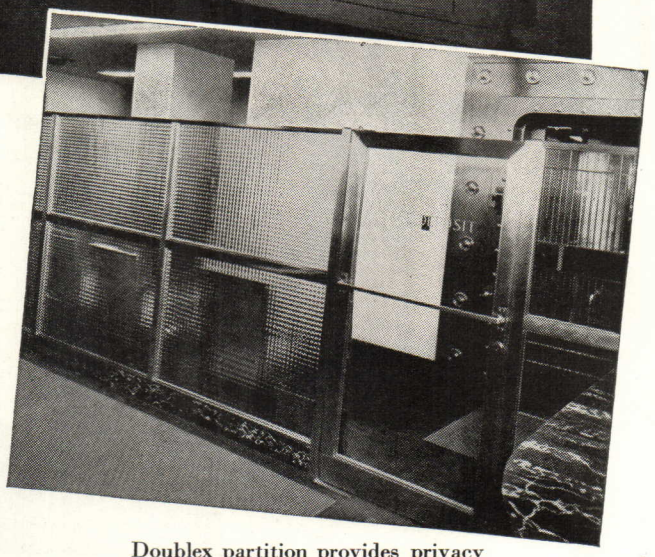
with *Blue Ridge* patterned glass



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

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.

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traffic-timed
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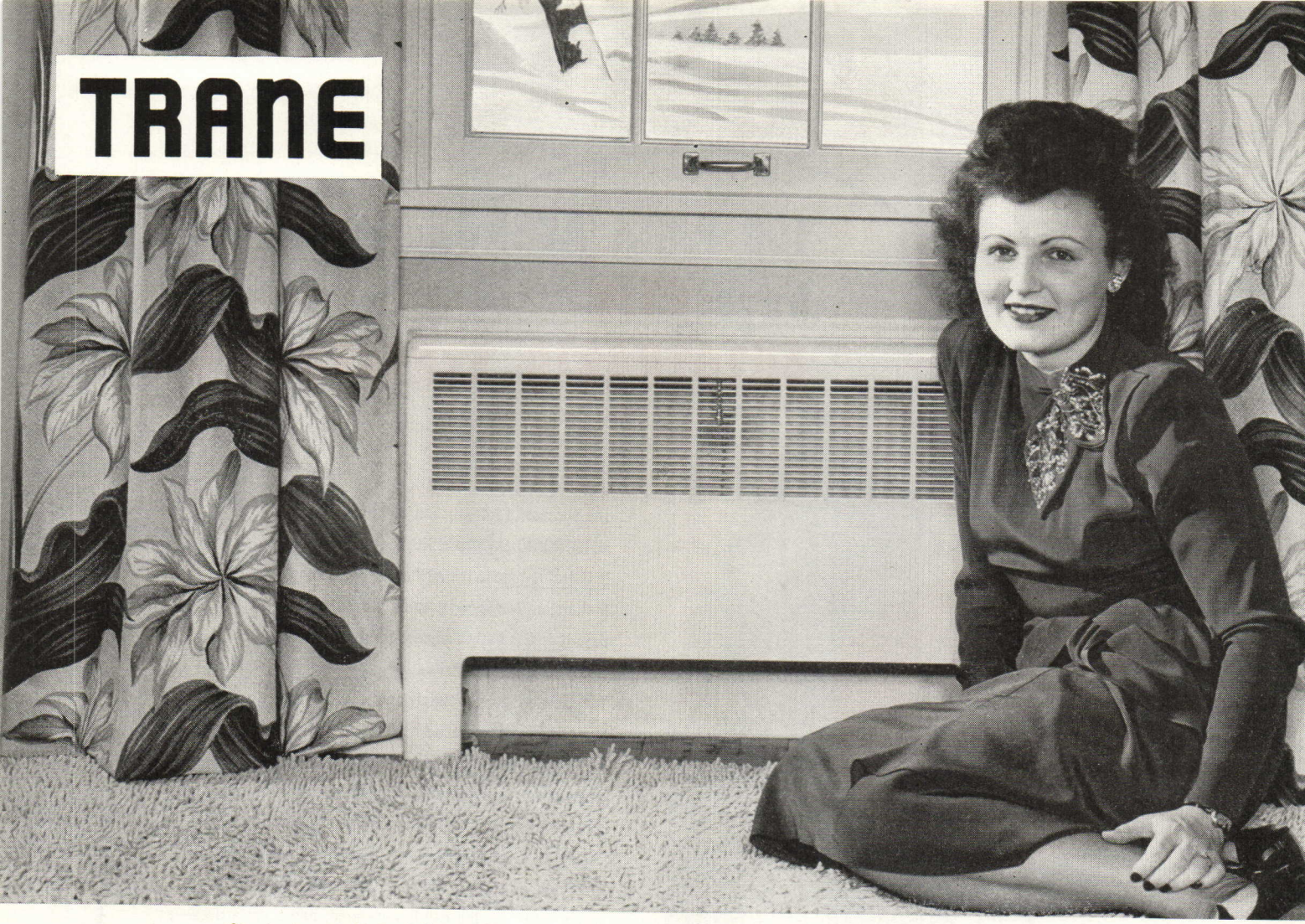
an entirely new concept of elevatoring



Standard, carried-in-stock Type A Convectors give heating installations that rich, custom-built look—AT BUDGET PRICES.

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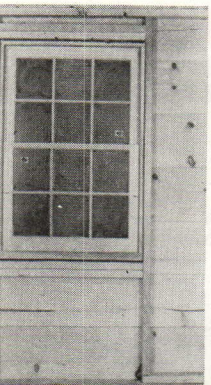
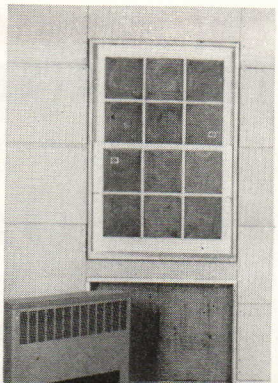
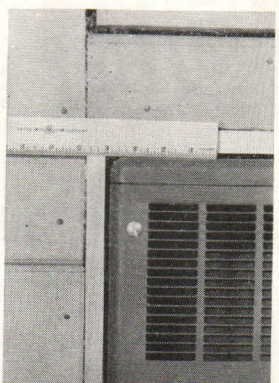
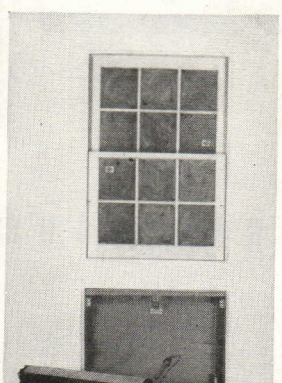
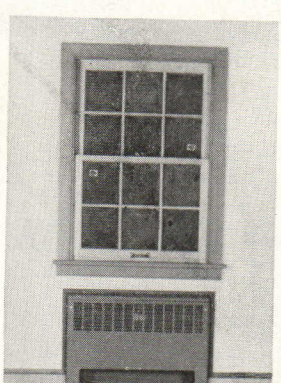
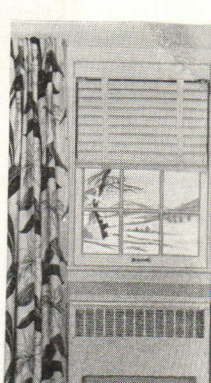
The recessing questions of architect, builder, and heating contractor are answered by word and by picture in "How to recess Type A Convectors". Write for your copy.

Early morning view on the 4th Floor at R. H. Macy & Co. showing Vinatred installation.

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with light, tremendously strong Truscon Clerespan Steel Joists

An 80-foot Truscon Clerespan Steel Joist (inverted for convenience in handling) being moved into position on the new Star Market building in Newtonville, Massachusetts.

Above and below: Interior view of the Star Market. H. L. Feer & Wm. E. Nast of Boston, Architects. Mark Linenthal, Boston, Mass., Engineer. W. H. Porter Co., Watertown, Gen. Contractor.

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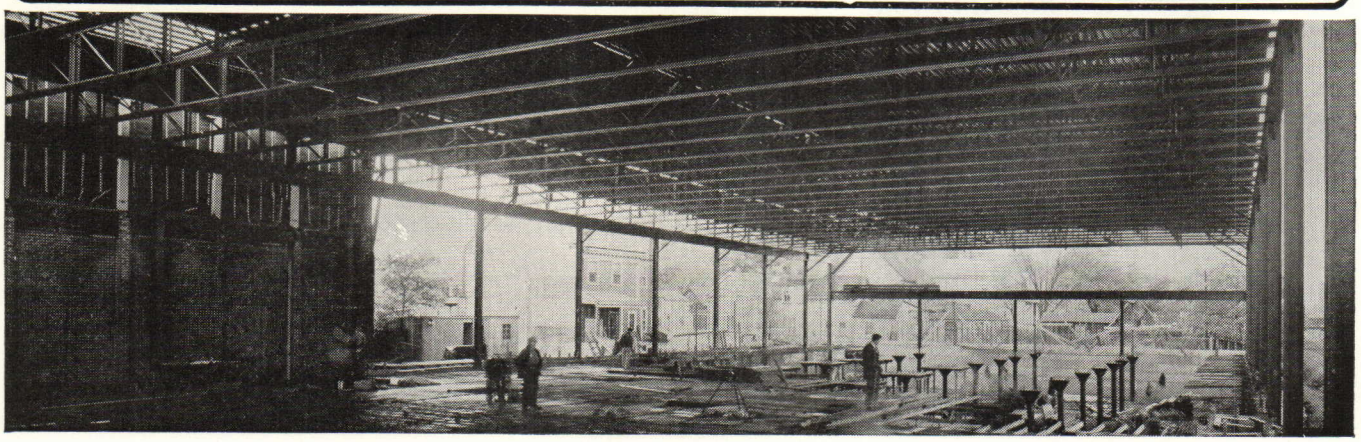

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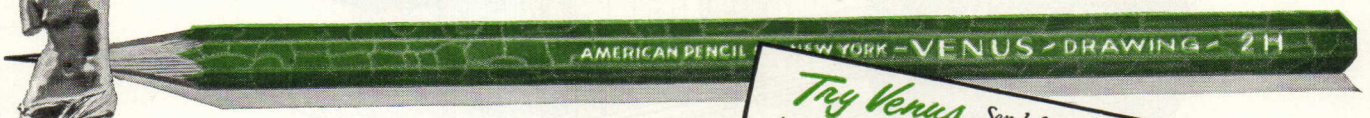

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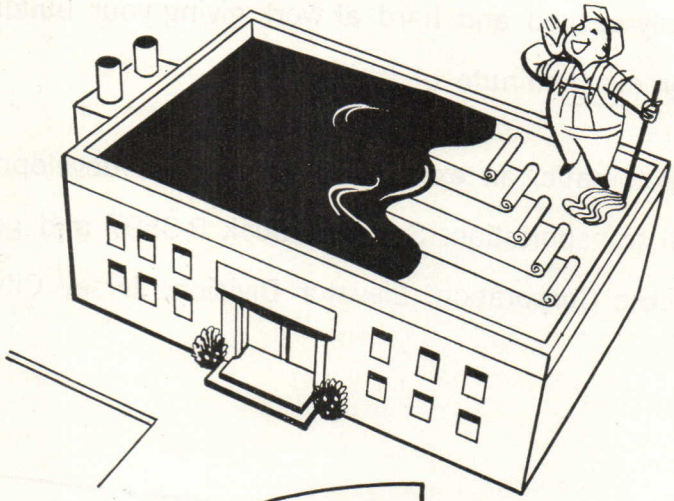

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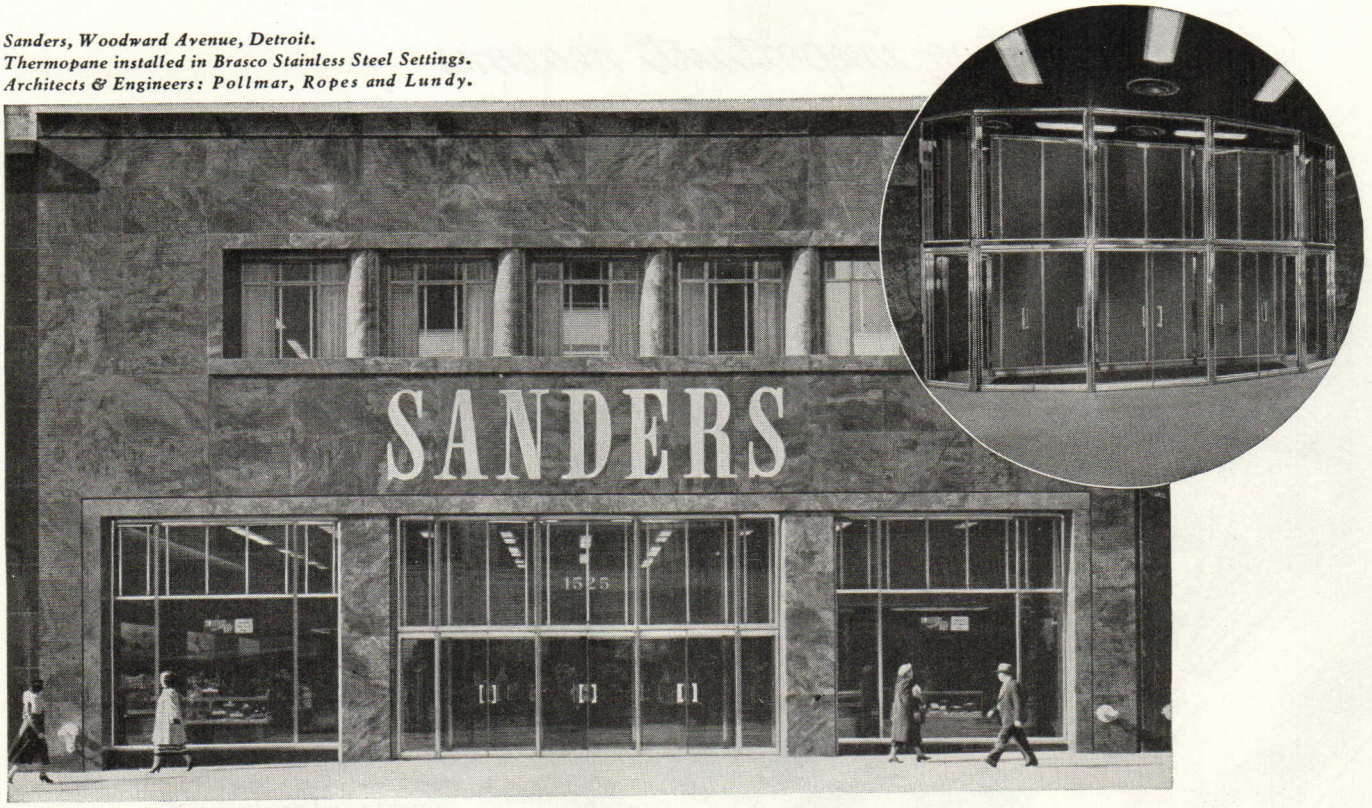


More SELLEVISION* *per front foot*

THE emphasis on *Sell*evision in advanced store front design is increasingly evident. *Sell*evision 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 *Sell*evision 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.* * ©

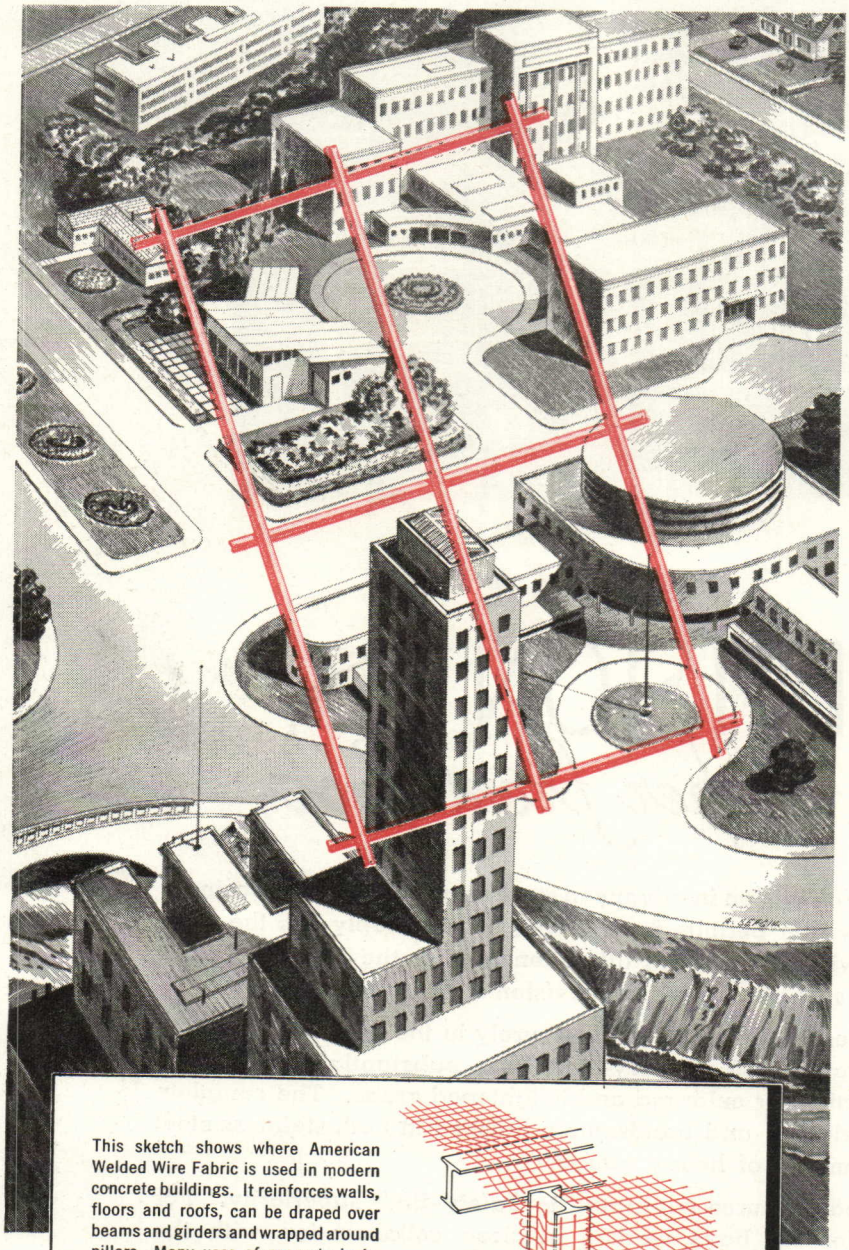
★ ★ A COMPLETE LINE FOR EVERY DESIGN ★ ★

Brasco
SAFETY-SET STORE FRONTS

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



This sketch shows where American Welded Wire Fabric is used in modern concrete buildings. It reinforces walls, floors and roofs, can be draped over beams and girders and wrapped around pillars. Many uses of concrete in irregular structural shapes are made practical by American Welded Wire Fabric reinforcement.

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

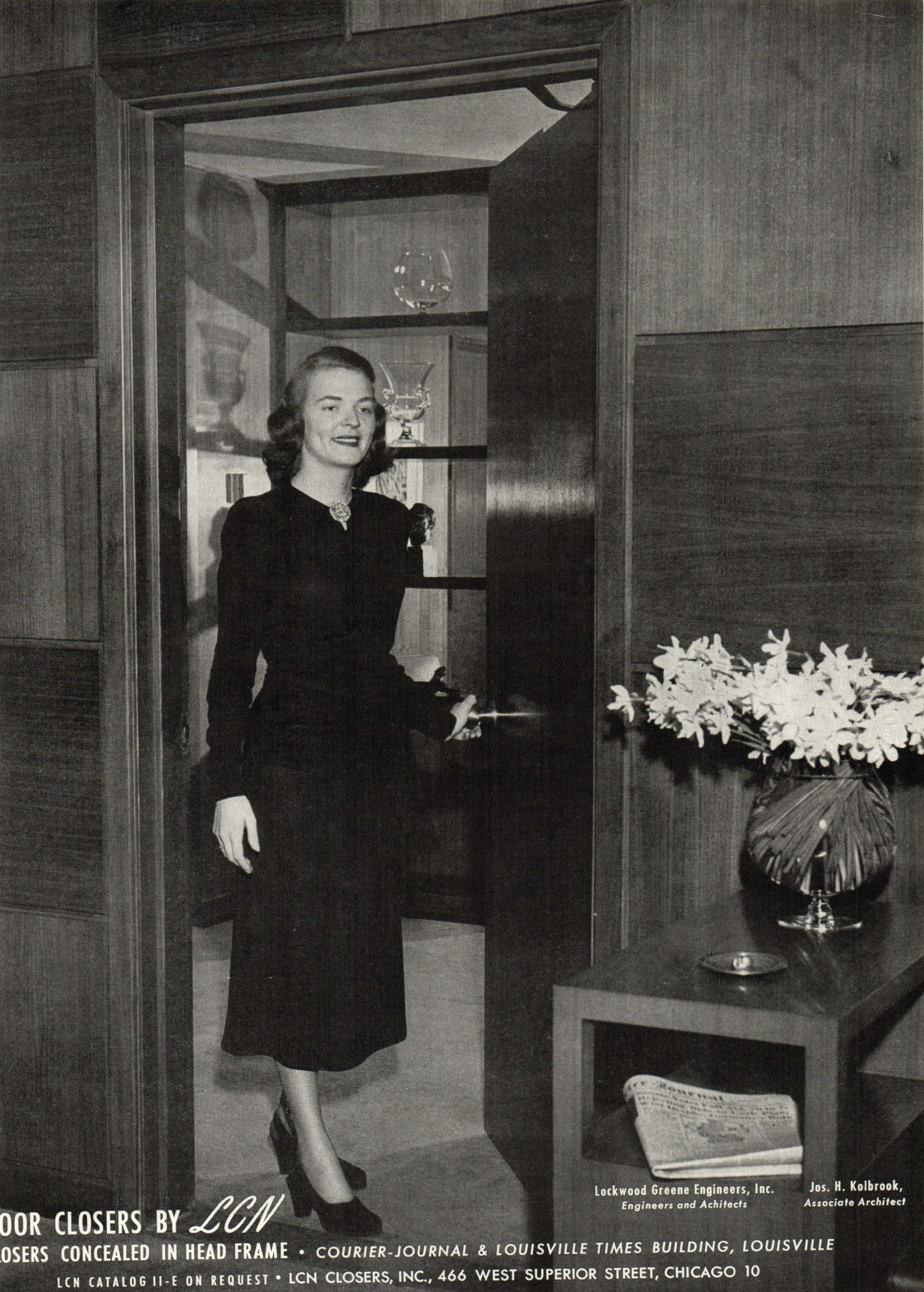
Every type of concrete construction needs

AMERICAN WELDED WIRE FABRIC

reinforcement

USS

UNITED STATES STEEL



Lockwood Greene Engineers, Inc.
Engineers and Achitects

Jos. H. Kolbrook,
Associate Architect

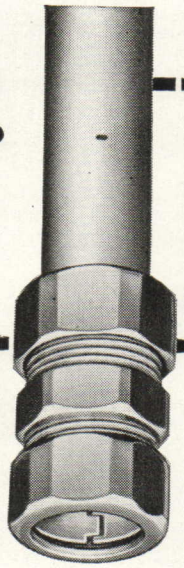
OOR CLOSERS BY *LCN*

LOSERS CONCEALED IN HEAD FRAME • *COURIER-JOURNAL & LOUISVILLE TIMES BUILDING, LOUISVILLE*

LCN CATALOG 11-E ON REQUEST • LCN CLOSERS, INC., 466 WEST SUPERIOR STREET, CHICAGO 10

ELECTRUNITE E.M.T.

the ORIGINAL lightweight rigid steel wiring raceway

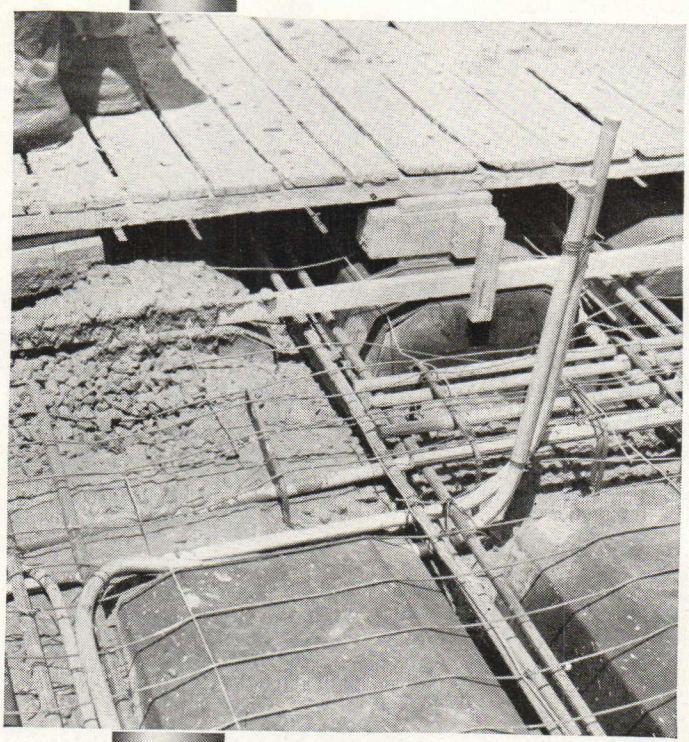


PROVIDES WATER-TIGHT PROTECTION THROUGHOUT THE INSTALLATION

● 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:



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

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:

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Berger Lockers, Bins, Shelving
Berger Cabinets for Kitchens
Truscon Steel Windows, Doors, Joists and other Building Products

Republic
REPUBLIC STEEL
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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.

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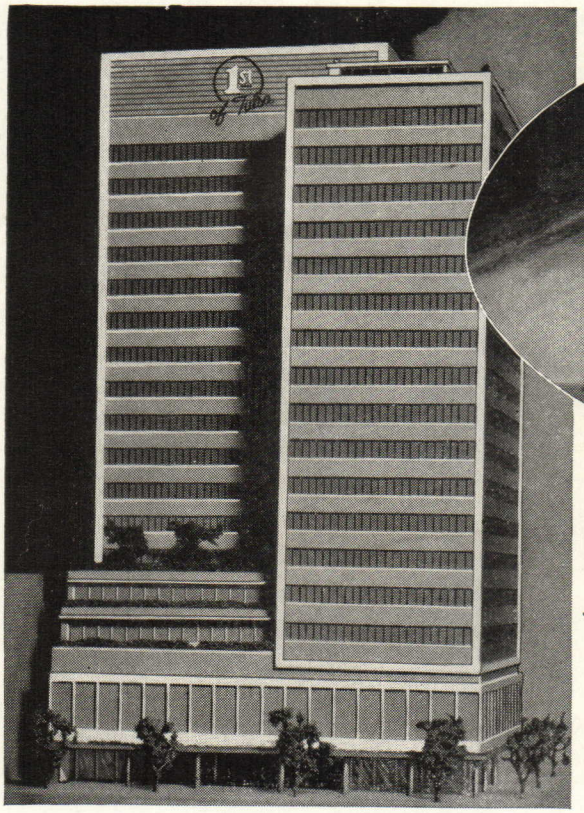


SEATTLE, WASH. Federal Reserve Bank of San Francisco
architects—Maramore, Bain, Brady & Johanson
contractor—Kuney Johnson Co.

TULSA, OKLA.
First National Bank
architects—Carson & Lundin (N. Y.)
contractor—Manhattan Const'n. Co.

DALLAS, TEXAS . . . . . ➔
Mercantile National Bank
architect—Walter Ahlschlager
contractor—Henger Construction Co.

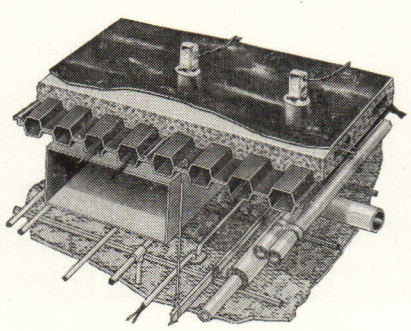
Why All These Buildings Are Banking on Q-FLOORS

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.

Perfect FLOOR Plan !

Here's why so many architects now recommend resilient flooring made of VINYLITE 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 nonporous and dirt cannot penetrate.**
- ★ **They come in an almost infinite variety of stable colors.**

VINYLITE 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 VINYLITE 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 VINYLITE Resins. Simply write Department GS-58.

Data courtesy Thos. Moulding Floor Mfg. Co. and Goodall Fabrics, Inc.

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TRADE MARK **BAKELITE CORPORATION**

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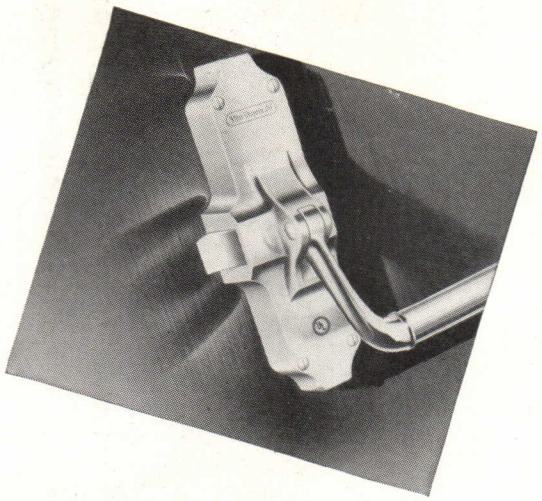
When the careful man chooses drop-forged Von Duprin exit devices his choice may be prompted as much by his sense of thrift as by his desire for the utmost in safe, sure, quick exit.

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.



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Honeywell Comfort

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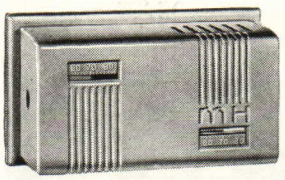
THE progressive owners of shops and office buildings on "Commercial Street" know that comfort is essential to attract trade and keep tenants satisfied. They realize that air conditioning, for example, is no longer a luxury—it is just plain good business. So, they are installing the most modern heating, 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.



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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.

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CONTROL SYSTEMS

73 BRANCHES FROM COAST TO COAST WITH SUBSIDIARY COMPANIES IN: TORONTO • LONDON • STOCKHOLM • AMSTERDAM • BRUSSELS • ZURICH • MEXICO CITY

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.

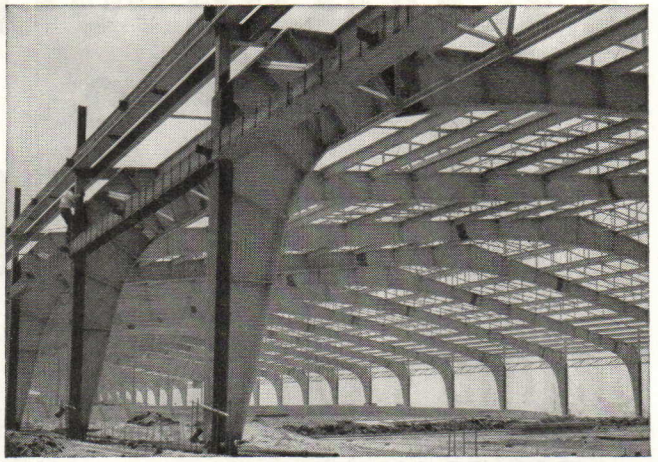


Fig. 2. All welded rigid frame Harbor Shed at Long Beach, California. Designed by R. D. Sandham under direction of R. R. Shoemaker, Chief Engineer, and R. J. Amar, Port Manager. Steel fabricated and erected by Pacific Iron and Steel Company of Los Angeles.

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.

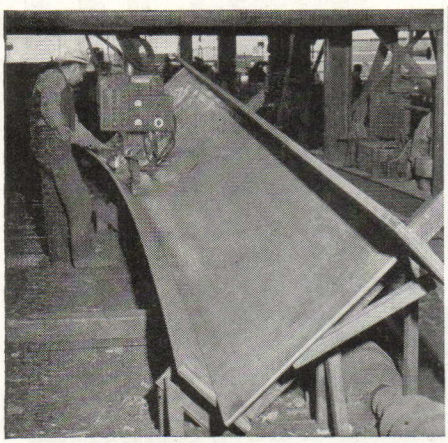


Fig. 3. Shop fabricating truss sections, using "Automatic Lincolnweld." Fillet welds are made in single pass at 600 amps. and speed of 24 inches per minute.

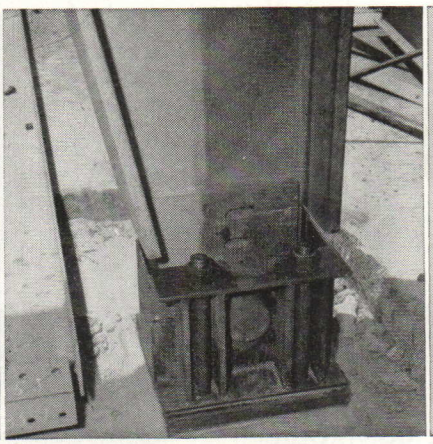
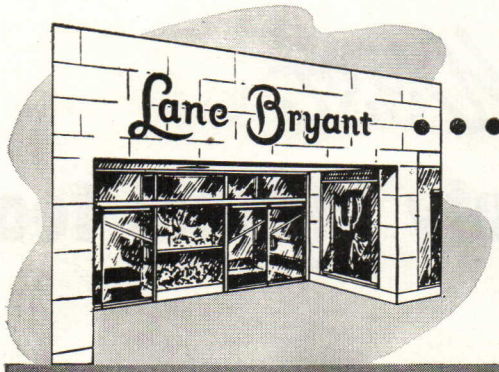
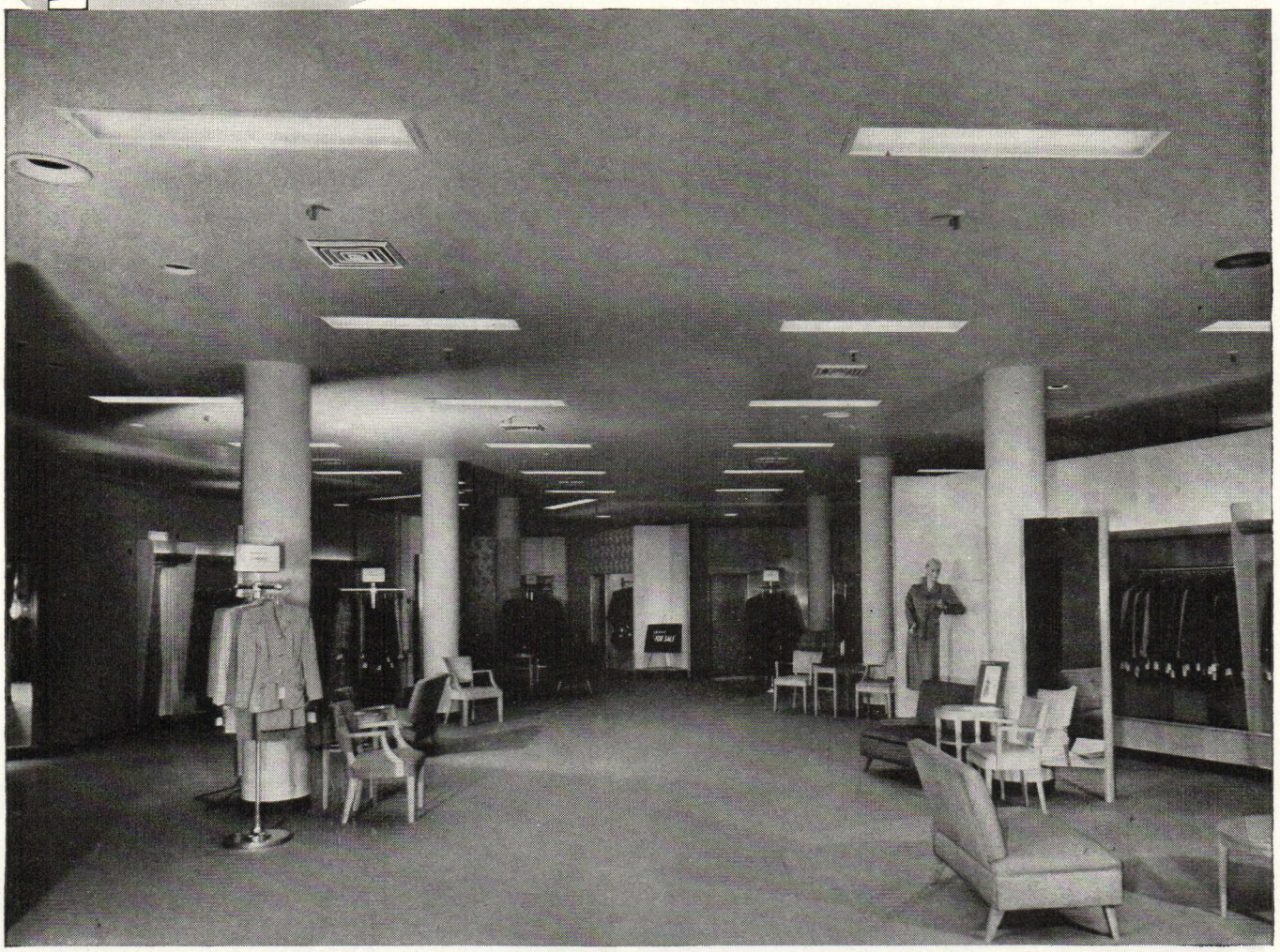


Fig. 4. Hip girder connection to base plate. Five-inch diameter horizontal pin allows free movement in case of earthquake or settling in harbor area.

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



. . . Retail Chain Chooses AGITAIR® To Help Sell Ready-To-Wear



Sales floor in Lane Bryant's Detroit store where Agitair Type R's provide complete customer comfort.
Architects: C. N. Agree *Mech. Engr.:* A. F. Caughey *Air Cond. Contr.:* J. Brodie & Sons, Inc.

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.

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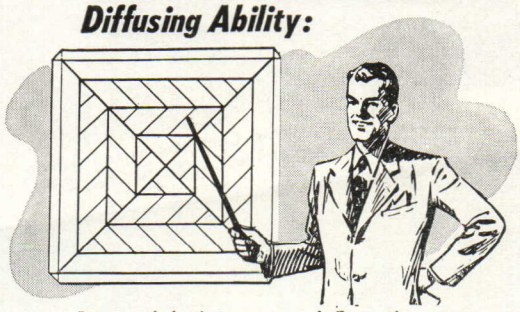
AIR DIFFUSERS • AIR FILTERS • ROOF EXHAUSTERS

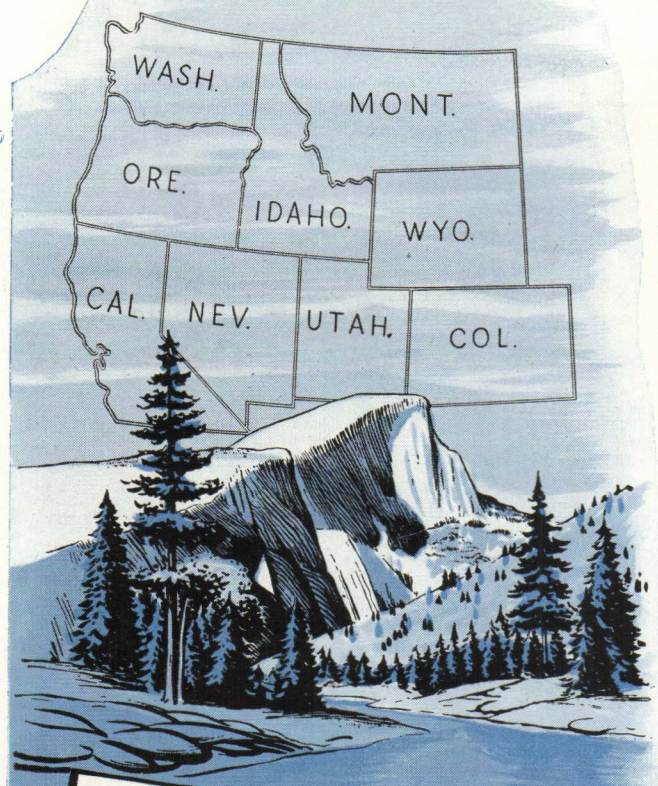
Here's the Secret of Greater Diffusing Ability:



Patented built-in vanes deflect the air in numerous divergent streams resulting in turbulence at the point of contact with the aspirated air. Result: Rapid mixing, diffusion and temperature equalization.

In the Scenic Far West

there's lasting beauty indoors too



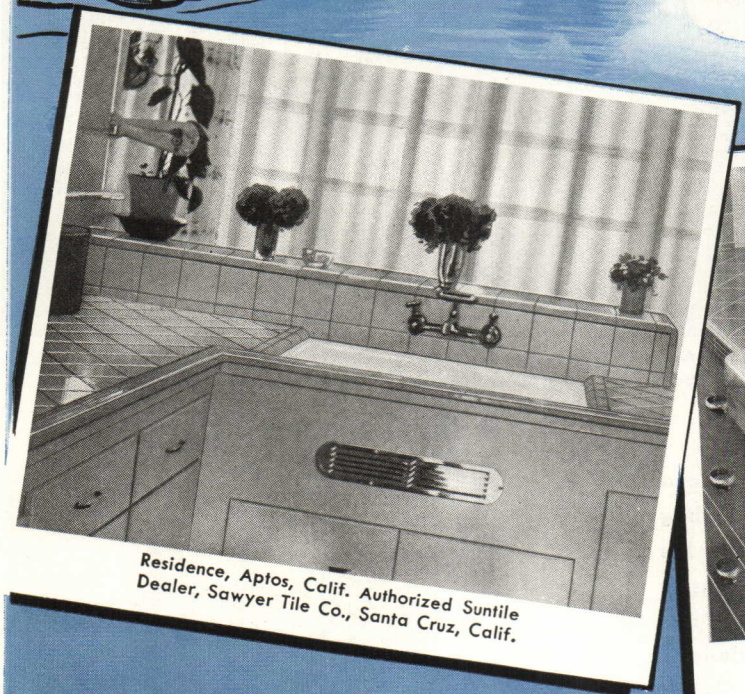
Natives of the Far Western states often refer to this scenic section as "God's Country."

They like the clean, colorful, permanently beautiful settings nature has provided for their living and working.

Many Westerners like this atmosphere of fresh, lasting beauty *in*doors 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, waxing, 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!



Residence, Aptos, Calif. Authorized Suntile Dealer, Sawyer Tile Co., Santa Cruz, Calif.

Residence, Salt Lake City, Utah. Architect, William E. Nelson. Builders, A. P. Nellson, Elbert G. Adamson. Authorized Suntile Dealer. Elias Morris Sons Co., Salt Lake City.

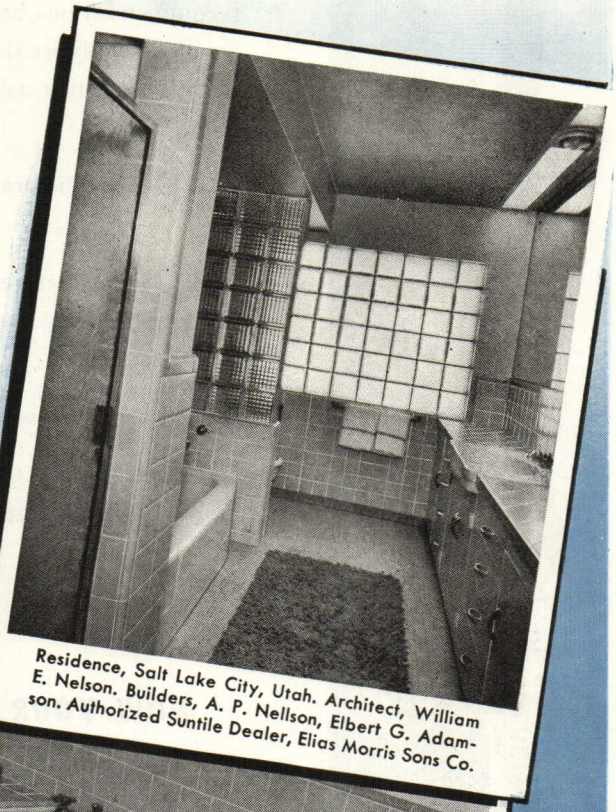
Suntile OFFERS YOU BOTH—

in interiors of COLOR BALANCED Suntile

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.

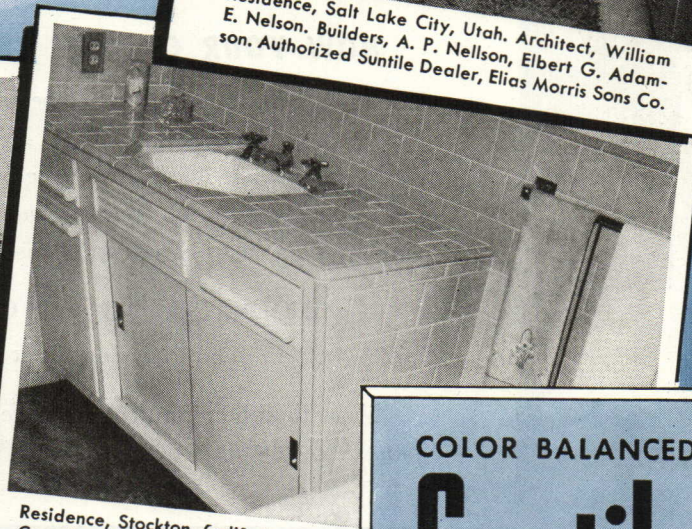
Your Suntile Dealer is a good man for you to know. His name may be in your classified telephone directory. We'll be happy to send his name and our latest literature, if you'll write us at Dept. PA-9.

See our Sweet's Catalog for more detailed data on sizes and colors. The Cambridge Tile Manufacturing Company, Cincinnati 15, Ohio.



Residence, Salt Lake City, Utah. Architect, William E. Nelson. Builders, A. P. Nellson, Elbert G. Adamson. Authorized Suntile Dealer, Elias Morris Sons Co.

Residence, San Jose, Calif. Authorized Suntile Dealer, Simpson Tile Co., San Jose.



Residence, Stockton, Calif. Architect, Campbell and Wong, Stockton. Contractor, Morellini Construction Co., Stockton. Authorized Suntile Dealer, Geo. K. Morrison, Stockton.

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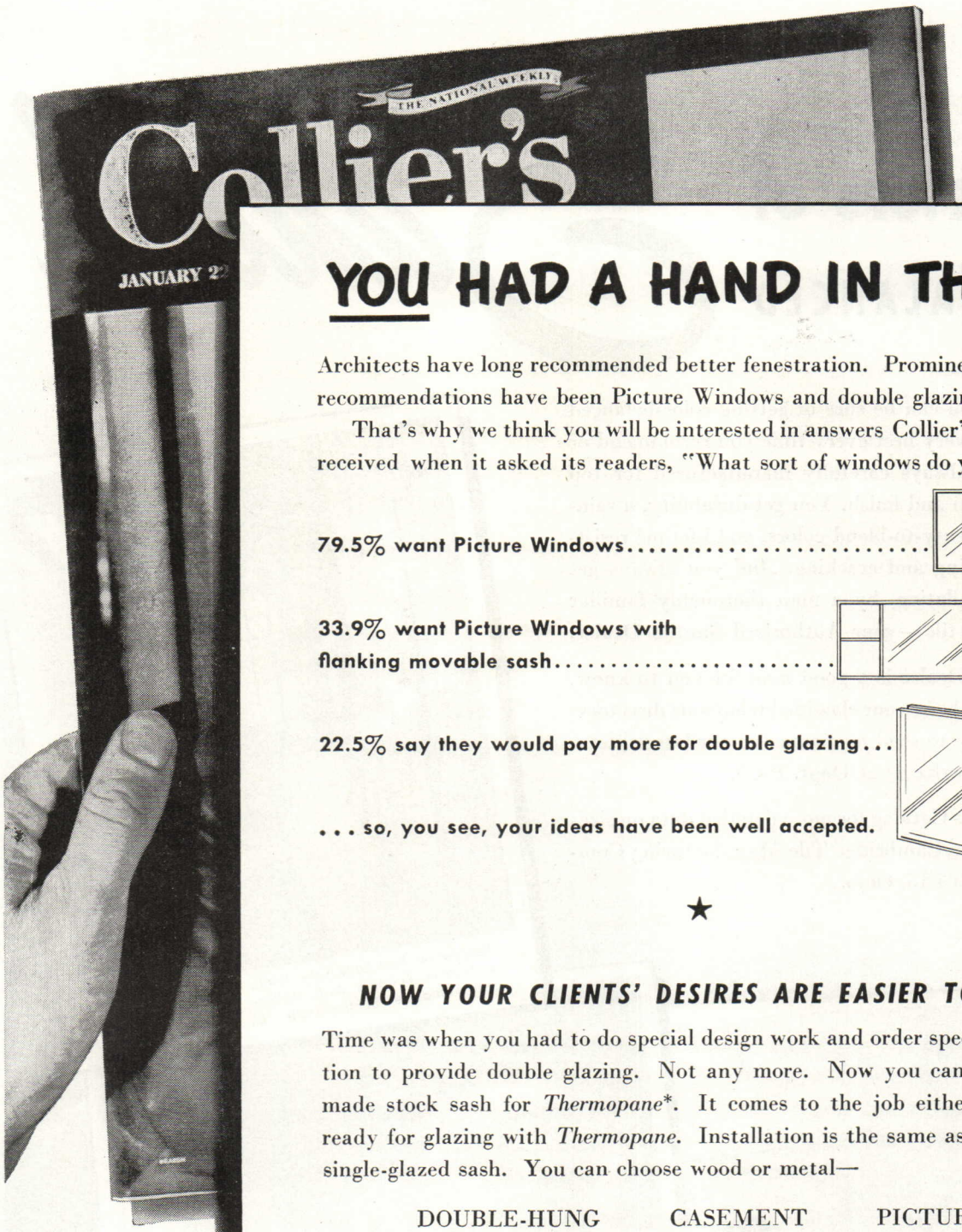
. . . . Bright with color
. . . . . Right for life

Better Tile.... Better Installation

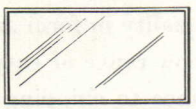


YOU HAD A HAND IN THIS!

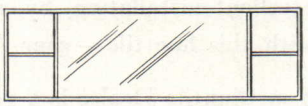
Architects have long recommended better fenestration. Prominent in those recommendations have been Picture Windows and double glazing.

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?"

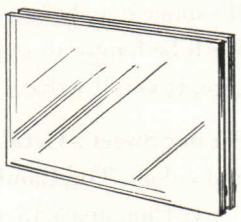
79.5% want Picture Windows.....



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.

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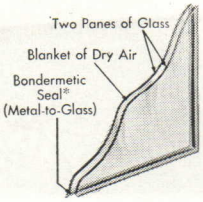
LIBBEY·OWENS·FORD GLASS COMPANY

2499 Nicholas Building, Toledo 3, Ohio

FOR BETTER VISION, SPECIFY THERMOPANE MADE WITH POLISHED PLATE GLASS

Cutaway view of *Thermopane*



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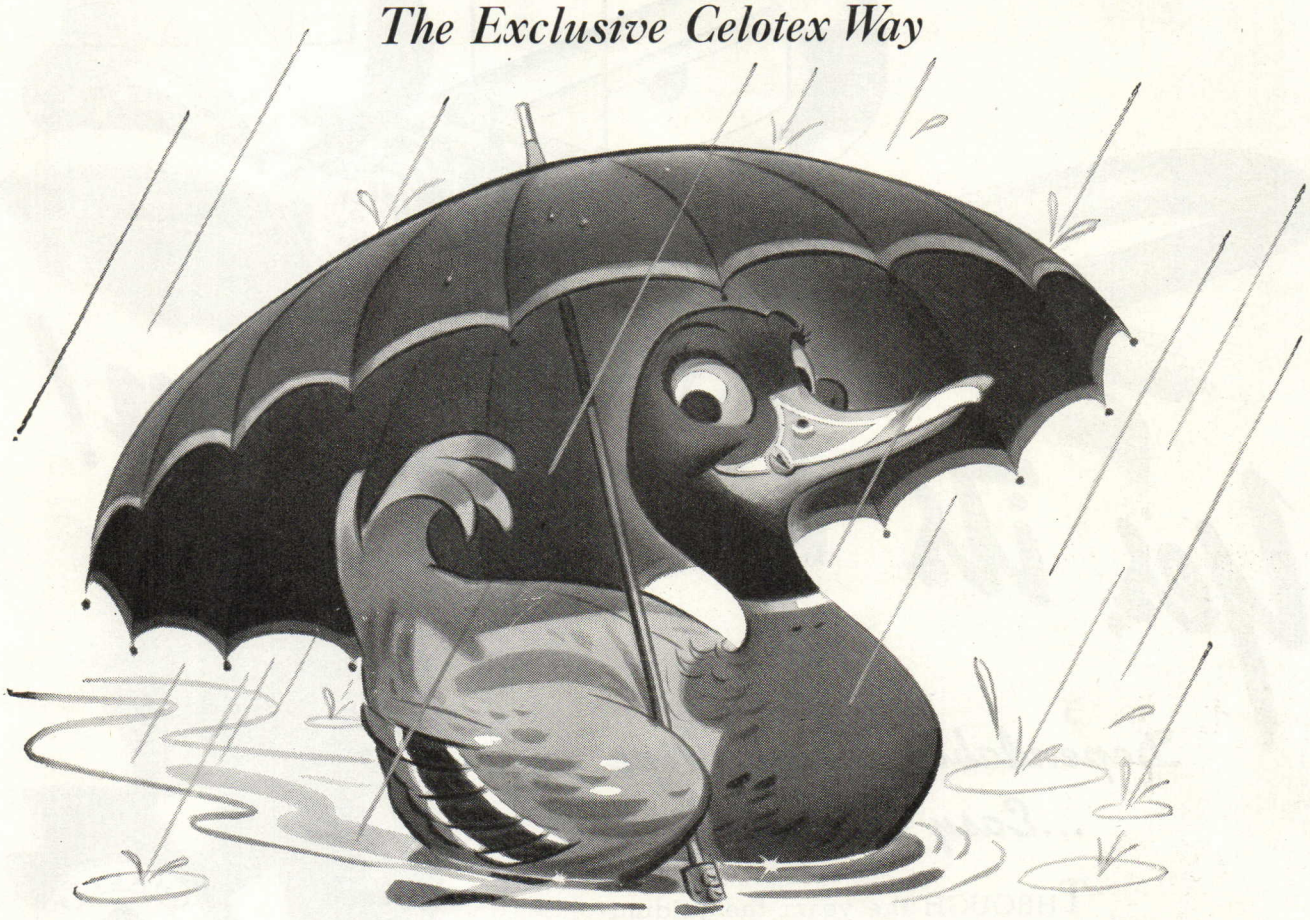
double-waterproofed

The Exclusive Celotex Way



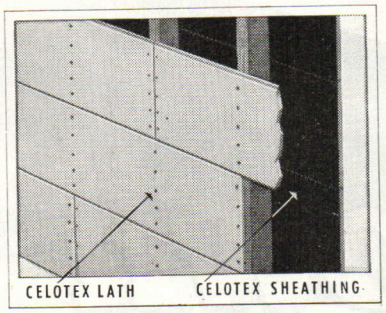
1 WATERPROOFED INSIDE!

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.

The Ideal Wall



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.

★ 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.

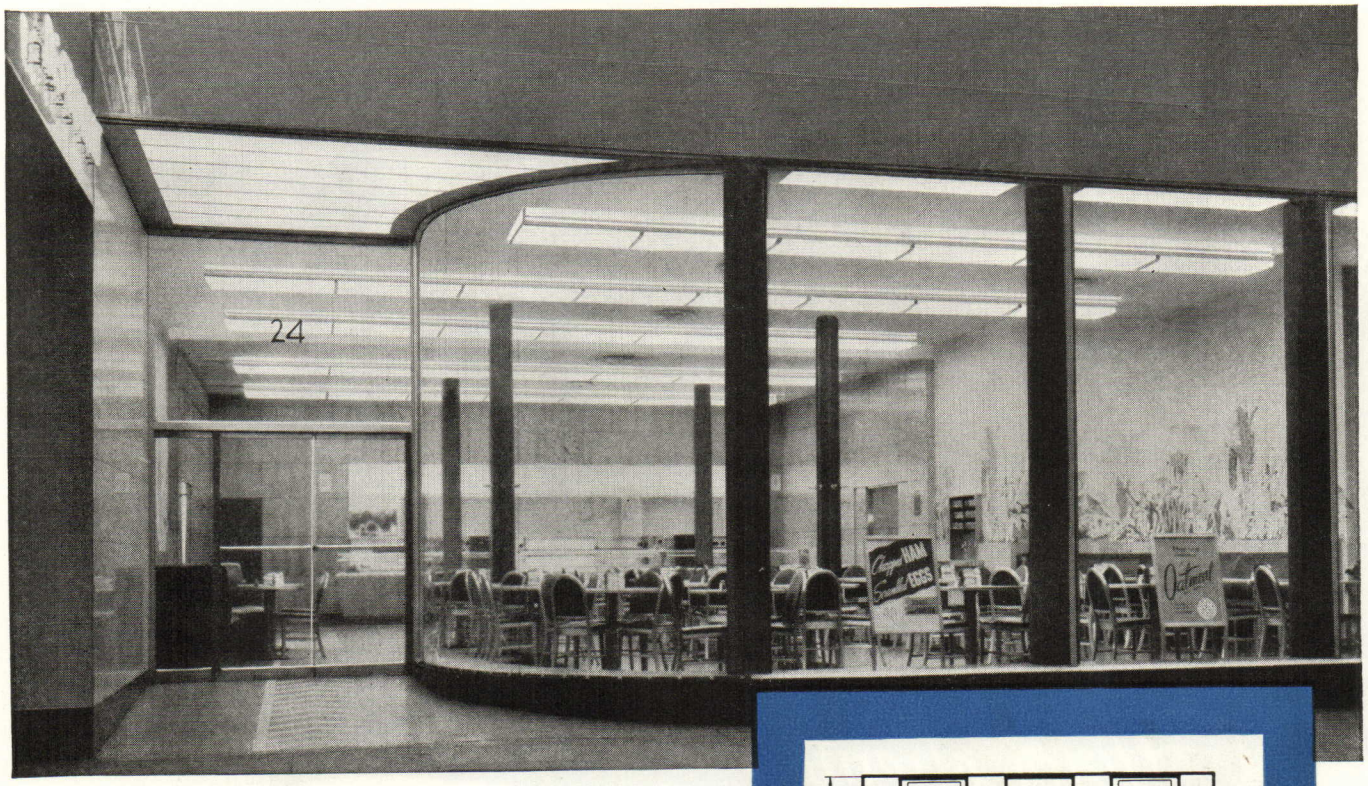
★ Yet costs no more than ordinary sheathing.

★ Write today for full details!

Double-Waterproofed **CELOTEX** REG. U. S. PAT. OFF.

THE CELOTEX CORPORATION • CHICAGO 3, ILLINOIS

CELOTEX INSULATING SHEATHING



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.

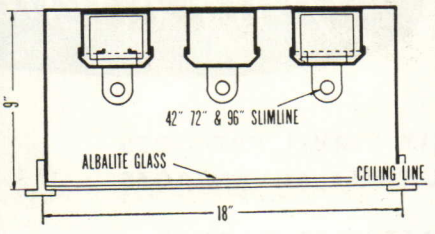
Management says the new lighting "... attracts the attention of passersby ... makes the food appear more appetizing than ever before."

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.

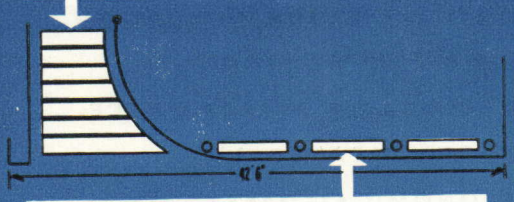
Other G-E slimline features important to owners are instant starting (no starters needed), ease and economy of maintenance and long life.

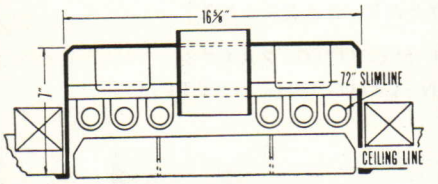
Whatever lamps *your* design calls for, specify General Electric. There are more than 10,000 types and sizes of G-E lamps to choose from, all constantly improved by research to STAY BRIGHTER LONGER.

SLIMLINE FLUORESCENT LAMPS



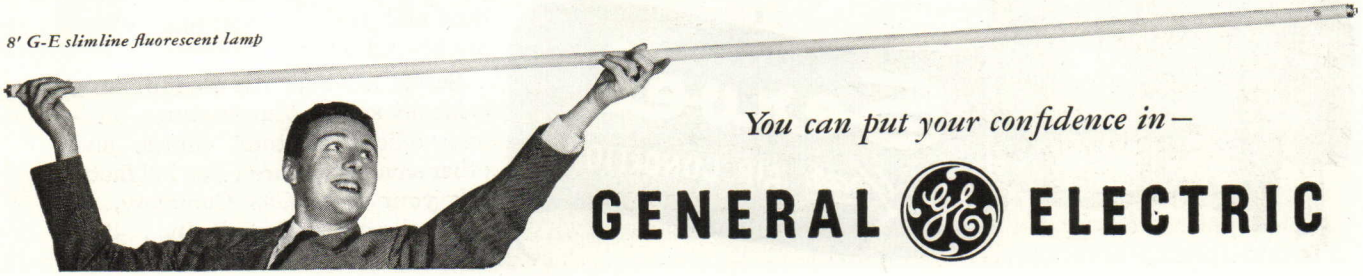
Slimline lamps highlight entrance. Use of 3 sizes permits curved effect.





Slimlines in 6-lamp fixtures are placed just inside front window, attract customers.

8' G-E slimline fluorescent lamp



You can put your confidence in—

GENERAL ELECTRIC

Your clients' homes can be

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

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.

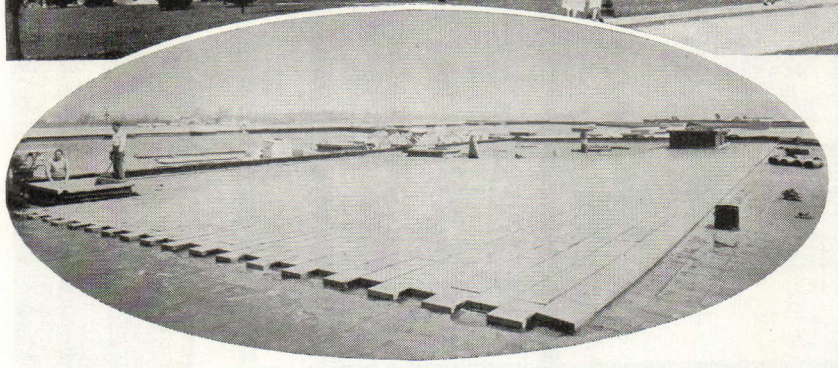
This amazingly compact unit provides summer cooling and winter heating . . . plus humidity control and filter-cleaned air. With a mere flip of a switch, the homeowner can have refreshingly, dehumidified cooling, or instantaneous draft-free heating. Between seasons, Servel circulates filtered air at prevailing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

Servel *All-Year* AIR CONDITIONER

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!

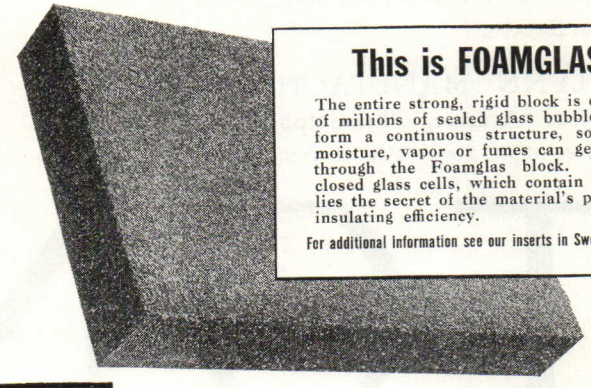
PC Foamglas is a true glass in cellular form. That is why it has proved an effective aid in maintaining desired temperature levels in all sorts of structures. Foamglas withstands humidity, is a water seal, a vapor stop.

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 sealed 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 inserts in Sweet's Catalogs

Pittsburgh Corning Corporation
Dept. N-99, 307 Fourth Ave.
Pittsburgh 22, Pa.

Please send me without obligation, your FREE booklets on the use of PC Foamglas Insulation as checked below:

Commercial & Industrial Buildings: Roofs ☐ Walls ☐ Floors ☐

Refrigerated Structures ☐ Home Insulation ☐

Name_____

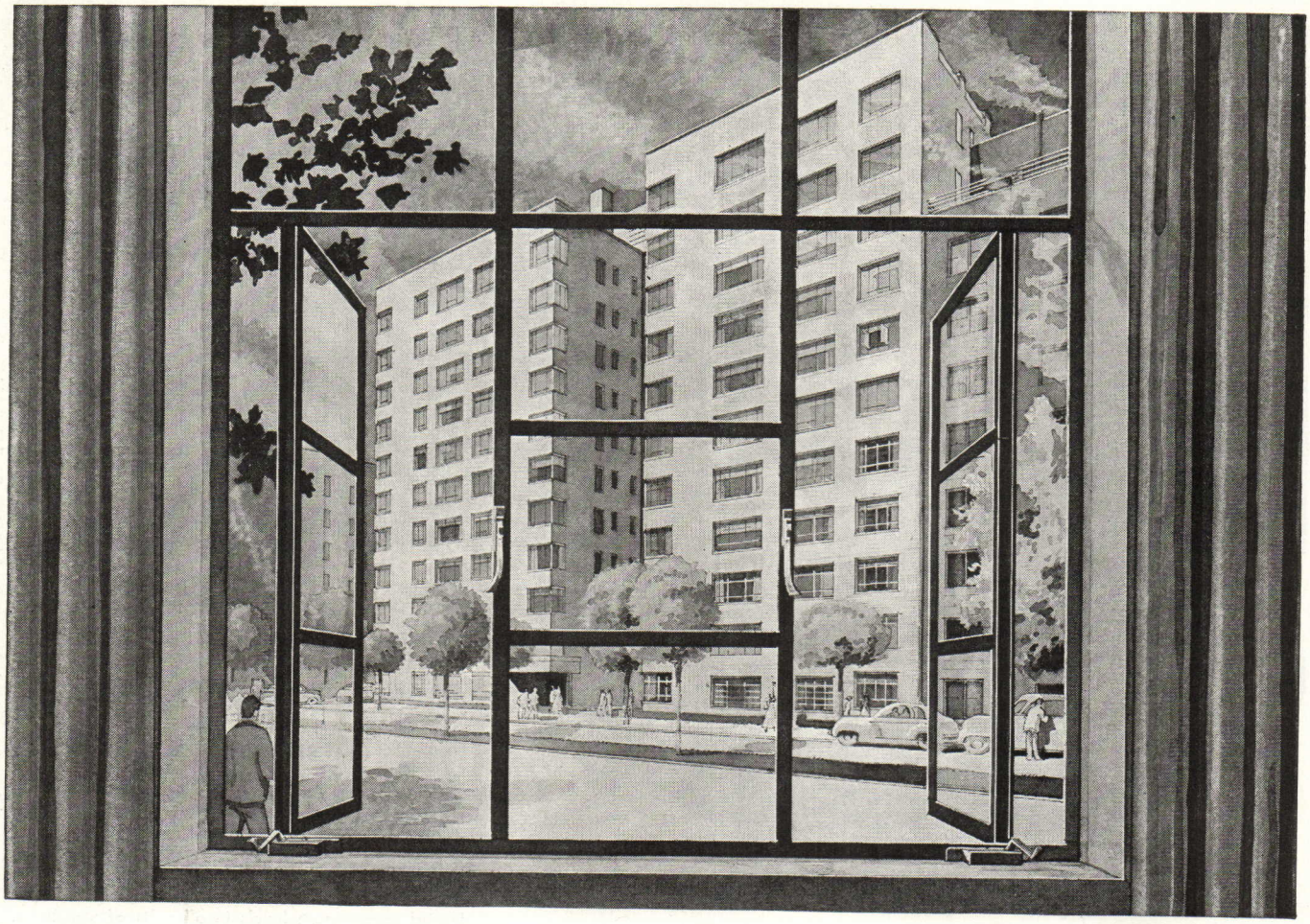
Address_____

City_____ State_____

PITTSBURGH PC CORNING

FOAMGLAS INSULATION

. . . when you insulate with FOAMGLAS . . . you insulate for good!



Apartments at 930 Grand Concourse, Bronxville, N. Y. Ashley Apartments, Inc., Builders and Owners. H. Herbert Lilien, Architect.

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

LUPTON METAL WINDOWS

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 acoustical 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

Please send me a free copy of Bulletin 29 which fully describes the new Anemostat Type E *Square* Air Diffuser.

NAME .....

POSITION .....

COMPANY .....

ADDRESS AC-123

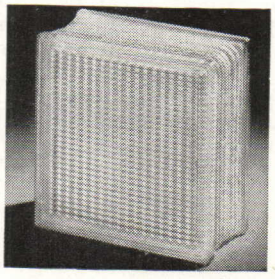
Insulux Glass Block is combined with clear-vision windows to bring superior daylighting to this new Standard Oil Company (Indiana) research laboratory at Whiting, Ind. Insulux (No. 351) bends light rays, directing them at ceilings for even distribution throughout the room.

Architect: Holabird & Root & Burgee, Chicago.
Contractor: Gust K. Newberg Construction Co., Chicago.

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.

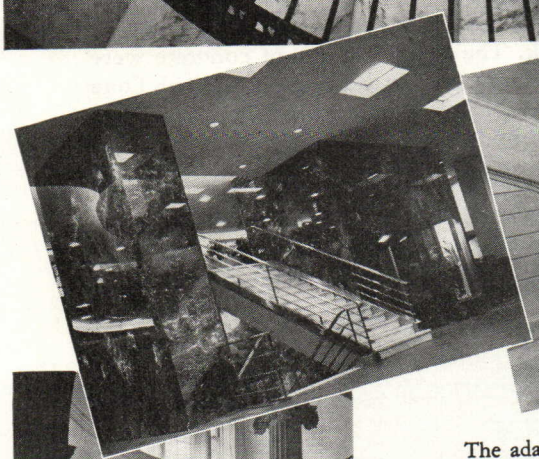


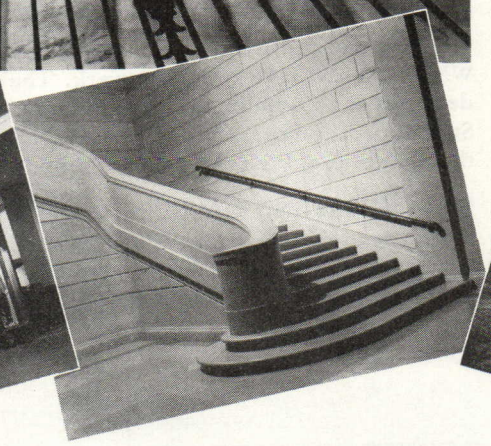
INSULUX
GLASS BLOCK ®
AMERICAN STRUCTURAL PRODUCTS COMPANY
Subsidiary of
OWENS-ILLINOIS GLASS COMPANY

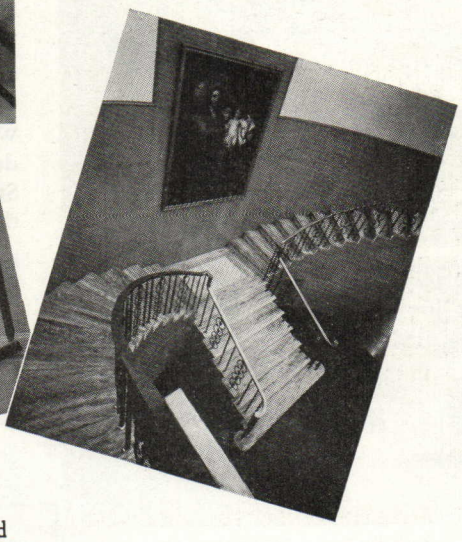
marble

imposing beauty that is *safe* underfoot!

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.

MIA

Marble Institute of America, inc.

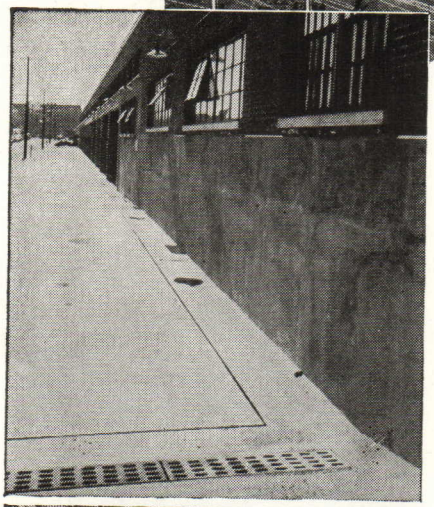
108 FORSTER AVENUE, MOUNT VERNON, N. Y.

"Let's Eat!"

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

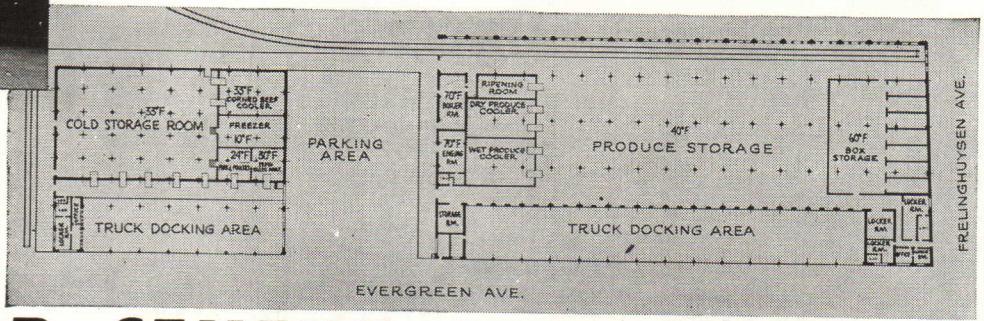
IN spanning the gap between thousands of fields and millions of tables, The GREAT ATLANTIC & PACIFIC TEA COMPANY employs the quality approach to quantity merchandising. Witness this new Produce-and-Meat Warehouse, covering an entire city block in Newark, N. J., linking food supply sources with great 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.

*Reg. U. S. Pat. Off.



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.

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LONE STAR CEMENT, WITH ITS SUBSIDIARIES, IS ONE OF THE WORLD'S LARGEST CEMENT PRODUCERS: 15 MODERN MILLS, 27,000,000 BARRELS ANNUAL CAPACITY

PROGRESSIVE ARCHITECTURE-UNITED STATES JUNIOR CHAMBER OF COMMERCE COMPETITION

report of the jury

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 alloted to competitors. The site, sloping in two directions, was interesting but not an easy one to find a solution for: climate in Tulsa is exteme 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.

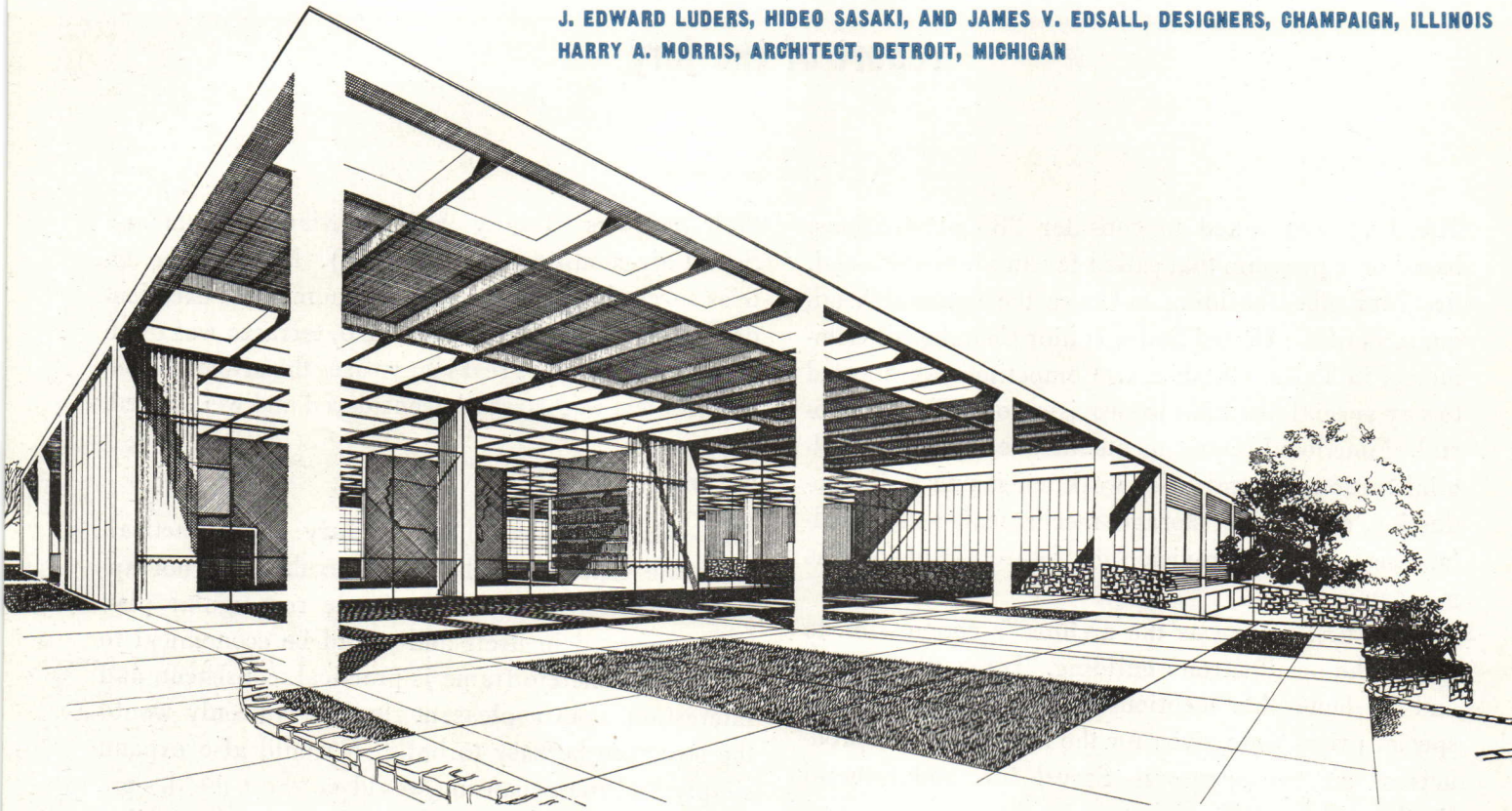
The scale is appropriate to a small building. The perspective gives an overly generous feeling of space (particularly at the entrance terrace) which might not actually exist, unless the designers develop it carefully in their final drawings.

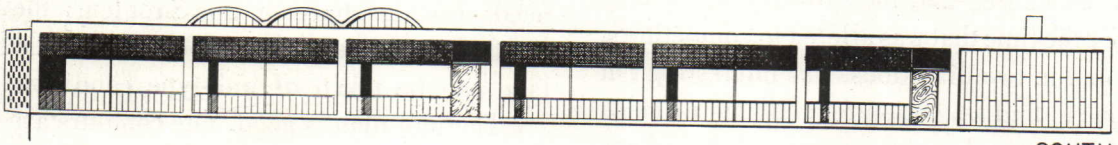
The Jury spent much time in detailed criticism of this building, simply because its members felt that

(Continued on page 136)

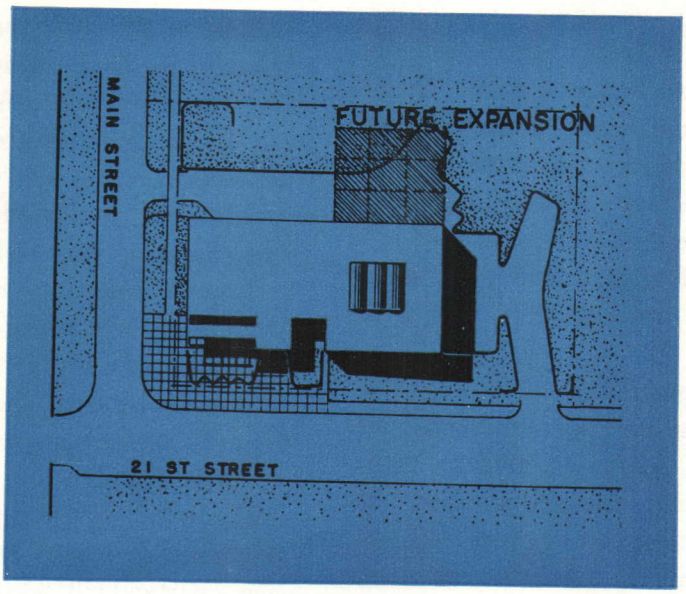
First Prize and Trinity White Special Prize

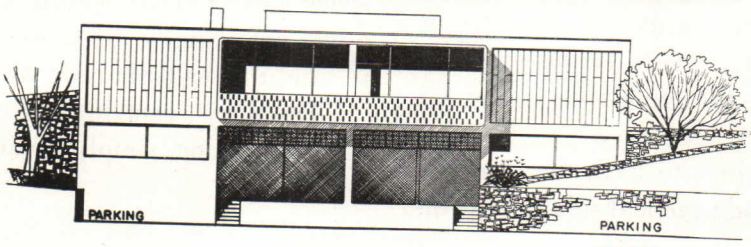
J. EDWARD LUDERS, HIDEO SASAKI, AND JAMES V. EDSALL, DESIGNERS, CHAMPAIGN, ILLINOIS
HARRY A. MORRIS, ARCHITECT, DETROIT, MICHIGAN



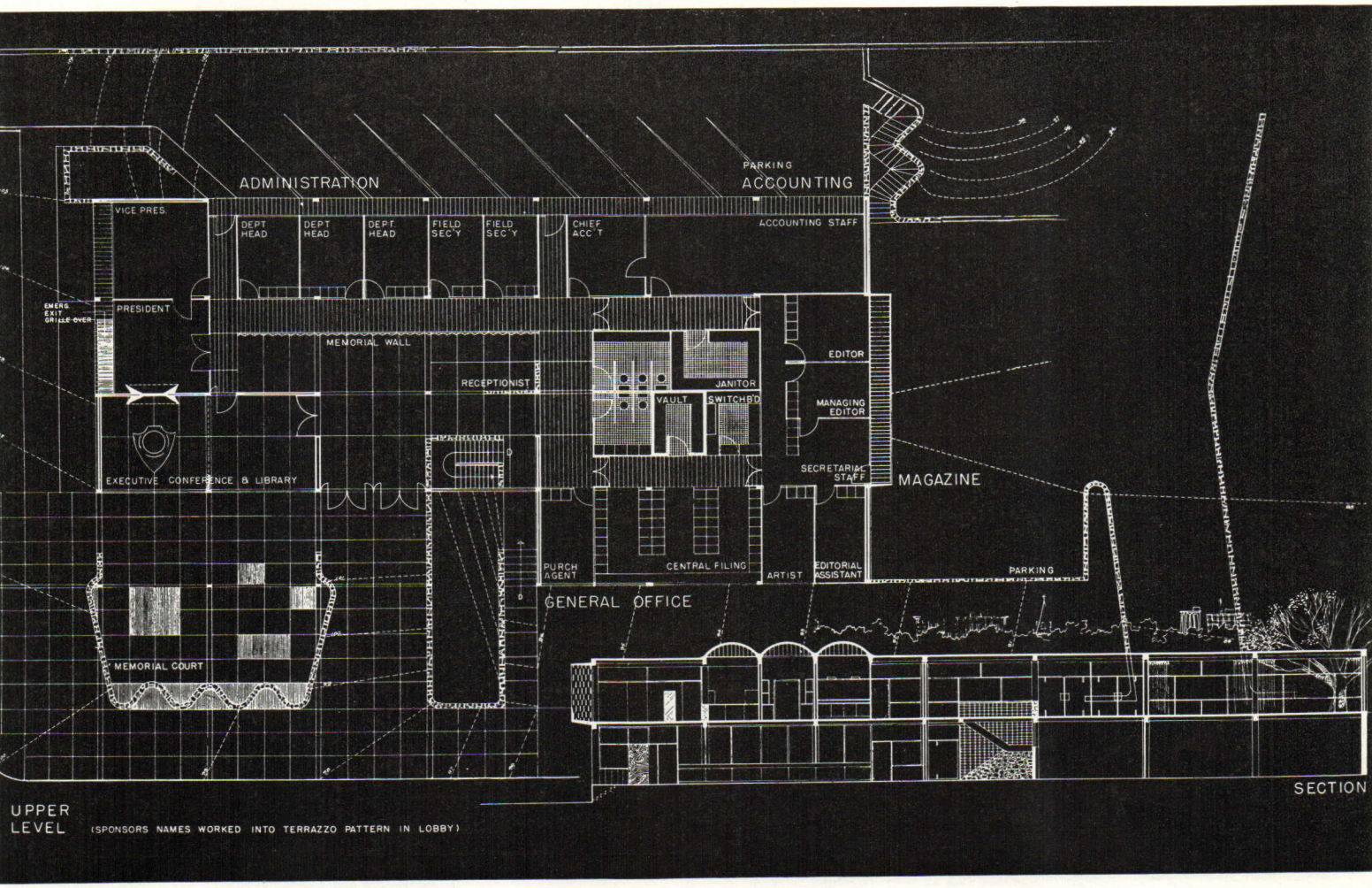


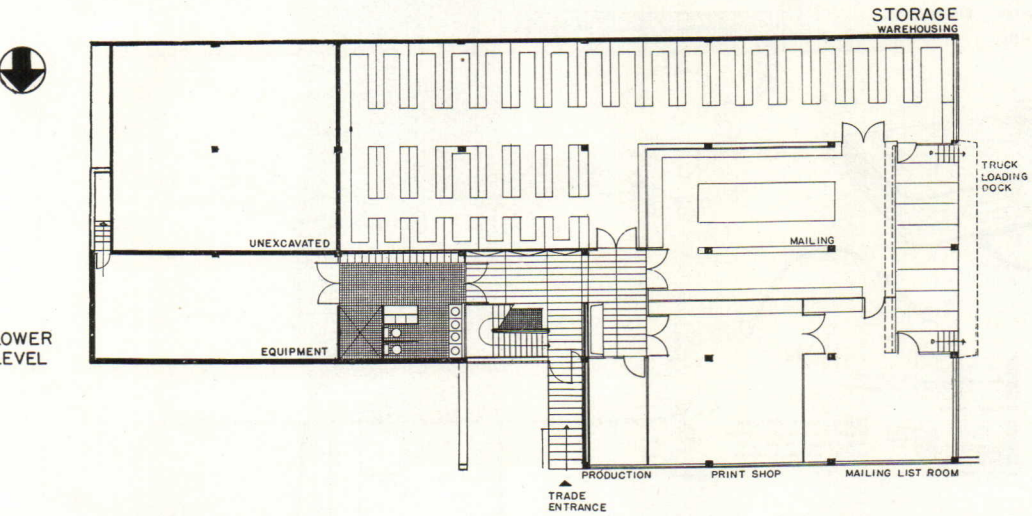
SOUTH

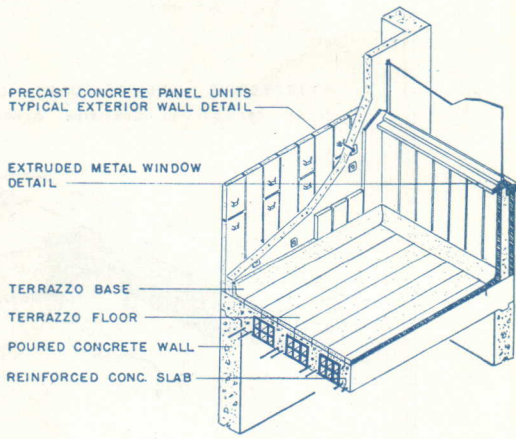




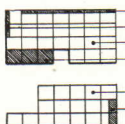
EAST







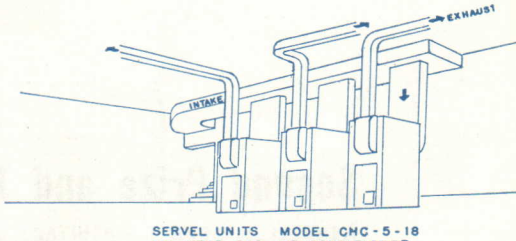
CUBAGE



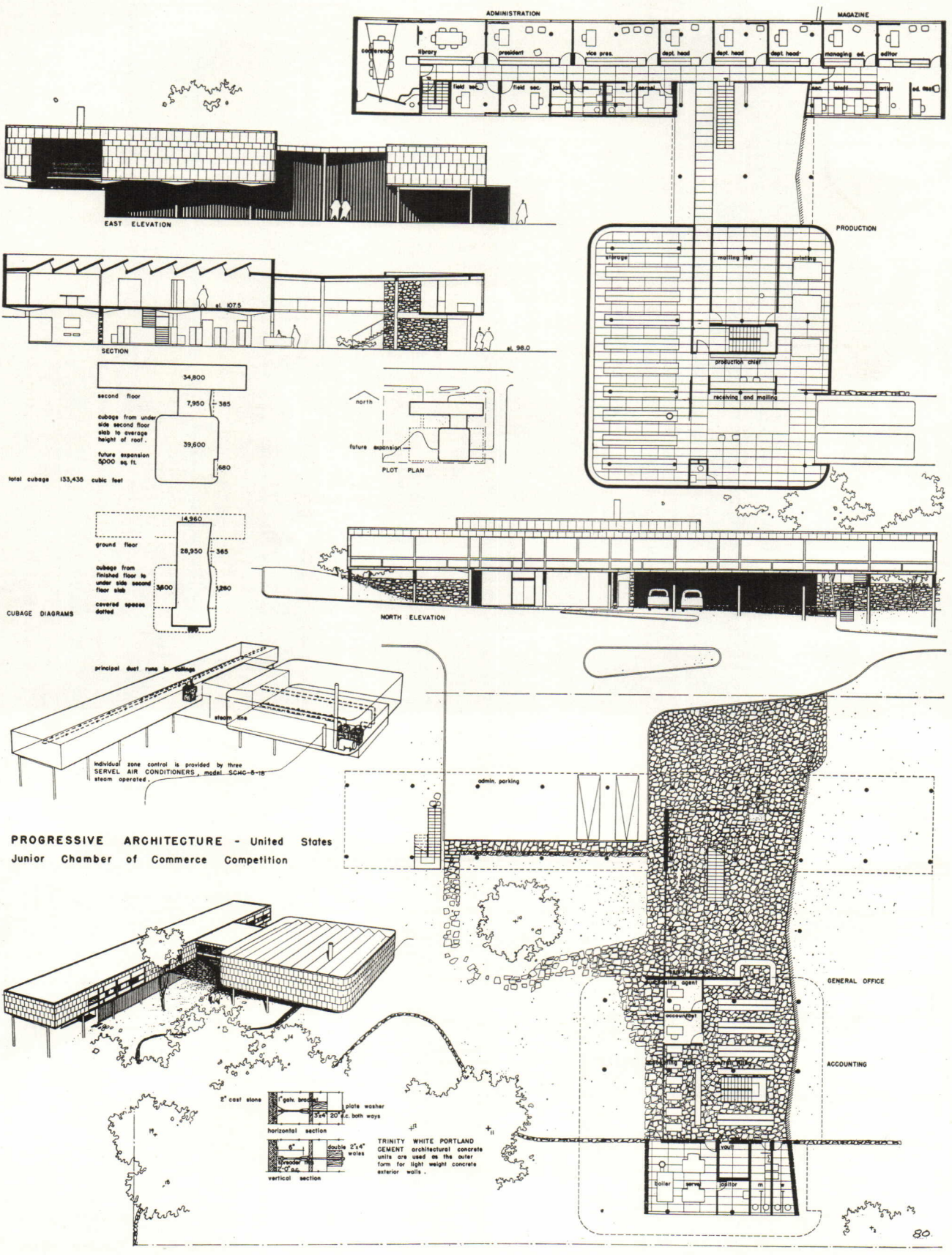
6 X 3' X 18' X 5'3" = 1,701
2 X 3' X 16' X 5'3" = 504
6492 X 10' 6" = 68,166
3 X 16' X 18' X 5'3" = 4,536
74,907

5,472 X 10'6" = 57,456
2 X 9' X 16' X 5'6" = 1,512
68,968

TOTAL CUBAGE 133,875

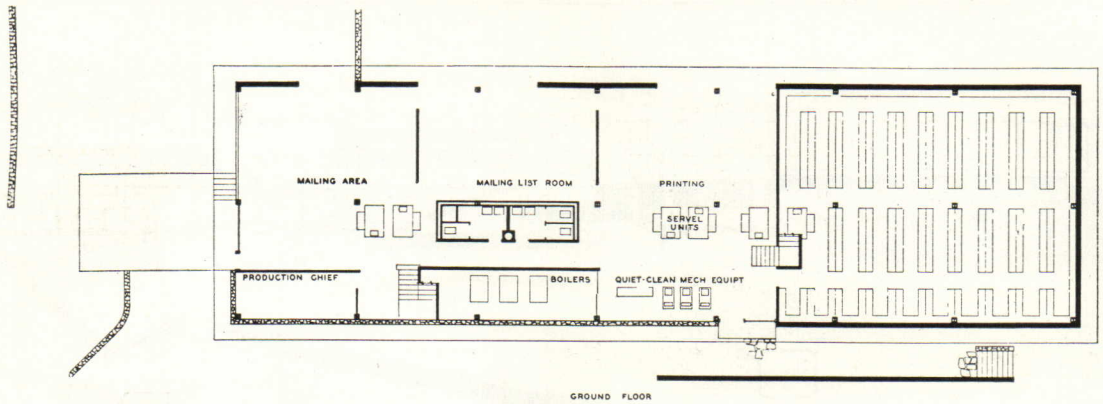


SERVEL UNITS MODEL CHC-5-18
ALL YEAR GAS AIR CONDITIONER
(SEE EQUIPMENT RM., LOWER LEVEL)

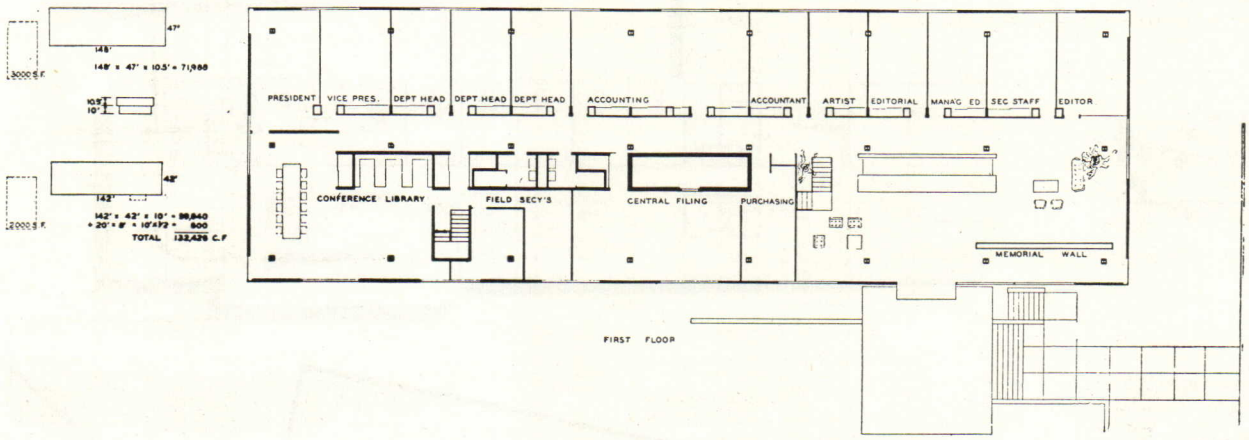


Second Prize and Trinity White Special Prize

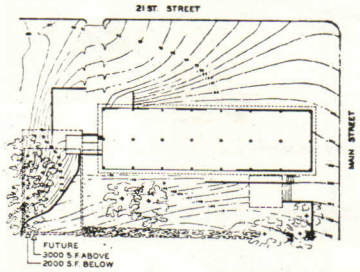
WENDELL H. LOVETT, ARCHITECT, SEATTLE, WASHINGTON

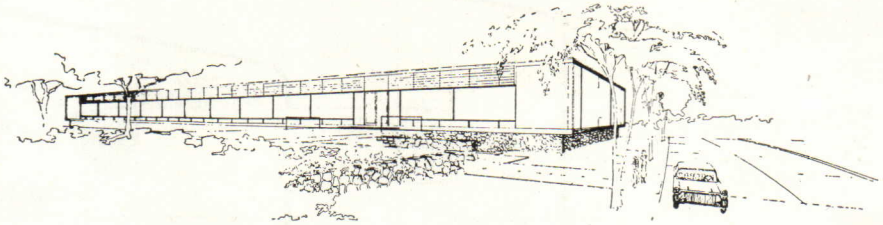


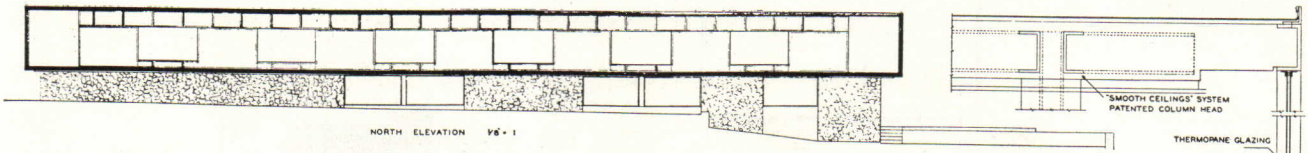
GROUND FLOOR



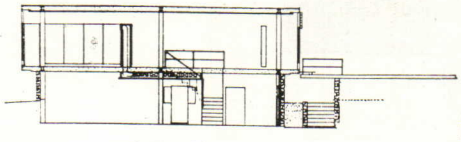
FIRST FLOOR



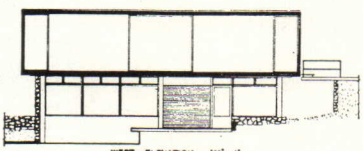




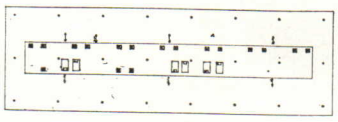
NORTH ELEVATION $\frac{1}{8}$" = 1'



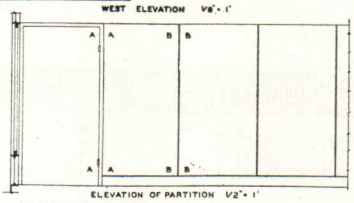
SECTION $\frac{1}{8}$" = 1'



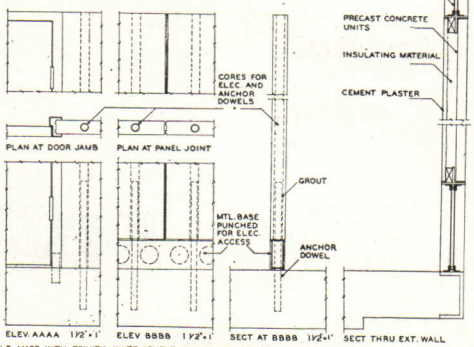
WEST ELEVATION $\frac{1}{8}$" = 1'



REFLECTECTED GROUND FLOOR CEILING PLAN SHOWING DIAGRAMMATIC LAYOUT OF DUCT CHAMBER RISERS TO FIRST FLOOR AND SUPPLIES TO GROUND FLOOR



ELEVATION OF PARTITION $\frac{1}{2}$" = 1'



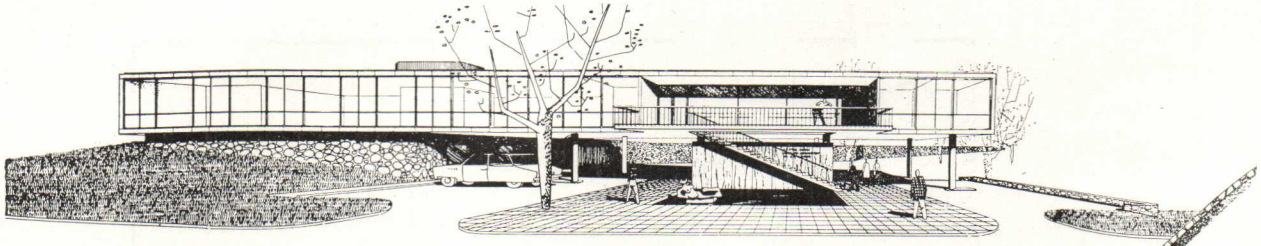
FIREPROOF UNIT PARTITION SYSTEM USING PRECAST CONCRETE PANELS MADE WITH TRINITY WHITE CEMENT AND LIGHT WEIGHT AGGREGATE

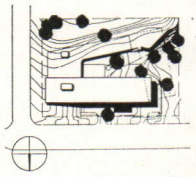
PROGRESSIVE ARCHITECTURE – UNITED STATES JUNIOR CHAMBER OF COMMERCE COMPETITION

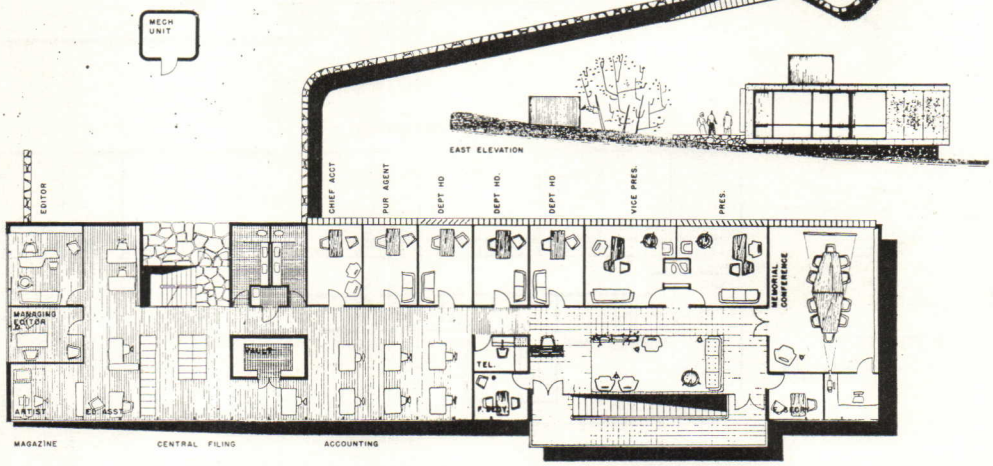
Third Prize

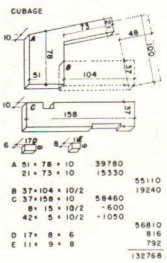
JOHN T. BLACK, ARCHITECT, CHICAGO, ILLINOIS

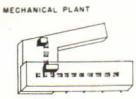
progressive architecture united states junior chamber of commerce competition



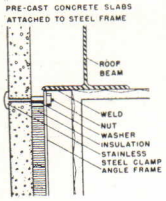


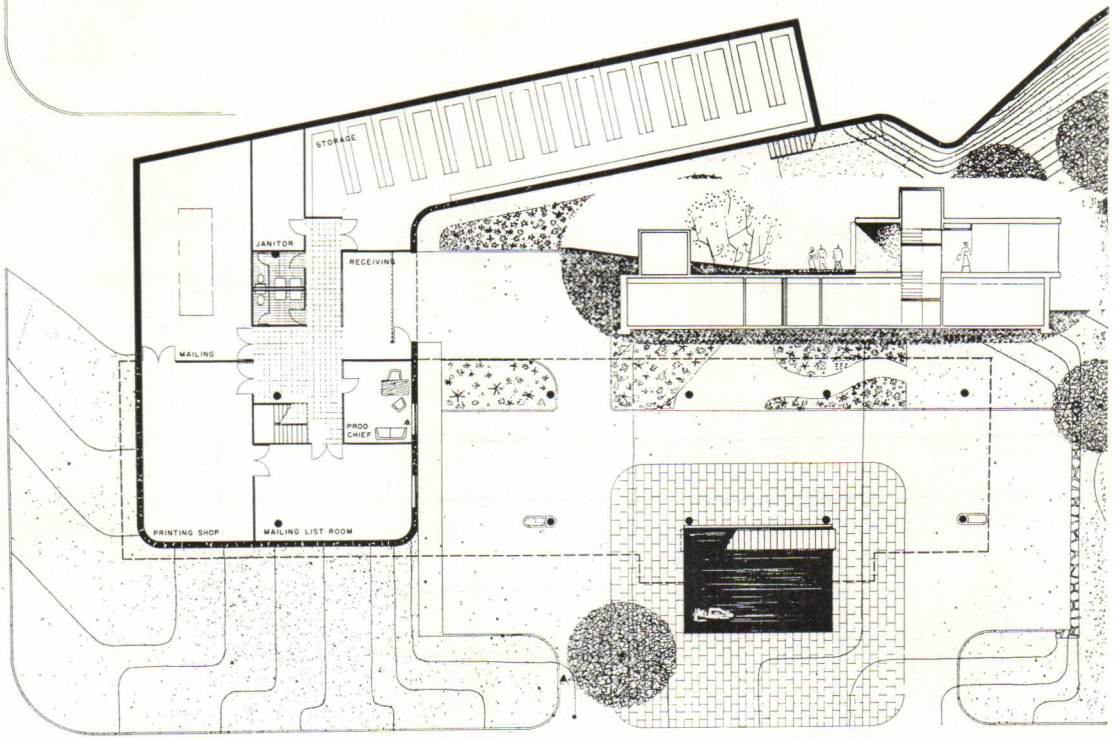


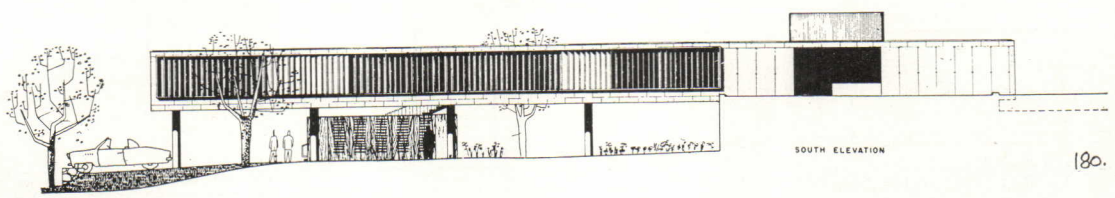




TWO SEPARATELY HOUSED ALL YEAR AIR CONDITIONERS WITH ZONED DUCTS ABOVE CORRIDORS PROVIDE ALL HEATING, COOLING AND VENTILATION FOR THE COMPLETE BUILDING.







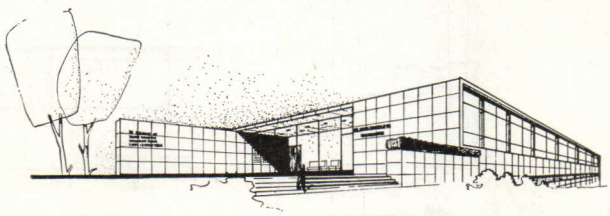
180.

Fourth Prize

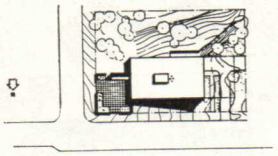
CHARLES D. WILEY, DESIGNER, CHICAGO, ILLINOIS

SKIDMORE, OWINGS & MERRILL, ARCHITECTS, CHICAGO AND NEW YORK

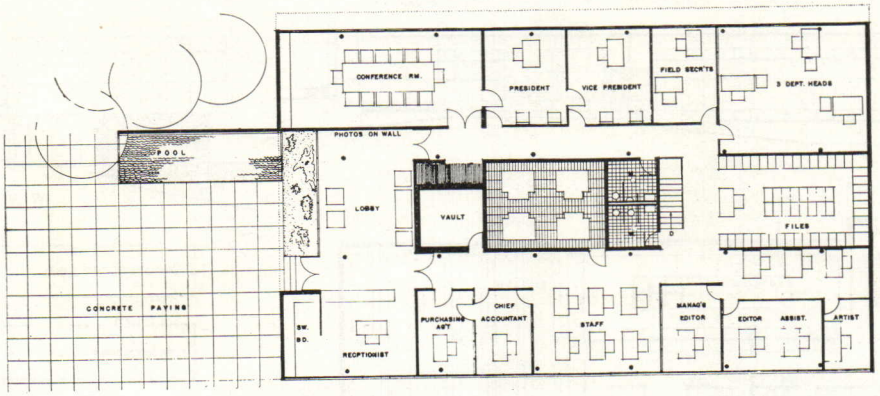
PROGRESSIVE ARCHITECTURE . . . U.S. JUNIOR CHAMBER OF COMMERCE COMPETITION



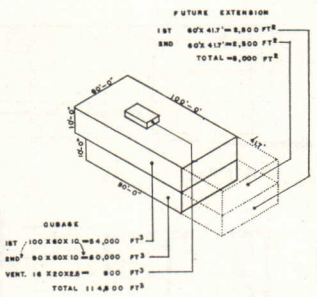
PERSPECTIVE

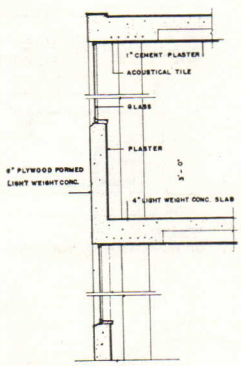


PLOT PLAN

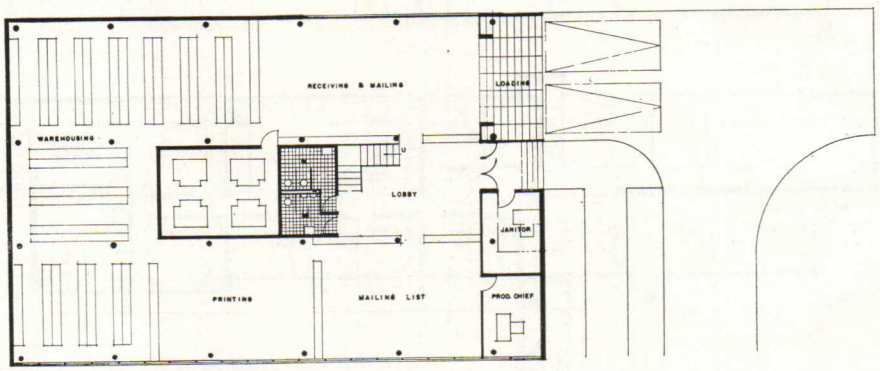


2ND FLOOR PLAN

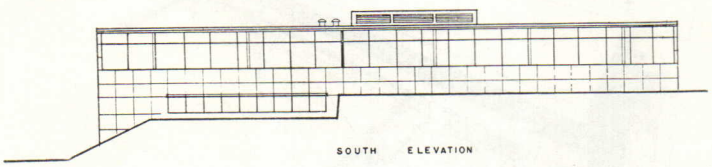




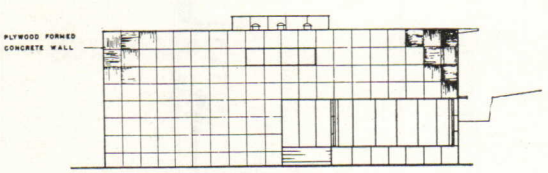
CONSTRUCTION DETAILS 3" = 1'-0"



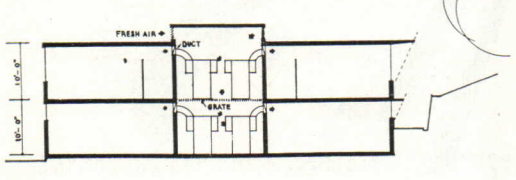
1ST FLOOR PLAN



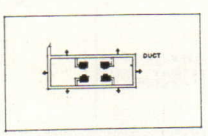
SOUTH ELEVATION



EAST ELEVATION

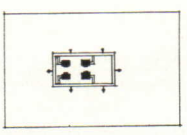


SECTION



2ND FLOOR

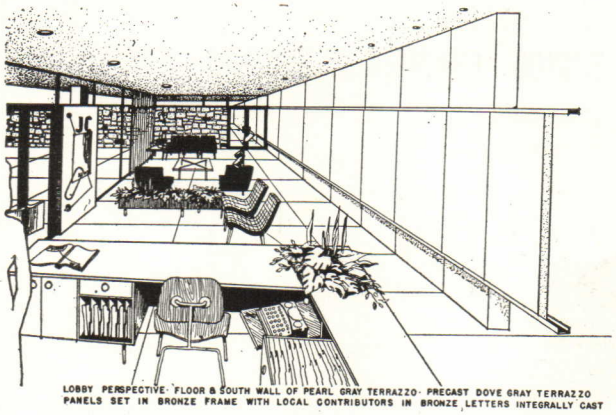
SERVEL AIR CONDITIONER LAYOUT



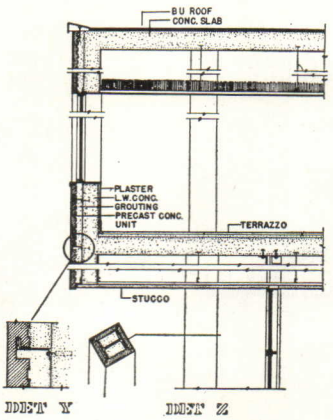
1ST FLOOR

Honorable Mention and Servel Special Prize

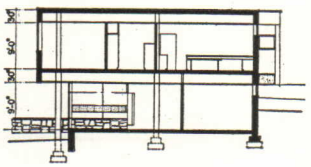
P. Y. CHOW, DESIGNER, SCHOOL OF ARCHITECTURE, COLUMBIA UNIVERSITY, NEW YORK
PERCIVAL GOODMAN, ARCHITECT AND PROFESSOR OF DESIGN



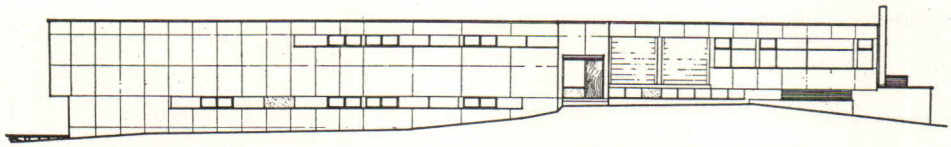
LOBBY PERSPECTIVE · FLOOR & SOUTH WALL OF PEARL GRAY TERRAZZO · PRECAST DOVE GRAY TERRAZZO PANELS SET IN BRONZE FRAME WITH LOCAL CONTRIBUTORS IN BRONZE LETTERS INTEGRALLY CAST



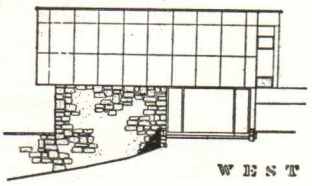
DET Y DET Z



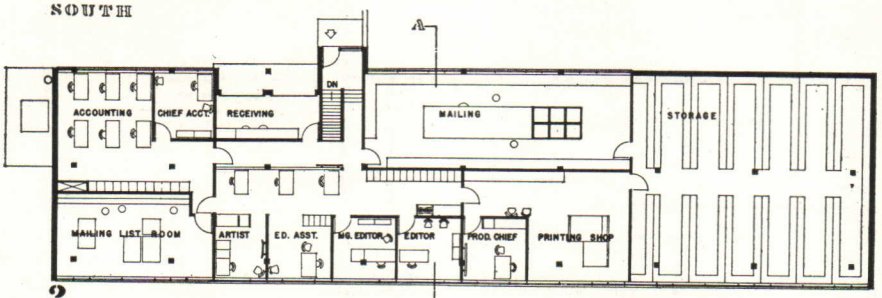
SECTION A



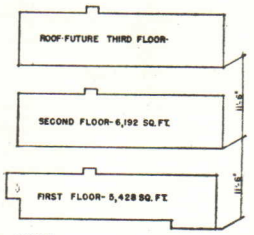
SOUTH



WEST

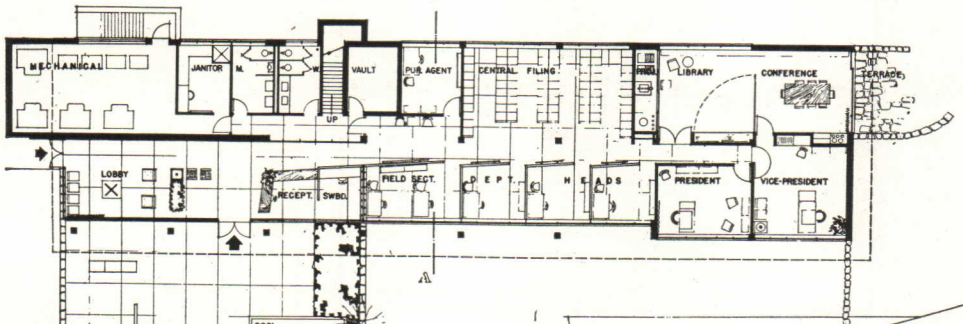


2

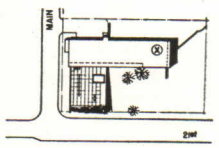


CUBAGE

FIRST FL.	5,428 x 11.5 =	62,422
SECOND FL.	6,192 x 11.5	71,208
TOTAL		133,630 CU. FT.



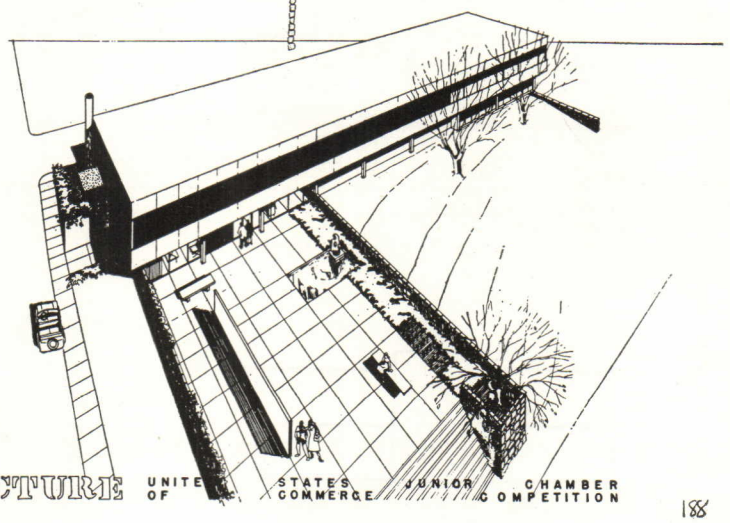
1



PLOT

⊗ · FUTURE EXPANSION THIRD FLOOR: 5,000 SQ. FT.

EXISTING TENNIS COURT COVERED WITH TERRAZZO TO FORM ENTRANCE PLAZA & MEMORIAL COURT PHOTOGRAPHS SEALED BETWEEN SHEETS OF HERCULITE GLASS & MOUNTED AS A FREE-STANDING ELEMENT



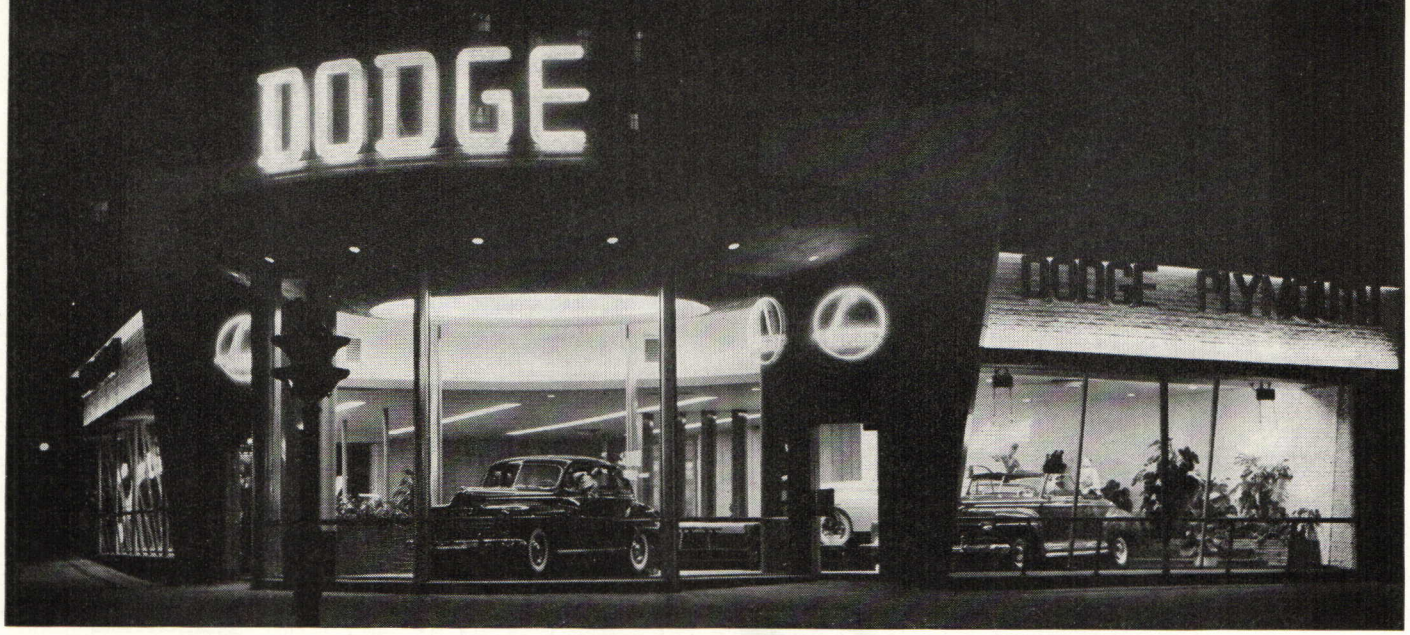
PROGRESSIVE ARCHITECTURE UNITED STATES JUNIOR CHAMBER OF COMMERCE COMPETITION

188

Honorable Mention and Trinity White Special Prize

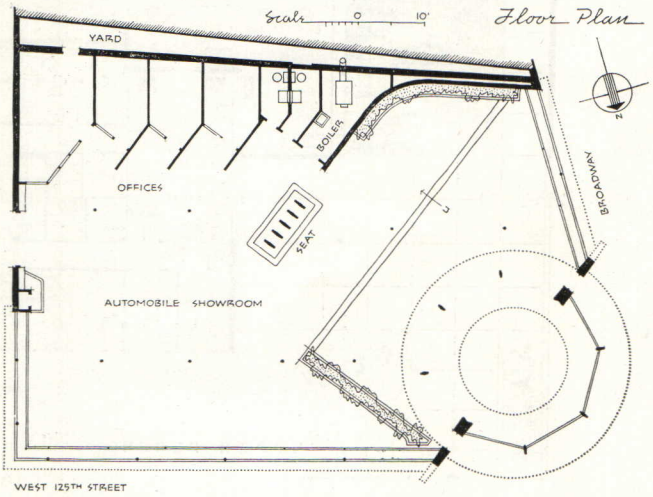
NEWTON E. GRIFFITH, DESIGNER, CAMBRIDGE, MASSACHUSETTS

ROBERT B. CLOPTON, ARCHITECT, CAMBRIDGE, MASSACHUSETTS



Display and Sales Building: New York, New York

MORRIS LAPIDUS, ARCHITECT

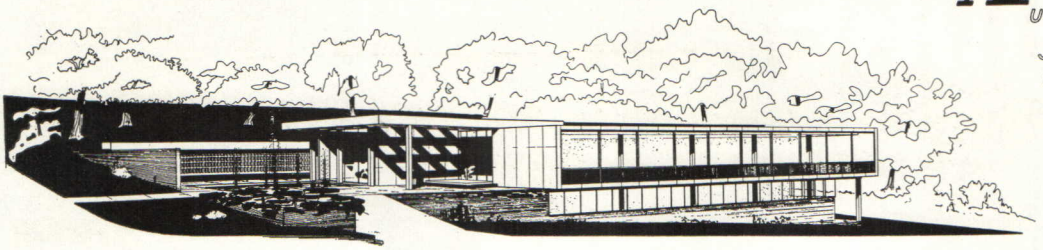


On this page: above—the corner rotunda element serves as a huge, attention-getting spotlight on the main display; below—continuous, in-sloping glass side walls minimize the distinction between outdoors and indoors.

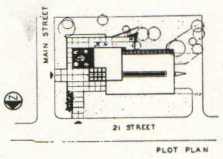
On facing page: left—detail within rotunda; 5-in. lally columns are covered with stainless steel; right—customer entrances pierce terra-cotta-surfaced pylons at either side of the rotunda.

Photos: Gottscho-Schleisner

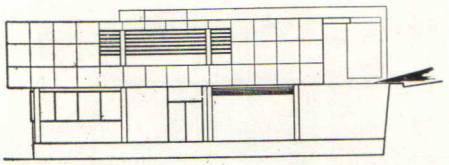
Progressive Architecture . . .
united states junior chamber of commerce competition . . .



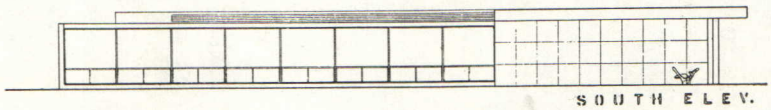
PERSPECTIVE



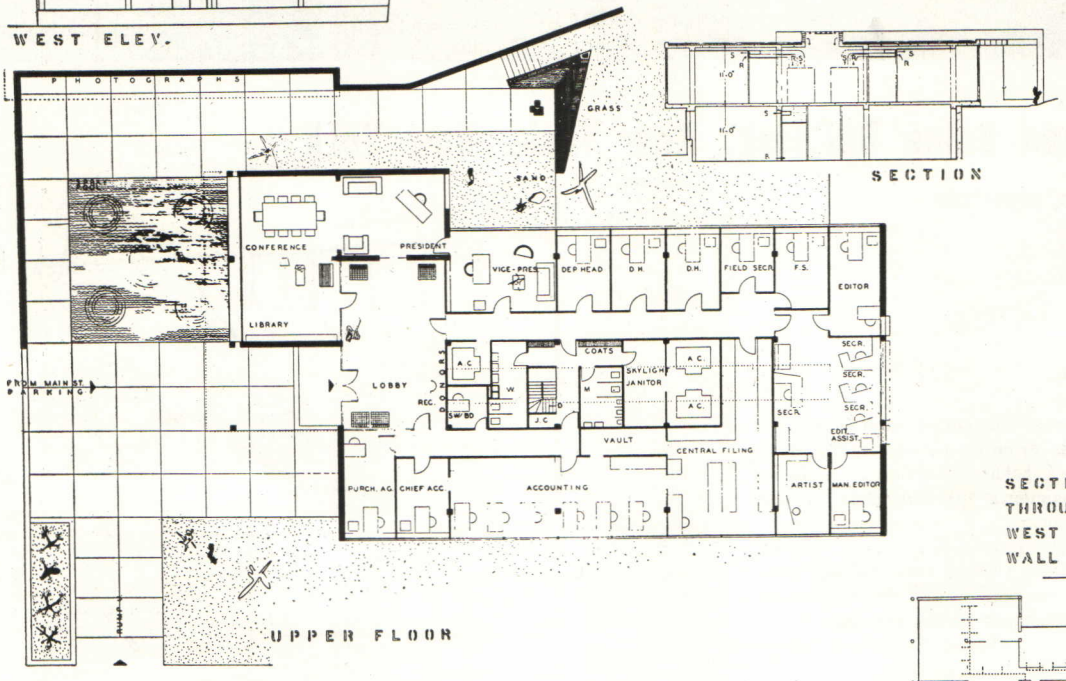
PLOT PLAN



WEST ELEV.

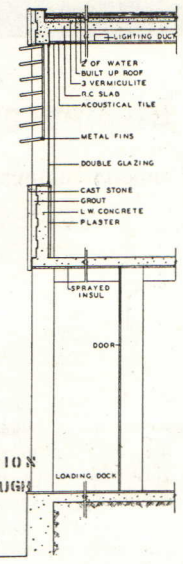


SOUTH ELEV.

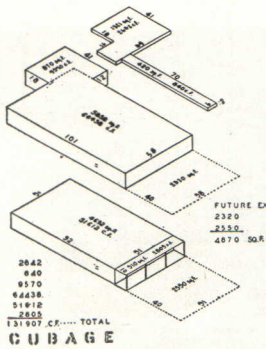


UPPER FLOOR

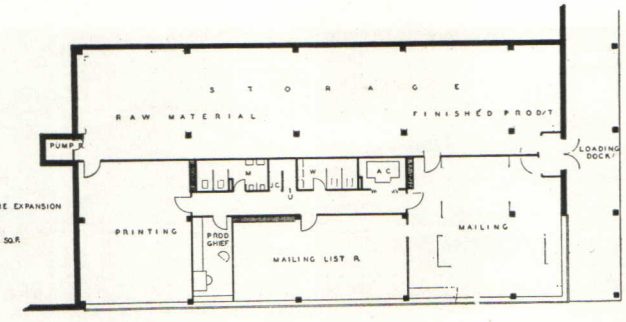
SECTION



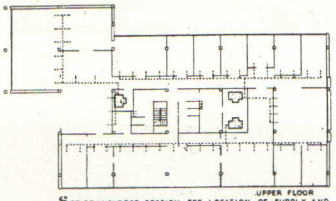
SECTION THROUGH WEST WALL



CUBAGE

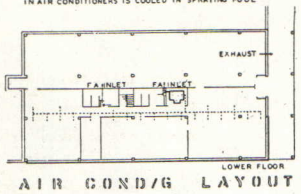


LOWER FLOOR



UPPER FLOOR

See transverse section for location of supply and return grilles. Return air is pulled into plenum formed by suspended corridor ceiling. Fresh air through side skylight grilles. The circulating water in air conditioners is cooled in spraying pool.



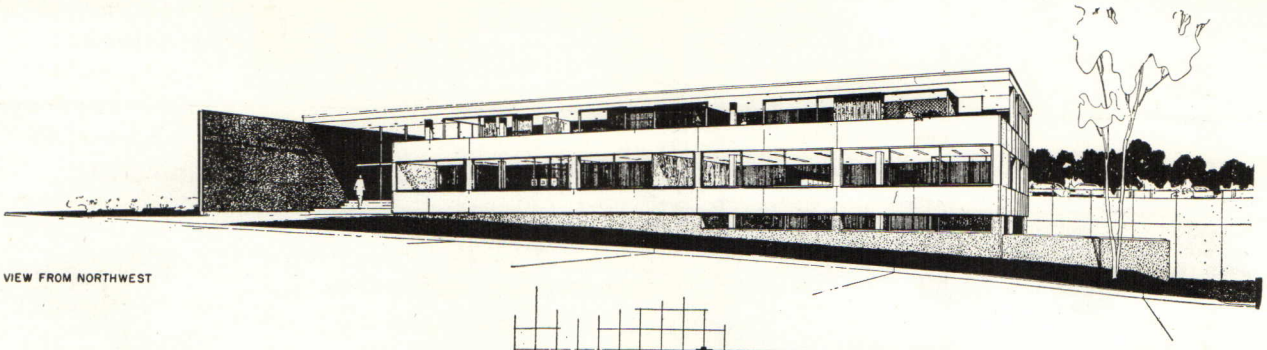
LOWER FLOOR

AIR COND/G LAYOUT

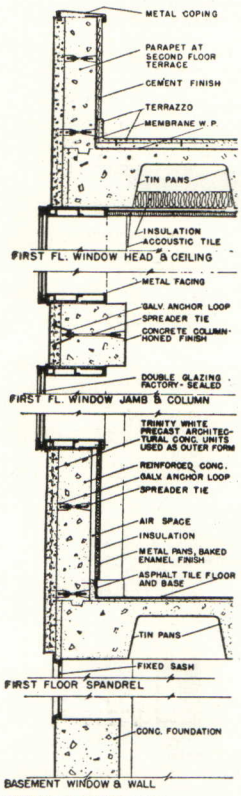
Honorable Mention and Servel Special Prize

YANI V. TRIANDAFILLIDIS, DESIGNER, SCHOOL OF ARCHITECTURE, COLUMBIA UNIVERSITY, NEW YORK
PERCIVAL GOODMAN, ARCHITECT AND PROFESSOR OF DESIGN

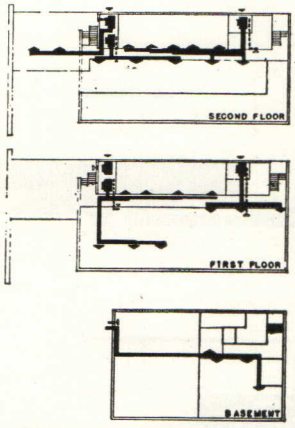
Reiman, Gray Taylor, and George Clark, Architects, New York; Lien Ching Chen, Designer, and Charles Burchard, Architect, Harvard University, Cambridge, Massachusetts; Ralph Rapson, Architect, Massachusetts Institute of Technology, Cambridge, Massachusetts; Gyo Obata, Architect, Chicago, Illinois; Walter A. Netsch, Jr., Architect, of Burleigh, Adams, Netsch & Dinkeloo, Architects, Chicago, Illinois; Donald Olsen & Bernard Sabaroff, Architects, San Francisco, California; and Ramey, Himes & Buchner, Architects, Wichita, Kansas.



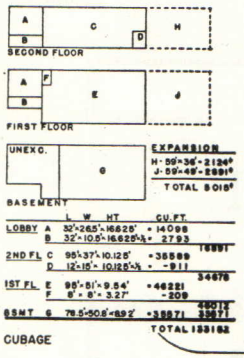
VIEW FROM NORTHWEST



DETAILS - EXTERIOR WALL
SCALE 1 1/2" = 1'-0"

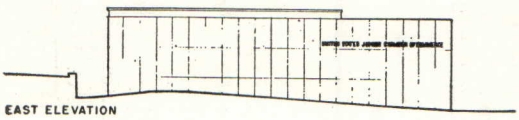


SERVEL ALL-YEAR AIR-CONDITIONING SYSTEM

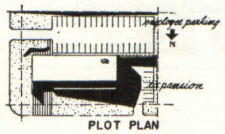


CUBAGE

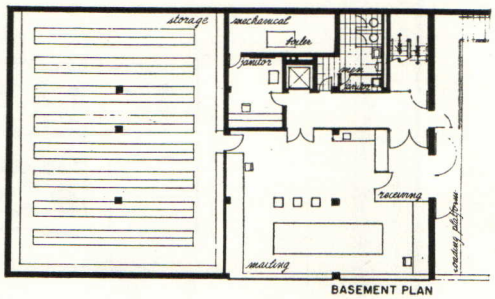
		L	W	HT	CU. FT.	
LOBBY	A	32'-2 6/8"	16.625'		14098	
	B	32'-10 5/8"	16.625'	1/2	2793	16891
2ND FL.	C	95 1/2'	37'-10.125'		36589	
	D	12'-10"	10.125'	1/2	911	37500
1ST FL.	E	98'-8"	9.54'		46221	
	F	8'-8"	3.27'		209	46430
BSMT.	G	78.5	508'	69.2'	38871	38871
					TOTAL	139162



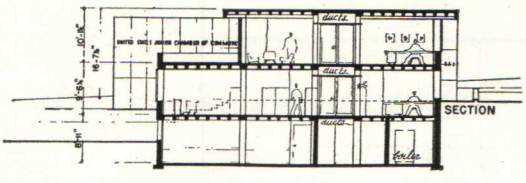
EAST ELEVATION



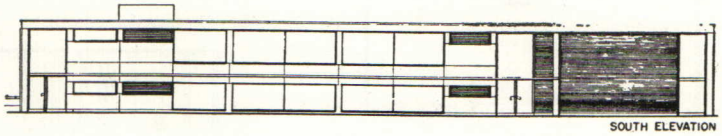
PLOT PLAN



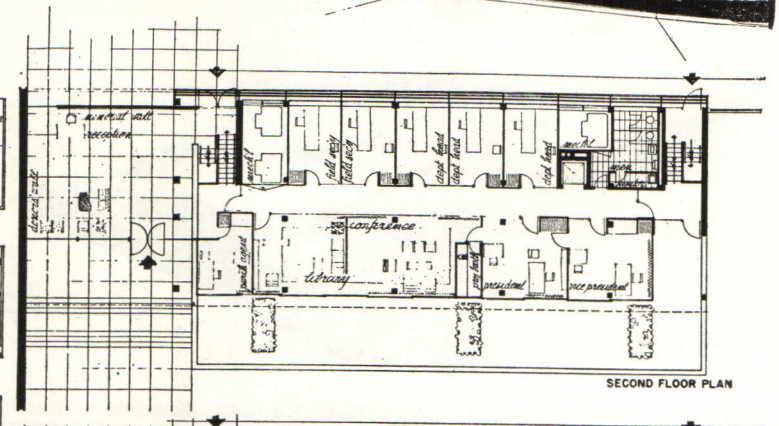
BASEMENT PLAN



SECTION



SOUTH ELEVATION



PROGRESSIVE ARCHITECTURE — UNITED STATES JUNIOR CHAMBER OF COMMERCE COMPETITION

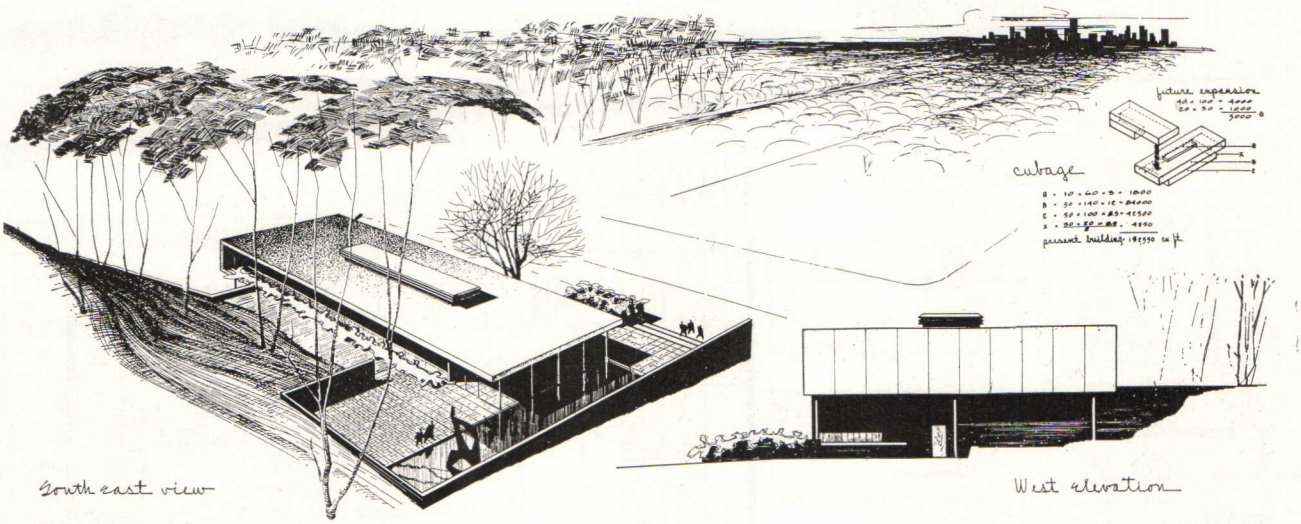
Honorable Mention, Servel and Trinity White Special Prizes

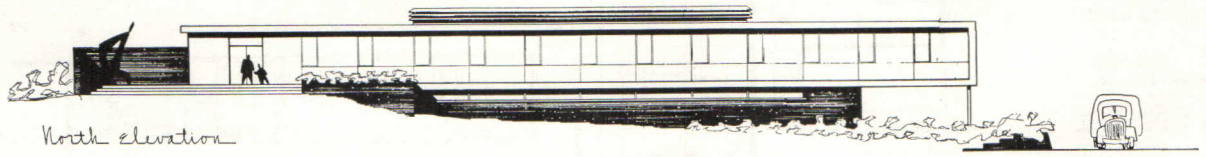
J. STANLEY SHARP OF KETCHUM, GINÁ & SHARP, ARCHITECTS, NEW YORK

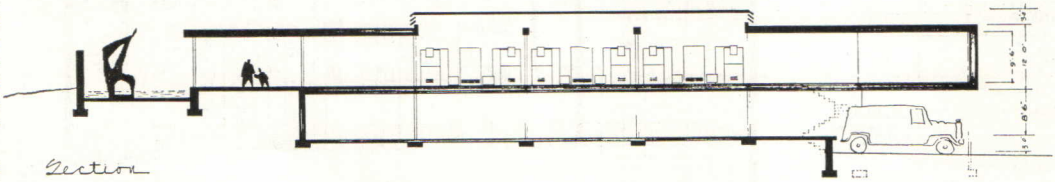
OTHER HONORABLE MENTIONS

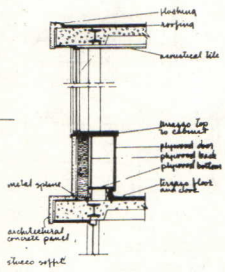
Others awarded Honorable Mention in the Competition were: Peter Blake, Designer, New York, also associated with Huson Jackson, Architect, New York (two awards); Wang Chiu-Hwa, Designer, School of Architecture, Columbia University, New York, also a pupil of Professor Goodman; Julio Cesar Volante, Designer, School of Architecture, Columbia University, New York, also a pupil of Professor Goodman; Seymour R. Joseph, Architect, New York; Stanley M. Sherman, Designer, and George Nemeny & A. W. Geller, Architects, New York; Gray Taylor, Designer, and Don

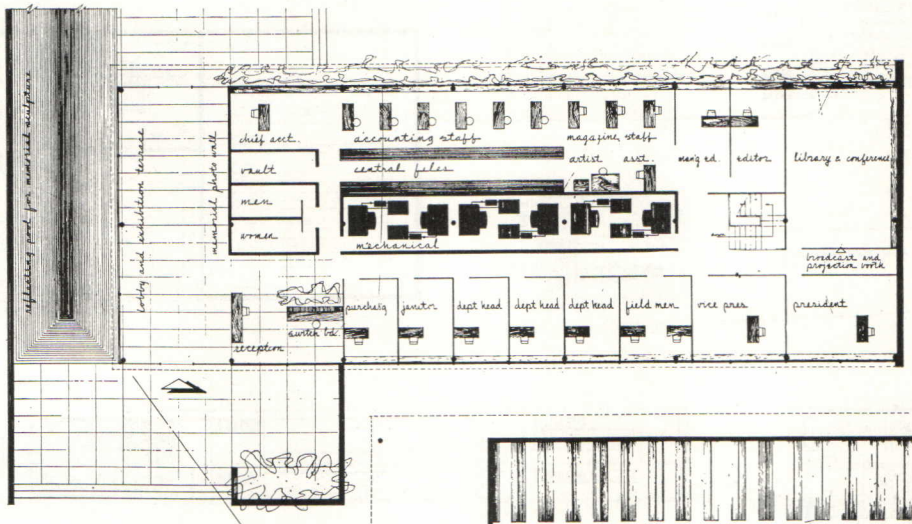
PROGRESSIVE ARCHITECTURE – UNITED STATES JUNIOR CHAMBER OF COMMERCE COMPETITION

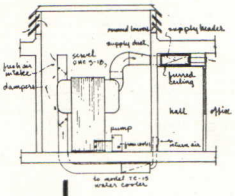


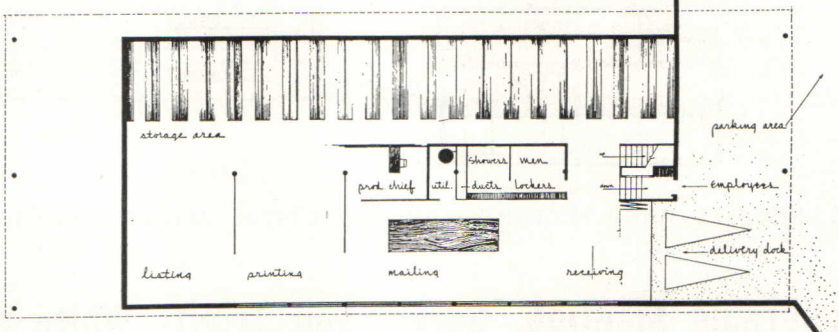


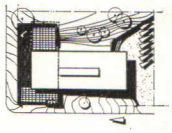












plot plan

plan - upper level

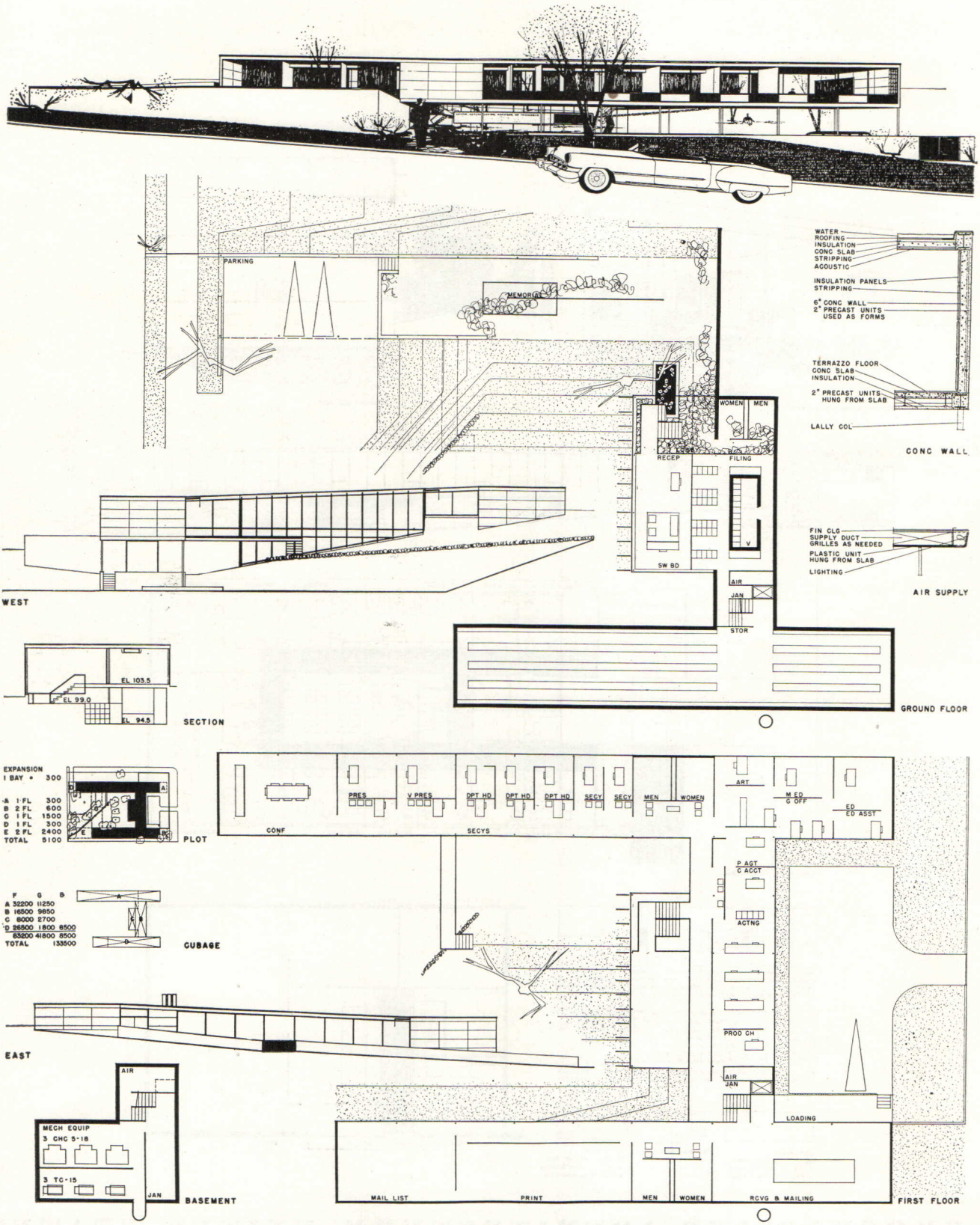
plan - lower level

48.

Honorable Mention and Servel Special Prize

PAUL CANIN, DESIGNER, NEW YORK

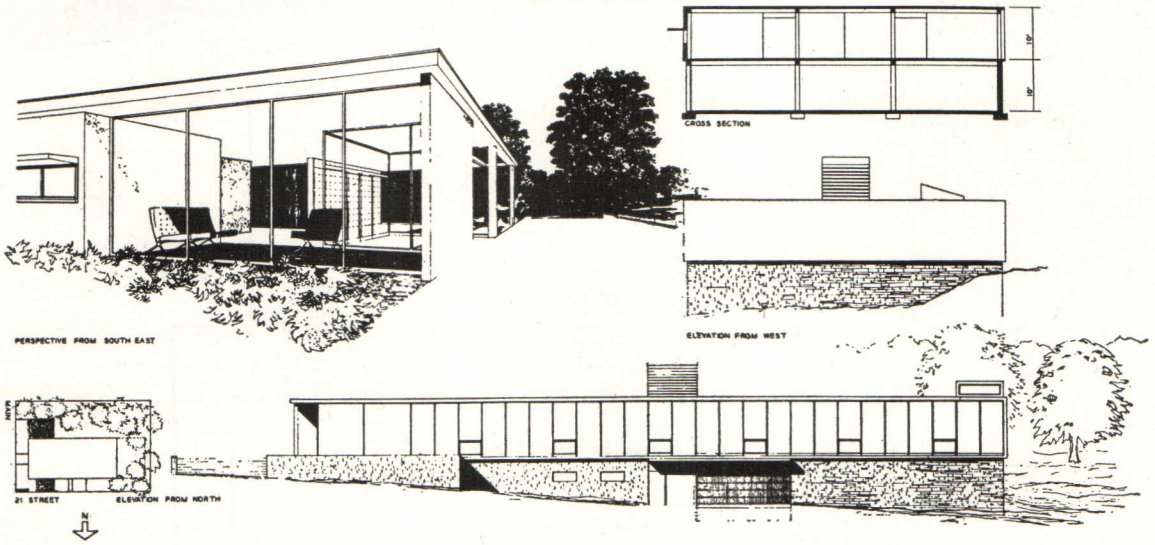
HUSON JACKSON, ARCHITECT, NEW YORK

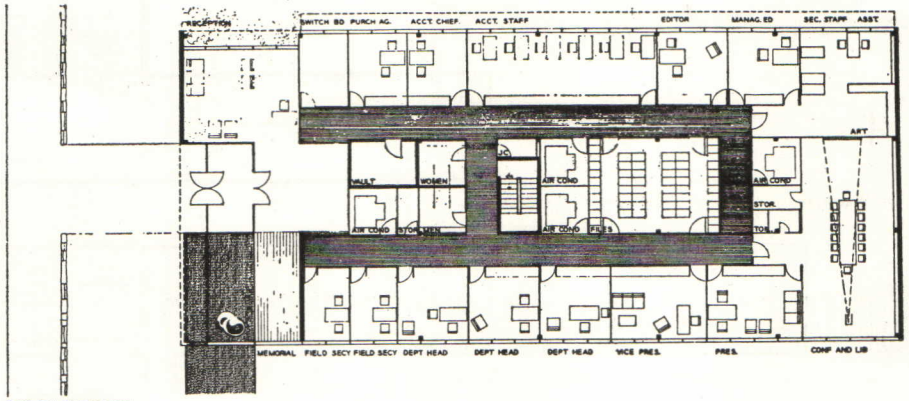


Honorable Mention and Trinity White Special Prize

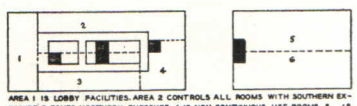
RONALD GOURLEY, DESIGNER, BOSTON, MASSACHUSETTS

KENNEDY & SMITH, ARCHITECTS, BOSTON, MASSACHUSETTS

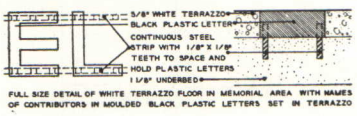




FLOOR PLAN OF UPPER LEVEL



AREA 1 IS LOBBY FACILITIES. AREA 2 CONTROLS ALL ROOMS WITH SOUTHERN EXPOSURE. 3 ZONES NORTHERN EXPOSURE. 4 IS NON-CONTINUOUS USE ROOMS. 5 IS ZONED FOR SOUTH AND 6 FOR NORTH. UPPER CORRIDORS ARE RETURN PLENUMS. SUPPLY DUCTS ARE IN FURRED CEILING. ONE MULTI STAGE COOLING TOWER

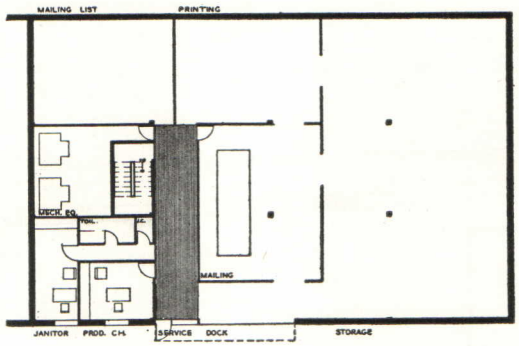


FULL SIZE DETAIL OF WHITE TERRAZZO FLOOR IN MEMORIAL AREA WITH NAMES OF CONTRIBUTORS IN MOULDED BLACK PLASTIC LETTERS SET IN TERRAZZO

FIRST FLOOR
SQ. FT 132 X 60 7880
CU. FT 7880 X 10 78800
EXP SQ. FT 42 X 60 2520

TOTAL CUBAGE
78800
52200
130800 CU FT
TOTAL EXPANSION
2520 X 2 5040 SQ FT

LOWER FLOOR
SQ. FT 87 X 60 5220
CU. FT 5220 X 10 52200
EXP SQ. FT 42 X 60 2520



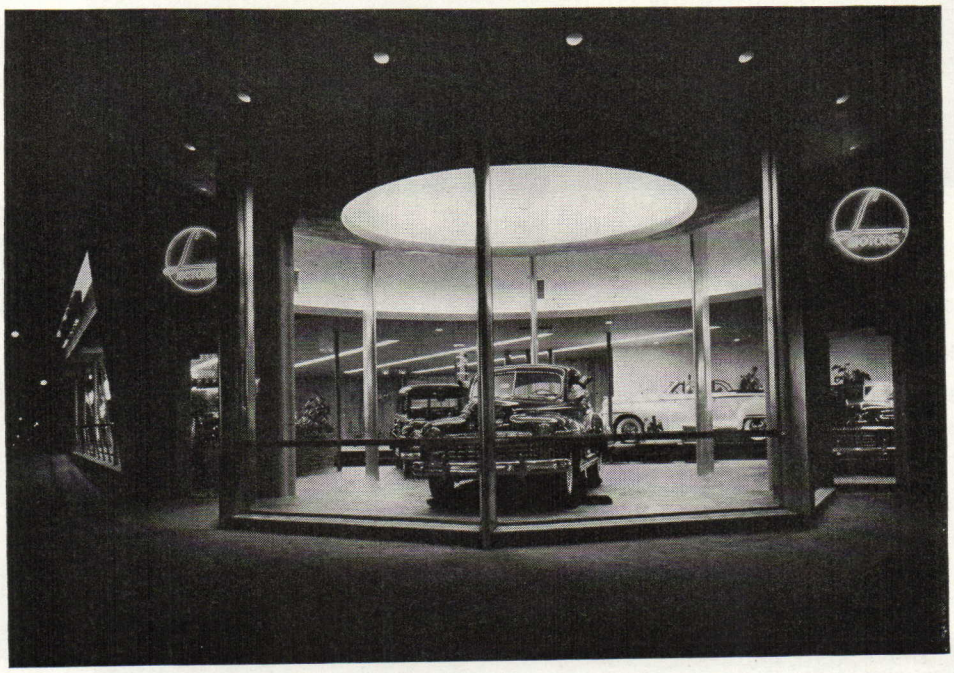
PROGRESSIVE ARCHITECTURE UNITED STATES JUNIOR CHAMBER OF COMMERCE COMPETITION

58

Honorable Mention and Servel Special Prize

DALE C. BYRD, EL RENO, OKLAHOMA; WILLIAM N. BREGER AND STANLEY R. SALZMAN, NEW YORK, DESIGNERS
WILLIAM N. BREGER AND STANLEY R. SALZMAN, ARCHITECTS, NEW YORK

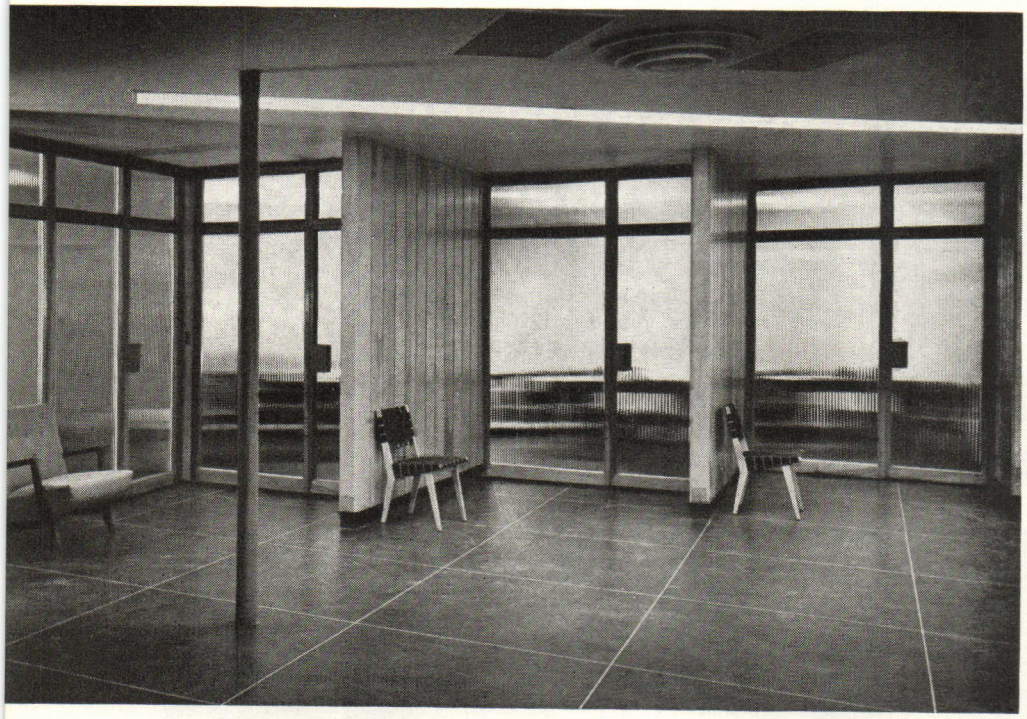
Morris Lapidus: *New York University; B.S. Arch., Columbia U. Fifteen years with a firm specializing in designing and building stores throughout the country. Own practice established, 1943, specializing in stores, offices, showrooms, and factories. Architect of stores ranging in cost from $5000 to $3,000,000.*



program: To convert an existing taxpayer, that housed several small stores, into an appropriate and eye-catching environment for display and sale of automobiles.

site: 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.

solution: 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

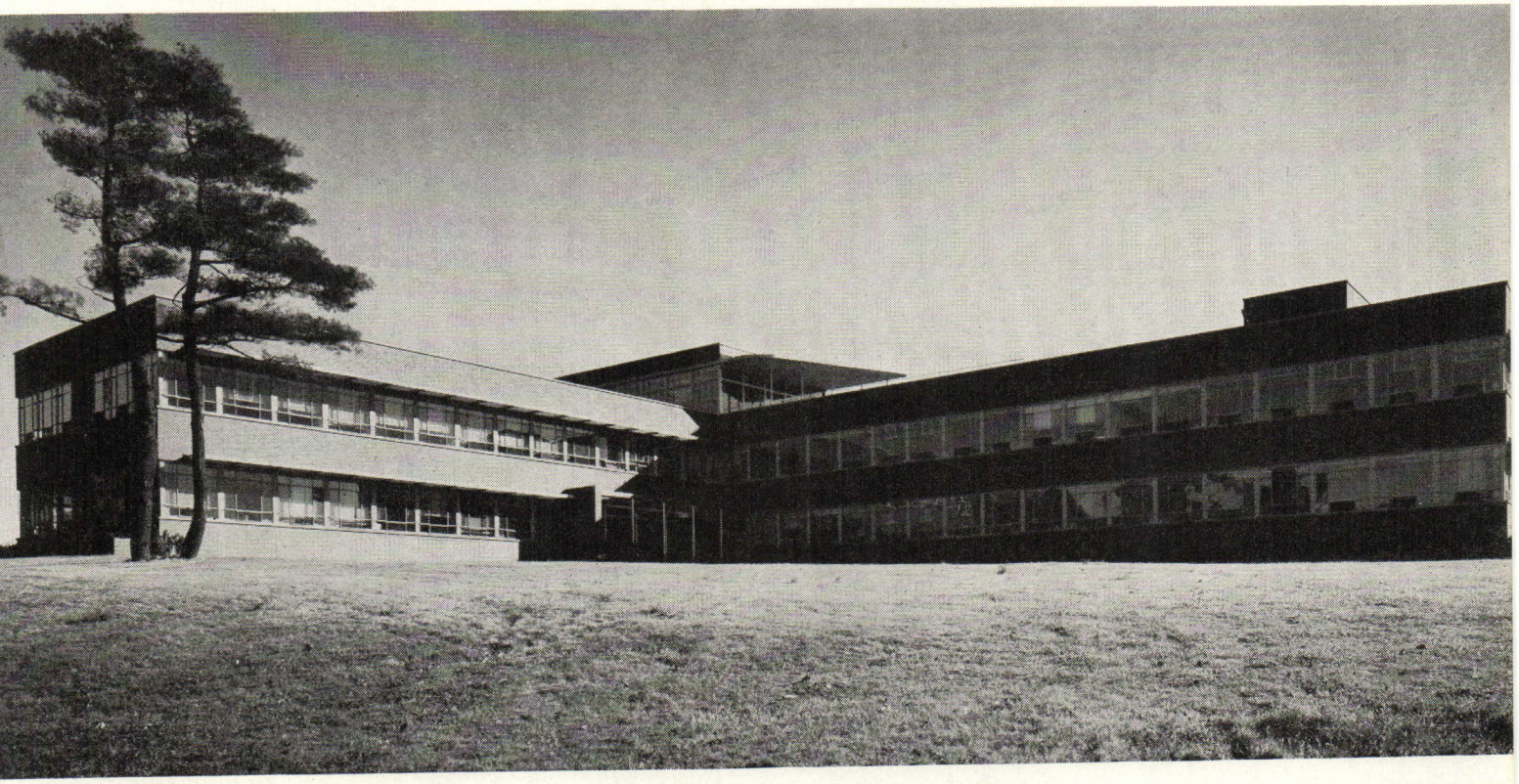
CONSTRUCTION: Walls: masonry. **Floors:** concrete surfaced with terrazzo or flagstone. **Roof:** built-up, tar-filled roofing over wood and steel framing. **Wall surfaces:** exterior—brick, terra cotta, glass; interior—brick, stone, birch, pine, plaster. **Glass:** plate-glass show windows; tempered, plate-glass entrance doors; patterned glass partition panels.

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

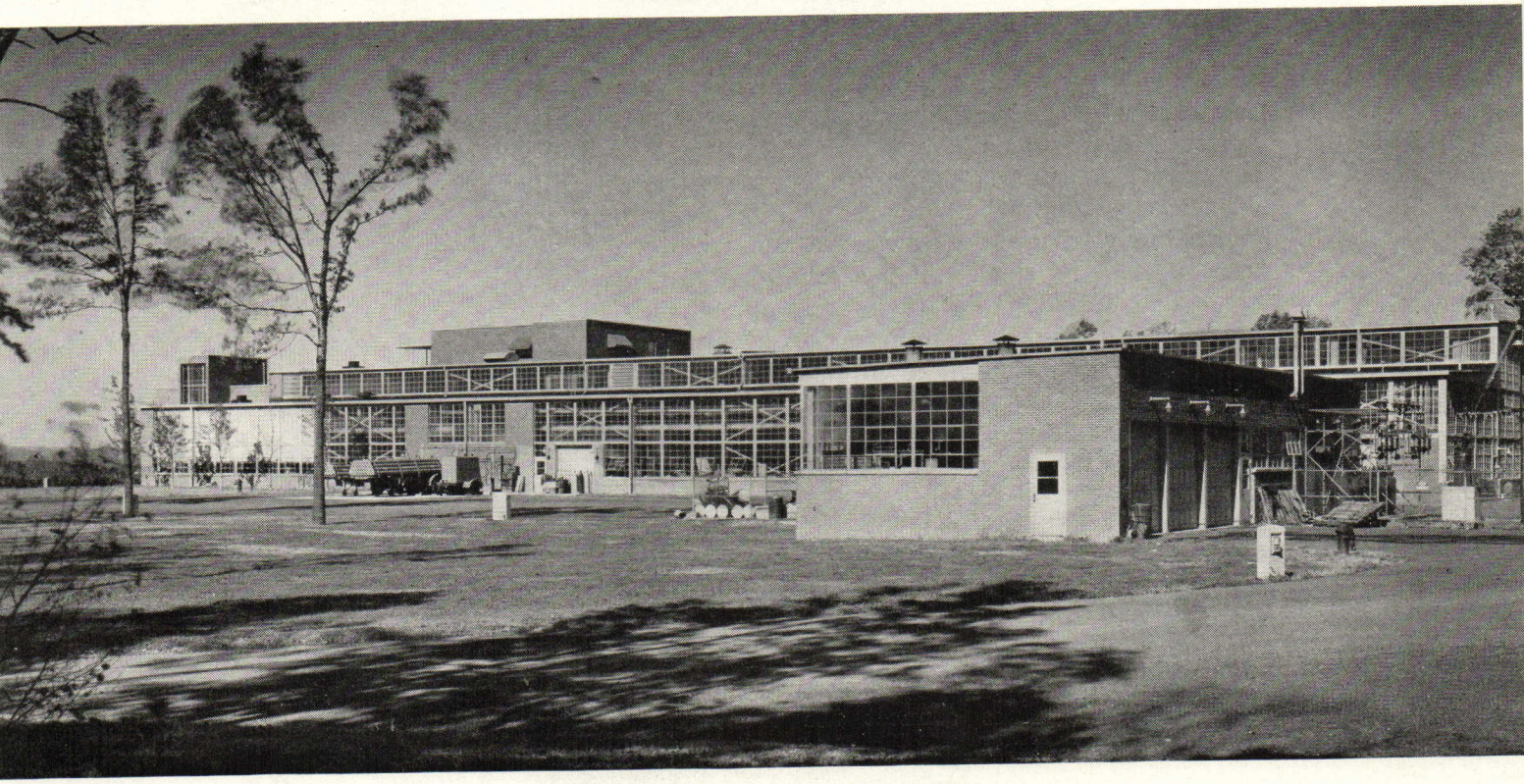
WIGTON-ABBOTT CORPORATION, ENGINEERS & CONTRACTORS

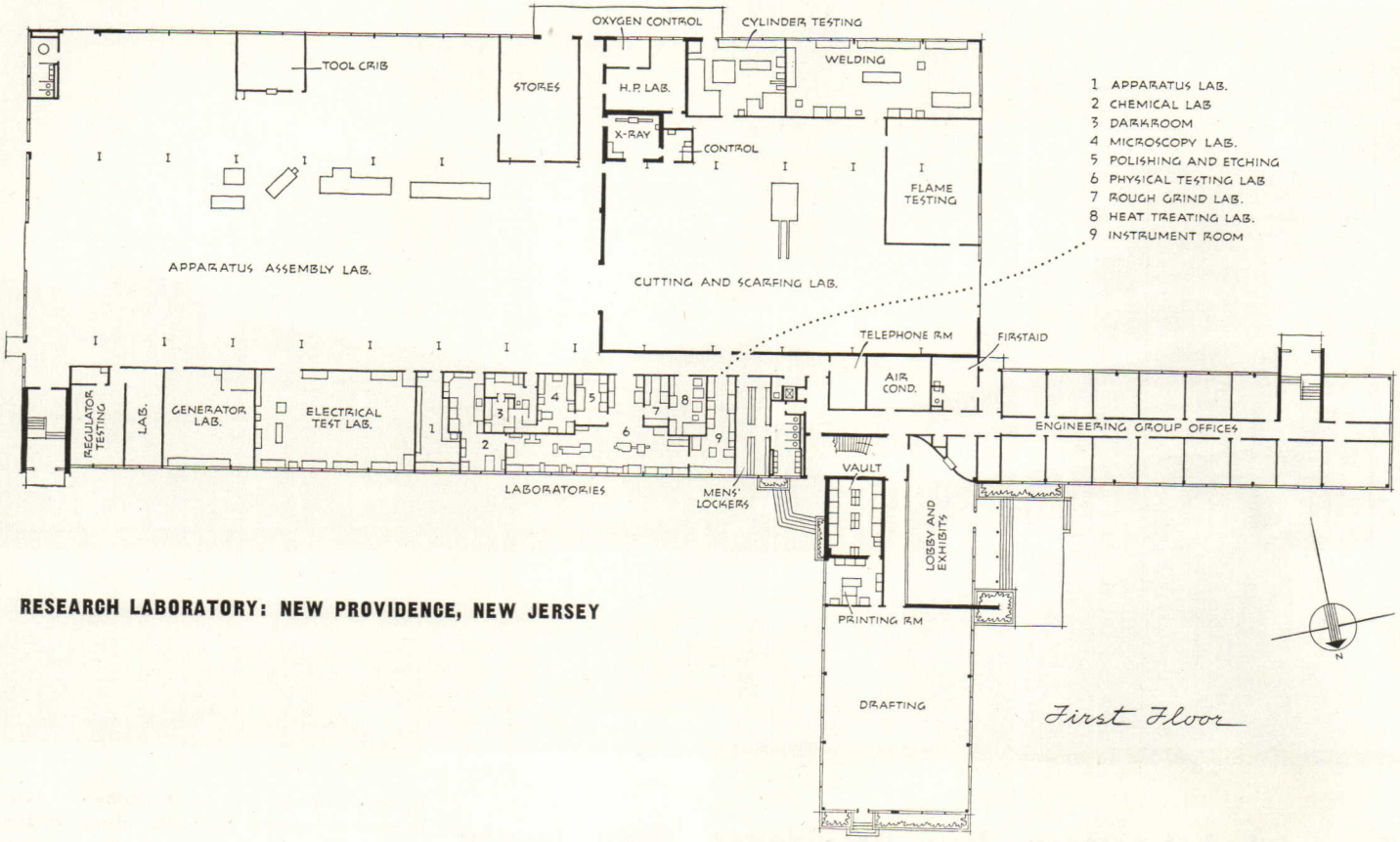
BOLTON, MARTIN & WHITE, CONSULTING ARCHITECTS

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



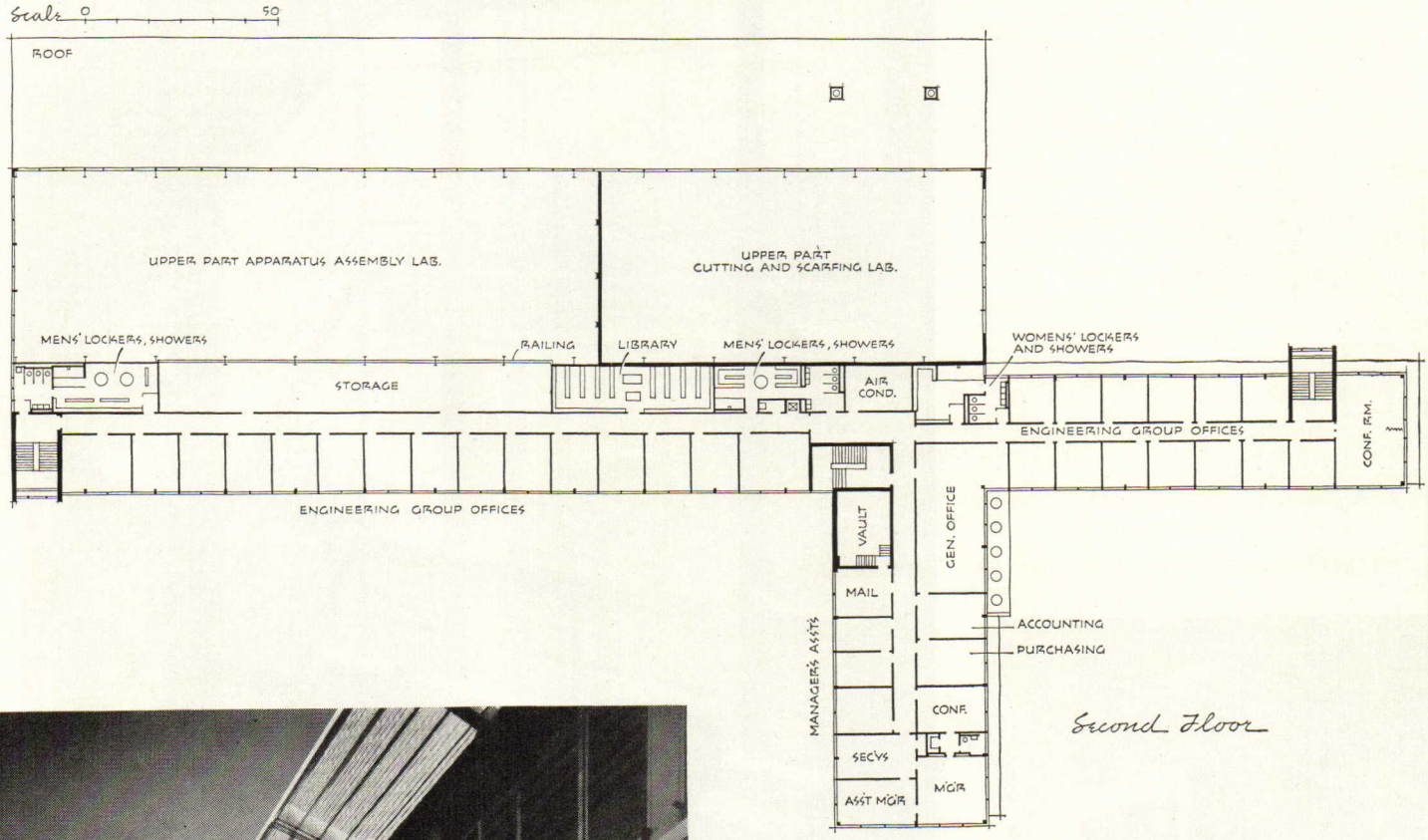


RESEARCH LABORATORY: NEW PROVIDENCE, NEW JERSEY

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.

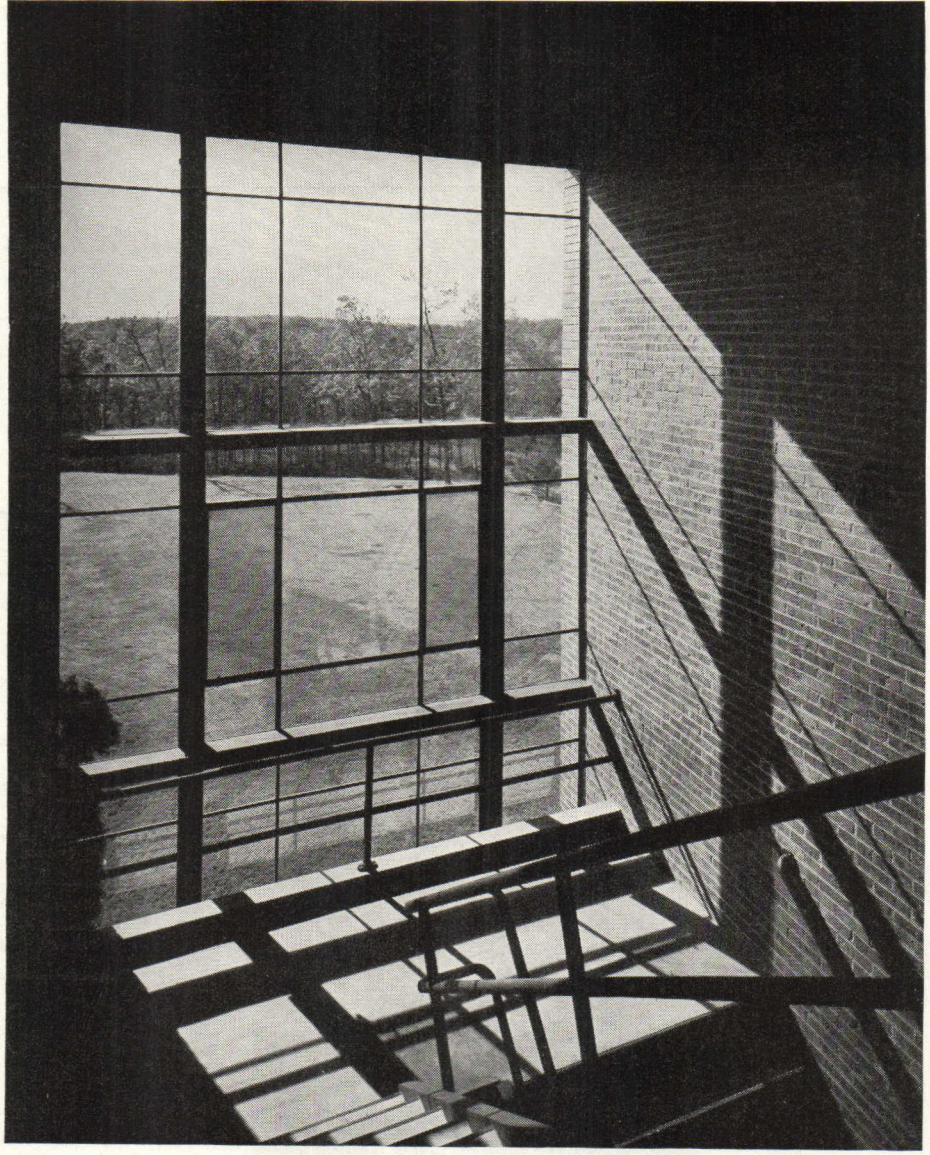


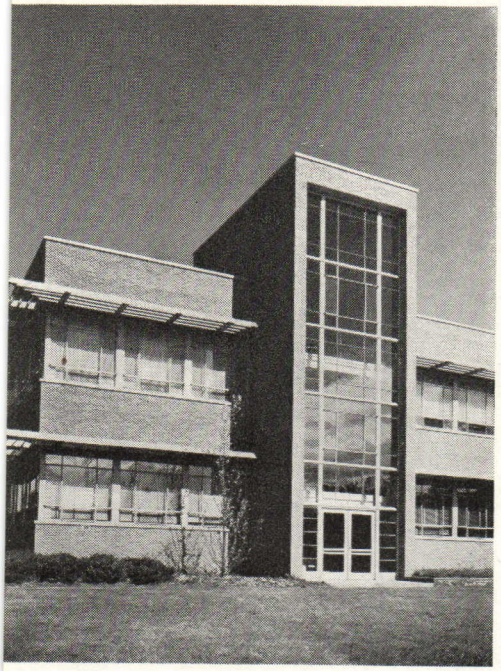
Entrance to west-facing main lobby and exhibit room is sheltered by the canopy shown in the photograph above. Above the window bands that light the offices is a continuous louvered, aluminum sunshade. Angle of the fins is set for total exclusion of sun on June 21.

MATERIALS AND METHODS

CONSTRUCTION: Frame: welded, structural steel. **Walls:** brick, with cast-stone trim; interior surfaces: plaster on furring tile (offices and laboratories); brick (shop area). **Floors:** concrete surfaced with asphalt tile. **Roof:** 15-yr. bonded built-up roofing over gypsum plank. **Fenestration:** steel sash; louvered aluminum sunshades above office windows on west and south. **Insulation:** acoustical—tile; thermal—½" fiberboard. **Partitions:** flush steel. **Doors:** hollow metal.

EQUIPMENT: Heating: central, forced warm-air system (offices); unit heaters (shop). Exhaust fans. **Lighting:** fluorescent troffers. **Hardware:** bronze.



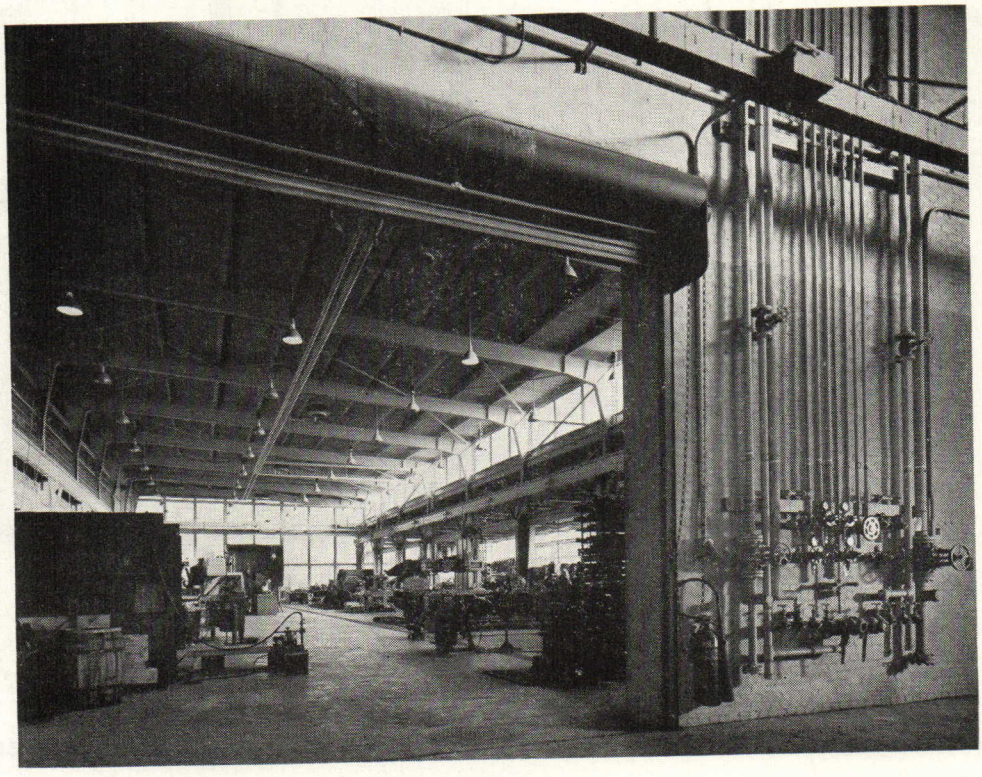


Left and also above: detail of stairwell in the south wall of the block containing offices for researchers and engineering groups.

Below: view showing relation of stairwell block to the large laboratory unit.

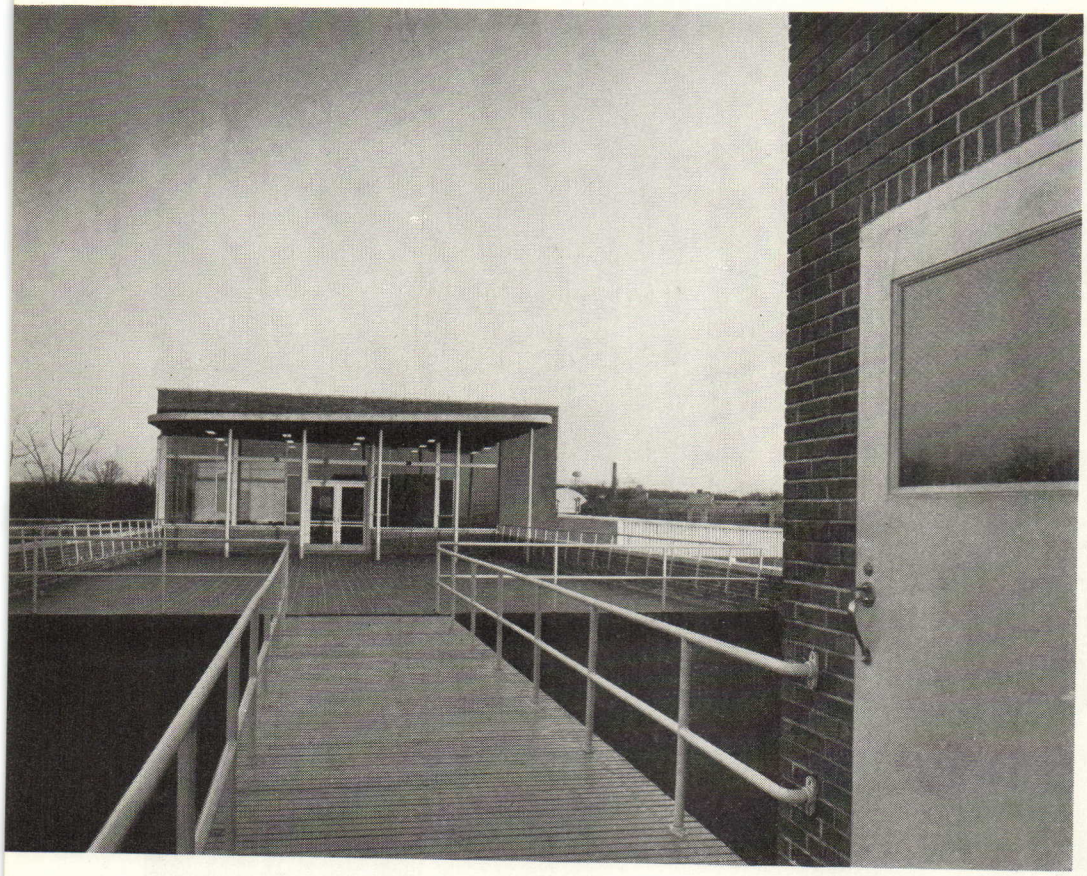
RESEARCH LABORATORY: NEW PROVIDENCE, NEW JERSEY

on, Martin & White—consult-
architects on the job with
ton-Abbott Corporation, Engi-
s and Contractors.
rle W. Bolton, Jr.: *Cornell U.;*
e manager, Howe & Lescaze;
st Guard Reserve during war.
iton Martin: *Yale U.; U. of*
.; trained in office of Edmund
Gilchrist; captain, Air Forces,
ng war.
heo B. White: *U. of Penna.;*
ned in office of Paul P. Cret;
or, Corps of Engineers, during



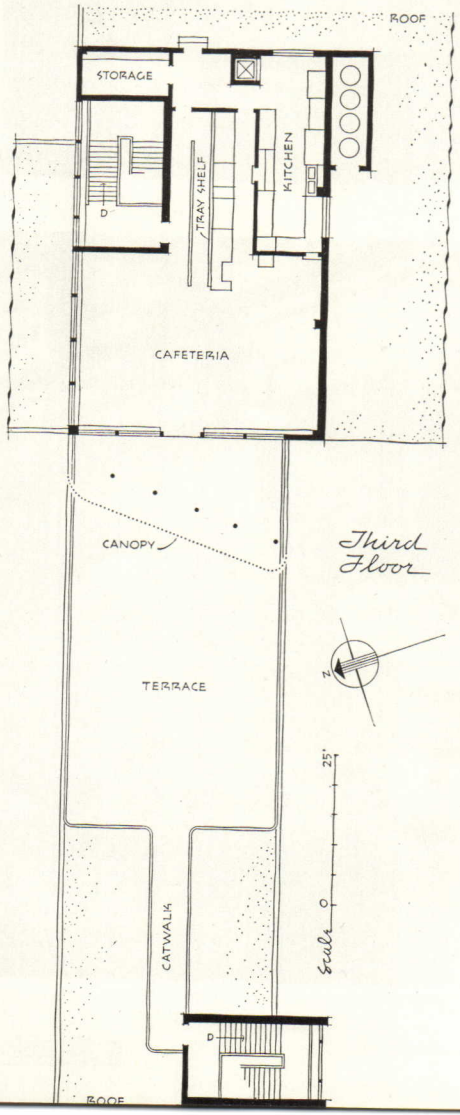
Above: Physical Testing Laboratory, on north wall of ground floor.

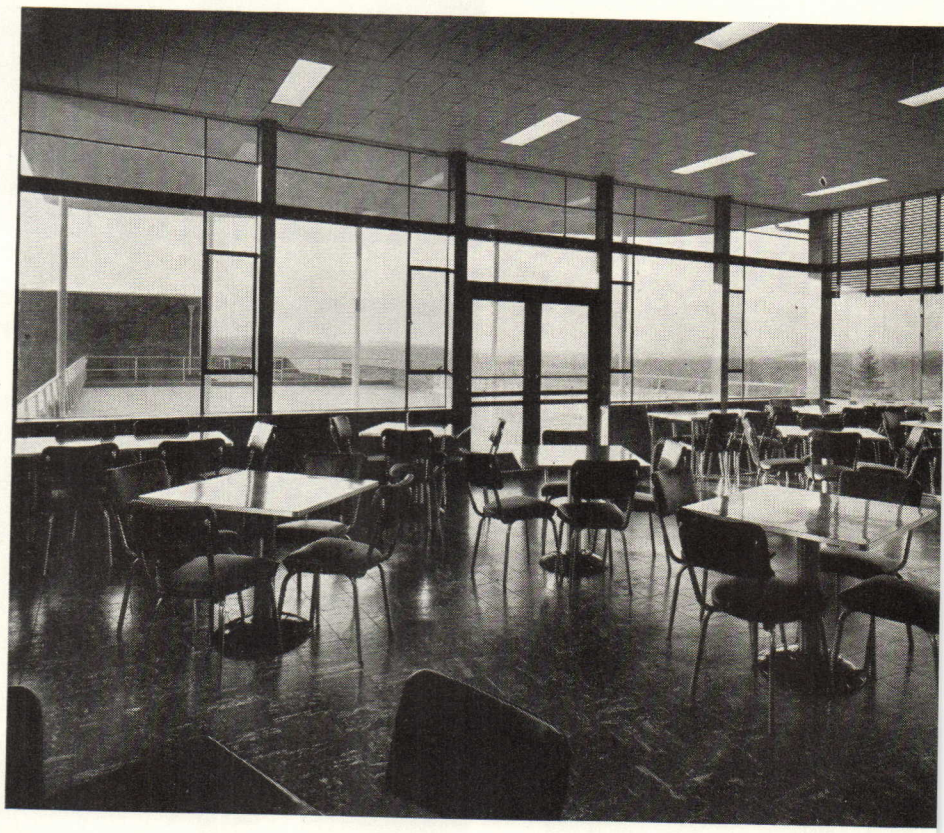
Right: looking from cutting-and-scarfing laboratory (note process-piping station on wall at right) through to apparatus-assembly laboratory and machine-shop area.



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.





RESEARCH LABORATORY: NEW PROVIDENCE, NEW JERSEY

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.
3. Solicitation.
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 flow 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."

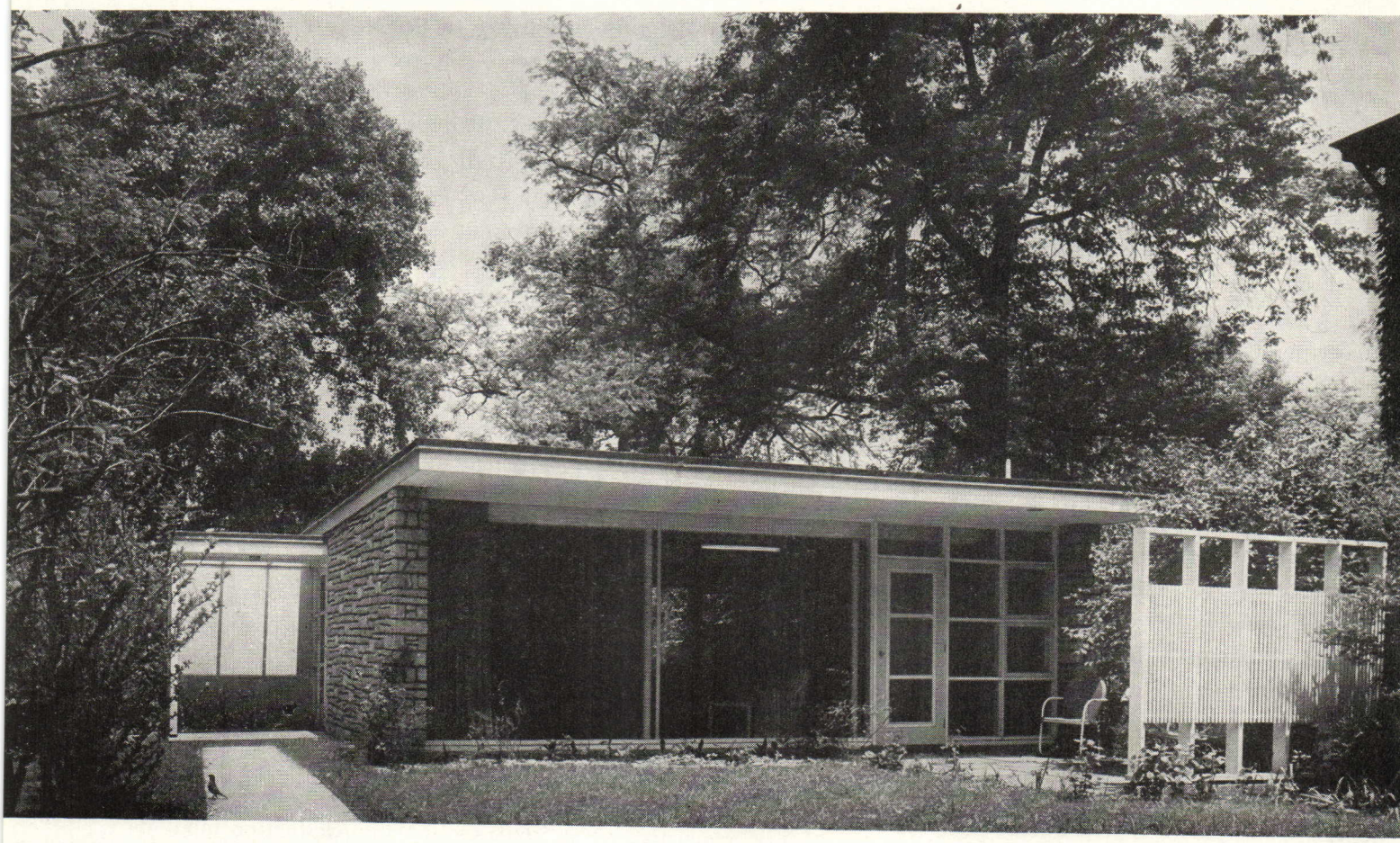
Direct solicitation of new business by the architect himself is one of the most effective single means of getting jobs, according to this study. Only a small minority use an agent—someone retained by the firm to solicit new business. (For a discussion of the legal and ethical aspects of that practice 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.

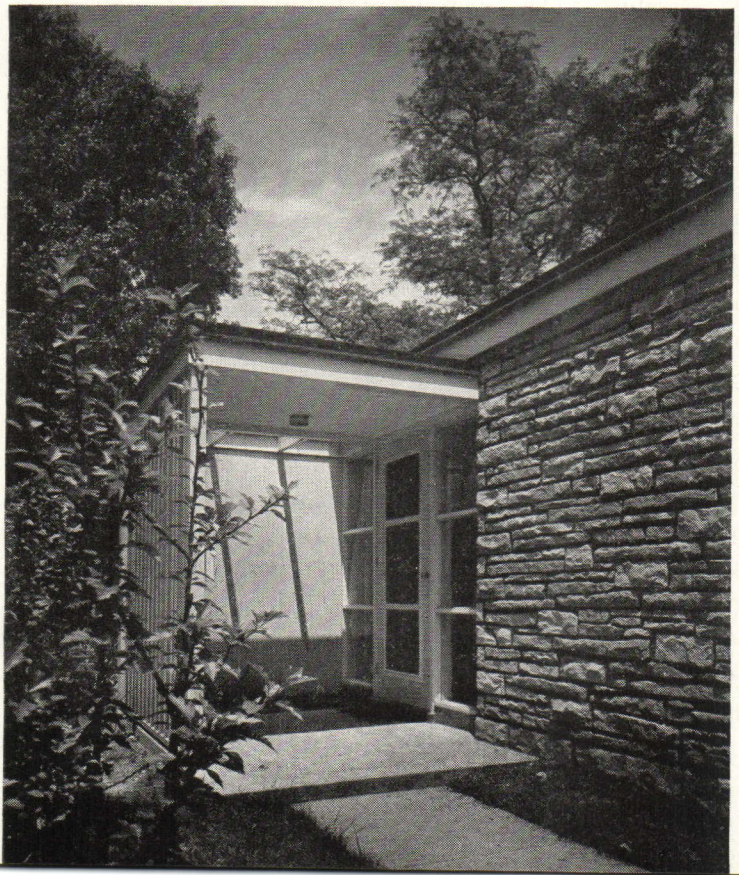
Several individual methods of gaining work were turned up in the survey. For example, one man has established a service for industrial plants in his area, consisting of an analysis of their production methods and the physical plant which houses them. He gets a fee for this, of course, and "whether buildings 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.

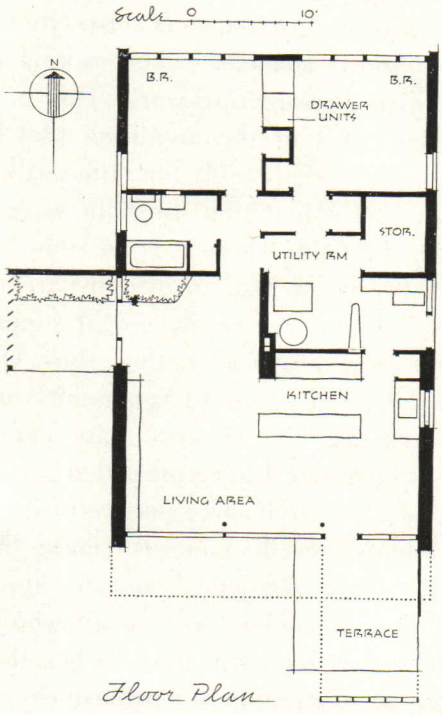
A tabulated breakdown of the survey results follows. Numbers after the methods indicate cumulative preferential voting among those questioned, based on their own experiences.

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**

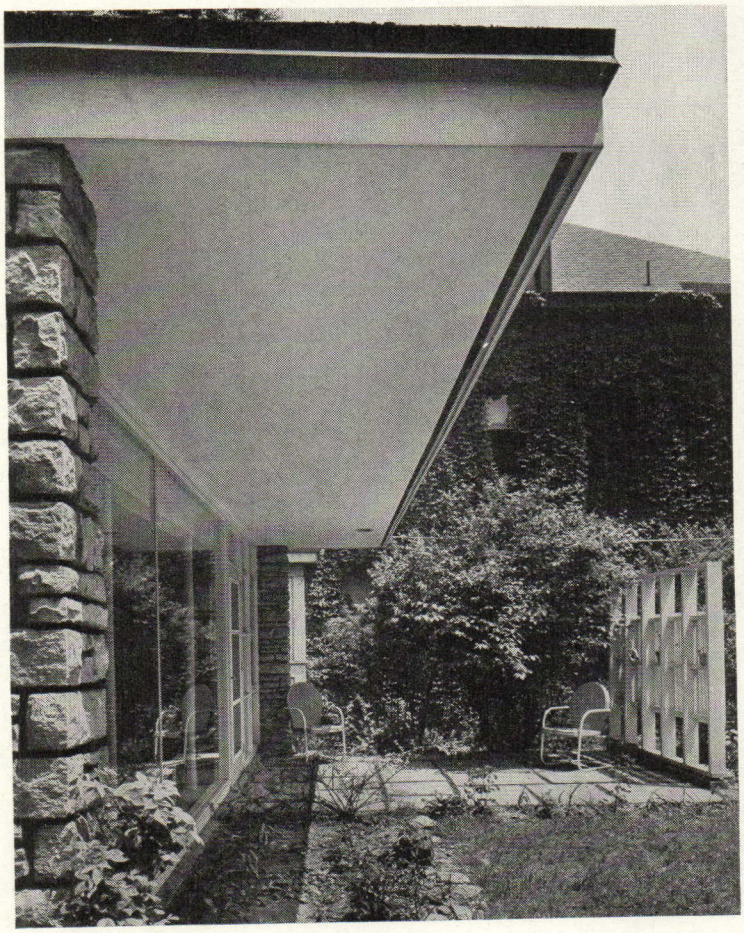


House: Pittsburgh, Pennsylvania





Floor Plan



J. A. Mitchell (below, left): B. Arch., Carnegie Inst. of Tech.; M. Science, Columbia U.

Dahlen K. Ritchey (right): B. Arch., Carnegie Inst. of Tech.; M. Arch., Harvard U. Practice, begun in 1938, interrupted by 3-year war period during which both partners were Naval officers. Office reopened after war; practice has included government housing, commercial, recreational, institutional, and residential structures.

MITCHELL & RITCHEY, ARCHITECTS

program: Compact, easily maintained home for a schoolteacher and her brother. "Plenty of storage space," a requirement.

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

solution: 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.

HOUSE: PITTSBURGH, PENNSYLVANIA

ATERIALS AND METHODS

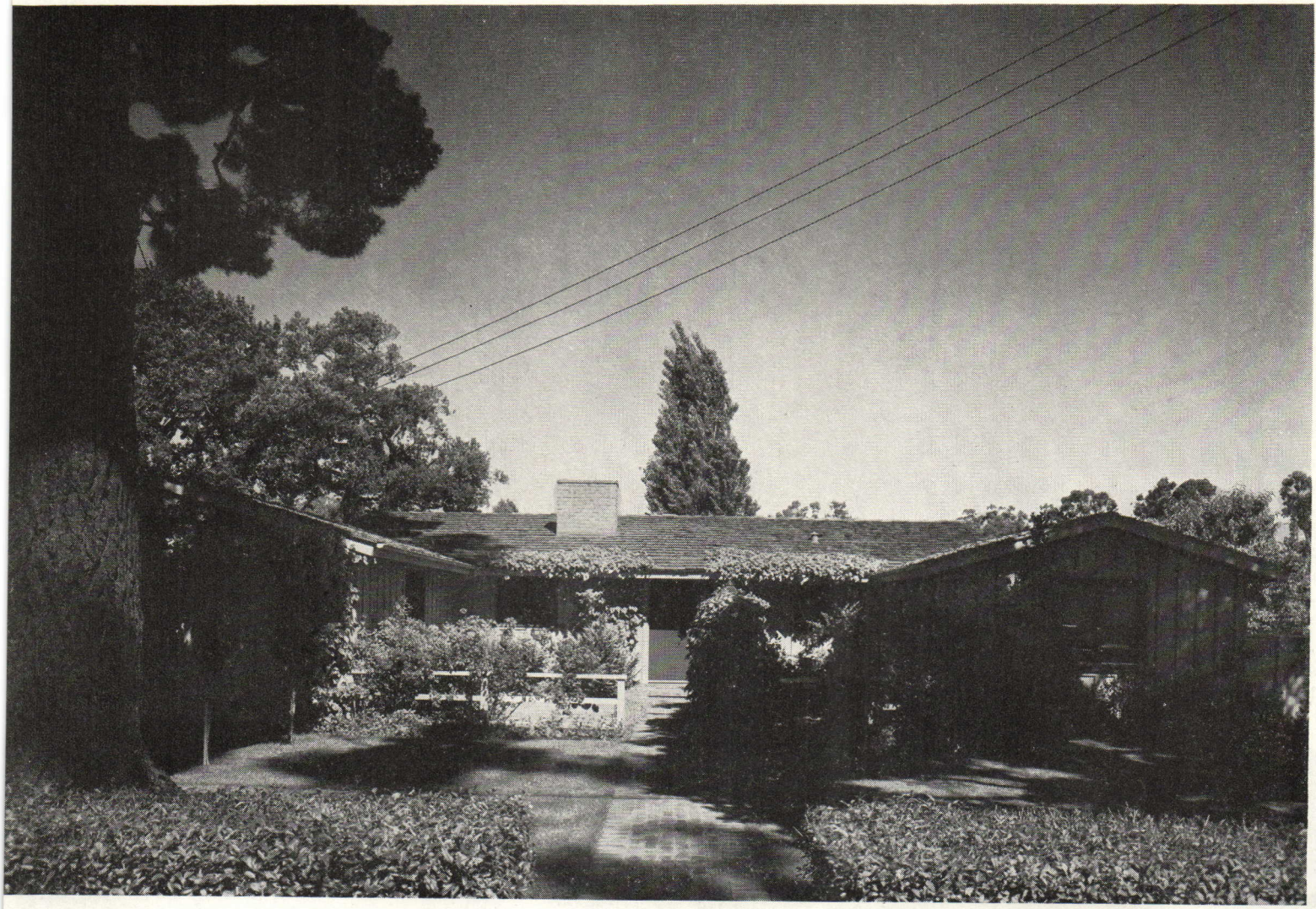
ONSTRUCTION: Walls: wood frame; one; brick veneer; interior surfaces: plas-r, stone, wood. **Floors:** concrete, asphalt le. **Roof:** built-up roofing over frame. **Fen-stration:** double-hung, projection-type sash; late and ⅛" glass. **Insulation:** asphalt-im-regnated, wood-fiber blanket. **Partitions:** ame.

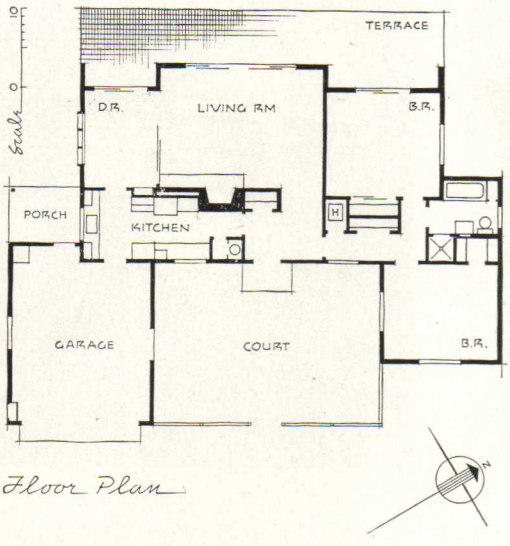
EQUIPMENT: Heating: Radiant-type sys-m; steel pipe. **Lighting:** recessed fixtures. **itchen equipment:** all electric.

Photos across page: top—looking from entrance toward south window wall; bottom—living-dining room, with mirrored, storage-furniture unit at right.

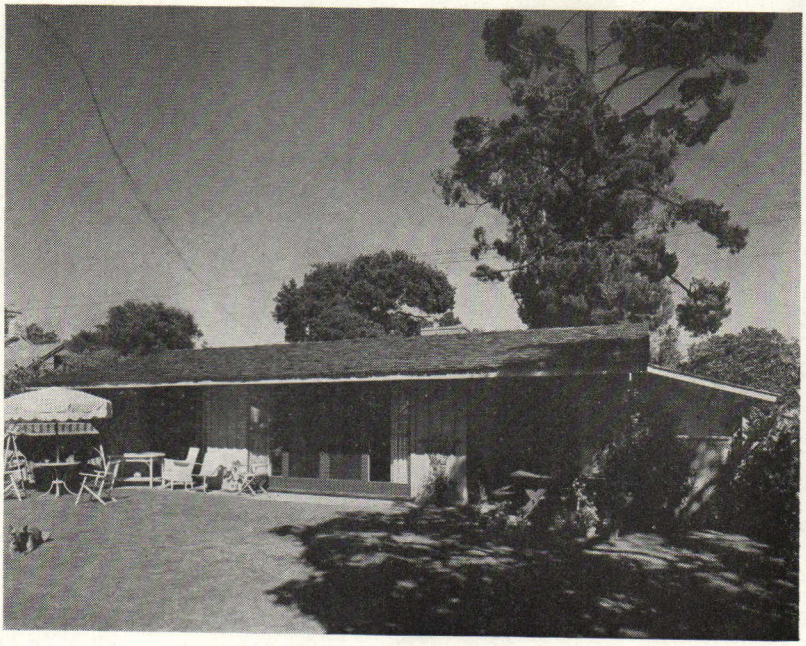
This page: left—view toward dining end of living room; right—compact kitchen, set off from living room by multi-use case at right.

Photos: Richard Garrison





Floor Plan

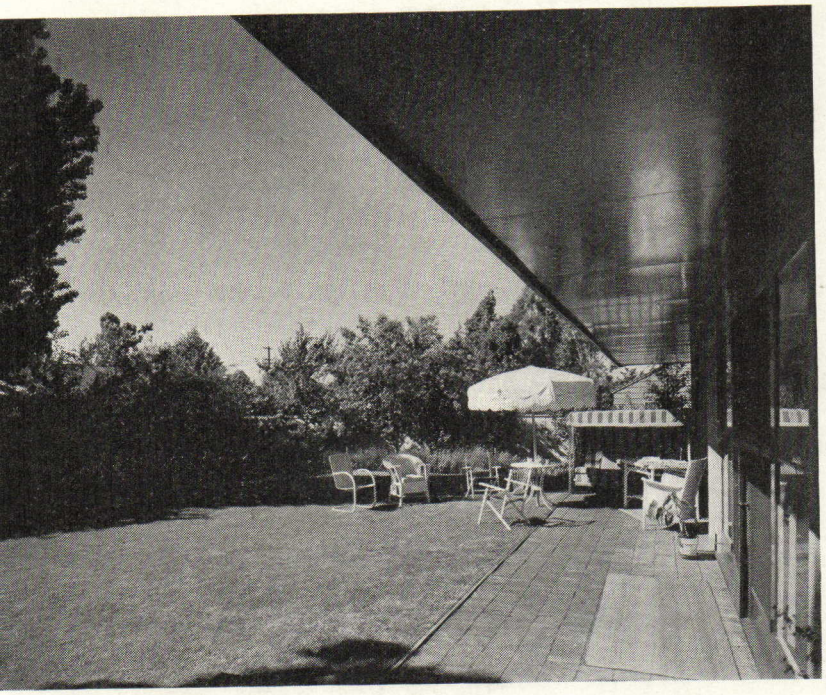


House: Menlo Park, California

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.

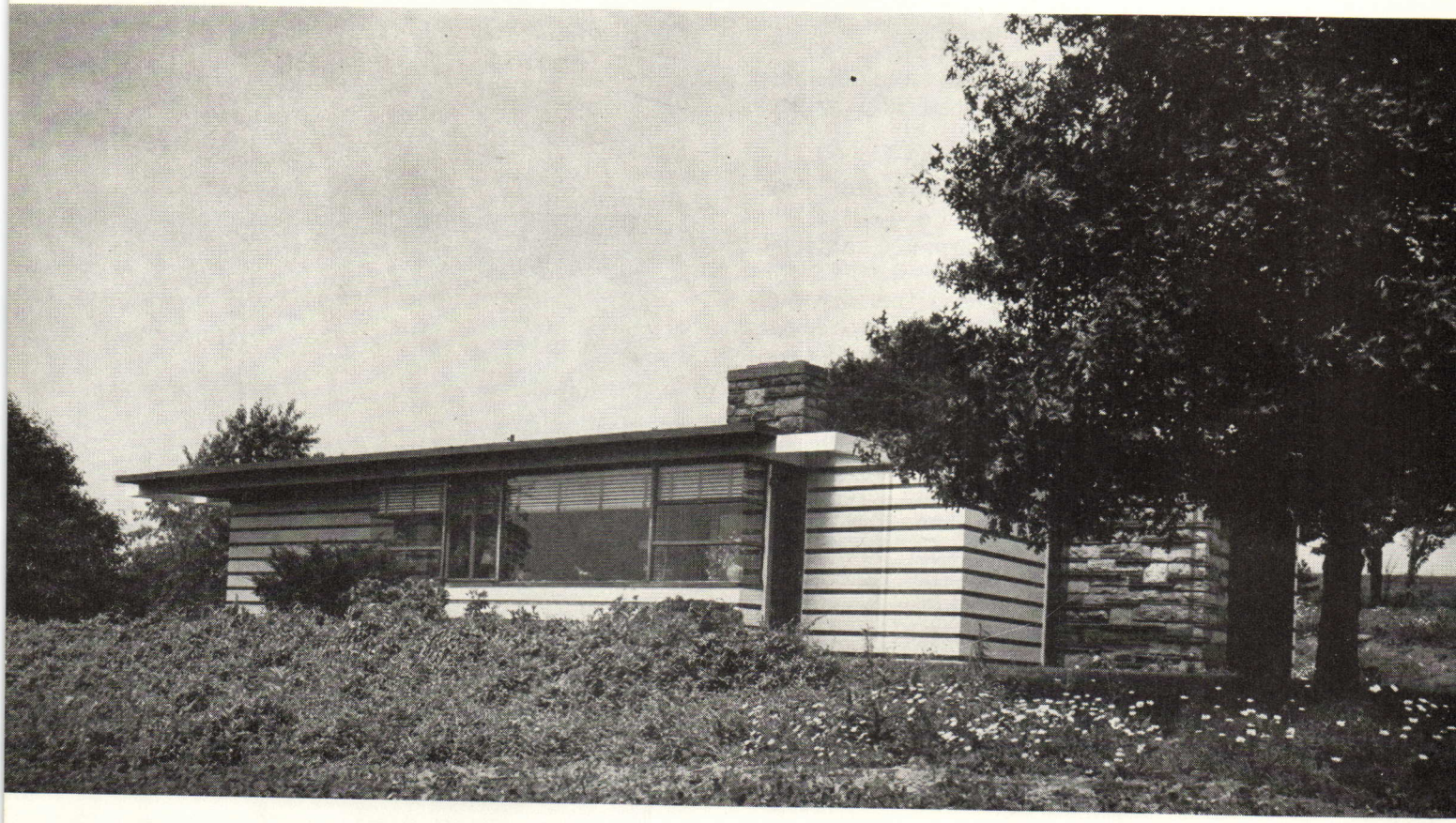
This page: above—living room looking toward terrace; at left—terrace showing deep roof overhang above northwestern window wall. *Photos: John H. Lohman*

WILLIAM F. HEMPEL, ARCHITECT

MATERIALS AND METHODS

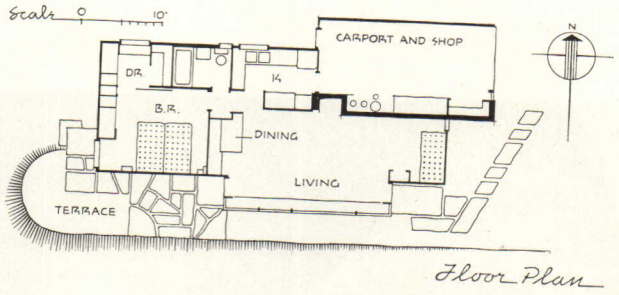
CONSTRUCTION: Frame: fir. **Walls:** frame, surfaced outside with redwood boards (1 x 12) and battens (1 x 2); interior surfaces—stucco. **Floors:** 2 x 6 kiln dried, mill construction; oak surfaced. **Roof:** cedar shakes over frame.

EQUIPMENT: Heating: forced warm-air system; thermostat. **Piping:** copper.



House: Pittsburgh, Pennsylvania

RAYMOND VINER HALL, ARCHITECT

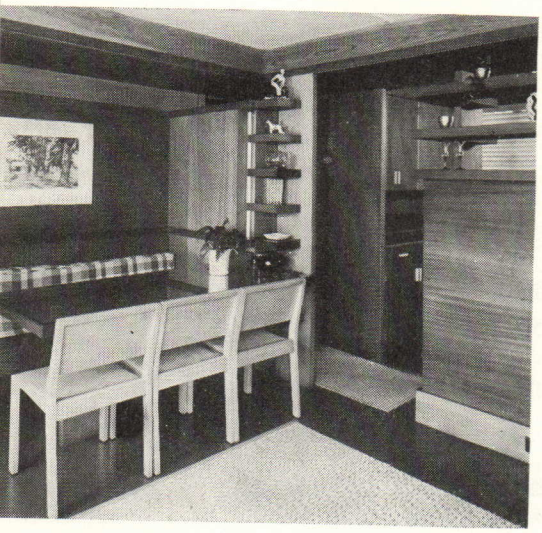


Floor Plan

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.

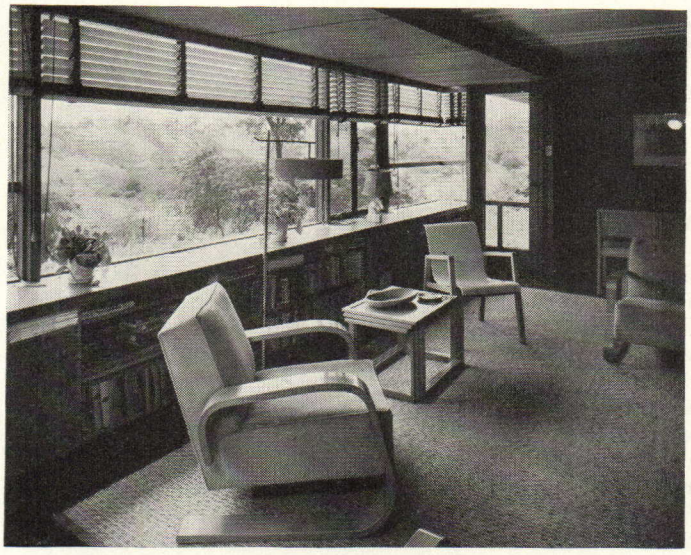
solution: Enclosed space conceived as a two-zone area—one for conversation, reading, dining, etc., with compact cooking-laundry facilities at one side, partially set apart by open shelves and the fireplace; the other, for sleeping, with adjoining bath and dressing alcove. Emergency guest sleeping space 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."

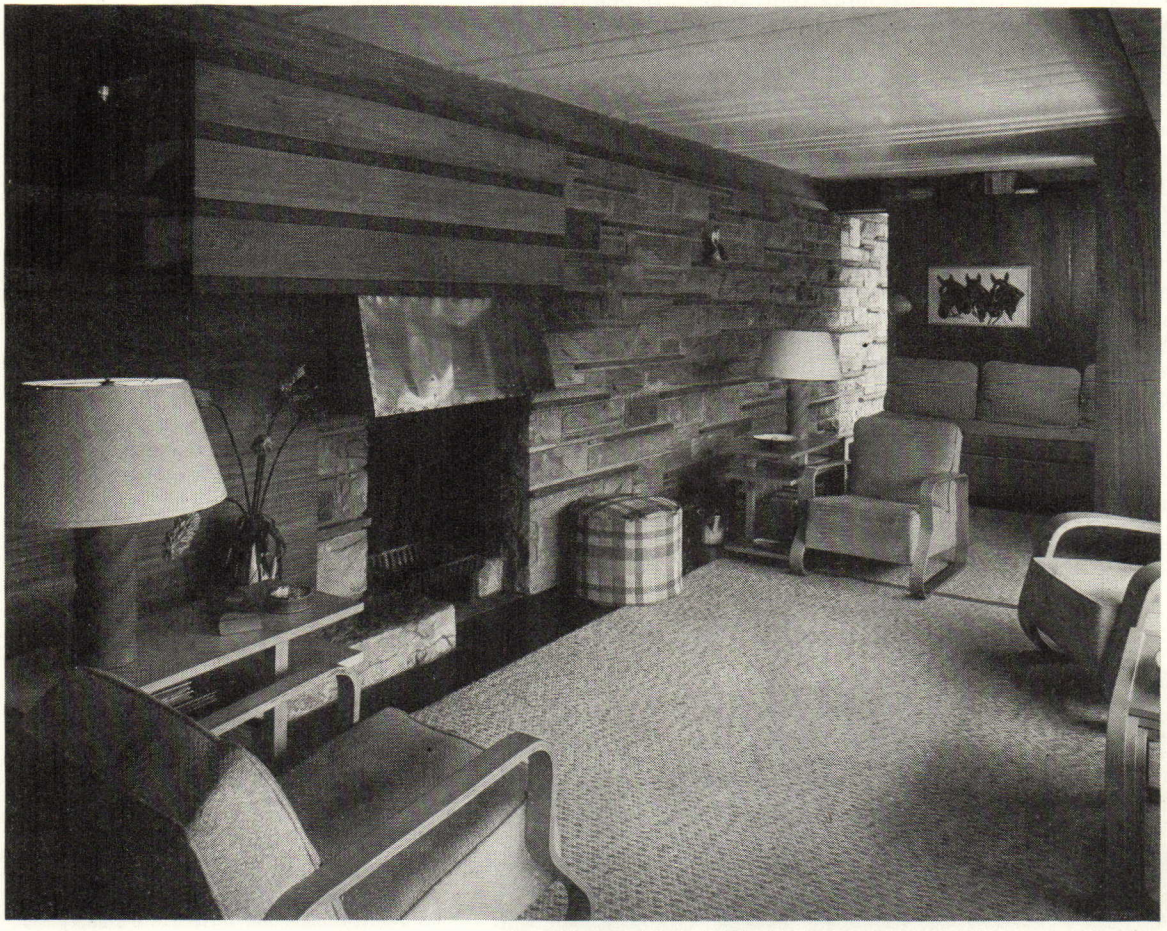


MATERIALS AND METHODS

CONSTRUCTION: Walls: 2-in. splined pine planking, surfaced outside with alternating jointed cypress boards and redwood battens. Interior fall surfaces: ¼" mahogany plywood. **Floors:** concrete slab, either stained and waxed or (in kitchen and bath) surfaced with linoleum. **Roof:** splined plank, mill construction, surfaced with tar and gravel. **Fenestration:** steel sash; double-strength and plate glass. Insulation: ½" fiberboard. **Doors:** flush, mahogany.

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

MATERIALS AND METHODS

The basic advantages, limitations, and characteristics of the principle heating systems are discussed in this article. The author's comments and conclusions, presented in chart form, serve as a helpful reference for the architect selecting the most suitable system for a particular job.

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*

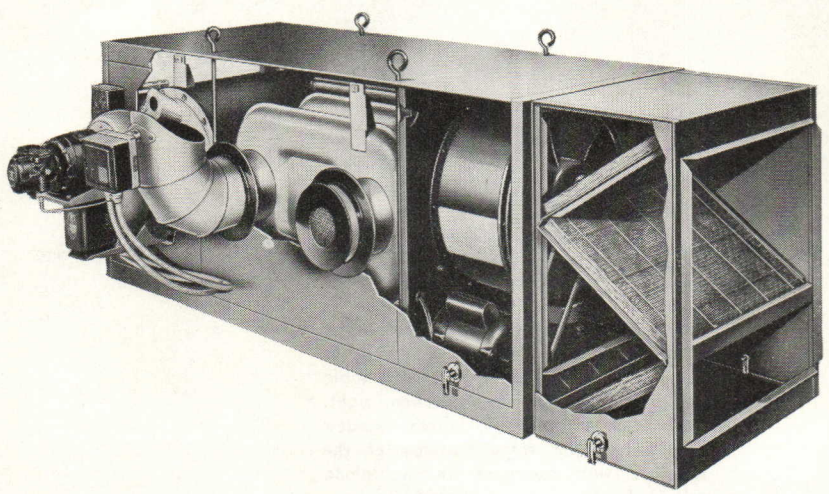


Figure 1. Horizontal type heater is suitable for installation under low rafters of a sloping roof.

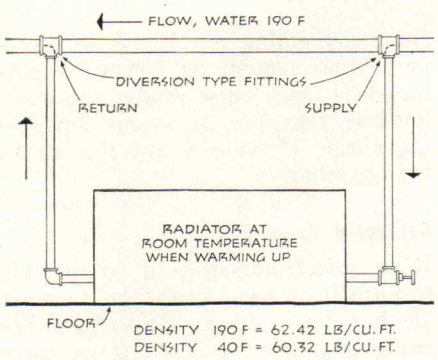


Figure 3.

Figure 4.

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 195F 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-

CHART 1: UNIT HEATING COSTS FOR ESTIMATING

building class	building description	heating system	load per hour, btu.	investment per M, btu.
Residence	Frame, 1-story, 10 rooms	Mech. Air	138,000	$ 9.78
Residence	Concrete block, 1-story, 5 rooms and bath	Mech. Air	82,000	12.13
Residence	Brick veneer, 2-story, 8 rooms, bath, and attic	Mech. Air	140,000	11.72
Residence	Frame, 3-story, 10 rooms, 2 baths	Circ. Water (Reversed Ret.)	200,000	18.00
Church House	Brick, plaster finish, 2-story, including auditorium	Circ. Water 2-zones, single pipe	300,000	12.80
Y.W.C.A. Group	3-brick and frame dormitories, from 2 to 4 stories, extended over a city block, with underground piping	Circ. Water 3-zones, reversed return design	800,000	11.27
School	Brick, 1-story and auditorium, shaped like letter F	Circ. Water 4-zones, reversed return	958,000	7.52
School	Brick, 3-story and auditorium, shaped like letter L	Circ. Water 3-zones, reversed return	824,000	16.61
School	Brick, 1-story, compact under one roof	Steam, 2-pipe	1,300,000	8.46
School Group	Brick, 1-story, 4 classroom wings, separate cafeteria, separate library bldgs. Cover a full city block	Steam, 2-pipe underground mains	1,100,000	13.64
School	Brick, 1-story, compact, one roof	Mech. Air	400,000	11.50
Synagogue	Solid brick, balcony	Mech. Air	300,000	11.67
Fire Station	Brick, 2-story, 3 trucks	Mech. Air	190,000	9.00

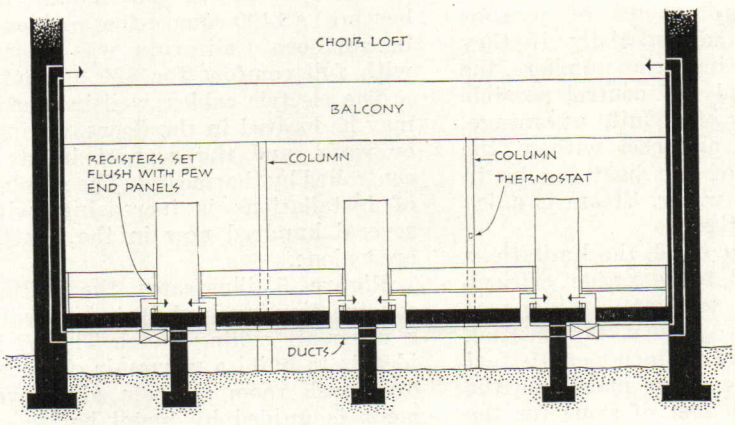


Figure 2. The warm-air system in this structure was designed to hide all heating equipment.

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 ¼-inch per 10 feet of slope of the steam main, and the ½-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 85F, 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 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 195F 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 200F 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 20F differential between the floor and ceiling for gravity circulation, and 10F if the heater is fitted with a fan

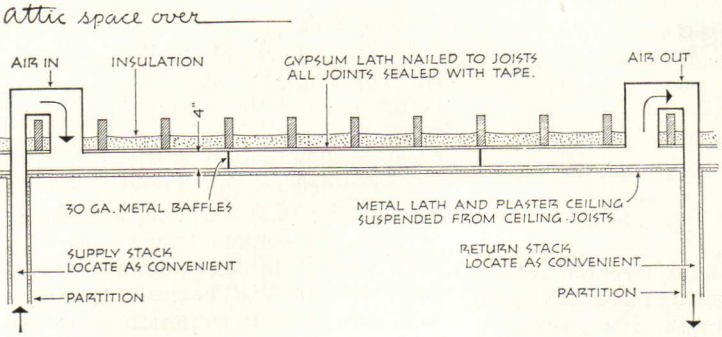


Figure 5.

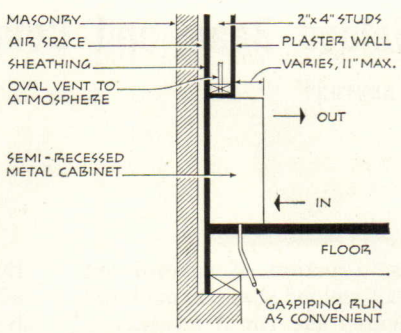


Figure 6.

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 20F 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 20F. If we live in a 0F 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 40F, 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 40F.

Radiant Glass

Radiant glass units are being built in 1000 watt, 220 volt, 4½ 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 current rates and the hours of use. The manufacturer offers the following formula for estimating operating costs:

$$\frac{\text{Tot. cu. ft. x degree days x } 0.2}{1000} = \text{Total kw-h}$$

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.

CHART 2: SUMMARY OF HEATING SYSTEM CHARACTERISTICS

heating agent	especially suited	less suited for	comments
Mechanical Warm Air	(a) All-year conditioning (b) Low investment (c) Buildings without basements (d) Where air filtering and humidifying are necessary (e) For radiant ceiling panels (f) Attic installation of heater	(a) Lengthy duct runs (b) Old buildings (c) If duct space is critical (d) If duct appearance is ugly (e) For separated buildings	This means of heating is developing favor in homes and small buildings
Forced Circulation Hot Water	(a) Even temperatures (b) Radiators and convectors (c) Radiant heating in floors, walls, and ceilings (d) Baseboard radiation (e) Where small pipes are essential (f) Where gravity drainage is not practicable	(a) Sharp off and on control (b) Less heat output from unit heaters (c) For involved underground distribution (d) Basementless houses (e) Radiators below the hot water main	Properly designed and installed, hot water is always satisfactory
Steam	(a) Sharp off and on control (b) Unit heaters (c) Extensive distribution systems, underground, etc. (d) Public buildings with widely varying occupancy	(a) Where gravity drainage absent (b) Radiation below boiler water line (c) Basementless buildings (d) If low cost is essential	District steam in a neighborhood may be a deciding factor
Panel Heating	(a) Eliminates all heating equipment from a room (b) For new construction (c) May possibly reduce operating costs (d) Saves floor space	(a) Costs more than conventional systems to install (b) Low floor temperatures limit load acceptable on floor only (c) Old buildings	Use of this system is spreading. Is theoretically excellent
Baseboard Panels	(a) Responds quickly to outside temperature changes (b) Saves floor space (c) Is unobtrusive	(a) Water temperatures over 200F tend to streak walls (b) Not cheap to install (c) May be difficult to meet high heat demands if wall space is limited	
Gas Fired Wall Radiators, Recessed or Corner Style	(a) Heating of individual rooms as units (b) Isolated locations (c) Low-cost installation. Total less than a central plant warm-air system	(a) Buildings having vent problems. A number of pipes from roof or walls is not pretty (b) Vents in rooms deteriorate the room air	
Floor Furnaces	(a) Small buildings (b) Where minimum cost is paramount (c) Saves floor space	(a) Uniform room temperatures (b) If floor drafts are unacceptable	
Heat Pump	(a) Eliminates chimney (b) Reduces fire hazard by eliminating combustion (c) One piece of equipment both heats and cools (d) Automatically goes from heating to cooling cycle instantly as needed	(a) Comparatively expensive to install (b) Heating demands may govern size of unit	
Radiant Glass	(a) Room tempering loads at beginning and end of season (b) Mild climates (c) Low electric rates (d) Low initial cost of installation	(a) Heavy and continuous heating (b) High electric rates tend to make uneconomical	

TABLE 1: HEAT OUTPUT OF HEAT PUMPS*

temperature outside air F	btu. per hour 3h.p.	5h.p.	7½h.p.	10h.p.
20	30,400	50,600	75,900	101,000
30	33,400	55,500	83,300	111,000
40	36,700	61,000	91,500	122,000
50	40,200	67,000	100,500	134,000

*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 trimetric 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

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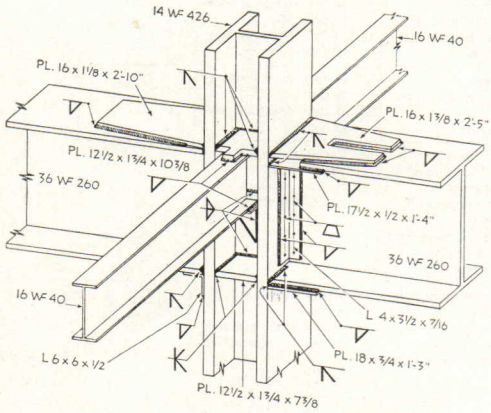


Figure 1.

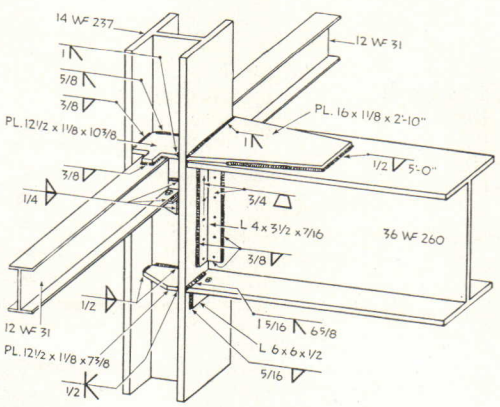


Figure 2.

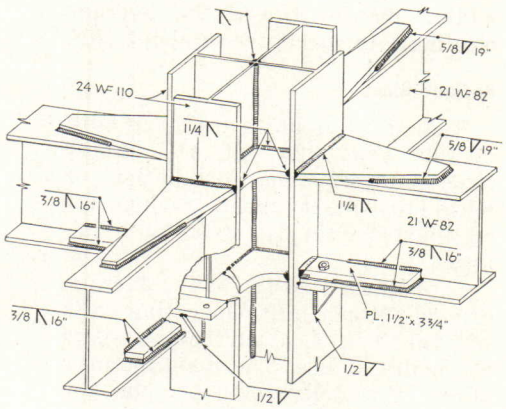


Figure 3.

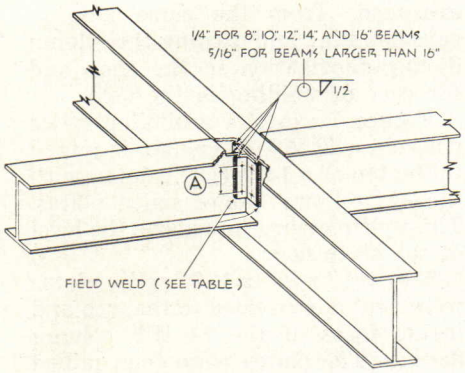


Figure 4.

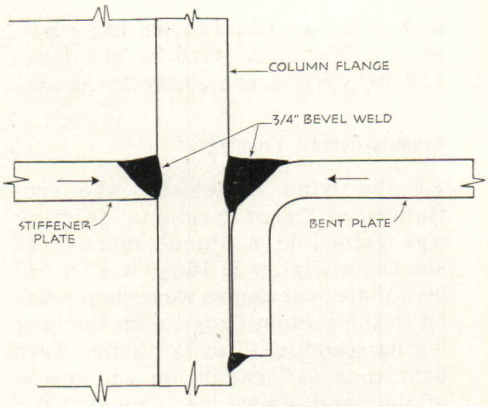
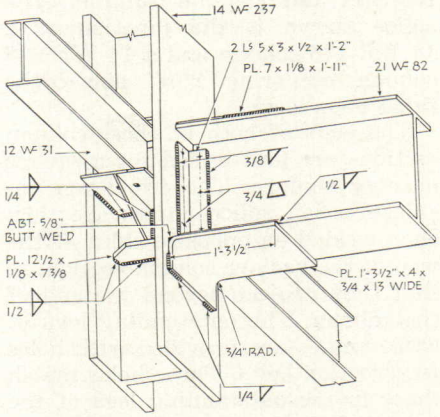


Figure 5A.

Figure 5, below.



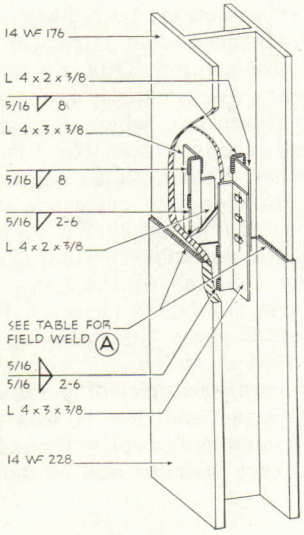


Figure 6.

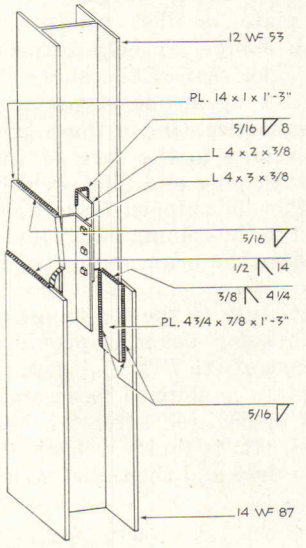


Figure 7.

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, 1¼" 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 ⅞" bolt holes to hold the beam during erection. The 1¼" 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 1¼" 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 1½" x 3¾" 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 I 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 bend. Space was provided for about a ¾" butt weld between the back of the outside radius of the bend 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 1⅛" 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 4¾" x ⅞" 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 bolt

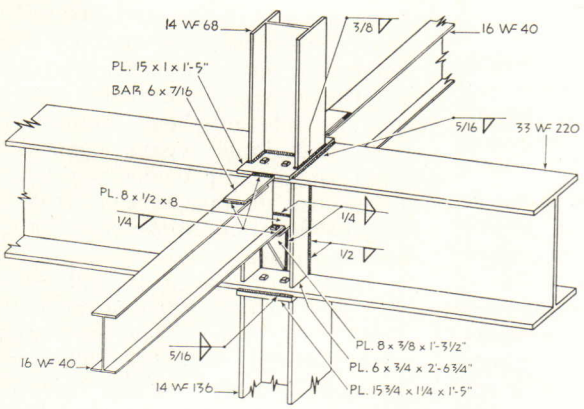


Figure 8.

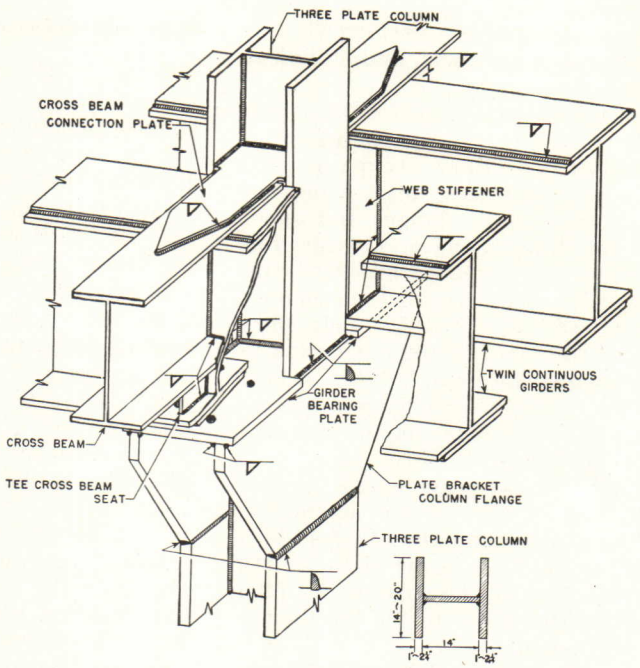


Figure 9.

TABLE 1

beam size	A	field weld	maximum shear (psi)
8" & 10"	No Spaces	1/4" x 0'-5-3/4"	13,800
12" & 14"	1 Space	1/4" x 0'-8-1/2"	25,200
16"	1 Space	1/4" x 0'-11-1/4"	36,700
18"	1 Space	5/16" x 0'-11-1/4"	48,000
21"	2 Spaces	5/16" x 1'-2"	65,000
24"	2 Spaces	5/16" x 1' x 4-3/4"	83,500
27"	2 Spaces	5/16" x 1' x 7-1/2"	101,000
30"	3 Spaces	5/16" x 1' x 10-1/4"	127,000
33"	3 Spaces	5/16" x 2'-1"	144,000
36"	4 Spaces	5/16" x 2'-3-3/4"	161,000

TABLE 2

size of upper column	weld A		capacity one weld
	depth of chamfer	length of weld	
14 WF 142 to 14 WF 426	1/2"	15-1/2"	113,000#
14 WF 87 to 14 WF 136	3/8"	14-1/2"	80,000#
Cols. with flgs. 12" Wide	3/8"	12"	65,000#
Cols. with flgs. 10" Wide	5/16"	10"	44,000#
Cols. with flgs. 8" Wide	1/4"	8"	27,000#

details, as shown in Figure 8. Bearing on the top and bottom sides of the girder was found more economical than providing a splice at the point of maximum moment in the 33 WF 220 continuous girders.

Thus, milled 6" x ¾" bearing plate stiffeners were welded to the web of the girder between flanges to provide a full bearing support for the upper 14 WF 68 column. The 1¼" cap plates, on the top and bottom ends of the columns, were bolted temporarily, and later permanently welded to the girder flanges.

The cap plates were shop welded to the ends of the column sections. They were permanently field welded to the girder flanges after plumbing and aligning the structure.

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 765 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 Sasso, 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.

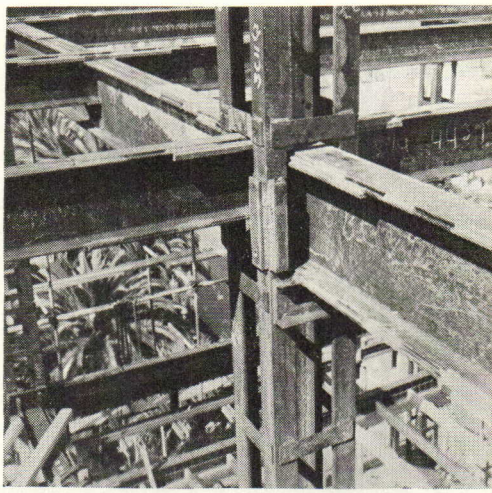


Figure 10.

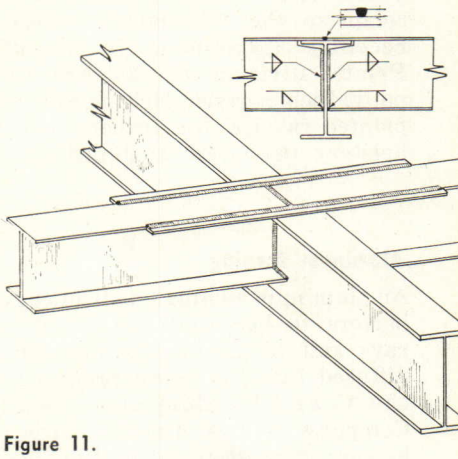
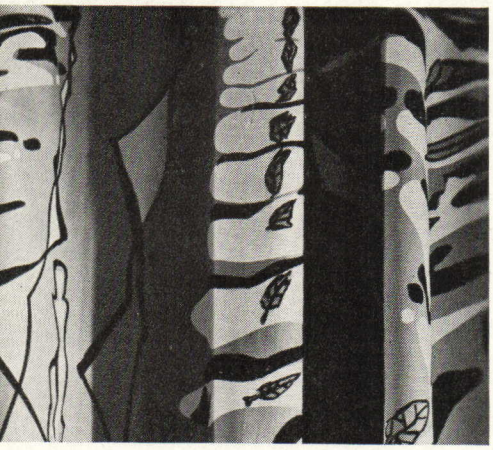


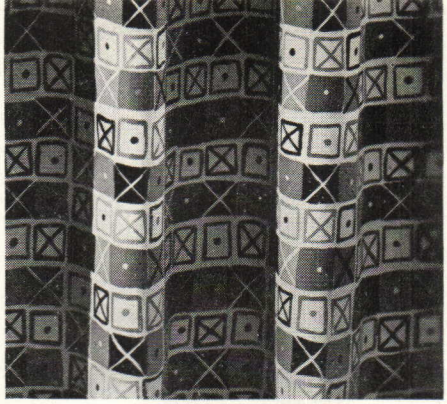
Figure 11.

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.

PA PRODUCTS





Above: "Cross Patch." Designed by Ray Eames for use in a child's room. Left: Salvador Dali's "Spring Rain." Not tear-shaped, but geometric, as seen through the stroboscope's eye.

"Chips." George Nelson's small geometric forms, accented by black shadows, have a three-dimensional effect.

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.

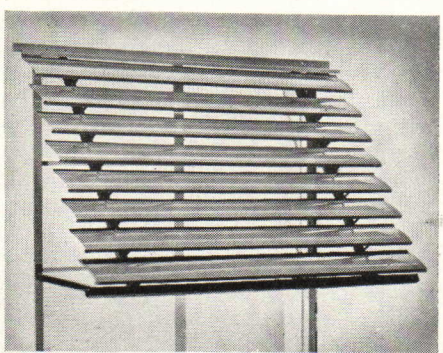
Each design is available in three different color schemes. All of the fabrics are vat-dyed, color-fast, and 50" wide. As the pattern repeats are either 27" or a multiple thereof, the fabrics may be used for slipcovers and upholstery with minimum waste.

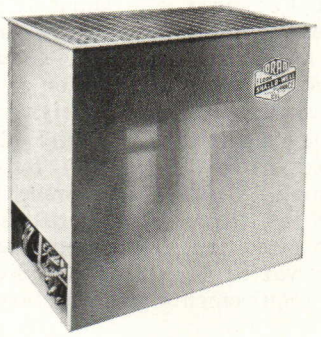
The collection was produced in an effort to bring good contemporary design into the homes of the medium-income-bracket consumer. Retail prices will range from $3.95 to $6 per yard. The fabrics are now available to architects, designers, and decorators through L. Anton Maix, New York merchandising coordinator 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 screw driver 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 0-70 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.

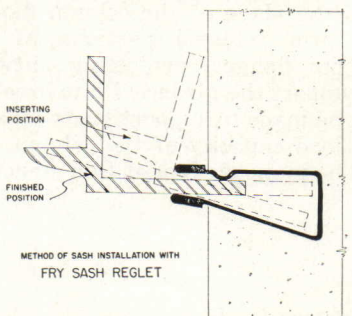
An exclusive auxiliary cold air return draws cold air from hard-to-heat areas for more uniform comfort.

Sash Reglet

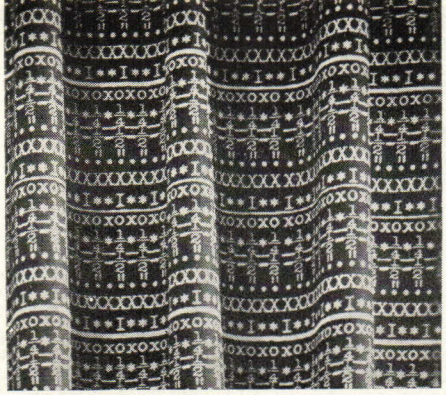
A new method of metal sash installation that eliminates all grouting and calking, and reduces installation time to less than five minutes, has been announced by the Fry Reglet Company, Birmingham, Michigan. The method employs a rolled section, known as a sash reglet, which is imbedded in a concrete wall or inserted in a masonry joint. The method does not require expansion bolts, clips, angles, wedges, or bracing wires, and allows the contractor to erect the walls without having sash on hand.

For concrete construction, the rolled section is mounted on a wood buck. After pouring, the buck is removed and the reglet left imbedded in the wall. Metal sash is inserted in the reglet and the sill cast to complete the installation. In masonry work,

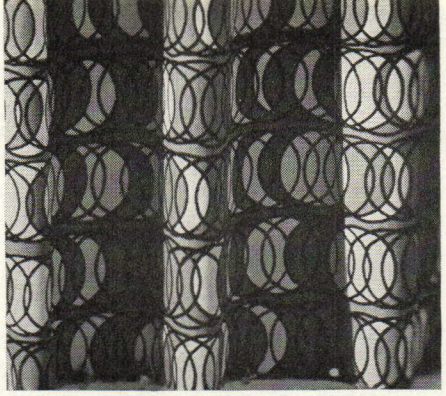
(Continued on page 140)



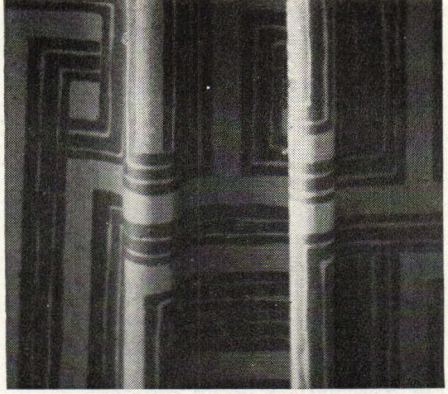
METHOD OF SASH INSTALLATION WITH FRY SASH REGLET



"Fractions." Bernard Rudofsky has used typewriter type to achieve this ingenious pattern.



"Eclipse." Lunar phenomenon translated into a fabric pattern by Abel Sorensen.



"Primitive Key." Classic key motif, generously scaled, was created by Edward J. Wormley.

this month's products

air and temperature control

Agitair "CNO" Exhauster: weatherproof, heavy-gage steel unit, with wide "venturi-type" orifices, for roof ventilating, vent flues, and chimney tops. Available in standard head sizes from 5" to 48". Air Devices, Inc., 17 E. 42nd St., New York 17, N. Y.

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

Fire Chief: low-price, automatic boiler-burner unit, employing new cross feed principle and burning anthracite across simple, stationary, perforated 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 130,000 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 elbows, registers and grilles for installation above baseboards. System can be used with either G-E 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 axial flow fan, extracts moisture, disposes it 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: free-standing unit requiring no duct work; all-copper condenser, silver soldered throughout, adaptable for city 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 houses, theaters, stores, etc. American Structural Products Co., Ohio Bank Bldg., Toledo 1, 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 unless waterproof partition is desired. Bloxolite Co. of America, 706 Penn Ave., Pittsburgh 21, Pa.

Simplex Gym Ceiling: sectional units, composed of extra strong, thick aluminum (or bonderized 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 paint needed to protect easily cleaned surface. Noninflammable, uniform air distribution, 75% noise reduction. Simplex Ceiling Co., 552 W. 52nd St., New York 19, N. Y.

doors and windows

All-Aluminum Screen Door: will fit openings that sag or are out of line; aluminum frame covers wood stripping used to square and adjust opening to proper size. Manufactured in all sizes, with 1" variations in width and height. Alumatic Corp. of America, 1229 S. 41st St., Milwaukee 4, Wis.

No. 77 "Over the Top" Garage Door: low-priced, 24-panel plywood unit will fit openings 8' wide by 6'8" high, requires only 2" headroom. Equipped with all necessary hardware and steel weatherstripping. Frantz Mfg. Co., Sterling, Ill.

Spring-Cushioned Door Stop: small metal gadget with cushioning internal spring and soft 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

Guth Mazelite: all-metal industrial luminaire with turret sockets for quick, easy lamp changes; hinged reflector completely removable for cleaning. Edwin F. Guth Co., 2615 Washington Ave., St. Louis 3, Mo.

Varsity: fluorescent lighting fixture claimed to combine large light volume with small cost. May be used as single unit or in continuous runs; baffle-type louvers offer shielding angles of 25°-27°, easily removed for maintenance purposes. Housing and channel are of 20-gage steel with white baked enamel finish. Suitable for offices, stores, classrooms. Leader Electric Co., 3500 N. Kedzie Ave., Chicago 18, Ill.

CL-296: 8-foot, louvered fixture utilizing two 75w T-12 instant start lamps; 20-gage steel construction, finished with baked white Miracoat, providing minimum reflection factor of 86%. May be surface or pendant mounted, or joined to similar units to form continuous rows. Sylvania 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. Truscon Laboratories, 1620 Caniff St., Detroit 11, Mich.

sanitary equipment, water supply, drainage

Softenall: two-tank water softener unit, furnished with ultra-high-capacity zeolite softening material, which is permanent and can be regenerated indefinitely. Manufactured in four sizes, largest requiring floor space of only 22" x 38", the smallest 16" x 26". 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 24v to 250v, a.c. or d.c. Auth Electric Co., 34-20 45th St., Long Island City 1, N. Y.

Claywood Contemporary Furniture: new gate-leg 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; combination of protractor, compass, square, scale, and lettering device. Made of Anderolyte plastic, which will not distort, warp, or burn. L. A. Cuson, 9100 Roselawn Ave., Detroit 4, Mich.

General Chef: combination electric refrigerator and two-burner range, available in 110v model. Both units plug into any circuit with one plug. General Air Conditioning Corp., 4542 E. Dunham St., Los Angeles 23, 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, nonporous, 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, stainproof plastic surface material, bonded to Masonite Presdwood, 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., 2035 S. Calumet, Chicago, Ill.

Manufacturers' Literature

★ *Editors' Note: Items starred are particularly noteworthy, due to immediate and widespread interest in their contents, to the conciseness and clarity with which information is presented, to announcement of a new, important product, or to some other factor which makes them especially valuable.*

AIR AND TEMPERATURE CONTROL

1-289. 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-1 (S-41), 8-p. illus. bulletin on stokers with coal burning rates of 75 to 312 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. Counterflo Forced Air Space Heaters, AIA 30C43 (Bul. 523), 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. Description 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.

1-298. Blowers—Exhausters (B-5-A), 4-p. bulletin on centrifugal types for handling air and gases of various densities, temperatures, and chemical composition. Descriptions, capacities, general specifications, photos. Allen Billmyre Div., Lamson 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 uses. General informaion, erection data. Bloxolite Co. of America.

3-85. Facts About Lumber, AIA 19A3 (A-6771), 16-p. illus. booklet providing general information and analysis of problems in use of lumber preserved with Du Pont chromated zinc chloride. Typical specifications, photos, index. E. I. Du Pont de Nemours & Co., Inc.

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.

3-87. Bronze Mouldings by Loxit, AIA 23-1, 4-p. booklet. Tee sections, angles, flat strips, coves, edgings, stair nosings, etc. Descriptions, dimensions, illustrations. Loxit Moulding Co., Div. of Loxit Systems, Inc.

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.I.A. Marble Institute of America.

Five booklets on modular, structural clay tile and box cap-mold. Descriptions, technical data, construction details, unit specifications, advantages, cap - mold shape details. National Fireproofing Corp.:

3-89. Dri-Speedwall Tile, Buff Unglazed, AIA 10-B (DRI-17)
3-90. Salt-Glazed Dri-Speedwall Tile, AIA 10-B (SG-1)
3-91. Ceramic Glazed Vitritile (PF 47)
3-92. Modular Glazed Vitritile, 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.

3-96. Glasiron, 8-p. booklet providing brief description of porcelain enamel building fronts. Advantages, photos. Wolverine Porcelain Enameling Co.

DOORS AND WINDOWS

4-204. Facts About Glazing, 12-p. booklet. Application of putty and compounds, winter glazing, problems of aluminum sash, rules and recommendations. Dicks-Pontius Co.

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.

4-206. Everything Hinges on Hager, 128-p. illus. catalog on wide line of hinges, bolts, latches, sash lifts and pulleys, and other hardware accessories. Numerical and alphabetical indexes, descriptions, symbols of finishes, applications, sizes, dimensions. C. Hager & Sons Hinge Mfg. Co.

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 (Formlites). Descriptions, types, drawings, photos. Gotham Lighting Corp.:

5-208. Gotham Architectural Lighting (GLC15)
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 (3149)
5-212. Katolight Plants (148-C)

★ **5-213. Kohler Electric Plants,** 24-p. illus. catalog on various models, for use where central station service unavailable. Proper selection, specifications, multiple plant installations, drawings, photos. Kohler Co.

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.

5-215. Midget Ever-Lok (EL-49), 12-p. illus. catalog featuring automatic-locking plugs, receptacles, and cord connectors. Brief descriptions, dimensional drawings, illustrations, ordering information. Russell & Stoll Co., Inc.

5-216. Originals 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 spotlights 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.

6-173. Exterior Masonry Waterproofing Manual, 29-p. manual giving complete directions for applying one-coat Crystal Silicone water-repellant to all types of masonry material. Suggested specifications, index. Wurdack Chemical Co.

INSULATION (THERMAL, ACOUSTIC)

9-137. Rubatex Insulation Hardboard, AIA 37 (RBH), 6-p. illus. folder on method of insulating cellarless houses to eliminate cold, damp floors. Description of hardboard, composed of expanded, synthetic rubber compound; construction suggestions, specifications, technical data, drawings. Rubatex Div., Great American Industries, Inc.

SPECIALIZED EQUIPMENT

19-445. Custom In-Built Home Music System, 6-p. illus. brochure showing concealed installation, in residential interior, of music system elements: AM-FM tuner, amplifier, loudspeaker, and record changer. Typical examples, description of parts, installation data. Altec Lansing Corp.

19-446. Autocall Paging Systems, portfolio containing set of booklets, folders, and single sheets on various types of paging systems. Cost comparisons, maintenance, testimonials, descriptions of bells, chimes, whistles, and models of central sending stations. Autocall Co.

19-447. Hospital Signaling Systems (H-1), 32-p. bulletin on nurses' call, doctors' paging, doctors' in and out register, fire alarm, private telephone, and return call systems and equipment. Descriptions, wiring diagrams, symbols chart, specifications, composite hospital and nurses' home floor plan, photos, index. S. H. Couch Co., Inc.

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

19-451. Designs for Bathrooms, 12-p. full color booklet showing line of enameled cast-iron bathtubs and lavatories. Dimensions, illustrations, planning suggestions. Humphryes Mfg. Co.

19-452. Your Kelvinator Kit (1949), portfolio containing photographs and description of four new home freezers ranging in size from 6 to 20 cu. ft. Kelvinator Div., Nash-Kelvinator Corp.

★ **19-453. Knoll,** 20-p. illus. brochure presenting examples of integration of modern furniture with various types of residential, commercial, and other interiors. General information, photos, brief descriptions of furniture and textiles. Knoll Assoc., Inc.

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 Lightning 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

19-456. How to Apply Kaiser Aluminum Roofing, folder describing method. Illustrations, advantages, special nailing details, sizes, shapes. Permanente Products Co.

19-457. Vermont Slate, 4-p. booklet on natural colored slate for roofing. Advantages, characteristics, application data, colors, sizes, specifications. Rising & Nelson Slate Co., Inc.

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 Manufacturers' Literature circled below.
We request students to send their inquiries directly to the manufacturers.

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
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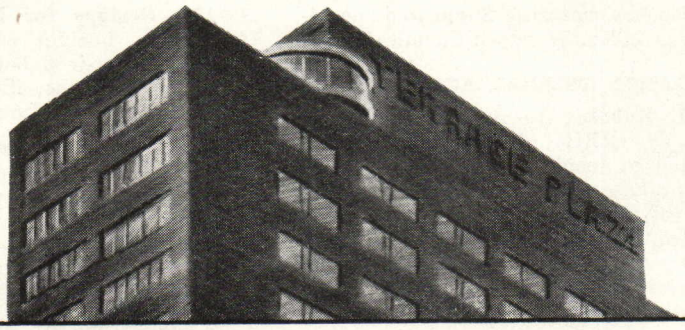
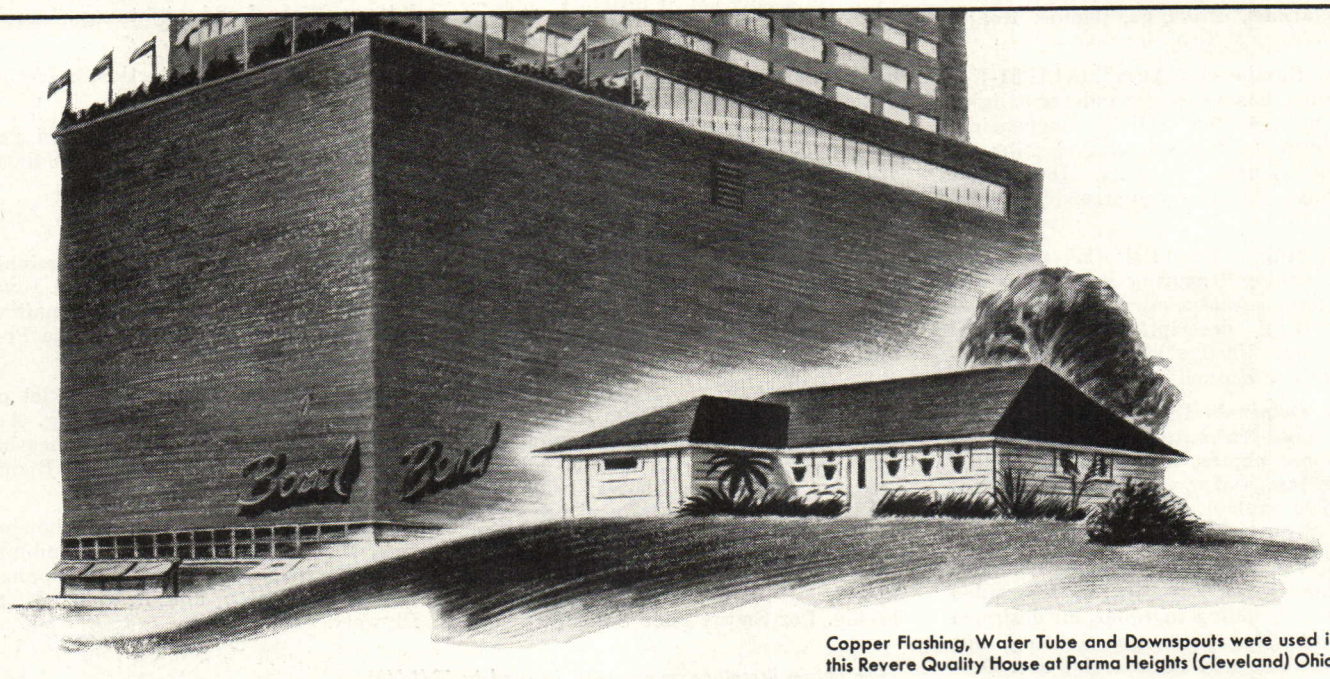


Terrace Plaza Hotel, Cincinnati, Ohio, in which some 135,000 pounds of Revere Copper Water Tube were installed.

IN BUILDINGS LARGE OR SMALL
REVERE PRODUCTS INSURE QUALITY



Copper Flashing, Water Tube and Downspouts were used in this Revere Quality House at Parma Heights (Cleveland) Ohio.

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.

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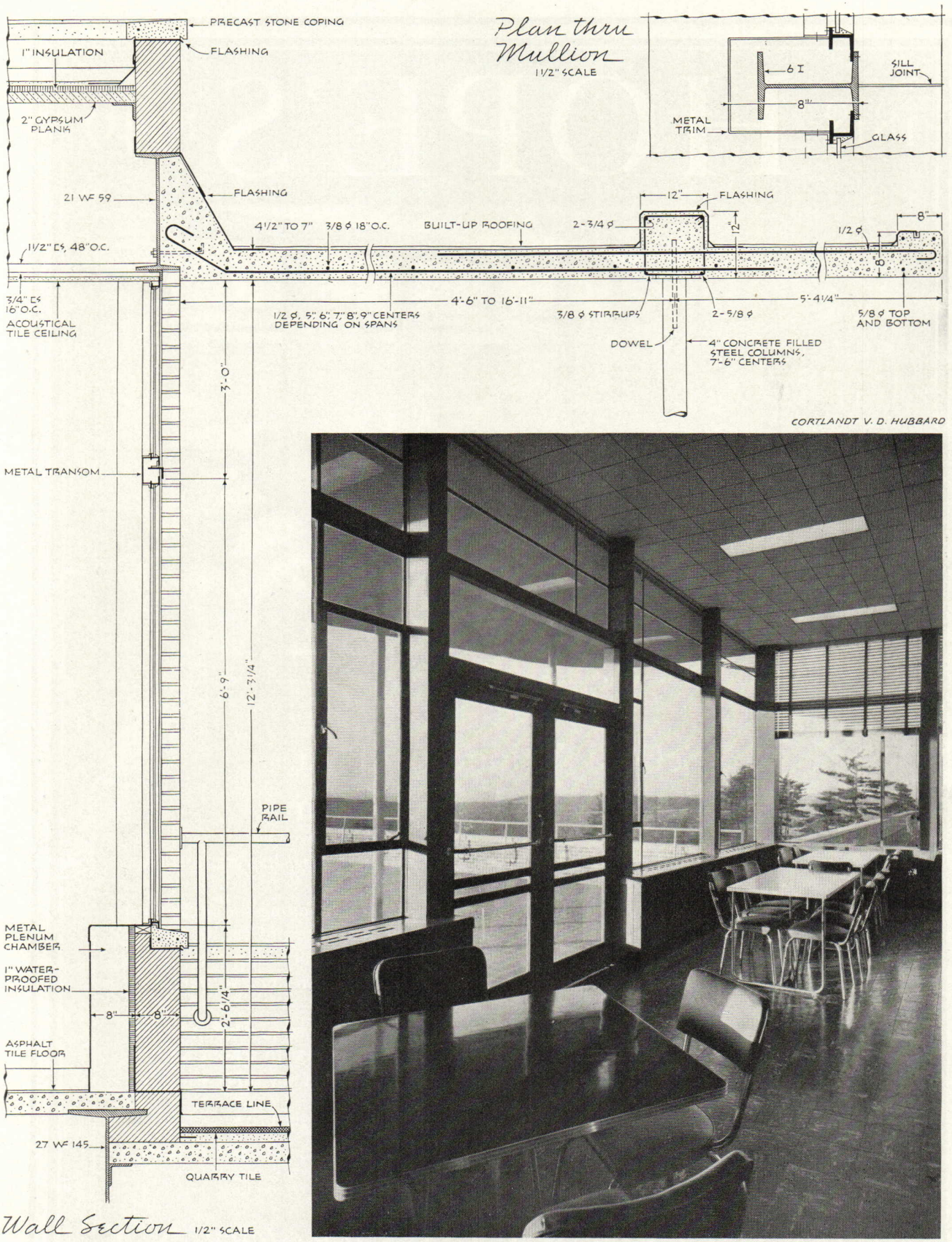

Wall Section 1/2" SCALE

Plan thru Mullion
1½" SCALE

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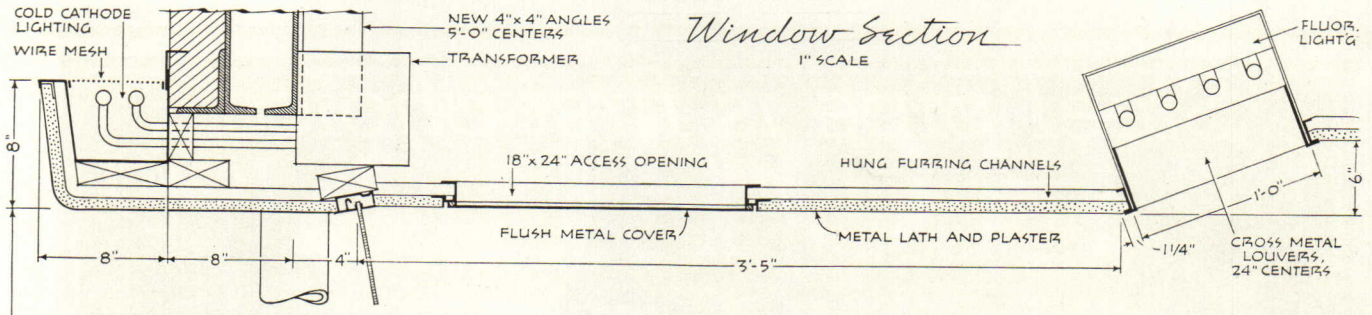
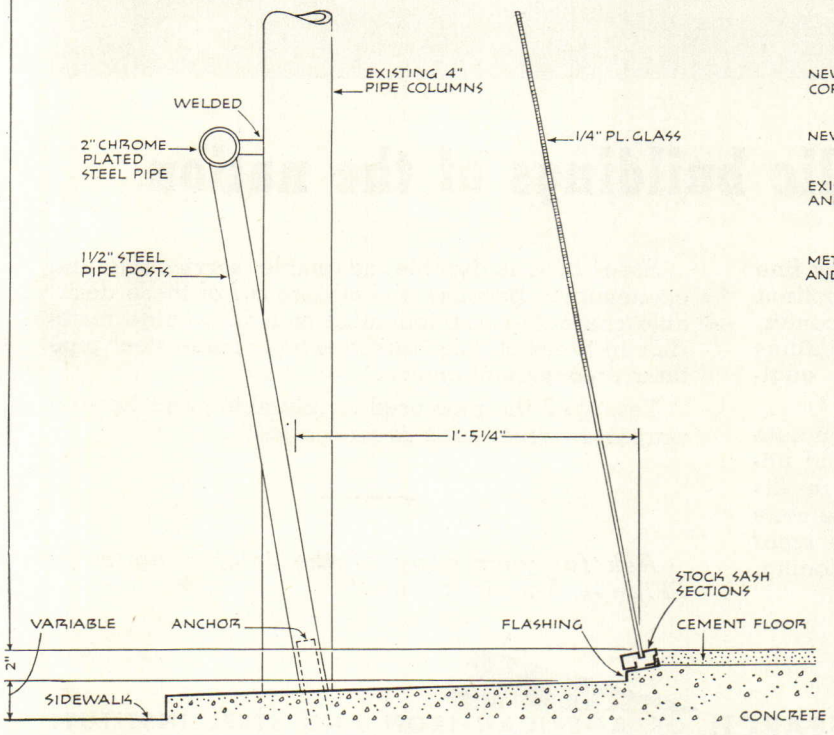
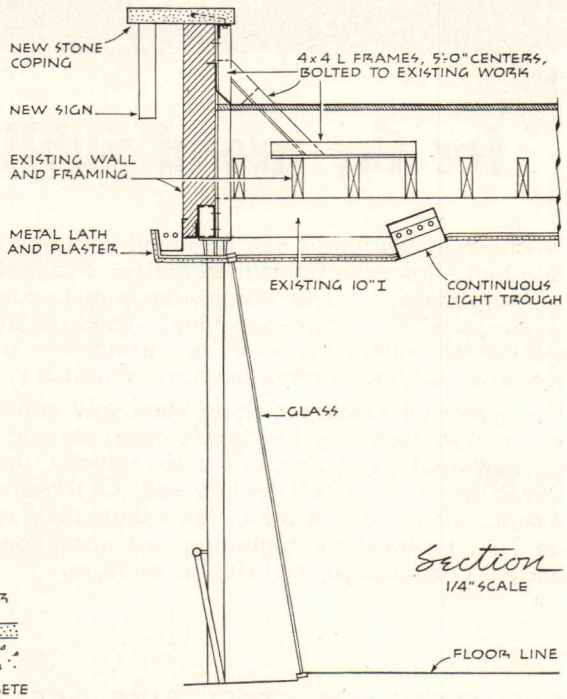


GOTTSCHO - SCHLEISNER





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MORRIS LAPIDUS
Architect

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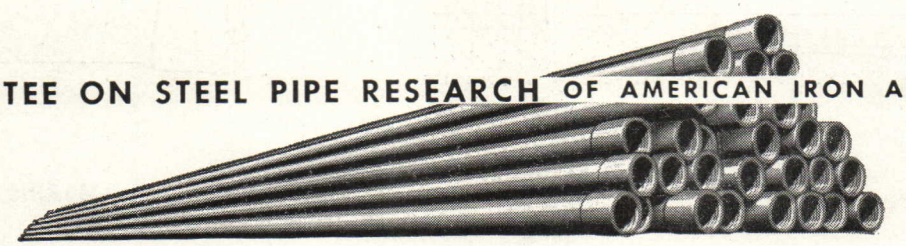
Nowhere in the world can be found so many fine public buildings as in the United States. Symbolized by a state capitol, a public auditorium, a civic center, or a memorial to a cherished ideal, these buildings attest the perfection to which our architects, engineers, and building contractors have attained.

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."



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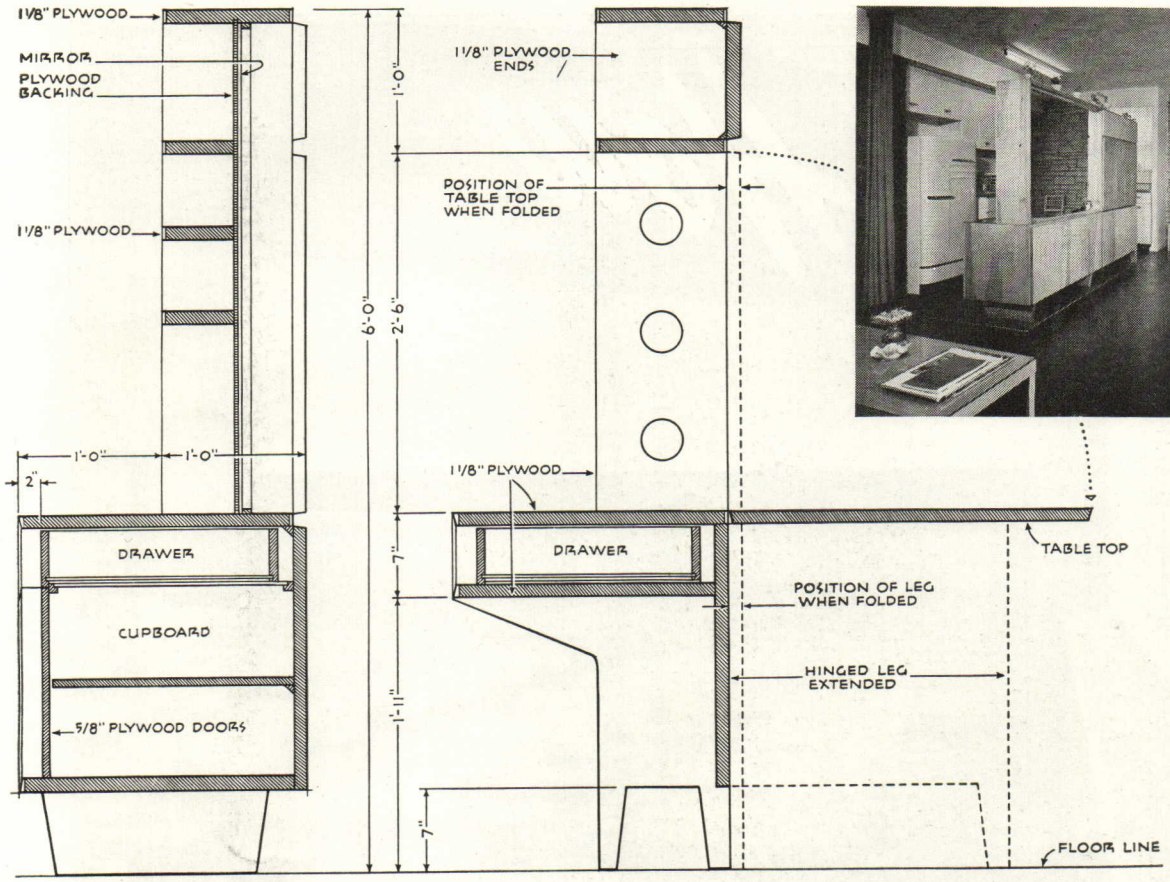
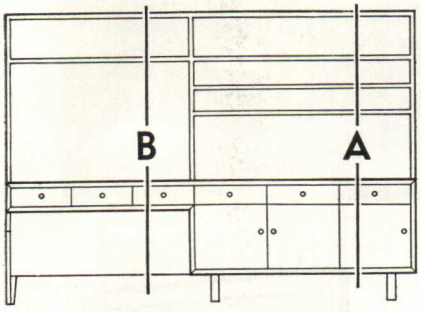


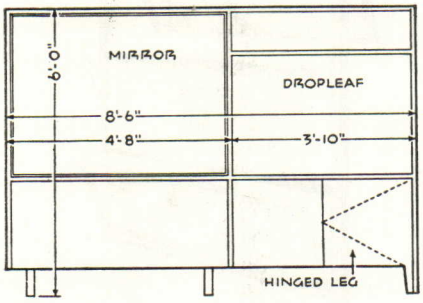
Section A 3/4" SCALE

Section B

RICHARD GARRISON PHOTOS



Elevation KITCHEN SIDE 1/4" SCALE



Elevation LIVING ROOM SIDE

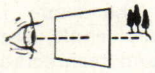
RESIDENCE FOR SCHOOLTEACHER
Pittsburgh, Pennsylvania

MITCHELL & RITCHEY
Architects

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.

BETTER LIGHT . . .
BETTER SIGHT . . .
BETTER HEALTH . . .

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technical press

By JOHN RANNELLS

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.

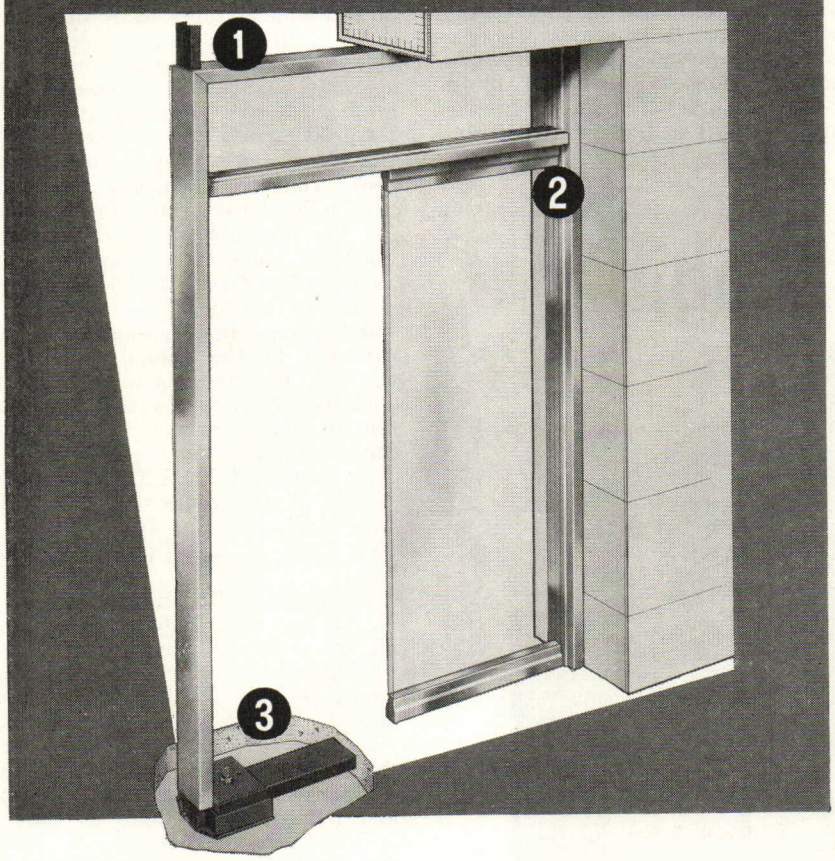
data for hospital planning

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.

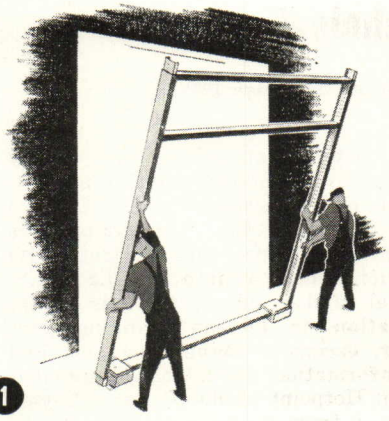
Biggest and best is the X-ray section. A good general discussion of a typical X-ray department and each room in it includes detailed discussions and illustrations of each item of equipment, together with the necessary wiring and X-ray protection. The plans suggested by the U.S. Public Health Service 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

(Continued on page 104)

NOW...a doorway that has everything!



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.



1

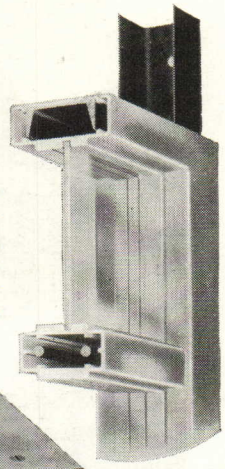
EVERYTHING IN ONE PACKAGE

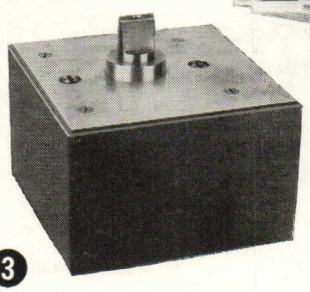
Pittsburgh Doorways reach the job, ready for bolting into the opening. Twelve standard designs are available which, singly or in combination, will fit any job.

2

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.





3

PITTCO CHECKING FLOOR HINGE

Only 6¼" x 6¼", 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.

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.....

Pittsburgh DOORWAYS

PAINTS · GLASS · CHEMICALS · BRUSHES · PLASTICS

PITTSBURGH PLATE GLASS COMPANY

technical press

(Continued from page 102)

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 an integrated 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!

Underwriters' Laboratories Inc. INSPECTED
FIRE DOOR FOR OPENING IN VERTICAL SHAFT
NO.

WELDWOOD COMPOSITE
FIRE DOOR
U.S. PLYWOOD CORP.
ALGOMA, WIS.

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.

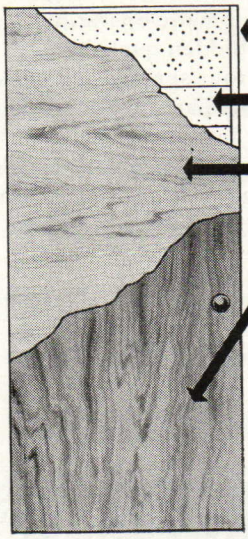
8. *Moderate Cost*

Investigate these doors for use on your next job. You will be pleasantly surprised at the low initial cost, and the minimum of maintenance required.

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.



EDGE BANDING
Of fireproofed Birch hardwood matches the faces.

MINERAL CORE
Strong, light, fireproof material. Great dimensional stability.

CROSS BANDING
Of 1-16" veneer is bonded to core with waterproof Tego-Film glue.

FACE VENEER
Is birch. Other decorative woods available on special order.

SIZES AND THICKNESSES:
Made in wider range of sizes; 1¾" thick.

MAIL COUPON FOR DETAILS

United States Plywood Corporation (Dept. 484)
55 West 44th Street, New York 18, N. Y.

Please send literature giving complete details of new Weldwood Fire Doors and matching Weldwood Standard Flush Veneer Doors.

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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.

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BOOKS

SCHOOL STANDARDS

Guide for Planning School Plants. *National Council on Schoolhouse Construction. May be purchased from the office of W. D. McClurkin, Sec'y-Treas., George Peabody College, Nashville, Tenn. $1.25*

The standards published annually (with some interruptions) by the National 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.

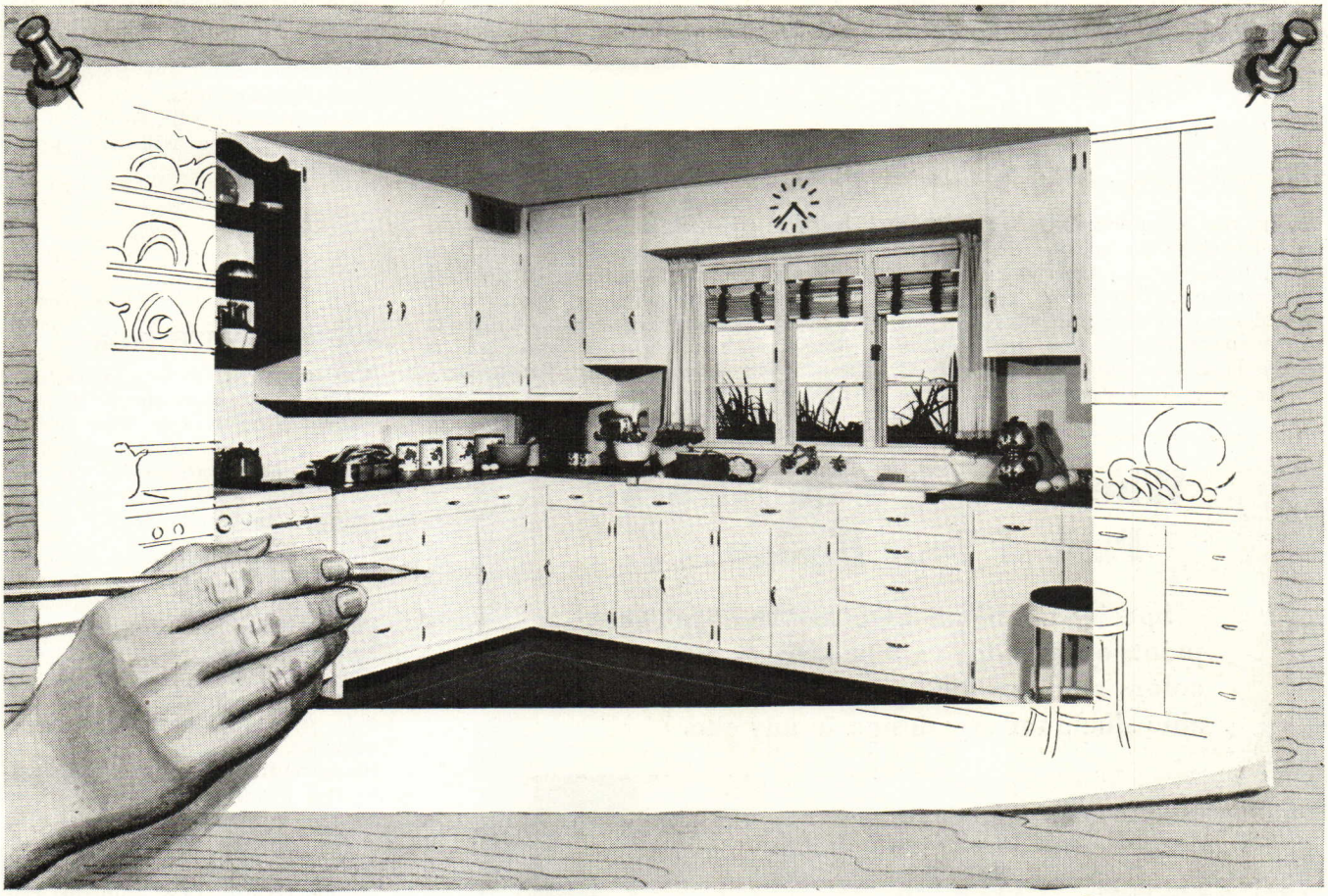
The following list of chapter headings gives an idea of the range of subject matter: "The Plant Program," "Sites," "The Elementary School," "The Secondary School," "The Community School," "General Facilities," "School Plant Safety," "Service Facilities," "Acoustical, Audio-Visual, and Custodial Facilities."

JOHN LYON REID

STAND-BY REISSUED

Architectural Specifications—How to Write Them. *2nd Edition, 1948. Gold-*

(Continued on page 108)



the easy way to plan a kitchen

..Any Kitchen!

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.

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

1866 CURTIS WOODWORK

CURTIS COMPANIES SERVICE BUREAU
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Gentlemen:
Please send me your Curtis Kitchen Planning Book

Name.....

Address.....

City.....*State*.....

I am ( ) Architect, ( ) Contractor, ( ) Prospective Home Builder, ( ) Student. (Please check.)

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

A History of Cast Iron in Architecture. *John Gloag and Derek Bridgwater. Published by George Allen and Unwin, Ltd., London, England; distributed in the U.S. by the Macmillan Co., 60 Fifth Ave., New York, N.Y. 1948. 395 pp., illus., color plates. $18.00*

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 Bridgwater 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.

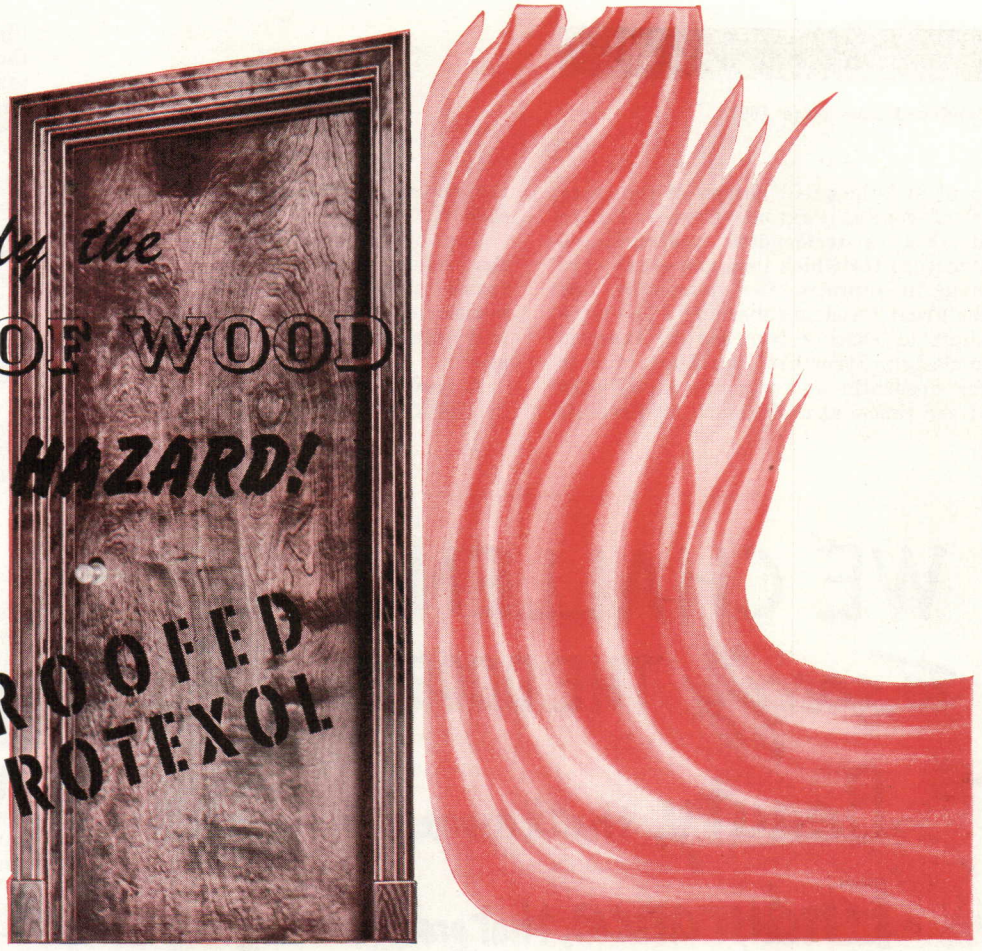
The decorative possibilities of molded iron also were appreciated, and it was used for railings as early as the great enclosure around St. Paul's Cathedral in 1714 (although not approved by Architect Wren). James Gibbs, however, found it suitable for use on some of his important works, as did Robert 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-

(Continued on page 110)

Embody the

BEAUTY OF WOOD

without the ***HAZARD!***



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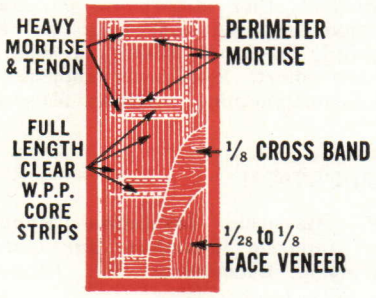
- **DIMENSION-CONTROLLED** . . . Protexol-impregnation reduces shrinkage and warping to a minimum, stops grain raising and checking.



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.*

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

FOX MADE

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☆ *75 Years Experience*

MANUFACTURERS OF ARCHITECTURAL WOODWORK

Custom-built Millwork

2700 SIDNEY STREET ST. LOUIS 4, MO.

Reviews

(Continued from page 108)

ment and the great climax of the story is, of course, Paxton's Crystal Palace of 1851, a tremendous prefabricated structure for which iron and glass were made in unprecedented quantities. But the great freedom inherent in the technique of casting iron led to excesses in design. Structural accidents, due to the uncertain and variable metallurgy of the times, also did much to discredit the material, as steel began to supersede it.

The book closes with a section on the modern uses of cast iron with the frank intention of reviving its former popularity. We could hope that designs will progress well beyond the examples shown.

A good assortment of sources is used in the footnotes to the text and the illustrations—there are over 500 of them—are particularly fine. Many are taken from original working drawings and from contemporary views of completed works. Little is said about iron in the United States, where it likewise has had a long and interesting history. Only two architectural examples are illustrated—the New York Crystal Palace and the facade of the Gantt Building on the St. Louis riverfront, now a part of the huge architectural collection preserved and stored there by the National Park Service. It is time that an American volume were published; for in this country the use of structural iron finally evolved into the architectural steel skeleton, one of the most spectacular inventions of all time.

CHARLES E. PETERSON

ELEPHANT'S TRUNK

Contemporary Danish Architecture. *Esbjrn Hiort. Distributed by Scandinavian Book Service, Box 99, Audubon Sta., New York 32, N. Y., 1949. 108 pp., illus. $2.95*

This reviewer 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 MERCNER

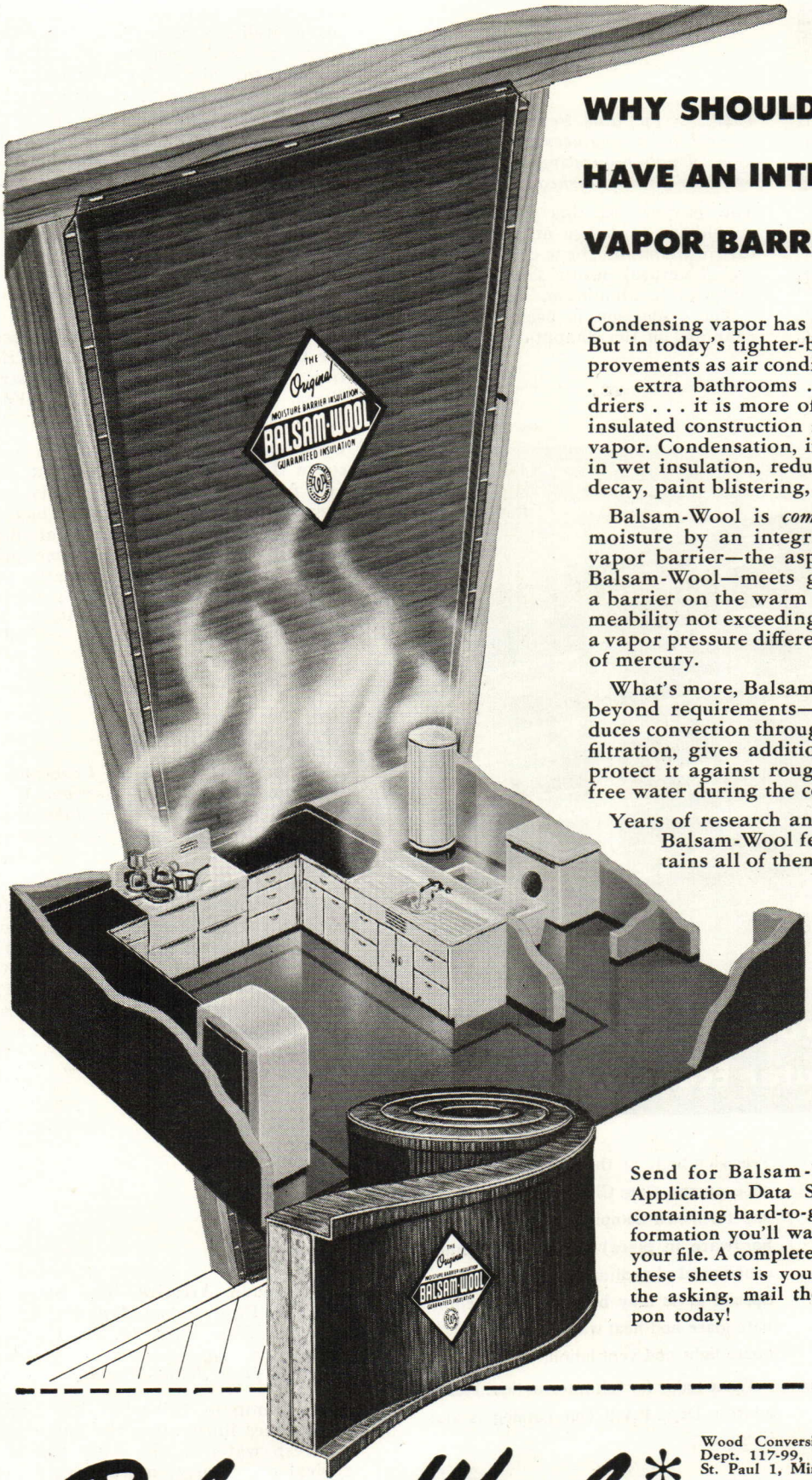
INSULATION

85% Magnesia Insulation Manual. *The Magnesia Insulation Manufacturers Assn., Washington, D.C. 1949. 90 pp., illus., tables, index.*

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

(Continued on page 112)



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 driers . . . 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**
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- **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!

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St. Paul 1, Minnesota

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

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Address.....

City.....*State*.....

(Continued from page 110)

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., 1949. 124 pp., illus. Sent without charge to architects, engineers, designers, and firm officials requesting this publication on their firm letterhead.

The purpose of this handbook is to enable one to design an original structure of aluminum, or to convert an existing structural design from some other material to aluminum.

The discussion is broken down into chapters on the computation of tensile, compressive, bending, and shear stresses, as well as stresses in cylinders subjected to fluid pressure. A section is devoted to fabricating considerations and joining methods, including riveting, bolting, fusion welding, and spot welding. Additional chapters cover deflection and vibration problems. Tabular matter, formulas, and examples are exceptionally complete. B.H.H.

EXHAUST SYSTEMS

Design of Industrial Exhaust Systems for Dust and Fume Removal, *2nd Edition. John L. Alden. The Industrial Press, 148 Lafayette St., New York, N. Y. 252 pp., illus. $3.50*

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. J.R.

STEEL AND TIMBER

Elementary Structural Problems in Steel and Timber, *3rd Edition. C. R. Young and C. F. Morrison, John Wiley & Sons, Inc., New York, N. Y. 329 pp., $4.50*

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. J.R.

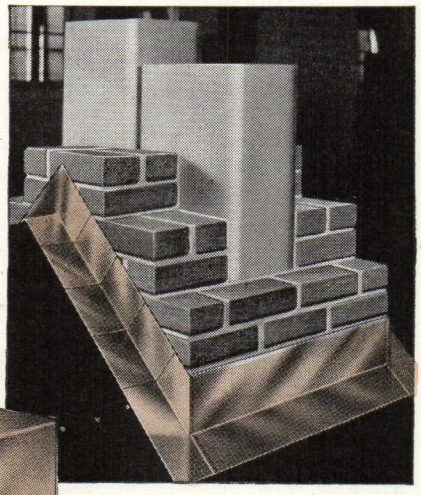
FILM

PIPE LINES

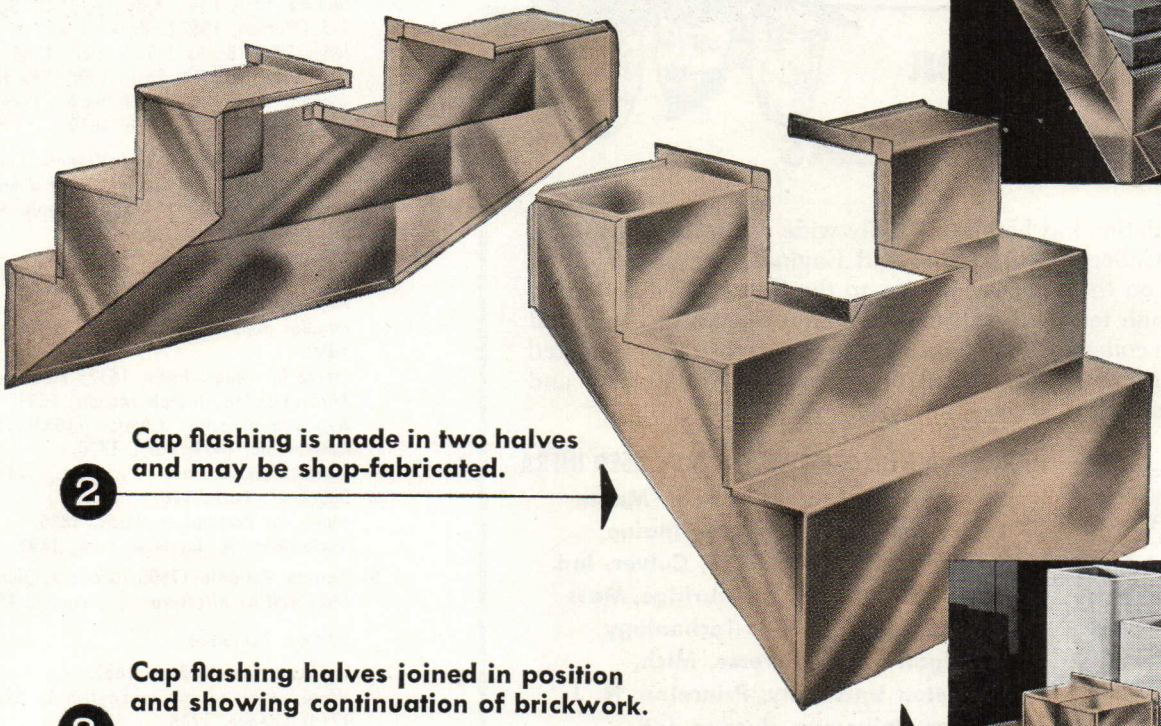
Underground Arteries—The Story of Transite Pipe. *Johns-Manville, 22 E. 40th St., New York 16, N. Y. Color sound film. Information on bookings available from Johns-Manville.*

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 Johns-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. M.W.K.

Here's a **leakproof** flashing design that's practical

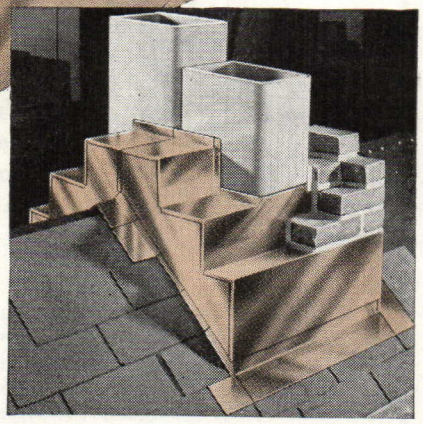


1 **Base flashing in position with brickwork ready to receive cap flashing.**



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

3 **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. 4906

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(Continued from page 112)

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.)
Editions exhibited: Paris, 1512. Strasbourg, 1541. James Leoni: London, 1726 and London, 1755. Bologna, 1782.

2) Vitruvius, De Architectura *Libri Decem*, First published in Rome in 1485.
Editions exhibited: Italian translation by Barbaro, illustrations by Palladio, Vinegia, 1556; Rusconi, Venice, 1590; Perrault, Paris, 1684 (second edition); Perrault, abridged, London, 1692, 1703; Wilkin's, London, 1812; Morgan, Cambridge, 1926; Essen, 1938

also exhibited:

Leonardo DaVinci (1452-1519). Photograph of model constructed from his manuscripts.
Villard de Honnecourt (thirteenth century), Facsimile, Paris, 1906.
Colonna, Francesco, *Hypnerotomachia Poliphili*, Venice, 1499

B. SIXTEENTH CENTURY

3) Sebastiano Serlio (1475-1552). Editions exhibited: *Reigles Generales de l'architecture*, Book Four, Antwerp, 1542. Books 1-5 [Venice, 1551]. Books 3 and 4, Toledo, 1552. Books 1-5, Venice, 1559, 60, 62. Books 1 and 2, Paris, 1590. The first, second, third and fourth books, London, 1611. Books 1-7, Venice, 1619.

4) Giacomo Barozzio called Vignola (1507-1573): *Regola dei Cinqui Ordini d'Architettura*, Rome, 1563. *Le due Regole della prospettiva*, Rome, 1583.
Editions exhibited:
Regola de Cinque Ordini, . . . [polyglot] Amsterdam, 1642.
Regola delli Cinqui Ordini, Rome, *ca* 1650.
Pierre Le Muet, Paris, 1632; Nuernberg, 1675; London, Joseph Moxon, 1694.
Augustin Charles d'Aviler (1653-1700), Amsterdam, 1699; Paris, 1720.
Cours d'architecture . . ., Paris, 1738.
Babel, (?) Paris, 1767.
Moisy, in Portuguese, Paris, 1885.
Tuckerman, A. L., New York, 1891.

5) Andrea Palladio (1508-1580): *I Quattro Libri dell'Architettura . . .*, Venice, 1570.
Editions Exhibited:
Le Muet, Amsterdam, 1682.
Ware, (first edition in English by Leoni, 1715) London, 1738.
Hoppus, London, 1736; Paris, 1842.
Gurlitt, Berlin, 1914.
Cabiati, [Milan, 1945].

6) Jacques Androuet du Cerceau (1510-1585): *Les Plus Excellents Bastiments de France*, Paris, 1576-1579.
Philibert Delorme (1515-70): *Nouvelle Inventions pour bien bastir . . .*, Paris, 1561; Paris, 1567-68.

7) *La Premièr Forms de l'Architectiore de . . .*, Exhibited Paris, 1626.

8) John Shute (died 1563): *The First & Chief Groundes of Architecture . . .*, London, 1563; Exhibited facsimile, London, 1912.

9) Daniello Barbaro (1513-1570): *La Pratica della prospettiva*, Venice, 1569.

10) Domenico Fontana, (1543-1607): *Della Transportatione dell 'Obelisco Vaticano*, Rome, 1743 (first published 1590).

11) Antonio Labacco (1495-1567): . . . *Dell 'Architettura*, [Rome, 1559].

(Continued on page 116)

Northern Hard Maple Floor of the shipping room, new 238,900-square-foot Montebello (Los Angeles) plant of Helms Bakeries. This shows part of the nearly three acres of MFMA Northern Hard Maple Floor in this "clean-lined" bakery. Ellis Wing Taylor was the architect-engineer, C. L. Peck, the general contractor.

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STORES—*Such as Hallowell Seed Co., San Francisco; by Architect Raphael S. Soriano.*

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Reviews

(Continued from page 114)

C. SEVENTEENTH CENTURY

12) François Blondel (1618-1686): *Cours d'Architecture*, Paris 1675-1683.

Francesco Borromini (1599-1667): *Opera del . . . Chiesa . . . della Sapienza . . .*, Rome, 1720.
Opera della . . . Oratorio . . ., Rome, 1725.

13) Roland Fréart de Chambray (d. 1676): *Parallels de l'Architecture Antique et de la Moderne . . .*, Paris, 1650.

John Evelyn, London, 1723.

14) Antoine Babuty Desgodetz (1653-1728): *Les Edifices Antiques de Rome . . .*, Paris, 1779; (First edition was Paris, 1682-3).

Antoine Le Pautre (1621-1682): *Oeuvres d'Architecture . . .*, Paris [1652].

Jean Marot (1619-1679): *Receuil des Plans, Profiles . . .*, Paris, 1676.

15) Claude Perrault, (1613-1688): *Ordonnance des Cinq Espèces de Colonnes . . .*, Paris, 1684.

16) Andrea Pozzo (1642-1709): *Perspectiva Pictorum et Architectorum . . .*, Rome, 1693-1700.

17) Vincenzo Scamozzi (1552-1616): *L'Idea Della Architettvra Vniversale . . .*, Venice, 1615.

18) Sir Henry Wotton: *The Elements of Architecture*, London, 1624.

others exhibited:

Giovanni Battista Falda: *Li Giardini de Rome . . . 17th cent., Nuremburg* [1690].

Iacobus Laurus: *Antiquae Urbis Splendor . . .*, Rome, 1612-1641. *Le Fontane . . .*, Rome, 1670-75.

Giambattista Montana: *Scielta da Varri Tempietti Antichi . . .*, Rome, 1624.

Jacques Perret: *Architectura et Perspectiva . . .*, Frankfurt, 1602.

D. GERMAN BOOKS

19) Paulus Decker (1677-1713): *Furstlischer Baumeister . . .*, Augsburg, 1711.

20) Wendel Dietterlein (1550-1599): *Architectura*, Nurnberg, 1655.

21) Johann Bernhard Fischer Von Erlach (1656-1723): *Entwürf einer historischen Architektur . . .*, First edition, Vienna, 1721; Exhibited Second edition, Leipzig, 1725.

22) Joseph Furstenbach (1591-1667): *Architectura Civilis . . .*, Ulm, 1628. *Architecture Universalis . . .*, Ulm, 1635.

23) Leonhard Cristoph Sturms (1669-1714): *Prodromus Architecturae Goldmannianae*, Augusburg, 1714.

24) Jans Vredeman de Vries (1527-1604): *Perspective . . .*, Lugduni Batavorum, [1604-1605].

25) Johann Joachim Wincklemann, (1717-1768): *Gedanken über die Nachahmung der Griechischen Werke . . .*, Dresden und Leipzig, 1756.

others exhibited:

Simon Bosboom (1614-1670): *Van de Vyf Colomen . . .*, Amsterdam, 1670; London, 1676.

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.

26) Robert Adam (1728-1792): *Rvins of the Palace of the Emperor Diocletian . . .* [London] 1764.

27) Robert and James Adam (d. 1794): *The Works in Architecture . . .*, London, 1773-1822.

28) Jacques François Blondel (1705-1774): *Cours d'Architecture . . .*, Paris, 1771-1777.

(Continued on page 118)

Reviews

(Continued from page 116)

29) Colin Campbell (d. 1729): *Vitruvius Britannicus . . .*, London, 1715-1725.

30) Sir William Chambers (1726-1796): *A Treatise on the Decorative Part of Civil Architecture*, London, 1759.

31) Thomas Daniell (1749-1840): *Oriental Scenery*, London, 1795-1807.

32) James Gibbs (1682-1754): *A Book of Architecture . . .*, London, 1728.

33) Guarino Guarini (1624-1683): *Architettura Civile . . .*, Turin, 1737.

34) William Kent (1684-1748): *The Designs of Inigo Jones . . .*, London, 1770.

35) Batty Langley (1696-1751): *Ancient Architecture Restored, and Improved . . .*, [London, 1742].

36) Abbé Marc Antoine Laugier (1711-1769): *An Essay on the Study and Practice of Architecture*, London, 1756.

37) Claude Nicholas Ledoux (1736-1806): *L'Architecture . . .*, Paris, 1806. (Lacking this, Ledoux was represented by Ravel and Moreux, Paris 1945).

38) James Malton (d. 1803): *An Essay on British Cottage Architecture*, London, 1804, Second Edition.

39) Jean Mariette, *L'Architecture Françoise . . .*, Paris, 1727.

40) Jean Marot, *L'Architecture Françoise . . .*, Paris, 1727.

41) Robert Morris (fl. 1754): *Select Architecture*, London, 1755.

42) Jean François de Neufforge (1714-1791): *Receuil Elementaire d'Architecture . . .*, Paris, 1757-68.

43) William Pain (1730-1790): *The Practical Builder . . .*, Second Edition, London, 1778; Boston, 1792. *The Builder's Companion . . .*, London, 1758.

44) Charles Percier (1764-1838) and Pierre François Léonard Fontaine (1762-1853): *Palais, Maisons . . .*, Paris, 1798.

45) Giovanni Battista Piranesi (1720-1778): *Urbis Aeternae Vestigia . . .*, Rome, 1742.

46) Giovanni Poleni, Marchese, 1683-1761: *Memorie Istoriche della Gran Cupola del Tempio Vaticano . . .*, Padua, 1748.

47) Humphrey Repton (1752-1818): *Observations on the Theory and Practice of Landscape Gardening . . .*, Second edition, London, 1805.

48) Sir John Soane (1753-1837): *Sketches in Architecture*, London, 1793.

49) James Stuart (1713-1788) and Nicholas Revett (1720-1804): *The Antiquities of Athens*, London, 1762-1830.

50) Abraham Swan: *The British Architect*, London, 1745.

51) Isaac Ware (d. 1766): *A Complete Body of Architecture . . .*, London, 1756. *Designs of Inigo Jones and others*, [London, 1757?]

52) Robert Wood (1717-1771): *The Ruins of Palmyra*, London, 1753.

also exhibited:

Jacques François Blondel (1705-1774): *De la Distribution des Maisons de Plaisance*, Paris, 1737-38.

Architecture Françoise . . ., Paris, 1752-56.

Germain Boffrand (1667-1754): *Livre d'Architecture . . .*, Paris, 1745.

Sir William Chambers (1726-1796): *Plans . . . of the Gardens and Buildings of Kew . . .*, London, 1763.

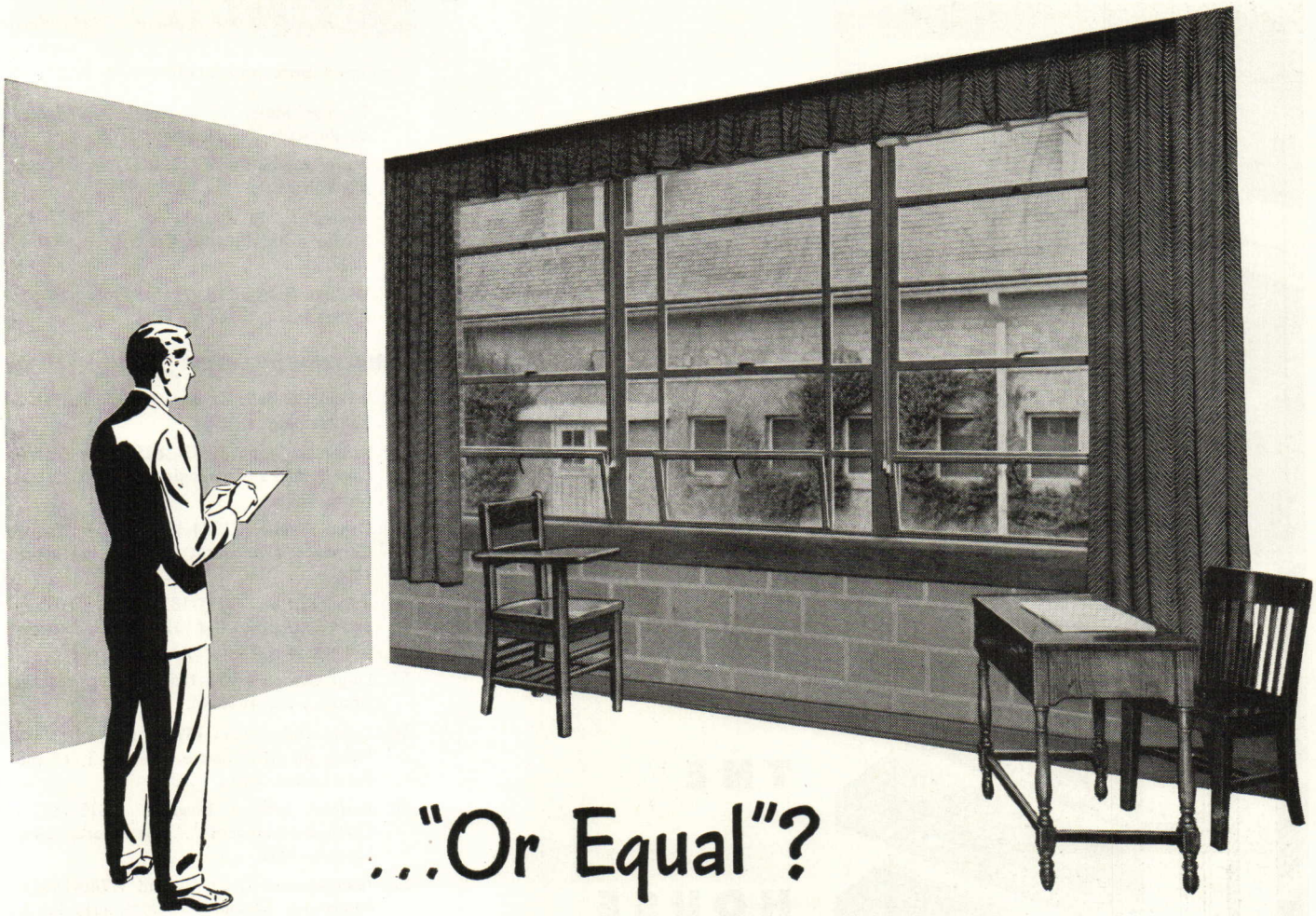
Charles Louis Clerisseau (1722-1820) and J. G. LeGrand: *Antiquités de la France, vol. 1, Monuments de Nismes*, (second edition), Paris, 1804.

Ferdinando Galli da Bibbiena (1653-1743): *L'Architettura Civile . . .*, Paris, 1711, and 1777-83.

Johannes Kip (1653-1722) and Leonard Knyff: *Britannia Illustrata . . .*, London [1709].

George Louis Le Rouge: . . . *Jardins Anglo-Chinois . . .*, Paris [1776-87].

(Continued on page 120)



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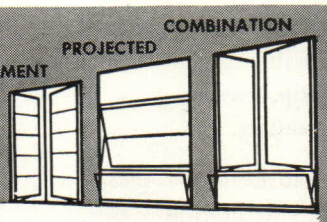

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Reviews

(Continued from page 118)

Thomas Major (1720-1799): *Les Ruines de Paestum . . .*, London, 1768.

Marie Joseph Peyre (1730-1785): *OEuvres d'Architecture . . .*, Paris, 1765.

Domenico de Rossi, ed. (1678-1742): *Studio d'Architettura Civile . . .*, Rome, 1702-21.

William Salmon (fl. 1745): *Palladio Londinensis . . .*, London, 1734.

F. NINETEENTH CENTURY

53) William E. Bell: *Carpentry Made Easy . . .*, Philadelphia [1858].

54) Asher Benjamin (1773-1845): *The American Builder's Companion . . .*, Charlestown, 1806.

55) Owen Biddle, (1774-1806): *The Young Carpenter's Assistant . . .*, Philadelphia, 1805.

56) John Britton (1771-1857): *The History and Antiquities of the Metropolitical Church of York . . .*, London, 1819.

57) Luigi Canina (1795-1856): *L'Architettura Antica . . .*, 1830-44.

58) Cesar Daly (1811-1894): *L'Architecture Privée du XIX^e Siecle*, Volume 1, of the third series, Paris, 1877.

59) Andrew Jackson Downing (1815-1852): *Cottage Residences . . .*, New York, 1842; London, 1842.

60) Jean Nicolas Louis Durand (1760-1834): *Precis des Lecone d'Architecture*, Paris, 1802-5.

61) Sir William Fairbairn (1789-1874): *On The Application of Cast Iron and Wrought Building Purposes . . .*, Third edition, London, 1864.

62) Eugene Clarence Gardner (1836-1915): *Homes and How to Make Them*, Boston, 1874.

63) Henry Hudson Holly (1834-1892): *Holly's Country Seats . . .*, New York, 1863.

64) Sir Ebenezer Howard (1850-1928): *Tomorrow*, London, 1898.

65) Heinrich Huebsch (1795-1863): *Die Altchristlichen Kirchen . . .*, Carlsruhe, 1862-63.

66) Jean-Charles Krafft (1764-1833): *Plans . . . des Plus Belles Maisons et des Hotels Construits a Paris . . .*, [Paris 1801-03?].

67) Minard Lafever (1797-1854): *The Modern Builder's Guide . . .*, New York, 1833.

68) Paul, Marie Letarouilly (1795-1855): *Edifices de Rome Moderne . . .*, Paris, 1840-68.

69) John Claudius Loudon (1783-1843): *An Encyclopedia of Cottage, Farm, and Villa Architecture . . .*, (Second edition) London, 1835.

70) Auguste Grandjean de Montigny (1776-1850): *Architecture Toscane . . .*, Paris, 1815.

71) Peter Nicholson (1765-1844): *The Car-*

(Continued on page 122)

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Reviews

(Continued from page 120)

penter's New Guide . . ., Eighth edition, Philadelphia, 1818.

72) Augustus Welby Northmore Pugin (1812-1852): *Contrasts,* (Third edition) Edinburgh, 1898.

The True Principles of Pointed or Christian Architecture . . ., London, 1841.

73) John Ruskin (1819-1900): *The Seven Lamps of Architecture,* London, 1849.

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

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

76) Baron Taylor: *Voyages Pittoresque Dans l'Ancienne France,* Paris, 1845. Britagne v.1.

77) Mariana Schuyler Van Rensselaer (1851-1934): *Henry Hobson Richardson and His Works,* Boston and New York, 1888.

78) Calvert Vaux (1824-1895): *Villas and Cottages . . .*, New York, London, 1857.

79) Eugene Emmanuel Viollet-le-Duc (1814-1879) *Dictionnaire Raisonné de l'Architecture Française . . .* Paris, 1854-68.

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

also exhibited:

John Britton (1771-1857) and Augustus Pugin: *Illustrations of the Public Buildings of London . . .*, (Second edition) London, 1838.

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

Joseph Michael Gandy (1771-1845): *Designs for Cottages, Cottage Farms . . .*, London, 1805.

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

Charles Pierre Joseph Normand (1765-1840): *Receuil Varié de Plans et de Façades . . .*, Paris, 1815.

Charles Percier (1764-1838) and Pierre François Léonard Fontaine (1762-1853): *Receuil 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.

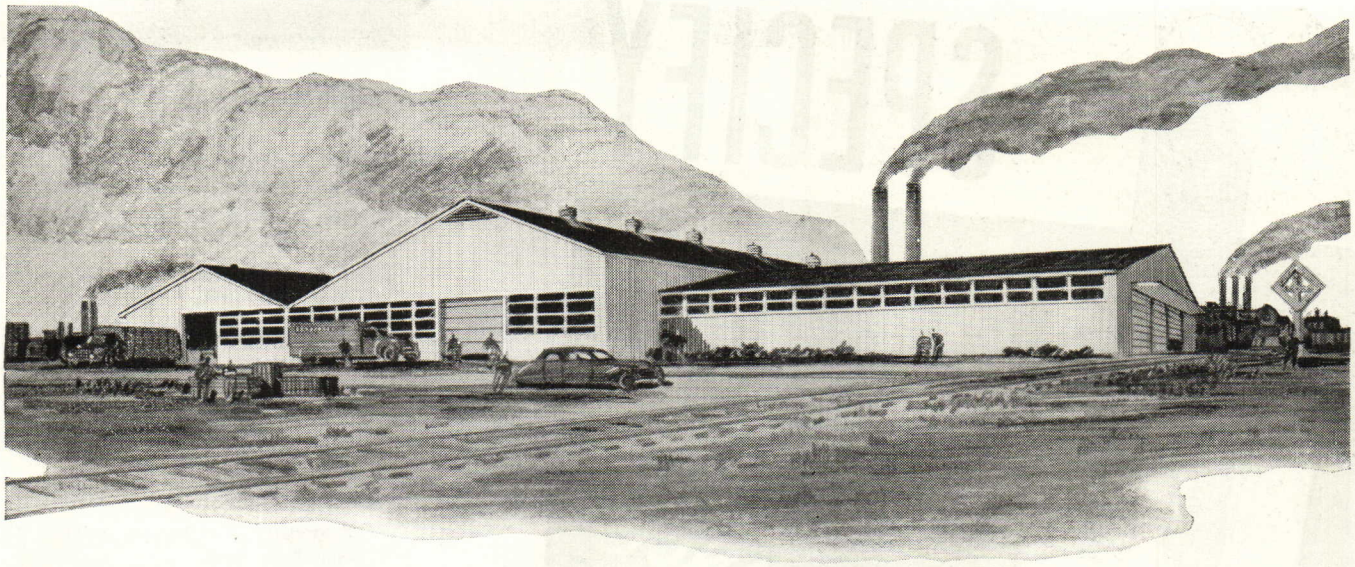
G. THE ARCHITECTURAL MAGAZINES

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

81) *Revue Générale de l'Architecture et des Travaux Public,* volume 1, Paris, 1840.

82) *The Builder,* volume 1, London, 1842-43.

(Continued on page 124)



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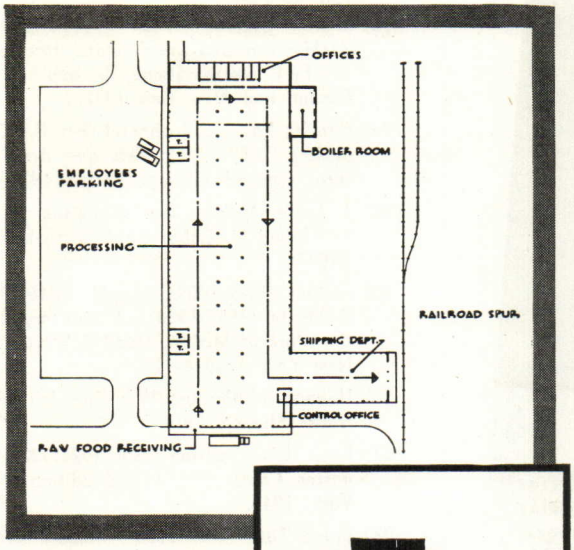

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Reviews

(Continued from page 122)

83) *The American Architect and Building News*, volume 1, Boston, 1876.

84) *The Architectural Review*, volume 1, Boston, 1891.

85) *The Architectural Record*, volume 1, New York, 1891.

86) *Der Architekt*, volume 1, Vienna, 1895.

87) *The Architectural Review*, volume 1, London, 1896.

88) *The Studio*, Special Numbers such as "The Art Revival in Austria", London, 1906.

also exhibited:

Progressive Architecture, volume. XXIII, New York, 1948.

H. TWENTIETH CENTURY

90) Alfred H. Barr, Jr., (1902-), Henry Russell Hitchcock (1903-), Philip Johnson and Lewis Mumford (1895-): *Modern Architects*, New York [c 1932].

91) Hendrik Petrus Berlage (1856-): *Gadanken Uber Stil in der Baukunst*, Leipzig, 1905.

92) Walter Gropius (1883-): *The New Architecture and the Bauhaus*, translated . . . by P. Morton Shand, (Second edition) London and New York 1937.

93) Charles Edouard Jeanneret-Gris (Le Corbusier) (1887-): *Vers une Architecture*, (Second edition) Paris [1924].

94) J. Leslie Martin, Ben Nicholson (1894-) and N. Gabo: *Circle* . . ., London [1937].

95) McKim (1847-1909), Meade (1846-1928) & White (1853-1906): *A Monograph of the Work of McKim, Mead & White* . . ., New York [c1914-15].

96) Herman Muthesius: *Wie Bau Ich Mein Haus?* Munich, 1919.

97) Louis Henry Sullivan (1856-1924): *Kindergarten Chats* . . ., (Third edition) New York, 1947.

98) Bruno Taut (1880-1938): *Modern Architecture*, London, New York, [1929].

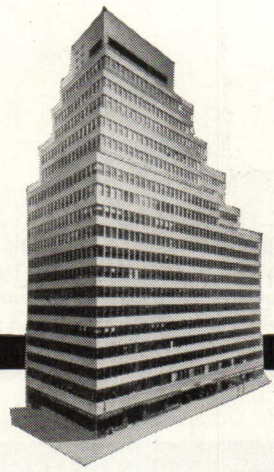
99) Frank Lloyd Wright (1869-): *Ausgeführte Bauten und Entwürfe*, Berlin [1910].

100) . . . *Modern Architecture* . . ., Princeton, 1931.

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

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

From PARK AVENUE



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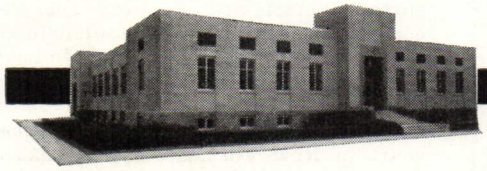

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it's the law

By BERNARD TOMSON

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 substandard 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 companies beyond the reach of the constitutional restraint and free to select arbitrarily the tenants

(Continued on page 128)

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(Continued from page 126)

who will occupy Stuyvesant Town. Appellants insist that the avowed discrimination falls under the constitutional ban because they say it has been aided and made possible by the action of the State. The issue is decisive, for the policy of respondents could not be followed by a governmental body . . .

"Appellants here rely upon those cases in urging that we must characterize as governmental action the rental policy of Metropolitan and Stuyvesant. They point to the acknowledged contribution made by government to the project—principally the tax exemption amounting to many millions of dollars, and aggregation of the land through use of the city's power of eminent domain and through exchange of bordering tracts for city streets which had been closed. Moreover, we are urged to consider the size of the project as in reality forming a large community within the city."

●

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 on page 130)

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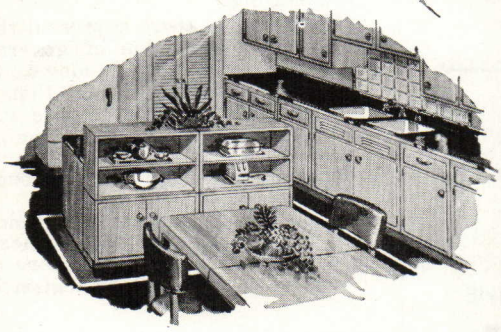

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(Continued from page 128)

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-

(Continued on page 132)

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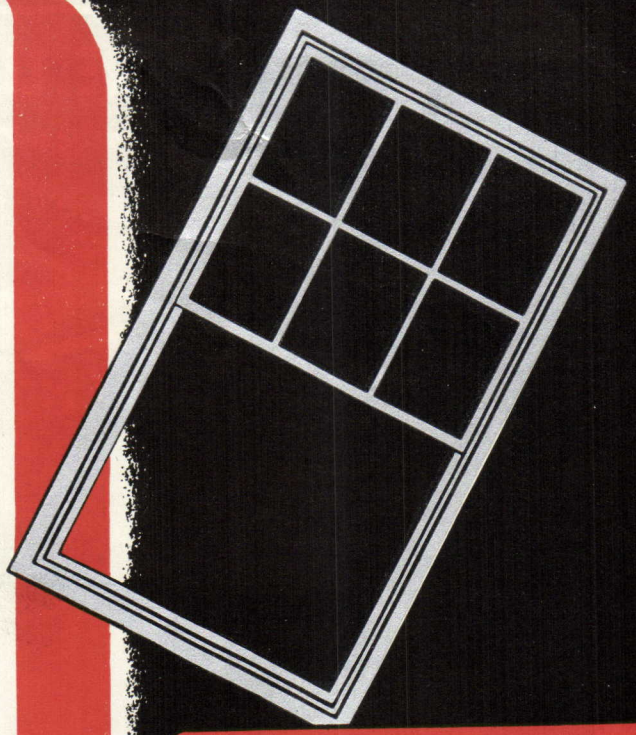

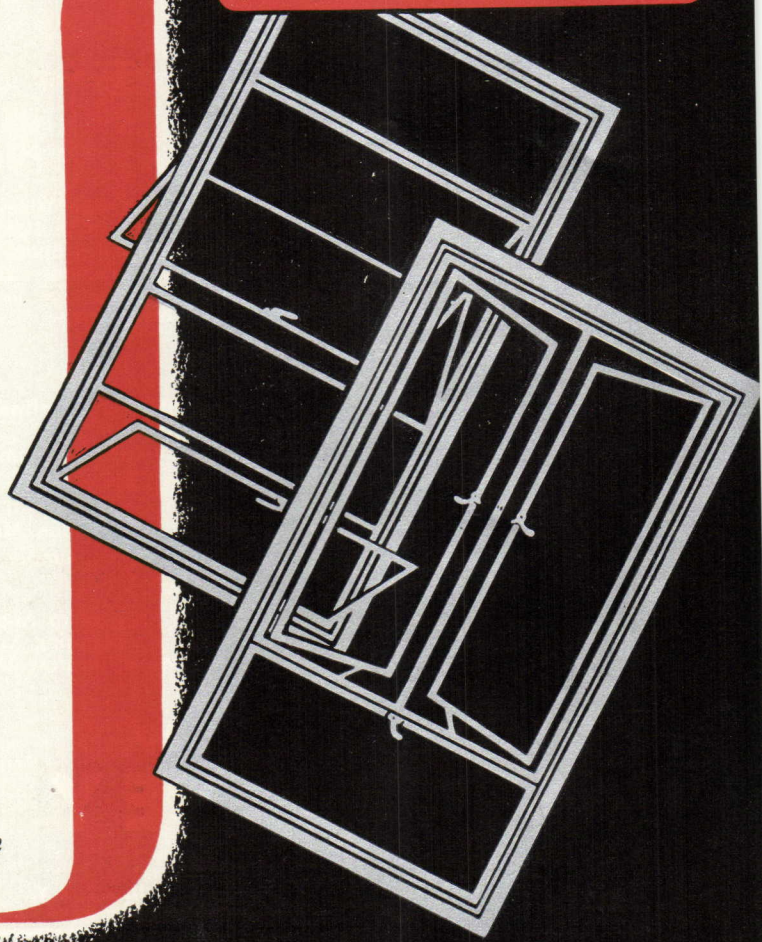

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(Continued from page 130)

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 our 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)

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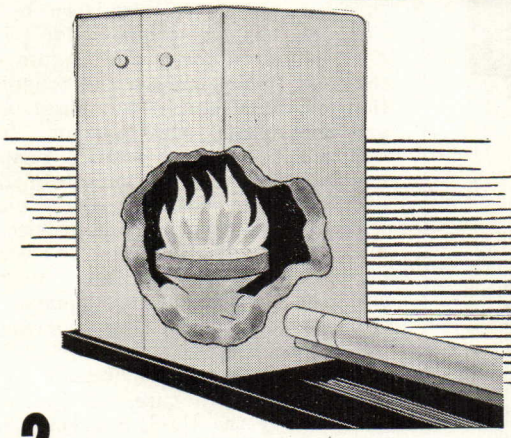

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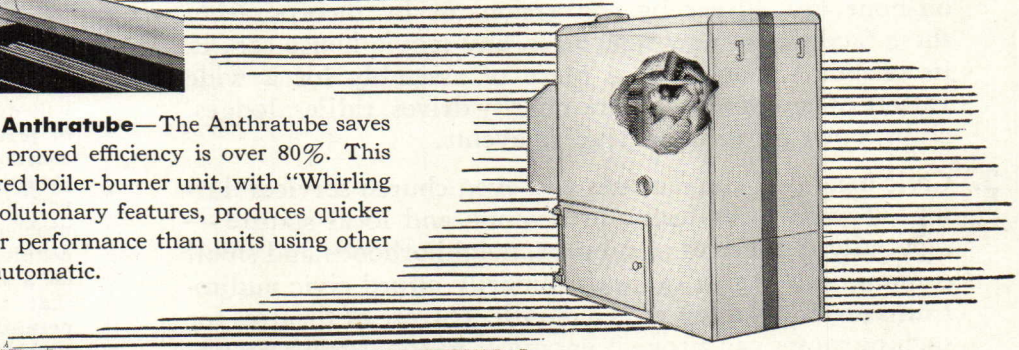

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it's the law

(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.

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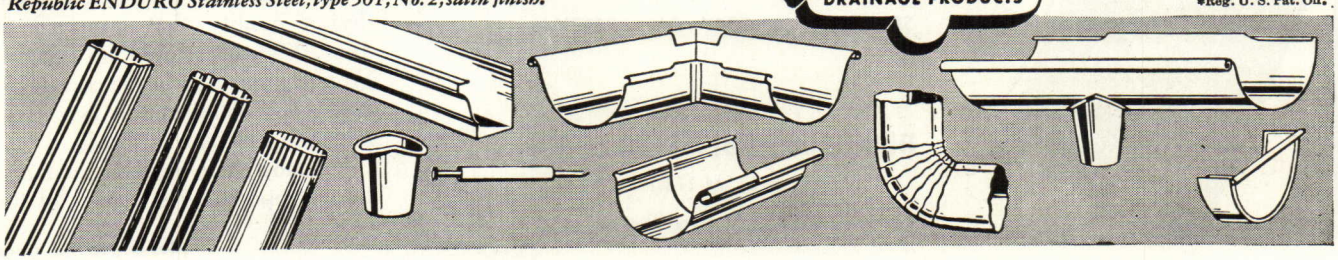
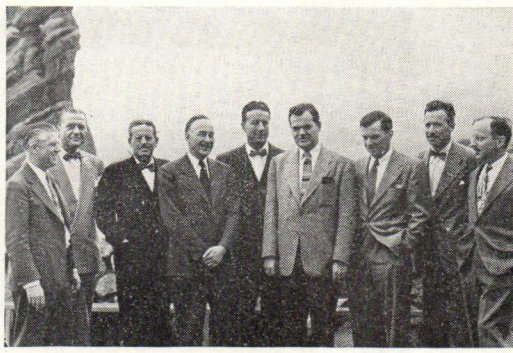


P/A—JAY-CEE COMPETITION: report of the jury

(Continued from page 51)

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.



The Jury and advisors at a luncheon in their honor given by University of Denver. Left to right: Chancellor Alfred C. Nelson of the University, J. Robert F. Swanson, Robert Law Weed, Thomas H. Creighton, Karl Fred Kamrath, Jedd Stow Reisner, Hugh Stubbins, Pietro Belluschi, and Director Carl Feiss, of the School of Architecture at University of Denver.

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,

(Continued on page 138)

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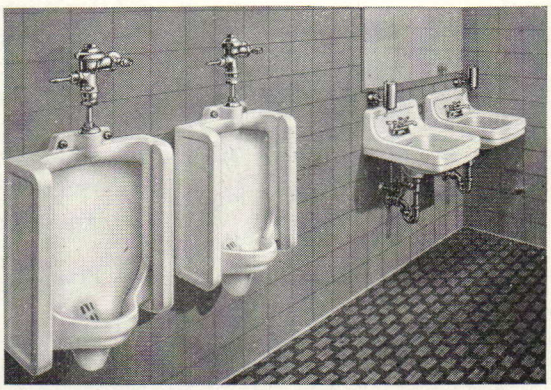

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P/A—JAY-CEE COMPETITION

(Continued from page 136)

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 Stow Reisner, Professional Advisor.

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PRODUCTS

(Continued from page 90)

the device is used in the jambs only.

For concrete and masonry, the reglet 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 calking maintenance.

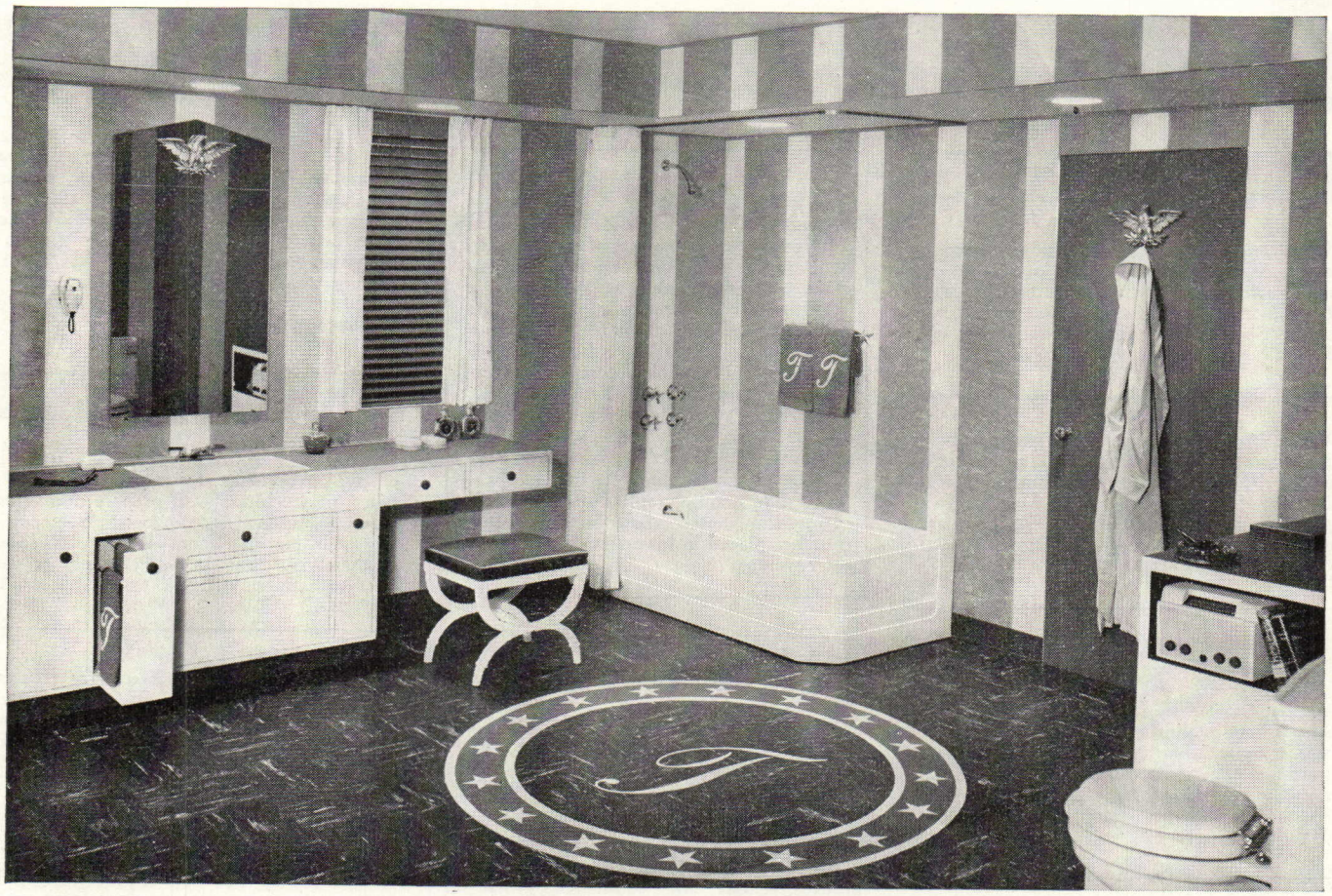
Recent Product Announcements

• 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.

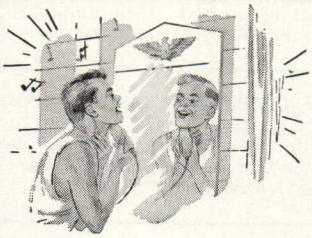
• A 17-gun Nelson stud welding production unit is performing a strategic cost-saving function in the production of Lustron porcelain-enameled steel houses. The machine is used to install studs on the bottom chord of roof trusses for the attachment of keeper strips which support roof insulation extending 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.



DESIGN A

Bright  *Beginning!*

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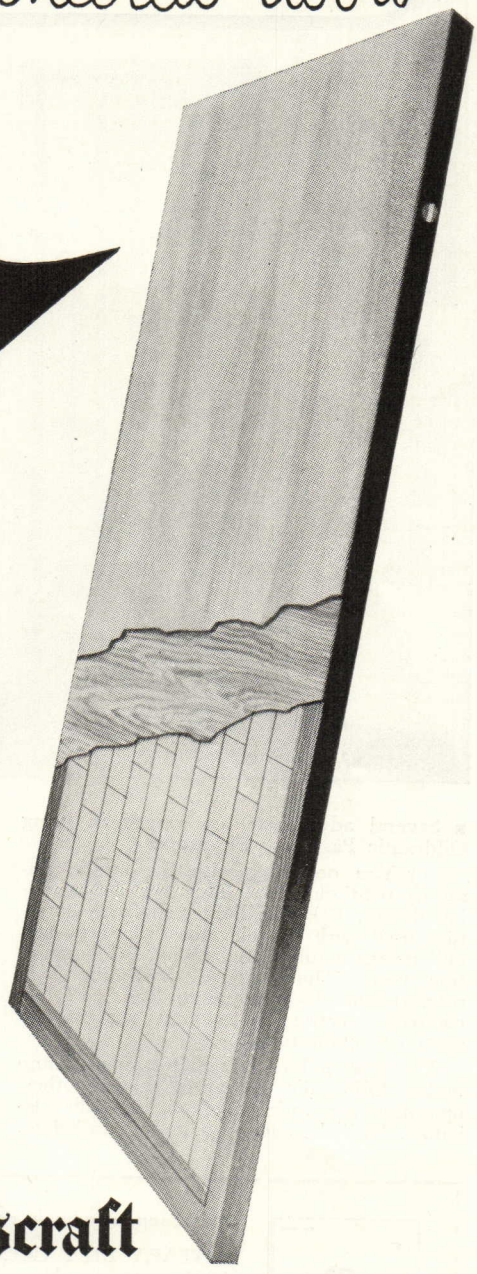

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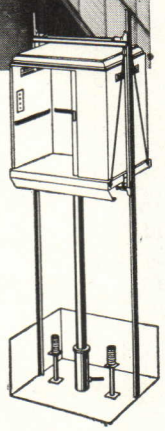

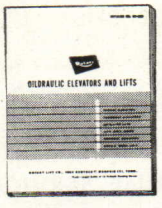

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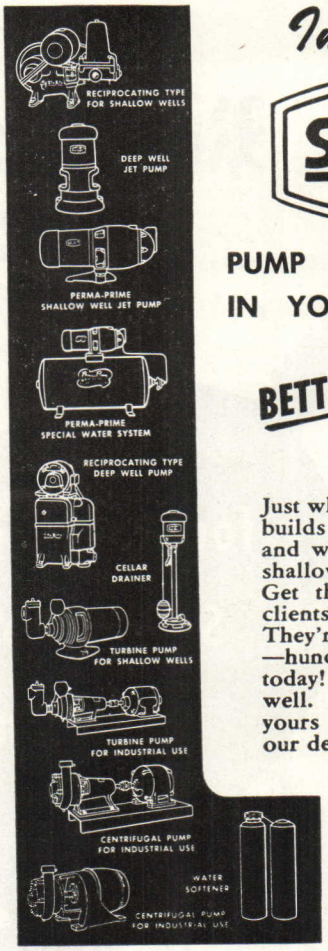

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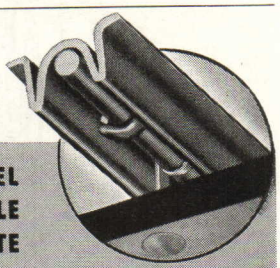

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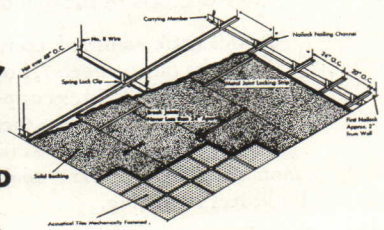

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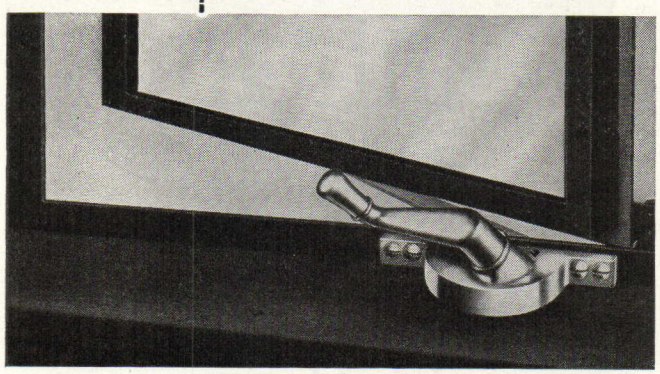

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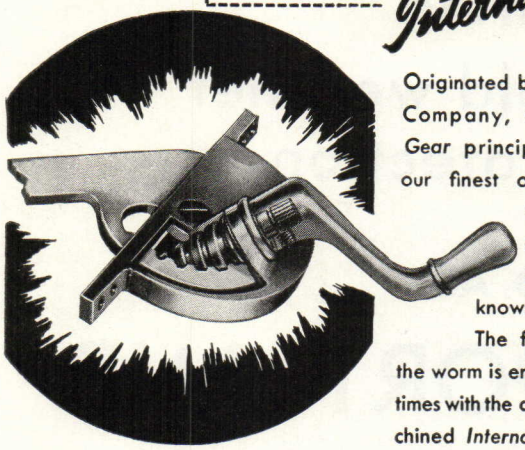

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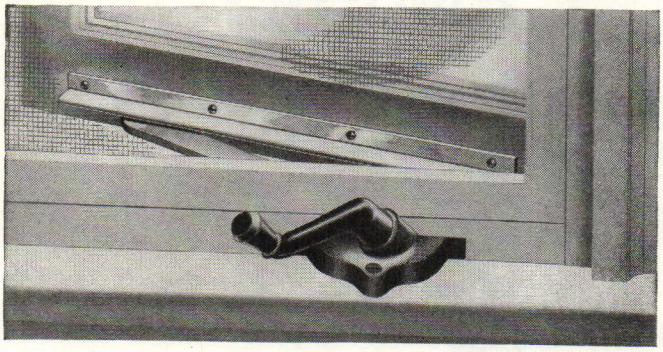

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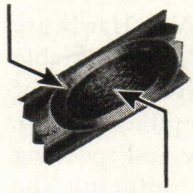

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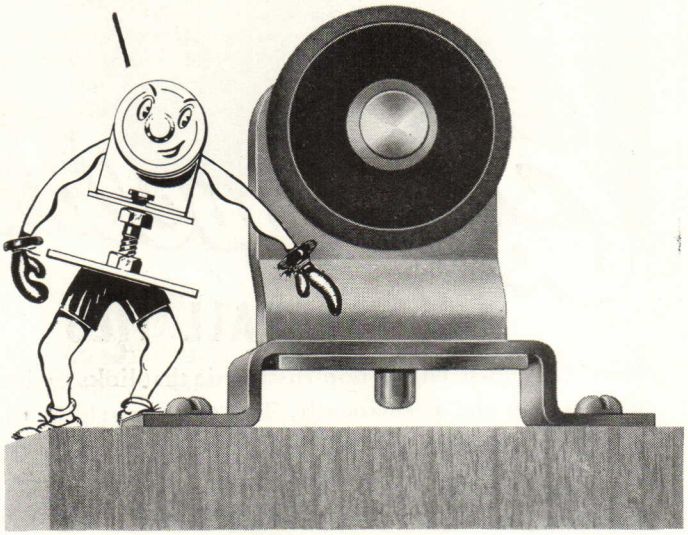

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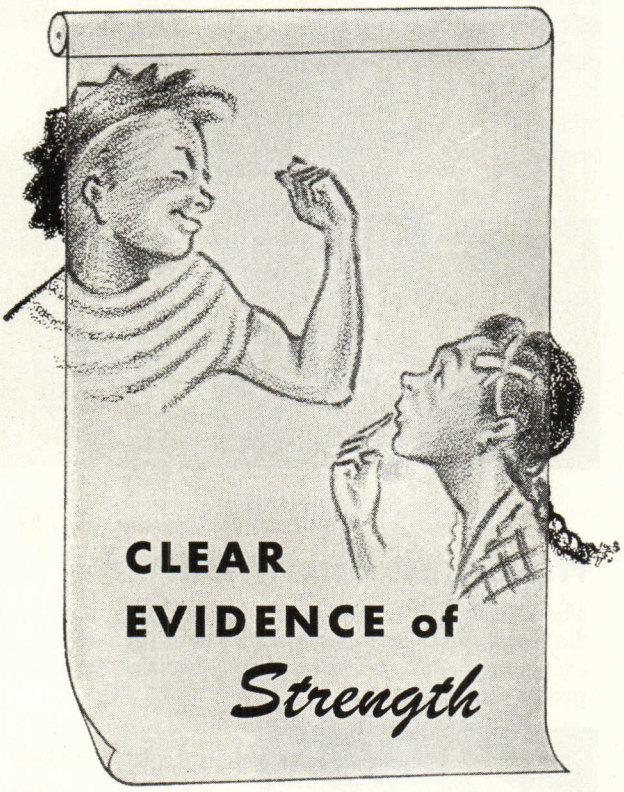

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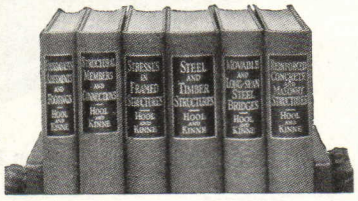

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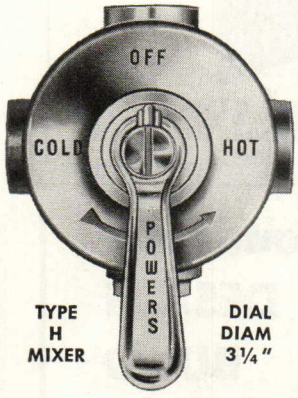

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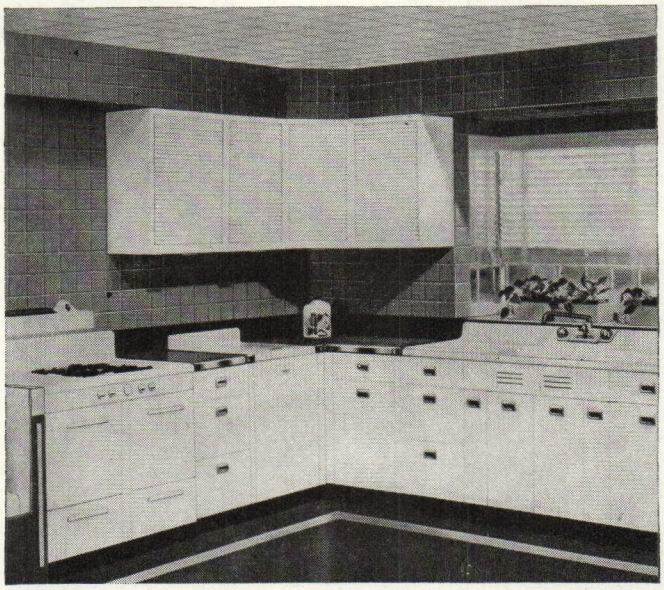

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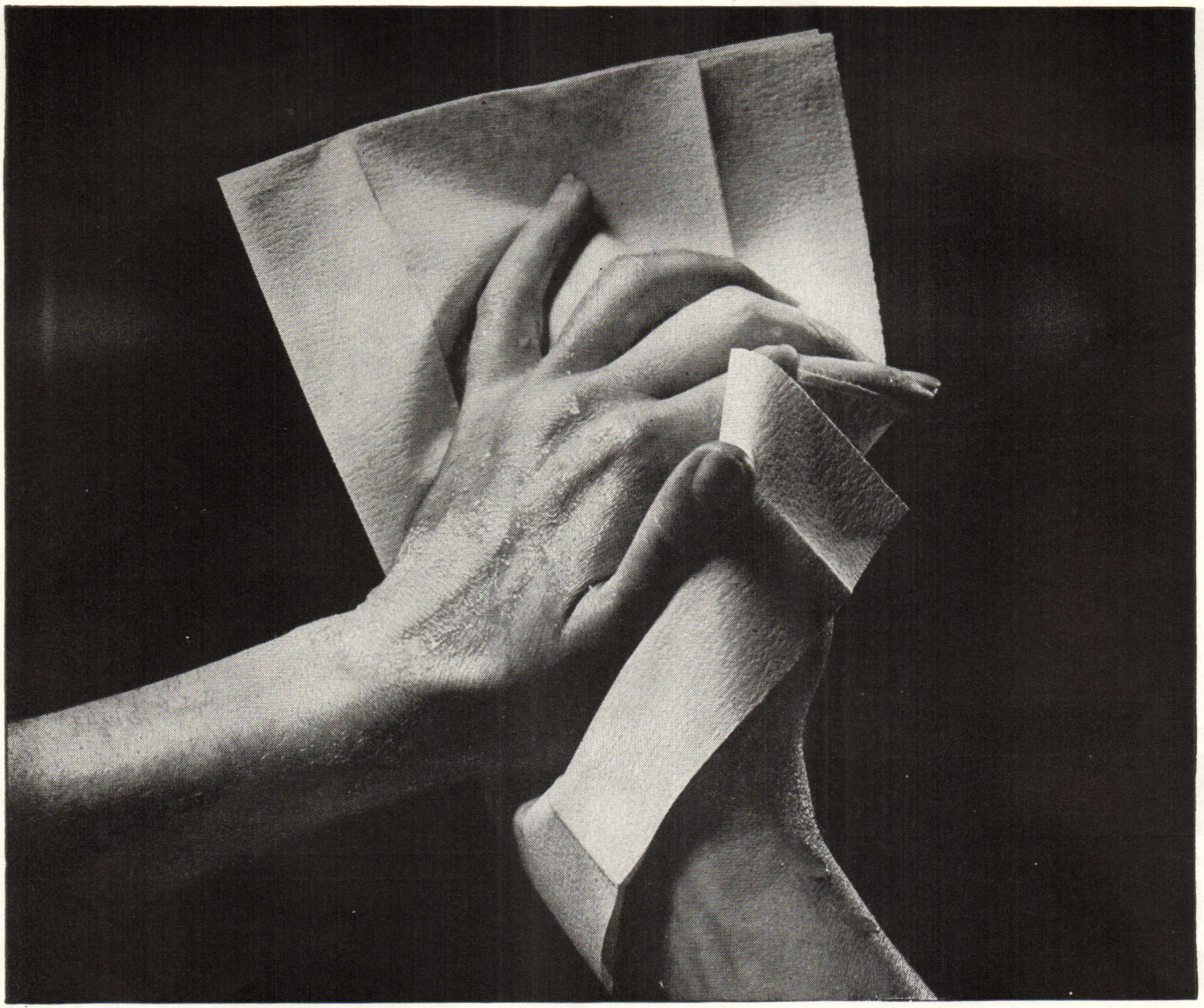

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SCOTTISSUE TOWELS

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.

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P/A P.S.

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 Soliloquies 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 tormenters (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 trouper 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 anything 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.

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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.

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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 mediocracy 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.

Thomas H. Creighton