### architectural forum

March 1953

New thinking on shopping centers

Yesterday's mall and sprawl give way to air-conditioned streets and compact planning.

A reference article with four case studies

packed with significance for the corner store (below and p. 122)

TV city

A picture report on CBS' colorful West Coast studios (p.146)

**US** architecture abroad

State Department uses modern design at its best to shape its embassies and represent the US in foreign lands (p.101)

**Building engineering** 

Low-cost floors of concrete . . . . Wide-span roofs of steel and timber . . . .

Load-bearing skylights of glass block . . . .

Central air conditioning for new shopping centers (p.155)

Four small buildings

A showroom for architects (p.118).... A new policy for insurance company offices (p.120) ....

A top-lighted school shop (p.150)....

Thirteen plan details for a good hospital (p.152)







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 Savings on redecorating and re-arrangement of space have proved Hauserman Movable Walls to be an excellent investment for the Federal Land Bank of Berkeley, the Federal Intermediate Credit Bank of Berkeley, the Production Credit Corporation of Berkeley, and the Berkeley Bank for Cooperatives, owners of the Farm Credit Building, Berkeley, California. Savings on redecorating alone have totaled a husky \$10,876. Re-arrangement of Hauserman Movable Walls to meet changing space requirements saved an additional \$3,934 over the cost of making similar adjustments with ordinary walls.

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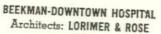
'Incor' Speeds Concrete-Frame Erection

New Beekman-Downtown Hosiptal, first general hospital built in Manhattan in 20 years—ultramodern, 8-story, reinforced-concrete frame, cost complete, including land, \$5.5-million.

When the project ran into cold weather, the Contractor switched to 'INCOR' 24-HOUR CEMENT—maintaining well-planned frame-erection schedules, with important heat-protection savings. Smoothworking 'Incor' mix facilitated finishing.

Upwards of a million people work or live in Lower Manhattan. To provide adequate hospital facilities, this ultra-modern, 170-bed Beekman-Downtown Hospital replaces the former 96-bed institution.

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-All of New York City-



### 'Incor' Saves Time and Money

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### architectural forum

MARCH 1953

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REVIEWS

TECHNICAL PUBLICATIONS

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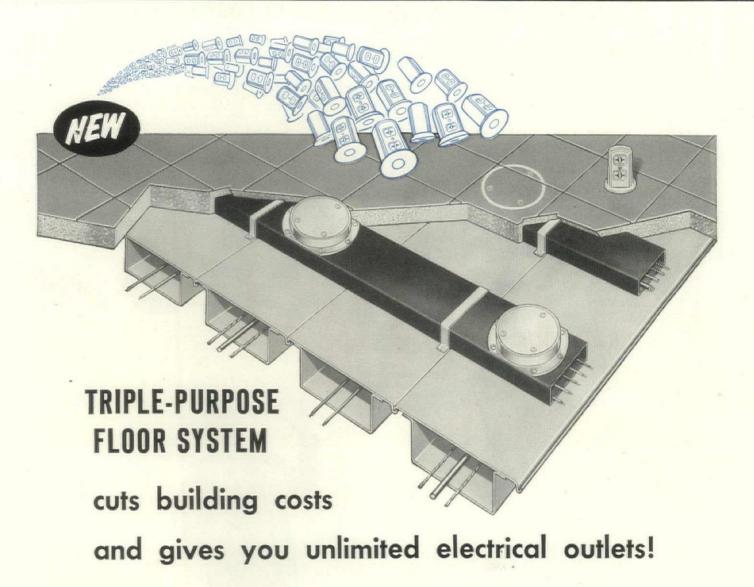
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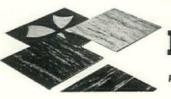
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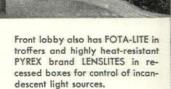
Surface mounted fluorescent luminaires in vice-president's office. Smooth opal glass ALBA-LITE side panels distribute light evenly throughout the room. Long lengths provide sleek, streamlined appearance.

Hinged FOTA-LITE glass bottom has louvers photo-graphically reproduced through the entire thickness of glass to assure accurate cutoff and low fixture brightness.

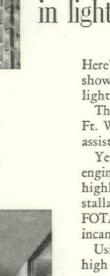
Adding architectural variety in the snack bar, are troffer units (48 in. long and 12 in. wide), using FOTA-LITE shielding glass. Smooth, flat surface of this nonwarping, nondiscoloring glass cleans with the wipe of a cloth.

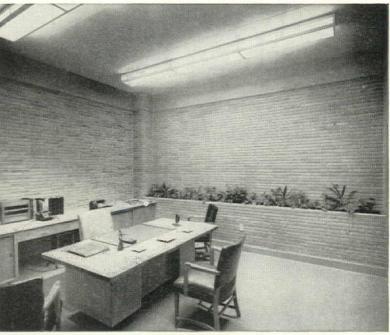






Soft over-all lighting effect in hallways is obtained by using PYREX brand LENSLITES with wide-angle lens in recessed ceiling boxes.





### How engineered glassware was used in lighting this windowless building

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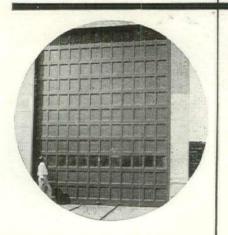
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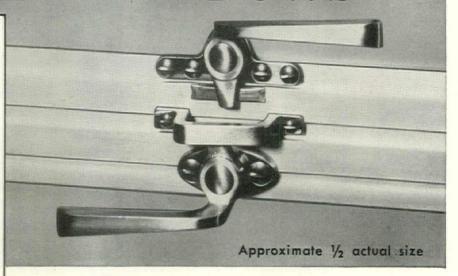
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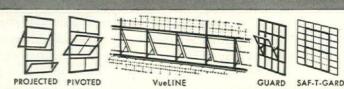
A fine quality product is the first essential to a truly satisfactory relationship. Bayley has never lost sight of this fundamental, even though they earned, and have enjoyed for many years, an unexcelled reputation for better service through all the building stages. This is shown by the fine-point attention given to every detail of Bayley Window design and construction.

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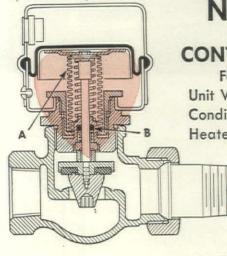
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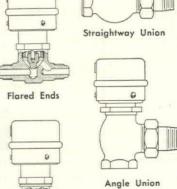
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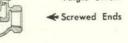
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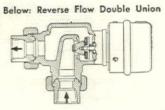
Bronze Packless Bellows (A) in sectional view above, is the primary seal which eliminates packing maintenance — packing friction — steam and water leakage or loss of vacuum. It is designed to withstand pressure up to 150 psi. Maximum valve stroke is only two-thirds of the normal bellows stroke. A spring loaded secondary seal (B) permits servicing of valve top without draining the water system or shutting down the

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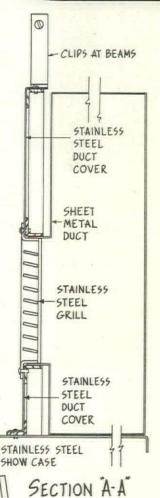
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### STAINLESS STEEL solves exposed ductwork problem





ARCHITECTS:

MARX, FLINT & SCHONNE CHICAGO, ILL.

To most patrons of the Hotel Pierre in New York. these are modern display cases exhibiting fascinating luxury goods. Few

realize that the architect has concealed an airconditioning duct. The way in which he has done this is shown in the detail drawings.

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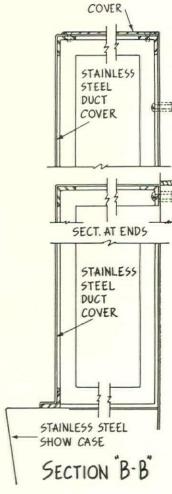
Armco 17 is suitable also for many other architectural applications-all except those in severely corrosive atmospheres.

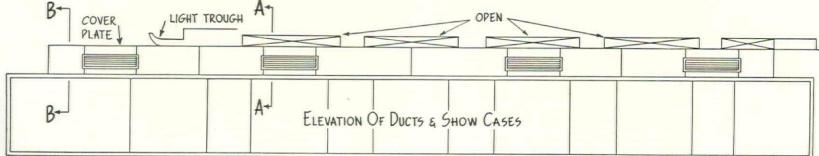
For complete data on Armco Stainless Steels and their uses, write us at the address below.



### Armco Steel Corporation

1983 CURTIS STREET, MIDDLETOWN, OHIO EXPORT: THE ARMCO INTERNATIONAL CORPORATION





### air conditioning

tempers the climate in a shaft of steel

Pittsburgh's new 525 William Penn Place Building, constructed and managed by John W. Galbreath & Co., houses Mellon National Bank and Trust Company and United States Steel Corporation. Insuring the comfort and efficiency of its four thousand occupants is a Carrier Conduit Weathermaster\* Air Conditioning System. • Here's how Weathermaster Air Conditioning works. Outside air for ventilation is cleaned and filtered and humidified or dehumidified in a central apparatus. This primary air and chilled water from a central refrigeration plant are sent through small diameter air conduits and water pipes concealed within furred-in columns to Weathermaster units installed beneath the windows in each individual room. Secondary room air, drawn over a water coil by induction, is mixed with this primary air at the room unit. Room temperature is controlled by each





first name in air conditioning

tenant with just the turn of a knob. Thus, each room has its own individual air conditioning, producing a perfect balance of temperature, humidity and circulation that is uniquely Carrier's. 525 William Penn Place is but one of more than two hundred famous buildings air conditioned by Carrier. The Carrier Conduit Weathermaster System was developed especially for multi-room office buildings, hospitals, apartments and hotels—where many variables affect the air conditioning load. Other Carrier Systems have been designed for department stores, shopping centers and many other businesses. A letter will put at your service the experience gained in 50 years of dedication to air conditioning. Carrier Corporation, Syracuse, New York.

Architects for 525 William Penn Place, Harrison & Abramovitz. Consulting Engineers, Meyer, Strong & Jones. General Contractor, Turner Construction Co. Mechanical Contractor, Dravo Corp. \*Reg. U. S. Pat. Off.



### Calculator Manufacturer's New Plant Glazed with 8200 Sq. Ft. of Coolite Glass by Mississippi

Careful assembly operations build into each Friden Calculator the accuracy for which these machines are famous. To help achieve the best possible working conditions, Coolite Heat Absorbing and Glare Reducing Glass was specified in Friden's new plant at San Leandro, California.

Coolite filters out unwanted factors in raw sunlight and helps keep plant interiors cooler and more comfortable. Workers see better, feel better, work better under softly tinted, filtered daylight. Coolite helps fight eye fatigue, boosts employee morale.

#### MAKE DAYLIGHT HOURS MORE PROFITABLE WITH COOLITE

This amazing "visioneered" glass by Mississippi helps production, reduces rejects. Used either in new construction or in modernization and sash replacement projects, the installation of glare reducing Coolite Glass is an investment in greater production and decreased maintenance costs.



Translucent, light diffusing figured and wired glass by Mississippi for better daylight illumination is available in a wide variety of patterns and surface finishes, all scientifically designed to distribute light to best advantage.



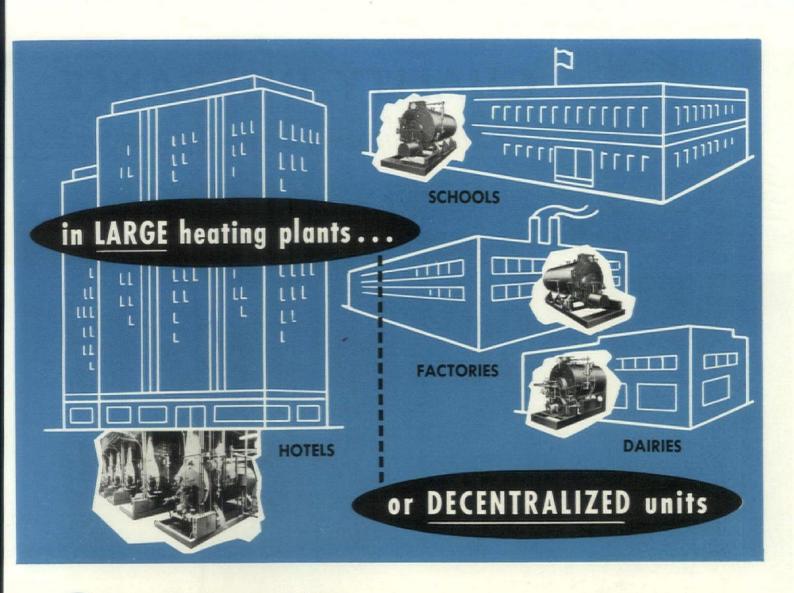
Send for free Coolite catalog, "Coolite Heat Absorbing and Glare Reducing Glass." Samples on request.



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LARGEST MANUFACTURER OF ROLLED FIGURED AND WIRED



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- In multiple installations or as a single unit, a Cyclotherm steam generator is your assurance of quick, dependable steam—plus greater all-round economy.
- You get more power... Cyclotherm Cyclonic Combustion flame control required just 3 sq. ft. of heating space per Boiler Horsepower. This means your Cyclotherm delivers 66% more steam generating power per sq. ft. than ordinary steam generators of comparable size.
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- erators. Installation is easier because each Cyclotherm arrives complete . . . connect fuel, electricity, water and a simple flue and it's ready to generate steam Controls are fully automatic.
- A guaranteed *minimum* efficiency of 80% saves on fuel—gas, oil or combination—and lowers maintenance costs. Cyclotherm gives you full power from a cold start in 15 to 20 minutes. In multiple installations, an automatic battery control panel distributes the load for maximum operating economy.
- Cyclotherm steam generators are designed for 18 to 500 h.p., 15 to 200 psi operating pressures. Approved —ASME, National Board Standard, and Underwriters Laboratories, Inc.

\*Reg. trade name

Find out how Cyclotherm Cyclonic Combustion will fill your steam requirements. Write for a free illustrated folder. Dept. 22.





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CYCLOTHERM DIVISION UNITED STATES RADIATOR CORP.-OSWEGO, NEW YORK

### QUALITY INSURANCE

for this Insurance Company and for YOU



QUALITY INSURANCE was written into the painting specifications for the new home of the Auto-Owners Insurance Company when Pratt & Lambert Products were called for exclusively. The "policy" paid dividends in good color and good finishes.

When you specify Pratt & Lambert Paints and Varnishes, you can feel secure that you have insured your own, and your client's complete satisfaction with the finished result. And whenever you see fit to call upon your nearest P&L Architectural Service Department, you can likewise be sure of prompt, experienced assistance either in color planning or the selection of suitable interior and exterior finishes.

"A New Home for the Years Ahead" for Auto-Owners Insurance Company, Lansing, Michigan ARCHITECTS: LEE & KENNETH C. BLACK, Lansing GENERAL CONTRACTORS: CHRISTMAN CONSTRUCTION CO., Lansing PAINTING CONTRACTOR: AUSTIN'S, Flint, Michigan



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Smith, Hinchman & Grylls, Inc., Architects

### marble

"The Penobscot Detroit Corporation maintains approximately 130,000 square feet of marble corridor floors and 250,000 square feet of marble wainscoting in three buildings, the buildings ranging from twenty-three to fifty years in continuous service.

"It is gratifying to note the excellent condition of this marble after so many years of service, with a minimum of maintenance. It can, therefore, be concluded that for beauty, long life and low cost maintenance, marble corridor treatment cannot be excelled." William Moorhead, The Penobscot Detroit Corporation, Detroit, Michigan.

Your free copy of colorful booklet: "Proof That Marble Costs Less" available now. Write:







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AIR CONDITION

### THIS COMPLETE LINE OF FAMOUS MEQUAY PRODUCTS



WATER COIL



CLEANABLE TUBE WATER COIL



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AIR CONDITIONER (Suspended Model)



AIR CONDITIONER (Floor Model)



HORIZONTAL UNIT HEATER



DOWN FLOW UNIT HEATER



BLOWER TYPE UNIT HEATER (Suspended Model)



BLOWER TYPE UNIT HEATER (Floor Model)

McQuay representatives, in all principal cities throughout the United States, are qualified by long experience and training to help you satisfy all of your air conditioning and heating requirements. For cooperation in making the sale, technical advice, or getting the job done on time, consult the McQuay representative in your territory. Available to you through him is the complete line of McQuay products, featuring famous Ripple-Fin construction-a McQuay exclusive, assuring maximum heat transfer efficiency and dependable performance.



PLANT 1-1600 Broadway N. E. MINNEAPOLIS 13, MINN.



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terrazzo...stucco... and light reflecting uses. It's a true portland... and it meets all Federal and ASTM specifications.

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Aggregates for 5 New Churches!



Saint Louis Roman Catholic Church, Princeton, Illinois: Zonolite Concrete provides a warm, dry, comfortable floor according to Rev. Father Edward M. Farrell. Architect: A. F. Moratz, Bloomington, Ill.

North Shore Baptist Church, Chicago, Illinois...Zonolite Acoustical Plastic Ceiling. Architect: Benj. Franklin Olson, Chicago; Plastering Contractor: Kjellberg Plastering Co., Chicago. Lincoln Park Community Church, Lincoln Park, Pa... Zonolite lightweight Plaster Aggregate used throughout. Architect: George Savage, Philadelphia; General Contractor: Securda & Company, Lincoln Park, Pa.; Plastering Contractor: William Fitterling, Sinking Spring, Pa.



Adas Israel Synagogue, Washington, D.C. . . . Zonolite insulating Concrete used under radiant heating coils in the floors. Architect: Frank Grad & Son, Washington, D. C.

Grace Evangelical Lutheran Church, La Grange, Illinois: Zonolite insulating Concrete used in the basement, as fill between floors and for the roof deck. Architect and Engineer: A. Einar Olson, Chicago; General Contractors: Heidel & Beck, Inc., Chicago.



### ZONOLITE COMPANY

135 S. LaSalle St. • Chicago 3, Illinois • Member of Vermiculite Institute

In church construction—where fire safety, sound absorption, warmth and dryness are important to the comfort of the congregation—the five architects whose work is shown here, turned to the outstanding benefits of Zonolite Vermiculite Aggregates or Zonolite Acoustical Plastic to achieve the best results in their building projects.

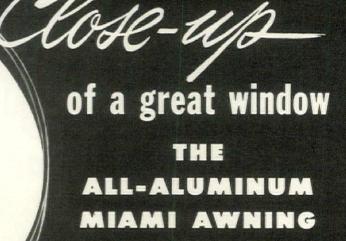
Here is how these products can make your next church job—or any job—outstanding.

Zonolite Concrete Aggregate:—Here Zonolite is used to insure warm, dry concrete floors, with or without radiant heating and for lightweight roof deck construction with insulation built right in. Poured over paper-backed wire mesh, high rib lath, or other suitable forms, it eliminates the need for additional roof insulation and is permanent as well as firesafe.

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Zonolite Acoustical Plastic:—The most efficient, low cost sound conditioning, trowels on just like plaster over any clean, firm, water-resistant surface.





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Write for catalogs, air infiltration reports and testimonials.

Get a realistic close-up of a great window...
the all-aluminum Miami Awning Window.

WEATHERTIGHT—through concealed weatherstripping (elastomeric vinyl plastic) along entire perimeter of frame. Overlapping vent sections make closing double positive.

FREE AND EASY OPERATION—special concealed torque shaft actuates each side of vent equally . . . makes closing tight, and opening easy.

For further information write, wire or phone Dept. AF-3 or see Sweet's Architectural File  $\frac{3c}{Mi}$ 

MIAMI Awning WINDOW

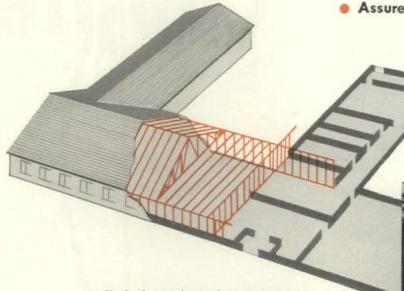
### MIAMI WINDOW CORPORATION

5200 N. W. 37th AVENUE, MIAMI, FLORIDA FACTORY No. 2 — 4610 N. W. 37th Avenue, Miami, Florida MIAMI WINDOW CORPORATION OF MISSISSIPPI—Key Field, Meridian, Miss. MIAMI WINDOW CORPORATION OF PANAMA — Box 923, Panama, R. P.

### In This Modern Office Building

### STRAN-STEEL FRAMING

- Shortened construction time
- Lessened construction costs
- Assures lasting quality



Here's the new home of the Medical Protective Co., Fort Wayne, a pioneer in liability insurance for the medical profession. Cutaway drawing above shows a portion of the building's Stran-Steel Framing system, including exterior walls, interior partitions, and roof trusses.



The new Medical Protective Company's building was completed and in use in less than 10 months. "The time saved in construction," according to B. R. Lancaster, Vice President and Secretary, "due to use of Stran-Steel Framing, resulted in considerably less cost."

Architect for this building was John D. Martindale, A.I.A., and general contractor was Civilian Building and Supply, both of Fort Wayne.

A complete system, Stran-Steel Framing is particularly well suited to schools, hospitals, garden-type apartment structures, industrial and public buildings. It has been specified by architects from coast to coast with resulting economies, earlier completion, and client satisfaction. Write us for details on any of your specific projects.

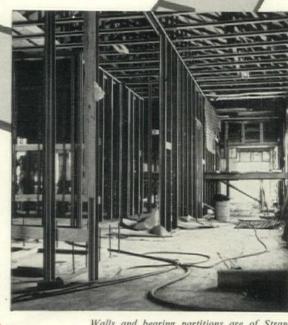
#### GREAT LAKES STEEL CORPORATION

Stran-Steel Division

Ecorse, Detroit 29, Mich.







Walls and bearing partitions are of Stran-Steel studs. At left, architect's detail drawing shows section of wall.

DETAIL OF WALL

WINDOW

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%" PLASTER ON METAL LATH

VAPOR BARRIER

3%" STRAN-STEEL STUD %" BUILDING BOARD

1%" GUNITE CONCRETE

CHANNEL



Stran-Steel Division, Great Lakes Steel Corporation Ecorse, Detroit 29, Michigan

Gentlemen: Please send us factual information on the advantages of lightweight Stran-Steel Framing for industrial and commercial building.

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Only Duro-Test offers you both long-life fluorescent lamps and soundly designed sturdily constructed fixtures—a lighting team specifically engineered to give maximum efficiency—a lighting team custom-made in Duro-Test's own plant. The result is *brighter* light and trouble-free operation for a *longer* time . . . guaranteeing greater *customer* satisfaction.

To be sure of the best, specify Duro-Test.

P. S. Don't forget to write for lamp catalogue and for complete information on fixture styles and specifications.

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"Built Stronger to Burn Longer"

# BARRETT COVERS WASHINGTON

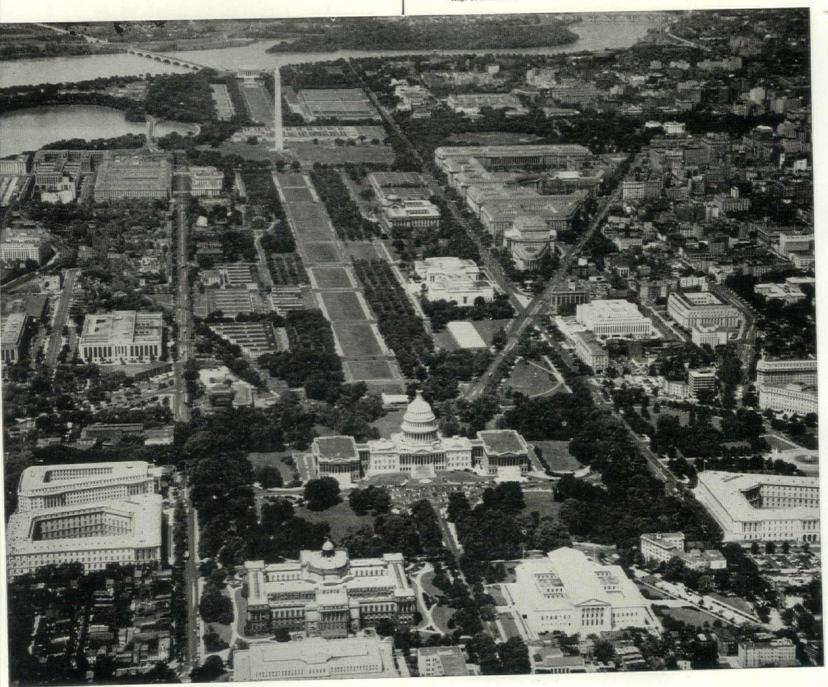
"The city of magnificent distances" is a city of magnificent buildings as well. Fittingly enough, many of these world-famed edifices enjoy the superior and long-lasting protection of Barrett roofs.

America's leading architects and engineers have long specified Barrett — not only for public buildings in Washington and other key cities — but for most of the famous commercial, industrial and institutional buildings throughout the nation. Their overwhelming preference for Barrett Specification\* Roofs is securely rooted in the assurance that they will give many years of matchless service under all weather conditions.





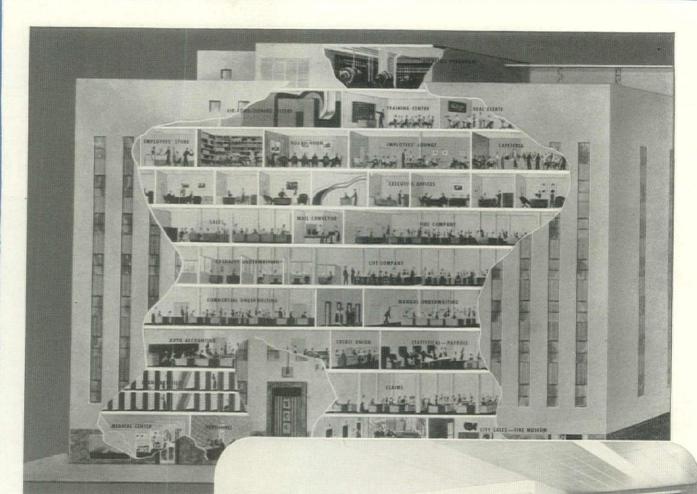
Be sure to see the full-page, four-color Barrett advertisement in The Saturday Evening Post for May 9, 1953. It will feature many of the most famous Barrett-roofed buildings in Washington, D. C. \*\*Ner. U. S. Pat. Off.



FARM BUREAU INSURANCE COMPANIES







Paramount objective of this entire layout: to make sure that the Companies keep on serving policy-holders with highest possible efficiency.

Farm Bureau Insurance Companies Building Columbus, Ohio

Architects: Benham, Richards & Armstrong Builders: Haig M. Boyajohn & Associates

Here, Mills ceiling-high walls, glazed cornice-high partitions and glazed railings form a group of attractive, dignified, semi-private offices. There is no waste when Mills Walls are rearranged. All parts may be used over and over again.

### f their office space with

### MILLS MOVABLE WALLS

Space Control to make sure that their office space will stay efficient even though their space requirements are bound to change radically with continued growth and progress. They keep their space adaptable to changing needs with Mills Movable Metal Walls. Mills Movable Walls give you Space Control—enable you to rearrange your layouts readily whenever changes in needs occur. They are distinctively modern

and dignified, incombustible, permanent in function and structural stability. They require no maintenance except occasional washing to keep them looking new and attractive. Yet they can be moved quickly, easily and at very low cost—sometimes in a matter of hours, overnight or during a week end—without interrupting normal business activities.

THE MILLS CO., 977 WAYSIDE RD., Cleveland 10, Ohio



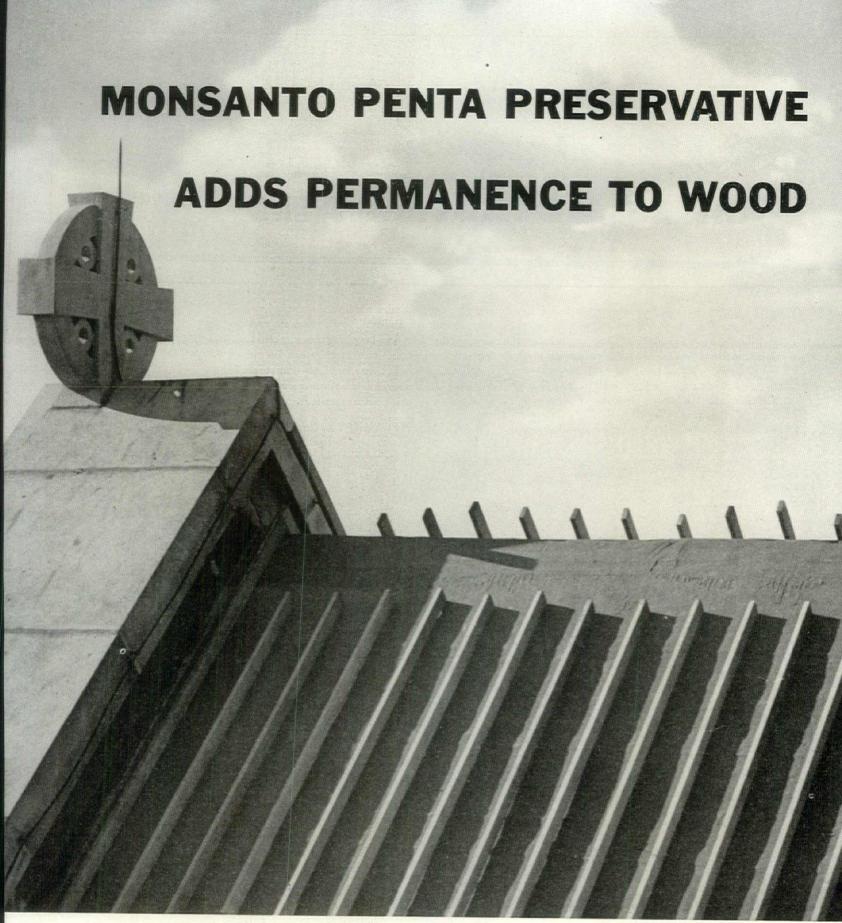
In this layout effective use is made of Mills glazed railings in combination with glazed cornice-high office partitions. Wiring for light, phone and air conditioning controls is easily installed in raceways in base, cornice and panel connections.

MILLS

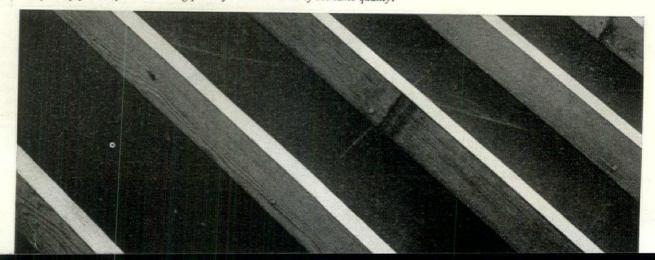


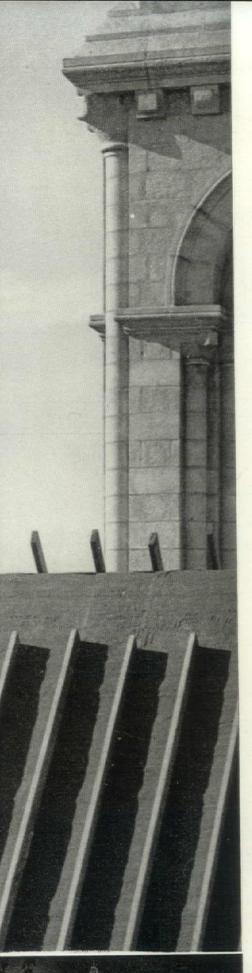
METAL WALL

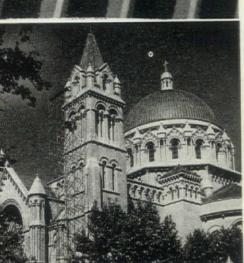
The new Mills Catalog No. 53 is a practical 48-page workbook on Space Control. It is fully illustrated with typical installations and contains complete descriptions, detail drawings and specifications. We'll gladly send you a copy on request.



All runners under roof tiles were replaced with  $1\frac{1}{4}$ " x 4" penta-treated material, shown here. This wood will resist decay many years beyond the rotting point of untreated wood of the same quality.







### In the towers and dome of St. Louis Cathedral

— recently renovated—decayed, untreated wood has been replaced with 96,000 lineal feet of long-lasting, penta-treated lumber. Kiln-dried Douglas fir members, now installed under the green tiles of the beautiful structure, will resist rot and insects for *years* beyond the normal life span of the same wood, untreated.

Pressure-treating with penta drives this clean preservative deep into the cells of the wood, making it virtually time-proof. Penta protection is long-lasting: rain or ground water can't wash away the preservative.

When you write Monsanto Penta into your timber specifications, you add permanence to your work and save money for your client.

Architects will be interested in a new brochure, titled "Specify Penta," which gives complete instructions for specifying penta treatment. A copy will be mailed to you at no obligation. Ask also for details on Santobrite—a salt of pentachlorophenol—for preserving organic fibrous products such as insulating board. Write:

MONSANTO CHEMICAL COMPANY, Organic

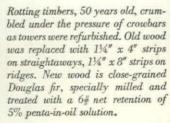


Chemicals Division, 800 NorthTwelfthBoulevard, St. Louis 1, Missouri.

Santobrite; Reg. U. S. Pat. Off.

MONSANTO CHEMICALS - PLASTICS One of the largest churches west of the Mississippi, St. Louis Cathedral has been undergoing renovation for several months. The twin towers rise 157 feet above Lindell Boulevard. Old wood stripping, which can be seen through the scaffolding, was put on at the turn of the century with handmade nails.

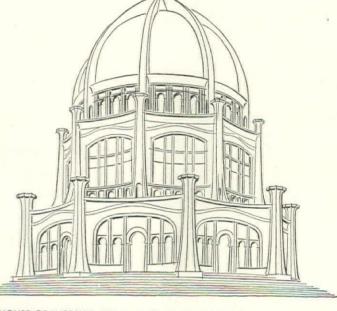






where Anaconda Bronze contributes enduring beauty:

Temple in Illinois



BAHÁ'Í HOUSE OF WORSHIP, Wilmette, Illinois. Louis J. Bourgeois, original architect for exterior. Shaw, Metz and Dolio, architect for interior. George A. Fuller Company, general contractor.

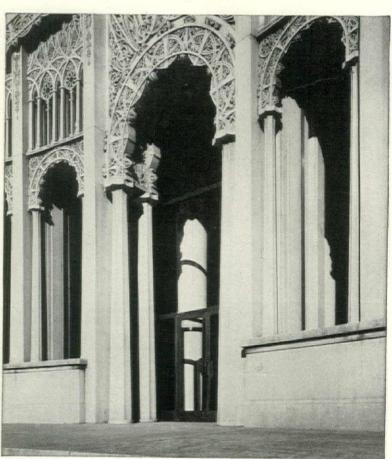
This impressive temple was started in 1920 by members of the Bahá'í faith to express Bahá'í teachings in progressive revelation and spiritual unity of East and West.

In the doors and windows of each of the nine sides of this Temple, the beauty of Anaconda Architectural Bronze will outlast generations of worshippers. For no other metal surpasses bronze for monumental endurance, warmth or grace of effect. It is the oldest metal known to man—traditional in centuries of noteworthy architecture. Bronze creates the impression of stability and dignity so desirable in public, private and commercial buildings.

Bronze doors and window frames in the Bahá'í Temple were fabricated by Waukegan Architectural, Inc. from extrusions and sheets. For information about ANACONDA Architectural Bronze, write The American Brass Company, Waterbury 20, Connecticut. In Canada: Anaconda American Brass Limited New Toronto, Ontario.

One of the nine entrances (right, exterior; below, interior). Original wood and steel frames were replaced with ANACONDA Bronze. First floor took ten tons.







General Concessions Building Cafeteria, Battery Park, New York

### CLAY TILE ... FINEST FRAMEWORK FOR FOOD SERVICE

Wherever food is handled, prepared or served, certain basic requirements for the surrounding surfaces must be met: maximum maintenance economy, extreme durability, utmost resistance to grease, food acids and cooking fumes... plus the handsome good looks that stimulate both employee morale and repeat customer business.

Clay Tile meets all these standards—as in this beautiful new clay tile cafeteria. Glazed tile will keep the walls permanently beautiful and easy-to-clean. Unglazed tile on the floor will carry heavy traffic indefinitely with minimum cleaning care and maximum wear resistance.

If you design, plan or build food service areas, you'll be rewarded by a fresh look at clay tile. Clay tile is proof against water, fire, staining and scratching. The increasingly wide range of clay tile colors and designs assures unique decorative possibilities for restaurants, cafeterias, diners, commercial kitchens and other areas.

Consult your Tile Handbook for technical information on types and sizes.

Tile Council of America, Room 3401, 10 East 40th Street, New York 16, N. Y. or Room 433, 727 West Seventh Street, Los Angeles, Calif.

The Modern Style is

PARTICIPATING COMPANIES: American Encaustic Tiling Co. • Architectural Tiling Co., Inc. • Atlantic Tile Mfg. Co.

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Mfg. Co. • Robertson Mfg. Co. • Summitville Tiles, Inc. • United States Quarry Tile Co. • Winburn Tile Mfg. Co.



### CALL IT LUCK

But once in a while a man has the privilege of being present when the curtain is pulled aside for a moment. He is granted the opportunity of visioning a better way of doing something. If—through his ingenuity—he can translate this vision in terms and materials that benefit mankind, they call him a genius an inventor or an industrialist.

It was thirty years ago that the curtain parted and the original open web bar joist was conceived and placed in volume production by Stanley Macomber. It is rather unique that the founding of this industry—the inception of every stabilizing development and each of the basic improvements through the years came from the original well of inspiration.



### Why GAMBLE with SAFETY in Showers?



### ...Install





### **Thermostatic**

### WATER MIXERS

For the Most Comfortable and Safest Showers

### Why POWERS Thermostatic Water Mixers?

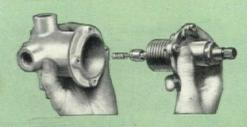
They're safer! They cost more, they're worth more! They're doubly safe against temperature as well as pressure fluctuations. They protect bathers against scalding caused by dead ends in hot water lines.

Temperature changes in water supply lines are more frequent now because of greater use of instantaneous, submerged and indirect type water heaters. Only a thermostatic mixer safeguards bathers from shots of hot or cold water caused by fluctuating water temperature.

When only one shower accident can cost so much in damaging publicity, personal injuries and time consuming law suits, why not install Powers . . . a really safe, non-scald water mixer?

64 Modern Showers at SHAWNEE-MISSION HIGH SCHOOL, Kansas City Are Regulated by POWERS Thermostatic Mixers

> Architects: MARSHALL & BROWN Associates: PERKINS & WILL Consulting Engineer: W. L. CASSELL Contractor: W. T. CONROY



SIMPLE DURABLE CONSTRUCTION insures long life and minimum of maintenance.

#### ONE MOVING PART

Easily Accessible from the Front. Easy removal of Thermostatic Motor and Valve Assembly with only a screwdriver makes it possible to inspect, clean or flush out mixer if necessary.

To Be Sure of Comfortable Carefree Showers Install POWERS Mixers

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Schillings Drive-In Restaurant, Covington, Ky., Backus Bros, Formica Fixtures

### HAVE LUNCH ON ME!

That's the unspoken Formica invitation that is accepted millions of times each day in eating establishments all over the country. There are more meals being eaten daily from Formica surfaces than any other material you could name.

The reasons Formica has been standard material in eating and drinking places for so many years go far beyond its obvious color and beauty.

Formica's super smooth surface wipes clean meal after meal, year after year with only a damp cloth.

Because it can't rot or crack it is sanitary and vermin-proof. It is armour coated against normal abrasion and scratching. It stoutly resists alcohol, boiling water, mild acids and alkalies.

The acceptance of the name Formica is a perpetual temptation to those who would have you substitute less proven materials of similar appearance.

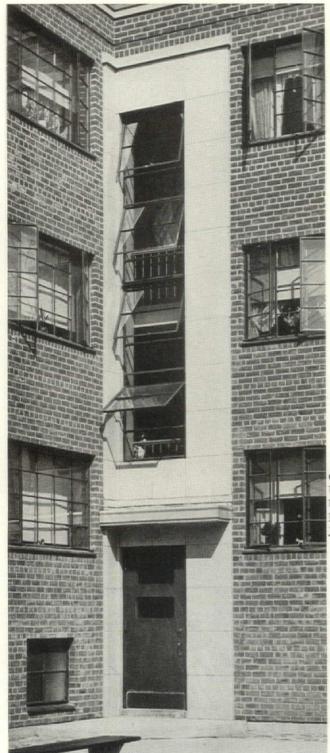
When you specify and insist on genuine Formica you assure yourself the protection of 41 years of "know how" and integrity.

For additional information on Formica see Sweets  $\frac{13\alpha}{FO}$  or write

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# Call on architectural terra cotta to beautify budget housing projects!

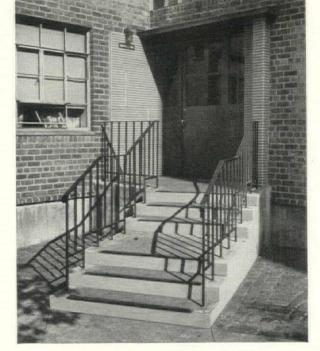
The facades of mass housing projects need not be unattractive, though budget bound. With architectural terra cotta you can add color and contrast at little extra cost for entrances and trim. This versatile building material is custom-made in an unlimited range of ceramic colors, in units large or small. Whatever your architectural needs—plain surfaces or decorative sculpture, for interiors or exteriors—terra cotta always meets your specifications perfectly. Still another advantage to remember is the fact that the original richness of terra cotta can be retained indefinitely by simple soap and water washings. No other modern building material offers you so much as architectural terra cotta.

#### COLUMBIAN COURT HOUSING

Union City Housing Authority Union City, N. J. Ricker and Axt, Architects John A. Sarubbi, Contractor

#### MARCY HOUSES

Brooklyn, N. Y.
Voorhees, Walker, Foley
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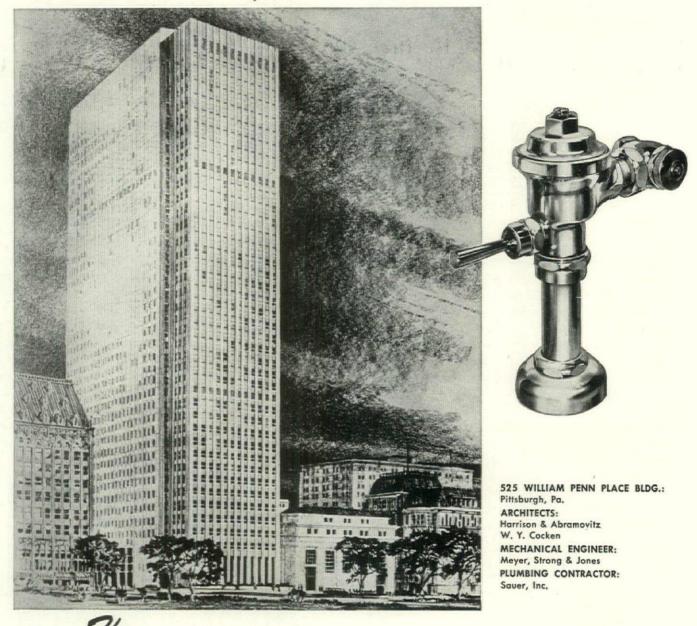
Construction detail, data, color samples, advice on preliminary sketches, will be furnished promptly without charge. Send your inquiry today.

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C O R P O R A T I O N 10 EAST 40th STREET, NEW YORK 16, N. Y. Plants at Perth Amboy and South Amboy, N. J.



# And in Pittsburgh - A FUTURE OF FAULTLESS SERVICE



realding the renaissance of Pittsburgh's "Golden Triangle" is the impressive
new 41 story home of the U.S. Steel Corporation and the Mellon National Bank and Trust
Company. Equipped with DELANY diaphragm type FLUSH VALVES, a total of over 1,000
sanitary fixtures will service more than 5,000 individuals daily. It follows that in so large an
operation, minimized maintenance is a prime factor. After a screening of all the
related design requisites, it is not surprising that DELANY foot pedal operated
FLUSH VALVES and VACUUM BREAKERS were insisted upon.



Attention is directed to the exclusive, conical body structure of the DELANY Foot Pedal. Designed to slip the impact of the severest foot thrust, its superior capacity to resist unintentional abuse over former treadles is easily recognizable. Furthermore, foot thrust in any direction can be accommodated since the pedal oscillates freely, in not just a single plane, but universally.

DELANY
Flush
VALVES

COYNE & DELANY CO. . 834 KENT AVE. . BROOKLYN, NEW YORK

Since 1879

# Bid sharpening helps offset price boosts in decontrolled copper, cement; pay hikes begin

Price, wage and materials decontrol had almost no effect on construction this month, posed no discernible threat to prospects for another banner building year. The outlook: 1) although steel, copper and cement might edge up moderately, 2) average material prices would probably show some decline as the year advanced, but 3) continued wage increases would preclude any important lowering of construction costs. Said an official of one of New York's big contractors: cost fluctuation would probably not be more than 2% either up or down for the rest of the year. Dow Service reported building costs already had dropped 5% during the last six months in 62 cities in 15 northeast-

Tight spots. In a few cities where contract volume was off or the threatened federal construction cutback (p. 116) might have serious results, general and subcontractors were shaving profits almost to the vanishing point to obtain new business. AGC reported that competition was at its sharpest since 1940, especially in the Midwest and mid-Atlantic. It forecast an era of "sharp bidding and lower prices."

In St. Louis, one area of cutthroat competition, the local housing authority on Feb. 26 accepted a low bid of \$6,128,000 for a 602-unit project originally estimated to cost about \$8,500,000. But the same week Bridgeport and New London, Conn. housing authorities rejected bids for two projects as too high, advertised for new proposals.

On the bright side, the Commerce Department estimated that construction activity for January-February totaled \$4.4 billion, or 5.5% more than the first two months of '52. AIA directors polled at their semi-annual board meeting in Washington this month estimated that work on architects' boards is as great or greater than a year ago throughout the nation, except for indications of a slight drop in the Middle Atlantic, New England and Central states.

Prices flutter. As price controls came to an end March 17 with decontrol of steel, nobody foresaw much of a price boost in the offing for structurals. With open-ending of CMP, structurals were not very scarce.

Except for copper (up about  $6\phi$  to around  $27\frac{1}{2}\phi$  a pound) and scattered increases for cement where there were local shortages,

THE BIG STORY: the Defense Dept. bans taking of bids for construction pending a review that may cut its outlay 25%.

(pp. 116-117)

prices fluctuated very little when decontrolled. In Baltimore, Detroit, Chicago, San Francisco, lumber was down \$1 to \$5 for 2 x 4 firs. As Executive Vice-President H. R. "Cotton" Northup of the National Retail Lumber Dealers Assn. explained: "Lumber and practically every other building product retail lumber dealers handle were selling below ceilings when controls were ended."

In Portland, Ore. construction grade lumber was moving slower and cheaper this month than a year ago, after weakening slowly but steadily since Jan. 1. Softwood plywood continued strong, but production was dropping and a threatened April 1 strike might cut it more. All talk of any boost above last month's increase to \$90 per thousand sq. ft. (\$7 below the old OPS ceiling) was expected to be over by April.

Wages continuing up. Wage decontrol freed unions to bargain for whatever they could get as contracts expire this spring. The target would usually be  $25\phi$  an hour more in wages or welfare payments, the typical compromise about  $10\phi$  to  $15\phi$  an hour in one form or another.

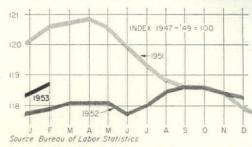
Chicago plumbers earning \$3 an hour settled their wage demands this month for a 15¢ an hour pension contribution for each worker, which probably set the rate of increase for other Windy City building trades contracts facing renewal.

Cement masons in Portland, Ore. negotiated a 17¢ increase to \$2.60 an hour, while Oregon carpenter locals accepted 10¢ and 25¢ increases for building and heavy construction, bringing both together again at \$2.55 an hour. Cleveland bricklayers and Los Angeles structural ironworkers settled for 7½¢ welfare fund increases, raising them to the equivalent of \$3.195 and \$2.925 an hour, respectively.

### Court decisions uphold union make-work rules

Three court decisions upheld legality of union make-work practices under the Taft-Hartley law this month. In Chicago, the US Circuit Court of Appeals ruled that AFL glaziers Local 27 was neither striking nor conducting an unfair labor practice by refusing to work on preglazed sash. Attorney Charles M. Price for the Joliet (III.) Contractors Assn. called the verdict "astounding," intimated he would appeal to the Supreme Court.

But a fortnight later, the Supreme Court itself upheld similar practices in two other industries. In a 6-3 decision, it ruled that setting "bogus" type by newspaper printers



MATERIALS PRICES inched up to 118.7 in February from a revised index of 118.5 in January. The gain was not ascribed to price decontrol, which will not influence BLS' index until March. Even then, little change is expected.

did not violate the act, nor did the AFL musicians' insistence that local bands be hired by theaters when they feature visiting bands. Bogus is type set by printers to duplicate advertising received in matrix form. While bogus is not intended to be used, the Supreme Court held that Taft-Hartley banned featherbedding only when a union exacted payment for services not performed. The need, said the court, was immaterial.

Unless the building industry could persuade Congress to amend the law, the three decisions made it look as though most of construction's make-work practices were legal. At banning labor abuses, Congress' words have been louder than its actions. One way to end construction featherbedding would be to amend anti-trust laws to spell out more carefully what are the "legitimate" union functions exempt from conspiracy and restraint of trade provisions. Corrective legislation has been introducd at session after session, without result.

Most building men figure the scheduled overhaul of Taft-Hartley provides the only feasible course. One problem: building industry lobbyists fear too little time has been allotted them before the House labor committee, expect the same trouble with the Senate.

### Labor official convicted for beating carpenter boss

It took a Miami jury only 24 min. last month to convict Max Caldwell, suspended business agent of AFL Laborers Local 1040, of assault and battery against an AFL carpenter. The victim, Royce V. Mock, carpenter superintendent on a Hialeah housing project, was severely beaten in an on-the-job row with Caldwell over unionization of laborers (AF, Feb. '53, News).

Caldwell, a former Capone mobster, remained free on bail while he appealed his \$250 fine and 60-day jail sentence. Commented the Miami Herald: "The conviction may have a salutary effect... on those who have been strong-arming their way around in Miami labor circles... Miami has no need or place for racketeers of Caldwell's stripe unless it be in jail."

# Four quit Houston housing authority as PHA probes charge project is 'unfit for child'

Last summer, Houston's Housing Authority suffered a blow vastly damaging to public housing's national prestige. It began when the authority's director, fun-loving Ervin W. Blum, former president of the National Association of Housing Officials, was questioned by police on a girl's complaint he staged a wild party in one of his own projects, San Felipe Courts. In mid-August, a grand jury indicted him on charges of embezzling \$3,412 in rental collections. In January, a federal judge convicted him on five more charges (falsifying quarterly reports to the Public Housing Administration, illegally raising his salary from \$12,000 to \$15,600 a year, charging the local authority for \$84 of paving material he used himself) and sentenced him to a year in prison, a \$3,000 fine. Public housers hoped they had heard the last of such scandals.

This month, the Houston mess bubbled to a boil again. Four of the five members of the housing authority resigned, pleading pressure of business and other personal reasons and ignoring the chief one—that they had publicly admitted laziness and incompetence while testifying at Blum's trial.

Job too hard. Chairman George D. Neal explained he quit because the post was too demanding of his time and the duties "were becoming increasingly difficult." Technically, his term had expired Jan. 31, but he was going right along in office, as was customary in Houston, until the city got around to reappointing him. J. P. Hamblen wrote the mayor: "I had wished to shoulder full and complete responsibility for the errors of the past. Now that the patient is on the road to recovery, I believe that for the greater interest of the program a new member could serve . . . to greater advantage." William H. Fabian and Paul Sparks simply asked out.

Public housers' Houston troubles would not necessarily end there. The House committee on government operations was looking into complaints that the authority's budgets had gone unreviewed for three years, that construction outlays were unaudited against plans. A still more embarrassing question also loomed: were other public housing authorities composed of derelict time-servers?

**Egan intervenes.** One investigation that Houston public housers said worried them not a bit was ordered by PHA Commissioner John Taylor Egan. He sent sleuths to look into the accusation of Texas Judge Roy F. Campbell that San Felipe Courts was "no place to rear a child." The judge had threatened to put a baby involved in a cus-

tody row up for adoption if she were returned to the project. When public housers demanded a retraction, Campbell supported his stand by citing police files: an average of 302 cases a year at San Felipe for ten years including "murder, rape of little children, sodomy, aggravated assault, burglary, theft of autos, drunkenness, sex crimes, child delinquency, prostitution, possession and sale of narcotics."

Said Col. E. A. Eversberg, the Houston authority's new director: the probe "isn't needed.... We're operating fine."

### Private construction tip sheets protest gov't paper

For five years, the Commerce Dept. has quietly published a daily four-page listing of bid invitations and contract awards on federal procurement, including construction. But it was available only to people who made a trip to Commerce field offices to get a copy. Many a construction reporting service in Washington and elsewhere thrived on selling the Commerce data (and other bid announcements) to private customers.

This month, the Commerce Dept. announced that starting April I its daily report will be mailed to anybody who wants it for \$7 a year. Some horrified private services, crying that this was less than the publishing cost, trooped off to sympathetic Congressmen to warn that the Republicans would thus put them out of business.

### NEW CONSTRUCTION ACTIVITY (expenditures in millions of dollars)

February			First 2 months				
Type		52	53	% Change	'52	'53	% Change
		1	PRI	VATE			
Residential (nonfarm) Industrial Commercial *Total	209	760 185 105 1,558		$^{+12.4}_{-11.5}$ $^{+40.0}_{+6.5}$	1,395 418 158 2,980	1,578 372 210 3,174	$^{+13.1}_{-11.0}$ $^{+32.9}_{+6.5}$
			PU	BLIC			
Industrial Military Residential *Total	88 85 58 625	103 95 44 632		$^{+17.0}_{+11.8}_{-24.1}_{+1.1}$	180 176 121 1,282	215 200 90 1,324	$^{+19.4}_{+13.6}$ $^{-25.6}_{+3.3}$
GRAND TOTAL * Minor coparts. Data	mpone	ents no	it s	+4.9 hown, se	total	exceed	+5.5 ls sum of

construction expenditures in February set a record for the month: almost \$2.2 billion, or 5% ahead of last year. Private dollar volume for February exceeded last year's total by 7%. Public expenditures were only 1% ahead of a year ago.

### Realtors oppose, labor urges keeping rent controls

As the House banking committee opened hearings on rent decontrol, the testimony followed a familiar vein. Samples:

AFL: rent control should be continued in critical areas until June 30, 1954. The President should be granted sweeping powers to include large cities in the program even if they do not qualify under the present narrow definition of critical areas.

**CIO:** federal controls should be "reimposed in any area whenever the vacancy rate reaches 2%; kept on until it climbs to 7%."

NAREB: rent controls everywhere including critical areas should be allowed to die as scheduled April 30.

Probable outcome: a bill to keep controls only in defense areas,

# House probers criticize cost of apartments, shopping center for Americans in Germany

Should Americans serving in conquered Germany be given housing more splendid than they could afford in the US? Two Congressional subcommittees delved into the question this month, came up with a loud "no."

Under scrutiny of House investigators were two separate housing programs for State Dept. employees. One involved the High Commissioner's Office in Germany (HICOG) at Bonn. It included 412 strikingly handsome apartments for German HICOG employees (see cut), a \$240,000 remodeling job on an ambassador's house, five lavish homes for top American HICOG officials at \$151,000 each, a \$3 million office building and a handsome \$16 million development for American HICOG ememployees that the Germans call "Little America" and the New York Times acidly dubbed "Westchester on the Rhine." The total cost: more than \$28 million.

The second program involved family and bachelor housing being planned by State's Foreign Buildings Operation for consular officials and their staffs at nine German cities, along with the Amerikahaus program of overseas information-education centers (see p. 101).

'Colossal, gigantic.' Ever since it was completed last July, the suburbia comforts of "Little America" had led correspondents to write of Americans living in splendid isolation off the fat of the US taxpayer's back. Carped the London Daily Mail:

"Only Hollywood's favorite terms—colossal and gigantic—seem extravagant enough to describe it.

. . . The apartments are so large, airy and so modern in design as to stir the envy of every German housewife [and a good many American housewives, too] . . . The German apartments [nearby] are smaller and not fully furnished, but they provide fortunate employees of the US in Bonn with cheaper accommodations than they could possibly find elsewhere. . . . The two

bachelor skyscrapers . . . with 11 stories of oneroom efficiency apartments . . . are the tallest buildings in the entire Rhine area, church spires excluded."

This month, Rep. Charles R. Brownson (R, Ind.), chairman of a House subcommittee on government operations, branded the program "fantastic." The committee released a report by the General Accounting Office which noted tartly that Little America's 458 apartments (housing everyone from \$3,000-a-year clerks to \$9,000-ayear executives) cost an average of \$21,000 apiece, plus \$5,231 for furniture, despite the fact that German building costs run 20% below US costs. The apartments (from 670 to 1073 sq. ft. for bachelors and up to 1,640 sq. ft. for three-bedroom family units) were equipped with built-in bookshelves, cabinets and kitchen equipment, picture windows, balconies and a maid's room. Committeemen also looked askance at the cost of such amenities as the \$76,000 nursery school, the \$903,000 recreation center complete with swimming pool, a filling station and repair shop which cost \$86,000-about double (said committee sources) what an average gasoline station costs in the US. About the only item nobody objected to was the \$116,000 architects' fee.

Illegal expense? Even more important than plush standards was another question raised by congressional critics: did the State Dept. have legal authority to spend the money? No specific congressional approval was ever sought or received. No US dollars were appropriated. Instead, the State Dept. used deutschmarks credited to the US government in return for foreign aid. Such counterpart funds are supposed to be spent to restore and bolster the German economy. Supporting the committee's doubts, the General Accounting Office report noted: "The claim in justification for any seeming excess has been given to us to the effect that the German counterpart funds expenditure is not a charge upon the US Treasury. This seems to ignore the probability that to the extent these funds are diverted from their basic purpose . . . there may have been required ultimately" more direct aid from US taxpayers.

Maids for bachelors. The cost of the consular housing, designed by Skidmore, Owings & Merrill with the aid of Apel Associates in Germany, came under fire of a submittee chairmaned by Rep. William E. Miller (R, N. Y.). Leland W. King, director of State's foreign building operations, made it clear that the high cost arose entirely from State's insistence on sumptuous space standards. He testified the architects "pointed out the high probable cost . . . to everybody."

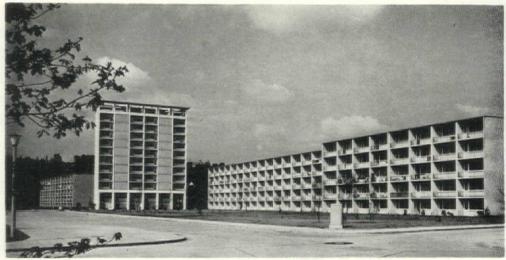
The \$19 million program (only 10% completed so far) involves 275 apartments (in Berlin, Bremerhaven, Cologne, Stuttgart, Frankfort, Munich, Düsseldorf, Bremen and Hamburg), seven homes for consuls and consuls-general (see cut), six Amerikahause and eight office buildings. King testified that when bids on the first 16 family apartments (at Bremen) came in last fall, the State Dept, was so alarmed at the cost (\$40,736 per unit, including \$5,600 worth of furniture) that it finally decided to pare specifications for the rest of the housing, expects to cut the cost about 25%, or \$1.5 million. Cracked Rep. Brownson: "We ought to congratulate the State Dept. for reviewing this . . . so quick after the election."

Despite planned sail-trimming, committeemen expressed surprise at testimony of Glenn G. Wolfe, HICOG executive director, that the State Dept. had "great concern" for getting competent maid service for its overseas employees. Wolfe explained that that was why plans for bachelor apartments include a maid's room. Under questioning, Wolfe agreed maid's quarters perhaps were a "hidden subsidy" for consular staffs, since they could hire maids cheaper—\$25 a month—if the government supplied their rooms. The apartments at Bremen were

planned to provide 11 maid's rooms for 12 apartments housing 21 State Dept. bachelors. But when the cost appeared headed for \$25,481 per apartment, officials decided to cut the number of maid's rooms (which are only 8' x 10') in half, reduce bedroom sizes, eliminate a washroom in some units, and shift from a structural concrete frame to bearing walls. Cracked Rep. Brownson: "When Mr. Wolfe gets through in Germany, I would like him to design a congressional housing project, but of course nobody who voted for it would ever get to use it."

Reasons for palaces. Under daylong cross-examination, neither King nor Wolfe had much chance to explain some good reasons why construction of generous quarters makes considerable sense: when Americans requisitioned scarce German housing, Communist propagandists were skilful at exploiting German resentment; without special inducements like plush quarters, it was difficult to persuade able Americans to serve overseas (especially for HICOG) at the modest pay of government jobs. As for furnishing the apartments, King and Wolfe testified that was cheaper than paying freight from the US on employees' household gear.

Helmut Richrath



HOUSING FOR GERMAN employees of HICOG at Bad Godesberg (above), designed by Architect Otto Apel, turned out handsomer than the controversial "Little America" project for HICOG American Workers. One reason: less interference from US Army Engineers. Apel's two 11-story sky-

scrapers of one-room bachelor efficiency apartments have become local landmarks. Construction of both German and American units set noteworthy speed: in eight months, US Engineers built 1,300 housing units. The Bonn government took two years to build twice that many.

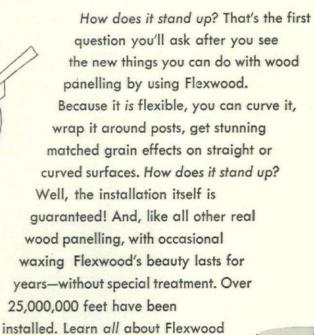


consular housing planned by State Department included this home for the principal officer at Hamburg. Even before Congressional committees began crying that the cost looked too

high, State officials were reviewing plans to try to pare costs. But at midmonth, a House operations subcommittee snorted that this was so far only a "short step in the right direction."



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AWARD WINNING ARCHITECTS AND ENGINEERS AT NORTHERN CALIFORNIA AIA CHAPTER DINNER POSE WITH SPEAKER RICHARD NEUTRA (CENTER)

# San Francisco architectural awards dinner hears call for new epoch in modern design

In the San Francisco Bay area, public acceptance of modern design stands well ahead of most other parts of the nation. Last month, a distinguished awards jury accordingly saluted the Bay area's architects not only for their design but for their "consumership."

Wrote Richard J. Neutra, Edward D. Stone and Pietro Belluschi in picking 43 examples of top Bay area work since 1932: "Our profession has to meet political agencies, school boards, spokesmen of congregations, housewives and last but not least appraisers of loan agencies. All of them have to be placated before dirt can fly and projects rise from the plans." Appropriately, the giant awards dinner Feb. 26 at San Francisco's de Young Museum under sponsorship of AIA's Northern California chapter was attended not only by architects and engineers but by clients for whom premiated buildings had been constructed. Scrolls were given not only to architects, but also to engineers, contractors and owners-a distinct departure from norm.

New mission. The presence of clients was emphasized in talks both by Jury Chairman Neutra and by Douglas Haskell, editorial chairman of FORUM and HOUSE & HOME. Haskell characterized the event (no similar contest had been held since 1932) as the close of an epoch of which Bay area architects could proudly say "mission accomplished." He asked the "instant inauguration" of another epoch spreading the new architecture, hitherto available to the "intelligent and sensitive Bay area client," among the entire American people. Said he: "Nowhere else in the US has contemporary architecture been so vigorous, so free, so widely accepted, so truly created by the community as a whole as in northern California. Good modernhouse architecture as it spreads to big builder operations across the US bears the stamp of the Bay area-not because California has an easier climate but because the Bay area house is uniquely the product of common understanding between architect, engineer, contractor and user.

"Yet compared to 20 years ago we must confess that there is no longer the same

excitement in creating a fresh kind of design. The basic ideas have been worked out. Later work is chiefly refinement. Let us not be discouraged: this means a big mission has been accomplished. Another mission awaits us. Today only three per cent of local FHA-approved houses are even yet designed by independent architects. The figure is higher counting all homes, perhaps 10%. The beautiful homes now characterizing your suburbs and surrounding country have vet to capture the big tract and the city. I get the impression that the crackerbox rows of 25' houses in French or Spanish hats now chewing into the beautiful hills of the city have been designed by sleepwalkers."

Treasure for few. "Here and there on Pacific Heights and other central spots, San Francisco possesses a unique treasure—the prototype examples of the modern 'town house' created by Wurster and Dailey and other fine Bay area architects. But whoever turns out the big rows hasn't noticed these at all. Let me beg you as architects and engineers and builders and owners to make this your next mission. Lead the country again. Make the best architect-designed row house and the architect-designed tract house available not only to the intelligent and sensitive few but to all the people."

Said Los Angeles' Neutra: "Houses should be built around people, not people fitted into houses. Houses should be not only what the occupants now are but what they are going to be. Between client and architect the building of a house should start a lifelong friendship. At least, it is so in Hollywood."

Of the 43 awards, 16 were honor awards:

Houses under 1,500 sq. ft.: Mrs. P. K. Gilman house, Kent Woodlands, designed by George T. Rockrise; the E. B. Wienand house, San Francisco, by Frederick L. Confer and John Hans Ostwald; the Leisure house, Mill Valley, by Worley K. Wong and John Carden Campbell. Houses over 1,500 sq. ft.: William Foster house, Orinda, by Henry Hill; Charles G. Sawyer house, Carmel, by Anshen & Allen. Apartments: Bay Hill apartments, San Francisco, by Henry Hill. Churches: Corpus Christi Church, San Francisco, by Mario J. Ciampi. Schools: Mira Vista Elementary, Richmond School District, by John Carl Warnecke.

OFFICE AND ADMINISTRATIVE BUILDINGS: Red Cross building, San Francisco, by Gardner A. Dailey; Schuckl building, Sunnyvale, by Wurster, Bernardi & Emmons. Commercial Buildings: American Seed and Nursery Co., San Francisco, by Francis Joseph McCarthy; Cargoes, San Francisco, by Skidmore, Owings & Merrill; Allied Arts Guild sales building, Menlo Park, by Germano Milono. Hotels and Restaurants: Roland's cocktail lounge, San Francisco, by Mario L. Gaidano. Industrial Buildings: Del Monte laundry, Monterey, by Gardner A. Dailey and Skidmore, Owings & Merrill. Garden Structures: MacDonald garden house, Hillsborough, by Germano Milono.

### High rise schools banned from educators' exhibit

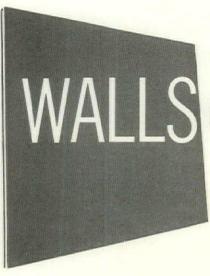
Sixteen thousand school administrators convening in Atlantic City last month found themselves spectators at a rip-roaring architectural controversy.

The hassle (a word the Webster dictionary accepted this month) arose when the school building jury without warning tossed out some 20 exhibits including Kelly & Gruzen's famed banjo high school (AF, Aug. and Nov. '52). Using their prerogative of eliminating exhibits which they thought detrimental to school building progress, the jurors removed all schools with a height of more than three stories. Their action was a

Hedrich-Blessing



PRIZEWINING SCHOOL: On view at the School Administrators' Convention were the five winners of The School Executive magazine's better school design contest for buildings designed or constructed in 1952. One winner (above) was the Northfield Township High School, Cook County, III. by Perkins & Will. The \$2 million project, now abuilding, was "commended for separation of basic educational requirements into individual building wings with enclosed and open passage between elements."



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revolt against oversized factory like schools. It spotlit educators' efforts to boost the trend toward one-story construction on big sites. But many a big city educator wondered if such an attitude was either realistic or practical for high-priced land.

### Colorado license law held invalid; substitute pushed

Forty-four years ago Colorado adopted an architect licensing act, created a state Board of Examiners of Architects. The board devised stiff rules, screened licensees so strictly that by early this year it faced legal attacks from a dozen rejected applicants (AF, Jan. '53, News).

One suit charged the board "illegally, arbitrarily and unlawfully . . . formulated a secret policy and agreement that the number [of licensees] will be extremely limited . . . remain a closed shop." Another, by Structural Engineer Nat Sachter, attacked the constitutionality of the original act for failing to establish specific licensing "standards and requirements," on the ground the Legislature could not delegate this power to any other agency.

Twin decisions. Early this month, Denver District Judge William A. Black agreed with Sachter, ruled "the whole act meaningless, empty and void." As a sample of the architect board's illegal "assumption of the legislative duty," Judge Black said it insists architects must know contracts and the state's lien laws, both "not subjects germane to learning the art of building beautifully." He held that no one could be prosecuted for violating the law, nor could the board examine any candidate. A week later the state supreme court sustained another decision declaring the state engineers and land surveyors licensing act unconstitutional on similar grounds.

Colorado architects rushed to squeeze a new license law through the Legislature before its imminent adjournment, avoid the possibility of two years without a state license law. A bill was introduced written by Richard Hite, Colorado AIA chapter counsel. It would provide for written examinations coupled with specific education and practical experience requirements, reciprocity licensing, certification by examination of exhibits if a man had practiced ten years as a principal. But its chances of enactment seemed uncertain.

Repercussions feared. Were license laws in other states equally unconstitutional? Hite feared two-thirds of them might include illegal delegation of legislative power. AIA General Counsel John T. Carr Lowe shied from that thought in the absence of encyclopedic studies of each state law and constitution. Besides, license laws elsewhere faced no serious attack.

# PEOPLE: Ormonde Kieb made Asst. Postmaster General, Louis E. Wolfson president of Merritt-Chapman & Scott

It was not gridiron skit fantasy but real fact. Early this month President Eisenhower appointed a NAREB director as an Assistant Postmaster General. The draftee: popular Ormonde A. (Tony) Kieb of New-

Potter Studios



MIED

ark, 1946 New Jersey state realtor president, 1951 national Management Institute president, New Jersey industrial realtors vice president.

His assignment: head of the facilities bureau, which manages structures under

post office jurisdiction, negotiates leases, helps plan new, more efficient postal buildings. Drafted with him to help improve the department's operations were John C. Allen, Sears Roebuck's head traffic manager, to direct transportation, and Albert J. Robertson, executive officer of Iowa's biggest bank, to head the finance bureau.

For the second time in just over a year, Merritt-Chapman & Scott Corp. elected a new president. He was Louis E. Wolfson, 41, who since 1951 had been M-C&S board chairman, a title he retained. Wolfson and his family who first invested in M-C&S in 1949, now control some 30% of M-C&S stock, he said. Ralph E. DeSimone, who became president of the big engineering construction firm in Dec. '51, was named board chairman of M-C&S Overseas. Although the company already has a \$97

million backlog of work, Wolfson predicted it will swell to the "greatest in this company's history" by mid-April.

In 1949, Architect **George Howe**, 54, successful Washington, D.C. custom-built house designer (no kin of Philadelphia



HOWE

Architect George
Howe, chairman of
Yale's architectural
dept.), wrote a best
selling novel, Call It
Treason, later filmed
as Decision Before
Dawn. This month
Putnam published
Howe's newest design
in fiction, The Heart

Alone. From the dustjacket literary specifications: "This is the story of Easter Green, who walked a winding path to meet a fate she could not escape. It is also the story of two girls and the man they both loved, and of their love and jealousy of each other." Howe's architectural approach to writing: start with the broadest, roughest over-all outline, then work backward to the layout, and finally details, as opposed to "the typical draftsman's approach," which almost invariably starts with particular details, then fizzles for lack of total design conception.

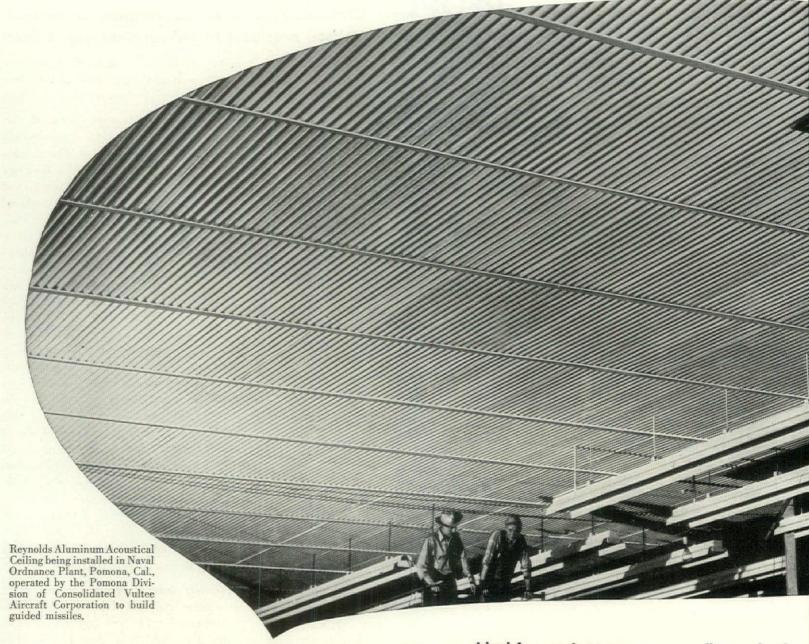
NAMED: John A. Volpe, Malden, Mass. contractor and AGC labor relations committee member for New England, as president of the Society of American Military continued on p. 48



### Louvered police headquarters gets 2-story parking deck

Los Angeles' new police facilities building, designed by Architects Welton Becket and J. E. Stanton, will bring together departments scattered among half a dozen buildings miles apart. The eight-story structure is being built by Ford J. Twaits and Morrison-Kundsen of steel and

lightweight concrete. It was use of the pre-san concrete process, said the designers, which helped bring the cost down to \$6,142,000, more than \$2 million under the budget. Horizontal louvers on three sides will shade windows. A two-story parking area provides space for 850 autos.



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### Ideal for any large expanse . . . offices, schools, hospitals, industrial production and office are

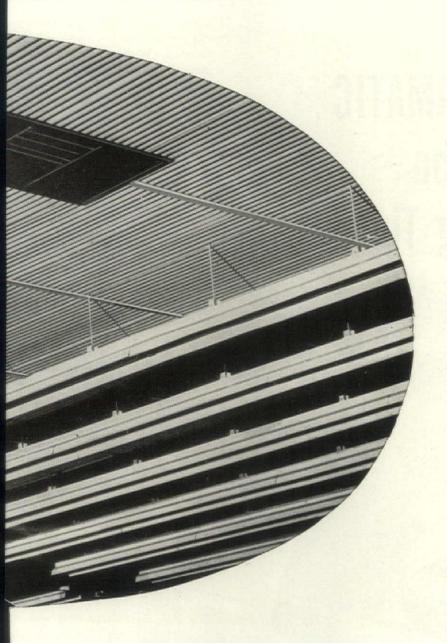
Effective noise reduction, with the increased efficiency a safety it promotes, can now be brought to any large a ...industrial, commercial or institutional. This can be de swiftly, with minimum work interruption and no alterat of overhead utilities...at amazingly low cost. And the res is as distinctively modern in appearance as it is exception

It's all done with large perforated panels of Reynolds A minum, attractively formed and finished ... simply laid place with sound-absorbent backing (see diagram), a just as simply taken down for access to space above.

Study the advantages listed. You'll see why the n Reynolds system has won immediate acclaim from leadi architects. Though military needs limit general supp millions of square feet have already been installed ... m lions more are now being specified. Call the nearest the listed Franchised Applicators, or write us for literatu Reynolds Metals Company, Louisville 1, Kentucky.



REYNOLDS Lifetime ALUMNUN



#### FRANCHISED APPLICATORS

Contact nearest listed for engineering service, free estimates.

ALABAMA: Badham Insulation, Birmingham; Stokes Interiors, Mobile.

CALIFORNIA: Pacific Acoustics. Los Angeles; Sound Reduction, Oakland.

COLORADO: Danco, Inc.,

CONNECTICUT: Wilson Contruction Co., Hartford.

DISTRICT OF COLUMBIA: T. M. Woodall, Inc., Takoma Park.

FLORIDA: Standard Insulation, Fort Lauderdale; Cliff Haller, Orlando.

GEORGIA: Lewis & Co.,

ILLINOIS: Anning-Johnson Co.,

INDIANA: Brown-Anning-John-

IOWA: Anning-Johnson Co., KENTUCKY: Braun Acoustical

LOUISIANA: Walker Lloyd,

MAINE: Edw. F. Byrnes Co.,

MARYLAND: Limbach Co.,

MASSACHUSETTS: Edw. F.

MICHIGAN: Nichols Co., Detroit; Harold R. Sobie Co., Grand Rapids.

MINNESOTA: Anning-Johnson

MISSISSIPPI: Stokes Interiors,

MISSOURI: Hamilton Co., St. Louis; Stokes Co., Kansas City.

NEW JERSEY: Woolsulate, East Orange; W. M. Moyer Co., Quakerstown.

NEW MEXICO: Welch-Erwin,

NEW YORK: Albany Acoustical Corp., Albany; A. P. Madden Co., Syracuse; Davis-Fetch, Buffalo, Rochester, Jamestown; Wm. J. Scully Corp., New York.

N. & S. CAROLINA: Bonitz Insu-lation, Greensboro, Columbia.

OHIO: Gellin Co., Cleveland; J. H. Archibald Co., Cincinnati.

OKLAHOMA: Ball Dist. & Eng. Co., Tulsa, Oklahoma City.

OREGON: Steward Griffith Co.,

PENNSYLVANIA: Limbach Co., Pittsburgh; W. M. Moyer Co., Philadelphia.

TENNESSEE: Alexander Co., Memphis; John Beretta Co., Knoxville; Workman Co., Nashville.

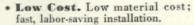
TEXAS: C. F. Schilling Co., Houston, Gen'l Supply Co., San Antonio; Acoustic Builders Co., Dallas; Welch-Erwin, El Paso.

VIRGINIA: McL. T. O'Ferrell & Co., Richmond.

WASHINGTON: G. D. Bradley Co., Seattle.

WISCONSIN: DeGelleke Co..

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- · High Sound Absorption. Up to .90 and high at all frequencies.
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### OTHER REYNOLDS Lifetime ALUMINUM



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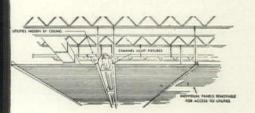


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### TYPICAL INSTALLATION

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### **NEWS**

Engineers (in January) and (last more as Massachusetts public works commissie succeeding William F. Callahan, signed; G. J. Casey, Truscon Steel m lath sales manager as Metal Lath Manu turers Assn. president, and D. L. Ross Inland Steel lath division sales manage vice president; Founder-President W. Johnson, as board chairman of T Quarries, Inc., Austin, and Vice-President Dave Johnson, his son, as president; V President E. D. Powers of Ameri Cyanamid as president of the compa subsidiary Chemical Construction Co President C. W. Bader of Bader Lum Corp., Gary, Ind., as building mater Brand Name Retailer-of-the-Year by Brand Names Foundation; Town Plan Grosvenor Atterbury, FAIA, as recip of AIA's New York City chapter 1 medal of honor; Architects James D. F senden and Delp W. Johnson as parts with Ernest J. Kump in San Francis Kump Associates; Robert S. Hutchins architect member of the New York Art Commission succeeding Alfred Eas Poor, whose three-year term expired.

DIED: Henry Stuart Waterbury, FAIA, senior partner of Delano & Aldr. designer of buildings for Yale Divir



WATERBURY

School, VMI, W Point and Hotchl School, Cornell U versity Union a many churches a large residences, me ber of the Irvingt N. Y., Planning Boa March 2 in New Yo City; Architect Sam J. Collins, 71,

signer of Staunton Military Academy & many other schools and churches, win of Virginia's World War II State Memor



AT THE 84TH ANNIVERSARY dinner of N York's AIA chapter last month, AIA Preside Glenn Stanton (I) of Portland, Ore. present AIA's award to Lever House as one of the thi outstanding buildings of 1952. Recipients we Architect Louis Skidmore (r) of Skidmore, O ings & Merrill, and Jervis J. Babb (c), Lev

### For low-cost suspended ceilings... Fiberglas\* Ceiling Board

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lowest cost non-combustible acoustical materials available



107 ton roof skeleton rises with slipform 99 ft. in 9 days and nights, with 126 jacks and 2 operators



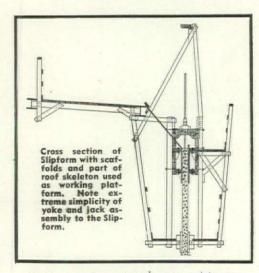
### SLIPFORMS AND HYDRAULIC JACKS

The 107-ton roof skeleton was mounted directly on the foundation and was lifted simultaneously by the same kind of hydraulic jacks that lifted the Concretor Slipform.

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- 4—Simplifies all related work (form construction, assembly, concreting, dismantling, etc.)

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SOUTHERN CALIFORNIA'S "construction man the year," winner of the 1953 Achievem Award of the Los Angeles Chamber of Commiconstruction industries committee, was Glen ven Arbogast (r), 68, former Los Angeles Costruction Employers' Council chairman former president of the Los Angeles chapte the National Electrical Contractors Assn. Ho builder Paul L. Burkhard (I), mayor of Glenand toastmaster, presented the citation to Algast at the chamber's annual building traggiding dinner March 11.

design contest last year, Feb. 7 at Sta ton, Va.; H. Donald Hope, 84, bo chairman of Henry Hope & Sons L Birmingham, England, heating special and developers of Hope's metal wind frames, Feb. 13 at Malta; Archit DeWitt Clinton, Jr., 88, designer of N York's Singer Building and Astor Ho Feb. 14 at Ridgewood, N.J.; Archit Benjamin S. Hubbell, 85, designer of Art Museum, Masonic Auditorium a other Cleveland, Ohio landmarks, Feb. in Cleveland; Architect Lester N. Sang NYC Housing Authority materials resea and specifications chief, Feb. 22 at 5 Girt, N.J.; John C. Van Vlaaderen, former supervising architect for Cass ( bert, construction director for the N York Customs House and Little Rock c itol buildings, designer of schools, h pitals, and industrial plants after he star his own practice, March 4 at Hawthor N. J.; Edmund G. Krimmel, 58, hous and urban redevelopment architect, Ma 9 in Philadelphia; Engineer Frank H Alcott, 62, building code expert, NL office manager, March 16 in New York.

### ACI updates precast floor rules, elects H. L. Kenned

Revised minimum standards for pred floor units and new standards for reinforchimneys were adopted at the Americ Concrete Institute's annual convention Boston last month. The floor standards visions added descriptions of inverted beam and T-joist units and new informat on bar spacing, steel requirements, distanbetween lateral supports and test methods

Highlights of the symposium on preca

continued on p.

## The only COMPLETE acoustical line!

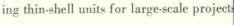
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acoustimetal Low maintenance cost. Can be washed or painted any number of times. Panels quickly removed for access to plumbing and wiring. Flameproof, permanent salvageable. High acoustical efficiency.		1%6"	12" x 24"	Alkyd resin enamel fin- ish. Baked on by infra- red light. Bonderizing of metal assures greater adhesion of paint.
TRAVACOUSTIC Incombustible mineral tile. Closely resembles beautiful travertine stone. Fissures vary in size depth, and arrangement. Permanent sanitary, acoustically efficient. Resistant to mold and vermin.	.70	11/16" 13/16" 78"	6" x 12" 12" x 12" 12" x 24" 12" x 24"	Non-glaring white finish applied at the factory gives high light-reflection. Repaintable with brush or spray gun.
ACOUSTIFIBRE Perforated wood fibre tile. Einhiple-drilled for round, clean holes deep into porous core. Finish resistant to mould and fungus. Sanitary, washable, repaintable.	.65	½" %" %4"	12" x 12" 12" x 24" 24" x 24"	Factory-applied shell- white Restex or Flame Resistant finish on face and bevels results in high light-reflection.
fibre tile. Distinctive brushed texture surface offers unusual natural beauty Cleanable with vacuum cleaner.		1/2"	12" x 12" 12" x 24"	Prepainted white. May be spray-painted when other colors are desired.
THERMACOUSTIC A mineral wood product which is sprayed to any desired thickness. Rotproof. Especially adaptable to irregular surfaces. Also provides thermal insulation and fire protection.	thickness on metal lath	As desired	Monolithic	Fissured texture can be repainted to harmonize with the decorative scheme without destroying its acoustical properties.
PERFORATED ASBESTOS-ZEROCE WOOL SYSTEM. Durable, incom bustible acoustical system. May be "custom built" to job requirements Inorganic composition. Will not retain moisture.		1"	12" x 12" 12" x 24" 24" x 24" 24" x 28"	Furnished unpainted in natural gray color. Can be painted any color and repainted any number of times.

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M. R. Montgomery, Trepte Construction Co San Diego, and Lt. Cmdr. T. G Atkinson (CEC USN reported using plastic molds for producin 4' x 24' roof and floor panels. Chief advantage of the plastic shapes (4' x 4' pans made of glas fiber mat and cloth) were light weight, durability and elasticity that made stripping easy.

▶ Charles C. Zollman, Vacuum Concrete Corp Philadelphia, described production of 4 millio sq. ft. of identical roof sections (140 panels day) using concrete molds that cost less than 2 per sq. ft. of finished roof area.

Vice-President Henry L. Kennedy, Ala and ASCE, cement division manager of the Dewey & Almy Chemical Co., Cambridge



KENNEDY

Mass. was elected president succeeding A. T. Goldbeck. Honor presentations: the Alfree E. Landau Award t. Franklin R. McMillar Asheville, N. C. for his contributions to reinforced concrete designatice; the A.C.I. Construction Practice

Award to F. Thomas Collins, San Gabriel Calif. for a paper on tilt-up construction

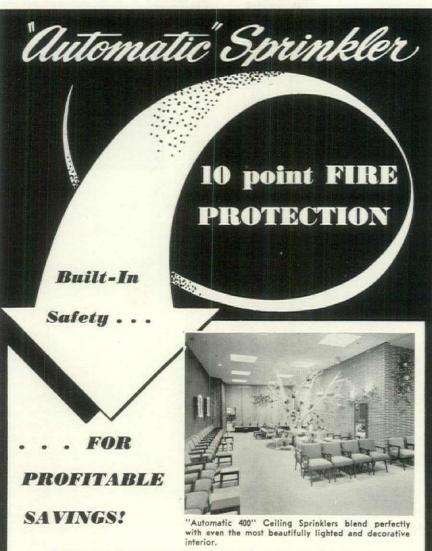
### Philadelphia plans design contests to pick architects

How can a city snare more original idea for buildings with special design prob lems? Philadelphia's Managing Director Robert K. Sawyer (second in rank to the mayor) decided last month to try award ing architectural contracts to the winners of design competitions. He explained "We want to get all the ideas we can We're interested in problem solutions, no fancy drawings . . . in what architects know, not who they know. If [one] archi tect is selected in advance we're pretty much limited to one man's ideas." Sawyer added: "We're not planning to have archi tectural competition for all our work-no by a sight."

The first contest will involve four cottages at the city's indigent home, which may cost \$2 million. The second will involve a \$300,000 health center, first of tento be scattered about Philadelphia.

AIA contest rules will be followed, with Louis E. McAllister, former AIA chapter president, as professional adviser. Only Philadelphia area architects will be eligible, "so the winner will be near enough to give a lot of on-the-job attention."

Some architects objected that freshly graduated novices without practical experience to supervise construction might win the contests. In that case the city will require the winner to associate himself with an established firm of his own choice.



Adequate fire protection is as important to the buildings you design, erect or manage as your physical well being is to yourself. You wouldn't think much of the doctor who diagnosed and prescribed treatment without first making a thorough examination. Similarly, fire protection equipment cannot provide complete safety unless it is scientifically designed and engineered, skillfully manufactured and installed, and adequately maintained.

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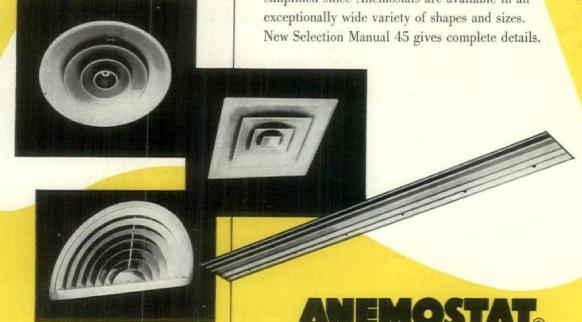
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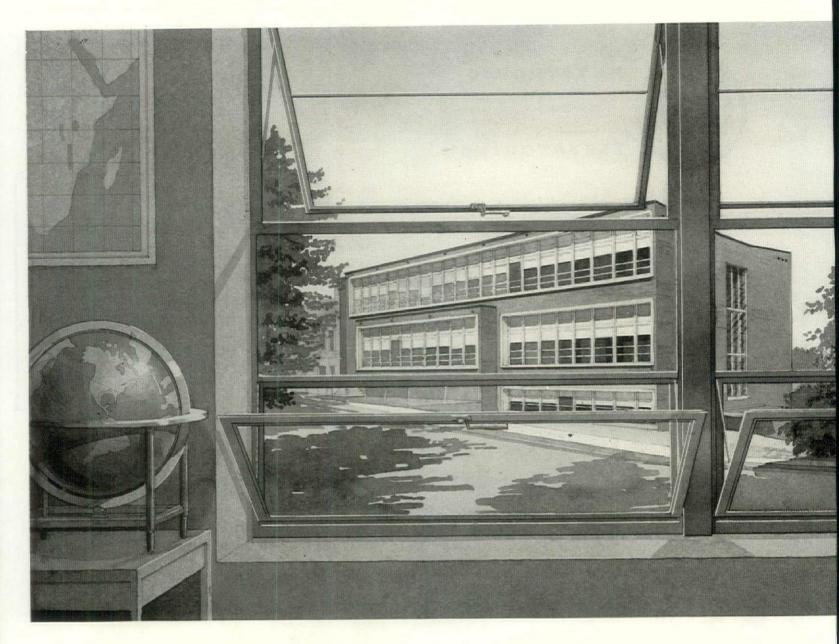
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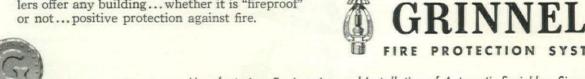
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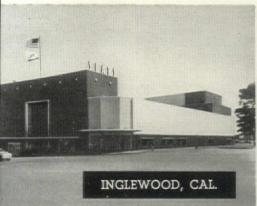
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Architect: Stiles O. Clements. Contractor: L. E. Dixon Co.



Architect: The Ballinger Co. Contractor: Wise Contracting Co., Inc.

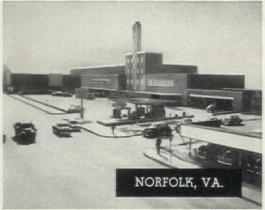


Architect: Stiles O. Clements. Contractor: L. E. Dixon Co.

ears Roebuck & Company continues to turn to Raymond for their foundation work . . . Sixteen different Sears stores (seven shown here) in ten States rest on Raymond piles . . . These repeat performances are further evidence that leading industrial organizations consistently utilize Raymond services for their important projects.



Architect & Engineer: George L. Dahl.



Architects: Shutze & Armistead. Engineer: Robert G. Lose, Contractor: A. Artley Co.



Architect: The Ballinger Co. Contractor: Wise Contracting Co., Inc.



Architects: Shutze & Armistead. Contractor: Merchant Construction Co.

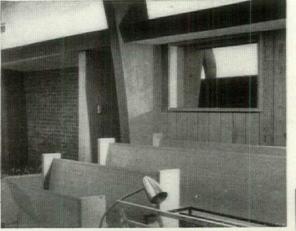
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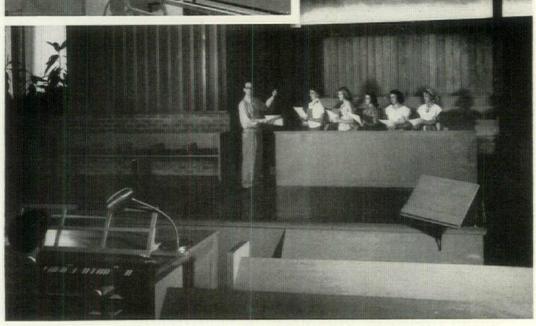
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LEFT—The mirror on the wall behind the organ and choir stalls looks like an ordinary mirror, but—

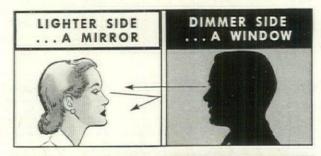
BELOW—Here's what you see looking through the mirror from the control room behind it. The mirror is transparent Mirropane\*. Architects: Marsh, Smith & Powell, Los Angeles.



# Church music and lighting controlled behind a mirror

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### **FVFNTS**

Building Officials Conference of America, 38 annual convention, Apr. 6-9, Baker Hotel, D las, Tex.

Southern Pine Association, 38th annual meetin New Orleans, Apr. 8-10. Theme of the convetion will be mechanical progress. Over a milli dollars' worth of equipment used in manufacturing, logging and millwork will be display and demonstrated at the SPA Machinery a Equipment Exposition, which will be held conjunction with the meeting.

Design Competition, announced by Tile Council America in cooperation with Beaux-Arts Institut of Design, open to architectural-school studen Problem, prepared by Edward D. Stone: a tracical hotel. National prize, \$100; additional \$ for top design in each school. Contest clos Apr. 10, judgment May 2. For information writh B.A.I.D., 115 E. 40th St., New York 16.

American Institute of Steel Construction, 5th annu National Engineering Conference, Detroit, Al 22-23. Sessions in Detroit Engineering Socie building; hotel headquarters at Park Shelto 15 E. Kirby.

Royal Architectural Institute of Canada, annu assembly, Royal York Hotel, Toronto, Apr. 23-2

Competition—Ponderosa Pine Panel Door Desi Competition to obtain designs for interior par doors suitable for mass production and consiste with current standards of architectural desig Prizes total \$7,600, including \$1,000 in stude and school awards. AIA approved; closes Apr. 2 For program write: Pondersosa Pine Woodwo Competition Headquarters, 2907 W. Pico Bly Los Angeles 6, Calif.

New Garden for The Museum of Modern A New York, will open Apr. 29. Designed Philip C. Johnson, a 175' x 100' sunken cou will provide a variety of areas and backgroun specifically suited to the outdoor display of d ferent kinds of sculpture.

Store design competition in connection with N tional Store Modernization, Building & Main nance Show, June 9-12, Madison Square Garde N.Y. Awards total \$10,000; classes inclusion suburban shopping center, suburban branch dipartment store, supermarket and various special shops. AIA approved. For particulars write Store Modernization Institute, 20 E. 55th St., New York 22.

Summer School in Salzburg, Austria, under direction of Hans Vetter, Associate Professor Architecture, Carnegie Institute of Technology open to 30 American architectural students junior and senior college level. Term, June 16 Sept. 3; all courses taught in English; tot expenses about \$1,000. Write: Prof. Vetter, Dep of Architecture, College of Fine Arts, Carneg Tech., Pittsburgh 13, Pa.

Forest Products Research Society, 7th annual meeting, Memphis, June 15-17.

American Institute of Architects, annual convention Seattle, June 16-19.

National Association of Real Estate Boards, annuconvention, Los Angeles, Nov. 8-14.

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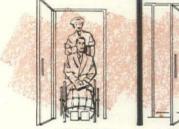
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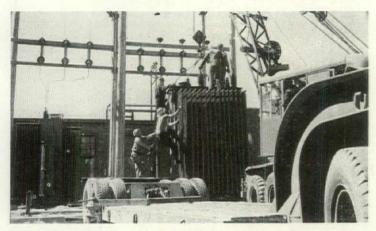
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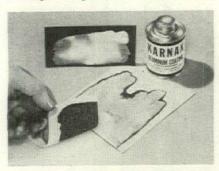
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### LETTERS

#### THE NEW AMERICAN CHURCH

Your article on church design (AF, D '52) was most stimulating, even though all may not agree with your emphasis.

Too many architects start with the assum tion that a church to be contemporary m be in contemporary design. . . . The fund mental need is a worshipful atmospher within this atmosphere we provide also education and fellowship. The problem church design today is not in the buildings it is in our thinking. It is a mistake to belie we can find the most moving and spiritua satisfying design exclusively in terms of co temporary forms. A designer may find p sonal satisfaction in an extreme new design but to serve the church members we me remember that for them the most eloque architectural forms and proportions have be gradually developing over many hundreds years. A shockingly different design canr be successful for them.

As a fresh approach, the church archite should review the religious emotions we perience in a church, the ideas and meaning of our religion as a faith. Then he shou study afresh the architectural forms and p portions which have supported and reinforce or expressed these things. Then add to the the new architectural ideas that he kno would be understood. Then let him concei his design in the spirit of an exciting ch lenge, but in humility and reverence.

EARL R. BENEDICT J Chicago, Ill.

Sirs:

As an interested reader of the FORUM congratulate you on the December issu which carried such an excellent series articles on the modern church. The article plans and color plates should be seen as read by many clergymen across the country This issue should serve as a great incentive giving architectural soundness and a forwa look to the new American church.

> FRANK GREBE, minister Madison Avenue Presbyterian Chur New York, N. Y.

#### MEXICO'S ENGINEERS

I want you to know how helpful FORUM in my work as a civil engineer.

In Mexico civil engineering covers diffe ent types of construction such as house schools, hospitals, and commercial and indu trial buildings-and here is something el (entirely different from your country), t civil engineer not only has to design, but direct all the construction work.

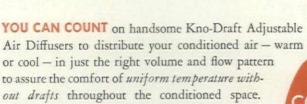
Now you can understand why Forum is big help in our work.

> RUBEN GUTIERREZ, civil engine Guadalajara, Jal, Mexico continued on p.

Anheuser-Busch new office building, St. Louis, Mo. • Architect: Rathman, Koelle and Carroll, St. Louis, Mo. • Consulting Engineer: John D. Falvey, St. Louis, Mo. • Heating Contractor: T. J. Sheehan Company, St. Louis, Mo.



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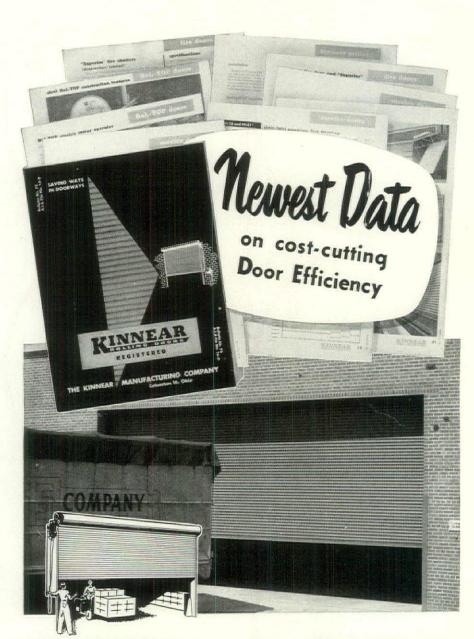
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### LETTERS

#### TOMORROW'S STRUCTURE?

Sirs

The design of a space frame (AF, Feb. '5 is complex—based on no absolute mathemical formula but rather on absolute comm sense and careful experimentation. Studer should be encouraged to design structur using common sense and experimental metods before being taught how to use har books.

ALVARO ORTE Colombia, S. A.

Sirs:

The space-frame article is excellent a should be given as wide publicity as possible

RALPH WALTER

Voorhees, Walker, Foley & Smith, architection New York, N. Y.

Sirs

I have never seen so clear a summation space-frame possibilities as appear in t Samuely article.

Only recently have British engineers co sidered a new approach to structural engneering and have gone away from the deep inbred conservative copying of what the engneering firms have done in previous gener tions. Space frames in this country appear structures such as theaters, stadia and medanical items like bins, hoppers and airplane and railroad cars.

These designs have been in steel, concreand in timber. As a matter of fact, the mo common form of this design is the ordinal wood-frame ridge roof. Another very common expression of this form is the concrete grade beam which serves both as a wall and a beam Even the ordinary concrete stair with return landings can be classified as a space fram to say nothing of the curved stair designs. The form of design known as basket weaven where intersecting beams are supported in two directions, often used for tank supports—very economical for floor loads of large concentrations and is another example.

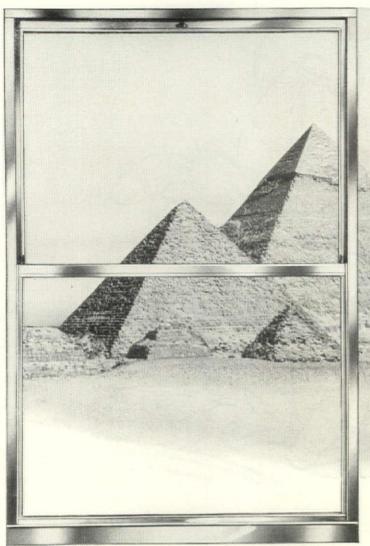
JACOB FELD, consulting engineer New York, N. Y.

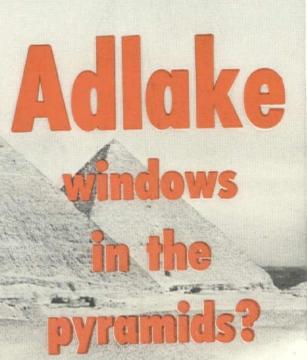
Sirs

A few buildings herald new forms: the Paraboleum by Matthew Nowicki, the John son Wax Factory by Frank Lloyd Wright, the proposed MIT Auditorium by Eero Saariner the Geodesic domes of Buckminster Fuller But the "linear" constructions are not fix ished, and for many reasons. All of the above buildings, and for that matter, the Gothi system as a whole, are essentially only root systems for a unitary space, and they ma really turn to linear and plane devices to be come multilevel spaces.

Again, the influence of industrial fabrication of components, panels, etc., will mean more rectangularity rather than less. The modular conception of a building will perhap

continued on p. 7





Too bad the master builders of the Nile couldn't have proved it for us... because, on the basis of our experience, we believe that if ADLAKE Windows had been installed in the pyramids, they would still be in service today!

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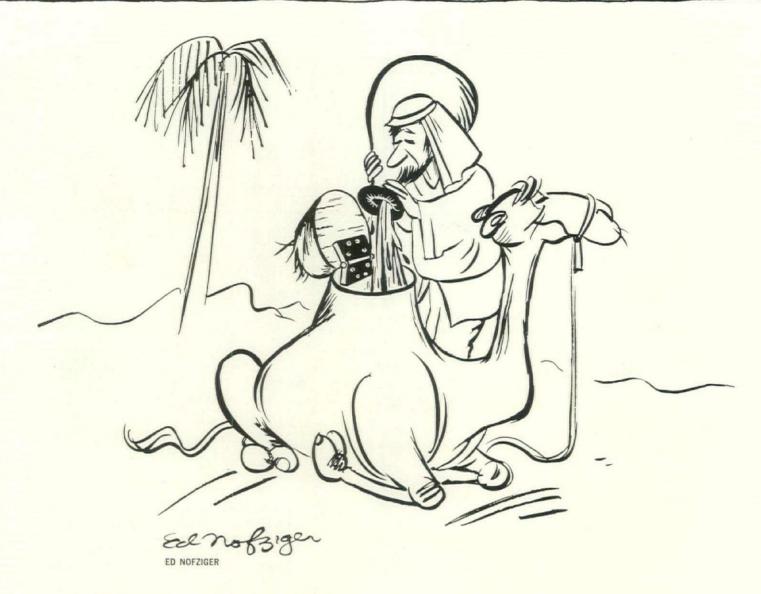
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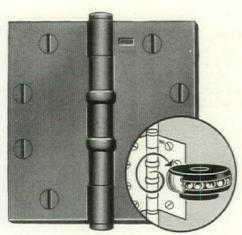


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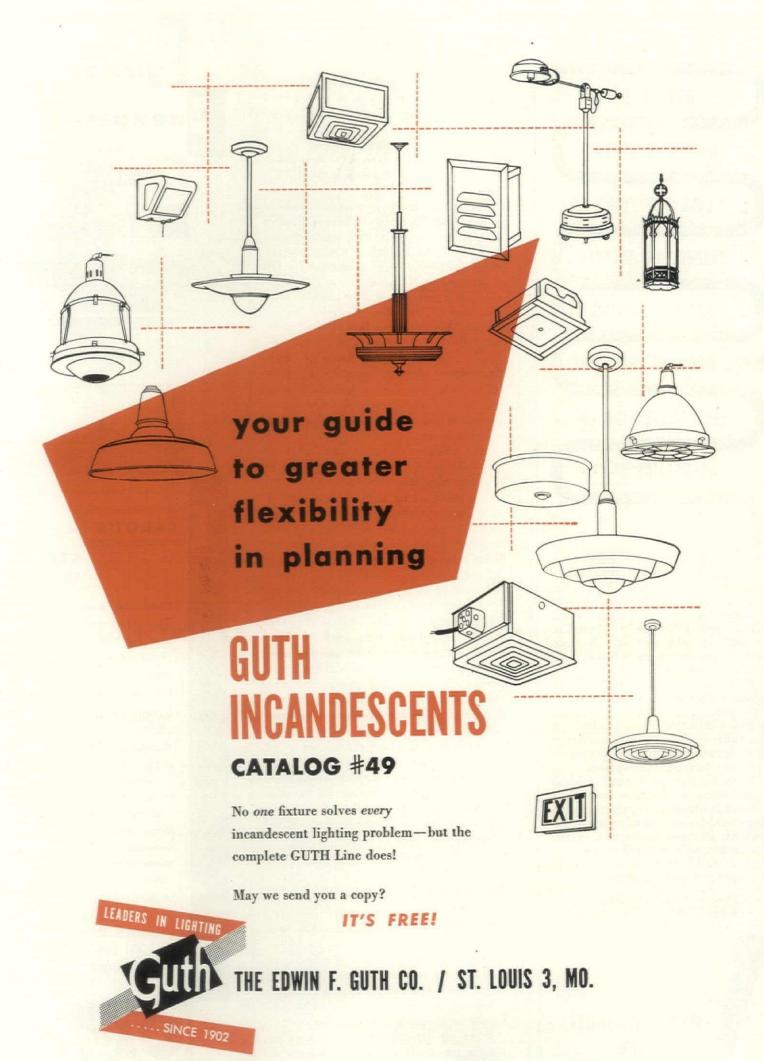
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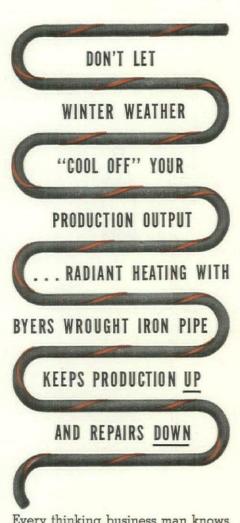
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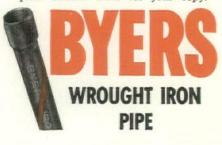
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### LETTERS

be the most important determinant of form in the foreseeable future, with an even greater articulation between structural frame and insulating skin.

> ROBERT GEDDES University of Pennsylvania Philadelphia, Pa.

Sirs:

The Samuely article presents in a dramatic way the possibilities of using some well-known laws of mechanics in their application to structures. The rigidity of thin plates and shells has been recognized and used to full advantage both in aircraft and ship construction, but in architecture there has been some reluctance to use these principles. In my opinion, this reluctance is well-founded, because labor costs for the type of structures proposed by Mr. Samuely would frequently be exorbitant compared with the cost of materials saved. This does not mean, however, that for occasional structures it may not be possible to take advantage of this lighter type of construction....

Most owners would not be interested in the cost of the research necessary for the proper design of such structures, but architects and engineers should be alert to these possibilities, and, wherever possible, consideration should be given to the development of such structures, both in the interest of economy and in the interest of developing the art of building design.

A word of warning with regard to the use of space structures or stressed skin structures: The engineering analysis for those structures is extremely complex, even though Mr. Samuely's article gives the impression that these are simple calculations within the scope of anyone who has studied simple mechanics. Such calculations should be warranted only if there were adequate repetition of the structure, or for such unusual structures which could not be built except through the use of space frames or stressed skins....

While I have read the article with a great deal of interest, I do not think that the principles discussed will radically change our architectural and engineering practices for many years to come.

Frank J. Kornacker, structural engineer Chicago, Ill.

### INTERNATIONAL FORUM

Sirs:

Why don't you internationalize Forum a little bit more and it will be possible to buy only Forum and remain always quite up to date with the best modern buildings in the world. You are not far from it now.

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RASUL BENJUDA Paris, France continued on p. 76

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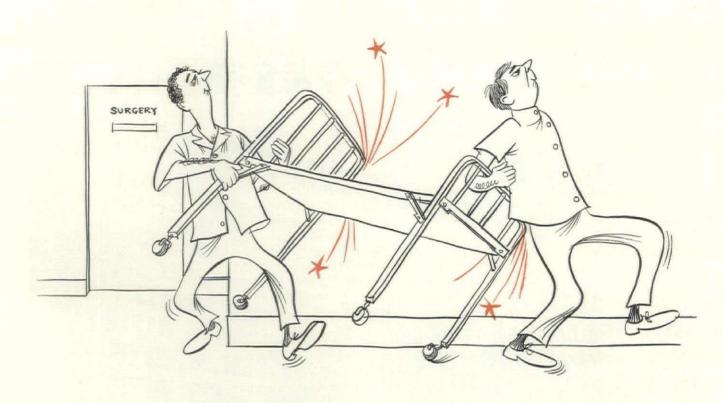
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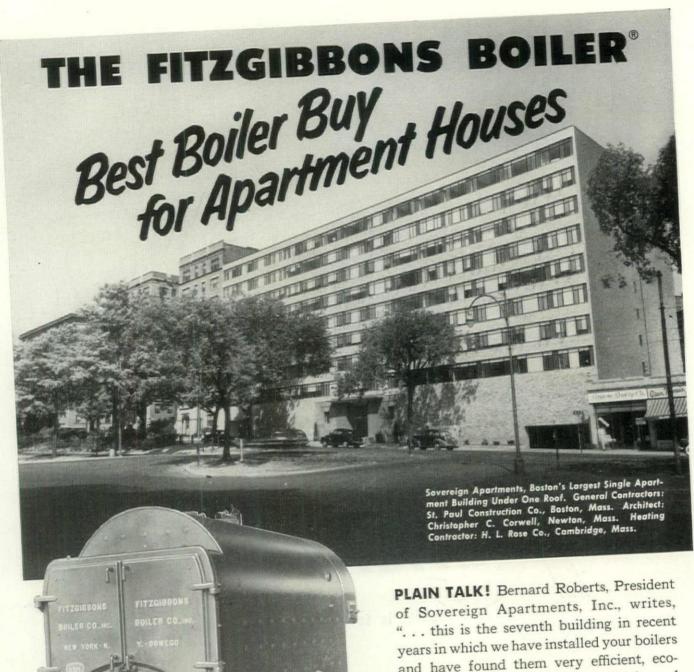
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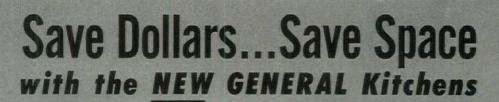


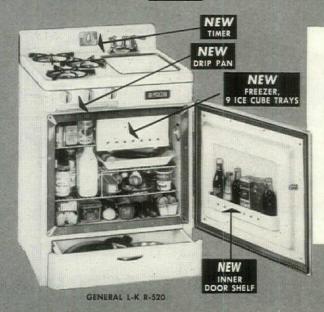
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### LETTERS

### "WIRE HAPPY"

Sirs:

Congratulations on the recent issues FORUM, particularly the October issue.

The Barthelme school was excellent, bot from an architectural standpoint and a prosentation standpoint. We, in the office, examined the article very thoroughly and fee that we gleaned much inspiring informatio from it. The wonderfully livable plan and th straightforward and ingenious use of materia produced an elegance rarely found in school today. This certainly is one of the fine piece of architecture.

However, I am somewhat perplexed that your enthusiasm for this school should bubble over into the California school, whice indicated, perhaps, the kind of economy which is a derivative of the industrial plant, and which if followed through might house our school children in exactly the same grim and impersonal atmosphere of these plants.

Your coverage of Nowicki's pavilion was fine. The earlier schemes seemed somewhat more inspired than the final. The catenary roof was very impressive to me because of a conviction that we have had here in the office that in building today, we do not take sufficient advantage of the possibility inherent in structural members in tension. This tremendous roof jolted us so that we have gone somewhat "wire happy." In one particular instance, we believe we were able to make a great saving by putting members in tension rather than solving the problem the usual way. So we say "thanks" and hope that you will continue publishing such exciting projects.

MINORU YAMASAKI, architect Leinweber, Yamasaki & Hellmuth Detroit, Mich.

### TO SEE AN INDUSTRY

Sirs:

We appreciate that magazines such as yours give us—in the hinterland—a chance to "see" building in all parts of the country.

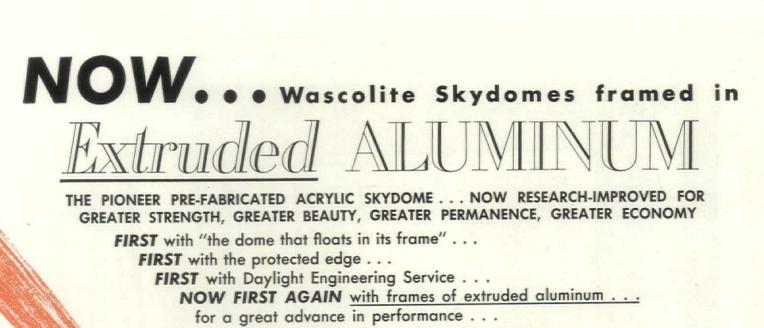
JAMES J. CHIARELLI, architect Seattle, Wash.

### UN DESIGN SYMPOSIUM, cont'd

Sirs:

Much of the criticism of the Assembly Building (AF, Nov. '52 et seq.) is based on the assumption that the original conception was beyond reproach, but, if the caprice of collaborative decision had to be sustained, we must consider Harrison's performance in the light of what was possible under such conditions

The Assembly Building has emerged out of a frustrating combination of circumstances. Each of us must know at heart that had he been in Harrison's shoes he might also have "made the best" of what never became a momentous opportunity.



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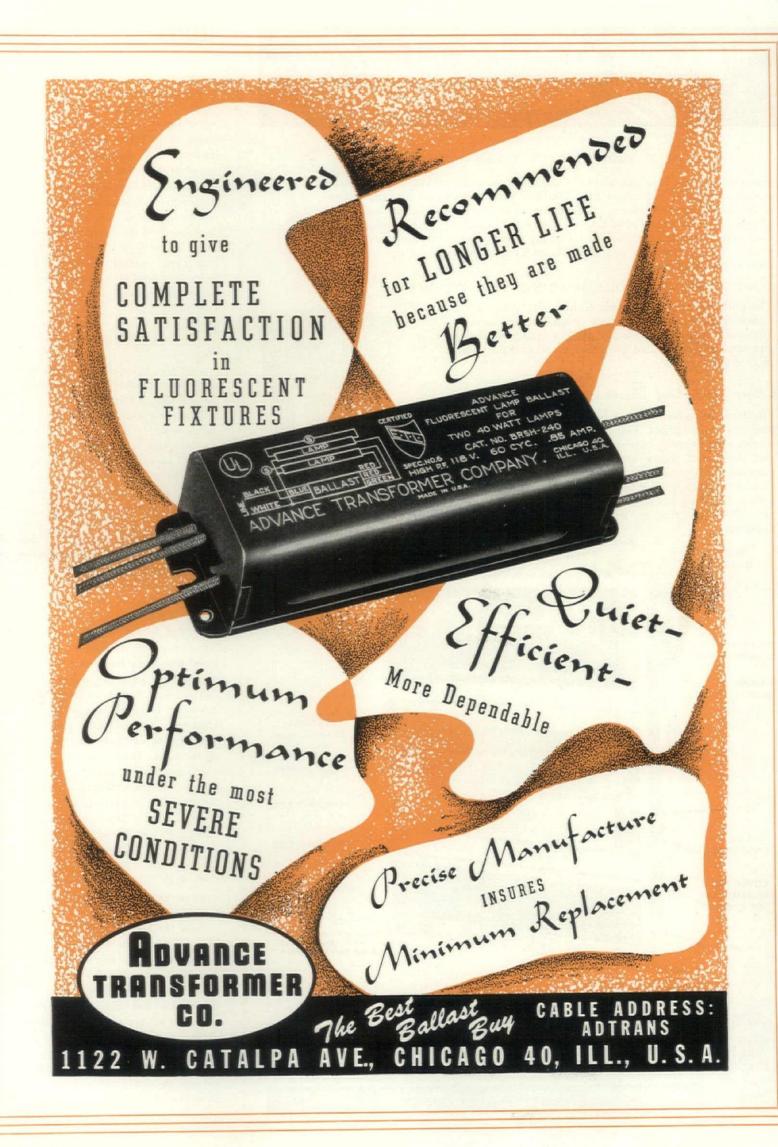
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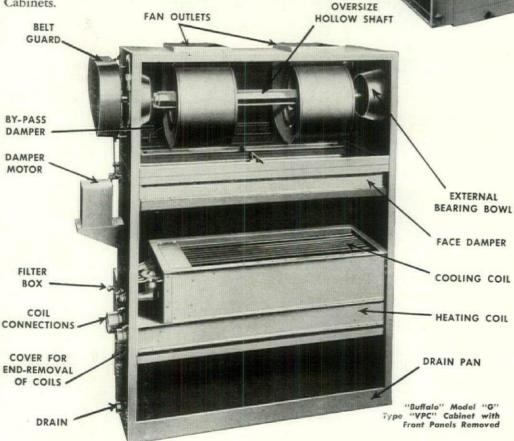
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### **LETTERS**

As architects we attach supreme importance to the role of architecture, but I believe we must admit in all humility that the significance of the UN at this juncture in human at fairs far transcends our arguments about the shape in which its decisions are being made Inconsistencies are bound to be a part of partial liamentary deliberations, but the great and wonderful inconsistency is that within the man nered chill of these buildings earnest people from all over the world are thinking and struggling together. Perhaps they may be more successful in reconciling their points of view than architects seem to be in wrangling over fashion....

Paul Beidler, architect Easton, Pa.

Sirs:

I am not particularly anxious to get into this architectural Donnybrook, but everyone seems to be in the act by now.

I have not seen the UN General Assembly Building except in pictures (AF, Oct. '52), and anything that I might say concerning it directly would be most unfair. However, most of this building and the UN Secretariats have been a part of architectural literature so long that it is time they were built for professional digestion.

The world has to get many of these things out of its system one way or another and it may be that in building these old dreams they will have had enough with a single edition. At least architects will be able to study, accumulate and discard from actuality rather than from books. We are now able to go on from this point, instead of mooning around about what these things may have been like if architectural literature had become a reality.

You might find it an interesting editorial adventure to consult one or more good psychiatrists who have made a study of violent anathema on one hand and paeans of praise on the other. These buildings and these comments have made effective material for our class in modern architectural history.

Linus Burr Smith, professor Chairman, Dept. of Arch. University of Nebraska Lincoln, Neb.

Sirs:

We must look at the entire UN project as a whole and weigh it fairly in view of all factors.

From the beginning the UN group had to fight for prominence among its more lofty neighbors, given a site which would tend to dwarf its significance. To be a symbol of such a noble cause in the face of such a handicap, it needed all the height and boldness it could get—plus all the simplicity of pleasing supporting masses. In this respect I find the shape of the General Assembly most certainly complements the Secretariat. Further, I would say that the entire unit as a whole results in an outstanding piece of design, in the light of



### MODERN throughout...

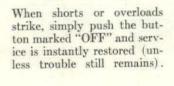
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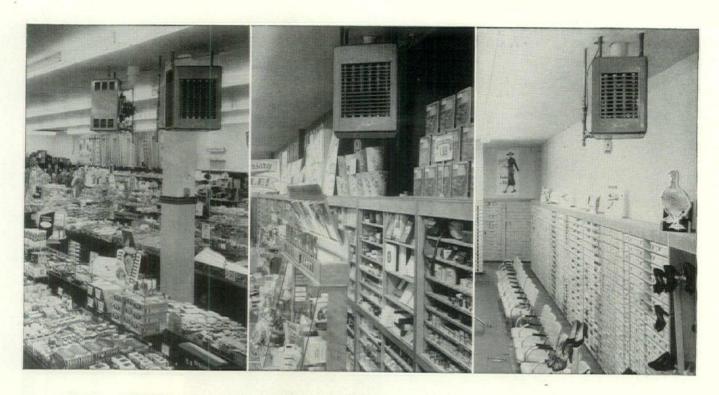
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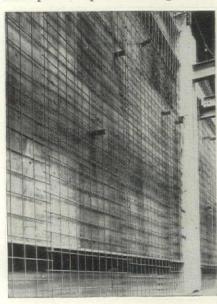
reinforcing members in the concrete slab.

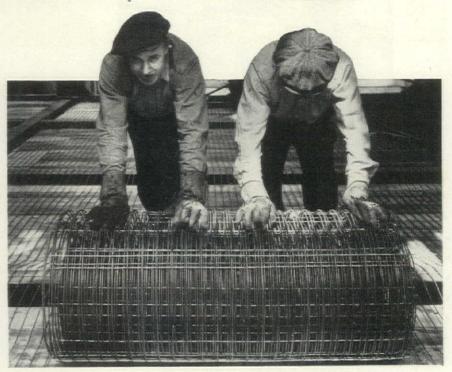
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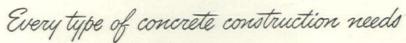




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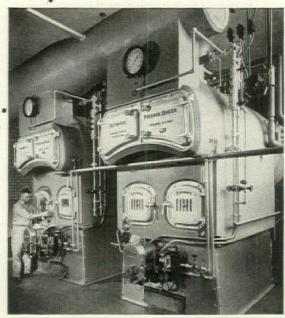




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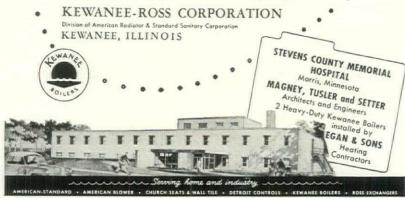
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### LETTERS

architectural progress in the last 50 year It is far bolder and far more straightforwa than any of its forerunners in the intern tional style, and it strikes a strong note sophistication in one of the most sophisticate cities of the world.

As to whether the General Assembly su cessfully "fits into" the fluid, preconceive shape that its outward appearance gives another question, but I believe the answer yes. A long simple box, similar in character to UNESCO's Plenary Hall (AF, Nov. '52 would be far less effective (it is also in portant to note that UNESCO's Plenary Ha is also being fitted into a preconceive shape). From the point of view of circulation and of achieving the over-all aims and funtions, Wallace Harrison's group has agai done a good job of "fitting into" this precor ceived shape.

The big question seems to be-must the outward form always take the shape of th inner functions of a building? I hope no always. There are too many good reason in many cases, where it should not.

Where the General Assembly building seems to me to fall apart is in its detail, an because too many tricks for effect were inco porated in the treatment of individual interior elements, particularly in the north lobby. A a few other architects have previously noted there is a strong danger of these tricks be coming so commonplace and mutilated b others of less integrity that in too short time they will become outmoded and actuall disagreeable.

Only time will tell this, but even if the do become disagreeable, what harm is ther in a complete "face lifting"? After all shouldn't the inner working spaces of the General Assembly be considered as a contem porary stage setting to be changed as world conditions change, as usage changes? Why not then also change any tricks that might become disagreeable?

Are we really so self-assured that we car again attempt to build a monument for al time? I was beginning to believe that we as a profession, were getting over this. I feel strongly that much too much emphasis is being given, both by the Editors of FORUM and some of the architect-critics, to this idea of building a monument.

I prefer to feel that, architecturally speaking, the UN is just another group of buildings of steel, glass and concrete-perhaps a little larger than most and, again, for a more important and symbolic purpose. Also, that our approach to design and structure today is through a shell which is adaptable to constant change, providing for employment of newer and better ways of doing the things we want to do, when and as these appear.

JOHN CARL WARNECKE, architect San Francisco, Calif.



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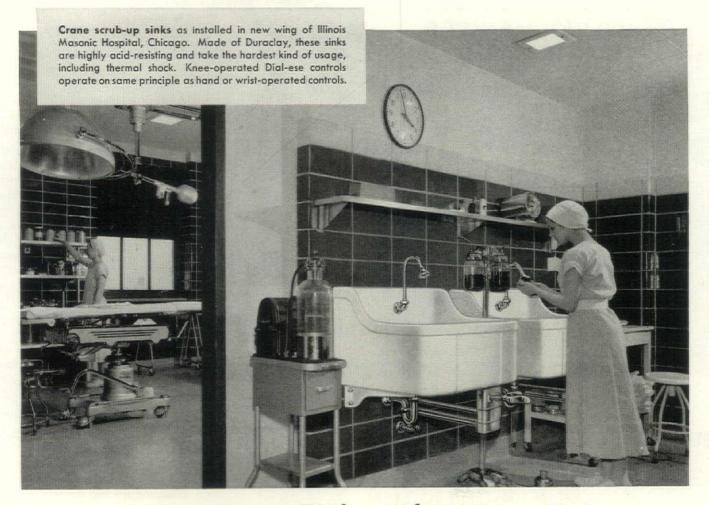
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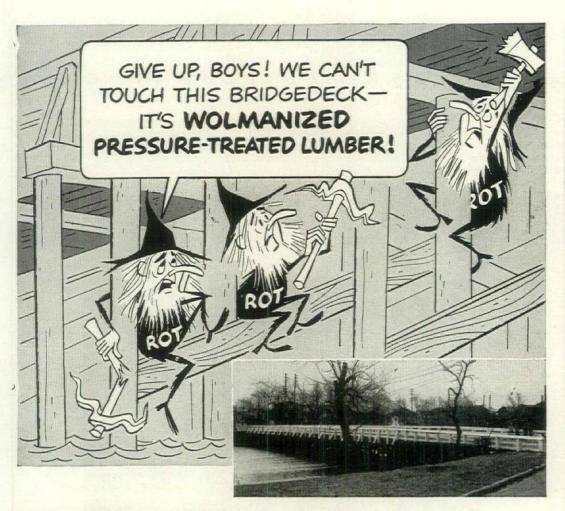


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### **LETTERS**

Sirs:

I find the Assembly as well as the entirgroup satisfying enough, plastically.

Personally, however, despite the limitation it puts on most of us as we are now trained I prefer buildings that enjoy a space and structure simultaneously conceived. For me they are the only ones that wear well and seem capable of refined development.

In the case of the General Assembly, I also resent being promised an exciting interior space by the almost boastful exterior—only to find inside a lot of large and solid things, al of which seem to be trying very hard to ge out.

> Joseph N. Boaz Reid & Boaz, architect. Oklahoma City, Okla.

Sirs:

The original UN design team was too scat tered in their approach to ever produce a unified and integrated scheme. It takes a very understanding and mutually sympathic team to begin to collaborate—otherwise it becomes a collaborative.

It is unfair to criticize Harrison. He did his best. He would have done better without the design team—at least a more unified de sign.

The UN got what it deserved. The program, the site and the selection of designers I never agreed with. Criticism of end-design results and details can only be destructive.

> DAN KILEY, architect Charlotte, Vt.

Sirs

A word of congratulation for your presentation of the General Assembly Building. Your method of opposing to an orthodox, almost doctrinaire critique, your editorial defense of a more rhapsodic approach, seems refreshing.

But when it comes to the meat of the matter, I must line myself up on the side of the angels, i.e. on Paul Rudolph's side. I am uneasy at the rationale by which you would justify the Harrison production: "a series of episodes..." "loosening up the doctrinaire . . . with whim spontaneity, experiment." Nor can one really equate "the new eclecticism" . . . I mean, "the new empiricism" . . . with "a popular baroque, aiming at dramatic effect without too strong regard for purity." The sneers seem in vogue, again, at purity which is in essence no more esoteric than self-consistency; and there is true self-consistency in every great baroque construction. "Formal discipline" needs not be a "gridwork"; that is only its most rudimentary phase. The ineptness apparent everywhere in the Assembly Building cannot be excused by a counteroffensive against architectural principle.

> Landis Gores, architect New Canaan, Conn.



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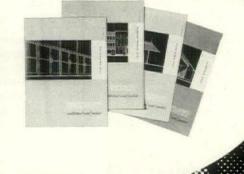
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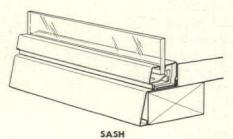
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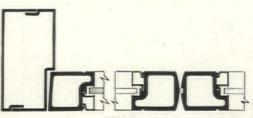
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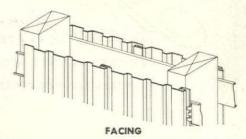


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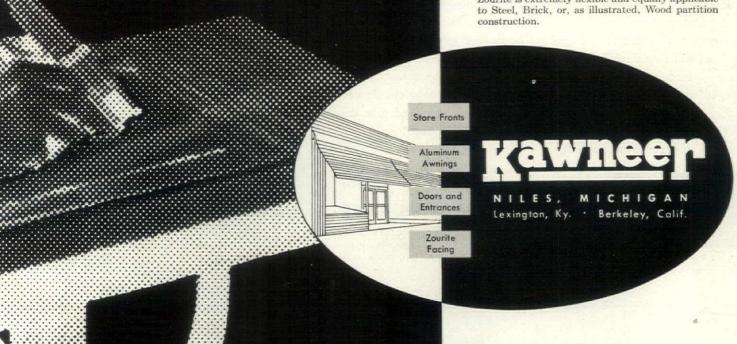


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Detail of welded narrow stile stock double door with frame. You can use such Kawneer entrances as this for your finest efforts in design and construction. For economical modernization, this unit is particularly suited to be quickly and easily installed.



Kawneer chip-resistant, rust-resistant Zourite facing material can easily be designed into new or remodeled food store fronts. Of heavy gauge (.050) aluminum, with fired porcelain colored finishes, Zourite is extremely flexible and equally applicable to Steel, Brick, or, as illustrated, Wood partition construction.





The smooth, glass hard, vitreous porcelain interior surfaces of the Admiral Shower provide the ultimate in cleanliness and sanitation, they remain white and impervious to wear for a lifetime.

Exterior of side and back panels are regularly finished with vitreous porcelain enamel ground coat, but can be furnished to match interior at small extra cost. Front stiles and head rail, bonderized, galvanized steel finished in white synthetic baked-on enamel. Receptor, deep type terrazzo made of black and white marble chips and white cement. Sizes 36" x 36" x 80" and 40" x 40" x 80". Illustration shows this shower equipped with a Fiat Dolphin heavily chromium plated glass door. The Admiral shower is suitable for high grade residential and institution installations.

(FIAT)

Complete specifications in Sweets' Architectural Catalog File, or write any of the three Fiat plants for catalog.

### FIAT METAL MANUFACTURING CO.

Three complete plants

9301 Belmont Ave., Franklin Park, III. Los Angeles 33, Calif. Long Island City 1, N. Y.

In Canada—Fiat showers are made by Porcelain and Metal Products, Ltd., Orillia, Ontario

### LETTERS

### SLIDING FORMS

Sirs:

Congratulations on the splendid job you don the article on sliding forms. You have concisely listed and described the pros are cons with an experienced mind. (AF, Nov. '52

The article is interesting to the layman are extremely interesting to contractors. And, a far as I know, it is the first article on the slicing-form division of the construction industrate appear in a national magazine.

James W. Macdonald, presider Macdonald Engineering Co. Chicago, Ill.

### FOR BEAUTIFUL ENGINEERING

Sirs:

I almost did not renew my subscription be cause it seems to me that you (along with a other architectural mentors) have completed lost sight of the one essential function of the architect: to make common building engineering beautiful.

You and contemporaneous architecture sees only concerned with the practical, the useful and the comfortable—in short with engineering....

JOHN BUTLER SWAN, designe Stockbridge, Mass.

### NEW THINKING ON HOTELS

Sirs:

I thoroughly enjoyed reading every word of your article "New Thinking on Hotels" (AF Jan. '53) and feel that I got some real education on that subject....

AKSEL NIELSEN, president The Title Guaranty Co. Denver, Col.

Sirs:

You have done a marvelous job in graphic ally illustrating the facilities of these new hotels. Not only is the article interesting reading, but instructive and educational.

H. C. NANSON JR., secretary A-M-K-O Hotel Assn. Kansas City, Mo.

Sirs:

We were very pleased to see your presentation of the proposed San Salvador Hotel by Architect Edward Stone.

As Salvadorians we are proud of this project; however, we feel that a terrace on the top of the dormitory slab would provide tourists as well as residents with a magnificent view of San Salvador and surrounding areas. This, we are certain, will help make "El San Salvador" one of the most popular hotels in America [sic].

Antonio Elmiger Funes Lorenzo Lopez Duke, jr. architectural engineers Catholic University Washington, D. C.

# Keymesh and Keymesh-KORNER

### stop plaster cracks before they start...

KEYMESH GALVANIZED REINFORCING applied on the entire ceiling area of any room assures more crack-resistant plaster surfaces. Because stresses and strains are distributed more evenly throughout, longer plaster life results. There is no limit to the interior design and construction possibilities when ceilings are completely reinforced with Keymesh. Keymesh also provides strong plaster reinforcement, and desirable heat transfer properties, for ceiling radiant heat installations.

**KEYMESH-KORNER GALVANIZED REINFORCING** applied at corners, joints and ceiling-wall junctures prevents future plaster crack troubles. Its preformed-for-corners, convenient width and easy-to-handle features provide fast, economical reinforcing exactly where it is needed most. It snaps into corner shape by merely flexing the cut piece. And Keymesh-KORNER lies flat, too, for flat joint reinforcing.

THE COMBINED USE of Keymesh on the entire ceiling area with Keymesh-KORNER at corners and joints, results in trouble-free lasting plaster beauty...a valuable selling advantage for plasterers, lathers, builders, contractors and architects alike. It promotes greater owner satisfaction—more quality plaster jobs.

LOOK FOR US IN SWEET'S FOR '53 Files LC 2d A 11a HC 3d

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### KEYSTONE STEEL & WIRE COMPANY

Peoria 7, Illinois

KEYMESH • TIE WIRE • NAILS • WELDED FABRIC KEYMESH-KORNER • KEYSTONE NON-CLIMB-ABLE FENCE • KEYSTONE ORNAMENTAL FENCE Keymesh-KORNER forms snug in the corners and permits quick, easy plaster troweling.

Keymesh—3 & 4 ft. widths, 150 ft. rolls, Galvanized

Keymesh-KORNER

—4, 5, 6 in. widths,

150 ft. rolls, Galvanized



Other widths and gauges available for both

How to satisfy the client who wants custom-styled appearance at little cost:

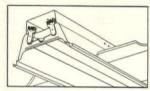


- Bolt-together coupling plates at each end of units assure perfectly straight rows, regardless of length.
- Trim flanges are integral parts of chassis; no unsightly gaps caused by ceiling imperfections.
- Sockets back-to-back; length of troffers is exact multiple of lamp length—fits easily in ceiling openings.

Garcy's moderately-priced, quality troffers are available in more than 90 different units (including matching spots)... providing almost unlimited opportunity to design lighting installations of exceptional attraction, interest, and efficiency. Garcy mounting accessories, for all types of ceiling construction, are designed for easy installation at low labor cost. For full information on the complete Garcy Troffer line, write now for Catalog L-110.

FOR ANY TYPE CEILING—plaster frames, mounting saddles and other installation accessories available for plaster, acoustical, etc.

**NEAT, TRIM APPEARANCE** is assured by ceiling trim flanges at each end of run or individual units.



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CURVED ALBA-LITE GLASS OR CORNING LENS

Write for Catalog No. L-110

### GARDEN CITY PLATING & MFG. CO.

1736 N. Ashland Ave. Chicago 22, Illinois



### LETTERS

Sirs:

In the January issue you refer to the Caribi Hilton Hotel as being an "offspring" of the Panama Hotel. This has the connotation that our design was "born off" or is derivative from the very excellent work of Edward Stone and his associates. This is of course not true. . .

The similarity that there may be betwee the finished structures is resultant from the following factors: They are both designed for comparable climates and clienteles, have approximately the same number of rooms, but structures are reinforced concrete and are contemporary in approach. These possibles similarities, we believe, do not warrant the implication made in the FORUM editorial. . . .

We are sure that Ed Stone has no desire t claim or be accused of the paternity of th Caribe-Hilton design.

> Osvaldo L. Toro Toro-Ferrer, architect Santurce, Puerto Ric

• "Offspring" was indeed the wrong word; "contemporary" would have been a better choice.—E.

### MAGAZINE AT SCHOOL

Sirs.

We have found that your School Issue (AF Oct. '52) is particularly helpful in teaching the latest school building developments to our classes in school administration. It has been suggested by our Department of Architectur that we might be able to obtain a few copie of your School Issue for this use.

O. H. Aurand Professor of education Pennsylvania State Colleg State College, Pa.

• All extra copies of this reference number have long since been spoken for.—ED,

### FLLW TODAY

Sirs:

In the past you have saved Frank Lloyd Wright's work for special issues or big storie (AF, Jan. '38; Jan. '48; Jan. '51). It has seemed that you felt it necessary either to memorialize a man who is more vital than many of us can ever hope to be, or to neglechim entirely.

Suddenly you realize that here is a mar working today whose works are important for today and should be published today and not tomorrow. Let us hope that your sudden rush to publish the Unitarian Chapel (AF, Dec. '52) and the Mossberg House (H&H, Dec. '52) is an indication of your consistent policy to ward one of the few great men of our time

ALLEN P. GOLDEN, designed New York, N. Y.

• FORUM and HOUSE & HOME, henceforth, will present a new FLLW building every few months (see H&H, Mar. '53, p. 105)—ED.

# **HOW** York's Advanced Systems take the compromise out of air conditioning

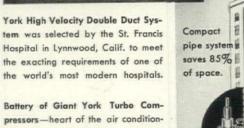


York Unitary System in world's first fully air conditioned skyscraper apartments-Philadelphia's Rittenhouse Claridge and Savoy. One central station with individual room controls.

York Turbo Cooling Systems in Empire State Building shoot a column of ice water to cloud level to provide individual air conditioning for occupants. Tenants select room unit they prefer.

York High Velocity Double Duct System was selected by the St. Francis Hospital in Lynnwood, Calif. to meet

Battery of Giant York Turbo Compressors-heart of the air conditioning in the world's fastest luxury liner, the new S. S. United States. Equipment could air condition average suburb.



room unit controls.

York High Velocity Air Induction System provides year-round air conditioning. As much as 10% rental space is gained. Adaptable without sacrifice of interior design. In existing buildings, minimum of cutting and patching is required.



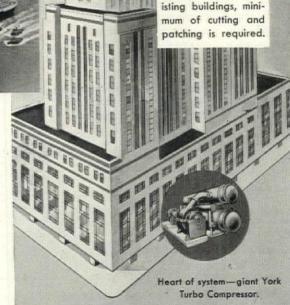


Making a system fit a building or radically changing a building to fit a system . . . that's neither good engineering nor is it good business.

With the industry's widest range of equipment at their command, York engineers sit on your side of the desk. They are not obliged to sell-or try to adapt-a fixed system to your special requirements.

Backed by ever-expanding factory research and development that has followed one profession for 68 yearsmechanical cooling-York Engineers can recommend the precise system to give you better performance, longer life at low initial and operating costs.

A consultation can result in vital savings in time, money and worry for you. You'll find the nearest York Engineering Office listed in your Classified Telephone Directory. Or, if you prefer, write to York Corporation, York, Pennsylvania.





YORK AIR CONDITIONING AND REFRIGERATION HEADQUARTERS FOR MECHANICAL COOLING SINCE 1885





The only thing
"Standard" about
HARDWOOD DOORS

is their Quality ...



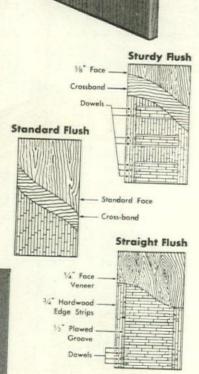
It's YOU who's important. That's why every door is made-to-order to fit the needs and requirements of your job when HARDWOOD DOORS are specified. And, because each is

built to take all the hard usage and abuse of a building's lifetime, you can rest assured that both you and your client will enjoy the complete satisfaction of your wise choice. Only HARDWOOD offers you Standard Flush, Sturdy Flush or Straight Flush construction — each designed for different specific purposes. Custom-built, these solid core doors also come in a wide selection of veneers to match practically any type of paneling or decor you may be planning. Fire-resistant wood doors, X-Ray and Shielded doors are also available — made to your order. Write for complete information or consult ARCHITECTURAL FILE 16C.

### RIVERBANK ... Sound Insulating Doors

You keep noise in or out where it belongs with our famous "RIVERBANK" door — the most effective doorway barrier to sound penetration ever! Ideal for private offices; music, radio and TV studios; hospitals, schools and institutions. Recommended by leading acoustical engineers everywhere.





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HARDWOOD PRODUCTS CORPORATION . NEENAH . WISCONSIN

### **LETTERS**

### FULLER SIMPLIFIED

Sirs:

Regarding Mr. Buckminister Fuller's comments on the Parabolic Pavilion in your "Le ters department" for Dec. '52, what'd he say

JAY CALEDE Chicago, Ill.

• In his own kind of prose ("differentiated . . solution-complex . . . conceptioning . . .") he said he liked it.—ED.

### OLIVETTI'S DESIGN

Sirs

As a regular reader and an admirer of your magazine, I am most disappointed in your article on the Olivetti factory in the November number. In the 25,000 mi. covered in Europe I found the Olivetti workers housing the best I had seen. These new buildings which show something good and original in the difficult problem of apartment building were not shown in your article.

The elevation of the main factory shown was an old and uninteresting one, whereas on the other side of the building a remodeled main elevation shows a neat use of Venetian blinds external to the glass.

> GEORGE BEIERS, architect Detroit, Mich.

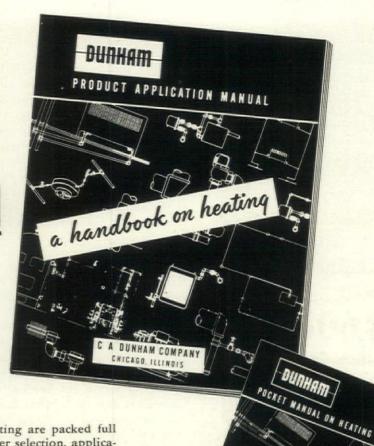


 Here is a view of new Olivetti workers' housing. We still feel it is inferior in design to the workers' housing shown in the November issue.
 ED.



• And here is a view of the other side of the Olivetti factory with its "external Venetian blinds." We still feel it is less interesting than the all-glass facade presented in the November issue; moreover, the movable concrete louvers do not work from a technical point of view.—ED.

# Announcing! New DUNHAM HANDBOOKS on Heating!



These two new Dunham Handbooks on Heating are packed full with valuable "how-to" information. They cover selection, application and installation features of Radiation, Unit Heaters, Vacuum and Condensate Pumps, Heating Specialties and complete Heating Systems.

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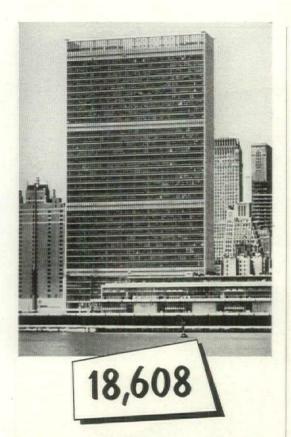
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CALDWELL Clock-Spring sash balances were chosen for the United Nations Secretariat Building because . . . Caldwell guarantees smoother, quieter operation of double hung windows. Yes, they are guaranteed for the life of the building. They can be adjusted with a screwdriver but they cost no more. Installation time is reduced by at least 10 minutes. And as an architect, you'll appreciate the design possibilities and material savings that can be effected through the use of narrow mullions and trim.

\*CXT balances for 60 lb. sash, used in the United Nations Secretariat Building, are just one size in Caldwell's complete line. For further information see Sweet's Architectural File, Section 17a/Ca, or write.



### SPIREX spiral-spring SASH BALANCES

An exclusive feature is the patented clock-steel, flat wire spring. The spring coils are separated to prevent friction and eliminate noise, specially coated to prevent rust. Brass bearings are used to guarantee smooth, trouble-free operation. All other parts are zinc or cadmium coated steel.

CALDWELL MANUFACTURING CO. 69 Commercial St., Rochester 14, N. Y.

### **LETTERS**

### MADE IN JAPAN

Sirs:

When called back into the Marine Corps for the Korean emergency, I was able to study the architecture of Japan for almost two months in the vicinity of Kyoto. . . .

Since Japanese materials and economy and social pattern differs in many respects from that of Western countries, and the nation was completely isolated from Europe and America until recent times, one can view their architecture objectively, much like a historian contemplating the civilization of ancient Greece. Most Western architects find much of interest when they see the fine wooden buildings there, particularly the absence of irrelevant forms, such as moldings and finish decoration, the simplicity of plan and structure and the marvelous craftsmanship.

It is becoming well known that many of our recent concepts were in universal use in Japan centuries ago, particularly multiple use of space, open interior planning, close relationship of garden and interior and use of materials in their natural form. However, few Americans have observed the kinship between certain old Japanese buildings and the recent work of architects like Mies van der Rohe, in which the orderly arrangement of structural members is largely visible in the finished building.



The accompanying picture, taken at the Samboin at Daigo, southeast of Kyoto, shows one of the few remaining Japanese examples of this type, in which a kind of austere purity is fully developed. The plan is reduced to a simple rectangle with even column bays. There is almost no applied decoration and no parts other than those indispensable to the structure. All sides of this building can be opened by means of the usual sliding screens and doors and all rooms can be combined by similar devices. The skeleton frame of wood is given frank expression inside and out.

I was struck by its similarity to such recent American buildings as the Farnsworth house of Mies van der Rohe and, to a lesser degree, certain other unified structures designed to take their place in the middle of a garden without attempt at merging with the site through the use of planting beds or floor planes extended across a lawn. . . .

L. E. Manley, architect Columbus, Ohio

### DESIGN UNLIMITED

with original

TRANSLUCENT FIBER GLASS PANELS

• Alsynite is the ideal translucent architectural material. Shatterproof, feather-light. Can be sawed and nailed, installs like corrugated metal. Economical. Seven colors, corrugated or flat. Use Alsynite anywhere and everywhere for brilliant new effects. See our brochure in Sweet's Catalog.



homes...for skylights, window walls, patio roofs, awnings, shower stalls, etc. Ideal indoors and out.



commercial... for store fronts, office partitions, luminous ceilings, decorative effects, signs.



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I'm interested in the nev Alsynite, the miracle mate Please send me a copy with	rial for modern design
Name	
Name	

Plants in California and Ohio. Distributors in Principal Cities The MFMA Northern Hard Maple floor of this stately ballroom (Medinah Country Club, Itasca, III.) was laid in 1926. This photograph, taken in 1952, eyesight evidence of the lifelong beauty which simple maintenance of a Maple floor insures.



Multi-Purpose room, Philip Sheridan School, Tonawanda, Kenmore, N.Y. Architects: F. J. and W. A. Kidd, Buffalo, N.Y. Floor of MFMA Northern Hard Maple.



Patterned floor of Northern Hard Maple, in mill of F. Ducharne Silk Co., Glen Rock, N. J. The Austin Co., Engineers and Builders.



See Sweet's (Arch. 12 K-MA) or WRITE FOR NEW TEXTBOOK and A.I.A. FILE FOLDER

MAPLE FLOORING MANUFACTURERS ASSOCIATION Suite 564, Pure Oil Building, 35 E. Wacker Drive CHICAGO 1, ILLINOIS

# foot-friendly" NORTHERN HARD MAPLE

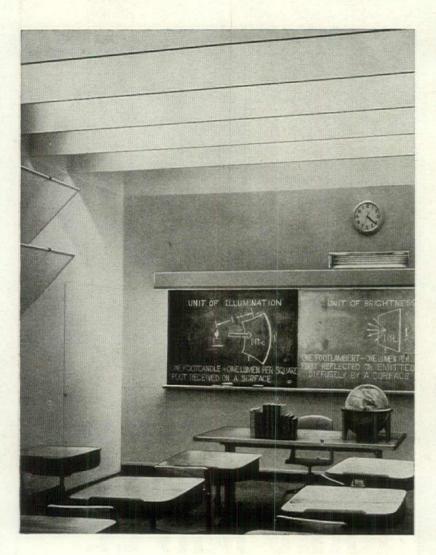
will ALWAYS be

In wood or stone or synthetics, no one has yet found a more versatile floor material than. Northern Hard Maple ... or a more modern one. In residence, school or office buildings, in fine clubs, for ballrooms, gymnasiums and roller rinks, for factory and warehouse areas, for



multiple housing projects, Northern Hard Maple has proved its high efficiency. Its bright, cheerful, modern beauty is forever obvious. It contributes greatly to structural strength (which no floor covering does). It wears wonderfully. It's resilient and highly dentresistant. It's clean, tight, splinter-free. MFMA Second and Second-and-Better grades are now bundled 2 feet and longer as the stock will produce. Look into these beautiful "character" grades for economy-seeking clients.

# NOW 480Y/277-Volt Lighting Approved for Schools



# Stores, Office Buildings

Save dollars and copper with higher voltage. Have safet and convenience with G-E remote control switching.

A new amendment to the National Electrical Code extends the use of 480Y/277-volt distribution to include supplying ballasts of fluorescer fixtures in large schools, office buildings, stores. This means that the economies of higher voltage for lighting are no longer limited to industrial uses.

### For example

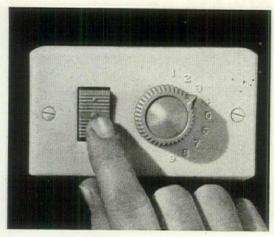
In many larger buildings, power at 430 volts, 3-phase, is already use to operate heating and air conditioning systems and other heavy-dut electrical equipment. In a "Y" connected system, the phase to neutra voltage is 277 volts which can be used efficiently with standard fluores cent lighting fixtures. Original installation costs for a 480Y/277-vol lighting system can be as much as 40% less than a comparable 120 volt system—copper needs can be cut up to 50%.

### G-E Remote Control for Switching

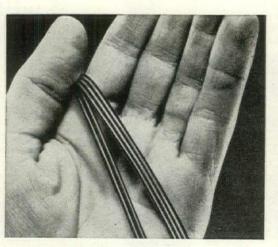
The G-E remote-control, low-voltage wiring system eliminates the higher voltage at the wall switch. The remote-control switch require only 24 volts. The switch actuates a relay which can be installed in any convenient location. The relay does the actual ON-OFF switching of the higher voltage.

### Investigate 480Y/277-volt distribution

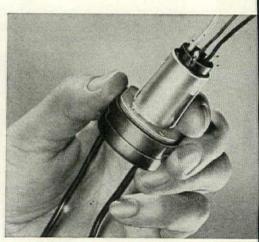
Higher-voltage fluorescent lighting can mean big savings for many o your clients. For a copy of General Electric's Remote-Control Manual write Section D56-34, Construction Materials Division, Genera Electric Company, Bridgeport 2, Connecticut.



An Extra Feature of G-E remote-control wiring is that you can have master selector switches to control nine circuits from one switch.



Small, Lightweight Control Wire connects switches to relays. The small wire saves copper—and switches are less costly to move.

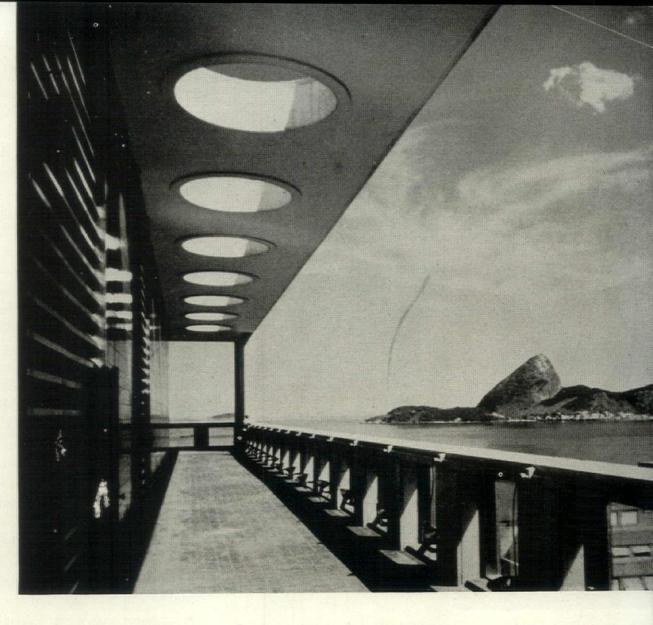


Remote-Control Relay operates on 24 volts—does the actual switching of the higher voltage. Rated 10 amps at 277 volts, U. L. approved.

You can put your confidence in\_

GENERAL ELECTRIC

New U.S. Embassy in Rio looks out toward famous Sugarloaf



### **U.S. ARCHITECTURE ABROAD**

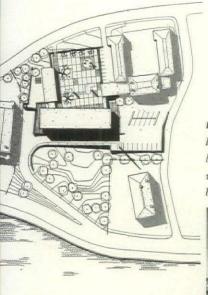
Modern design at its best now represents this country in foreign lands



We are known the world over for the quality of our exports. American automobiles still draw big crowds on European streets, and American airplanes, farm machinery or laborsaving devices are likely to make out well at any foreign industrial fair. Moreover, our technical slang has become part and parcel of many a foreign language: In Greece today, a really pretty woman is known as a "dynaflow girl. . ."

Now, at last, we are beginning to export some of our best architecture as well. This, of course, is a good deal more important than exporting tractors: Americans have never felt self-conscious about the quality of American machinery—but we have felt very unsure of ourselves in the past where architecture was concerned. In 1893, we did not even trust our own Chicago School; instead, we imported Beaux-Arts architecture from Paris for the Columbian Exposition. In the early decades of this century, Europeans (rather than Americans) recognized the importance of Frank Lloyd Wright and of our engineers—while Americans continued to copy Paris, Rome, London and Athens with the utmost timidity whenever a representative US building had to be erected at home or abroad.

All this is about to change—has, in fact, begun to change already. No country can exercise political world leadership without exercising a degree of cultural leadership as well. Whether consciously or not, the US Government has now made US architecture a vehicle of our cultural leadership. That is the fundamental importance of the story on the next 14 pages.



Finland: Preliminary sketches for new U.S. Embassy in Helsinki, by famed Finnishborn modernist Eero Saarinen. Building will overlook Gulf of Finland. Below: The USSR's new Helsinki Embassy.





Germany: Skidmore, Owings & Merrill's Gordon Bunshaft designed new Bremen Consulate at left. Below: Soviet Monu-



Architecture makes a good ambassador:

Note the pretentious classicism

of official Soviet architecture abroad,

This, incidentally, is the story of one agency of the Government—the Foreign Buildings Operations (1 of the Department of State—and its wise decision that the best US architecture and the best US architects sl represent us abroad. In more than 50 embassies, sulates, information centers and staff quarters now to construction or completed in places as far apart as M and Tokyo, Helsinki and Rio, Berlin and Athens, is displaying to the rest of the world a colorful pictu a young, progressive and modern-minded America. lesson will not be lost upon those who may have rec a different impression from Soviet propaganda.

But this new crop of buildings is likely to be only vanguard of a major "export drive" in American a tecture. Before long, many a US corporation will be h ing headquarters overseas—like the Reader's Digest h ing in Tokyo (AF, Mar. '52), Ford's offices and plant Low Countries, US oil companies' structures on the Pe Gulf and US steel companies' towns on the Ori And hand-in-hand with such private-enterprise ex of American architecture will go technical assistan many foreign countries in need of our building know

Like all sound commerce, in goods as well as ideas will be no one-way street. The more architects go al to design and construct these buildings, the more cl they will be brought in contact with good foreign a tecture and building, and the more good ideas they bring home with them. Undoubtedly there are things US architects, builders, and manufacturers of bui materials can learn from abroad.

The questions raised by FBO's activities, there are not confined to the most obvious one-i.e. how F energetic young director, Lee King, managed to do an important and difficult job so very well-there other questions relating to what US building can t the rest of the world, what it can learn from the rest o world, and what US architects and builders will b against when they work abroad. The story on these p provides some of the answers.

then compare it with the clean and friendly embassies, consulates, information

Cuba: Harrison & Abramovitz just completed the American Embassy in Havana. Right: The Soviet counterpart.



De C. Arias

France: Rapson & Vandermeulen designed thes. staff apartments for Neuilly.



Doruvne

### These are the men responsible for FBO's new buildings abroad:

LELAND W. KING, R.A., director and supervising architect for all projects

EDWARD J. KERRIGAN, deputy director for administration

### REGIONAL FBO DIRECTORS:

Alan B. Jacobs, R.A.

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Lorenz Berz

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Lanan

Peter Collins-Cona

South America (Central America is handled from Washington)

Charles G. Osburn

Near East

### SPECIFIC PROJECTS ILLUSTRATED:

Skidmore, Owings & Merrill (Gordon Bunshaft, partner in charge), and the Architektengemeinschaft Apel Architects for all new consulates, America houses and housing in Germany

Harrison & Abramovitz

Architects for embassies in Rio and Havana

Raymond & Rado

Architects for housing in Tokyo

Leon J. Stynen

Architect for consulate in Antwerp

Ralph Rapson and John Vandermeulen

Designers for embassies in Stockholm, Copenhagen, Athens; consulate in Le Havre; housing in France

Eero Saarinen

Architect on preliminary designs for embassy in Helsinki

Pericles Sakelarios

Consulting architect for embassy in Athens

Anders Tengbom

Consulting architect for embassies in Stockholm and Copenhagen

Gariaves & Middlehurst

Consultant architects to Paris regional director, for embassy in Mudrid

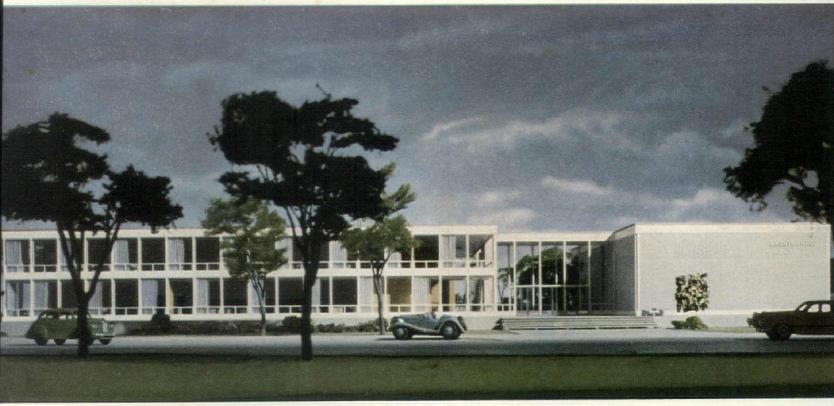
Knoll Associates

Consultants on interiors and furnishings for embassy in Havana

Thomas D. Church

Landscape consultant for embassy in Havana

C Ezra Stoller



Germany: Skidmore, Owings & Merrill designed this "Amerikahaus" for Cologne

### and staff apartments now being built by the U.S. in many parts of the free world. For details, turn the page

Japan: Raymond & Rado were the architects for staff apartments near Tokyo



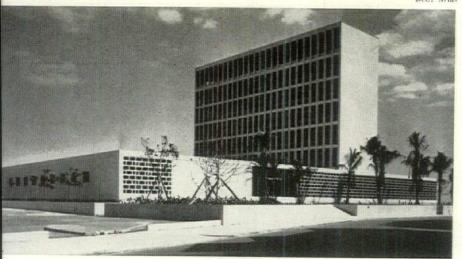


Brazil: Harrison & Abramovitz designed our new Rio Embassy.

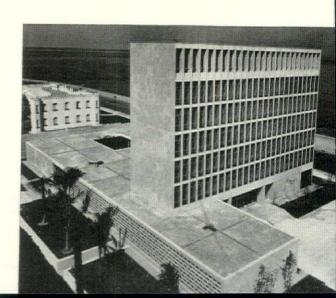
### **EMBASSIES**



DeC. Arias

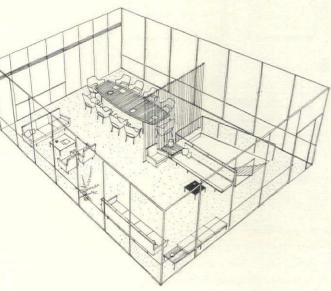


Havana Embassy is faced with travertine supplied by Italian government out of surplus property debts to US. Base of building is faced with a native coral called jaimanitas. Its color is pinkish-gray. Glass is green and heat-resistant. Structure is reinforced concrete, with 10" x 24" deep columns, 5' o. c., along east and west facades, and clear 40' floor spans across depth of building. These floors are ribbed concrete slabs whose over-all depth is only 12". Tile inserts are removed wherever recessed lighting fixtures are needed. Extra-deep (4"), aluminum Venetian blinds help reduce glare, add texture to facade.





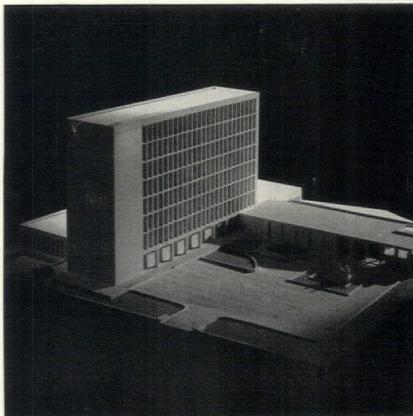




Havana interiors are now being completed, were designed by Knoll Associates. Sketches show ambassador's modern office (top) and conference room (below). Interior design is important part of FBO program and considered integral part of architecture.

Embassy office buildings, as distinguished from the ambassadors' residences, are not unlike the headquarters of a small corporation. In addition to a great deal of flexible and secure office space, embassies must contain special departments open to the public and, occasionally, some staff and community facilities like auditoriums and cafeterias. Security regulations and the fact that these buldings are American "islands" on foreign soil have tended to make embassies self-contained and stern looking. FBO Director King, while retaining maximum security, has tried to give the new embassies a friendly and inviting look. Completed to date under the new, modern FBO program, are the embassies in Rio, Havana and Brussells; under construction are the new embassies in Stockholm, Copenhagen, Madrid and Ankara; in planning stage are new embassies for Helsinki, Reykjavik, the Hague, Athens and Jakarta (Indonesia). Seven of these buildings are shown on these pages.

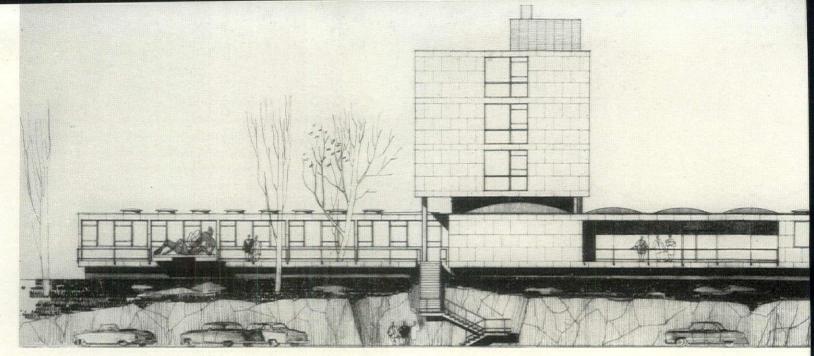
Estudio Amen



Madrid Embassy (above) was designed in FBO's Paris office by Regional Director Alan Jacobs, is now almost half finished. As in Havana Embassy, slab building rises out of one-story block which houses such functions as visa and passport divisions and information offices to which public must have ready access.

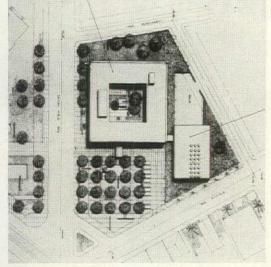


Brussels Embassy (left), also designed in FBO's own offices, is still somewhat conservative but represented big step forward from earlier, traditional FBO work. There has been some criticism of this building's modern interiors, which the ambassador dislikes

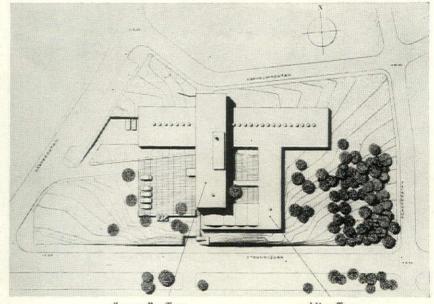


Stockholm Embassy (above and right) is now under contruction, should be completed late this summer. One of the handsomest of the new FBO structures, this building occupies a distinguished (though somewhat difficult) site on the edge of downtown Stockholm, opposite British Embassy. Facilities include a small auditorium, lunchroom for staff, and staff garage.





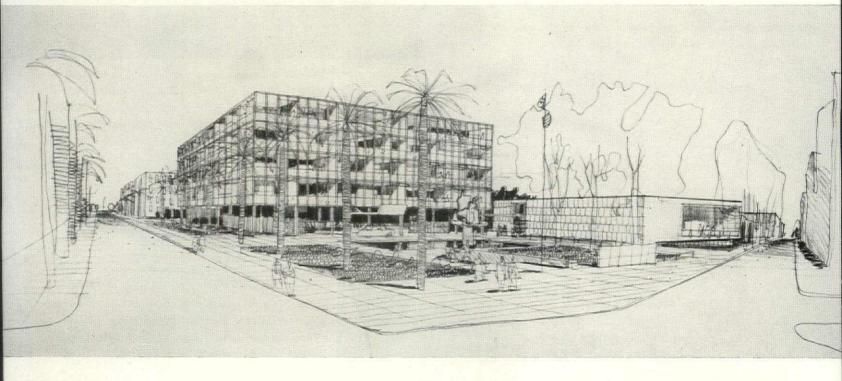
cafeteria and auditorium



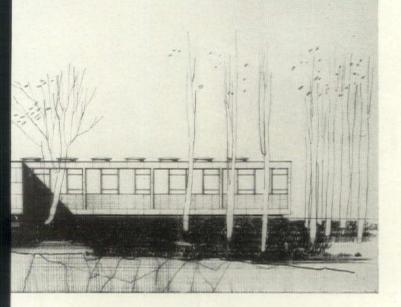
"secure" offices

public offices

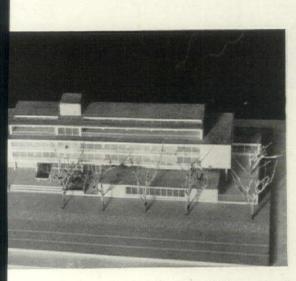
Athens Embassy (left and below) is still in the preliminary design stage, may have to be drastically revised for another site. Present plans call for patio-centered office block on stilts, lower building off to one side housing auditorium and staff lunchroom. Formal plaza between two structures is main approach. Designers Rapson and Vandermeulen were responsible for Stockholm, Athens and Copenhagen jobs (see opposite).







Cost of FBO program is unusually low. State's Frederick Larkin, King's predecessor, and King himself worked out ingenious financing methods for each project, found that foreign governments are delighted to pay for buildings and sites to reduce their old debts to US (from Lend Lease, Surplus Property and Marshall Plan). This method enables our allies to discharge some of their obligations without touching their limited hard-currency reserves; it enables the State Department to acquire valuable property abroad; and it enables the Foreign Service to reduce its office rentals and the quarters-allowances to Foreign Service personnel, which are payable in hard dollars. To date the FBO program has cost \$110 million-but 97% of this cost has been met by our allies in soft currencies and with other soft-currency funds. Only 3% of the cost of the program has to be met with new dollar appropriations. Congress is keeping an eye on these costs because of recent criticism of another US project in Germany, the housing of the High Commission staffs.



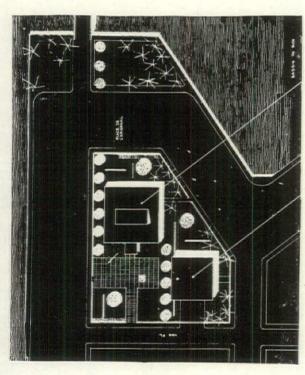
Copenhagen Embassy (above) should be completed early next year. Notion of placing office blocks on stilts is not solely esthetic. Such separation of embassy offices from public areas emphasizes need for security control of the former.



Rio Embassy (right) by Harrison & Abramovitz was completed last year, is somewhat similar to later Havana building by same architects. Finish is Italian travertine also. Irregular-shaped building in front is small library.







consulate

housing

Le Havre Consulate (left and below) is really two small buildings: one a single-story office structure; the other a two-story building to house the staff. Note that this Rapson & Vandermeulen design (like their embassies on the previous page) makes effective use of a formal approach-plaza.

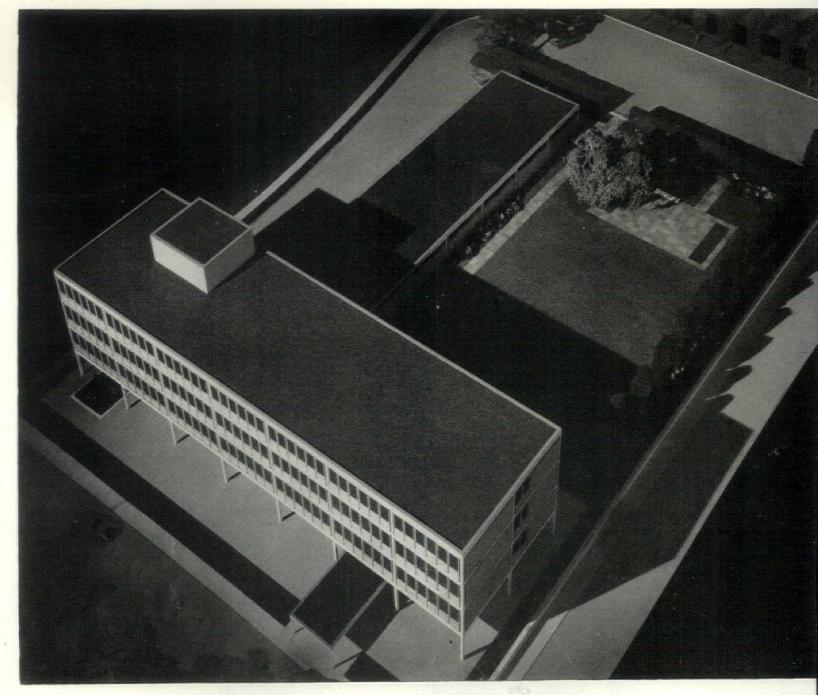




Bremen Consulate (opposite and below) by Gordon Bunshaft is first of Skidmore, Owings & Merrill buildings to go ahead. It set the pattern for six more to come. Basic scheme in all is to put publicaccess areas into large, low-slung building, then straddle it with office tower on stilts. This gives offices in vertical slab better security, makes for excellent architectural composition. Consulate shown here has exposed steel frame, stone veneer and glass panels. Steel is first welded, then sand-blasted, then acid-etched, then zinc-coated and finally given three coats of paint. German process is guaranteed to resist rust for at least ten years.

Consulates are really small embassies located in cities important enough to demand US representation. One of the earliest modern consulates was built at Antwerp (see next page), but there are now seven new consulates planned for Western Germany alone, and one small one will soon be built in the devastated French port of Le Havre (see opposite).

Consulates in Germany all follow roughly the same planformula: a low-slung, one-story structure (sometimes with a central patio) contains foyers and offices to which the public has access; out of this horizontal mass rises a vertical slab (generally supported on stilts), containing other offices with maximum security. Structure of these buildings by Architects Skidmore, Owings & Merrill and their collaborators will be of exposed steel, with glass or stone veneer panels set into the steel cage. FBO is working on such consulate buildings for the towns of Bremen (now under construction), Dusseldorf, Frankfurt, Munich, Stuttgart, Hamburg (an annex) and Bremerhaven. For typical plan, turn the page.







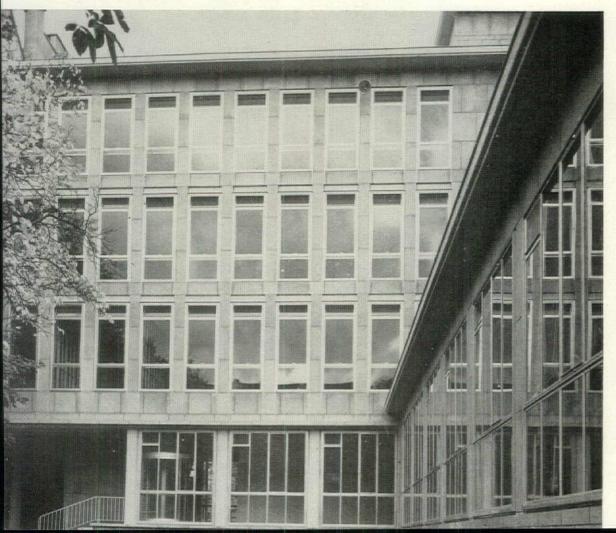
Frankfurt Consulate (above and right) is very similar to Bremen scheme on previous page, but has patio-centered lower floor. Composition is not unlike Lever House in Manhattan, by same architects.

is us mmmea

Signa was roughly to the state of the

public area

Antwerp Consulate (below) by Belgian architect Stynen was one of earliest modern FBO jobs. Site is difficult (a middle-of-the-block lot between two streets, with two frontages) but facade treatment is clean and sensitive.

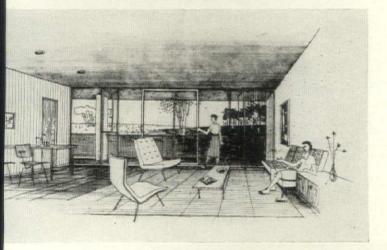


garage

"secure" offices

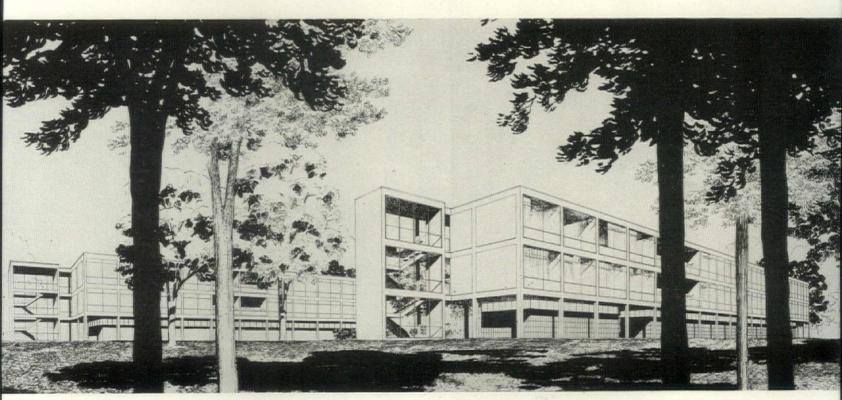


Tokyo Housing (above) by Raymond & Rado is a handsome apartment building detailed very much like the firm's famous Reader's Digest Building, also in Tokyo. Japanese concrete formwork is so fine that architects could leave concrete unfinished. Below: Typical Rapson & Vandermeulen apartment for France. Bottom of page: Staff apartments for Western Germany.



Staff housing is an important part of FBO's program since it will soon pay off in reduced quarters-allowances for Foreign Service personnel and help relieve acute housing shortages in countries like Germany, France and Japan. A handsome, modern apartment house has been completed in Tokyo under FBO's new program, and many additional staff housing units are currently on the drafting boards. In Germany alone, more than 200 apartment units are now in the planning stage. In addition, several new consulates will each require a so-called "principal residence" to house the consul general and his family. Such residences are now being planned for seven German cities whose acute housing shortages make it advisable that the Foreign Service provide its own housing to avoid causing resentment through requisitioning of German buildings.

Recent Congressional criticism of the extravagance of US housing near Bonn referred to the "Little America" projects built near the High Commission Headquarters (see News, p. 40), not to this FBO program. However, FBO is reducing its apartment sizes in the new projects to comply with Congressional demands.



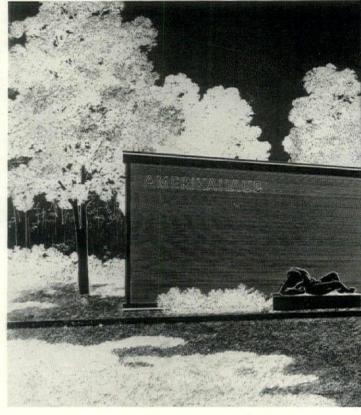


#### AMERICA HOUSES

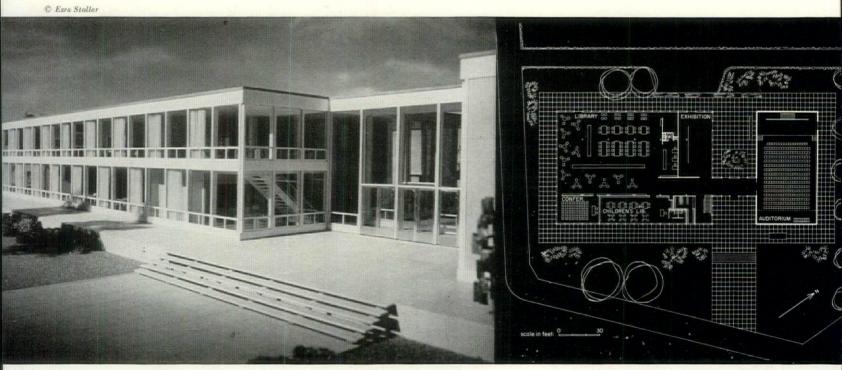
"America houses" are US information centers in Germany. They are immensely popular, contain well-stocked libraries, reference files and auditoriums. Germans are particularly interested in US technical publications available in the large reading rooms.

Skidmore, Owings & Merrill's office near Bonn is currently working on plans for six such information centers in Cologne, Frankfurt, Hamburg, Berlin, Stuttgart and Munich. All consist of two rectangular units joined by a glazed entrance-link. One unit (all glass and steel) contains library, reading rooms and offices; the other (all brick) contains the auditorium. This plan is sufficiently flexible to fit almost any site. In Berlin's coming "Amerikahaus," the architects carefully screened reading rooms from the street to keep Soviet informers from noting down which Germans came to read "dangerous, war-mongering" books.

Working details reproduced at the right were actually drawn for Cologne's "Amerikahaus" by German draftsmen, show steel fascia and spandrel details in glass wing of building. German detailing of glass wall with hopper (left) and spandrel (right) demonstrates exquisite techniques used by the US architects' collaborators in Bad Godesberg. Material indications and dimensioning differ from US standards, of course, but rendered drawings such as this help overcome these barriers.

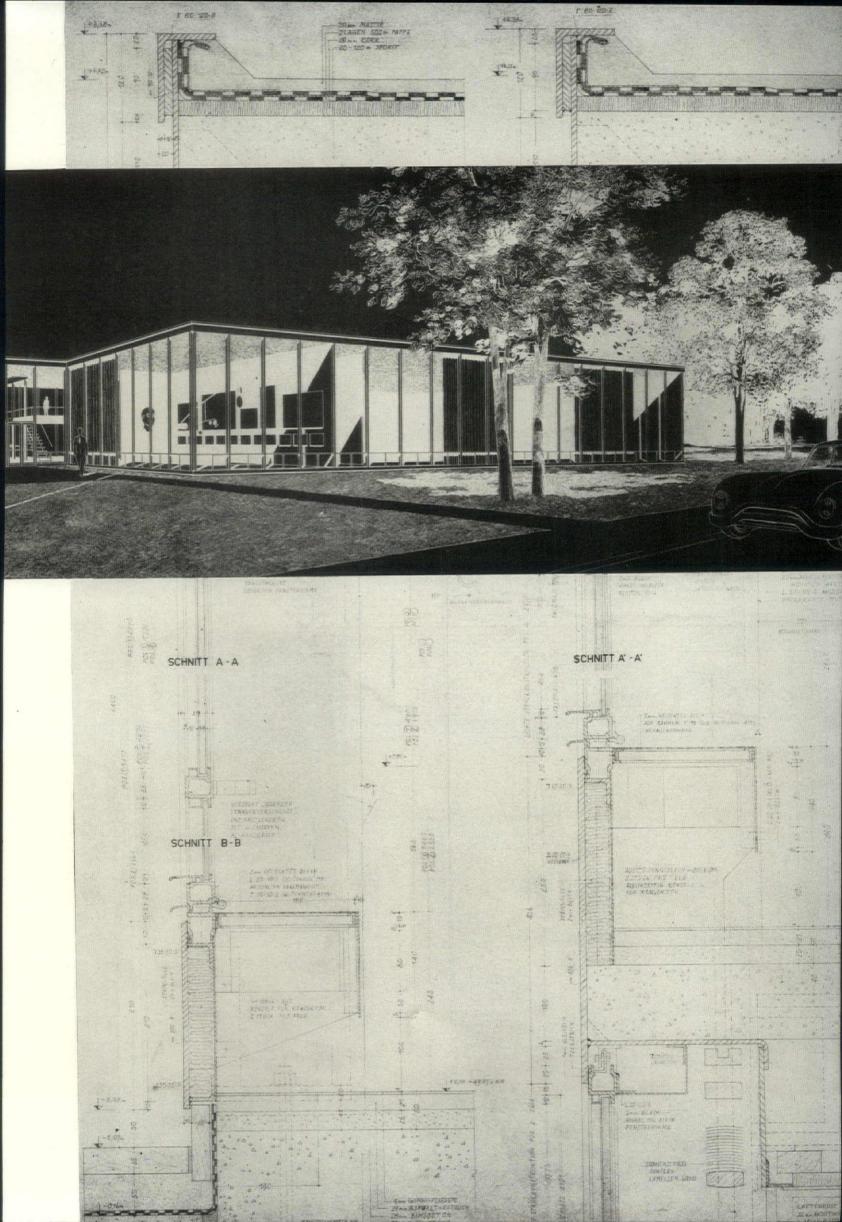


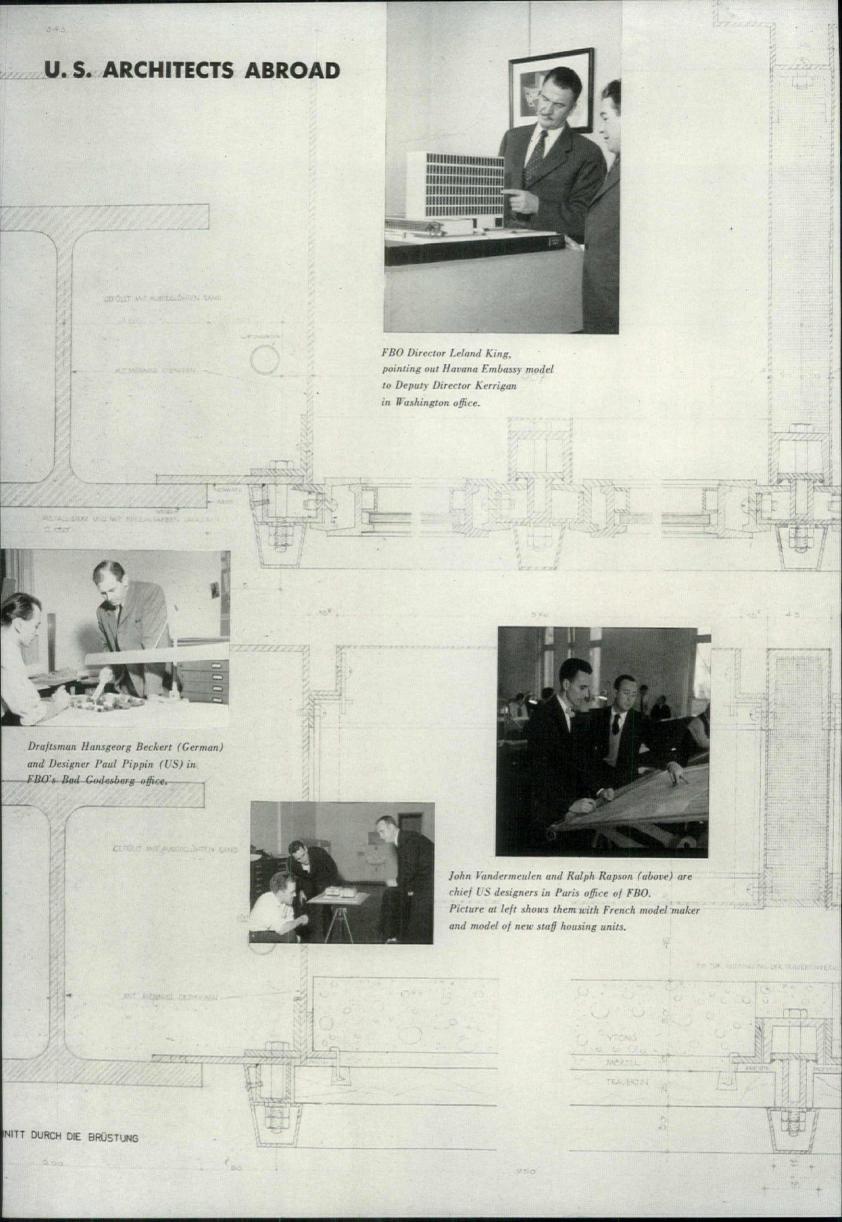
"Amerikahaus" Hamburg (above) is typical of six of these structures now being planned. Solid brick wing at left contains auditorium, glass wing at right (with two-story area in rear) contains library and related offices. Last year more than 10 million Germans visited the few existing US information centers, proved how strong a force the "Amerikahaus" can be in the cold war.

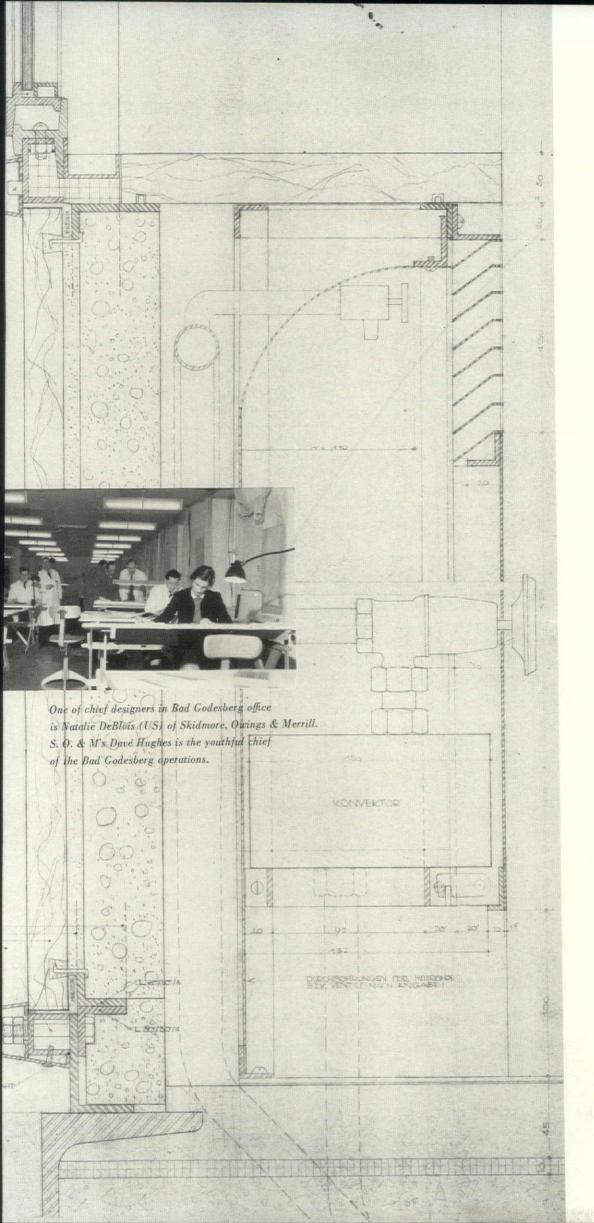


"Amerikahaus" Cologne (above) will be first US information center to be constructed under new program. Detailing (shown also opposite) is similar to that of consulates, with specially treated,

exposed steel very much in evidence. Designer Bunshaft is full of praise for German draftsmanship, for availability at low cost of special equipment and special sizes in windows, doors, etc.







Give and take between US and foreign architects is an important part of the FBO program. When asked what US building could give to the rest of the world, FBO architects listed a) better organization of the job, and b) better integration of the building process. When asked what "know-how" we could take from the rest of the world, FBO architects stressed a) better draftsmanship in detailing, and b) better workmanship in the execution of buildings. Said US Architects Hughes and Bunshaft: "Our drawings and specs for Bremen may have been the most complete set ever made in Germany. Hitherto, German architects would draw up plans, elevations, sections and a few assorted details, then start building. When the building was half up, they would then walk in and sketch out some additional details." Because the Bremen drawings and specs were so complete, bids came in very close. But while Bunshaft and Hughes think they taught their German friends a good deal about the organization of a job, they feel that they learned much about beautiful draftsmanship (see details for Bremen Consulate on these pages) and about hard work.

As to building craftmanship, most FBO architects are agreed that European and Japanese standards are often much higher than those in the US. Since there is so little real standardization of building parts abroad, architects can get exceedingly well-made windows, doors, ducts, radiators, etc. in any size and at low cost. This, together with much more liberal building codes, makes possible such slim and elegant details as the convector housing at left. Finally, all agreed that the ideal combination in working abroad is to have a US firm associate with a good local architect, and to utilize good local materials -custom-made, if necessary.

That, in any event, has been the FBO formula to date; and its success has been impressive.



#### IN THIS MONTH'S NEWS:

(see pp. 39 through 52)

Price decontrol lets copper and cement rise but sharpening competition indicates building costs will stay steady, may drop

State Department's handsome German housing gets enmeshed in a rhubarb in Washington

Four members of the Houston Housing Authority resign as PHA begins an inquiry into a judge's complaint one project is 'unfit for a child'

Colorado courts hold state architect, engineer license laws are unconstitutional

# Defense Dept. tightens curbs on building; 25% cutback forecast

Construction's biggest customer, the Defense Department, moved this month to slice its outlays for building by as much as 25%.

The retrenchment was in line with Budget Director Joseph Dodge's order to all federal agencies to clamp a semifreeze on hiring and curtail construction plans.

Originally, Washington officialdom anticipated the cutback drive would do well to trim a token 5 to 10% off ex-President Truman's proposed \$6.6 billion expenditure for federal public works in fiscal 1953-54. Of that vast outlay—about a fifth of all new US construction—the armed forces were scheduled to spend \$2.7 billion.

Bigger slash. But this month, construction analysts were second-guessing as they realized Ikemen meant business. One expert now forecast that the military, at least, might trim its building budget by as much as a quarter. High Pentagon sources queried by FORUM substantiated the estimate.

Government men were quick to point out that most of the retrenchment would be in new work which would not actually commence until next year. Thus a 25% cutback would make no appreciable dent in construction put in place in 1953. Commerce and Labor Department prognosticators still stood by their prediction that the dollar volume of new construction this year would be close to 1952's \$32 billion. Counting repairs, AGC foresaw outlays rising from 1952's \$42.3 billion to \$44 billion this year.

Bids suspended. The signs of retrenchment from the Pentagon seemed unmistakable. On top of last month's order from Defense Secretary Wilson to halt construction contract awards after Feb. 7, pending a complete review of all projects (AF, Feb. '52, News), came a new curtailment. Starting Mar. 1, the armed forces were ordered to put out no more work for bids until top officials had approved the projects involved. Only design work could continue as usual.

The official reviewing was being carried out by Frank Creedon, director of defense installations since the job was created last August in response to congressional criticism of waste in military building. As the Defense Department's generalissimo of construction policies and procedure, he spoke with renewed authority: Secretary Wilson had asked him to stay on. Explaining the

suspension of bid taking, Creedon said: "It did not seem sensible to put contractors to the expense of submitting bids on work that might be eliminated." The cloud had some silver lining: bidders at least would know that any military project put on the market now was sure to proceed.

Uncorking by April? The very size of the Defense Department's construction budget had made it impossible for Creedon and his staff of 25 to complete reviewing building plans by the Mar. 2 deadline set by Budget Boss Dodge. But at midmonth, Creedon predicted: "In two more weeks we'll be well over the hump. Except for a few bothersome projects, we'll be finished with our review. Essential projects that have been held up will get moving."

Because its construction program was by far the largest of the three services, the Air Force was submitting its projects to Creedon in seven installments: "A" for projects scheduled for award from Feb. 7 when the freeze began, to Apr. 1; "B" for projects awarded between Dec. 31 and Feb. 7; "C" for construction less than 15% completed; "F" for work not scheduled for award before July 1.

What kinds of construction would the Pentagon's Republican command finally approve? So far, there were only a few hints. First attention would be given construction needed to support the armed forces already in being. Construction scheduled for northern outposts like Alaska and Greenland would be expedited to take advantage of the brief summer building season. Projects needed for all-out mobilization would take a back seat.

In line with deferring full-mobilization construction, the Army became the first service to cancel construction. It halted work on railhead facilities at seven posts: Camp Joseph T. Robinson, Little Rock, Ark.; Camp Swift, Bastrop, Tex.; Camp Bowie, Brownwood, Tex.; Camp Gruber, Muskogee, Okla.; Camp McCain, Grenada, Miss.; Camp Shelby, Miss.; and Camp White, Medford, Ore. Estimated savings: \$15 million.

Warlike secrecy. Almost everywhere else, Ikemen kept their economy drive wrapped in secrecy as tight as wartime security. The silence as much as anything else convinced building men that the trimming was in earnest. Reason: the administration did not want disclosure to build up pressure in Congress to spare pet projects.

There was no complaint from the industry. Said one leading contractor: "Now that the government construction program is being made to mark time, the best thing we in the industry can hope for is that they hurry up and make up their minds what they are going to do, then do it. Let them keep quiet about it if it will speed up action."

# Code reform group voted \$20,000 by US chamber

In the decades-old struggle to untangle the nation's web of building codes, the most promising weapon is the little-known Joint Committee on Building Codes, Since it was founded in February, 1949, the committee has managed, in only 14 meetings, to blend from regional building codes already in widest use a sizeable chunk of what it hopes may someday become a unified national standard for construction. Written so far are sections on definitions, types of construction, design loads, use and occupancy classifications, and requirements for steel construction. But there is still much ground to be covered. It includes some of building codes' most controversial items: fire resistance ratings, height and area limitations, wood and masonry construction. And although the committee is composed of top technical men from the nation's nine principal groups involved in code work,\* speedier progress is hampered by the fact that its representatives from building officials organizations are shy of funds to attend meetings.

Last month, the US Chamber of Commerce stepped into the breach. Its construction industry advisory council voted the joint committee \$10,000 a year for two years, principally to cover the travel expenses of two representatives of each major building officials group to committee meetings. Explained Manager F. Stuart Fitzpatrick of the chamber's construction department: "Our interest is to see that the joint committee does not collapse because of building officials' travel expenses." Said Technical Director R. G. Kimbell of the National Lumber Manufacturers' Assn.: "The work of the joint committee offers one of the most practical and sanest approaches to code unification devised. The committee has no dictatorial powers. It is persuasive only." The chamber also ex-

\* American Standards Association, Building Officials Conference of America, National Board of Fire Underwriters, National Fire Protection Assn., Pacific Cosst Building Officials Conference, Underwriters Laboratories, National Bureau of Standards, HHFA and the Department of Commerce's construction division.

tends its financial offer to the Southern Building Code Congress, which so far has refused to play on the team with the rest of the nation's code experts.

Policy platform. The construction industry council reinforced its claim to being one of the impressively cohesive forces amidst a factionalized industry. Adopting an 11-point plan for sustaining construction activity, it urged among other things:

- ▶ That the new administration maintain no "stand-by control organization." The council left open the much-debated question of whether a stand-by control law should be enacted.
- ▶ Redrafting of the "burdensome federal tax structure" with more flexibility for depreciation so as to encourage new commercial and industrial building. (Rep. Daniel A. Reed, [R, N. Y.], chairman of the House Ways & Means Committee, told the meeting he hoped to rewrite the federal tax code completely by January, 1954.)
- ▶ That programming of federal public works be subjected to "continuing review by a competent coordinating board" to assure that government construction fits the shape of the nation's economy.
- ▶ A restudy of the defense housing program to reduce its cost and weed out areas where it is no longer needed.
- Improvement of federal statistics on housing starts and dollar outlays for construction "to guide the more intensive efforts which must be undertaken" to keep the industry going. (The council adopted a bluntly critical report by Walter E. Hoadley Jr., Armstrong Cork Co. economist: while

construction has grown to a \$40-billion-ayear industry—one-tenth of the national product—"at no time has the government's statistical information about construction been of high dependability and today the quality of figures is poorer than at any time" since World War II.)

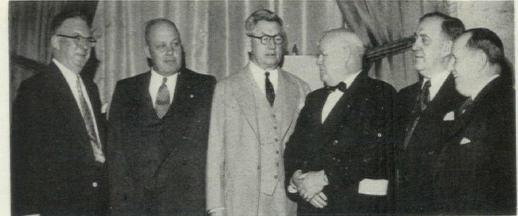
Rebel in design. The meeting's most provocative comment was provided by its only woman participant: Editor Elizabeth Gordon of *House Beautiful*. Said she: "You can tell what people want and are going to buy in their homes by what they are already buying in home furnishings."

What people are buying, Editor Gordon found, displays a rapidly awakening "sense of natural materials." As a result: textures of rocks and bark "are hot." Grass cloth "can't be kept in stock." Wallpaper shows a high popularity of natural textures. Best sellers are striated, nubbly, ingrained. "The building materials industry," she counseled, "should get wise to what's happening."

Translating her furnishings evidence into architectural prophecy Editor Gordon maintained: "The trend is toward simplicity—better modern instead of cold, inhuman modern. The false prophets of the international style who say the individual no longer matters are quite wrong as far as the US is concerned." Some modern design, she contended, is "dangerously bad...a pernicious influence... [spreading] the mystical idea that less is more and promoting unlivability." For abetting such "antireason," she blamed "some museums, some magazines ... and a self-chosen elite."

She charged: "Somebody is trying to sell functionalism down the river and replace it with austerity."

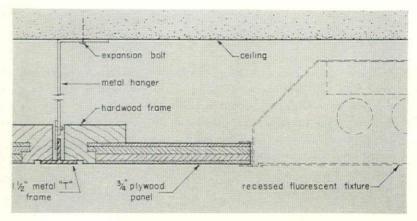
Walter Bennett



CHAMBER OF COMMERCE meeting heard President Richard J. Gray of AFL's Building Trade Dept. (3d from r) declare: "99% of the strikes in construction are directly attributable to lack of understanding between labor and management." Gray pleaded for industry support for the AFL's proposals for Taft-Hartley Act revision and suggested for the first time publicly that one solu-

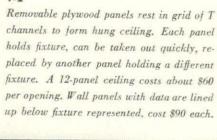
tion might be to exempt construction from the law. Pictured at luncheon (I to r): Contractor William Muirhead, AFL President George Meany, Chamber President Laurance Lee, Gray, Sec'y-Treas. Joseph Keenan of AFL's Building Trades Dept., Lumberman Norman P. Mason, chairman of chamber's construction and civic development committee.

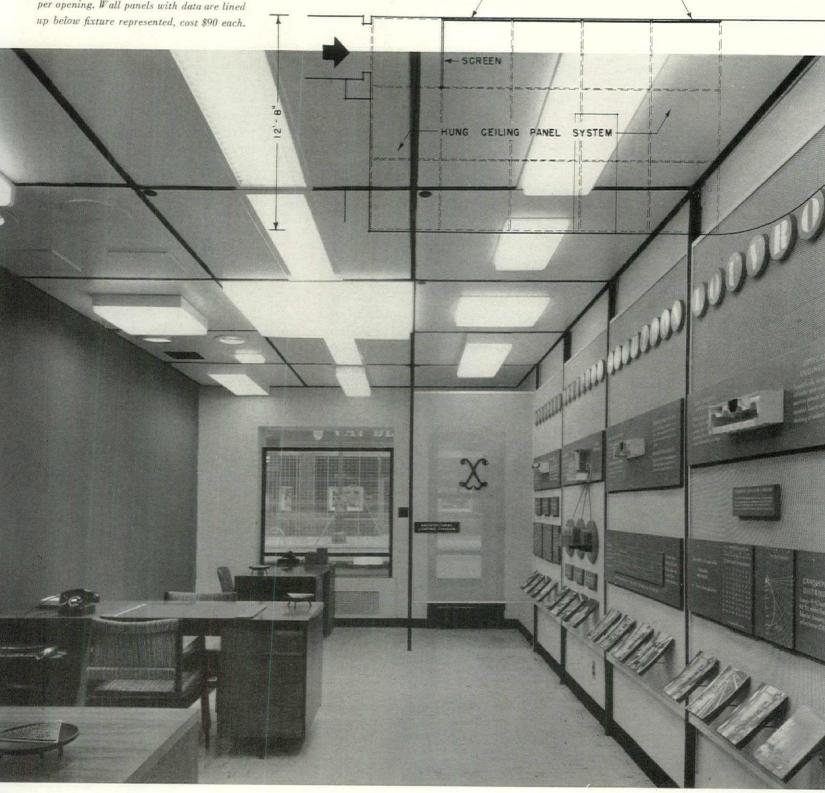
LIGHTOLIER SHOWROOM, New York City
MAURICE MOGULESCU of Designs for Business, architect
ALFRED AUERBACH ASSOCIATES, displays
HAROLD A. BRANDT, INC., general contractor

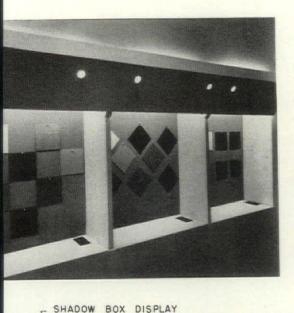


Hung ceiling-panel detail shows T channel with plywood panel and built-up hardwood edge in place displaying fixture. Slotted plate on T channel permits adjustment of hung ceiling frame to horizontal.

WALL PANEL DISPLAY AREA



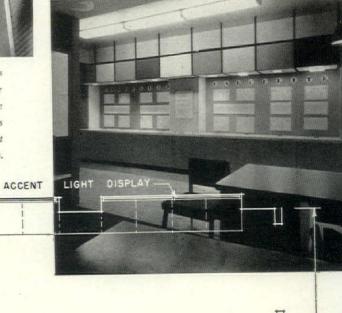






Shadow boxes (l) cast light of various amounts and kinds on color swatches for evaluation. Peepholes at light level give viewer idea of the source light. This three-panel display unit would cost about \$125 plus installation and fixturing costs.

Incandescent accent light fixture (l) in plywood panel is removed easily from T-channel grid system like that of hung ceiling. Lights from various fixtures in wall display case illuminate pertinent data. Display would cost about \$90 per panel.



# SELF-SERVICE SHOWROOM

down

features in-place displays, makes maximum use of small, awkward space and reduces usual showroom clutter with four design tricks

This light-fixture showroom combines new display ideas with great space economy to give visiting architects, lighting engineers and building owners complete information on their fixturing problems. The unsightly clutter of most fixture showrooms is overcome by hanging a ceiling of removable plywood panels to hold general illumination fixtures; harranging and mounting lighting data flat against the long unbroken wall as symmetrically as possible; hucking display of each fixture's mechanical parts out of sight in trim cabinets; painting walls in inconspicuous harmonious colors: grayed light chocolate, gray, lemon yellow and white.

A hung ceiling in one end of the showroom (1) displays a variety of general illumination fixtures in panels keyed by color to wall switches for customer operation. On the wall (2) are cutaway models, technical data and photographs of fixtures in use. In the narrow neck of the showroom (3) three shadow boxes show the effect of various amounts and kinds of light on different colors. Customers can test the reaction of sample fabrics or paints under these lights.

Fixtures supplying localized light are displayed farther along the same wall (4). Each fixture illuminates explanatory technical data mounted below it. Typical fixture installations in steel or wood ceiling systems are housed in a cabinet along another wall (5). When the cabinet door is opened, the model installation slides out on tracks for inspection.

All these displays—which give customers information without assistance from employees—are arranged in a scant 2,000 sq. ft.

In-place fixture cabinet shows mechanics and technique of installing fixtures on the job with various types of construction. Cabinet including steel frame and plywood panels would cost about \$700.

IN PLACE"

DISPLAY





president's desk shield glare, mask mullions. End panels are movable. Partition wall is paneled in birch.

Photos: Ben Schnall

LOCATION: Hartford, Conn. PETER FRASER, JR., designer

# **NEW INSURANCE POLICY**



Reception room on lower floor is flooded with light through plastic ceiling. Old desks were rescued and retained in new furniture arrangement. In reception room for executive suite (below) receptionist sits behind screen patterned in color blocks. Mirror conceals switchboard.



A major corporation in

### a most conservative field underwrites

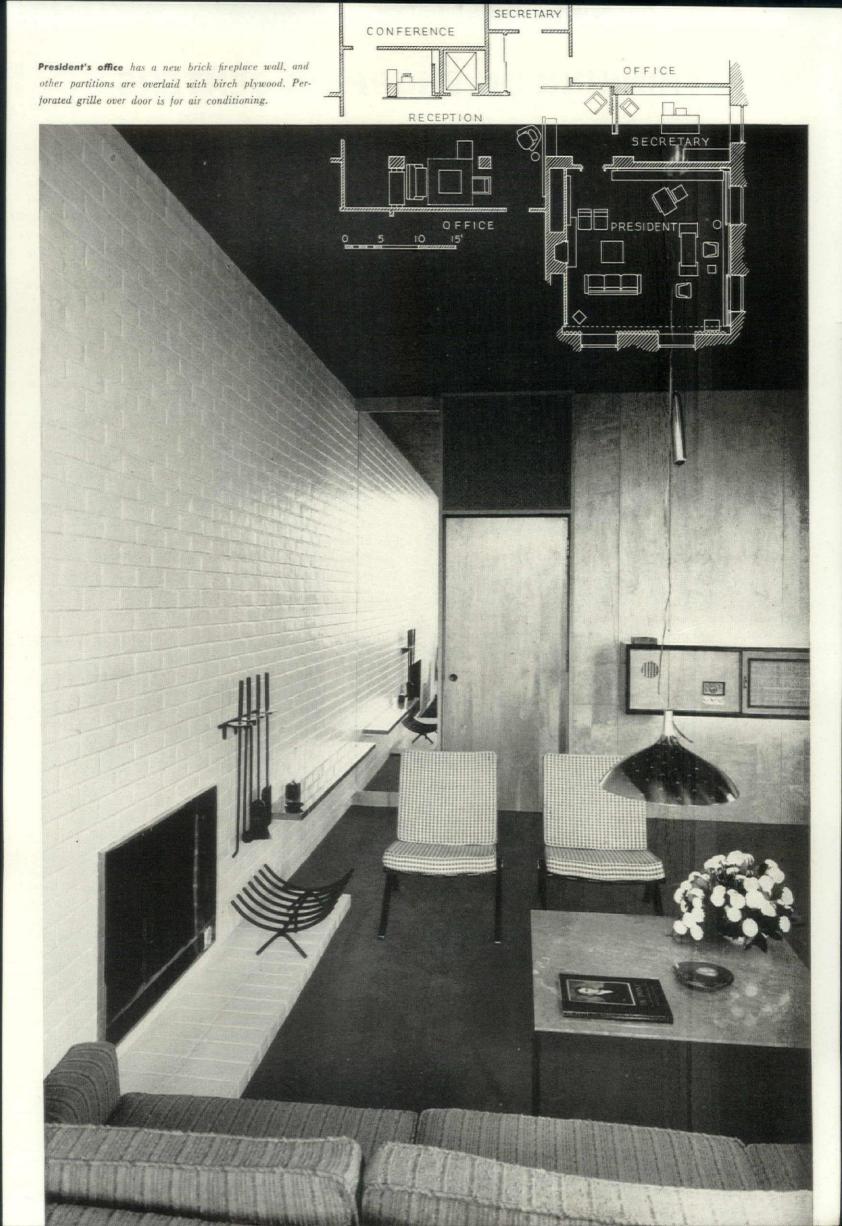
### modern design for its own offices

The statement that the battle of modern architecture has been won is a commonplace by now. But among the defenders of eclectic styles in the 30-year war between the old and the new, the casualties to date have included very few casualty companies—or other corporations in the insurance field. Most of these companies are very aware of architecture, not only as investment security (US insurance companies own or hold mortgages on about \$23 billion \$113 million of real estate and buildings) but also as institutional symbolism. However, the oldest and weariest of architectural forms still are relied upon by most insurance companies to convey a reassuring feeling of corporate "performance."

So, when an important insurance firm in the heart of insuranceland, Hartford, Conn., turns a young designer loose on its home office, it is news.

Peter Fraser took sections of two floors of one of the most substantial insurance companies that ever established permanence, and completely redesigned them. Stripping down to structure and starting anew, he did not put as much back in as he took out, but created his lively, pleasant rooms simply with plain surfaces, good materials, bright colors, and architectural furniture.

His redesign covered a suite of executive offices, conference room, etc., on the third floor, plus a reception room and other offices on the second floor. Fraser designed all surfaces and cabinets, put sliding bamboo screening on the president's windows, specified all furniture, and worked out the complete lighting installation. Address of the insurance company concerned must, because of the formidable modesty of such institutions, remain unprinted.



# **NEW THINKING ON SHOPPING CENTERS**

the primer days are over . . .

The dreamers of the first shopping centers had nothing to go by except what they learned downtown. They knew one thing for sure—that Main Street's pattern was the outcome of a long survival-of-fittest process full of heart-breaking failures. They studied Main Street and its collections of stores because they proposed to learn from failure instead of re-enacting it.

When they actually got to the country, they found they also had a lot of immediate new problems to tackle—how to separate pedestrian, service and automobile traffic, where to put the cars, how to keep the thing within reasonable acreage. At first they were too deeply involved with the solution of those problems to do much other forward thinking. Now those problems have been licked and the shopping centers are evolving retail selling ideas almost completely independent of any thinking that was ever done downtown.

### ... and the big centers are ready to pay back their debt to Main Street if Main Street is smart enough to pick up the payment

Since the war almost nothing has happened downtown. There has been no big-store construction. Consequently the lion's share of retail creativeness has been lavished on the shopping centers. Now the shopping centers are so far ahead, the time has come for downtown to begin borrowing back.

The first—the most elementary—lesson for downtown is simply the importance of planning. Every unplanned suburban strip losing out to a planned shopping center is a lesson in survival that cannot be ignored.

The time has passed when merchants or their architects should be wondering whether such furbelows as parking space, landscaping and pedestrian malls are worth the money. For any new store or growing strip the question now is: *How*, not whether, to plan. (To learn what even a single store can do on its own, see Architect Victor Gruen's specialty shop for Tyler, Tex., AF, May '52.)

For any mature shopping district, the big question now must be: How, not whether, to ameliorate its business-losing chaos.

#### THE CHICAGO PLAN

Perhaps the best current evidence of hopeful thinking about downtown is the Chicago Planning Commission's\* scheme to apply suburban shopping-center ideas to two old, chaotic shopping districts. The scheme would divert all automobile traffic around the perimeters of the district and turn the streets into pedestrian malls more or less on Ketchum, Gina & Sharp's prophetic Rye plan (AF, Sept. '44), except that the malls would also serve as mass-transportation routes.

Like any other city, Chicago has a tremendous stake in existing retail facilities. The city's 17 big, mature shopping districts outside the Loop do an annual gross business of more than \$1 billion. Most of these older shopping districts have sound basic characteristics in spite of their haphazard growth: a) they are at strategic locations with ready access by public, as well as private, transportation; b) each contains a great variety of stores and goods; c) they are important focal points of social activity, recreation and amusement.

But they are sick.

They have lost business to planned shopping centers and they are in imminent danger of losing a great deal more.

Here, step-by-step, is the rehabilitation scheme the commission proposes (see sketches, right):

- Construct a one-way traffic perimeter around the district, using existing streets as far as possible.
- 2. Route all private vehicles into the traffic perimeter.
- Route mass-transit vehicles through the center, either at grade or by subway.
- Acquire and clear all nonconforming (as residential) buildings and blighted structures inside the perimeter.
- 5. Eliminate local streets inside the perimeter.
- 6. Provide parking and service facilities on cleared land.
- Narrow the streets through the heart of the center to one lane for public transportation (with cutouts for loading points) and combine the land saved with existing sidewalks to create pedestrian malls.
- Remodel the rear of commercial buildings for greater service efficiency and to give attractive facades toward parking lots.
- Plan simple, coordinated architectural treatment as a guide to the kind of changes pictured opposite.
- Spark a cooperative organization of interests inside the perimeter to coordinate maintenance and continued private improvements.

Possible sources of funds to finance the perimeter plan are: a) motor-fuel taxes; b) land-clearance commission funds for blighted areas; c) revenue bonds issued under the parking act; d) creation of a limited-dividend redevelopment corporation.

Cost of rehabilitating the two districts thus far studied appears to be under 16% of the market value of land and buildings in the areas. The public's share of the cost for totally rehabilitating a major center would not top the cost of a mile of superhighway.

As an example of a sick district badly in need of this therapy, the commission cites "the world's largest outlying shopping center" ten miles southwest of the Loop—the huge 63rd and Halsted district that serves much of Chicago's south side. Sears has one of its largest retail stores here, surrounded by hundreds of other shops purveying everything from pretzels to sewing machines. The "elevated" bus lines and two trolley lines feed it.

Since the war 63rd and Halsted has suffered badly from blight and from competition by Arthur Rubloff's Evergreen Plaza about five miles to the southwest.

Still worse off is the Lincoln-Ashland-Belmont district seven miles north of the Loop, almost as important to the north side as 63rd-Halsted is to the south side. It has lost business mainly to Lincoln Village five miles farther northwest.

Rehabilitation of mature districts like these would not only save the investment in them—it would help save the city's core.

<sup>\*</sup> Commission officers and staff: Col. William M. Spencer, chairman; Banker Frank C. Rathje, vice chairman; John Wellborn Root (F.A.I.A.), chairman planning committee; Frederick T Aschman, executive director; Richard Lawrence Nelson of Real Estate Research Corp., economic analyst; John Cordwell, architect; George F. Barton of Associated Consultants, traffic and parking expert; Abbott Nelson, planning. James C. Downs Jr., mayor's housing and redevelopment coordinator.





Alleys and rooming house blight turned into . . . arcades and service yards





The hideous ell turned into . . . a dramatic backdrop

### SHOPPING CENTER IDEAS FOR DOWNTOWN

The Chicago Planning group's conception
of a successfully rehabilitated district—after
private enterprise has fully exploited
the initial rehabilitation work done by the city.

Basic first steps are the one-way traffic perimeter,
elimination of most interior streets,
removal of blighted and irrelevant buildings.



The jammed asphalt turned into . . . pedestrian malls and bus lanes





# The big ideas in the big new shopping centers

Air-conditioned "outdoors"

More compact planning with smaller malls

Much more charm and imagination

Refinement of planning for "pull"

Exit the supermarket

Better integration of parking

Planned buffer neighborhoods

LIVE: Carl Mydans

Sooner or later somebody was bound to air condition the outdoors.

The time has come. And the shopping-center people are the ones to do it. Many big centers (in Camden, in Dallas, in Hamilton, Ontario—to name some of the largest now in preliminary stages) are to have "eternal springtime" malls and courts.

And in this issue you will see Victor Gruen's Southdale for Minneapolis (p. 126) with its high, outdoorsy skylighted mall surrounded by stacked streets. You will see the Welch-Belluschi-Kiley Mondawmin center for Baltimore (p. 134) with a two-story playground-garden and a one-story mall both of which can and very well may be covered, cooled and heated.

Both these schemes are examples of an entirely new shoppingcenter type: "The Milan Gallery" with spacious covered courts.

You will also see in this issue another kind of completely enclosed and air-conditioned shopping center, Ketchum, Gina & Sharp's Parker Square for north Texas (p. 140), with its intimate interior streets into which little "wells" of outdoor light and air are dropped. Parker Square illustrates a second brand-new type: the "Oriental Bazaar" with low, covered streets.

This does not mean that from now on all shopping centers will be air-conditioned galleries or bazaars. Where nature meets reasonable shopping-weather specifications (San Francisco and Denver, for example), the real outdoors is probably in the shopping center to stay.

But both new closed types are something to study for the cold and stormy north, the hot south, dusty parts of the west. And both are almost certain to influence other kinds of public buildings. The economy of Ketchum, Gina & Sharp's big shed, the magically "outdoor" feeling of Gruen's covered mall have elements of universal appeal.

#### Knit it up

All three of the centers presented here (and the other important centers just beginning to take shape) are strikingly compact.

The giant malls and the great sprawl are gone—for two totally different reasons: 1) the mechanistic approach—plan a center for complete air conditioning; 2) the humanistic approach—keep it easy on the shopper's feet, eliminate lonely hangdog stretches for the sake of everybody's spirits.

Look how the two approaches reinforce each other:

Ketchum, Gina & Sharp began Parker Square with the cooling

LIFE: Dmitri Kessel

Forebears of the new shopping centers:

The Milan Gallery . . .

. . . bazaar in Isfahan



concept and concentrated spaces to make the mechanics feasible, ended with their short-street, cheerful bazaar layout.

The Welch-Belluschi-Kiley scheme set out as its first goal to keep things gay and busy with no long hikes; as a result it is so compact it can be completely cooled without revising the scheme.

Gruen began with both motives simultaneously. He found each of his goals simplified the others.

#### But keep it spacious

The neat trick is to keep people from feeling as if these more compact centers were all tightened up. To this end every square foot of "outdoors" is parceled out to count. Planners for all three centers believe an "outdoors" charmingly planted and well-tended gives more in graciousness and spaciousness than any amount of indifferently handled, repetitive mall (a truth the Japanese hit upon long ago).

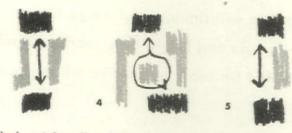
### Set the magnets

It is now plain (but oh, the trial and error it took to discover this!) that there are three fundamental species of shopping-center layout, determined by whether the center has one, two or three big "pulls." The big pull is the store with the big attraction, usually a department store, and the trick is to make this store work for the center as a whole by pulling the customers past the smaller shops (which in turn give the center its cumulative pull).

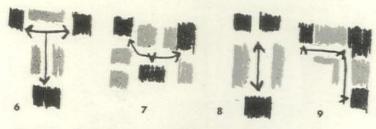
A single-pull works best when the magnet is in the center of the shopping group, as in the cluster (1) or the U (2).



A double-pull scheme puts the smaller shops in the center as in the mall (3), the waiter's tray (4), the in-line plan (5).



With the triple-pull we hit controversy. Ketchum, Gina & Sharp have successfully used a triangular scheme for a medium-sized center (6). Their Parker Square is a combination of cluster and triangle (7). Welch thinks the biggest pull should be counterbalanced by the two smaller like a two-pull system (8). Evergreen Plaza\* in Chicago arranges a triple-pull as a triangle, then turns it into an in-line system by closing one side of the triangle (9).



Both Mondawmin and Southdale use marvelously ingenious and subtle arrangements of parking space to abet interior circulation.

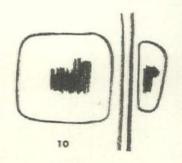
### Out with the supermarket?

What is an effective pull? Welch is looking with a cold eye upon some of the old gods. He thinks—and this is real iconoclasm—that a supermarket has no place within a regional center.

Welch points out a regional center must often draw customers from a 25 or 30 min. time-distance but a suburban supermarket seldom pulls customers farther than 5 or 6 min. driving time. Those who do come for the supermarket use precious parking space with nothing on their minds but beef and potatoes. So Mondawmin banishes the supermarket in favor of a sort of Farmers' Market of specialty and exotic food stalls calculated to reinforce the 25 or 30 min. pull.

Gruen agrees a supermarket is not a primary puller in a regional center but he thinks it is a worth-while convenience for customers who come for other reasons. To fill this need Southdale will have a "quality market" and auxiliary food shops, occupying relatively small space for a center of this size.

To take care of bread and butter for the neighborhood, Gruen plans to put one or more supermarkets—with their own parking—in a satellite "convenience center" (10). Mondawmin's planners would have liked to do the same thing; they dropped the idea of a satellite supermarket only for lack of site space.



Welch likes this center-with-satellite pattern (even though he did not have room for the satellite at Mondawmin) because it is a good way to keep the main center "undiluted." Gruen likes it because it means the main center controls extraneous convenience shops which would tend to grow up in any case outside the regional center's fringe. Either way it is looked at, it means something new in regional center design and management: planned, physical separation of two kinds of facilities, the distinction between the two being based on how hurriedly people shop for specific goods.

#### Give it a good home

Time was when shopping-center builders were pleased if community planners or merchant builders set aside a hunk of land for a "future shopping center." But now even this looks too hitand-miss to key shopping-center planners.

Common mistakes: too little land, no follow-through, inadequate traffic planning. For instance, Stonestown (p. 143) had to add to a too-small initial site and consequently has a foolish road through it. Oak Ridge's well-conceived allotment of shopping land has been nibbled to pieces for shortsighted gain. Some shopping centers have blighted the neighborhood by bringing heavy traffic through formerly quiet residential streets.

So the best shopping-center planners have turned the tables to become community planners in self-defense. In these pages we show two very different examples of this phenomenon: Southdale, which has planned and will control the development of what amounts to a complete village; Mondawmin, which began with a strange plot of land thrown on the market and became a shopping center only because study showed this to be the use for which it was best fitted. In both cases the developers explained their purposes to the citizenry and won zoning changes in a way to give experienced city planners pause.

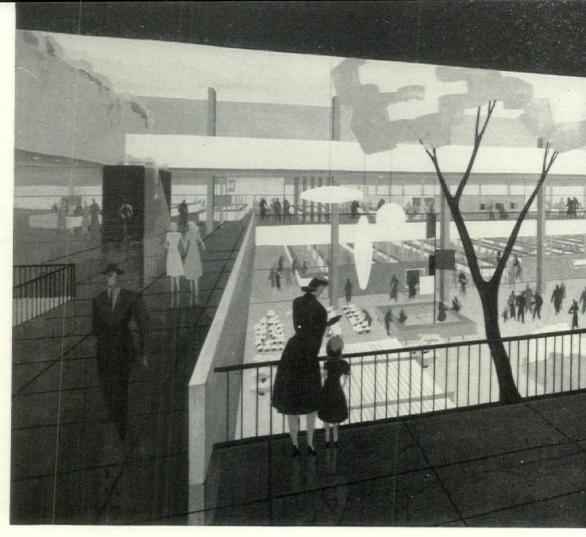
Here is the idealism of town planning actually become reality not another buried report—because it fits the cold facts of good merchandising.

Frightened downtown merchants, please take note.

<sup>\*</sup> Arthur E. Rubloff, developer; Howard T. Fisher & Associates, and Holabird, Root & Burgee, associated architects.

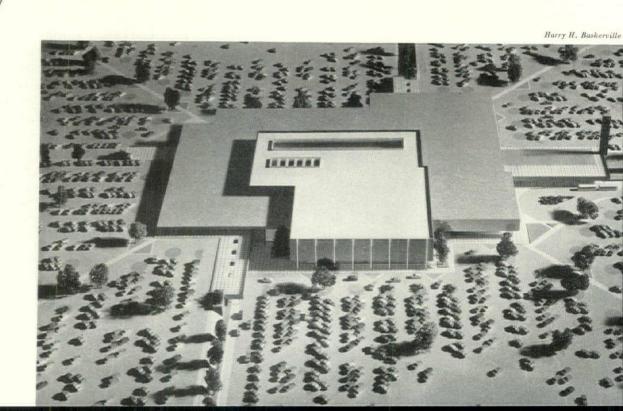
### **SOUTHDALE**, Minneapolis

THE DAYTON CO., developer William Crear Jr., planning coordinator LARRY SMITH & CO., economic consultant VICTOR GRUEN, architect Rudolf L. Baumfeld, project director Edgardo Contini, director of engineering Ben H. Southland, director of design Herman Guttman, project coordinator LARSON & McLAREN, associated architects GEORGE W. BARTON, traffic consultant MORELL & NICHOLS INC., land planning consultant HARMAN & O'DONNELL. residential development consultant G. M. ORR ENGINEERING CO., site engineering



# WINTER OR SUMMER

the fountains in this shopping
center's plaza will tinkle, the foliage flourish,
the outdoor café and bright little market stands
be untroubled by snow or soot or wilting heat





Southdale's core is its air-conditioned "public square," viewed here from the upper level

#### STATISTICAL PROFILE

Site size: 84 acres (plus a buffer zone of 378 acres)

#### Rental area:

total: 560,000 sq. ft.

(expandable to 850,000 sq. ft.)

department store only: 180,000 sq. ft.)

(expandable to 240,000 sq. ft.)

No. of stores: 84

Parking stalls: 4,753

ratio: 8.6 cars per 1,000 sq. ft. of rental area

Trade area pop.: 206,000 within 15 min, time-distance

Estimated annual business: \$32,000,000

Total cost: \$8,960,000 (not including selfliquidating items) per sq. ft. of rental area: \$16

Construction starts: Nov. '53

This romantically appealing market square reflects the teamwork of a store-owning family whose third generation\* is already planning for the fifth; an economic consultant equally determined to put the center beyond reach of competition; and an architect eager to go far beyond what any previous center has attempted and really tackle the problem of preventing community blight.

Bruce Dayton, delegated by his brothers to head the project, visited almost every large shopping center and department store branch. These studies brought him to three early decisions:

- 1. The center must be much better built, even if that meant budgeting a high \$16 per sq. ft. of rental area for construction (Mondawmin's target: \$15; Parker Square's: \$14).
- 2. It must be expandable to something like 900,000 sq. ft. (He settled for 850,000.)
- It must have a character so outstanding that it will always be recognized as the shopping center of the area.

To achieve Point 3 the team is banking on these features:

Better neighborhood. The Daytons bought 378 extra acres around the shopping center's 84-acre site, to provide a permanent buffer. They plan to develop it as a nice residential neighborhood (see p. 133). Other shopping-center planners have of course tried to pick neighborhoods that are on the upgrade. But Southdale is the first to plan a blight-proof community around itself.

Better tenants. There is no vague "Let's-see-who-we-can-get-to-rent-the-space" attitude about Southdale. Its planners know just what kind of stores they want and in what sizes. So far, the wooing has all been by tenants. The Daytons' aim: "To get the best of those who compete with us downtown."

\*The five Dayton brothers (eldest 38) run far-and-away the leading store in Minneapolis, one of the three largest west of Chicago, one of the dozen largest in the country. Annual business in downtown store: \$60 million.

Better atmosphere. Gruen's market-square scheme—little side streets leading to an indoor plaza with an outdoor character—is a beautiful example of how to plan a lot of fun into a serious, functional circulation scheme. It is also a good example of how to get a lot more than customer comfort out of artificial climate, originally conceived for the very practical reason that Minneapolis has only 123 good shopping days a year. For tangible climate and intangible atmosphere, the like of Gruen's plaza has never before been seen in a northern city.

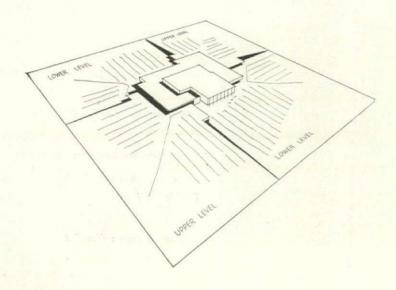
Air conditioning a public square is not so extravagant as it might seem at first sight. Gruen points out that:

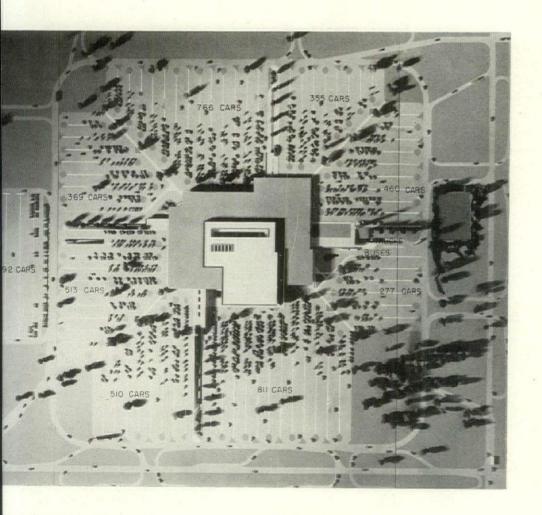
- 1. If the court were open, surrounding stores would lose winter heat or summer cooling into it; a good part of the court climate reflects savings on this leakage. (For details on how he plans to use the court as a big return-air plenum, see p. 160).
- 2. The kindly controlled climate will be easy on building materials as well as humans. Less expensive California materials—plaster and wood—will be used on store fronts instead of the stone and brick needed outdoors against Minnesota storms; glass can be crystal instead of heavy plate. He estimates these construction savings will actually pay for the court's air conditioning.

The Daytons plan to make the most of the festive public-square character. They will equip the plaza with a stage for fashion shows, concerts and lectures, for exhibits of everything from new cars to paintings.

The roof, with its vertical north skylight and its widely spaced diffusing louvers, will look like what it is—the merest skin of protection. "People in the court will know whether it is day or night, clear or cloudy," says Gruen. "Even though they are protected they must feel they are outdoors, because one of the court's chief functions is to provide psychological and visual contrast and relief from indoor shops."







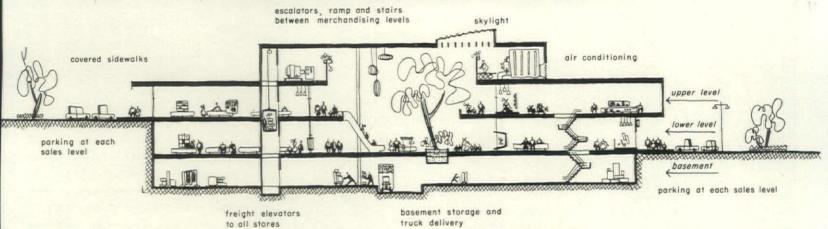
Architecture of the center is reserved in character on the exterior. Gruen calls it "an introvert center" but big blocks of primary color and inviting entrance arcades hint its uninhibited interior nature.

Inside and out the architecture-columns, colonnades, railings, fascia-is definite and strong so there can be a maximum of individuality in shop fronts and signs without architectural explosion. Gruen's philosophy on store fronts: "Owner control-through leases -should be strong enough to rule out clashes in color and design, bad taste and elephantine signs; and over-all architecture should be strong. Outside of this, the more variety the better. Every store has-or ought to haveits own individual way of putting its best foot forward. This is just as true in a shopping center as it is downtown. The shopping center should give its members the benefits of security without stifling freedom and individual expression. Besides, variety humanizes the center. It's fun."

Structure is reinforced concrete with steel trusses carrying the plaza roof. Exterior walls are brick, granite and precast concrete panels with hard quartz finish.

Parking arrangements are ingenious. Note especially: 1) split-level lots on land, originally flat, achieved by ordinary 2% grading for drainage, with direction of grade reversed in adjoining quadrants (yielding 16' differential in 400'); 2) separate overflow lot for peak seasonal business; 3) landscaped reserves for expansion; 4) center's own one-way peripheral belt road with 22 entrance and exit points on public roads; 5) landscaped strips shielding parking from thoroughfares, making entrances inviting. Gruen thinks easy entrance and easy parking (as with 45° angled 8'-8" stalls used here) are at least as important as quantity of parking. During full-capacity periods the vital question is: How fast can cars be moved in and out?





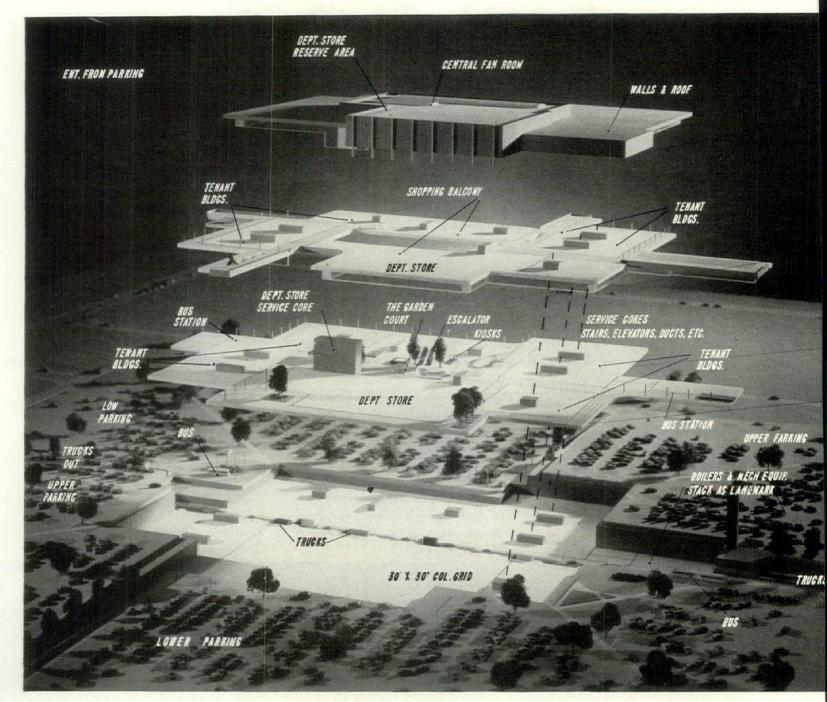
Schematic cross-section shows that building has three stories over the plaza and department store. The top floor houses air-conditioning equipment and includes a 60,000 sq. ft. shell for department store sales expansion. Foundations, structure and roof had to be

truck delivery

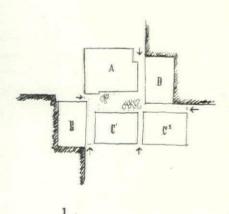
built for this future vertical expansion, and building the added shell itself cost only an additional \$3 per sq. ft. The extra initial expense was deemed worth-while for the sake of future savings and convenience, and for present esthetics.



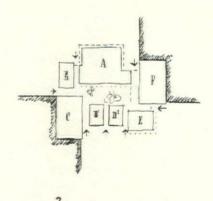
Air-conditioned court, viewed from its northwest corner on the lower level. The "outdoor cafe" is at the far (southeast) corner. Even at night the illusion of outdoors will persist because Gruen puts no lights in the court ceiling; instead he hangs "Japanese lantern" fixtures. Patrons will have no need for winter clothing in this little never-never land, may leave coats and galoshes at checkrooms. Location of checkrooms is still being studied.



Renting model "explodes" to show tenants exactly what space they have (view on front cover is reversed)

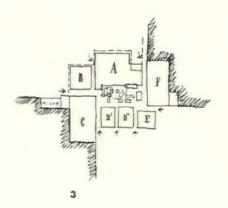


Evolution: First Southdale scheme embodied all basic features: two-level selling and parking, sublevel delivery, covered skylighted plaza. Faults: small outside court on north poorly proportioned, some stores in C² faced blank retaining wall, some in B did not front on arcade, not enough frontage with

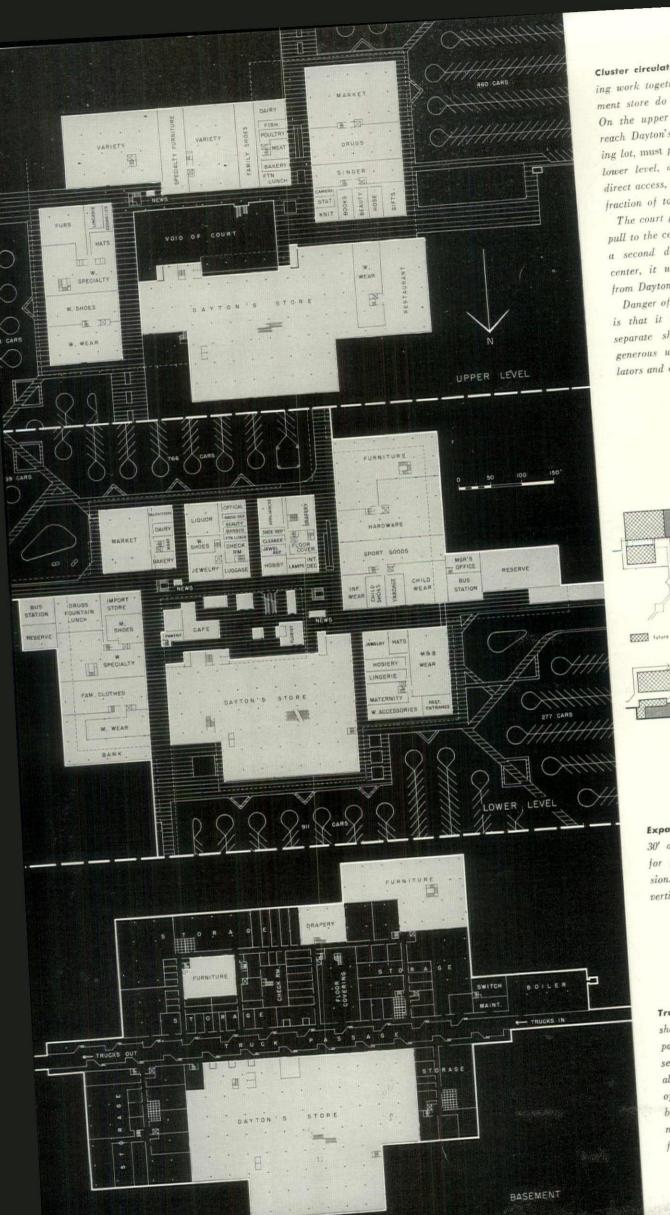


shallow depth for small stores. Scheme

2 added rental space to the valuable location west of the department store (reserved for expansion in first scheme), subdivided southern buildings for smaller stores, reduced size of department store. Rigorous economic analysis in November resulted in decreased ratio



of public, service and equipment areas. More than 60,000 sq. ft. of fat were removed without loss of any rental area. Scheme 3—status as plans went into working drawings—reflect these changes plus more rental refinements and shift of boilerhouse from an off-site location. For expansion plan, see opposite.

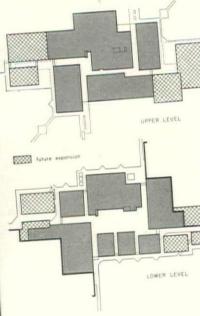


Cluster circulation and split-level parking work together to make the department store do full duty as a magnet:

On the upper level, customers cannot reach Dayton's directly from the parking lot, must pass small stores first. On lower level, department store has one direct access, convenient to only a small fraction of total parking space.

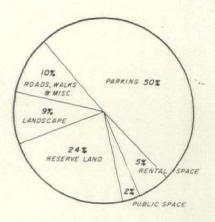
The court greatly reinforces customer pull to the center of the cluster. Should a second department store join the center, it would go across the court from Dayton's.

Danger of a two-level shopping center is that it will become in effect two separate shopping centers. Note the generous use of interior ramps, escalators and elevators to avoid this pitfall.

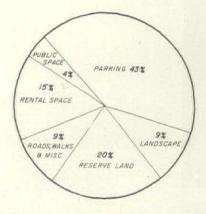


Expansion plan: Truck tunnel ext 30' at each end of the group to a for future two-story horizontal ex sion. Department store expansion vertical (see cross-section, p. 129)

Truck tunnel in early scheme a shaped but was rejected for this spassage to cut out all turns, service. Loading docks lead to alleys with access to each storof department and furnishing basements are for selling; otherwise are for storage and expacilities.

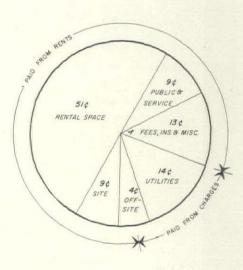


Percentages refer to ground level only



Percentages refer to all areas

Ground coverage: Charts show proportions and types of space added above and below ground level. Buildings occupy only 7% of site but buildings' share of all space is 19%.



Construction cost accounting: Sq. ft. cost is figured differently from most other building types. Cost figure (\$16 for Southdale) is derived from totaling all site-improvement and building costs, then dividing this by the sq. ft. of rental area (sales plus storage space),

not by total building square footage. Thus rental area directly carries cost load of parking, public spaces, service alleys, etc. Items paid for by tenants as separate charges (air conditioning, television circuit, etc.) are designated self-liquidating, not figured into sq. ft. costs.

### How to get a shopping-center site for nothing

The Daytons think they have the cheapest site ever acquired by any developer. In effect they are getting it free!

Here is the story: After economic analysis pinned down the best site location, the Daytons asked Gruen how much land they would need. (They had been thinking in terms of 100 acres or so.) His reply: "The more the better." They took him at his word, promptly bought up 462 acres of rolling pasture, woods and lake.

Neither Gruen's advice nor the Daytons' response was caprice. The purchase is being exploited to give these benefits:

- It will protect the shopping center from the parasite commercial developments that always spring up around a new shopping center.
- ▶ The Daytons, rather than outside speculators, will get the benefit of higher land values created by the shopping center. They expect their profit on the buffer property to pay in full for the 84 acres actually occupied by the shopping center and for development of center roads.
- ▶ It gives the Daytons control over access roads, facilitates cooperation with local authorities and other property owners.
- And—most important in the long run—it lets them create a desirable and blightproof neighborhood to increase and stabilize the value of the site.

To forestall blight, the land plan protects residential areas from center traffic; uses office buildings, apartment houses and land-scaped strips as transition zones between commercial and residential areas; and protects other residential borders with parks.

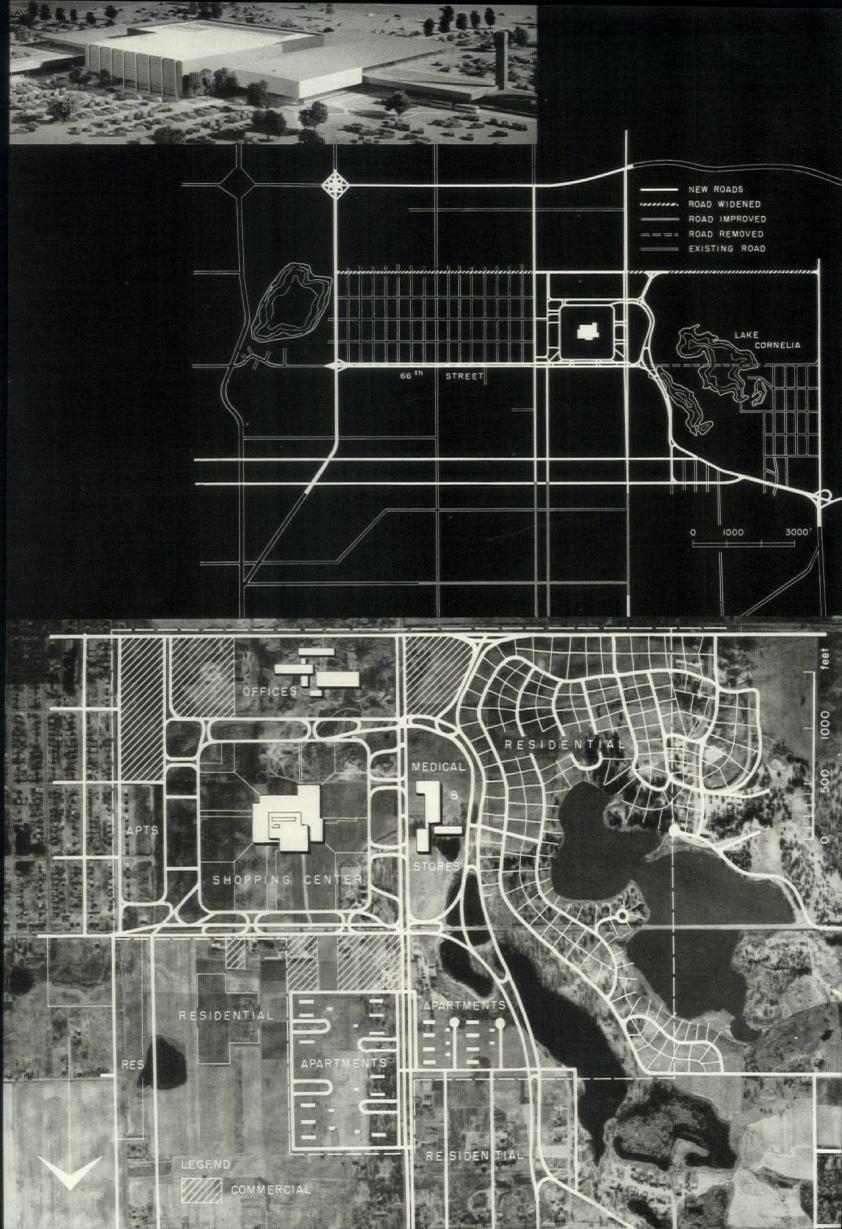
Gruen based road improvements (map at top) on estimates of shopping-center traffic plus through traffic at rush-hour periods. He eliminates 66th St. west of the center (to r on map) in favor of a new parkway thereby rehabilitating Lake Cornelia, formerly marred by an earth dam that carried the road.

#### Had owners and architect not been town-plan conscious, they would have lost their chance for an economically ideal site

Two years ago local residents turned down flat a branch department store project proposed by a Dayton competitor. Before Southdale came up for zoning approval, the Daytons distributed more than 5,000 attractive little brochures to everyone in the area, explaining exactly what they proposed to do and why, showed slides of the project, invited and answered questions. At the crucial town meeting, 300 voters turned up. Votes against rezoning: 3. A year of planning work had preceded the vote.

"It was a big gamble," comments Gruen. "But if it had been smaller it would have failed."

Buffer acres are allotted as follows: single-family homes, 131 acres (averaging ½ acre per house); commercial and business, 87 acres; apartments, 60 acres; roads, 54 acres; lakes, ponds and parks, 46 acres. Shopping center itself occupies an additional 84 acres.



# **MID-CITY SHOPPING CENTER**

behind its urban location and sophisticated
design is an unusual and lesson-packed planning story

Board of design:

KENNETH C. WELCH, architect
PIETRO BELLUSCHI, architect
DAN KILEY, landscape architect
FISHER, WILLIAMS, NES & CAMPBELL, architects
WILBUR SMITH, traffic consultant
SEWARD MOTT, operations consultant
MOSS-ROUSE CO., economic analysis and research

#### MONDAWMIN, Baltimore

MONDAWMIN CORP., owner HARRY BART, president

#### STATISTICAL PROFILE

Site size: 46 acres

Rental area: total: 450,000 sq. ft. (plus 40,000 sq. ft. of office building space) dept. stores only: 150,000 sq. ft. and 100,000 sq. ft.

No. of stores: 47

Parking stalls: 4,500

Ratio: 9.1 cars per 1,000 sq. ft. of rental area

Trade area pop.: 634,000 persons within 25 min. time-distance

#### Estimated annual business:

\$25,000,000 (not including food sales)

Total cost: \$7,500,000 (including office building)

Per sq. ft. of rental area: \$15

Construction starts: summer '53

Mondawmin is doubly interesting:

It is interesting in itself because as a design it simultaneously exploits and minimizes its size, artfully making the best of it both ways. Like a Chinese house, it has one court leading into another; it uses its bigness to get variety and its variety to get human scale.

It is also interesting because of the story behind the scenes. Mondawmin did not begin with a shopping-center developer in search of a site. It began instead with a what-is-it? site and a search for something to fit it. In the course of working out their problem hindside-before, Mondawmin's developers crystallized some good specific rules for shopping-center siting, thought up an unorthodox and successful technique for easing the pains of rezoning, and quite possibly saved a section of the city from deterioration. They have managed to create an urban shopping center that will put the sub-urbs on their mettle, instead of the other way around.

**The design** is calculated to beguile the customer with a succession of charms, not to flabbergast him with the center's over-all size and completeness. The architects shunned any hint of monumentality (except for the office building which serves also as landmark). But they also shunned any repetition of small elements.

Says Belluschi: "We were after flexibility and variety. The center is simply a 'continuity' for embracing everything from bazaar to department store. We were also after the scale you find in the old shopping streets of France and Italy—perfectly logical in a pedestrian center. With the short distances, the variety and no dead areas, it should be a lively place—lots of things happening whereever a person walks."

From the door of one department store to the other is only 425' and even this is broken up to make it seem shorter. The entire center is planned on a 35' square module, with the bays opened or closed in either direction.

The developers hope the office building will be an intangible—as well as a tangible—landmark. Example: television station, or telephone exchange named, of course, Mondawmin. If everything does not work out that pat, tenants will be chosen on the basis of the customer-bringing potential vs. the negative factor of how much parking-lot space they or their visitors will occupy.

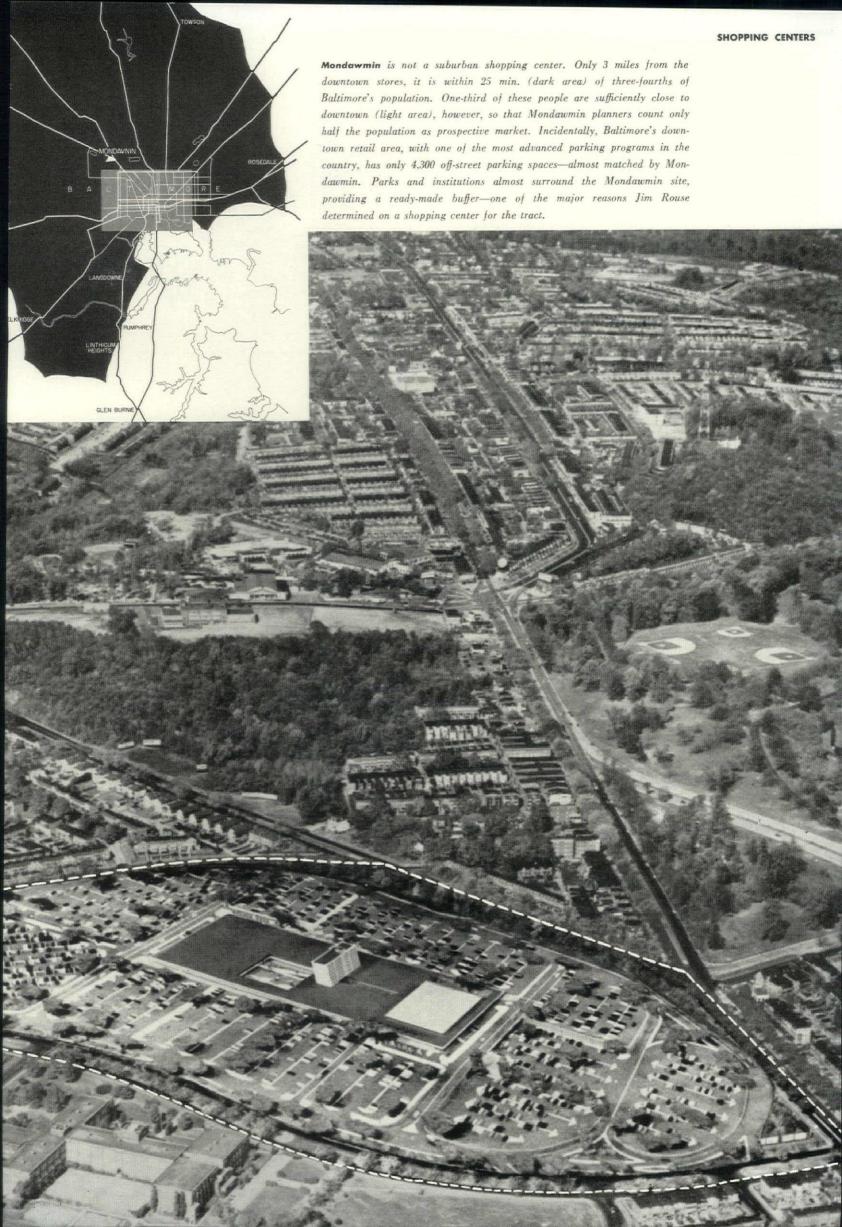
The story behind Mondawmin Shopping Center began in 1949 when Mortgage-banker Jim Rouse saw in his morning paper that aged Financier Alexander Brown was dead.

This meant, Rouse reasoned, the old Brown homestead\*—a 46-acre "country estate" long since surrounded by city—would likely go on the market. He suggested to Brown's heir, Alexander Brown Griswold, that Moss-Rouse Co. do a research job before Griswold put the land up for sale. Object: to learn the tract's possibilities and hence the kind of price it should bring.

Rouse had two motives for this suggestion. First, he is passionately devoted to Baltimore and Baltimore's future (as one of his civic chores, he heads the Mayor's Advisory Committee on the famed Baltimore Plan for slum rehabilitation). Here was a marvelous tract to be assimilated into the city's life and, as a Baltimorean, he wanted its assimilation to make sense.

<sup>\*</sup> Named Mondawmin (maize fields) by guest Henry Wadsworth Longfellow.





Second, Rouse is an irrepressible "impresario," And here was an irresistible setting for some kind of show. Just what kind, he had no idea at the moment, but it was a show he wanted a finger in.

Griswold agreed and Rouse's analysts went to work. The first important clue was a traffic-flow map of the city. It showed two main ganglia, strikingly alike: one was downtown, the other precisely circled the high board fence of Mondawmin. Ergo: so far as access goes, Mondawmin is a second "downtown."

Population and income maps put Mondawmin almost squarely in the center of the retail market—far closer to the top two-fifths of the income than the swank Towson section, hitherto theoretically considered the ideal spot for reaching the high-income market.

This data convinced Rouse a shopping center was the answer provided the site itself was suitable. A less imaginative man would have been put off by Mondawmin's institutional and park surroundings. But Rouse, reasoning along much the same lines as Gruen (see p. 132), figured these noncommercial neighbors were the perfect buffer. ("This is a hard point to get across to people.")

Some hard figuring on size (his rule: a minimum of 200,000 sq. ft. for two department stores, an equal quantity for other stores, a ratio of 1 car per 100 sq. ft.) convinced him 45 acres was a reasonable minimum. Mondawmin would get in just under the wire.

It seemed to Rouse a shame to use up this thinking on just one shopping center. He generalized his discoveries thus: The first requisite is the right site; the right site for a regional center *must* have:

- 1. At least 45 acres of land. ("Sounds like a high minimum, but no use even looking at anything smaller.")
- 2. Exceptionally good existing highway capacity or the ability to enlarge it. ("Location on 'important highways' may not mean 'good highways'; capacity is the vital factor.")
- 3. Location close to the *top two-fifths* of family income. ("If it fills this condition it will automatically be close enough to the third fifth. And the top two-fifths buys 65 to 70% of all department store-type merchandise.")

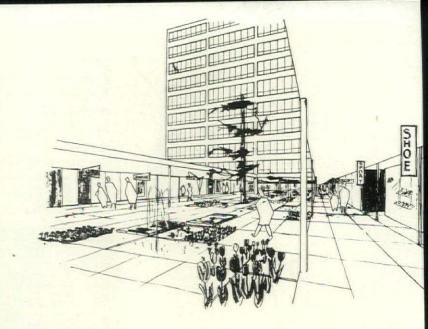
(Right now Rouse is using this recipe to line up shopping-center sites in half a dozen southern cities.)

Rouse's enthusiasm infected Griswold and an old friend, Housebuilder Harry Bart. Mondawmin Corp. was formed with Bart putting in money for development and part of the land, Griswold putting in the rest of the land, Rouse putting in his talents as impresario.

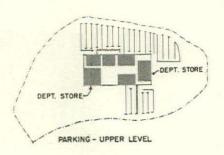
The Board of Design idea was born casually during a public meeting when Rouse confided to his seat mate, New York real estate operator Bob Dowling, that he was somewhat at a loss on his next step—how to get a scheme. For this apple of his eye, he wanted a specific collection of architectural talents he could not find wrapped up in any one firm. "Nothing to that," said Dowling. "Don't hire a firm; hire a design board."

By all accounts of both Rouse and the members, the design-board idea has been a howling success. Everyone put design ideas in the pot. Seward Mott played the useful—Rouse says "indispensable"—role of devil's advocate, by making the others prove to him (and themselves) the invulnerability of every proposal before it was accepted. Welch gave the others an intensive course in shopping-center theory, laid down the major principles for Mondawmin.

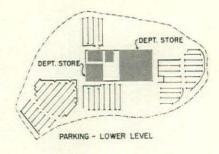
Along with the design work, the research burgeoned—now focused on specifics. One of its more extraordinary documents is a fantastically detailed examination of the shopping habits of 507 sample Baltimoreans. It includes the information that three times as many people buy notions and dress materials as had any intention of doing so; that more men's clothing than women's is bought on impulse; that only 63% of people who go out to buy gifts actually buy them. Used as a local refiner of general retailing maxims, the survey points to the stores Mondawmin should have.



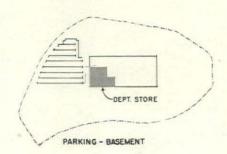
Upper-level mall is dominated by office building

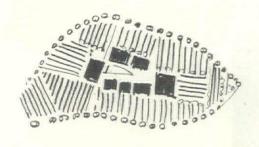


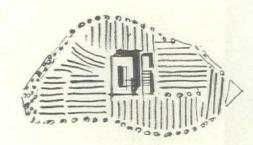
Three-level parking gives customers direct access to both main levels and to basement selling space. Only level without parking access is top floor of larger department store. Elevated roads over parking spaces give each department

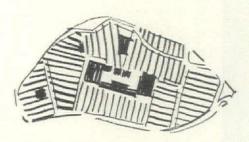


store an additional "carriage entrance." Varied parking levels, based on original contours of the land, will save many fine old trees.

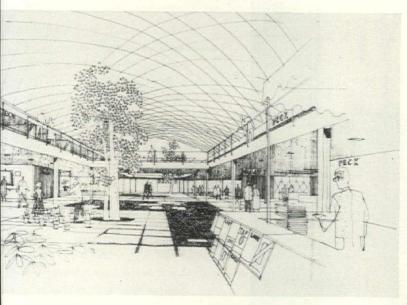








Evolution: Design board members brought schemes to meetings and threshed out the faults together. Early scheme (1) by Fisher, Williams, Nes & Campbell, dated March 1952, was too loose and rambling; at the other extreme was a Kiley scheme (2) for a six-story center which put parking too far away and departmentalized stores too rigidly. Welch scheme (3) dated June shows progress toward final concept; it had three-level parking but it scattered subsidiary buildings over site. By July designs of all architects had come close together and final scheme jelled in September.



Enclosed court was considered in preliminary schemes and may yet be adopted. This Belluschi rendering shows court (from a plan since revised) with a double-skin lamella roof. Outer skin would contain big monitor windows oriented to reduce sun heat load.





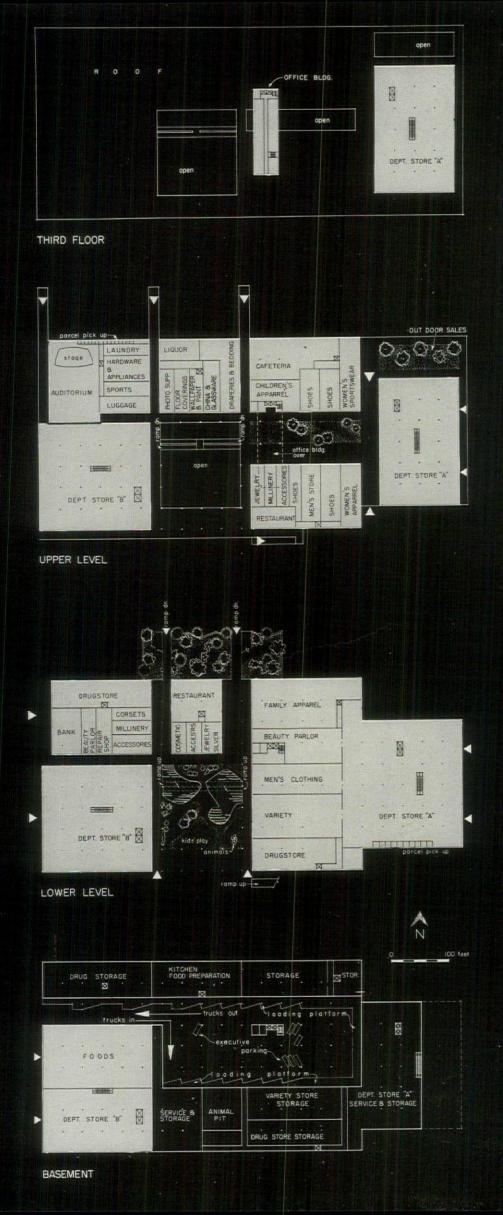
**Rezoning** was beautifully handled. From the beginning, the design board consulted city traffic authorities, met their requirements. As soon as the design began to jell, Rouse had a model made, presented it to neighborhood and civic groups of every kind, talked it over with them and with the City Planning Commission.

The commission liked the idea but balked at rezoning residential land for commercial use with no way of controlling how well or how badly the project was actually planned. "We'll let you approve the plans," Rouse offered. When it turned out the planning commission had no authority to pass on the plans of private developments, a brand-new ordinance was framed and passed by the City Council at Rouse's suggestion; it made the planning commission a special committee to pass on Mondawmin's plans.

On the day the approved plan came before the council, citizens thronged to the hearing by the hundreds. The meeting had to be moved into an auditorium. Rouse and his colleagues had a few nervous moments before applause for their presentation assured them the turnout was friendly. Only one protester had come.

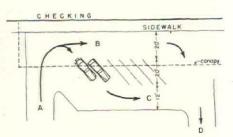
But the best bouquet was a special resolution by the planning commission. It was filled with such phrases as "... the sponsors of the project had a complete knowledge and understanding of the magnitude of the problem, bearing in mind at all times the total impact on the community.... Functional design, esthetics and civic interest were made primary features...."

To Mondawmin's developers, this was a report card from the city of Baltimore and they are as proud of it as a bunch of first-graders with all A's.



Outdoor connections between levels are all ramped. For view of double-ramp in court, see rendering, p. 139.

Auditorium will double as extra department store sales space in December.



Package pickup system: Driver enters through lane A, into lane B, parks with rear end of car under canopy. After merchandise is loaded from check booth, customer drives straight out into lane C, exits along D. Each of the center's two main levels has a pickup station (see plans). Conveyor belt system feeding booths in parking field was rejected because it would mean special packaging of some merchandise.

Unorthodox circulation: customers in court must pass through smaller shops to enter department store A.

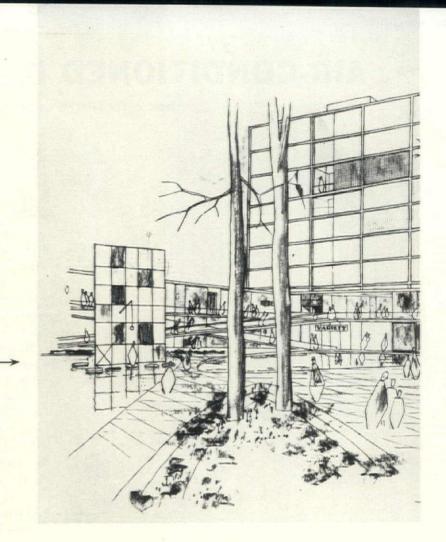
Restaurant garden and court will flow together, restaurant and three small shops being treated as a glass-walled island. Restaurant and drugstores are located so they can be kept open when rest of the center is closed.

Service traffic (usually vastly overestimated, Welch says), enters basement through ordinary parking lane. Underground parking—for store managers and office building tenants—is planned as a money-maker, helps justify cost of underground truck servicing. Animal pit is for small zoo in court above.

Evening rush shopping chart shows traffic expert Wilbur Smith's educated guess on access highway loads after the shopping center is built. A similar chart was made for the 5-6 P.M. rush hour. Existing public roads will take the expected load.

Double ramps in court meet at a midway "landing," permitting customers either to continue in a straight diagonal to other side of court, or to double back toward side from which they started.

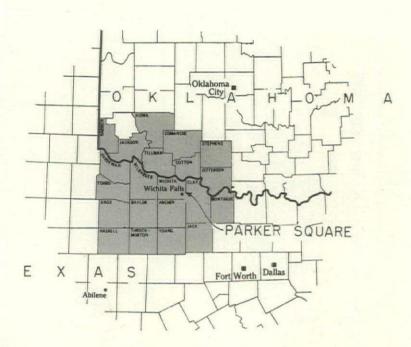
Entrance to court at lower level is shown in Kiley rendering, with exterior ramp to upper level, at the right. The court will contain a supervised playground for shopper convenience and for exploiting the decorative value of toddlers.





# **AIR-CONDITIONED BAZAAR**

has a five-acre canopy suspended over stores, streets and all



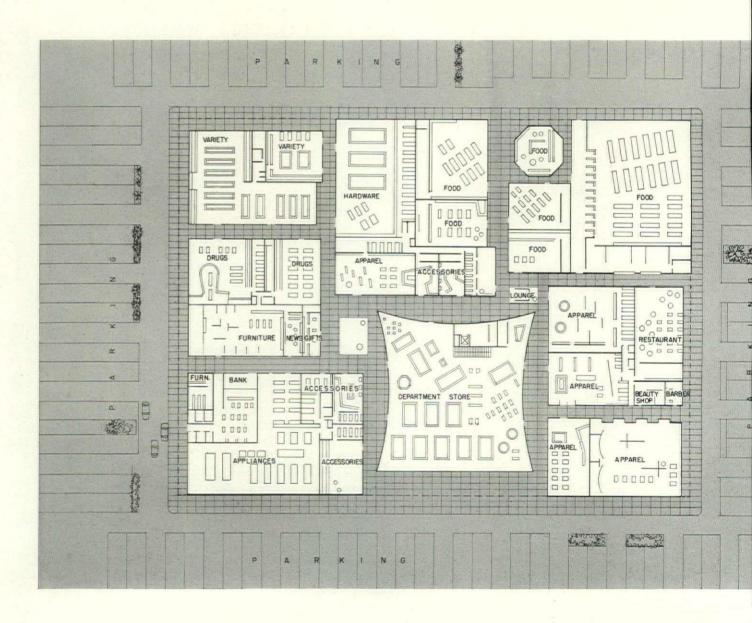
This shopping center is based on the theories that 1) nothing is so attractive to shoppers as shops, and 2) nothing could be more attractive to dust-plagued and heat-bothered shoppers than shops on air-conditioned streets.

Architects Ketchum, Gina & Sharp have provided these desiderata in the most direct fashion possible. Their center is simply one big rectangle—five acres of protection from the elements—with shops, show windows and streets from one end to the other. Where you might expect to find a court, it has a department store. It is a tamed and groomed version of the Oriental bazaar set down in the dusty oil and cattle country of Texas.

It is also probably the most flexible shopping center yet designed. To keep bays big and columns small, the roof is suspended from cables (see p. 142). The stores are arranged beneath this canopy like crackers on a tray. When the time for expansion comes, the tray will merely be lengthened. (Over the department store, a second story will be added.)

The obvious danger in this kind of scheme is that customers will feel they are wandering through tunnels in a monotonous and claustrophobic shed. Here is how the architects forestall this:

▶ They punch holes in the canopy occasionally, let down "wells" of outdoor light (but not air; the "wells" will be glazed). These little



#### STATISTICAL PROFILE

Site size: 41 acres (plus 12 acres for undecided use)

#### Rental area:

total: 244,000 sq. ft.

department store only: 60,000 sq. ft.

No. of stores: 32

Parking stalls: 2,760

Ratio: 11.3 cars per 1,000 sq. ft. of rental

area

Trade area pop.: 120,000 families in 13

Texas and 8 Oklahoma counties

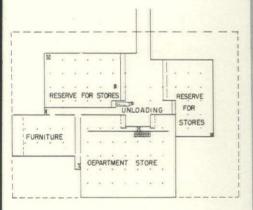
Estimated annual business:  $\$17,\!800,\!000$ 

Total cost: \$3,464,816

per sq. ft. of rental area: \$14

Parking lot has its own perimeter roadway with entrances and automobile service stations on two principal boulevards. Pedestrian walkways lead from the two bus stations. Parking space is ample for peak seasonal trade plus employees' cars; reserve land provides for future expansion of both building and parking areas.

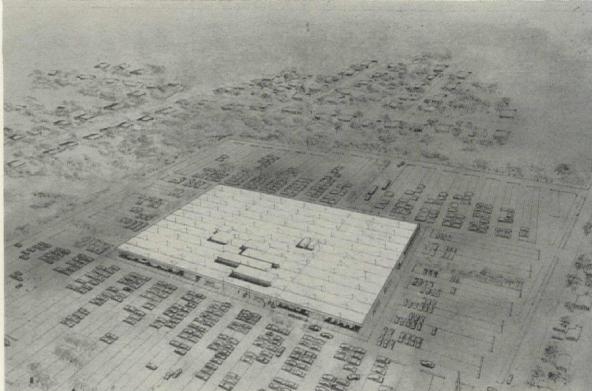
Trucks enter basement via ramped roadway. Department and furniture stores have selling space on basement level.

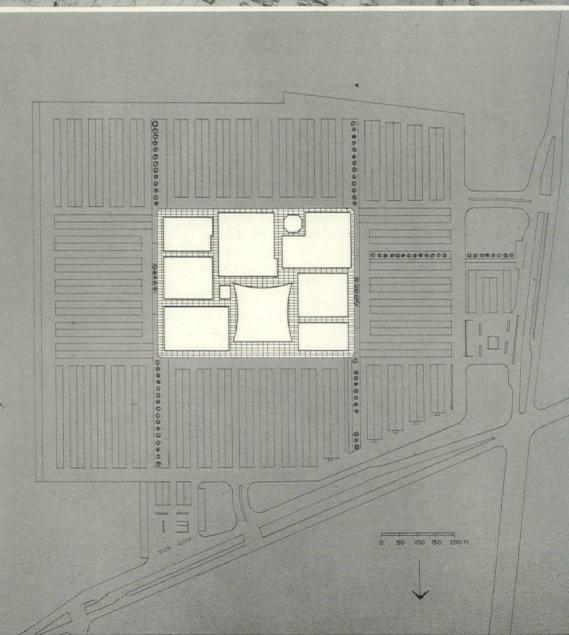


Circulation: All customers are pulled into the streets of the center because no store has an entrance directly from the exterior. The department store, with main entrances on its east and west sides, is the primary pull. The two largest secondary pulls are expected to be the food market in the southwest corner and the variety-hardware group at the southeast.

#### PARKER SQUARE, Wichita Falls, Tex.

K & K DEVELOPMENT, owner
KETCHUM, GINA & SHARP, architects
HOMER HOYT ASSOCIATES, economic consultant
SEVERUD-ELSTAD-KRUEGER, structural engineers
SYSKA & HENNESSY INC., mechanical engineers
THOMAS CHURCH, landscape architect





courts, open to the sky, will be treated as gardens. The scheme is a sort of greenhouse-in-reverse, with the people inside the glass and the plants outside. Exactly where the little gardens will go awaits the final tenant line-up, so the "wells" are not shown on plans. It is too early to say anything specific about Landscape Architect Thomas Church's plan for indoor and outdoor planting.

- ▶ They raise the height of the canopy occasionally. Over the lounge and the child-care center the raised roof will have clerestory windows. Much of the department store will be high-roofed.
- ▶ They stagger the streets to cut their length, line them almost entirely with shop windows, provide planting boxes where the streets widen or jog.

The architects think the sales appeal of show windows and open fronts on these interior streets will be terrific. "There will be less light reflection than outdoors," Morris Ketchum points out. "And the store lighting will not have to compete with the sun." Store fronts will be standard design (metal frames, opaque and glass panels) with tenants permitted architect-approved departures from standard if they pay the difference in cost.

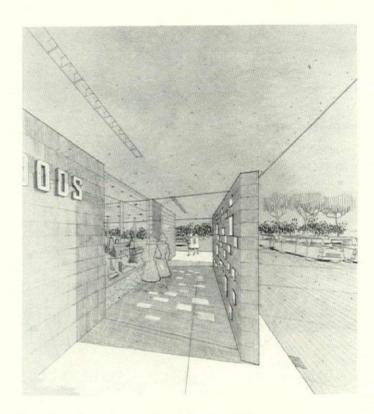
Note the contrast in the consideration given the "big pull," the department store, in this center and in Gruen's Southdale. Here the department store gets the best break in parking convenience and direct customer access. In Southdale the department store is purposely placed at a severe disadvantage in these respects.

There are reasons behind this contradiction. Southdale is developed by the department store which will profit directly from the prosperity of every member in the center; so the department store is planned in every way to promote the success of the whole.

Parker Square is developed by C. B. Parker, owner of a chain of supermarkets. Its department store must appeal to a tenant who will profit only indirectly from the success of the other shops. (On the other hand, Parker's own store in the shopping center, the supermarket, is planned in every way to promote the success of the smaller food shops.)

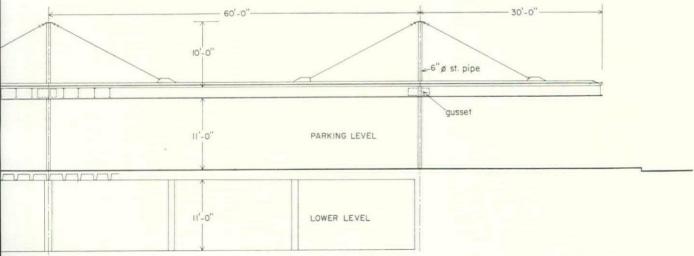
Thus are theoretical schemes for manipulating customer traffic modified, depending on who is interested in *all* the customers.

Parker Square is an unusual cross between a regional and a district center. It is calculated to fill district shopping needs of the principal residential area in Wichita Falls (hence the strong pulling power of its variety, hardware and food stores), but also to pull customers bent on big shopping trips from the sparsely settled ranch country outside. (Wichita Falls is the principal fashion center in the 200 miles between Fort Worth and Oklahoma City. Its downtown retail district has 287,000 sq. ft. of department and leading apparel stores. The largest, Fedway, has 100,000 sq. ft. Parker Square's department store, with 60,000, will be second.)



Glazed portions of east and west facades will be protected by perforated, concrete block walls.

Suspension structure yields big 30' x 60' bays with light framing. Girders are supported at 1/3 points by cables suspended from columns carried 10' above roof level. Roof will be insulated with an evaporative water film.



TYPICAL SECTION



Moulin Studio

32-acre center holds 76 stores, parks 2,500 cars, serves 300,000, is half surrounded by 700-unit Stonestown apartment development

#### STONESTOWN, San Francisco

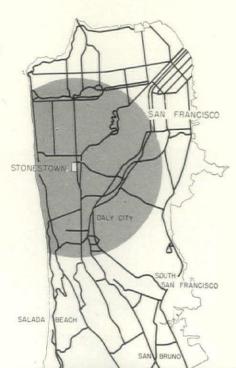
STONESON DEVELOPMENT CORP., owners
WELTON BECKET, FAIA,
& ASSOCIATES, architects
LYNN F. ROBINSON,
structural engineer

MEL CAMMISA,
electrical engineer
DEAN & HILL,
mechanical engineers
HILBURG, BYLER & HENG
mechanical and electrical
engineers for emporium

## **NEW SHOPPER MAGNETS:**

To the usual department store and supermarket

are added an office building, restaurant and community center



This shopping center attracts customers with the standard traffic generators—supermarket and department store—plus three that are less usual: 1) A medical office building, tenanted by 65 doctors, pulls more than 1,600 patients a day, many of whom become shoppers when consultations are over. 2) A first-class restaurant brings mid-town glitter to the suburbs, pulls shoppers who might otherwise go downtown to enliven errands with glamor. 3) A ballroom and other community rooms above the restaurant provide space for meetings and entertainment, pull members of social and business clubs.

California's celebrated suburban opulence was the atmosphere sought throughout the center. It is attained outside with patio-like planting around stores and along the mall and by the use of a wide variety of facing materials such as brick, slate, marble, fieldstone, glass, aluminum, plaster and porcelain enamel. Interiors, though varied, have more urbane finishes such as glass,

#### STATISTICAL PROFILE

Site size: 32 acres

Rental area: total: 977,793 sq. ft.

department stores: 287,274 sq. ft. and 30,000

sq. ft.

No. of stores: 76 Parking stalls: 2,500

Ratio: 2.5 cars per 1,000 sq. ft. of rental area

Trade area population: 300,000 Estimated annual business: \$45 million

Total cost: \$19,750,000

per sq. ft. of rental area: \$22 Construction started: 1950

Construction completed: 95% complete Mar. '53

marble and metal mixed with specially treated woods and bright colors. Result: studied rusticity interwoven with sophistication.

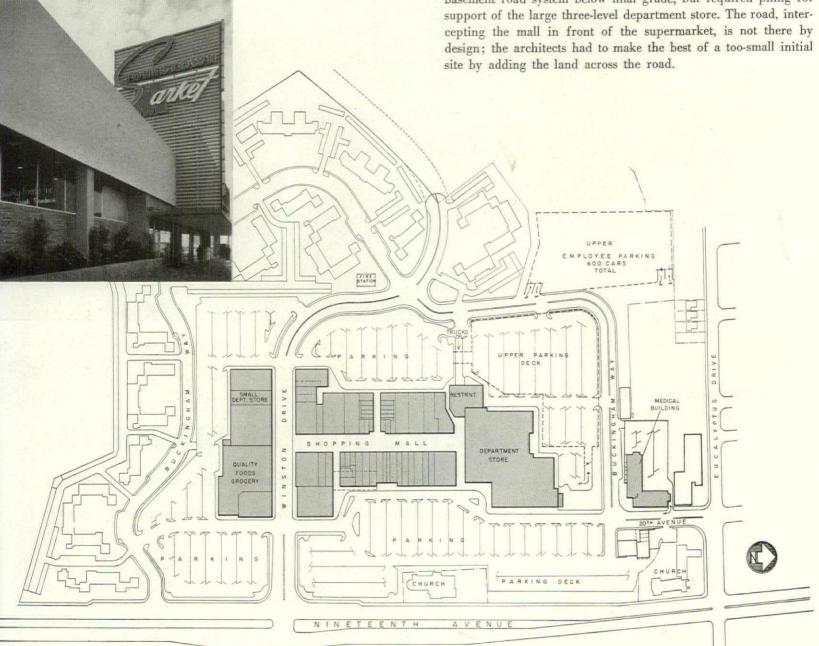
All units are individually heated and ventilated. No air conditioning is required in the temperate coastal climate.

Delivery and service trucks use an underground road system serving the basement level of nearly all stores and shops.

Upper-deck parking behind the department store will bring shoppers directly into the store's middle level; lower-deck parkers walk straight into the lower level.

Supermarket customers check their purchases in the store while shopping elsewhere and then drive by a checkout stand where attendants load the groceries into cars.

An unusually low land cost (\$250,000) was largely offset by site development costs. Forty per cent of the site originally was gully and had to be filled. This made for easy development of the basement road system below final grade, but required piling for



Site plan shows 2,500 parking spaces within 300' of stores and free of commercial traffic. Trucks use underground road system to store basements. Supermarket end of center is separated by existing road which defied relocation efforts. Medical Center building behind department store (right) is auxiliary traffic generator, fills long-known need of this San Francisco suburb.



Photos: R. C. Cleveland





Wedge-shaped tower of department store (left) rises 100' above center, is faced with white porcelain enamel, serves dual function of monument and enclosure for elevator shaft, penthouse, ventilating fans, other mechanical equipment.

Concrete canopies (left, below) provide sheltered arcades on street sides of department store.

Big restaurant (below) brings glamor to suburbs. Community-use rooms and ballroom on second level attract civic, business group luncheons and dances.



Photos: Robert C. Cleveland, Moulin Studios and Shelton Studios

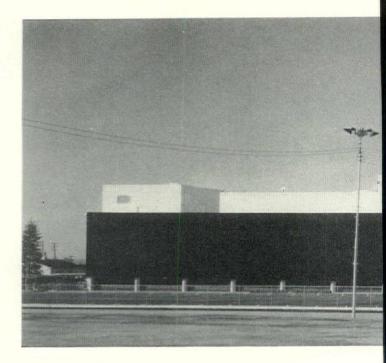
Three-level department store is of reinforced concrete, faced with corrugated concrete, fieldstone and brick

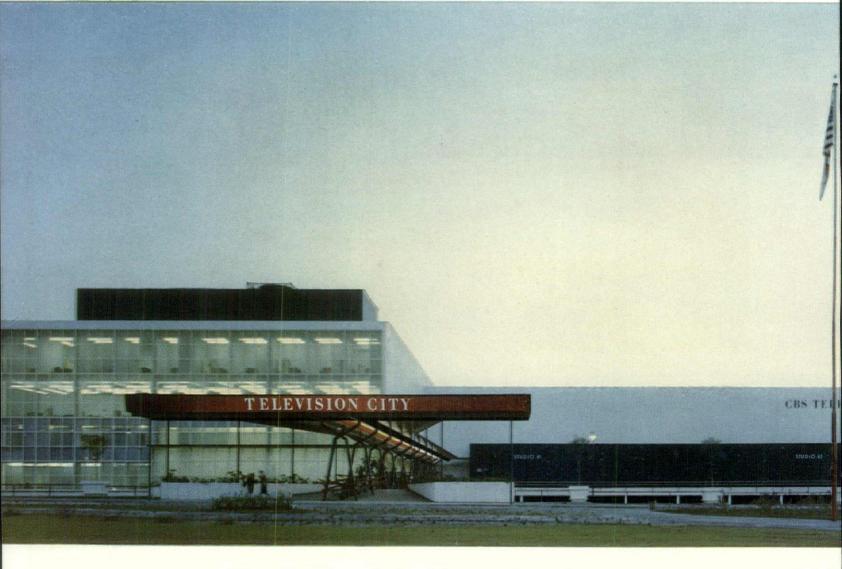


Entrance is light-flooded, a suitable preparation for the atmosphere of lean yet lavish efficiency which is the essential spirit and purpose of this painstakingly evolved building tool for TV production. Speed and directness are the key words in the design. Nothing bulky is in the way of the swift movement necessary to get a show on and off stage.

North elevation: impermanent feeling of the building, which to an unprecedented degree is composed structurally and visually of large, plain, movable surfaces, is as it should be. This structure is the core of an anticipated 25-acre. 24-studio expansion of the network's TV production facilities on the West Coast, and most of the walls had to be easily demountable for expansion.

## TV CITY





## PICTURE REPORT—Sleek lines and colorful panel walls

bespeak the efficiency, flexibility and expansibility of CBS-TV's new West Coast studios

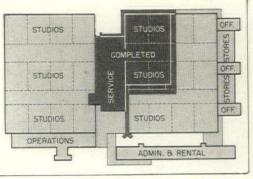
Photos © Ezra Stoller for CBS-TV



East elevation: dark wall is of demountable steel panel construction. Glass wall also will come down relatively easily when studio must expand.

South elevation, below, is only one which is really permanent and indestructible. Reason: this is the end of the lot; expansion in this direction will not be possible.





LOCATION: Hollywood, Calif.

PEREIRA & LUCKMAN, architects and engineers

WILLIAM SIMPSON CONSTRUCTION CO., general contractor

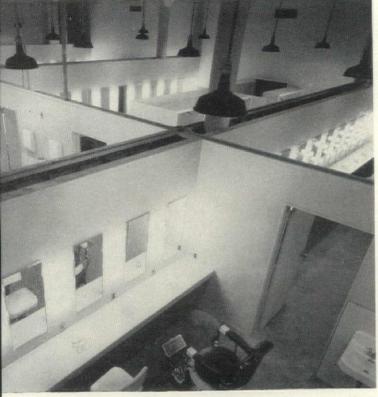
Dark tone indicates completed section of "city," lighter tone, entire concept.



Studios are enormous (130' x 110' x 42' high) mazes of lights, sets, cameras, equipment and, when in use, people. Panel of levers of organlike dimensions is a preset remote-control board for lighting developed by Engineer George Izenour for stage lighting. Electronically operated, it "memorizes" lighting cues of inhuman complexity and delivers them on time. Overhead system of battens suspended in grid formation carries wiring and lighting, can also be used for suspended sets, and establishes immense interior flexibility. Any portion of studio can be used for production.

West elevation thrusts double row of studios out from watchful bulk of crafts, storage, and administration block. Light panel in steel endwall denotes second-story rehearsal hall between studios. After rehearsing, actors move down to studio and meet scenery coming from below.

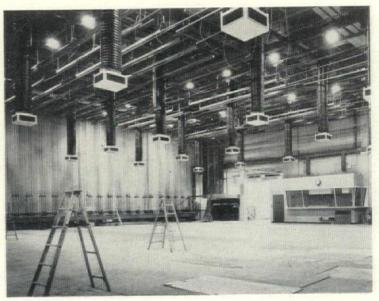




General dressing rooms, are on ground floor, the level at which "talent" enters the building—by-passing the audiences, whose traffic moves around the studios on edges of raft platform (see below).

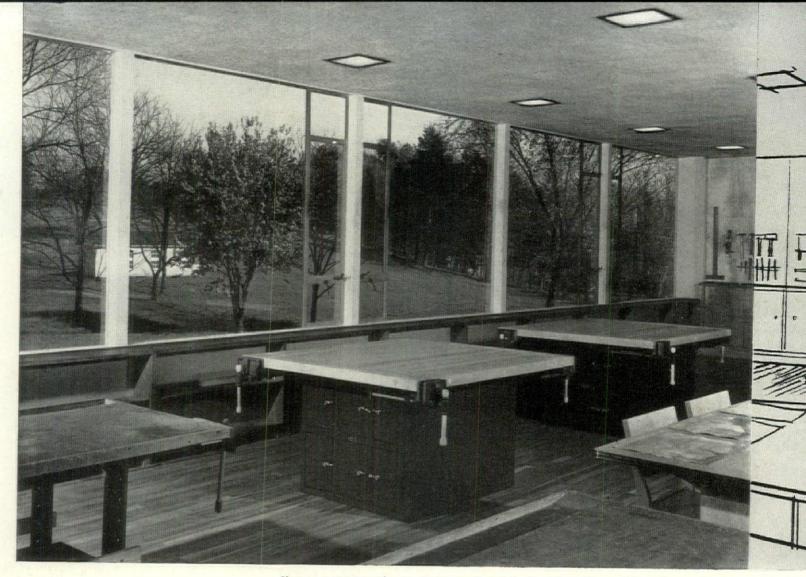


Audience is sunk below level of cameras on runways



Air-conditioning ducts hang on flexible trunks so they can be placed near the TV lights to drain their heat off directly.





Shoproom windows face north for steadiest light, best view. Recessed incandescents supplement natural light

## **LIGHT-FILLED SHOPS**

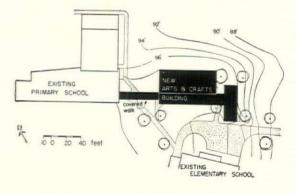
for private school combines north windows with 480 sq. ft. skylight to get unvarying natural ligh

Like an artist's studio, a school shoproom needs a maximum of unvarying natural light. For years, artists have solved the problem by facing their windows north. In this two-room arts and crafts wing for a private country school, Architect Kling has followed suit while adding a trick of his own. He not only faced the windows north but put a huge 80' plastic skylight in the ceiling next to the corridor partition. Heat loss and condensation in the 480 sq. ft. skylight are overcome with convectors recessed in the sides.

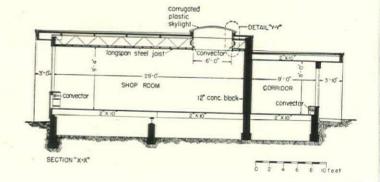
Although a radiant-heated floor slab was used in the existing classroom wing (AF, July '51), this system was abandoned in favor of perimeter hot-water convectors and wood-joist floor construction for the new addition. Reason: heat control was improved and foot fatigue (much shopwork is done standing) was reduced by the more resilient wood floor.

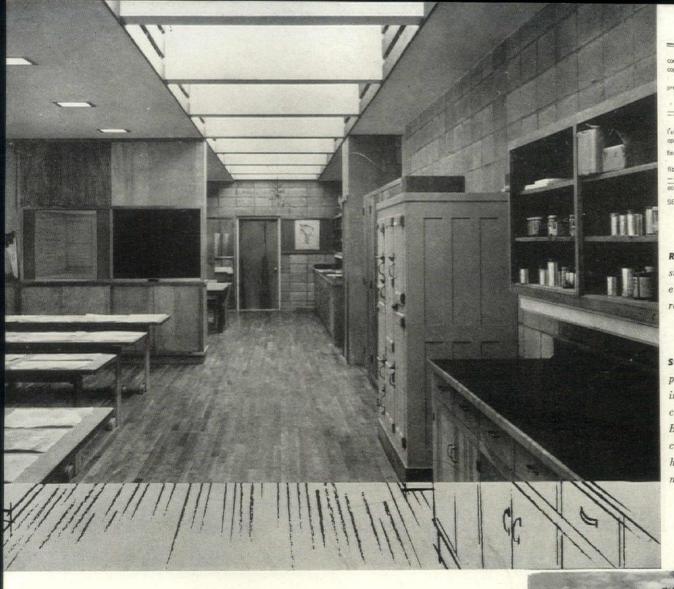
The ceiling was raised from the 8' primary wing height to 9'-4" to get more light and to scale the room to its larger (8- to 12-year-old) users' size. Concrete block (12") form exterior walls and corridor partitions; 18" open-web steel girders 8' o.c. support a built-up roof over the shops; wood roof framing was used over the corridor and the office-utility room annex at the corridor's end.

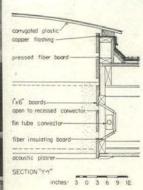
The skylight, steel girders (boxed in plaster across the skylight opening), heating system and built-in equipment storage cabinets brought the cost to \$14.70 per sq. ft.



KIMBERTON FARMS SCHOOL ADDITION, Phoenixville, Pa. VINCENT C. KLING, architect NASON & CULLEN, contractor



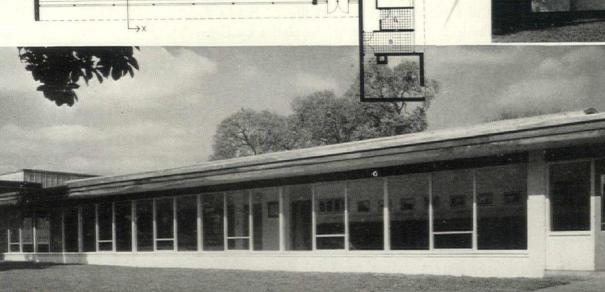




Recessed convectors in sides of the skylight frame eliminate condensation, replace heat lost.

Steel joists boxed in plaster pass through skylight opening which is topped with corrugated plastic panels. Birch cabinets line concrete block corridor wall, hold supplies and equipment.

Photos: Lawrence L. Williams



View from east shows board-and-batten finish of the annex wing housing teachers' offices, rest rooms, utility room.

Corridor side of shop wing faces south, is connected with primary wing by covered walk.



LIFE: John Zim

## 13 HOSPITAL PLAN DETAILS

Good ideas for moving people, supplies and words

help make this 240-bed general hospital work better than most

Basically this is a good, sound T-plan hospital with the webs of the T filled in on the lower floors—nothing sensational about it.

But notice the bits and pieces that make up the T. Study the separate gears and wheels in this example of hospital machinery. They are worked out with unusual ingenuity. This is a hospital more gadgeted than most and the gadgetry makes operating sense because from top to bottom the gadgets work in neatly with floor planning. As one example, note the vertical relationship of utility rooms to drug, sterile and general supply (second-floor plan).

All adjunct facilities and services have been planned for a threestory expansion of the nursing wing, which will bring bed count to approximately 350.

Structure is reinforced concrete with brick and stone veneer on structural clay tile. Interior partitions are clay tile, plastered both sides. Floors are concrete joist slabs with furred metal lath ceilings. Heating is radiant hot water in ceiling. Surgical, delivery, emergency and administrative areas are air conditioned with provision for future air conditioning of all patient rooms.

Total cost (60% Hill-Burton funds; remainder raised by a local 1% sales tax) was \$3,250,000 including equipment; \$13,540 per bed. Building cost, \$2,822,290; \$18.50 per sq. ft.; \$12,000 per bed.

DRUID CITY HOSPITA LOCATION: Tuscaloosa, A CHARLES H. McCAULEY, archite DANIEL CONSTRUCTION CO general contract

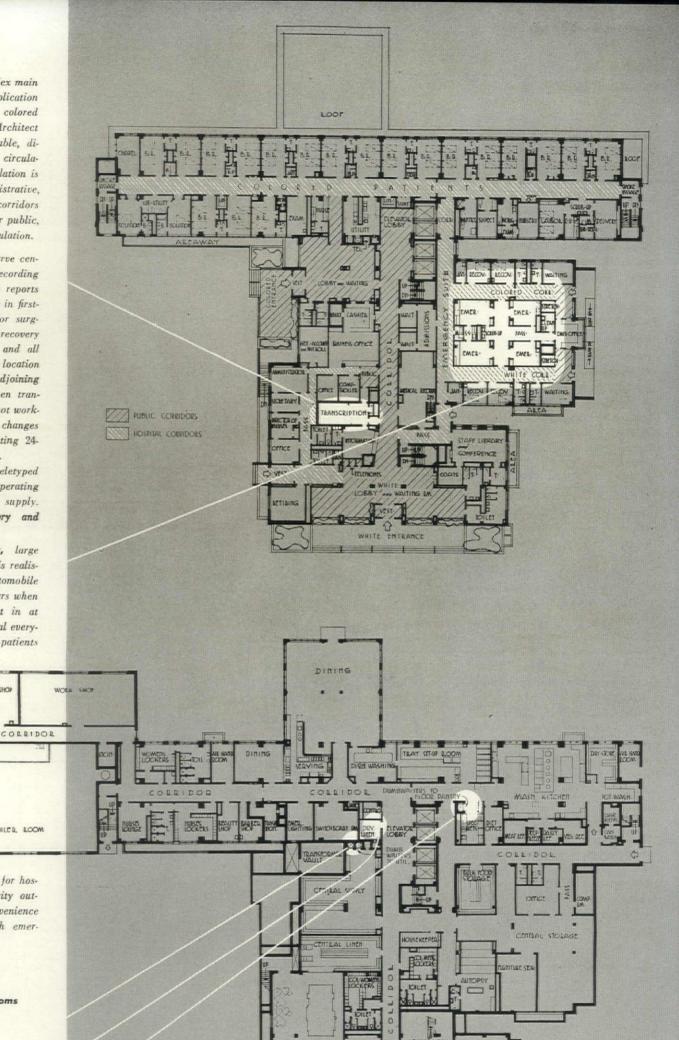
#### FIRST FLOOR

Circulation of already complex main floor involved added complication of separating white and colored patients and visitors. Architect achieved easily understandable, direct routes for both public circulation systems. Hospital circulation is neatly defined into administrative, nursing and emergency corridors with elevators well-placed for public, emergency and service circulation.

1. Transcription room is nerve center of excellent medical recording system. Machine here takes reports direct from dictating phones in first-floor emergency; second-floor surgery, doctors' lounge and recovery suite; third-floor delivery; and all nurse's stations. Note good location opposite records room and adjoining telephone switchboard. When transcription stenographers are not working, switchboard operator changes records on machine, permitting 24-hour-a-day recording service.

Cashier's office receives teletyped memoranda directly from operating and delivery rooms, central supply. pharmacy, X-ray, laboratory and emergency.

2. Emergency department, large and unusually complete. It is realistically designed for automobile wrecks and industrial disasters when several victims are brought in at once, is justified by additional everyday functions. It serves patients



brought in by rural doctors for hospital tests, is used as charity outpatient department. Note convenience of admitting office to both emergency and public corridors.

#### BASEMENT

Dumbwaiters to utility rooms

-see second-floor plan

CONDENSED

Dry-linen chute

-see third-floor plan

**Dumbwaiter** to floor pantry

-see third-floor plan

Bloody-linen chute

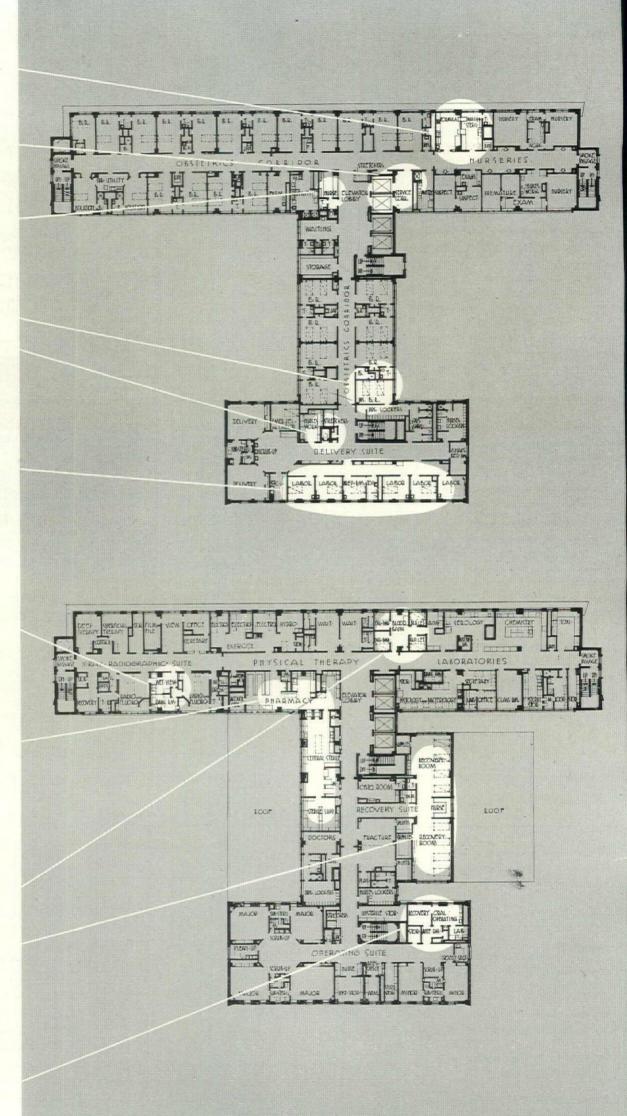
-see third-floor plan

#### THIRD FLOOR

- 3. Formula and bottle rooms have sterilizer between, opening from both rooms. Flexible arrangement gives supervisor free choice of bottle sterilization routine—before filling or after.
- 4. Dumbwaiter from diet kitchen in basement brings special diets to each floor. Regular patients have central tray service; heated carts reach service corridor by elevator.
- 5. Nurse's station is well-located for control both of lobby and nursing wings. Note that dry-linen chute is separated from corridor by a door, eliminating nuisance of "wastebasket" use by visitors.
- **6. Doctors' bedroom** is integral part of delivery suite.
- 7. Bloody-linen chute from delivery and operating suites terminates at laundry in a portable wet tank. Automatic shower cleans chute after each use; shower water runs off through floor drain in laundry in event wet tank has been removed or is filled.
- 8. Labor rooms are sensibly small, permit additional corridor space, resulting in convenient sub-suite within delivery. Cabinets, ranged along extra partition, aid nurses' efficiency.

#### SECOND FLOOR

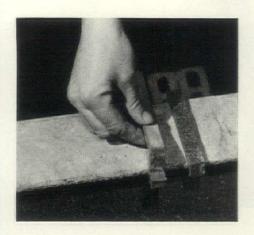
- 9. Wet-view X-ray room permits soonest possible look at all plates, makes rush requests by doctors unnecessary. Film travels through darkroom developing tanks, passes automatically through masked wall slit into wet-view room as soon as exposure to light is permissible.
- 10. Pharmacy and central sterilizing are juxtaposed, ideal for efficient processing of sterile solutions and vessels. Note also dumbwaiters which connect pharmacy, sterile supply and (in basement) central supply directly with utility rooms. Intercom system with amplifier carries requests from utility rooms to dumbwaiter control points.
- 11. Blood bank is excellently related to laboratory and to public elevators.
- 12. Recovery wards are removed from main surgical circulation but convenient to whole surgery complex, easily supervised by anesthetist. Only unfortunate feature is opaque walls of nurse's station (owing to patient segregation) which makes routine observation ludicrously difficult.
- 13. Oral surgery is included in excellent operating suite.

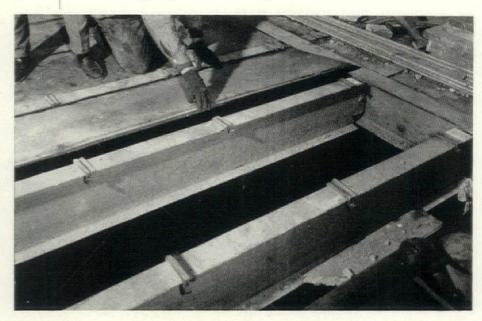


## **BUILDING ENGINEERING**

- 1. Concrete floor slabs only 2" thick
- 2. Roof overhangs 35' long
- 3. Glass skylights 4" thick
- 4. Shopping centers 100% air conditioned







Cast-iron clips (shown halfsize at top) fit top flange of light steel joists. These clips support \( \frac{5}{8}'' \) thick plywood forms (top, right). Pictures below show construction sequence: 1) forms being laid; 2) same forms seen from beneath; 3) steel mesh reinforcing spread across forms; 4) placing concrete for 2" floor slab; 5) finished floor seen from beneath after forms have been removed by snapping brittle clips. Bottom of slab extends \( \frac{1}{4}'' \) below top

flanges to anchor joists without bridging. Firepoofing is 1" vermiculite plaster upon metal lath. Electrical distribution is by armored cables between joists. In this department store five 9,000 sq. ft. floors were concreted in eight days. The technique is being used by Architects Pomerance & Breines for 13 ten-story apartment buildings in the Bronx, which are engineered to keep spans under 12' using 6" joists weighing only 4.4 lb. per ft.











## 1. LIGHTWEIGHT FLOORS

Thin 2" slab on light 10" joists brings fireproofed floor costs down to \$1.60 per sq. ft.

For sheer simplicity and lightness this floor structure is hard to beat. It is nothing more than a 2" reinforced concrete slab on light steel joists fireproofed beneath with vermiculite plaster. The trick lies in a patented castiron clip that supports plywood forms between the top flanges of adjacent joists and produces a level surface strong enough to take normal construction loads, including concrete buggies. After the slab is cast the forms are removed by simply snapping the brittle cast-iron clips from beneath with a sharp blow of a hammer.

Used for the first time in remodeling a

five-story New York department store, this system produced fully fireproofed, 100 psf capacity floors at remarkable savings:

▶ Speedier construction: the 5%" thick plywood forms need no scaffolding, are durable enough to be re-used 15 times (with steel edges they might be used 50 times or more). ▶ Less weight: the finished floor weighs only 35½ psf. In contrast, flat-plate construction

with a 6" slab weighs 75 lbs. per sq. ft.

Less cost: on new work, time and materials savings reduce floor costs to \$1.60 per sq. ft.

—almost 25% less than the previously reported low of \$2.10 for flat-plate concrete

in New York City. Light construction produced an additional economy in this case by permitting the use of existing footings and foundations.

Design is based on the 2' x 8' plywood forms. Thus, edges of adjacent flanges are 24½" apart and joist lengths are multiples of 8', again plus ½".

This outstanding floor system was developed and employed in Lane Company's 14th St. store by Structural Engineer Edward S. Klausner. His patented cast-iron clips are manufactured under license for about 6¢ each. Contractor, Sommer Bros.

## 2. SUSPENSION ROOF

Truck terminal roof has 70' span and 35' overhangs, uses minimum steel and timber.

In this lightweight roof structure in Los Angeles 35' timber overhangs are hung by steel ties from the tops of two rows of steel columns projecting 12' above the roof surface. Interior overhangs meet along the center line of the structure to give a clear 70' span between supports. This simple suspension principle requires minimum materials—only 1.6 lbs. of steel and 2.8 bd.-ft. of timber per sq. ft. of area covered.

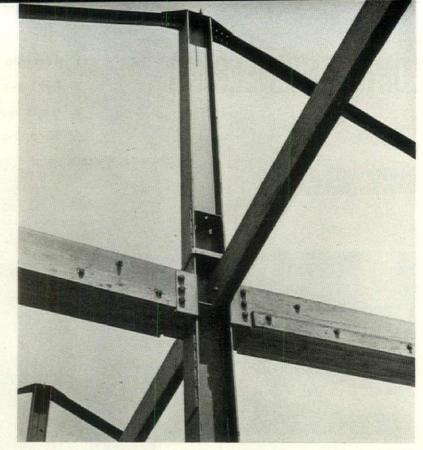
The 352' long terminal acts as a clearing house, where freight is sorted for local or long-distance delivery. The structure provides 70' x 308' of unobstructed handling and storage space with sheltered loading bays on both sides. Columns are 22' o.c., giving plenty of room for two trucks per bay, 64 trucks in all. At one end is a two-story office with central traffic control and remote cargo-weighing equipment.

Bolted steel gusset plates connect the tops of each "H" column to "T" section steel hangers, which support the cantilevered overhangs. Under uniform loading the exterior and interior overhangs balance one another. Under transverse wind loading the downward pressure on one interior overhang is balanced by the upward pressure of the adjacent overhang; thus each 70' span acts like a three-hinged arch, and column bases are pinned in this transverse direction.

Welded columns are designed to resist lateral bending movements due to wind or seismic forces. Longitudinally the columns are braced by wires and turnbuckles above the roof.

The roof itself is built of eight-ply bolted timber girders which carry 22' long purlins laterally braced with crossed struts. It is finished with a wood deck and a 20-year bonded roof. Downspouts at alternate columns provide drainage.

Architects for this \$280,000 Transcon Lines terminal are Allison & Rible; engineers, Ropp & Ropp; contractors, Jones Bros.



Each column carries two 35' long timber roof girders, symmetrically balanced with their ends supported by steel tension hangers. Girders consist of eight 1" timbers bolted together. Loading shed cost about \$4.50 per sq. ft.



Timber purlins, 2' o. c., span the 22' between main roof girders, are covered with a timber deck and a 20-year built-up roof.



Two-story office at one end of 352' x 140' terminal coordinates activities of 64 trailer-trucks handled at a time.

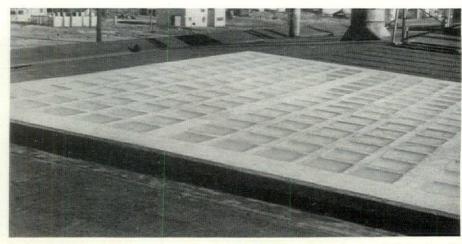


Forest of columns and hangers (above) covers the finished roof. Guy wires and turnbuckles brace structure throughout its length.

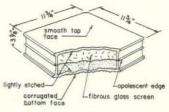
Back end of terminal (below) includes additional parking space with a ramp leading up to loading platform.







With 12" diffusing block set 3" apart in concrete, Pittsburgh Corning's test skylight gives 110 foot-candles at desk height for a 1,000 foot-candle overcast sky. Left, the block; above, exterior view of skylight; below, interior view.





## 3. SKYLIGHT GLASS BLOCK

#### New light-diffusing and light-directing block challenge flat glass for top lighting

Two new varieties of glass block now permit controlled top lighting to be built unobtrusively into flat roofs of schools, warehouses, factories and other buildings.

In developing these block the manufacturers faced three tough problems: 1) to provide good light in winter but to keep out the heat and glare of summer sun, 2) to provide strong structural units able to withstand everyday roof loading, and 3) to develop watertight, insulated and vaporproof joints that will not deteriorate under repeated freezing and thawing action in winter.

After more than two years of study, the research engineers of two manufacturers have come up with two solutions. Their new glass block are similar in that both contain a fibrous glass screen in their hollow interiors to diffuse light and improve insulation. But in other respects they are quite different.

One, by Pittsburgh Corning Corp., is a straight diffusing block that boasts great flexibility in application. Set in a reinforced concrete matrix, the block can be laid in any orientation, at any angle to the horizontal and in any number or density. The other, by Kimble Glass Co., directs the light and diffuses it as well. Moreover, when laid horizontally within 20° to 30° of its optimum north-south orientation, it lets in a maximum

of north light and low winter sun, but throws back high summer sun plus a fair proportion of summer heat. To simplify installation these block are factory assembled in aluminum panels of four different sizes, 3' x 3', 3' x 6', 4' x 4' and 4' x 5'.

#### Diffusing block

Pittsburgh's straight diffusing block is hollow, 113/4" square and 37/8" thick. Like all glass block it is manufactured in two halves. Just before these are put together the edges are etched to control direct light through the joint and a fibrous glass screen is laid across the block to prevent direct light from passing through it. The block has four horizontal surfaces: the outside top is perfectly smooth; both inside surfaces are etched to diffuse light while the outside bottom has 1/2" corrugations to diffuse light sideways (see sketch). Weight of the block is 16 lbs.; estimated "U" value is 0.44.

Skylight panels of this block are built like flat concrete slabs but given a pitch of 1/4" per ft. to aid water run-off. Further, they are laid sufficiently above surrounding roof height to avoid being covered by winter snow.

Formwork is prepared and the block laid at least 3" apart both ways. In the loadbearing direction, reinforcing consists of two ½" diameter deformed steel bars held 2" apart vertically by a web of ½" diagonal steel rod, bent and welded to top and bottom members on 3½" centers. Block are thus surrounded by a 3" x 4" section of high-grade concrete which forms a composite beam able to span 10' with a working load of 40 psf and a safety factor of four. At right angles to this main reinforcing are two ½" diameter wires running through each transverse joint. In addition two ½" diameter, deformed steel bars are run continuously around the perimeter of the skylight.

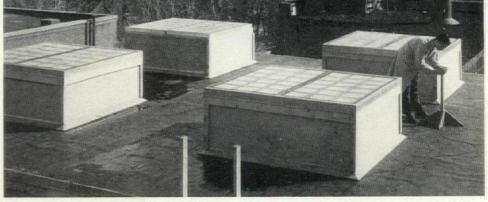
It is essential that the concrete be compact and void-free for complete watertightness. To one part of high-grade waterproof cement are added four parts of graded aggregate (under 3%" screen) with a minimum amount of water to reduce shrinkage. Cost of this construction in place is about \$12 per sq. ft. for a single skylight, but contractors estimate that on large jobs this figure would drop to \$6 to \$8 per sq. ft.

#### Directional block

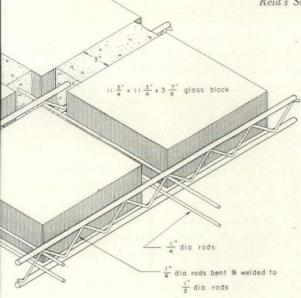
Kimble's *light-directing block* is also hollow, and contains a similar fibrous glass screen to help diffuse light. It is 105/8" square and 3" thick.

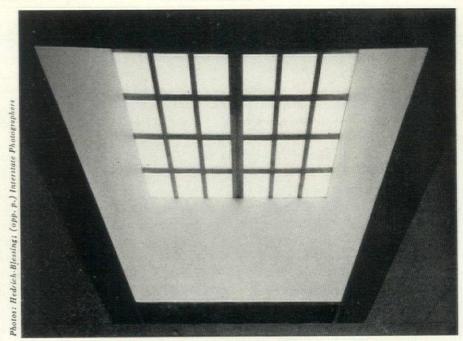
Again, this block has four horizontal surfaces: the outside top is smooth; the inside

Recommended skylight construction for Pittsburgh's diffusing block relies on a concrete slab with two-way reinforcing. This is sufficiently strong for 10' spans with 40 psf design loading.



Light-directing block arranged at Kimble's lighting research laboratory for Architect John Lyon Reid's San Mateo high school (AF, Oct. '52)—four skylights to each 28' x 28' classroom.



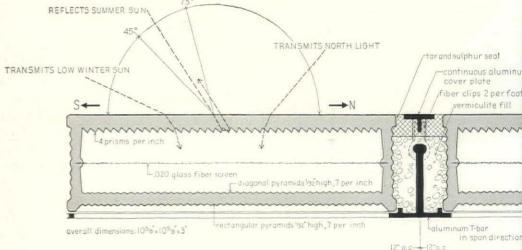


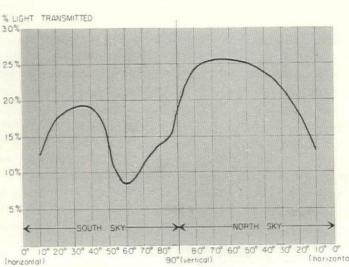
Interior view of this skylight. Blocks on 12" module is factory assembled in 6' x 6' aluminum frames. Under 1,000 ft-cdl. overcast sky illumination under skylight is 80 ft. cdls.

top is the control surface lined with prismatic cuts; the inside bottom is cut into diagonal pyramids 1/32" high (seven per in.) to diffuse light; the outside bottom is similarly cut but the pattern is rectangular to increase light diffusion.

The prismatic cuts in the control surface are ½" deep and four per inch (see sketch). When the block is properly oriented these prisms run east-west and are so angled that north light and low winter sunlight are directed into and through the block; while direct light from high summer sun (between 45° and 75° above the horizon) is reflected back into the sky. Thus the block acts like a mirror to throw back high-altitude direct sun and heat rays. Optimum 53% rejection of heat and sunlight occurs when the sun's altitude is 60° above the horizon.

These block are shop assembled into modular aluminum frames designed to span 6' with 40 psf loading. The main supporting member is an upside-down "T" section about 2" high, secured to a smaller, upper "T" section by fiber connectors that avoid metal-to-metal contact. Joints contain vermiculite insulation covered with a sealing layer of tar and sulphur. Thus joints are insulated and permit local expansion and contraction. Over-all weight of the panel is 16 lbs. per sq. ft., estimated "U" value of block 0.43.





Light-directing qualities of this block are demonstrated on chart above, which shows that when properly oriented its inside top prismatic surface acts like a mirror to reflect the light from high summer sun while low winter sun and north light are directed into and through the block. Graph shows light admitted for each range of sky.

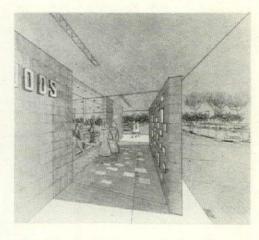
### 4. AIR-CONDITIONED STREETS

#### Covered shopping centers feature bold new trend to central cooling

Complete central air conditioning is being used for the first time in shopping centers. Where individual store tenants have traditionally installed their own air-conditioning units, the new all-enclosed centers with their covered malls and gardens are forcing the shopping-center owners to do the air conditioning themselves.

Three shopping centers that pioneer this new development are detailed on pages 122-145. On these two pages are presented the technical aspects of their air-conditioning systems with particular attention to the promising system proposed for Minneapolis' Southdale center.

Wichita Falls, 100°-78°.\* In Texas plans are being drawn for four fully air-conditioned shopping centers each of whose streets and stores will be under one roof. One is Wichita Falls' Parker Square—a 400′ x 550′ project especially designed to minimize cooling costs. (The others: Harlindale in Arlingen; Wynnwood, and another still to be named in Dallas.)



To keep out the sun, Parker Square's Architects Ketchum, Gina & Sharpe will screen the outside store windows with wide roof overhangs. At the curb, special outer walls will protect the west glass from low sun rays in late afternoon (see cut). The roof will be shielded from sun with an evaporative water film.

A central system will air condition Parker Square's "streets" but each of the 47 tenants must put in a unit for his own store. However, the owner will provide metered cooling water from central towers spotted on the roof convenient to each block

\*Outside design, dry and wet bulb temperatures, respectively.

of stores. A fresh-air intake stack for each store will be built into the structure.

Although plans are still tentative and incomplete, central air-conditioning cost is estimated at less than \$2 a sq. ft.

Square's architects, Developer Jim Rouse is sold on one big cooling plant for all stores but he is undecided on air conditioning the streets of his two-level Mondawmin shopping center in Baltimore

Rouse will provide a central system for the stores because: 1) cost per store will be less; 2) when tenants move in they will not be confronted with a big capital outlay for air conditioning; 3) each tenant will get a first-rate system whereas some tenants might skimp on providing their own individual system or ride along free on their neighbors' cooling, willingly or unknowingly.

Mondawmin's 42 stores will be grouped around a large central common and Rouse is still weighing the advantages versus the cost of roofing over the court, and air conditioning it, too.

Minneapolis, 95°-75°. With 84 stores under one roof the new 800,000 sq. ft. (gross area) Southdale project will be the first fully air-conditioned center using a high-velocity central system. Designed by Architect Victor Gruen's own staff engineers under the supervision of Edgardo Contini, the 1,625-ton system uses high-velocity diffusers sized for the maximum cooling load at any spot and easily throttled to supply varied quantities.

Because these special diffusers permit use of cooler-than-normal (50-55°) supply air, only 770,000 cfm will be required. Conventional diffusers and normal 60° supply air would require almost 1 million cfm and necessitate much more ductwork. A battery of 11 air-handling units pushes conditioned air through space-saving 20" round conduits.

Gruen's engineers further shaved costs by practically eliminating return ductwork. The shopping center's enclosed mall serves as a giant return-air plenum (see sketch, next page). At the same time the return air from "streets" and stores provides secondary summer cooling and winter heating for this covered courtyard.

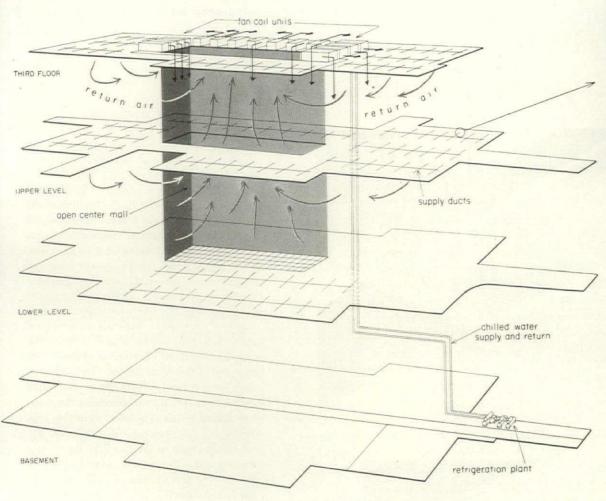
Steam power. Located on the second-floor roof, the air units are supplied chilled water from the main refrigerating machinery tucked away in the basement boiler room. Instead of one large compressor the engineers call for two 500-ton steam-operated absorption machines standing next to a 625-ton, steam-driven centrifugal compressor. Reason for steam: it can be provided economically by three 175-hp gasfired boilers because Minneapolis has a very favorable year-round gas rate.

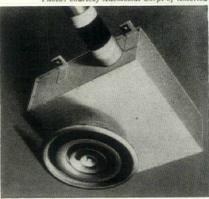
The combination of the three machines will sharply reduce operating cost because the two absorption machines can be powered by exhaust from the centrifugal's steam generator. The centrifugal uses approximately 21,000 lbs. of 175 psi steam at full load and discharges it at 15 psi. This is enough pressure for the absorption machines which need a total of 20,000 lbs. at full load. Only 1,000 lbs. of the original steam is wasted. (Normally the entire 21,000 lbs. of exhaust steam would be wasted.)

Engineer Contini estimates the air-conditioning price, including heating, at \$2,-125,000 (about 19% of total cost) or \$2.65 per sq. ft. of gross area.

**Advantages.** Architect Gruen is convinced that this central system is sound for Southdale. His reasons apply to practically all shopping centers:

- Lower first cost. The same ductwork delivers warm or cool air. Combined heating, ventilating and air conditioning cost "very little more than the cost of summer air conditioning alone."
- ▶ Lower operating cost. One big plant is clearly more efficient than scores of individual units and Southdale will need only one operating engineer and a helper. Operating costs skyrocket when individual tenants such as department stores need separate maintenance staffs. (Some local codes require licensed engineers even for systems as small as 20 tons.)
- ▶ Greater flexibility. Changes in store occupancy are expedited with little or no structural or mechanical problems. Key to Southdale's flexibility is the adjustable high-velocity diffuser.
- ▶ Better appearance. Individual cooling towers are not located haphazardly all over the building. There are no longer many separate duct systems snaking through

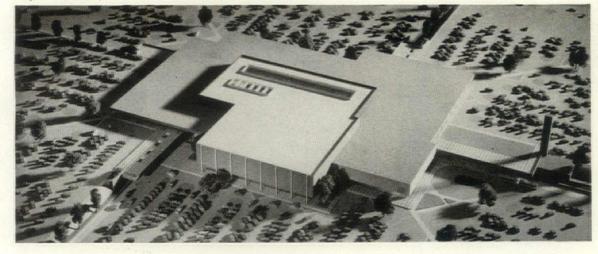




Sound box (above) in ceiling over typical high-velocity diffuser reduces air speed, attenuates noise. Diffuser is easily adjusted to supply varied air quantities according to needs.

Exploded diagram (left) shows how center mall serves as giant returnair shaft. Fan and boiler rooms contain extra space for future equipment when center is expanded. Each air-handling unit will supply up to 70,000 cfm of air to a zone on one level. Only basement storage areas will not be air conditioned.

Henry H. Baskerville Jr.



Skylights will diffuse direct sun (through heat-absorbing glass) over Southdale's interior areas planted with trees.

basements or crawling over the roof; intake and exhaust ducts are centrally located with a single system.

Furthermore, the central system is a merchandising boon to tenants. Valuable sales space is not taken up by machinery. The noise and vibration of individual units is eliminated. Busy sales personnel do not waste their time tinkering with apparatus. Gruen believes that these advantages will far outweigh the owner's difficulties in keeping each tenant happy.

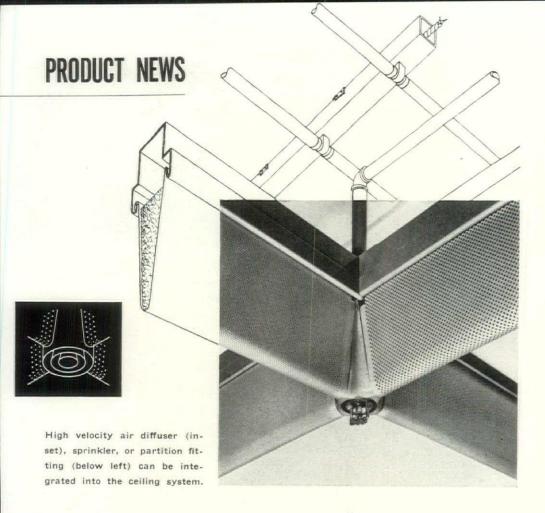
Selling the tenant. Air conditioning will be sold to Southdale's tenants on a square-

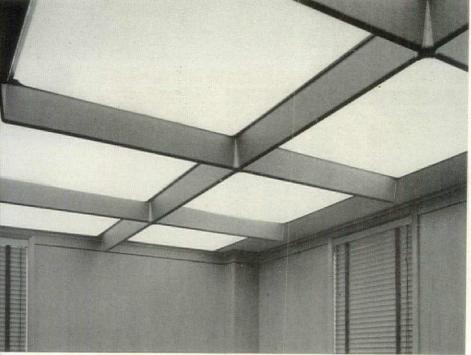
foot basis "after application of a proper area factor." Although charges are not yet fixed, the scheme will be similar to that for the 3,600-ton central system for the Northland shopping center now rising in Detroit. (Also designed by Gruen, Northland uses chilled-water air conditioning because it was impractical to supply air to the project's six separate buildings.)

Northland's tenants will pay according to a sliding scale: the bigger the space the smaller the charge per sq. ft. This charge will repay management only for its capital outlay for the central system.\* Operating costs plus 15% for maintenance will be periodically apportioned to tenants.

Despite its obvious advantages, central air conditioning is a novelty and initial tenant resistance is anticipated. In Detroit, big prospective tenants first balked at Northland's central system. S. S. Kresge and the Kroger Co. had their own engineering staffs thoroughly analyze Northland's charges and compare them with accurate estimates for putting in individual systems. When the figures were in Kresge and Kroger went along willingly with a central system.

<sup>\*</sup> Northland's cost, including heating: \$3.29 per sq. ft. of air-conditioned space compared to an estimated \$4 for individual systems.





Lamps go in like ladder rungs between prewired channels mounted directly on the structural ceiling (painted white), acoustical grid and plastic panels are hung beneath.

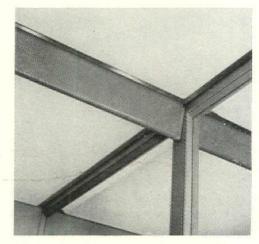


## COMPLETE CEILING integrated on 4' and 5' modules

The divers functional details that bespeckle most office overheads-acoustic material, lights, fire devices, air outlets and partition fittings-are smoothly coordinated in Wakefield's new Sigma-Plex ceiling. A shining example of creative manufacturing, the new system holds a moral for designers: incompatability need not be grounds for divorcing architectural elements. Wakefield engineers worked with sprinkler-maker Grinnell Co., high velocity ventura producer Thermotank Inc., partition specialist E. F. Hauserman and plastic company Rohm & Haas to develop for the different components a common denominator-a modular grid-adaptable to most interiors. While the system was conceived originally by Engineer Robert Smith of General Motors Styling Div., details of the package were refined by Architect Eero Saarinen.

Sigma-Plex consists basically of acoustical baffles and translucent plastic panels suspended beneath an interlace of channel supports and fluorescent lamps. The channels come factory-wired with ballasts and lamp sockets. They are attached directly to the structural ceiling which is painted white for high reflectance (no mechanical reflectors are necessary because of the excellent light transmittance and diffusion characteristics of the plastic). The grid of tapered baffles is an efficient sound absorber and acts as a visual cutoff. Partition fittings can be slipped into the same channel that supports the sound-sight baffle. In places where neither sound nor space control is needed, metal closure strips are fitted between the lighting panels. Installed costs will run from \$6 to \$10 per sq. ft.

Manufacturer: F. W. Wakefield Brass Co., Vermilion, Ohio. continued on p. 198



Made of slightly arched white plastic, the diffusing panel snaps in and out of its supporting frame via a simple spring latch device (diagram).







## HOW LONG WILL IT LAST?





The life of any product depends on many things. The way it's designed and engineered. The quality of its material. How it's made.

Every Ro-Way garage door is designed, engineered and built of fine quality materials—for a long life of dependable, useful, trouble-free service.

Take Ro-Way features, for example. Friction-Reducing Taper-Tite track...Seal-A-Matic hinges...ball bearing Double-Thick tread rollers...Power-Metered springs matched to the weight of each door...all working together for smooth, easy up-and-down operation.

Take Ro-Way construction...mortise and tenon joints both glued and steel doweled...sections rabbeted for weather-tight joints...millwork both drum and hand sanded...hardware both Parkerized and painted for maximum protection.

And Ro-Way materials. Fine west coast lumber carefully selected for quality. Heavy gauge steel hardware completely designed and fabricated on special machines in the Ro-Way plant.

Ro-Way built is—built to last. For a long, long life of satisfying service, specify Ro-Way Overhead Type Doors for all garages.

#### ROWE MANUFACTURING COMPANY

920 Holton Street • Galesburg, Illinois



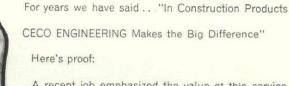


# here's proof...

In Construction Products

CECO ENGINEERING

Makes the Big Difference
Builds Better . . . cuts costs!



A recent job emphasized the value of this service difference. Modestly, we hope, we give it mention here.

Architect Joseph D. Murphy with artist Robert Harmon and stained-glass window fabricator Emil Frei had an imaginative idea for a great window mural for St. Ann's Catholic Church in Normandy, Missouri. But there was a design problem. Working closely with Architect Murphy and contractor Oscar Schneiderhahn, Ceco helped work out a solution. Steel was recommended for the window with the outside frame and intermediate mullions made up of heavy channels.

Ceco designed standard window sections to fit between the channels. A mullion was provided consisting of 1/4" flat plate with Ceco head and sill sections of intermediate design. Ceco standard intermediate "T" muntins served as cames for the leaded glass.

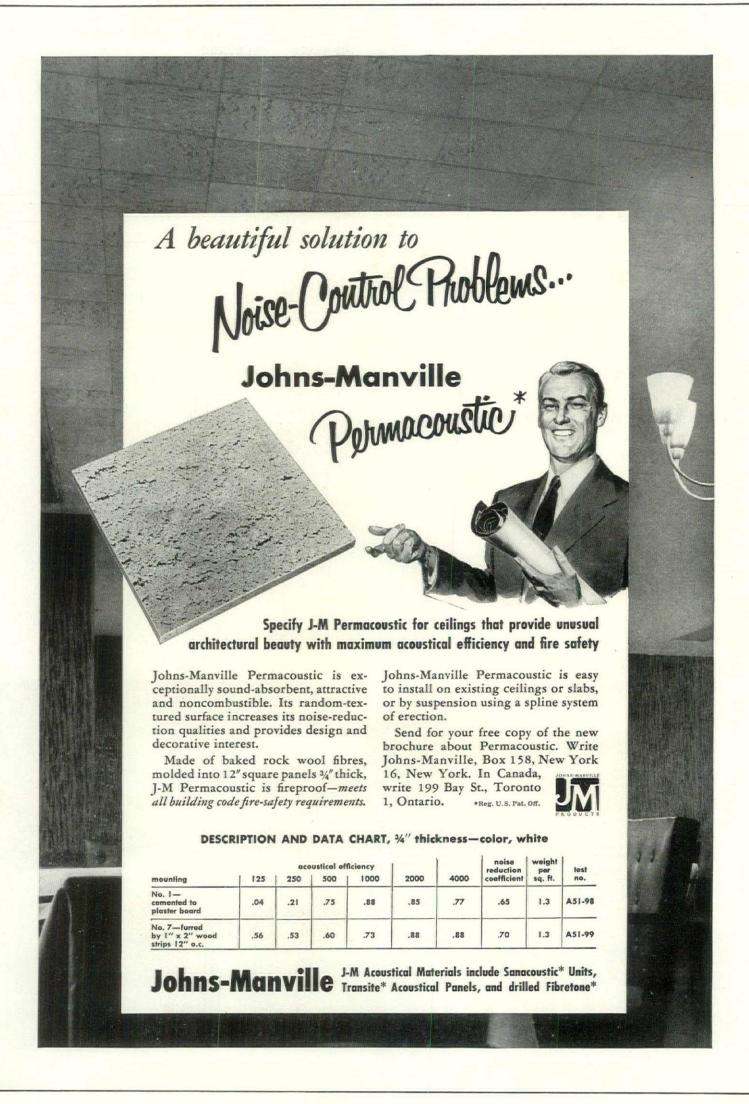
But Ceco Engineering Service went further. Design of the reinforced concrete floor joists, employing Meyer Steelform construction, again provided savings in men, money and material. Ceco also supplied reinforcing steel and all windows, screens and screen doors.

#### CECO STEEL PRODUCTS CORPORATION

Offices, warehouses and fabricating plants in principal cities

General offices: 5601 West 26th Street, Chicago 50, Illinois





#### IT'S FACING TILE . . . No other single building material gives you so much for so little



## when walls must outlast crowds

No other interior finish can match Facing Tile in any building designed to withstand the constant buffeting of a sea of humanity.

Facing Tile's durability has been time-tested by traffic in today's finest bus terminals, airports, steamship docks, subway and railroad stations.

Facing Tile walls can't be scarred by the passing throng—they'll keep their soft, pleasing colors for the life of the building, never require refinishing. And they wash down so easily that cleaning costs are pared to a minimum.

Your clients will also like the construction savings afforded by Facing Tile. Made in modular-sized units, it goes up fast, provides a structural wall and a lasting finish in a single cost-cutting step.

For full data on Facing Tile, glazed or unglazed, just write. Address: Desk AF-3, Facing Tile Institute, 1520 18th Street, N.W., Washington 6, D. C.

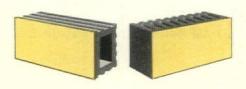
In the interest of better Facing Tile construction these companies have contributed to the preparation of this advertisement.

CHARLESTON CLAY PRODUCTS CO.
Charleston 22, West Virginia
THE CLAYCRAFT CO.
Columbus 16, Ohio
HANLEY CO.
New York 17, New York
HOCKING VALLEY BRICK CO.
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#### FACING TILE INSTITUTE

1520 18th Street, N.W., Washington 6, D. C. • 1949 Grand Central Terminal, New York 17, N.Y.





is your assurance of highest quality Facing Tile.

## air conditioning

gets 800,000 lollipops out of a jam Damp days gummed up the lollipops at Dowdy Candy Company in Birmingham, Alabama. Pieces broke off, shut down the machines. • Humidity was sticking up the lollipops. Since damp days are usually hot days, the Dowdy Candy Company wanted their employees kept comfortable, too. Which of the many kinds of Carrier air conditioning equipment could lick this lollipop problem best? • The Carrier dealer recommended four Carrier Weathermakers. The exclusive Humitrol kept the humidity low—and damp-day production jumped by more than half. So that the Weathermakers paid for themselves in less than a year. • More fine restaurants, more smart stores, more busy offices . . . more people buy Weather-





first name in air conditioning

makers than any other packaged air conditioner. They like its beauty . . . its distinctive styling and gleaming, baked enamel finish. They like its quietness . . . with its QT Fan you can hardly hear the Weathermaker run. And, especially, they like its performance . . . feature-for-feature the finest money can buy. Because the Weathermaker is built by the people who know air conditioning best. • Does a client of yours need air conditioning? Carrier has more kinds of air conditioning equipment in more sizes. So you're sure to make the right choice when you specify Carrier. See your Classified Telephone Directory for nearest Carrier representative. Or you may write Carrier Corporation, Syracuse, New York.



Armstrong's Corlon® is a high-quality plastic flooring consisting of an exceptionally durable plastic wearing surface keyed to an Armofelt back. Because it's inlaid plastic, Corlon is exceptionally resistant to the harmful effects of water, alkaline cleansers, and other normal household reagents. The bright colors in Armstrong's Corlon that bring

# the quality plastic flooring

new sparkle to floors are the result of the permanent pigments and light-colored plastic binder used in its manufacture. Corlon is not easily indented but is resilient and comfortable underfoot. The exceptionally smooth surface is easy to keep clean. Made from a stabilized blend of plastics, Armstrong's Corlon will neither stretch nor shrink.

#### Made by the makers of Armstrong's Linoleum



Granette Corlon No. 6102



Granette Corlon No. 6105



Granette Corlon No. 6104



Granette Corlon No. 6101



Granette Corlon No. 6100



Granette Corlon No. 6103



Granette Corlon No. 6106

An excellent counter top, too. Since Armstrong's Corlon can be installed with minimum joints on counter tops and work surfaces, it makes an ideal covering for such areas. Water, grease, cooking oils, and soapsuds can be wiped up easily from its smooth surface without leaving a trace. Available in 24", 36", 48", and 72" widths.

TURN PAGE TO SEE ARMSTRONG'S MARBELLE CORLON

# ARMSTRONG'S APPLICATION

Armstrong's Corlon is made in three stylings-Granette\*, Marbelle®, and Plain. Granette (shown on previous page) combines plain color smartness with a spatter texture. Granette Corlon has a wearing surface .050" thick. Its over-all thickness, including the Armofelt back, is .090". Marbelle Corlon features the marbleized graining that has long been a leader in Armstrong's Linoleum. Its over-all thickness is .070" with a wearing surface of .030".



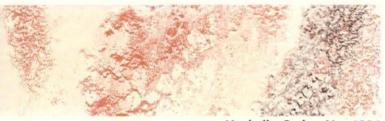
Marbelle Corlon No. 6001



Marbelle Corlon No. 6000



Marbelle Corlon No. 6002



Marbelle Corlon No. 6004

Plain Corlon Feature Strips are available in the colors shown at right. This material is made 1" wide only and .070" thick. Inserts of Plain Corlon can be used with floors of Marbelle Corlon to add distinctive design.



Marbelle Corlon No. 6003 (Yellow) No. 6007 (Black)



Marbelle Corlon No. 6006



Marbelle Corlon No. 6005



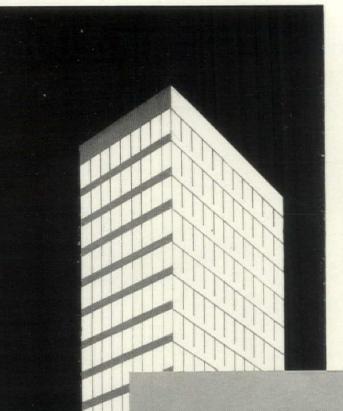
Marbelle Corlon No. 6008



### ARMSTRONG CORK COMPANY







## RUSCO Sets The Modern Pattern In Fenestration

Complete, Pre-Assembled Units — Fitted, Glazed and Finish-Painted — Make Big Savings in Installation Time and Cost . . .

Here is the window the whole building industry is talking about - the first truly complete window treatment. Proved through thousands of installations in the United States, Canada and Alaska, the Rusco Prime Window offers many unusual advantages. Made of tubular galvanized steel, bonderized and finished with baked-on outdoor enamel it is strong and rigid, yet streamlined and light in weight. Because it is fully pre-assembled, glazed and finishpainted-all ready to install in the window opening-it makes substantial savings in installation time and labor and in maintenance. Removable sash offers many conveniences and saves breakage during construction.

## Rusco Offers You Important Features Not Found in Any Other Window!

GLASS ...

SCREEN ...

WATERPROOFED FELT WEATHERSTRIPPING...

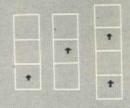
INSULATING SASH ... IOPTIONAL FULLY ASSEMBLED IN METAL OR WOOD SURROUND ...



Sliding glass and screen panels removable from the inside. A great convenience during construction-also simplifies window cleaning



Use of insulating sash aids in efficient air conditioning-permits nodraft ventilation where desired



All Rusco Windows have movable panels to allow ventilation



Joined in series by mullions, Rusco Prime Windows make full "glass wall" construction simple, inexpensive Rusco Windows have no troublesome sash cords, weights or balances - raise and lower smoothly in felt-lined slides

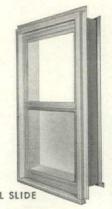
ALL COMPLETE, READY-TO-INSTALL UNITS

HORIZONTAL SLIDE





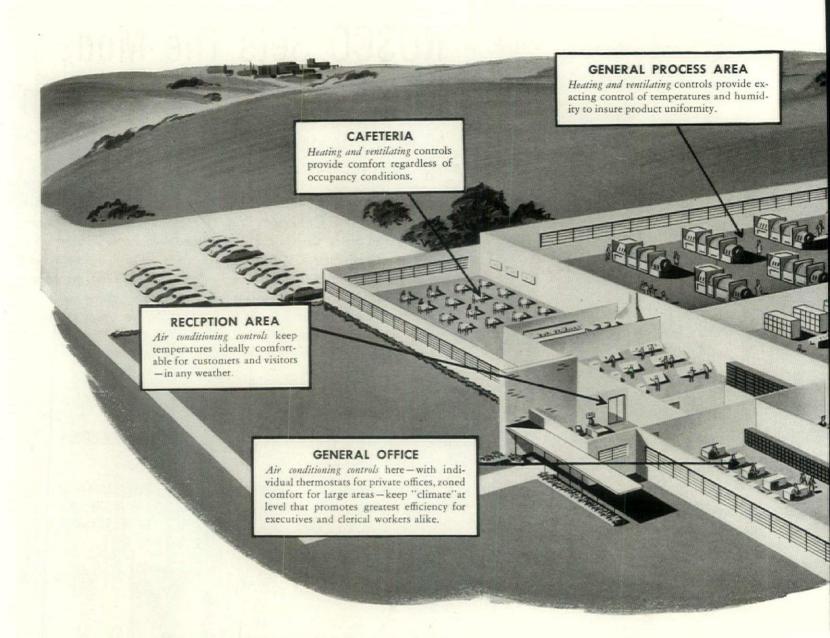
Galvanized Steel



VERTICAL SLIDE

FOR ILLUSTRATED LITERATURE AND THE F. C. RUSSELL COMPANY SPECIFICATIONS, WRITE . .

DEPARTMENT 7-AF33 CLEVELAND 1. OHIO IN CANADA: TORONTO 13, ONTARIO



## How Honeywell Customized Temperature Control Can Raise Industrial Efficiency



Take two of the most important factors in business today: employee work-output and product quality.

There's good evidence that on both counts the efficiency of a plant could be considerably improved by proper installation of Honeywell Controls.

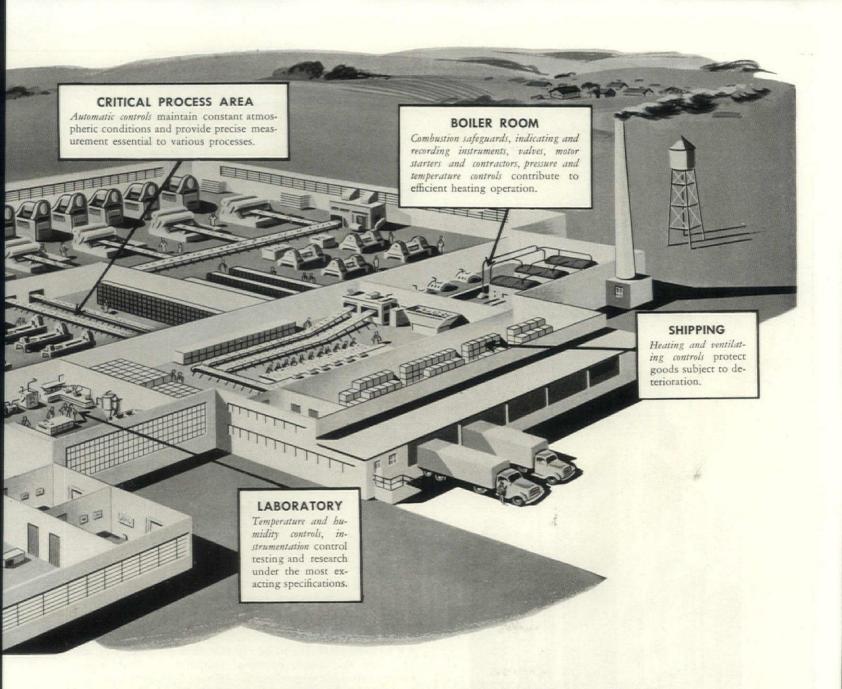
As for the amount of work employees do . . . scores of plants throughout the country have greatly boosted efficiency—by protecting workers' health, increasing their comfort, making them happier.

One of the primary ways this was done was through the use of Honeywell Customized Temperature Control installations in areas like those above. By compensating for such varying factors as weather, exposure, occupancy, internal heat sources and type of building construction, Honeywell Controls have greatly improved working conditions.

Or consider the realm of product quality . . .

Honeywell control installations in industrial centers have helped improve products, often have made possible a much greater degree of uniformity. These controls for temperature, humidity and process instrumentation are in daily use by industries as divergent as pickle packers and uranium processors, paper manufacturers and steel fabricators.

And in many cases, Honeywell Customized Control installations are saving businesses thousands of dollars yearly through more economical use of fuel.



## For Comfortable, Even Temperature in New or Existing Buildings-of any size-Use Honeywell Customized Temperature Control

Whether it's a factory, school, office, hospital, apartment, store, garage—or any size building—new or existing, Honeywell Customized Temperature Control can help meet your clients' heating, ventilating, air conditioning and industrial control problems.

Once equipped with Honeywell Customized Temperature Control, they'll have an ideal indoor "climate"—and save fuel besides.

And with a complete line of pneumatic, electric and electronic controls to choose from, Honeywell Customized Temperature

Control offers you the greatest flexibility in design. Then, too, when it comes to performance, Honeywell-built controls assure years of trouble-free operation. And they're backed by the finest service organization in the controls industry.

For full facts on Honeywell Customized Temperature Control, call your local Honeywell office. There are 104 across the nation. Or mail the coupon today.

## Honeywell



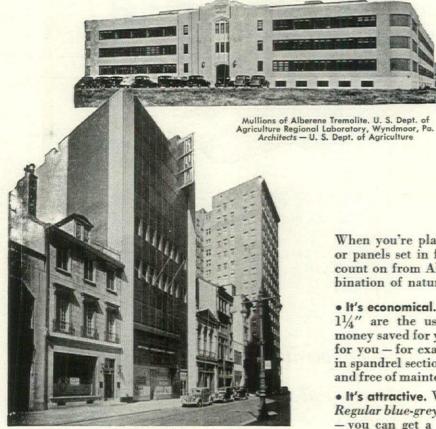
First in Controls

Minneapolis-Honeywell Regulator Co. Dept. MB-3-58, Minneapolis 8, Minnesota
Gentlemen:
I'm interested in learning more about Honeywell Customized Temperature
Control.
Name
Firm Name.
Address
City Zone State

Facing and bulkheads of Alberene Serpentine. Cord Building, Beverly Hills, Calif. Architect — Burton L. Schutt



## Distinctive, Durable, Dollar-Saving



Facing and paneling of Alberene Serpentine. Station KYW, NBC, Philadelphia, Pa. Architects — Tilden & Pepper



Veneers
or Panels
of ALBERENE
Stone

When you're planning thin veneers on masonry backing or panels set in frames, here are the advantages you can count on from Alberene Stone, thanks to its unique combination of natural properties—

- It's economical. It can be cut into thin sections  $-\frac{7}{8}$  and  $1\frac{1}{4}$ " are the usual, practical thicknesses. That meanmoney saved for your client . . . greater flexibility in design for you for example, it permits greater depth of reveal in spandrel sections. Alberene Stone is reasonable in price and free of maintenance expense for the life of the building.
- It's attractive. With two types of stone to choose from Regular blue-grey soapstone and Virginia Black Serpentine—you can get a range of dark tones from grey through blue-grey, blue-black, to black. The Regular grade takes a fine honed finish and acquires an interesting, antique-bronze effect over a period of time. The Serpentine takes and retains a high polish.
- It's durable. Alberene Stone's moisture-proof surface doesn't chip, scale, or split it always looks good. Installations of Alberene Serpentine made over a decade ago show no deterioration of polish, are still richly handsome in appearance.

We'll be glad to send you a set of samples, conveniently boxed, showing the range of stones available from our quarries. Just write to —

## ALBERENE STONE CORPORATION OF VIRGINIA

419 Fourth Avenue, New York 16, N. Y.
Offices in Principal Cities

## **Will The Structural Floors Of Buildings** You Design Keep Pace With **Electricity in Modern Business?**

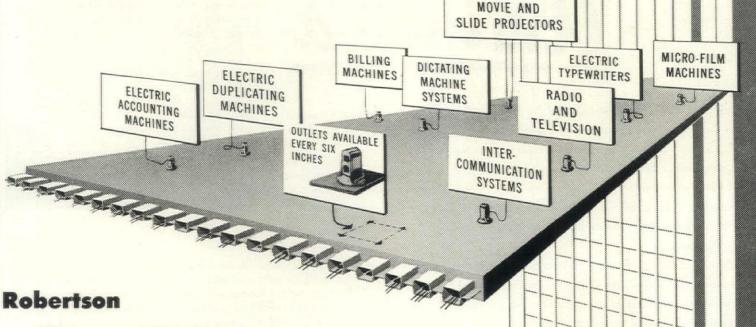
With new electrical devices and movable partitions constantly being developed to keep pace with modern business, no office building owner can assure himself of continuing tenant satisfaction unless his structural floors are adaptable to quick and inexpensive wiring change and addition.

Q-Floor is the complete answer to this problem. Strong steel, cellular Q-Floor is the only structural floor which permits easy wiring accessibility every 6 inches, yet represents economical building practice.

Q-Floor not only reduces maintenance cost, it actually saves money during construction. It cuts down drafting room time because completely frozen wiring layouts are not necessary, and it speeds job time too, since 2 men can lay a 32 sq. ft. section in 30 seconds. As soon as it is placed, it becomes a solid platform on which all construction men can work and store materials.

Inquire about Q-Floor before you design a building and avoid the pitfall of a modern structure with obsolete floors.

Write now for literature.



A Product of H. H. Robertson Company

2403 Farmers Bank Building . Pittsburgh, Pa.

Offices In All Principal Cities World-Wide Building Service



The work of Architects **OLGYAY & OLGYAY.**Reinhold Publishing Co., 330 W. 42nd St., New York, NY. 72 pp. Illus. 8" x 111/2". \$5

This slim book—a picture history of the European work of two twin Hungarian-born architects now in this country—has a devious history. Originally published in Hungary as the first in a series on Arts and Artists (in Hungary architecture came first!) it was suc-

cessful in 1946. But then something happened in Hungary and books whose text was only in English and Hungarian became less than respectable politically. So about 500 unbound copies of the book were stashed away in a nice clean cellar.

Aladar and Victor Olgyay, finding that the respectability of their scrupulously modern architectural ideas was also fading fast, left their native land, as many others have, imigrat-

ing to the US and proceeding to the University of Notre Dame to teach in the College of Architecture there. They were not complete strangers to the US, having spent two semesters at Columbia University in the thirties on a fellowship, and their work had also been present at the 1939 World's Fair, for which they designed the Hungarian Pavilion. They have recently been at MIT beginning a thoroughgoing investigation into climatology and its application to architecture. Victor Olgyay is now at Princeton University, and Aladar is at the University of Texas, continuing the work.

But the Olgyays kept remembering that cellar, and the part of their experience which it held. Last year they finally arranged to smuggle out the press sheets from Budapest and now Reinhold has bound them with an introduction by fellow-Hungarian-emigrant Marcel Breuer, a very good wrapper by fellow-Hungarian-emigrant Gyorgy Kepes, and interesting remarks by Editor Peter Blake.



Apartments by Olgyay & Olgyay in Hungary

In the pictures and drawings of buildings which the Olgyays did in Europe in the thirties there is a harkening back to a time when a lot of architecture was being defined in Europe to which Americans still are indebted for inspiration. So perhaps here is new inspiration. The Olgyays, who still are young men, arrived on the architectural scene when the new esthetic was already past its infancy, but their buildings stand up as originals.

The book is sometimes amusing because of the multiple translating the text has undergone. For example, beneath a photograph of a chapel which the Olgyays designed in 1935 and which originally was published in the Italian magazine *Architettura*, a much translated caption begins: "The church was made for 400 believers in a lake resort." But their buildings need no translating. They're good.

continued on p. 184



architectural porcelain enamel



Architectural Porcelain is rapidly becoming the Architects' most versatile building material—the reasons are many—to mention one, it offers almost unlimited color possibilities . . . . . no longer is it necessary to confine your designing to the narrow color range of ordinary building materials!

Designs of character are created largely with color . . . . . carefully selected . . . . . where *just a shade* may mean the difference . . . . . your discriminating clients will recognize and appreciate this *difference* and Architectural Porcelain will provide the answer.

—and, important to remember—Architectural Porcelain is a material not a finish. It is produced by applying a vitreous coating to steel panels, then fusing these two materials together at temperatures up to 1600° F. The resulting single material is absolutely non-porous with all the desirable properties of glass combined with the strength of steel

..... truly a lifetime building material.

The Davidson Organization of Engineers, Technicians, Fabricators and Erectors is ready to serve you—a contract with Davidson means a complete job with Undivided Responsibility.

Our complete brochure is yours for the asking.

Please direct all inquiries to



Davidson ENAMEL PRODUCTS, INC.

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#### A RAINBOW OF SOFT COLORS

Yes — Roddiscraft plywood offers almost countless natural wood colors —

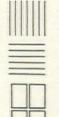
Browns — all shades — light, medium and dark.

Light blondes—tawny blondes — yellow, pink and reddish casts.

Light or Dark Tones -



There's a great variety of tones in different woods and within the same woods — a shade to meet every decorating need.



With Plywood Paneling You Can Emphasize —

Vertical lines — Horizontal lines or have a Parquetry pattern

#### RODDISCRAFT PLYWOOD PANELING

# Background for Beauty

Background can make or break the furnishings in any room. Roddiscraft hardwood plywood paneling offers a wide choice of background.

Soft natural wood colors blend easily with color schemes — do not restrict the use of high color in draperies and furnishings — do not inhibit change.

You can recommend Roddiscraft plywood for economy too. It never has to be painted, papered, patched or scrubbed. That means substantial savings over the years.

Roddiscraft plywood will stand behind your recommendation. The finished job will more than meet your expectations. Roddiscraft is a craftsman's product — from veneer selection to final sanding.

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RODDIS PLYWOOD CORPORATION
Marshfield, Wisconsin

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N. Y. • New York 55, N. Y. • Port Newark 5, N. J. • Philadelphia 34, Pa. • St. Louis 16, Mo. • San Antonio 6, Texas • San
Francisco 24, Calif. • San Leandro, Calif.

# The Shoppers

a bellwether in merchandising . . . a success in investment . . . a milestone in architecture



SHOPPERS' WORLD was located on 6-cents-a-foot meadowland but draws on suburban areas west of Boston.

This group of forty-four stores at Framingham, Mass., rose from seventy acres of countryside after five years on the drawing boards of Ketchum, Gina and Sharp, New York.

Notable in many ways—for its two-story construction, for having the largest clear-span dome in the United States, for its mall as vehicle-free space for pedestrians—the Shoppers' World has been likened to a "Single Giant Showcase". Full-height plate glass fronts on both decks reveal 3,000 lineal feet of merchandising display.

To provide the utmost in clarity of vision with a minimum of distortion, all glass used in the store fronts of this \$8,000,000 project is \( \frac{1}{4}'' \) Libbey Owens Ford Polished Plate Glass.

Libbey Owens Ford Glass Company, 8833 Nicholas Building, Toledo 3, Ohio.

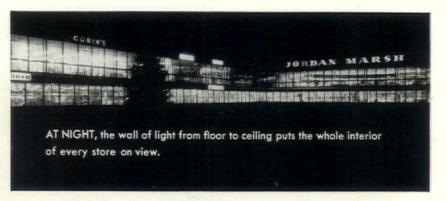
NO FINER GLASS THAN LIBBEY OWENS FORD

PLATE GLASS





# World

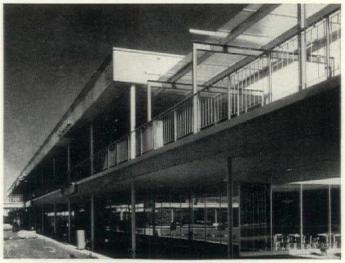






IN WINTERTIME, walkways are enclosed with storm sash to protect shoppers from cold wind, snow, slush and ice.

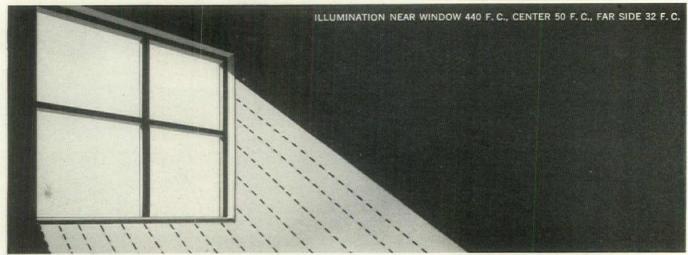
JORDAN MARSH, occupying the big domed building, has full-height L-O-F Plate Glass windows and Tuf-flex\* Tempered Plate Glass Doors to create the greatest sense of intimacy between shoppers outside and the merchandise within.



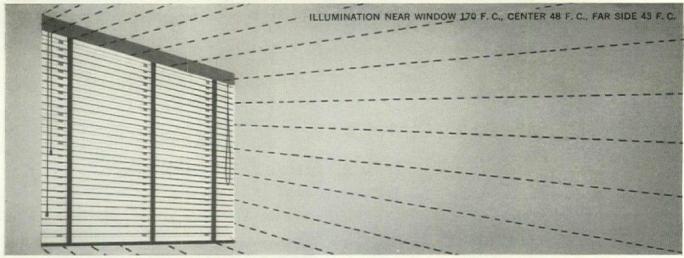
IN SUMMERTIME, the covered walkways are pleasant promenades with the garden on one side and a continuous "Visual Front" on the other.

you get 34.4% more light

with all- Hexalum venetian blinds



bare window wastes light...leaves far side dark



### Flexalum blind spreads light to far side of room

An exhaustive study by the Faber Birren Company\* shows: A bare window gives extreme glare on one side of the room, insufficient light on the other. The FLEXALUM Blind, by reflection, *spreads* the high-intensity sunlight at the window throughout the room—giving more illumination with less glare. The brightness ratio, which was 14 to 1

with the bare window, is now reduced to a comfortable 4 to 1. \*Copies of this study available on request.

Write for local sources and free file of venetian blinds information—AIA File #35-P-3.

Only all-FLEXALUM Blinds give these maintenance and durability advantages:



Wipe-Clean Plastic Snap-Back Tapes and Cords Aluminum S

tt cleaning time from Spring-tempered urs to minutes. A damp back ruler-straig oth wipes away the stubrnest stains. Won't fade, Baked-on finish w rink, or mildew.

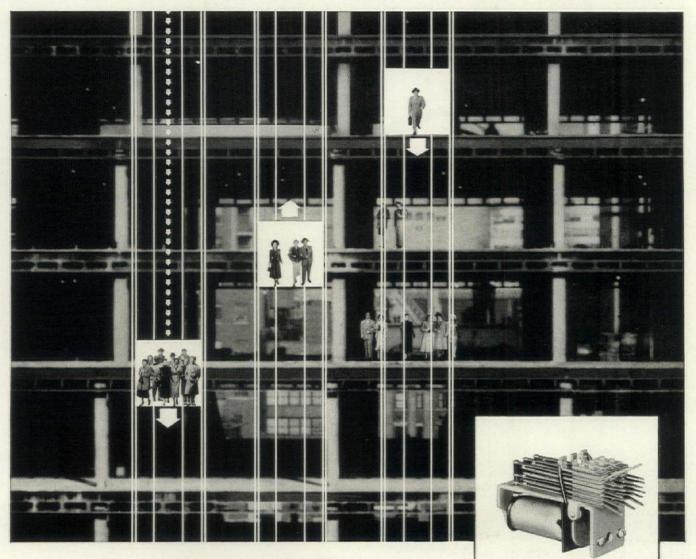


Insist on this Mark!

The FLEXALUM "visible" trade-mark to snap invisible" trade-mark treen guarantees a top quality of angle. blind. For satisfied clients n'trust, specify all-FLEXALUM gecolor.

Hunter Douglas Corp., 150 Broadway, New York 38.

### WESTINGHOUSE PASSENGER-OPERATED SELECTOMATIC ELEVATORS



### Automatic By-Pass Saves Time, Controls Load

Westinghouse Passenger-Operated Selectomatic elevators give the red carpet treatment. Each car is an obedient servant—accepts passenger calls with swift efficiency . . . keeps a careful check on total weight . . . by-passes down calls when its load reaches capacity . . . speeds to a level-perfect landing.

The rejected calls? There are none. Automatic by-pass simply means that *one* car prunes time for *its* passengers. Unanswered calls are

quickly picked up by another car. No matter how many passengers, twenty-four hours a day—Selectomatic services them equally. Automatic by-pass is only one Westinghouse development to give faster, more efficient elevator service.

Get full details about Westinghouse Selectomatic—with or without attendants. Find out how SAF-T-Edge Doors, Synchro-Glide Landing Control, automatic Automatic By-Pass is a feature of all Westinghouse Passenger-Operated Selectomatic elevators. Its action is precisely controlled by a highly integrated team of shuntless electrical relays, such as the one above.

motor-generator stop-start action and other cost-saving features can be applied to new construction or modernization plans. Call our nearest office for the complete story.

### Westinghouse Elevators

YOU CAN BE SURE ... IF IT'S Westinghouse

J98668

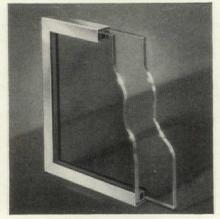


THE NEW RESEARCH LABORATORY of the Union Oil Company of California at Brea, California, is a splendid example of how glass is integrated with forceful design to produce outstanding structures. Among the Pittsburgh products effectively combined here are green tint Solex Heat-Absorbing Glass, Polished Plate Glass, Pittsburgh Doorways, Mirrors, 34" Plate Glass in the lobby display fixture, shown in inset. Architects: Austin, Field and Fry, Los Angeles, California.

### How Pittsburgh Glass

serves contemporary architecture





FOR THE VETERANS MEMORIAL BUILDING, Detroit, Michigan, Pittsburgh products were selected as a part of the basic design scheme. Included in these products are 6,589 square feet of Polished Plate Glass, 326 square feet of Mirrors, twenty-four Herculite Doors, Pittco De Luxe Metal. Illustrated here is the commodious and comfortable lounge, with its large expanse of Plate Glass giving a commanding view of the outside surroundings. Architects: Harley, Ellington and Day, Inc., Detroit, Michigan.

SOLEX-TWINDOW gives all the advantages of Pittsburgh's Twindow—"the window with built-in insulation"-plus the heat-absorbing, glare-reducing properties of Solex—"the best glass under the sun!" This cutaway shows the construction of such a unit. The outer pane is Solex—the inner light is clear Plate Glass. Between them is a sealed-in air space. A stainless steel frame protects the seal and glass edges; makes handling safe and easy.

# Design it better with Pittsburgh Glass

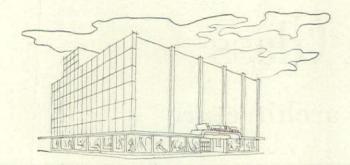


Your Sweet's Catalog File contains detailed information on all Pittsburgh Plate Glass Company products . . . Sections 7a, 13e, 15, 16h, 21.

PAINTS . GLASS . CHEMICALS . BRUSHES . PLASTICS . FIBER GLASS

GLASS COM

#### ACOUSTICAL MATERIALS AT WORK



### HEMPHILL-WELLS CO. DEPARTMENT STORE, Lubbock, Texas

Architect:

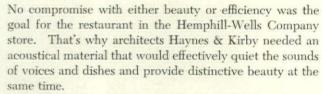
Haynes & Kirby

General Contractor:

Robert E. Maxey

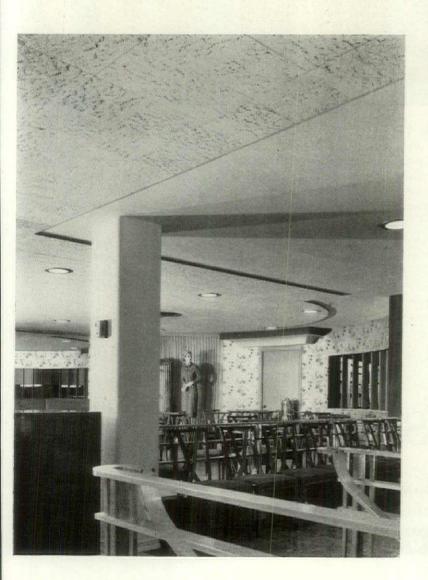
Acoustical Contractor:

Williams-Moore Company



The architect's choice was an attractively fissured, mineral wool tile—Armstrong's Travertone. In addition to providing acoustical efficiency and beauty, Travertone also offered complete fire safety. Time was saved and costs were reduced by cementing the tiles directly to the brown coat of plaster. Because Travertone is easy to cut, scribing and fitting it to the many angles and curves of the ceiling area presented no serious problems.

Armstrong offers a complete line of acoustical materials and each product has special features to meet any sound-conditioning need. Your Armstrong Acoustical Contractor will be glad to give you free, expert advice. For the free booklet, "How to Select an Acoustical Material," write Armstrong Cork Company, 5403 Stevens Street, Lancaster, Pennsylvania.



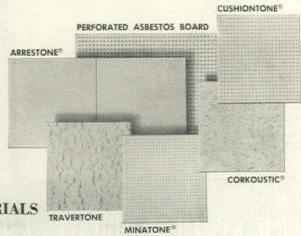
Travertone's excellent light reflectivity adds to the comfort and beauty of the store's restaurant.





Ease of installation with recessed lighting and air-conditioning systems was an important factor in Travertone's selection.

Travertone's high acoustical efficiency reduces irritating noise levels at this busy lunch counter.



ARMSTRONG'S ACOUSTICAL MATERIALS

IDEA 53. International Design Annual. Edited by Gerd Hatje, with contributions by Max Bill (Zurich), Heinz Loeffelhardt (Stuttgart), Arthur Hald (Stockholm), Paul Reilly (London), Alberto Rosselli (Milan), Sven Erik Skawonius (Stockholm), Herwin Schaefer (Newton Center, Mass.). Wittenborn, Schultz, Inc., 38 E. 57th St., New York 22, N. Y. 129 pp. 81/2" x 111/2". Illus. \$8.50

Idea 53 is the first volume of a proposed series of annual publications that will illustrate the best industrial design to be found anywhere in the world. The choice for this edition (which was beautifully laid out and printed in Western Germany) was made by a panel of designers and design critics from England, Germany, Italy and the US. To most readers on this side of the Atlantic, their selection will look like one of those exquisite exhibitions of "useful objects" with which the American public has long been familiar. And like these exhibitions, the book raises a number of questions that always come up whenever a body of critics decides publicly to announce selection of the "best" design of the year.

Here are the questions:

- 1. Who chooses the critics, and what is their point of view?
- 2. Is their choice of the "best" based upon performance characteristics or esthetics, or both? If based upon performance, who tests the objects selected? And if based upon esthetics, whose esthetics?
- 3. Does it make sense to pick the "best" typewriter, say, of 1952, if there is a much better typewriter that was designed in 1951? Isn't this a little like the English saying that "this is the first time this sort of thing has been done by a clergyman on a Friday in Dover?"

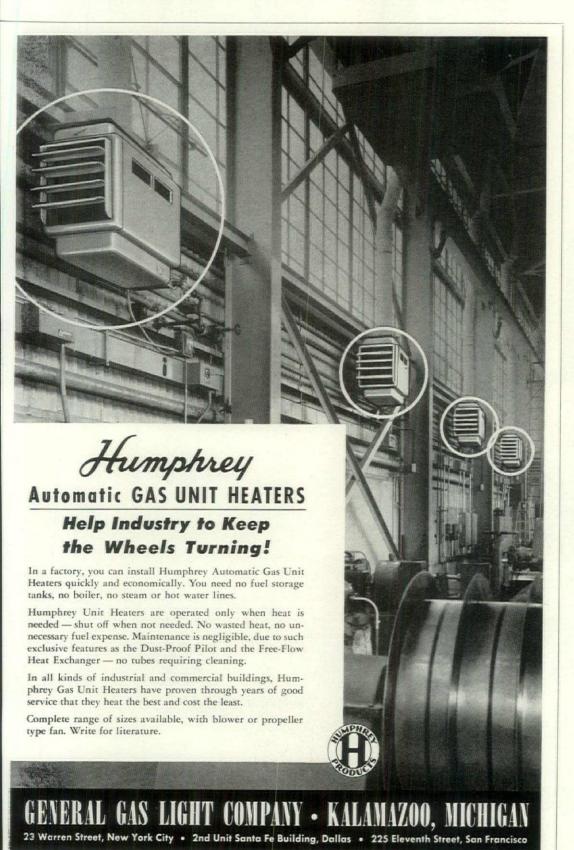
It will be interesting to see how the editors will be able to cope with IDEA 54, for in the present volume they have still drawn upon some material designed more than a year ago.

- 4. Is it necessary to include almost every category of design-as this book does? Isn't the result that you may get, in one category (wooden bowls, for example) an exceedingly high standard of design, whereas in another category (household appliances, for example) your standard is very low indeed? In other words, is it necessary to select the best object in every category (even if a given category happens to have been invaded by the teardrop school of jazz-design) - rather than just pick the categories that have something significant to offer?
- 5. But if you do accept the notion of showing the "best" object in nearly every category of design (as this book does) are you then justified in excluding such major categories as automobiles or airplanes (seeing that such useful objects are frequently much better designed than the radios, etc. which you do include)?

These questions are not posed here in an effort to discourage exhibitions of useful objects or publications on useful objects like the present one. These exhibitions and publications-especially when prepared as well as this one-have served to raise the standards of public taste and to increase public acceptance of good modern design immeasurably. But the trouble is that a large segment of the public now stands in such awe of the critics' choices that it seems only fair to point out that the critics are often uncritical, that their standards are often uneven, and that their choices vary from year to year.

LEGAL GUIDE FOR CONTRACTORS, ARCHI-TECTS & ENGINEERS. By I. Vernon Werbin. McGraw-Hill Book Co., Inc., 330 W. 42nd St., New York 36, N. Y. 375 pp. 51/2" x 81/2". \$4.75

Mr. Werbin's Legal Guide is presumably a book for the layman, but in all likelihood it will only serve to get that ever willing but continued on p. 194





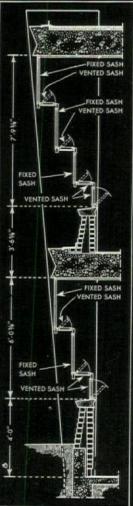
# The Name HOPE'S Guarantees CUSTOM WINDOWS



Home Economics Building, University of Oklahoma, Norman, Okla. Architect: William Burgett and Associate Harold F. Flood
Contractor: Haskell Culwell Construction Co.

In this modern university building a stepped-out arrangement of windows was required. The upper three tiers of sash are fixed and the top two are glazed with heat-absorbing, glare-reducing glass. The ventilators which occur under each overhang lift up and those in the lowest tier tilt in. Shielded by the overhang, full ventilation is possible even in adverse weather.





HOPE'S WINDOWS, INC., Jamestown, N.Y.

THE FINEST BUILDINGS THROUGHOUT THE WORLD ARE FITTED WITH HOPE'S WINDOWS

### IS

# THERE AN "ALL PURPOSE" FLOOR COVERING?

...an emphatic



NO! with reasons why from one of the most successful organizations in the field: the makers of

### GOLD SEAL



### FLOORS AND WALLS

Despite such glib claims and promises as you may hear from time to time, the plain truth is that the "all purpose" floor *simply does not exist*. Nor is it likely to be developed in the foreseeable future.

And the reason is quite obvious: every floor covering situation has its own set of requirements...covering traffic, usage, installation, budget, etc. No one material could possibly meet all requirements at all times.

For example, in Gold Seal Nairn Inlaid Linoleum alone, there are six distinct categories . . . each designed to answer a different phase of your particular floor covering problem. This finest of all inlaid linoleums is available in both commercial and standard gauge . . . in sheet goods and tile . . . for professional and consumer installation.

If the same long-wearing, resilient and easy-to-maintain linoleum were desired for installation over ground-level concrete in contact with the ground . . . the only possible answer would be Gold Seal Ranchtile . . . the only linoleum in the world developed, proved and guaranteed for on-grade concrete installation.



### GOLD SEAL FLOORS AND WALLS

® CONGOLEUM-NAIRN INC., Kearny, N. J. © 1953

Should a rich, lasting, luxurious appearance be the prime consideration and cost secondary . . . there could be no finer installation than one of Gold Seal Rubber Tile, the hands-down style leader.

And so it goes. Each one of the many, many Gold Seal floor and wall coverings is made to meet a specific, different need...to meet it squarely and economically. Each carries the Gold Seal money-back guarantee of satisfaction.

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Learn how your requirements can best be filled.

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### Show Place ...or Office Space?

It all depends on which you want . . . and on "Modernfold" doors. Note, at right, how a well-known home furnishings dealer uses "Modernfold" doors to combine or separate his showroom from his credit department.

Fold the large "Modernfold" doors together and you have an eye-catching, sound-retarding backdrop. Open the doors and the two rooms become one again. Note, too, how the use of a small "Modernfold" door makes room for another chair, in space normally wasted on door swing.



### Your ideas come to life... for life with "Modernfold" doors

Whether you need floor plan flexibility... or want to use the space that swinging doors waste... specify "Modernfold"—the original folding door. No other folding door anywhere equals "Modernfold" doors for quality of design... for quality and strength of materials... for completeness of line.

Regardless of how your room division or door closure problems may vary... you get exactly what you want when you specify "Modernfold" doors—your guarantee against client complaint. For on their performance record alone, "Modernfold" doors look better, operate easier, last longer.

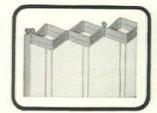
### Sold and Serviced Nationally

NEW CASTLE PRODUCTS, NEW CASTLE, INDIANA In Canada: Modernfold Doors, 1315 Greene Avenue, Montreal



#### **Better Looking**

Fabric covering conceals all operating mechanism. No cornice needed. Adjustable trolleys keep doors hanging flush to jamb.



#### **Easier Operating**

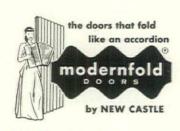
Balanced pantograph hinge construction at both top and bottom; trolleys attached at hinge intersections. No sidewise twist or pull possible.



#### Longer Lasting

More steel hinges both top and bottom; more steel in each hinge; two vertical steel rods welded to each hinge assembly.

#### YOU CAN'T GET MORE IN A FOLDING DOOR



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City	County State



- Longer spans between purlins
- Full-length interlocking
- Lightweight...easy to handle
- Roofs large areas quickly
- Whatever the roof-flat, pitched, curved-you save with Truscon Ferrobord Roofdeck.

This lightweight steel decking is available in units long enough to span three or more purlin spacings. Members are designed and formed for full-length interlocking, giving maximum lateral distribution of concentrated loadings. Ferrobord may be considered as a continuous beam rather than as a simply supported beam, with a consequent increase of 25% in carrying capacity. Result: you save on trusses and structural work.

Truscon Ferrobord roofs large areas quickly. It is easy to handle, easy to

place. Narrow width of this deck permits each piece to be fastened to its support at each rib, with individual units either welded or clipped to supporting framework. Vertical ribs with bottom flange take stress and offer perfectly flat contacts for welding. Work is done from above. No need for scaffolding or movable stages during erection.

When laid, Ferrobord's top surface presents a smooth unbroken face that is ideal for the application of insulation and built-up waterproofing. You'll find complete details on Truscon Ferrobord Steeldeck in Sweet's; write us for literature describing all Truscon Steel Building Products.

### TRUSCON STEEL DIVISION

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TRUSCON®

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### Cincinnati-CITY WITH THOROSEALED HOMES

"Beautiful Homes for Your Very Own"



ROYAL W. JACKSON

2745 W GALBRAITH ROAD TELEPHONE JACKSON 8707 CINCINNATI 24, OHIO October 25th,1951

Standard Dry Wall Products New Eagle Pennsylvania

During the past five years we have built four hundred homes in the greater Cincinnati area. I have to admit, and most builders will, that water is one of our greatant most builders will, that water is one of our greatant problems. We have had our share of dampness and troublesome leaks as most builders do, until we were at troublesome leaks as most builders do.

The past winter and spring was about the coldest and dampest ever recorded in the state of Ohio. Having tried just about every waterproofing on the market without the best results, we decided to try Thoroseal.

We have built sixty-five homes so far this year. Each of these homes were given a two brush application of Thoroseal. To date we have had but one complaint, which was minor and easily stopped with Water Plug. I am thoroughly convinced and sold on Thoroseal and Water Plug. I believe it is the best waterproofing on the market today. It is superior to anything we have ever used.

yours very truly, from L. Struck Supt.

Noted home builder claims Thoroseal and Waterplug best material on the market --

Here's a contractor who won't be annoyed with customer complaints again. To be sure that all his homes are dry, he uses the 40-year-old Thoro System Products, a name top on the list with famous contractors the world over.

Thoroseal comes in beautiful pastel colors and can be applied also to the interior surfaces of your basement walls to seal and beautify.

Get our 20-page brochure, pictorially described in detail "HOW TO DO IT"



Basement exterior of all 65 homes given 2 coats of standard grey Thoroseal.

Standard Dry Wall Products NEW EAGLE, PENNSYLVANIA

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## "PC Light-Directing Glass Blocks are functional, flexible and economical"

The assignment was typical: design the new Mt. Savage School near Cumberland, Md. without sacrificing needed educational facilities, and do it at rock bottom cost.

Architect Minter came up with a reinforced concrete structure, all types of special purpose rooms, lavatory and storage cabinets in each classroom, glazed tile wainscoting in halls and gymnasium, acoustic tile for all areas, and light-directing glass blocks for 50% of the exterior wall area. He did this for 59½ cents per cubic foot, at a time when comparable building costs in the area were a dollar per cubic foot and more.

According to Mr. Minter, "PC Glass Blocks, when properly used, result in a beautiful conception of translucent space. They offer a greater degree of flexibility in interior arrangement than previously possible with conventional fenestration."

Mr. Minter also says that PC Glass Blocks are functional because, "They distribute natural daylight evenly throughout every room."

They're *flexible* because, "They permit a 4-foot module, allowing any partition to be moved in the future"

They're *economical* because, "Glass blocks are ideal for prefabrication. We saved considerable money by building the walls complete with fenestration in one operation, rather than by gradative method."

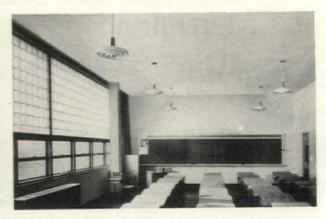
Bring yourself up to date on the complete line of PC Glass Blocks. Send the coupon. We'll give you more information by return mail.

### **Pittsburgh Corning Corporation**

PITTSBURGH 22, PA.

Genera Contractors: George F. Hazlewood Co., Cumberland, Md.





Here's what you get with PC Glass Blocks

ELEVEN STYLES—decorative or functional patterns. Latter for sunlighted or northern elevations, above or below eye level.

SOFT-LITE\* EDGE—opal glass insert at edge of block cuts edge glare, creates soft, uniformly lighted panel.

DIFFUSING SCREEN—divides block into 2 halves, raises insulation value, diffuses light, cuts glare. Available in certain styles.

"CLEAN-EASY" FACE FINISH special coating protects block face from mortar and dirt. Gives neater installation. Available in certain styles.

SAVES MONEY—eliminates sash painting, puttying and replacement. High insulating value cuts heating costs.

\*T. M. Reg. applied for



Pittsburgh Corning Corporation Dept. E-33 Pittsburgh 22, Pa.

Send your booklet on the use of PC Glass Blocks for public, commercial and industrial structures.

sorely taxed fellow into even more trouble. On the other hand, it is a book which many professionals (i.e., lawyers who have contractors, architects or engineers as clients) should be able to make good use of.

In it, Mr. Werbin states 83 legal rules of thumb and follows each with a technical discussion, citing many court decisions and quoting from some at considerable length. Each rule is unquestionably a rule of law which exists somewhere and under some conditions.

But the layman is still left with the questions: "Is it a rule in my state?" "Will it stand up or be over-ruled when it next comes before the court?" "Does it apply to my particular case?" The answer is often "maybe" to the exasperation of said layman.

It is unavoidable that the "maybe" answer recurs so often in law. After all, the law covers the whole of human activity, theoretically and actually. Since human beings are given to acting unpredictably, the law should

be excused a certain capriciousness. Thus, to tell a layman that thus and such "is the law" and to prove it by quoting a judge's decision is foul ball on at least three counts:

- 1. The judge or court may be expressing an overenthusiastic feeling (which may not be followed by other judges and courts).
- 2. A slight variation in facts or procedures may produce an opposite decision.
- 3. The judge who wrote the opinion was talking to lawyers, not laymen, so in many cases a person without legal training can't understand the true purport of the opin-

An experienced lawyer is well aware of these variables. His client generally is not. When he's in trouble is no time to rely on any book, any more than you turn to Mother's Medical Companion when you are sick. Instead you would be wise to

- Get a lawyer.
- Choose one who is alert, works well with businessmen and earns his fees.
- Give him all your business and keep him posted on what you are doing at all times.
- Make him read Mr. Werbin's book. He will really be helped by it.



THE ARCHITECTURE OF BALTIMORE, By Richard H. Howland and Eleanor P. Spencer.

The Johns Hopkins Press, Baltimore 18, Maryland. 149 pp. 9" x 111/4". Illus. \$7.50

Baltimore is pictured within these pages. Over 100 prints, drawings, paintings, and early and modern photographs highlight the story of its development.

ART, FORM, AND CIVILIZATION, By Ernest Mundt. University of California Press, Los Angeles, Calif. 246 pp. 61/4" x 81/4". Illus. \$3.75

A discussion of the meaning and function of Western art, this book attempts to bridge the gap between man and art.

SCHOOL BUILDINGS 1945-1951, By Bruce Martin, Crosby Lockwood & Son, Ltd., 39 Thurloe St., South Kensington, London, S.W.7. 128 pp. 634" x 91/2". Illus. 25/- net

This is a comparative study of a building type over a short period of time, and it brings together both experimental and established methods of construction.

MODERN ARCHITECTURAL DESIGN. By Howard Robertson. The British Book Centre, 122 E. 55th St., New York 22, N. Y. 228 pp. 6" x 9".

This new edition, largely rewritten and newly illustrated, is an analysis of the design problems which face the practicing architect and student of the present day.



TIT blinds, custom-made to your specifications, fill the bill for every type of installation. Pioneered by Eastern and manufactured with Eastern equipment and processes by local manufacturers everywhere, Rolla-Head is quality controlled from precision-built tilting gear to streamlined tape clips. deal for commercial installations because of initial low cost plus lowest possible maintenance cost (snap-in hardware can be replaced without use of tools). For complete data see Eastern's 16-page catalog in the 1953 Sweet's File. For complete satisfaction . . . specify Rolla-Head.

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GENERAL OFFICES & PLANT: 1601 WICOMICO ST., BALTIMORE 30, MD. 1130-36 W. 37th St., Chicago, III. 1486 Lakewood Ave., S. E., Atlanta, Ga. 111 Ronald Ave., Toronto, Can. 577 E. Pender St., Vancouver, B. C.

# MODERN ONE-STORY SCHOOLS



John T. Jacobsen, Victor N. Jones & Associates, Architects

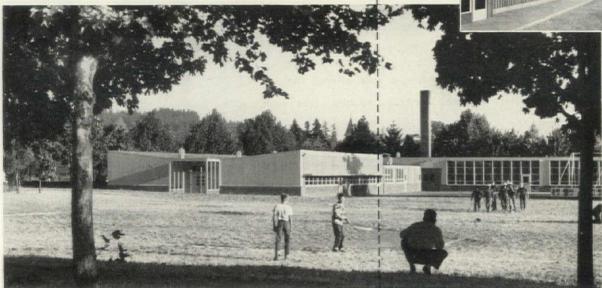
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Economy, speed of construction and adaptability to individual community needs makes wood outstanding for today's modern one-story schools. Wood offers practically unlimited plan and design possibilities. Today's wood trusses and laminated members make possible long post-free spans. An infinite variety of exterior treatments of wood offers interesting and individual effects...make well-designed one-story schools of wood a credit to any community.

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Send for valuable kit of literature useful in planning and designing modern school buildings. Includes technical data and specifications on latest developments in wood construction. Send coupon below.

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PLASTER-WELD achieves "believe-it -or-not results" on 60,000 yds. of concrete ceiling at Nashville
PHA project.

Original specifications called for grinding the joints and painting at this PHA project in Nashville, Tenn.

But the specs quickly were changed — when it was proved that

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PLASTER-WELD is the amazing liquid that bonds plaster forever to any surface - rough or smooth, hot or cold, damp or dry, indoors or out, in any climate

On new construction, modernization or repair work - it bonds gypsum and acoustical plaster to concrete cinder block, fresh or painted plaster, brick, rocklath, wood, hardboard, tile, even to metal or glass!

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PLASTER-WELD is applied with brush, roller or spraygun, treating 500 to 800 sq. ft. per gallon. It dries in 40 minutes - them can be covered at once or anytime later with a skim coat of plaster. And the plaster is there to stay - no PLASTER-WELD bond has ever let go!

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SLOAN IN '25...IN '29 AND SLOAN AGAIN IN '52

Through glass fronts guests see floodlighted plants and

flowers, but when the floodlights are turned off

the glass panels become mirrors.

• For the third time the JUNG HOTEL, NEW ORLEANS, takes a bow. To many in the famous Mardi gras city it was a day to remember when in 1925 the original Jung (right foreground) opened its doors. Then, in 1929, popularity made expansion necessary. A second and larger unit was built. And just a few months ago modernization of several areas in the first two units was completed and the new third unit was opened, to

make Jung Hotel the South's largest—1200 rooms. Twenty-seven years ago SLOAN Flush VALVES were installed in the original Jung. Because of their trouble-free and economical service they were again selected for the second unit. And for the same reasons, plus exceedingly low maintenance cost throughout the 27 years, they were specified for the new third unit—more proof of preference that explains why...

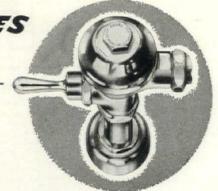
### more SLOAN Hush VALVES

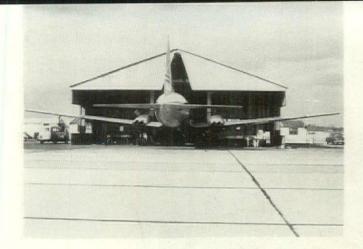
are sold than all other makes combined

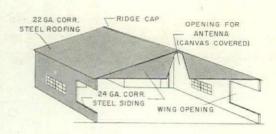
SLOAN VALVE COMPANY . CHICAGO . ILLINOIS.

Another achievement in efficiency, endurance and economy is the SLOAN Act-O-Matic SHOWER HEAD, which is automatically self-cleaning each time it is used! No clogging. No dripping. When turned on it delivers conewithin-cone spray of maximum efficiency. When turned off it drains instantly. It gives greatest bathing satisfaction, and saves water, fuel and maintenance service costs.

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akers of Biltrite NURON for Shoe Soles, Luggage and Accessories—and Biltrite Rubber Heels

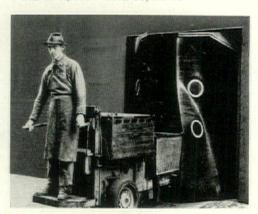


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Please send me free box of 4" x 4" samples of Amtico Flooring in standard 1/4" gauge and all 26 stock colors—also illustrated literature
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#### PREFAB PLANE DOCK: a low-cost maintenance shelter for commercial aircraft

For a price well below that of a conventional hangar, Luria is mass-producing a maintenance dock that accommodates all kinds of one- to four-engine commercial planes. The dock's sidewalls are slotted for wing clearance and the facade is notched so that even the largest craft can be serviced without lowering its antennae. Heavy canvas sleeves and curtains are provided to close off the front opening and wing slots. Plant engineered, the dock is erected over a simple foundation and requires no welding or riveting on the site. Basically, it is an incombustible, rigid steel frame structure 70' x 50' and 181/2' high to the eaves, with a 20' x 20' lean-to in the rear (for the plane's nose) and a 15' x 10' masonry boiler room. Walls and roofing are galvanized corrugated steel. The main roof is insulated with I" rigid board. Heat is provided by a 1 million Btu oil-fired hot-air furnace. (To avoid possible contamination from engine exhaust, the system does not recirculate any air.) Other facilities in the package include light and power lines and piping for compressed air. When and if necessary, the dock may be disassembled and salvaged. Cost, set up, is about \$29,500.

Manufacturer: Luria Engineering Co., Division of Luria Steel and Trading Corp., 500 Fifth Ave., New York 36, N. Y.



#### RUBBER DOORS give when plant traffic does not

Few industrial plant details can get as beat-up looking as swinging doors subjected to electric truck traffic. Rubber buggy bumpers help, but Candor doors go one better. The entire door flexes with the traffic-foot or truck, fast or slow. The new door unit is made of cottoncontinued on p. 202

He specified Servel...

the <u>dependable</u> air conditioning equipment



**He can rest assured** because Servel has a well-deserved reputation for reliability and economy in meeting all air conditioning needs—comfort air conditioning, chilled water for industrial processing, precooling air for industrial applications.

**Reliability**—Because Servel Air Conditioning has no moving parts in the refrigeration system, there is nothing to vibrate or wear. It operates continuously at peak performance without loss of capacity and with minimum maintenance. A five-year factory warranty backs up the dependability of the famous Servel "no moving parts" design.

**Economy**—The Servel unit operates on steam at atmospheric pressure which can be obtained from any source—waste steam, waste heat or district steam. With simple controls, the Servel unit modulates to meet varying load conditions. Capacity can be reduced to as low as 50% with corresponding savings in steam consumption.



The Servel 25-ton water chiller has low floor loading, no vibration and quiet operation. It can be installed on any floor with most economical piping arrangement.

Investigate the proved advantages of Servel . . . There's a Servel unit or combination that will provide the best in air conditioning at the lowest operating and upkeep cost. Mail the coupon today for full information.

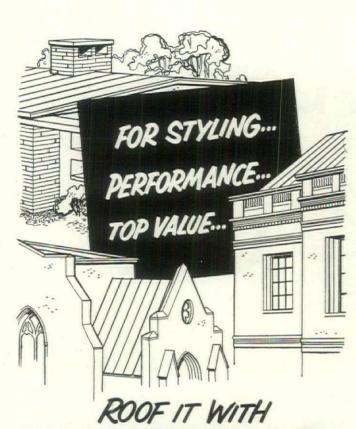


the name to watch for great advances in

AIR CONDITIONING 

✓ REFRIGERATION

SERVEL, INC., DEPT. AF-	3, Evansville 20, Indiana
Send me further inform Conditioning equipment	nation about Servel Air for:
Comfort air conditioning	Industrial applications
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FOLLANSBEE TERNE METAL

You get all of these advantages in one roofing material when you specify Follansbee Terne Metal for your "big jobs"—

- Top Value. Follansbee Terne Metal is permanent, lifetime roofing.
- Client acceptance. Follansbee Terne Metal is always acceptable. It has been America's favorite metal roofing for more than a century.
- Unlimited design possibilities. Especially adaptable to flat or low pitch roofs. Unlimited roof and trim color combinations possible.
- Ductile, easy to install. Expansion and contraction are never a problem with Terne!
- Fireproof, windproof, weatherproof. Resists electrolysis . . . flashes with any metal.

On your proudest jobs, be sure of maximum, trouble-free roof protection. Specify Follansbee Terne Metal Roofing—tops in beauty . . . performance . . . value.



Follansbee 40 lb. Coated Terne Metal is now available nationally through leading distributors.

### FOLLANSBEE STEEL CORPORATION

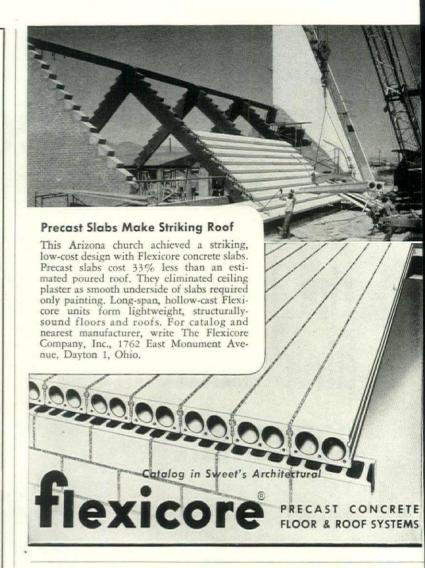
GENERAL OFFICES, PITTSBURGH 30, PA.

POLISHED BLUE SHEETS AND COILS SEAMLESS TERNE ROLL ROOFING
COLD ROLLED STRIP

Sales Offices—New York, Philadelphia, Rochester, Cleveland, Detroit, Milwaukee. Sales Agents—Chicago, Indianapolis, Kansas City, Nashville, Los Angeles, San Francisco, Seattle; Toronto and Montreal, Canada. Mills—Follansbee, West Virginia

FOLLANSBEE METAL WAREHOUSES
Pittsburgh, Pa. Rochester, N.Y. Fairfield, Conn.





### FOR BUILDINGS OF ALL TYPES

. . . first in efficiency, economy and client satisfaction



TODD BURNERS
GAS OR OIL



COMBUSTION EQUIPMENT DIVISION
TODD SHIPYARDS CORPORATION

81-16 45th Avenue Elmhurst, Queens, N. Y.



# When it comes to the pipe in your plans—



Whether you are planning for a conventional hot water or steam heating system, for fire control and plumbing lines, or for a modern radiant heating application or a snow melting installation, remember that National, the world's most widely used pipe, has all the necessary qualities for complete adaptability in all these services. As a busy architect and engineer this means to you—no worries, no doubts, no uncertainties—just a simple specification of the one word "National" relieves you of any and all further checks or investigations. It's as easy and as simple as that.

Why? Well, "old timers" will tell you that confidence in NATIONAL to fill the bill is born of years of experience and observation, upon thousands and thousands of installations in America's finest and costliest structures. But most important of all, it is based on the comforting knowledge of NATIONAL's uniform, dependable, trouble-free performance, the kind that architects and engineers feel proud to pass on to their clients.

For over three quarters of a century, each new generation of architects, engineers and contractors have looked to NATIONAL with complete confidence to meet all mechanical requirements. They know that while old in name and rich in service records, it is ever new and modern to fit today's requirements. And so, whatever type of service your plans call for, you will find both satisfaction and profit in specifying NATIONAL "all the way."



- It's Uniform Throughout—National Pipe is uniform in metallic structure, ductility, strength, corrosion resistance, surface finish and diameter.
- Threads and Cuts Easily—Absence of slag inclusions, laminations and blisters assures smooth, strong threads . . . clean cuts.
- Coils and Bends Well—National Pipe has that extra strength and ductility so necessary to meet the demands of close and exacting fabrication.
- Makes Sound Joints—Uniformity and accuracy in manufacturing have made unequaled pipe jointing records for National Pipe ... whether welded or threaded.
- It's Scale-Free-National Scale-Free Pipe avoids damage to valve seats and clogging of small orifices.
- 6 It's Spellerized—Special rolls work the bloom surface to eliminate irregularities and produce a dense, uniform surface.
- Constantly Improved—For over 60 years, National Steel Pipe has constantly been improved to meet the most difficult requirements.
- 8 It's Tested and Inspected—Each and every stage of production is carefully checked by the finest instruments . . . thoroughly tested by the most experienced men.
- Controlled from Start to Finish—From the raw material to the finished product, one organization has rigid control over the manufacturing steps that produce National Steel Pipe.
- Nationwide Acceptance—A cross section of industrial or building applications will show a predominant use of National Pipe . . . largest selling pipe in the world.

NATIONAL TUBE DIVISION, UNITED STATES STEEL CORPORATION, PITTSBURGH, PA.

COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO, PACIFIC COAST DISTRIBUTORS

UNITED STATES STEEL EXPORT COMPANY, NEW YORK

### U.S.S NATIONAL Steel PIPE

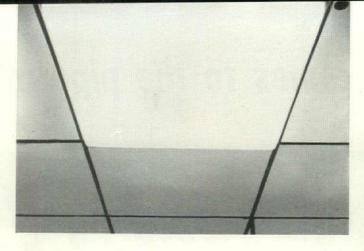


UNITED STATES STEEL

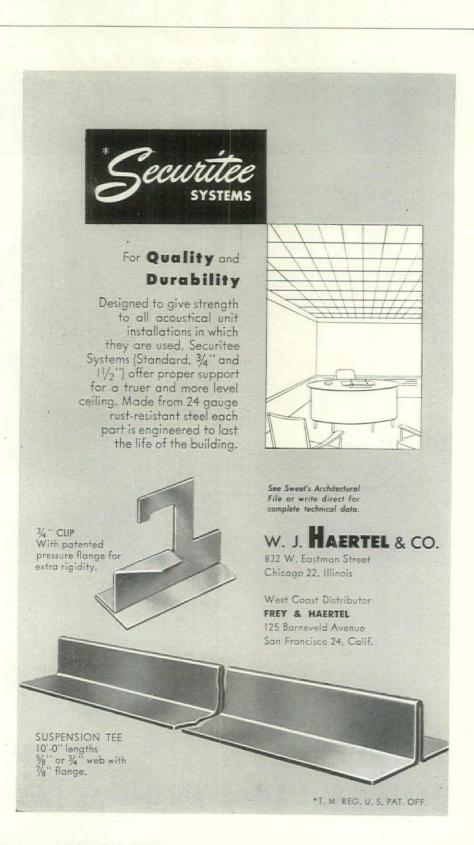
### PRODUCT NEWS continued

duck reinforced rubber sheets (or neoprene for installations where there is exposure to oil and grease) suspended in an L-shaped frame. The panels open just wide enough for a cart or pedestrian to pass through, and close gently but quickly. Approximate price for an 8' x 8' (largest stock size) double door of 3/16" thick rubber is \$417 F.O.B.

Manufacturer: Candor Engineering Co., P.O. Box 210, Montclair. N. J.







### LUMINOUS FIXTURE utilizes one 4' x 4 piece of translucent plastic

One of the most impressive lighting fixtures introduced by Lightolier in its new showroom (see p. 118) is the giant Optiplex. Boasting 16 sq. ft. of smooth translucent plastic diffuser the clean-cut fixture could be considered a small luminous ceiling in itself. It is designed for three kinds of mounting: recessed (2" depth extends below ceiling line); surface (2" diffuser visible, plus 43s" baked white enamel frame); and stems (any length). Installation and servicing are quite simple; the slightly domed diffuser snaps in and out under light finger pressure. The Optiplex nests eight 40 w. fluorescents (slimlines). It lists, without lamps, for \$275. Smaller units are also available.

Manufacturer: Lightolier, 11 E. 36th St., New York, N. Y.

### CHAMELEON BENCH turns table in multipurpose schoolroom

Conversion of precious school space from one activity to another demands even more than flexible architectural details. It calls for furnishings that keep pace with quick-change curriculums, like the *Converta* bench, exhib-





ited to admiring school designers and administrators last month. Unfolded from a compact self container (8' x 16" x 4½"), the multipleuse unit can be set up as a seat with back rest, altered in seconds to a table-bench. Prices range from about \$92 to \$112.

Manufacturer: Converta Bench Corp., 930 Tower Bldg., Washington 5. D. C.

continued on p. 206

### Why

# BRIXMENT

### WATERPROOFED

Brixment is permanently waterproofed, during manufacture, with the most effective air-entraining waterproofing agent known.

The presence of this waterproofing can be demonstrated by making the crater test shown in Figure 1. Its effectiveness in preventing the passage of water through Brixment mortar can be demonstrated by making the test shown in Figure 2.

The waterproofing in Brixment gives you three practical benefits which are not avail-

able in ordinary cement-and-lime mortars:

#### HELPS PREVENT LEAKY WALLS

Even under pressure, water cannot readily pass through Brixment mortar. Therefore, if the face brick are backplastered with Brixment mortar, an effective barrier is set up against the passage of water to the inside of the wall.

### TO GREATLY INCREASES DURABILITY

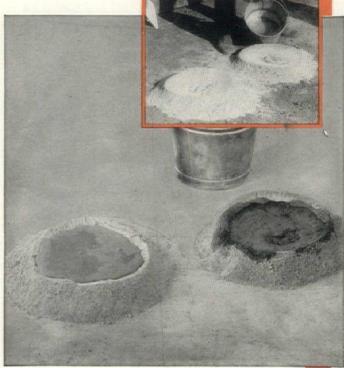
Water cannot readily penetrate Brixment mortar. This prevents the mortar from becoming saturated—therefore helps protect it from the destructive action of freezing and thawing to which it is subjected many times each winter.

### 3 HELPS PREVENT EFFLORESCENCE

Waterproofed Brixment mortar checks the passage of water and keeps it from percolating down through the wall, dissolving salts which may be in the masonry materials, and carrying them to the surface.

These advantages will be described in detail, in subsequent advertisements. Watch for them!

Louisville Cement Co., Louisville 2, Ky.



#### FIGURE 1

Pour out a pile of Brixment and a pile of ordinary cement and lime. Make a crater in the top of each pile. Fill each crater with water. Note how the cement-and-lime mixture absorbs the water immediately. Note how the waterproof Brixment holds it.

#### FIGURE 2

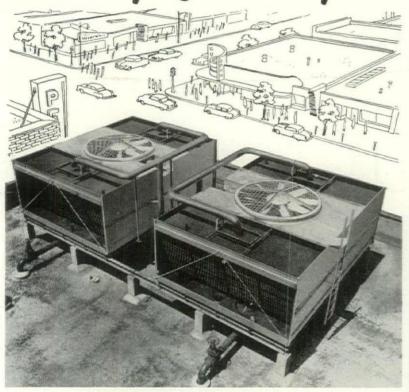


Prepare two slabs of mortar, one with Brixment and one with non-waterproofed materials. After mortars have hardened, seal a lamp chimney to each of the mortar slabs, using wax or candle grease, and fill with water.

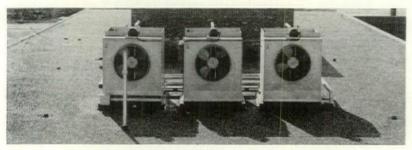


After 24 hours, note how much water has gone into and through the non-waterproofed mortar, and how little water has gone into or through the Brixment mortar.

# Marley Cooling Towers are Tops for Shops"



Double-Flow Aquatowers\* for Central Cooling Systems



Aquatowers\* for Individual Cooling Units

From Framingham to Farmers Market, designers and developers of shopping centers have made Marley towers their favorite selection for water conservation. Whatever the desired capacity or range, they have found the economical, efficient unit for their need in the Marley line—the only complete line of most modern cooling towers.

Architects appreciate the extremely low silhouette of the Marley Double-Flow Aquatower. This patented Marley design reduces tower height by two-thirds and offers no conflict with structural design, being easily concealed by location, parapet walls or simple masonry enclosure.

Engineers specify Marley towers for ability to pin point the exact requirement for every job regardless of capacity or performance desired. They know that a standard Marley unit of proper design is available to fill the specifications without necessity to over-buy or overload. They know that every part of every Marley tower is designed, manufactured and guaranteed by Marley.

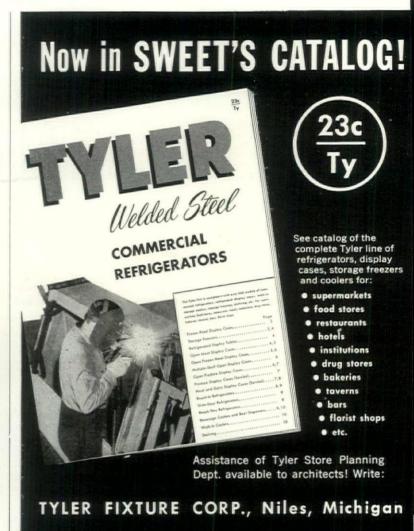
In 50 cities Marley sales engineers are available for assistance in tower selection, and stocks of towers for immediate availability are maintained in 30 locations.

\*Registered trade mark



### The Marley Company

Kansas City, Missouri



#### March features:

New hilltop house by Frank Lloyd Wright
H-plan with a living room in the link, by Kazumi Adachi
New Hampshire Vacation house, by Dan Kiley
Edward Fickett's \$100,000-per-year practice in speculative houses
New modular building panels for complete exterior wall system.

For the most distinguished domestic work of leading architects, read **house** + **home** every month.

Basic professional rate for a 1-year subscription to USA, Possessions, and Canada—\$5.50.

### house+home

540 North Michigan Avenue, Chicago 11, III.



# Here's an example of how STEELTEX saves maintenance costs on rental housing

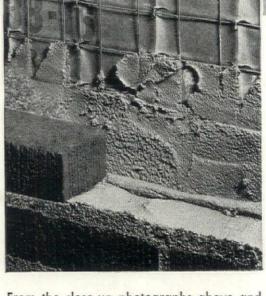
When M. Lee Heath, owner of the Kensington Court Apartment Project in Charlotte, N. C., insisted two years ago upon Steeltex for brick-veneer and Steeltex for interior plaster, he did so because he wanted low maintenance cost in the years to come. This is what Mr. Heath had to say after 24 months:

"I used Steeltex for sheathing because it completely bonded the masonry and stud walls together. It was my opinion that a solid steel-reinforced mortar section was better than a flue crossed with wall ties. I then used Steeltex for plaster, because of the completely rigid base it made. I found this type of construction to be surprisingly inexpensive at the time, and I can now say it has saved me a considerable amount in maintenance cost. After two years there simply have been no wall cracks at all. Certainly any owner of rental property can appreciate this feature."

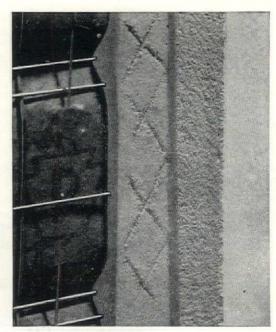
Whether <u>your</u> projects involve rental housing or not, you'll find it will pay you to investigate the advantages that rigid, weldedwire Steeltex can bring. See our catalog data in Sweet's or write for Catalog DS 132 Dept. AF, Pittsburgh Steel Products Company, Grant Building, Pittsburgh 30, Pa.

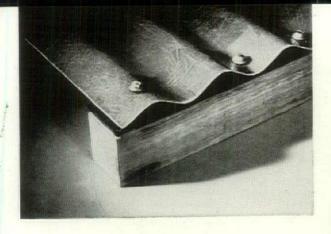
### Pittsburgh Steel Products Company

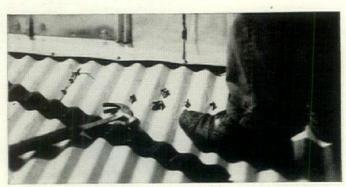
a subsidiary of Pittsburgh Steel Company



From the close-up photographs above and below, you can see some of the advantages of Steeltex. Notice above that a continuous steel-reinforced mortar bond is created between brick and stud walls. Below is shown the virtual truss construction created by Steeltex for plaster.

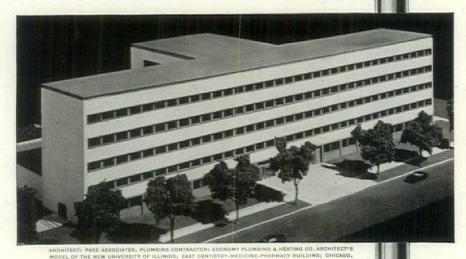






### **Modern Buildings Deserve Permanence**

... in piping, too!



### Clow (threaded) Cast-Iron Pipe lasts the life of your building

The beauty of today's buildings belongs to posterity too. Permanence in all details, including plumbing installations, is their due. Because Clow (threaded) Cast Iron Pipe assures a century or more of service, architects and contractors in increasing numbers choose Clow for all downspout, waste, and vent lines.

There are other reasons as well: Resistance to corrosion, economy of installation, and low service cost per vear.

From every standpoint in every modern building, Clow (threaded) Cast Iron Pipe is a sounder choice ... a better investment.

#### JAMES B. CLOW &

Clow (threaded) Cast Iron Pipe has same O.D. as steel pipe, is available with plain or threaded ends, in 3, 4, 5, 6, 8, and 10" sizes in 18' random lengths. Also available with integral calking hub on one end (other end plain) in 18' random lengths in 4, 6, and " sizes.

CLOW CAST IRON PIPE



on the job, with ordinary tools of the piping trade

WHOLESALERS OF PLUMBING AND HEATING SUPPLIES shers of the Clow Bulle

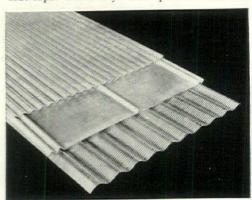
#### FILLER STRIPS premolded for flashing the bumps in corrugated building materials

Fabco Closures provide a simple solution to the usually messy problem of sealing corrugated sheet materials against flat surfaces. Molded to fit standard-size corrugations of steel, asbestos and plastic sheet materials, the new asphalt composition and rubber filler strips should eliminate much time-consuming calking by hand or gun. For use with translucent plastics, the Closures may be obtained in colors to match the sheeting. Fabco Closures also may be used to isolate dissimilar metals, and thus prevent electrolytic corrosion. Prices range from 5¢ per lin. ft. for 1" wide x 11/4" corrugation asphalt strips up to 20¢ per lin. ft. for rubber Closures 11/2" wide x 4.2". Savings in labor over grouting or calking with sundry limp materials are said to more than compensate the cost of preformed strips. Manufacturer: Fabricated Products Co., Inc.,

#### ALUMINUM ROOFING cross-crimped for rigidity, less surface glare

West Newton, Pa.

At a price of about 25¢ more per square than smooth-finish aluminum roofing, Quaker State offers a cross-crimped sheet reported to be more rigid and to mask unattractive end and side laps. The finely ribbed pattern makes an



excellent reflective surface for bouncing radiant heat and throws less glare than smooth finished aluminum. Three types are available: 114" and 21/2" corrugated and 5-V crimped. Manufacturer: Quaker State Metals, Mountville, Pa.

#### PLASTIC COATING combines color identification and finish for pipe lines

Where steam, brine, cold water and insulated refrigerant lines must be distinguished one continued on p. 210



for INDUSTRIAL and COMMERCIAL BUILDINGS

### ALUMINUM, STAINLESS or GALVANIZED STEEL

ALUMIN

FLUSH, RIBBED, or FLUTED

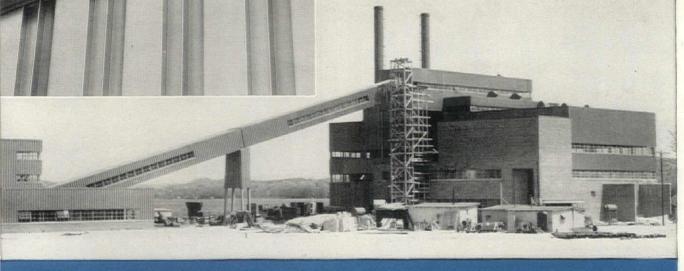
Over-all "U" Factor of Various Types is Equivalent to or Better than Conventional 16" Masonry Wall

Today, Insulated Metal Walls are saving construction dollars in both material and labor costs . . . they are reducing construction time through rapid erection—even in periods of extremely low temperature. This amazingly light weight construction, with an over-all "U" Factor superior to a conventional masonry wall, permits further economies in the building frame or supporting structure. Architects, as well as owners and management groups throughout the country are revising their concept of permanent exterior wall construction. In the powerhouse illustrated below, Mahon Fluted Type, Field Constructed Insulated Metal Walls with galvanized steel exterior plates were employed to good advantage for virtually all exterior walls. Mahon Insulated Metal Walls are available in the three exterior patterns shown at left . . . each lends itself to individual architectural expression in building design. The Mahon "Field Constructed" Fluted or Ribbed Wall can be erected up to sixty feet in height without horizontal joints—a feature of Mahon Walls which is particularly desirable in powerhouses, steam plants, warehouses, auditoriums, or other buildings where high expanses of unbroken wall surface are common. See Sweet's Files for complete information including Specifications, or write for Catalog No. B-53-B.

### THE R. C. MAHON COMPANY

Detroit 34, Mich. • Chicago 4, III. • Representatives in all Principal Cities

Manufacturers of Insulated Metal Walls; Steel Deck for Roofs, Partitions, and Permanent Concrete Floor Forms; Rolling Steel Doors, Grilles and Underwriters' Labeled Rolling Steel Doors and Fire Shutters.



Advance Steam Plant for Northern Michigan Electric Co-operative, inc., Boyne City, Michigan, Stanley Engineering Company, Muscaline, lowa, Architects and Engineers. Owen-Ames-Kimball Company, General Contractors.

MAHON

### RAYNOR CARVED RAISED PANEL DOORS

When Distinctive Individuality Is Desired

Specify this RAYNOR Original

Typical of Raynor Manufacturing Company's ability to equip every door installation with the best in wood sectional overhead door equipment-the Carved Raised Panel Door is an excellent example of why leading architects specify Raynor doors exclusively.

Built complete in the Raynor plant, all Raynor doors are backed by the finest door designing and construction know-how.

Many standard designs to choose from.

Extra panels may be built into shutters and house doors

Finished paint job invites originality.

Precision routed from 1" thick blanks.

Raynor Carved Raised Panels are available in the long narrow stream-

lined panel as well as the standard square panel.

See our catalog in Sweets.

Write Dept. E for colored illustrated literature and technical data ..... RAYNOR MANUFACTURING COMPANY, DIXON, ILL.

Builders of a complete line of wood sectional overhead doors-equipped with Graduated Seal.



Draw-Matic is the solution to the operation of draperies for larger openings . . . Draw-Matic operates smoothly and efficiently without effort . a completely concealed unit, opens and closes draperies of pre-set positions. Can be operated by remote control. Ideal for residential, commercial, industrial and institutional installations.

Draw-Matic requires no special installation or hardware, although the use of the Kirsch heavy duty rod, ball bearing sleeve pulleys, nylon masters and slides is recommended. Plugs into nearest electrical outlet.

Draw-Matic units are precision made and unconditionally guaranteed for long dependable service.

Write today for detailed information and prices!

DRAW-MATIC ENGINEERING 13025 WEST McNICHOLS RD., DETROIT 35, MICH.

EAST. DIST., DRAW-MATIC SALES CO., 4475 CASS AVE., DETROIT 1, MICH





For quality, economy and satisfaction, specify SUMMERBELL

825 EAST 29TH STREET - BOX 218, STATION "K" - LOS ANGELES 11



MORE THAN 30,000 LBS. of 20 oz. Revere plain and leadcoated sheet copper was used for the roof and gutters of St. Catherine's Church. The through-wall flashing used is also of lasting copper.

Architects, William G. Herbst & Associates: General Contractors, Gebhard-Berghammer, Inc., Sheet Metal Contractors, Reinke & Schomann, Inc., Revere Distributor, Inland Steel Products Company, all of Milwaukee.

Top photo shows section of batten seam roof on St-Catherine's Church. Inset diagram shows the 5 steps in the development of a batten seam as recommended in Revere's Booklet, "COPPER AND COMMON SENSE."

While battens may vary to suit the architectural style it is good practice to make them  $\frac{1}{4}$ " narrower at bottom than at top to allow for expansion.

(STEP 1) Copper cleats not less than 2" wide are secured to sides of battens, spaced not more than 12" o.c. and placed to project 1" above batten if ½" double lock seam is used as shown. (STEP 2) Sides of batten pans are turned up at right angles with a horizontal flange. (STEP 3) Cleats are bent over horizontal flange as shown. (STEP 4) Caps are placed over batten and edges bent over horizontal flanges of pans. (STEP 5) A ½" lock is then formed by bending down projecting flanges against sides of batten.

When architects design such landmarks as the St. Catherine's Church, they simply can't afford to specify untried materials in the spots where faultless performance is a must...in this case the roof, gutters and the through-wall flashing. That's why copper was used. Not only has it proved itself over the centuries but it is a non-rusting metal that combines more desirable construction characteristics than any other single metal. Copper is also preferred by sheet metal contractors because it is so readily worked and soldered.

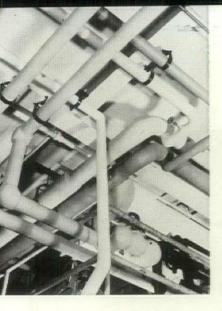
Now, with restrictions eased, and quantities permissible without allotments greatly increased, there isn't any reason why your next job can't have the many benefits of Revere Copper. See the Revere Distributor nearest you about Revere Sheet, Strip or Roll Copper for flashing. Particularly ask him about the money-saving advantages of Revere Keystone Thru-Wall Flashing.\* And, if you have technical problems, he will put you in touch with Revere's Technical Advisory Service.

### REVERE COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801 230 Park Avenue, New York 17, N. Y.

Mills: Baltimore, Md.; Chicago and Clinton, Ill.; Detroit, Mich.; Los Angeles and Riverside, Calif.; New Bedford, Mass.; Rome, N. Y.— Sales Offices in Principal Cities, Distributors Everywhere

SEE REVERE'S "MEET THE PRESS" ON NBC TELEVISION EVERY SUNDAY



### PRODUCT NEWS continued

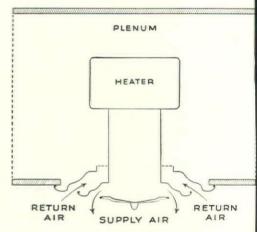
from another, labels are usually stenciled on the pipes or colored paint is applied over the insulating finish. Now Insulcolor, a new tough plastic coating, provides both protective topping and color identification in one application. Suitable for indoor and outdoor use, the finish is available in white and six tinting colors: light and dark green, light and dark blue, yellow and buff. It is bump and scratch resistant, and can take temperatures up to

160° F. and as low as 40° below without crack ing, shrinkage or crazing. Since it contains no inflammable solvents, it is completely safe to use on any job. When dry, the coating is fire retardant. Coverage runs about 35 to 50 sq. ft. per gal. for two-coat applications Insulcolor also may be diluted with water for use as sizing for asbestos, canvas and other lagging cloths.

Manufacturer: Armstrong Cork Co., Building Materials Div., Lancaster, Pa.

#### DIFFUSER FOR UNIT HEATER turns usual air pattern inside out

A supply-return diffuser ordinarily exhales from an outer ring, inhales through an inner ring. Because any powerful down-swoosh would short-circuit these air streams, the conventional diffuser cannot be used with a unit heater. Instead, wherever a get-hot-quick unit is needed-in a department store entrance or building corridor-expensive grille outlet, intake, and duct fittings must be custom fabricated for the job. In its Type KU diffuser, Connor has staged a simple but effective coup



by inverting the air pattern (i.e., discharging air through the inner orifice and returning it through the outer) and thus devised a factorymade diffuser suitable for attachment to a down-blow unit heater. The KU is made with neck diameters of 11" to 22" and retails for



from \$50 to \$160. Installation savings over shop-made devices, however, are estimated by the manufacturer and by sheet metal contractors at about \$75 up to \$200.

Manufacturer: Connor Engineering Corp., Danbury, Conn.

Technical publications p. 216

### More Than A Trend . . . Seaporcel Is Permanent



### Any Old Building Can Look as Smart and Modern as This!

TO TRANSFORM an old building into a strikingly modern structure follow the nation's leading architects in the swing to SEAPORCEL porcelain

LOOK AT this building (above), though no mere black and white picture can do it justice! Yet BEFORE Clifford A. Lake, Pittsburgh architect had it rebuilt with a SEAPORCEL exterior, it looked "sick" and "weather-beaten"... badly in need of an overall face-lifting.

The bulkheads, coping and window trim, as well as the upright letters now appear in a soft red terra cotta finish . . . with piers, facia and sign in unobtrusive buff terra

WHILE LENDING STYLE and dignity to the structure, there is no question of the recaptured realty value of this restored property.

Write today for copy of the Seaporcel idea brochure showing numerous sample installations.

SEAPORCEL METALS, Inc. 28-24 Borden Ave., Long Island City 1, N. Y.

complete A. F. of L. Metal Fabricating & Enameling Shop

For interiors as well as exteriors **SEAPORCEL Porcelain Enamel** is the most notable advance in Architectural design

Fabricated in any shape, form or section; rounds, com pound curves, flutings, reedings, etc. Obtainable in such versatile textures as "Terra Cotta," in Semi-Matte or Gloss finishes; also our new "LEATHORCEL" (simulated leather) finish.

Also manufactured on the West Coast by SEAPORCEL PACIFIC, Inc. 1461 Canal Ave Long Beach 13, Calif.

ARCHITECTURAL





a suburban shopping center as **modern** as the

### **JOHNSON**

### **AUTOMATIC TEMPERATURE**

### CONTROL

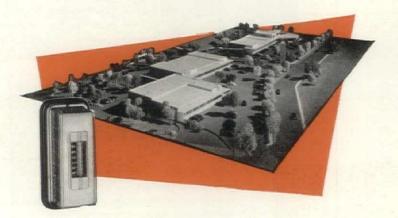
for its complete air conditioning system

The Village Market in LaGrange Park, Chicago's fastest growing western suburb, has been termed "truly the nation's most modern market place." The builders, Wm. Joern & Sons, realizing modern merchandisers' recognition of customer comfort as a key requirement in attracting maximum store traffic, have provided complete year 'round air conditioning in all of the 48 retail outlets, 5 of which have been set aside for professional offices which will accommodate 15 doctors and dentists.

Through summer's heat and winter's chill, temperatures are maintained throughout the entire project, at the optimum level to insure shopping comfort, by a complete system of Johnson Automatic Temperature Control. A total of 45 Johnson T-403 Master room thermostats reset Submaster Controllers on 40 separate central fan air conditioning systems to produce *just right* temperatures at all times. The 400 tons of refrigeration required for summer cooling is under the control of Johnson "Record-O-Stats" and "Pneumatic Step Controllers".

Johnson "Planned-for-the-Purpose" Control Systems are designed specifically for each individual installation. That is why you will find Johnson Control, not only in outstanding shopping centers like the Village Market, but in department stores and in every other type of public, commercial and industrial building.

Take advantage of the experience of the Johnson nationwide organization. It is at your disposal without obligation. JOHNSON SERVICE COMPANY, Milwaukee 2, Wisconsin. Direct Branch Offices in Principal Cities.





Village Market, LaGrange Park, Illinois; Wm. Joern & Sons, general contractor and owner, LaGrange Park; Mittelbusher & Tourtelot, architects; Frank W. Riederer, mechanical engineer; Chicago Conditionaire Co., heating and air conditioning contractor, all of Chicago.



Modern medical facilities are an important part of the complete community service provided at the Village Market. Here, in the Medical Center, Johnson Control automatically assures optimum temperatures in waiting rooms, examining rooms and offices.



Convenient location, a diversified array of shops and services and perfect indoor weather, rain or shine, with Johnson Automatic Temperature Control! These are the ingredients that attract thousands of comfort-conscious shoppers to the Village Market.



Comfort is a "must" in the suburban branches of the larger metropolitan stores. Smart interiors and comfortable temperatures create the best possible shopping atmosphere for selling fashion apparel.

JOHNSON Automatic Temperature and

Air Conditioning CONTROL

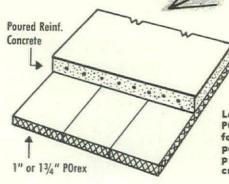
MANUFACTURE . APPLICATION . INSTALLATION . SINCE 1885

## RORES

### **ACOUSTICAL CEILINGS...**

For Factories, Schools, Churches

Bond perfectly
with poured cement
Eliminate
Suspended Ceilings



Lay 1" or 134" POrex right on forms. It bonds perfectly with poured concrete.

### **POrex Combines**

- \* SOUND ABSORPTION
- \* HEAT INSULATION
- \* STRUCTURAL STRENGTH
- \* FIRE RESISTANCE

It's a light-weight mineralized wood fiber product bound under pressure with portland cement

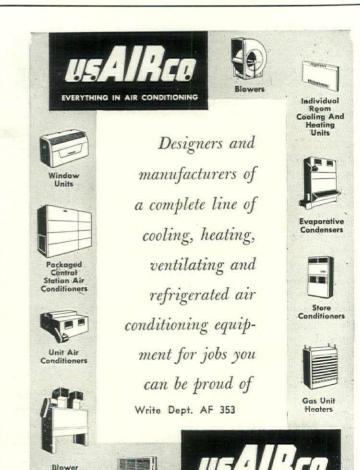
### PORETE

MANUFACTURING COMPANY
NORTH ARLINGTON, N. J.

POrete Products for roofs, floors and walks since 1920

POrete Channel Slabs 

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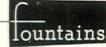


a marvel of functional design and beauty, are to be found the most modern appointments to promote comfort, health and convenience. Among them, as in so

many metropolitan edifices, Halsey Taylor fountains are installed throughout!

THE HALSEY W. TAYLOR CO.

A.25





For modern or traditional interiors, here is the most beautiful Sound Conditioning material of its type ever developed! New Acousti-Celotex CELOTONE combines the charm of travertine marble with excellent sound-absorption properties and incombustibility.

Deep, irregularly shaped and spaced fissures produce a pattern strikingly similar to travertine. Shadow patterns created by the fissures cause CELOTONE's appearance to vary interestingly from different angles.

CELOTONE Fissured Mineral Tile has a surface of high light reflection value, superior washability. Can be washed repeatedly with no impairment of sound-absorption qualities. Has the paintability inherent to products of this type.

TO SEE SAMPLES OF CELOTONE, contact your distributor of Acousti-Celotex Sound Conditioning Products. If you don't know where to reach him, write to The Celotex Corporation, Dept. A-33, 120 S. La Salle St., Chicago 3, Ill. In Canada, Dominion Sound Equipments, Ltd., Montreal, Quebec.

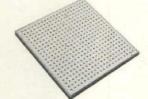


PRODUCTS FOR EVERY SOUND CONDITIONING PROBLEM
THE CELOTEX CORPORATION, 120 S. LaSalle Street, Chicago 3, Illinois



# ACOUSTI-CELOTEX\* FLAME-RESISTANT SURFACED TILE

A cane fibre tile with a flame-resistant surface. This tile meets Slow Burning rating contained in Federal Specifications SS-A-118a. It may be washed with any commonly used solution, satisfactory for good quality oil-base paint finishes, without impairing its flame-resistant surface characteristics and without loss of sound-absorbing capacity. Repainting with Duo-Tex flame-retarding paint will maintain peak efficiency. Supplied in all sizes and thicknesses of regular cane tile.



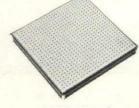
# ACOUSTI-CELOTEX\* CANE FIBRE TILE

A lightweight, rigid unit, combining acoustical efficiency with a durable, smooth surface. Perforations (to within ½" of the back) assure repeated paintability, easy maintenance. Available in a variety of sound-absorbent ratings. Dry rot proofed by exclusive Ferox\* process.



# ACOUSTI-CELOTEX\* MINERAL TILE

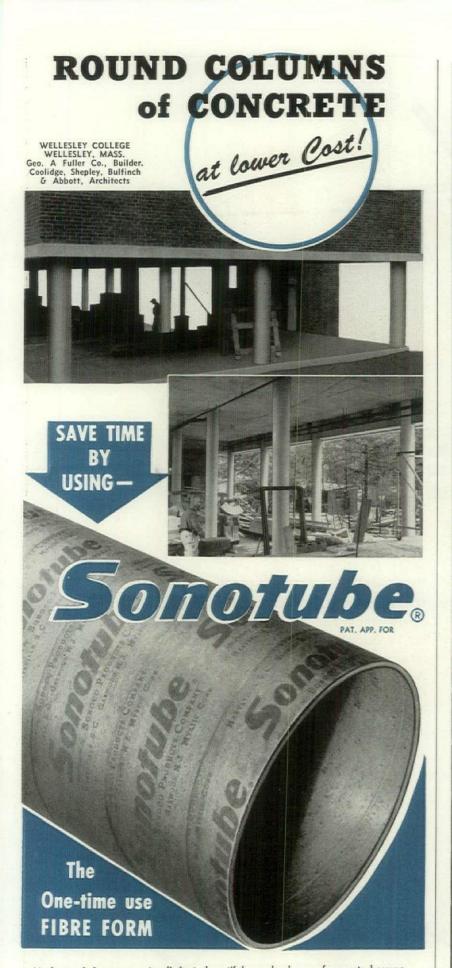
Made of mineral fibre, felted with a binder to form a rigid tile with a universal rating of incombustibility. Perforated with small holes extending almost to the back, this tile provides high acoustical absorption plus unrestricted paintability by either brush or spray method.



#### ACOUSTEEL\*

Combines a face of perforated steel with a rigid pad of sound-absorbing Rock Wool to provide excellent sound-absorption, together with attractive appearance, durability and incombustibility. The exposed surface of perforated steel is finished in baked-on enamel. Acousteel is paintable, washable, cleanable.

\*Trademarks Reg. U.S. Pat. Off.



No longer is it necessary to eliminate beautiful round columns of concrete because of cost! Light weight Sonotube fibre forms save time, money and labor-require minimum bracing—and have been used all over the country by leading architects and contractors on projects involving columns, piers, piles, underpinning, etc. Sonotubes can be sawed to lengths on the job! 19 sizes, from 3" to 24" I.D., up to 24' long. Complete technical data available.

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DISTRIBUTORS WANTED - Write for full details!



# UNIT DECK

# is a simple, economical new method of roof and floor construction

Precision machined of 4" x 5" kiln dried red cedar timber, Unit Deck provides many advantages that lower building costs. Check these features:

UNIT DECK eliminates the need for purlins.

UNIT DECK offers greater spans than most other materials-therefore, less roof supporting members need be used.

UNIT DECK eliminates the need for insulation.

UNIT DECK eliminates the need for roof sheathing.

UNIT DECK is highly fire-resistant.

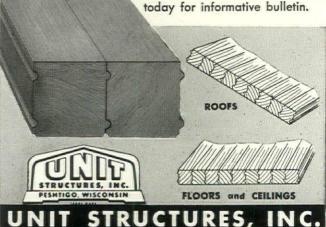
UNIT DECK offers a natural ceiling of finished appearance.

UNIT DECK is economical.

UNIT DECK saves labor.

UNIT DECK is a single member application.

On the job site, Unit Deck piles like lumber, handles easily, goes up fast, reaches you in tongue and grooved form, to make a fully interlocked deck of tremendous strength. Seven-inch spikes are driven into pre-drilled holes without a nail being in sight. There are two grades from which to choose; and Unit Deck can be applied with wood, steel, or concrete framing. Write today for informative bulletin.



600 Peck Avenue

Peshtigo, Wisconsin



Save Time, Save Costs, and Help Solve Design Problems

Modern building needs stress the importance of saving construction time, holding down over-all costs without sacrificing permanence, safety or beauty in design.

Because of their versatility and adaptability, J&L Junior Beams go far toward meeting the demands of today's builders. They cost less to buy and less to erect. Lightweight Junior beams may be easily raised, placed and bolted directly into position with a minimum of labor and manpower. This fast, economical construction helps hold building costs low.

In addition to their EASE OF INSTALLATION, you'll be interested in other important design

and construction features of J&L Junior Beams. They are RIGID, VIBRATION RESISTANT, SHRINK PROOF, FIREPROOF, VERMIN PROOF, and have the LOWEST DEFLECTION FACTOR OF ANY STRUCTURAL

SECTION OF EQUIVALENT WEIGHT.

Why not write today for our new booklet covering J&L Junior Beams and Channels? It shows how Junior Beams are used as floor joists and roof purlins, with loading and spacing tables for various spans.

J&L STEEL

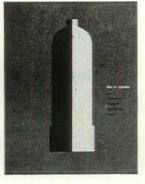
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492 Gateway Center
Beams
Pittsburgh, Pennsylvania
Please send me a copy of the booklet
covering J&L Junior Beams and
Channels.

COMPANY\_\_\_\_\_ADDRESS\_\_\_\_\_\_

# JONES & LAUGHLIN STEEL CORPORATION PITTSBURGH, PENNSYLVANIA

## TECHNICAL PUBLICATIONS continued





STAGE LIGHTING. The C-I board. Century Stage Lighting Facilities for the School and Community Theater. Century Lighting, Inc., 521 W. 43 St., New York 36, N. Y. 8 pp. each. 81/2" x 11"

A remarkable development in stage lighting, the C-I board (initialed half for its manufacturer, half for its inventor George Izenour) is given a handsome graphic treatment in the first of these two brochures. Mastering up to 10 light cues in advance, this preset remote control is described as having "the widest range of application . . . in opera houses, school and community theaters, outdoor stadia, television studios, etc." (For one grandiose installation, see p. 146.) The second booklet, as beautiful a presentation as the first, covers general stage lighting equipment and shows, in clearly keyed drawings, basic items required for stages of various capacities—and cost limitations. Unit prices are listed next to each illustrated piece of equipment. Carter Winter designed both publications for Century.

FRAMING. Flexa Steel Channels and Fittings, Catalogue No. 153. Flexa Steel Products, Inc., 1348-50 West Washington Blvd., Chicago 7, III. 44. pp. 81/2" x 11"

Dimensioned drawings and engineering data on *Flexa* framing, a steel channel system suitable for materials handling and lightweight construction.

TOILET COMPARTMENTS. Metal Toilet Compartments, Catalogue No. 530. Fiat Metal Mfg. Co., Long Island City 1, N. Y. 12 pp. 8½" x 11"

Metal toilet compartments for all types of commercial and institutional buildings, as well as cubicles and dressing compartments for hospital, club, and clinic use are pictured and detailed in this new catalogue.

AIR CONDITIONING. Air Conditioning Systems
—Freon Equipped 1952 Series. E. I. du Pont de
Nemours & Co., Inc., Kinetic Chemicals Div.,
7522 Nemours Bldg., Wilmington 98, Del. 18 pp.
91/5" x 11"

Fourth in a series of annual reference folders on air-conditioning applications, the file contains articles on air conditioning of hotels, auditoriums, apartment houses, and office buildings, as well as industrial processing applications.

AIR DIFFUSION. Anemostat Draftless Aspirating Air Diffusers, Selection Manual No. 45. Anemostat Corp. of America, 10 E. 39th St., New York, N. Y. 64 pp. 81/2" x 11"

Comprehensive technical data on the manufacturer's air diffusers. Illustrated with photos and case examples, the selection manual shows how to determine correct placement and number of units.

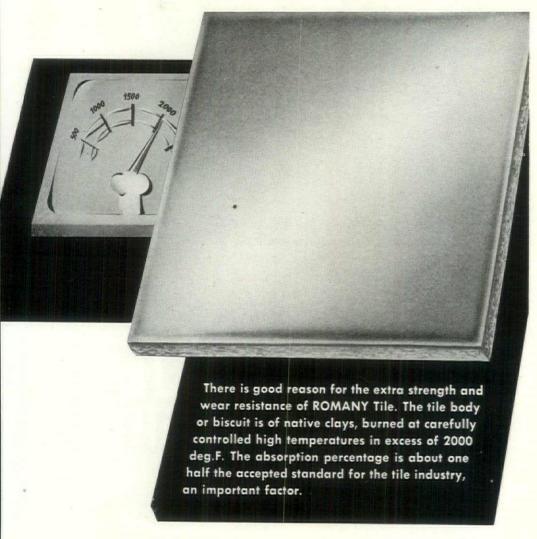
HARDWARE. Adapt-A-Wall Hardware. Garden-City Plating & Mfg. Co., 1750 N. Ashland Ave., Chicago 22, III.

A neat line of hardware fittings for doors, including slotted standards, knife-edge brackets for wood and glass shelves, hang rail sockets and other merchandise display items.

continued on p. 222



# Extra Strong-Extra Wear!



Every Architect should have our Sample Tile Chart No. 6, It's free.

# United States Quarry tile co

Member: Tile Council of America and Producers' Council, Inc. 217- J FOURTH ST., N.E., CANTON 2, OHIO



# NEW! Trane Unit Ventilator 40-foot blanket of FORCED,

HEATS MORE EVENLY ... ends cold corners

**VENTILATES MORE UNIFORMLY...ends** stale spots

STOPS DOWN-DRAFTS CONSTANTLY ... ends window chill

No other unit ventilator ever built can blanket the entire outside wall with a forced upward flow of tempered air, providing better heat and air distribution and also protecting children from down-drafts, even when the heat is off!

Big news! A really basic engineering improvement in unit ventilator development . . . the new Trane Unit Ventilator System! Architects, engineers, contractors, manufacturers and school boards have long agreed that the ideal unit ventilator would blanket large window areas with a continuous, forced stream of tempered air.

Now Trane product engineers have actually built a unit that accomplishes the ideal . . . constant perimeter

heating with individual unit control. Now you can have a classroom ventilator that will stop window draft with an upward moving blanket of tempered air. Do it every minute the room is occupied. Do it quietly.

by the new Trane Unit Ventilator is forced out through two wings. This scientifically designed, easily installed ductwork distributes air uniformly along the entire wall. Special fans in the unit ventilator keep this air under pressure . . . forcing it constantly and evenly, even when the thermostat calls for no heat. Yes, it protects school children from drafts even when the heat is shut off!

The new Trane Unit Ventilator blends room and outside air, tempers it with just the right amount of heat, and distributes it *evenly* throughout the room... eliminates cold corners and stale air spots for good!

No other unit ventilator system can deliver such constant, even distribution of heat and ventilation air... plus complete protection against window drafts.

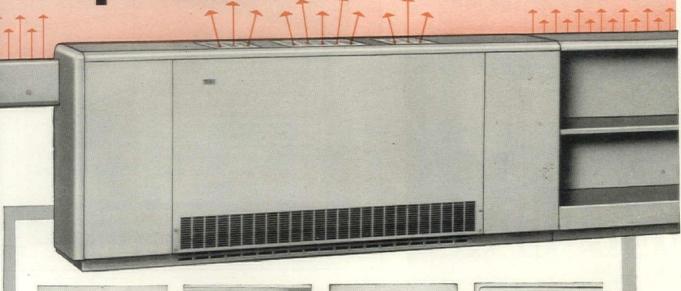
For more details, contact your Trane sales office, or write Trane, LaCrosse, Wis.



# New TRANE

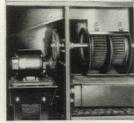
MANUFACTURING ENGINEERS OF HEATING, VENTILATING AND AIR



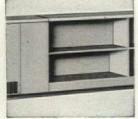




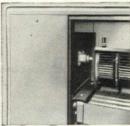
Laboratory photo of smoke test shows how this new idea works. Blanket of warm air moves upward from ducts in an even, solid stream. Drafts can't penetrate. Ducts come in 5-foot lengths, with a maximum extension to 15 feet from each side.



Exclusive fan, motor arrangement. Low velocity fans deliver air out through ducts, others move air through top of unit. Exclusive shaft and bearing assembly assures quiet operation. Standard motor, rubber mounted to stop noise.



Shelving eptienal—the new Trane Unit Ventilator's ducts fit neatly into handsome, easy-to-install, bolt-together shelving. You can choose standard units in either open or closed shelving with a continuous, smooth top surface.



Removable panels—give easy access to all 3 sections. Front of each fan scroll detaches for easy cleaning. Filters are easy to replace or clean. Controls can be adjusted with panel in place, with unit in operation... a Trane exclusive.

A great addition to TRANE's complete line of school heating and ventilating equipment



Centrifugal



Heating Coils



Wall-Fin



Convectors

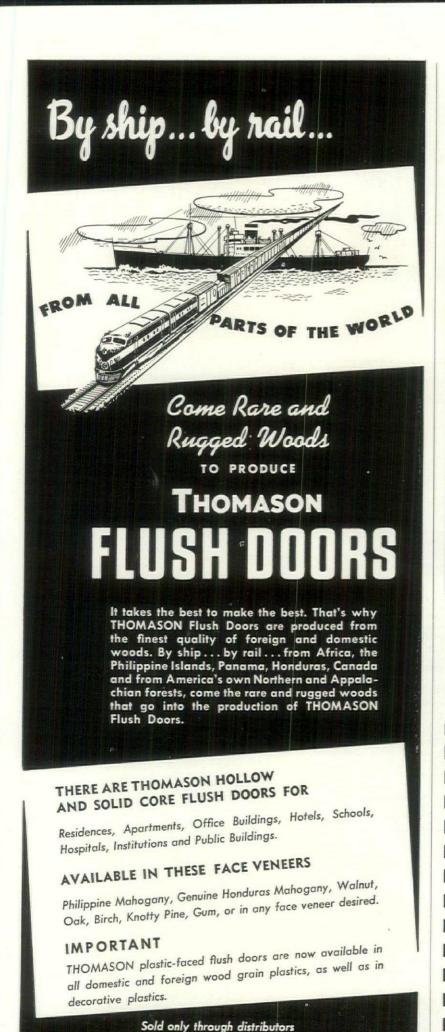


Unit Heaters

**Unit Ventilator System** 

smothers every inch of draft...every minute of the day!

CONDITIONING EQUIPMENT The Trane Co., La Crosse, Wis. • East. Mfg. Div., Scranton, Pa. • Trane Co. of Canada, Ltd., Toronto • 80 U.S., 14 Canadian Offices



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Research Building, Garden City, Long Island. Installed by Corona Store Front Co.

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#### EXTRUDED ALUMILITED ALUMINUM PRODUCTS

Specified by Leading Architects for:
HOSPITALS • SCHOOLS • RELIGIOUS BUILDINGS • BANKS
STORE FRONTS • OFFICE BUILDINGS • INDUSTRIAL PLANTS
HOUSING PROJECTS • SHOPPING CENTERS

- Extruded Aluminum Store Front Construction
- Extruded Aluminum Factory Assembled Entrance Frames
- Narrow and Wide Stile Extruded Aluminum Doors
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Send for these new 1953 Catalogs: "Alumiline" Store Front Construction and "Extrud-A-Line" Entrances

THE ALUMILINE

CORPORATION BROOKLYN 27, N. Y.





When you join brass, copper, or copper-nickel pipelines with Walseal Valves, Fittings, or Flanges you know you have the right amount of the correct type of silver brazing alloy. The ring of Sil-Fos brazing alloy is factory-inserted in the ports of Walseal products at the time

No lost time or motion in handling the alloy . . . no difficulty in getting full penetration of the alloy regardless of the position of the valve or fitting . . . no guessing whether the joint is made right . . . the fillet of silver brazing alloy that shows up when the Walseal joint is of manufacture. completed, comes from the inside! And, whether you've made the joint yourself, or are inspecting the work of another, you know that if silver alloy fillet is visible, and the valve or fitting is W alseal, you have full penetration. That's why nobody guesses when you use Walseal! Walseal products are backed by the reputation of the Walworth

Company, manufacturers of valves and pipe fittings since 1842. For full information regarding silver brazed joints made with Walseal products, write for Circular 115.



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Solvent and Vacuum Piping Systems

## TECHNICAL PUBLICATIONS

HEATING, Coen Pac-o-Matic Oil & Gas Burners, Bulletin No. P-152. Coen Co., 40 Boardman Place, San Francisco, Calif. 8 pp. 81/2" x 11"

Gas, oil, and combination gas-oil burners for industrial and institutional heating and power systems.

FLOOR MAINTENANCE, Modern Methods of Floor Care. S. C. Johnson & Son, Inc., Box P, Racine, Wis. 16 pp. 41/2" x 81/2"

Concise instructions for upkeep of 13 different

types of floor materials. The booklet contains a chart for selecting proper waxes for various wood, composition, and plastic surfaces.

WINDOWS, For Modern Buildings-Bayley Projected Windows. The William Bayley Co., 1200 Warden St., Springfield 99, Ohio 16 pp. 81/2" x 11"

Full-size details and sections of Bayley's new aluminum projected windows and projected ribbon windows are included in this catalogue as well as installation photograph and specifications.

CONTROLS. Industrial Controls. Catalogue F 3941-2 Barber-Colman Co., Controls Div., Rock ford, III. 32 pp. 81/2" x 11"

Following a brief rundown of control device terminology, the catalogue presents data or such industrial controls as thermostats, pres sure switches, humidity devices, solenoid valves and temperature regulators.

COOLING TOWERS. 3-B Series Blower Type Cooling Towers, Bulletin 47-B. Binks Mfg. Co. Water Cooling Div., 3122 Carroll Ave., Chicago

Spray-deck cooling towers which utilize squirrel-cage blowers to create mechanical forced draft.

STAIR TREADS. Abrasive Surface Castings of Feralun. American Abrasive Metals Co., 460 Coit St., Irvington, N. J. 12 pp. 81/2" x 11"

Pictures and describes abrasive, cast-iron safety treads made in 3", 4" and 6" widths.

SOUND SYSTEMS. Electronics for Audio-Radio-Television. Catalogue P1152-A. David Bogen Co., 29 Ninth Ave., New York 14, N. Y. 24 pp.

The three-color booklet presents design features, specifications, and prices of the firm's line of amplifier, p.a. systems, television boosters and accessory equipment.

X-RAY EQUIPMENT, Bar-Ray Catalogue W-52. Bar-Ray Products, Inc., 209 25 St., Brooklyn 32, N. Y. 72 pp. 81/2" x 11"

A complete line of X-ray room accessories, including processing tank combinations, water coolers, darkroom accessories, protective garments, fume hoods, and lead linings for floors, walls and ceilings.

SIDING. Colorbestos Siding Sheets. Johns-Manville, 22 E. 40th St., New York 16, N. Y. 8 pp.

Illustrated with attractive full-color photos, the brochure presents information on J-M's ribbed and colored asbestos siding sheets.

PARTITIONS. Holcomb & Hoke FolDoor. Holcomb & Hoke Mfg. Co., 1545 Van Buren St., Indianapolis, Ind. 4 pp. 81/2" x 11"

Pictorial examples of how FolDoor, a fabriccovered folding door, can add flexibility to office, restaurant, and institutional floor space.

CONSTRUCTION. Pacal High Tensile Steel Bolts, Bulletin No. 600. Paper, Calmenson & Co., Dept. 611, St. Paul 8, Minn. 8 pp. 10" x 6"

The bulletin points out advantages and econocontinued on p. 226



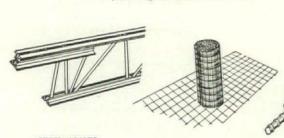
New Scruggs Vandervoort Barney department store in fashionable Clayton, Missouri. Architect: Harris Armstrong. Consulting Engineer: Neal J. Campbell. Contractor: Gamble Construction Co.

# QUALITY CONSTRUCTION





Quality controlled from open hearth to finished product in the modern Laclede Mills, these construction steels offer dependability of quality for your construction needs



#### STEEL JOISTS

For strong . . . lightweight . . . economical construction. Spans to 40 feet.

#### WELDED WIRE FABRIC

Cold drawn, welded automatically . . . in rolls or

#### MULTI-RIB ROUND REINFORCING BARS

With Laclede improved design for maximum anchorage ... and numbered to meet latest ASTM A305 Specifications.



Other Laclede quality construction steels: corrugated centering accessories • spirals • pipe and conduit.

222



Long Island Jewish Hospital, Glen Oaks, New York City. Louis Allen Abramson, Architect.



# Insulated Cavity Walls"

# to cut air-conditioning costs

Owens-Corning Fiberglas\*\* Cavity Wall Insulation Pouring Type One-Coat Water-Emulsion **Asphalt Paint Facing Brick** Exterior Exposed **Facing Tile** Interior. Wall Tle

In this new 500-bed general hospital, Architect Louis Allen Abramson combines innovations in planning with top-quality construction features—all aimed at providing better service to patients on a lower annual budget.

To reduce the cost of air-conditioning for operating and delivery rooms, these and other areas were protected from the weather by "SCR Insulated Cavity Walls" (section, left).

This type wall provides the same protection against moisture penetration and heat loss afforded by conventional cavity walls. But, in addition, it has a tested U value of .12—a guarantee of efficient heating and cooling in the most severe climates.

Structural facing tile was used as the inner wythe in some areas, thereby eliminating the need of interior refinishing in the future.

For full data and specifications on "SCR Insulated Cavity Wall," just write us on your own letterhead. Address Dept. AF-3.

♠ Schematic section shows one type of "SCR Insulated Cavity Wall" construction used in the Long Island Jewish Hospital.

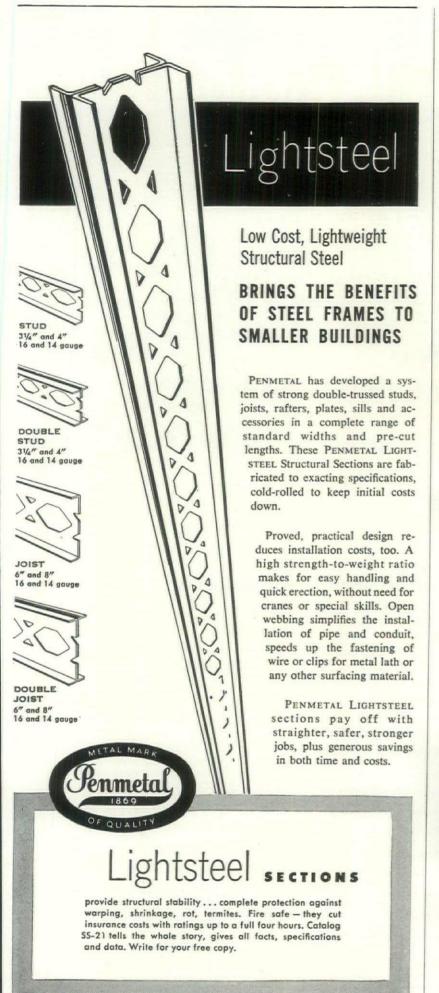
\*Reg. Trade-Mark, Structural Clay Products Research Institute

\*\*Reg. Trade-Mark, Owens-Corning Fiberglas Corporati

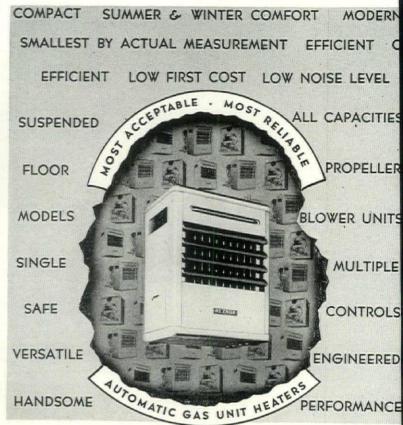


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of the complete line of



Thermotainer Type E Four compartment unit with full width doors. Large capacity. Shelf supports for 12 x 20 pans.

# hermotainer ELECTRIC FOOD WARMERS

Ideal hot food storage for domestic, institutional and commercial use



## Thermotainer Type UC

Small, one or two compartment unit for use under steam table or serving counter. Ideal where space is limited.

Thermotainers made in standard types and sizes, or to your specifications



#### Thermotainer Type AA

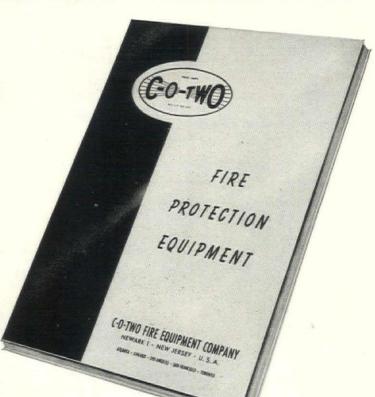
Combination worktable and hot food storage unit. In 2, 3 or 4 section sizes. 34 inches high, 30 inches wide.

FRANKLIN PRODUCTS CORP. 2155 PERSHING ROAD . CHICAGO 9, ILLINOIS

# WORKING ON INDUSTRIAL CONSTRUCTION?

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- SPECIFICATION DETAILS
- LAYOUTS
- ENGINEERING DATA



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With today's high costs and delayed replacements, it is becoming more and more a "must" for you to assure your clients of receiving the lowest insurance rate and the maximum in fire protection at a justified all over expenditure.

This personal sense of responsibility is inherent with C-O-TWO Fire Protection Engineers . . . a definite plus in your behalf. Whether it's fire detecting or fire extinguishing . . . portables or built-in systems . . . C-O-TWO means top quality backed by experienced engineering that results in operating superiority for your clients at all times.

Any qualified architect or consulting engineer working on industrial construction is welcome to utilize the benefits of our extensive fire protection engineering experience, as well as obtain a free copy of our comprehensive brochure entitled, "C-O-TWO Fire Protection Equipment (Code A/CE)" by writing on his letterhead. Get the facts today!

You'll find this comprehensive brochure a highly valuable source . . . especially where the recognized fire hazards parallel the following typical types:

- **✓ DIP AND QUENCH TANKS**
- **✓ SPRAY BOOTHS**
- ✓ MIXING VATS
- **✓ DRYERS AND OVENS**
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- **√** KITCHEN RANGES
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- √ FUR AND RECORD VAULTS
- ✓ STORE ROOMS
- ✓ AIR CONDITIONING EQUIPMENT



MANUFACTURERS OF APPROVED FIRE PROTECTION EQUIPMENT

Squeez-Grip Carbon Dioxide Type Fire Extinguishers
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C-O-TWO FIRE EQUIPMENT OF CANADA, LTD. . TORONTO 8 . ONTARIO

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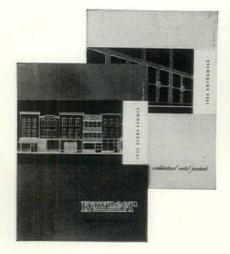
AFFILIATED WITH PYRENE MANUFACTURING COMPANY

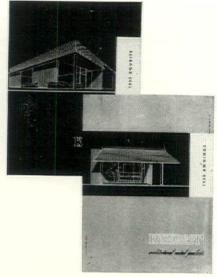
## TECHNICAL PUBLICATIONS continued

mies of using high-tensile steel bolts in place of rivets for assembling structural joints.

STORE FRONTS. Kawneer Store Front and Entrances for 1953. The Kawneer Co., Dept. NB, Niles, Mich. 44 pp. 81/2" x 11"

Store front facing materials, entrances, framing, window framing, and molding are presented attractively in four two-color catalogues. Including installation photos, cutaway





drawings, details, and specifications, the booklets write up many features of the Kawneer metal products line.

INSULATION. Ultralite Insulation for Hot and Cold Piping. Gustin-Bacon Mfg. Co., 210 W. 10th St., Kansas City, Mo. 15 pp. 81/2" x 11"

Physical properties of Ultralite glass fiber insulation, suggested application procedure for using it on interior and exterior hot lines and cold lines, and tabular data on sizes and packaging.

PIPING. A Report on Durant Insulated Pipe Durant Insulated Pipe Co., Western Div., Palo Alto, Calif. 6 pp. 8½" x 11"

Results of recent tests conducted by an independent engineering firm on the manufacturer's insulated pipe subjected to simulated operating conditions.

THERMOSTATIC CONTROLS. The Lawler Line of Thermostatic Control Valves, Catalogue No. C-5. Lawler Automatic Controls, Inc., 453 N. MacQeusten Parkway, Mt. Vernon, N. Y. 8 pp. 816" x 11"

Printed in two colors, the photo-illustrated catalogue gives complete engineering data on Lawler thermostatic controls. Devices covered include temperature regulators, tempering valves, thermometers, shower mixers, and special equipment for hospital and laboratory applications.

**HEATING.** Kritzer Baseboard Heating. Form B752. Radiant Coils, Inc., 2901 Lawrence Ave., Chicago 25, III.

Engineered for use with steam and hot-water heating systems, five types of baseboard assemblies and accessories which comprise the newly redesigned Kritzer line are pictured and described in this catalogue. Information presented includes coil selection data, installation instructions, and complete specifications.

**BUILDING MATERIALS.** Flintkote Building Materials. Flintkote Co., 30 Rockefeller Plaza, New York 20, N. Y. 12 pp. 8½" x 11"

The catalogue contains color-photo close-ups of Flintkote roofing and siding and detailed specifications on the asphalt shingles, asbestoscement products, insulation materials, insulating siding, and built-up and roll roofing.



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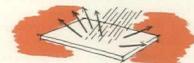
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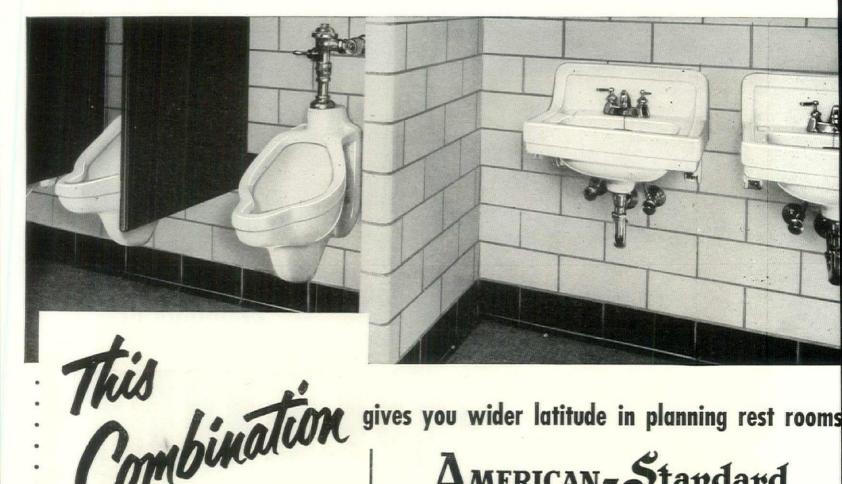
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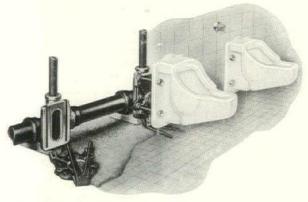
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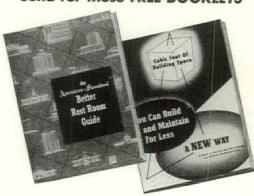


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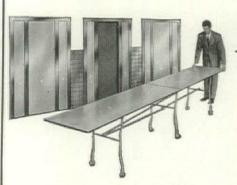


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