



Architectural Forum / the magazine of building / October 1957

107 Those expensive "school palaces"

An editorial on the pitfalls of quick cost comparisons.

110 Shopping centers

A look at three successes, large and small: Northland and Eastland in Detroit, and The Boardwalk in Tiburon, Calif.

120 Architecture in the rough

The New York *Herald Tribune's* Fresh Air Fund takes modern design into the woods and sets a new standard for summer camps.

124 The halting progress of urban renewal

A profoundly important program is hobbled by the government's confused housing policy which favors suburb over city.

126 Design in continuity

Walking through the flowing exhibition spaces of Frederick Kiesler's new museum is like walking around inside a piece of sculpture—a gallery of color photos.

133 FORUM forecast for 1958

It will be another good year for the building industry-a \$48.7 billion year.

134 Louis Kahn and his strong-boned structures

Instead of "form follows function," Kahn says "form evokes function," and he points to his boldly structural new buildings to prove it.

144 Will Decatur meet its challenge?

Or will this prosperous Illinois city fall asleep on its urban renewal plans till a crisis forces a crash program?

148 The grand old shingle

A modern house with a gable roof and a silhouette from the 1880's honors one of the truly great examples of US seaside architecture.

154 Thermal economics of curtain walls

This study by Aladar Olgyay shows that cooling costs must be considered an integral part of wall costs before the thermal problem in modern buildings can be solved.

162 Technical notes

Brief accounts of eight noteworthy developments in building technology.

5 News

37 Projects

43 Trends

93 Letters

101 People

169 Products

191 Books

201 Excerpts

273 Abroad

280 Footnote

Cover: Design by Ray Komai. Drawing: one of Architect Frederick Kiesler's original sketches for his new art gallery (story, p. 126)

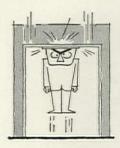
98 Editorial, subscription and advertising data

278 Advertising index

VOLUME 107, NUMBER 4

Published monthly by Time Inc., 9 Rockefeller Plaza, New York 20, N.Y. Entered as second-class matter at New York, N.Y. Subscription price \$5.50 a year © 1957 Time Inc. All rights reserved under International and Pan American copyright convention.

Be sure you get all these features when



NO-JOLT STARTS

In the Rotary Oildraulic Elevator, a special by-pass valve lets oil enter the hydraulic jack gradually. The elevator starts smoothly and accelerates rapidly, but without that objectionable "sinking" sensation.



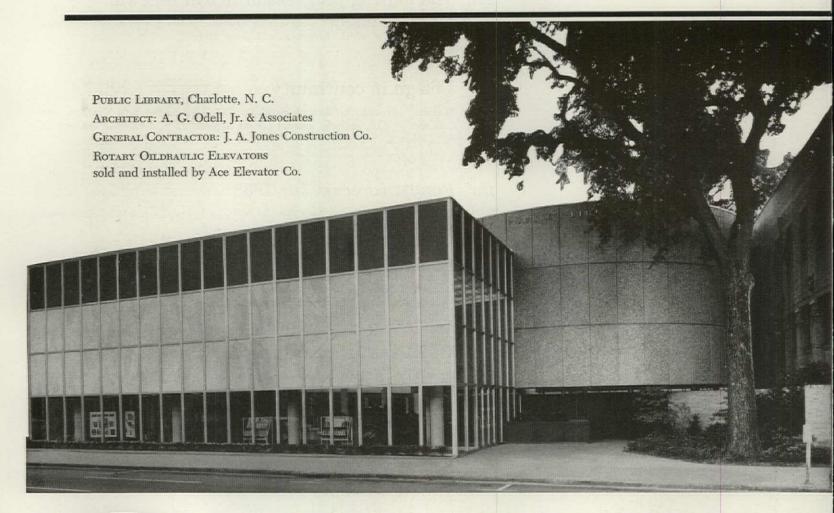
ACCURATE STOPS

Approaching the landing, the Rotary Oildraulic Elevator decelerates smoothly and glides into a perfect landing stop. No time is lost leveling with the hatchway sill. Accuracy is guaranteed within ¼".

ROTARY OILDRAULIC ELEVATORS OFFER MANY IMPORTANT IMPROVEMENTS

Modern oil-hydraulic elevators have many architectural advantages for buildings to five or six-story heights: no elevator penthouse, flexibility in power unit location, savings on building construction costs and other economies.

But to be sure of satisfactory performance, the oilhydraulic elevators you specify should meet the standards set by Rotary Lift Co. as the leader in this field of vertical transportation. Our nationwide organization is fully qualified to give you expert technical assistance. For more information mail the coupon at lower right or look for "Rotary Oildraulic" under "Elevators" in the yellow pages of your phone book. See our catalog in Sweet's.





OILDRAULIC® ELEVATORS

Passenger and Freight

Engineered and built by

ROTARY LIFT COMPANY

Division of the Dover Corporation Memphis, Tennessee—Chatham, Ontario

you specify hydraulic elevators



QUIET OPERATION

Refinement of the hydraulic pump and development of the Rotary Oildraulic Silencer assure quiet operation. The wide acceptance of Rotary Elevators for hospital use is proof they meet critical noise-level requirements.



EXPERIENCE AND SERVICE

Rotary Lift Co. has built hydraulic lifting devices exclusively since 1925. As the nation's largest hydraulic elevator manufacturer, Rotary has the experience and nationwide service facilities to insure top performance.



Unusual feature of the Charlotte, N. C., Public Library is this circular enclosure for the Rotary Oildraulic Passenger Elevator which serves four landings. The library is also equipped with two Rotary Oildraulic Freight Elevators.

MAIL FOR DATA FILE



Rotary Lift Co. 1011 Kentucky, Memphis 2, Tenn. Please send data file on Freight □ Passenger □ Elevators to:

Name_

Address

ALL OF THE LUXURY LINERS OF OUR NATION'S MERCHANT MARINE ARE SLOAN EQUIPPED





Rebuilt by NEWPORT NEWS SHIPBUILDING & DRY DOCK COMPANY Newport News, Virginia

Naval Architects - GIBBS & COX, INC.



SS MARIPOSA and SS MONTEREY Rebuilt by MARINE DIVISION, WILLAMETTE IRON & STEEL CO. Portland, Oregon Naval Architects . GIBBS & COX, INC.

goal has been reached! Today four recently modernized luxury liners are sailing romantic water routes through tropical Pacific seas, proudly bearing the name Matson-famous for more than seventy years. All four ships are fully first class and completely airconditioned. Decks and spacious interior facilities provide a wide variety of areas lavishly equipped for VALVES were specified for relaxation or group enjoyment. Throughout these installation on all four seagoing palaces the dramatic decor interprets the natural beauty and charm found along the water Matson liners.

★★★ A dream has become reality—an epochal highways they travel. Every detail contributes to comfort and happy hours for passengers and to operating efficiency for their well-being and satisfaction. Since ships are entirely on their own once they put to sea it is important that all equipment be selected for infallible performance. There can be no compromise with quality. That's why SLOAN Flush

of these truly great



FAMOUS FOR EFFICIENCY, DURABILITY, ECONOMY

SLOAN VALVE COMPANY . CHICAGO . ILLINOIS



Report of architect advisors on Capitol extension is suppressed; tortured statement says they concurred—yet none favored project

In the closing days of the 85th Congress there appeared in the *Congressional Record* the report of Architect of the Capitol J. George Stewart to the Senate-House Commission for the Extension of the Capitol. It recommended the highly debated extension of the historic East Front as a \$10 million item in an over-all \$110 million program for immediate and long-range improvements.

House Speaker Sam Rayburn, chairman of the Commission, said he hoped an early start could be made on the East Front extension, so it could be finished in time for the 1961 presidential inauguration.

The Stewart proposals were thus made public against a mounting tide of bills in both houses of Congress seeking to amend the existing Public Law 242 under which Stewart was operating. Representative Henry S. Reuss (D. Wis.) led off by introducing an amendment (H.R. 9238) to Law 242 with the object of letting all the rest of the Capitol work go through but without the extension of the East Front. Rapidly there followed a similar bipartisan Senate bill, by Republicans Smith and Case of New Jersey and Democrats Humphrey of Minnesota, and Clark of Pennsylvania; in the House, Republicans Schwengel of Iowa and Widnall of New Jersey added yet others.

The gist of all these bills was that the Advisory Architects, who were acting as Stewart's consultants, should be released from the mandate in the present law (which followed the phrasing recommended by Stewart, an ex-Congressman) compelling any solution for the Capitol East Front to follow in general a certain "Scheme B" which had been put forward in 1904 and at that time rejected.

The argument for the amendments by Congressman Reuss and others was that the eminent consulting architects should be allowed to develop their own solutions and come to their own conclusions; Reuss indicated that these architects would probably not want to follow Scheme B or any other scheme that would disturb the architectural quality of the only part of the Capitol designed in the time of the founding fathers, and that moreover they could

handsomely provide all the additional accommodations that Congress itself might need without having to extend the East Front, destroying the unique beauty it gives to the Capitol in exactly its present position. Moreover, the majority of US architects have voted against the East Front extension three times at national AIA conventions.

But the effect of Stewart's report was to throw the strongest challenge to the assumption underlying all the amendments. What Stewart seemed to say was that the Advisory Architects (as well as another group of Associate Architects charged with execution) were all heartily in favor of his own program. In one section of his tortured report, Stewart referred to the East Front extension project as "recommended" by himself and his "Advisory Architects." At another point, summarizing the entire series of projects adding up to \$110 million, Stewart added, "This recommendation is concurred in by the Associate Architects and the Advisory Group of Architects. Mr. Arthur Brown Jr., a member of the advisory group, died July 7, 1957, but concurred in these recommendations before his death."

Significantly, however, Stewart's report contained no text or summary of any specific statement of the advisory group, and Stewart's office refused to release the text or contents of any such statement. To the question how Brown's concurrence was known, Stewart said it was conveyed to him in a "personal report" by Brown's two other associates as consultants: Henry R. Shepley of Boston and John F. Harbeson of Philadelphia.

Both of these surviving advisers were out of the country when Stewart's report came out, but FORUM reached Shepley in London.

Shepley summarily denied that either he or Harbeson had ever told Stewart that Brown favored the proposal to extend the East Front.

"Brown," he said, "was so wildly opposed to the idea that he didn't even want to work within the framework of the law."

Told that Stewart was refusing to release any document by the Advisory Architects, Shepley described it as a statement of "about 6 pages". Asked whether it concurred in Stewart's recommendations, he said that the ducument contained a careful explanation that any recommendation was made "within a framework." This "framework," he explained, was the existing law which made it mandatory that Scheme B be followed.

"Harbeson and I had quite a discussion among ourselves," said Shepley, "and decided that in the interest of the big project as a whole we had better stick with it. This meant that we had to accept the provisions of the law as it stands."

Did this mean, Shepley was asked, that not one of the Advisory Architects agreed of his own free opinion that the East Front ought to be extended?

"Not one," answered Shepley.

Shepley's reply broke the long continued silence of the Advisory Architects, who have been answerable to Stewart and not to the Commission as such, and who accordingly had considered it professional to let Stewart make all reports and statements. It established that every consultant singly, and all together, disagreed personally with a scheme which the Stewart-sponsored Public Law 242 was imposing on them.

But the most vivid picture of the actual situation was supplied by an interview with Brown, which FORUM now feels free to release because Stewart has made statements about Brown which Brown is not alive to answer. In April a correspondent who interviewed Brown reported:

"Brown was willing to talk, but only on the assurance that the story would not be attributed to him; if it is, he said he would be fired or rendered useless among the consultants, and one of his hopes is to 'protect the Capitol from the bumbling milliners who think architecture is a fashion and who want to change it every year.'

"During the two-hour conversation he refused to let us go. He said he was forced not to say anything directly about the commission's work. Yet his implications were all direct and clear.

"His position is best indicated by the fact that one of his highest ambitions is to meet and shake by the hand the author of LIFE's editorial, 'Spare the Capitol.' In effect, Brown strongly supported every argument offered against the East Front extension, although he kept saying he was 'not free to discuss either side.' . . .

"According to Brown, the Congressmen want a long corridor along which they can walk without being button-





"BEFORE" AND "AFTER" SKETCHES INTENDED TO "LOOK ALIKE"

holed by lobbyists. They need more cafeteria space. They can get both by improving the west side, not by extending the East Front of the building . . .

"Except for the portico, Brown feels that the East side is skillfully designed. . . . As it now stands, he said, 'the dome and its columns come down in a harmonious flow. This is very rare in domes, and very beautiful. It has a certain quality which would be lost if anything basic was changed.'

"'What we want to do is to keep the dignity, counterpoint and balance of the building. To the public as a whole it is very satisfying now. Trouble is, there are a lot of fellows with itchy fingers who want to monkey with it all'"

The complete contradiction by his consultants of important statements by Stewart left many other important questions about the Capitol unanswered. For example, just what was hidden under the uniform gray tone of Stewart's drawings (above) of the proposed East Front extension? Was it true that neither the cafeteria nor the connecting corridor between House and Senate—the main objectives of the remodeling—is actually planned to go into the East Front extension?

Another question would be why the East Front, which the Architect of the Capitol says has deteriorated badly while under his care, should not be repaired where it stands and for much less money?

WASHINGTON

Nixon address reiterates threats to Title I

Vice President Nixon dismayed urban renewal officials last month with a repeated warning that the Eisenhower administration eventually may trim federal aid payments for renewal, housing, airport facilities and other municipal projects.

At the New York convention of the US Conference of Mayors, Nixon read a special message to the group in which the President said: "I urge you to encourage the assumption of more responsibility on the part of state governments for these [programs]. States should help in the development of a coordinated program of capital improvement aimed at the renewal of our cities and improved community facilities." In this respect, the President's message largely reiterated the views he expressed in his June address to the Conference of Governors.

Nixon told the 700 mayors assembled in New York that the Battle of the Budget was the reason for the administration's policy, and the need for holding in check all federal nondefense programs "for many years to come, unless there is a diminution in the threat to world peace which is presented by international Communism.

As a result, said Nixon, "less amounts can go for grants-in-aid than previously... Also ... as we witnessed in the last Congress, people generally are going to react quite unfavorably toward increasing the role of the federal government whenever that might mean more federal expenditures.

"I raise this as a practical problem without for one moment suggesting that the federal government is going to renege on the responsibilities that it has under law to assist in the various projects which the President mentioned in his message to you."

HHFAdministrator Cole followed as the next speaker to address the mayors. He summarized the increasing tempo of the renewal program's commitments and expenditures, without, however, then discussing the prospects for its future expansion or trimming.

What fate, or what further federal appropriations for urban renewal after this year?—At month's end the most authoritative Washington sources felt the administration would continue to support and finance the program "at about its present level" (\$250 million a year) at least into 1959.

METROPOLITAN PROBLEMS

Notable symposium on highways and urban problems marks Connecticut General dedication

To mark the dedication of its outstanding new Auto Age headquarters on 280 landscaped acres of rolling countryside 5 mi. from downtown Hartford, the Connecticut General Life Insurance Co. held a symposium last month on "The New Highways: Challenge to the Metropolitan Region."

Participants were a galaxy of some 400 highway and city planning experts, architects, housing and urban renewal officials, redevelopers and mortgage lenders, public health, labor and business leaders. Formal papers prepared by the members of each of five separate, specialized panels will stand as authoritative presentations of their subject matter for a long time. Equally stimulating and provocative were the meaty panel discussions based on these advance-circulated papers, and the sharp concluding symposium "summary" (or more aptly a commentary) by Author-Critic Lewis Mumford.

So much was said so well and so succintly by so many experts on so many subtopics that any adequate "summary" of this conference would run to considerable length. In next month's FORUM, excerpts will be printed from a number of symposium papers. The following are just a few of the more pointed views of more immediate timely interest that were expressed:

The need for a "total transportation policy," embracing and coordinating not only highways, but waterways, railroads, mass transit, and parking facilities, was stressed by Boyd T. Barnard, of the Urban Land Institute, and General Electric Vice President Roy W. Johnson. Said Barnard: unless they are coordinated, renewal and highway programs may undermine each other, and new highways cause further in-city blight. It is "intolerable" for highway programs to serve motorists alone, without coordination with all other transport. For best land uses, business and sociological advisory committees should be appointed to help determine new highway routes. Said Johnson: preservation of downtown areas will not succeed unless mass transit is developed to parallel or supplement highway systems.

A suggestion that the US highway program be postponed up to two years,

to allow time for better planning, was advanced by Architect and City Planner Albert Mayer. He was disappointed that so many symposium papers discussed "how" to design or locate new highways, rather than "what" to do and what land uses to plan for. He declared there was need to act now to create greenbelts, to preserve some close-in farm districts, instead of impractically or uneconomically displacing farms farther from the city.

*Station wagons, blue jeans—and shopping centers," said Realtor and Mortgage Banker James W. Rouse, "symbolize" today's public search for open, uncongested suburban type living, instead of crowded, central city life. In a counter statement on the importance of downtown, Vice President Foster Winter, of Detroit's J. L. Hudson Co., emphasized that downtown will always remain a "major" shopping district, and, in fact, will gain accessibility and more popularity with greater numbers of consumers through the new expressways coming into city cores.

▶ The size and character of the auto itself came in for some pointed comments at the final general session. A department store executive proposed a tax penalty to discourage production of needlessly oversize cars—thus developing the generally overlooked major problem of parking and storing vehicles, not merely providing enough roadways for them to move on. Mumford, at this session, called the automobile the American's "second mistress," and commented wryly on its role in causing blight-spreading "suburban fallout"—from the metropolitan area "explosion."

PUBLIC BUILDING

Public housing purchase of existing project vetoed

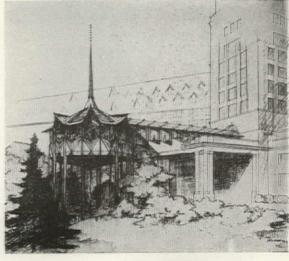
Commissioners of the District of Columbia rejected, two to one, last month a proposal of the National Capital Housing Authority to purchase an existing garden apartment project for conversion into public housing.

The property, an FHA 608 project, contained 103 one- and two-bedroom units and was offered for \$733,000, or an average of \$7,117 per unit. Realty and homebuilding organizations opposed the purchase. The only vote for it was cast by Commissioner Robert E. McLaughlin, who also heads the housing authority. Of the two who voted against the proposal, Commissioner David B. Karrick said he was guided mainly by a report of a subcommittee of the commissioners' Urban Renewal Council. This report said the continued on p. 9

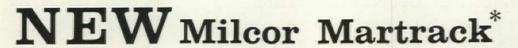
Wedding chapel by FLLW with fountain below

"It will be a gay little thing with a certain sprightly spirit. Wedding bells can ring and the population can go forward." Thus Frank Lloyd Wright describes an elevated octagonal glass and stainless steel "Wedding Chapel in the Sky" that he has designed to stand in the hillside garden in front of the Claremont Hotel in Berkeley, Calif., overlooking San Francisco Bay (see cut).

Burnished copper and rare woods will be used to decorate the 60-seat, gabled and spired stilt-supported, nonsectarian chapel. Under it will be a fountain. Hotel Director Murray Lehr says completion is scheduled in January. Cost estimate: \$100,000.



CHAPEL OVER HILLSIDE GARDEN



... angle floor runner that speeds erection of hollow partitions

Martrack saves job time and costs these ways:

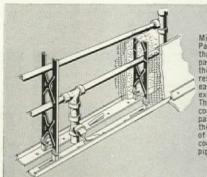
- 1. Enables the lather to space studs at 16" or 24" intervals without measuring.
- 2. Saves the expense and extra time required to install stud shoes.
- 3. Eliminates the need for the customary grounds - an important saving.
- 4. Martrack runners can be placed to accommodate any size Milcor Stud.

Martrack makes an excellent ceiling runner to obtain a separation of acoustical-plaster ceiling surface from a sanded-plaster wall.

Made from 20-gauge TI-CO galvanized steel, furnished in 10-ft. lengths. (Also designed in channel type for 2-inch solid partitions.)

See the Milcor Manual in Sweet's - Section 12a/In. Or write for your own copy - ask for Catalog 202.

MILCOR MARTRACK



Milcor Hollow Partitions are lighter than other type partitions of equal thickness; are resistant to fire, resistant to fire, earthquake, explosion, shock. Their versatility commends their use particularly where there are long lines of horizontal conduit or service piping and ducts.

Martrack is nailed to the floor. Prongs are bent up to 90° and Milcor Steel Studs wire-tied to

*Patent applied for

INLAND STEEL PRODUCTS COMPANY

Dept. V, 4031 West Burnham Street, Milwaukee 1, Wisconsin

ATLANTA . BALTIMORE . BUFFALO . CHICAGO . CINCINNATI . CLEVELAND . DALLAS . DENVER . DETROIT . KANSAS CITY

LOS ANGELES . MILWAUKEE . MINNEAPOLIS . NEW ORLEANS . NEW YORK . ST. LOUIS.



purchase would set an "undesirable precedent." It pointed out that changing the tenancy of the existing project would not create any new housing units, but merely cause present occupants to move elsewhere. A minority report of this subcommittee by Archi-

tect Grosvenor Chapman raised another objection. He suggested that the proposed price was above the property's market value, and the sale might open the door to further sales to the housing authority at prices private investors would not pay for such properties.

mental theater, and a circular luxury restaurant adjacent to the cultural center (AF, Feb. '57).

Thorns with every rose

But as often occurs, grandest achievements seem to come the hardest, and frequently to engender in the process an extra quota of disputes and bitterness. New attention was called to Lincoln Square during a flare-up between Cole and Moses, when Cole called Moses trouble and criticized his attitude toward accuracy in facts and representations.

Residents, store and commercial tenants on the site have organized a resistance program. Mainly they object that a history of roughshod, inconsiderate relocation procedures on other New York Title I sites makes them fear they will face similar treatment when they must be uprooted. As one means of defense, they also have announced plans to oppose the project in the courts on the contention that sale of a portion of the site to Fordham (one of the nation's outstanding Jesuit institutions) would be an illegal state subsidy to a sectarian organization.

Serious planners, such as veteran Clarence Stein, have declared that the site chosen is thoroughly bad from a planning standpoint.

Last month one of New York City's own agencies temporarily refused to be stampeded in a Moses effort to expedite official adoption of the project by the city that is still necessary. The Planning Commission, of which Moses is a member (customarily represented only by a stand-in), received his revised final project plans on Aug. 23, and promptly scheduled a required public hearing on them for Sept. 11. Simultaneously Moses continued on p. 12

URBAN RENEWAL

Lincoln Square: grandest redevelopment project; outstanding case of Title I complexities

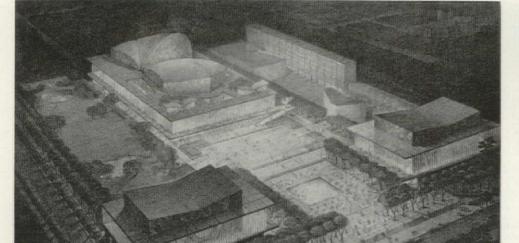
Of all Title I urban renewal projects, none anywhere can match New York's Lincoln Square in the ambitious grandeur and magnificence of the redevelopment it promises in place of some 13 shabby, deteriorating blocks of central city slums. As a measure of its size, its federal allocation of \$27 million is about one-fifth of an annual rate of federal allocations to all projects. Nor can any match it for complexities, or as an example of the constantly changing, vexing conditions that renewal officials and sponsors alike must sometimes endure.

HHFAdministrator Albert M. Cole once said of Lincoln Square: "It will be in every sense an American landmark . . . of great civic and cultural significance and national importance."

As grand marshaled by New York's dynamic, forceful Robert Moses, boss of the city's Title I program (just one of his multiplicity of public offices), the main elements of this striking \$220 million, 45-acre Operation Phoenix will be:

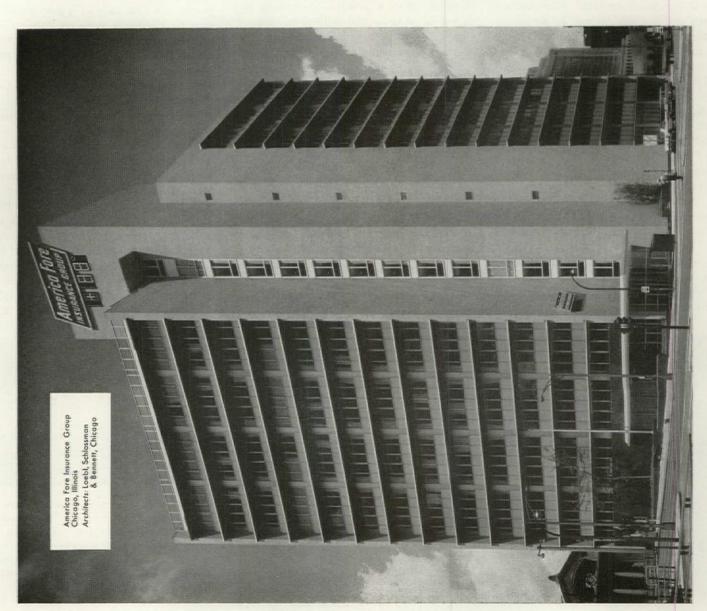
▶ A 10.5 acre superblock cultural center with opulent new auditoriums for the Metropolitan Opera, the Philharmonic Symphony, a ballet theater, recital hall and the Juilliard School of Music (see cuts). To help design "perfect" theaters in this Performing Arts Center, Alvar Aalto, Walter Unruh, and some of the world's other most eminent architects and acoustic engineers visited New York as consultants last year (AF, Nov. '56). Sponsors are budgeting about \$55 million for land and structures in this section; they also hope to raise a reserve of another \$20 million to support special supplementary artistic and educational programs of the center.

- A seven-acre superblock for a \$9 million midcity campus for Fordham University's schools of education, law, business and social service.
- ▶ A \$75 million group of middle-income rental and cooperative apartments for 5,000 families, and extensive shopping, garage and parking facilities.
- ▶ Eliminated from the project last May because of federal land subsidy budgetary limitations: a section that would have consolidated four small Broadway blocks, on which Realtor and Theatrical Producer Roger Stevens would have built a huge circular five-in-one theater building, a smaller circular experi-





LATEST PLAN for cultural center section of Lincoln Square by Harrison & Abramovitz puts ballet theater (I) and Philharmonic hall (r) each side of main plaza in front of opera house; elongated building in right background, Juilliard school. At top: front view of hall for Philharmonic Symphony.





Porcelain Enamel CURTAIN WALL PANELS

again featured on

Chicago's new skyline!

When one brand of porcelain enameled curtain wall panels continues to be chosen for new major structures on Chicago's changing skyline—the answer is superior quality at competitive costs.

You can expect that of ERIE panels on job after job. The fully enclosed box panel design offers the permanence of mechanical assembly, lifetime color, required insulation and ready adaptability to the framing system of your choice.

That's why Chicago's newest buildings are featuring ERIE Porcelain Enamel Curtain Wall panels. Why not let our sales engineers work with you on your next project. A phone call brings complete cooperation!



ENAMELING COMPANY

ERIE, PENNSYLVANIA

CHICAGO · PHILADELPHIA

REPRESENTATIVES IN PRINCIPAL CITIES











The National Biscuit Company has selected MILLS MOVABLE PARTITIONS for its new General Office at 425 Park Avenue, New York. Occupying six stories, these offices contain 6000 lineal feet of MILLS MOVABLE PARTITIONS. At the left are photographs of the offices showing the versatility and adaptability of the partitions. Write for catalog: The Mills Company 936 Wayside Road Cleveland 10, Ohio.

asked the Board of Estimate to schedule action on the plan for Sept. 19. Plan Commission Chairman James Felt protested that this would have allowed his agency only one week after the public hearing to make its decision on the project, which would have to be made before the Board of Estimate can fully approve the project. Lincoln Square was "too important an issue" to be decided under such time pressure, said Felt. Sixty earnest speakers, pro and

con, appeared before the Plan Commission at its Sept. 11 session, which lasted until almost 10 P. M., and at month's end the commission still had the project under study.

There is virtually no doubt that the project ultimately will clear all hurdles under Moses' powerful, never surrender drive. And it has other strong and influential people working for the cultural center too, headed by John D. Rockefeller 3rd, president of the Lincoln

Center for the Performing Arts. On a number of occasions when hitches have developed affecting the cultural center, Rockefeller and other influential cultural center representatives, once after public prodding for such action by Moses, have gone to the White House for aid—and likewise to HHFA.

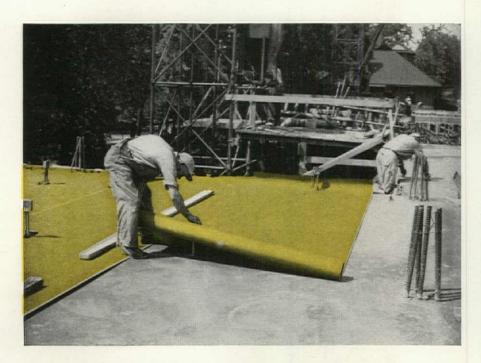
Unusual real estate and financing arrangements are contemplated for launching and operating the unique and impressive complex that will comprise the performing arts center. Once the project is approved all along the line, there will be a major public fund raising campaign, primarily in the New York area, seeking the full \$75 million for land, construction and the continuing special programs of the center. Gifts to the nonprofit performing arts organization will be tax-deductible, and it also expects to be granted complete real estate tax exemption.

The performing arts organization will build and own all structures in this complex, and the Met, Philharmonic, even Juilliard will only be tenants. If everything works out, however, these tenants will only have to pay nominal rents that cover little more than maintenance and operating costs, receiving all the benefits of the center's nonprofit ownership, freedom from real estate taxes, and anticipated freedom from any mortgage-carrying expenses. Under this real estate and financing arrangement, the individual tenant organizations will not have to invest any capital in land or buildings; the Met, in fact, will be free to retain in its own treasury the proceeds whenever it sells its present old but valuable opera house property, now assessed for \$4,510,000.

Land price puzzles

Two of the many points on which Moses and HHFA officials have tangled have involved the amount of US aid to be granted for Lincoln Square, and appraisal procedures for resale of the project land. As Moses kept changing the scope of the project, his requests for federal grants grew from about \$10 million to an ultimate \$42 million. At latest report the federal reservation is some \$27 million. HHFA also rejected initial reuse value appraisals from the city, because they were made on the basis of "nonprofit" reuse value for the Fordham and cultural center sites. Regulations in such cases require a determination of "fair value" based on "the most likely alternative private use." New appraisals from the city made on this basis were given to HHFA late

continued on p. 14



Protective-Curing with Orange Label **SISALKRAFT** means Better Concrete

Rolled over new concrete, Orange Label Sisalkraft assures complete, uniform curing. It retains the original moisture in the mix—no additional water is needed. Strong, durable, dust-free concrete results... at a lower material and labor cost than with any other method. Tough, waterproof, scuff-proof Orange Label Sisalkraft also protects the slab during and after curing—keeps debris and workman traffic from marring or staining the concrete.

American SISALKRAFT Corporation

Chicago 6 • New York 17 • San Francisco 5
Other Products in the SISALKRAFT LINE

Sisalkraft Moistop — Permanent vapor barrier Sisalkraft Vaporstop — Rot resistant vapor barrier Sisalation — Reflective insulation and vapor barrier

Copper Armored Sisalkraft — Electro sheet copper for permanent waterproofing and concealed flashing.

Sisalite — Pure polyethylene film
Sisal-Glaxe — New plastic glass replacement

THESE AUTHORIZED DISTRIBUTORS CAN HELP YOU SOLVE YOUR LIGHTING PROBLEMS

ALABAMA
Birmingham:
Mayer Elec. Sup. Co.
CALIFORNIA San Francisco: California Elec. Sup. Co. COLORADO Denver: Central Elec. Sup. CONNECTICUT Bridgeport: B. M. Tower Hartford: Hartford:
Beacon Light & Sup. Co.
New Haven:
Grand Light & Sup. Co.
New London:
United Elec. Sup. Co.
Stamford: Marle Co.
DISTRICT OF
COLUMBIA
Maurice Elec. Sup. Co.
National Elec. Wholesalers
O. R. Evans & Bros.
FLORIDA
Miami: GEORGIA

Atlanta: Atlanta Ltg. Fix.
ILLINOIS ILLINOIS
Chicago:
Efengee Elec. Sup. Co.
Englewood Elec. Sup. Co.
Hawkins Electric
Hyland Elec. Sup. Co.
Wholesale Elec. Sup.
Elgin: Fox Elec. Sup.
Rockford:
Englewood Elec. Sup.
Rockford:
Springfield:
Springfield Elec. Sup.
INDIANA
FI. Wayne:
Mossman-Yarnelle Co.
Gary: Englewood Elec. Sup. Co. Englewood Elec. Sup. Co. So. Bend: Englewood Elec. Sup. Co. IOWA Des Moines: Weston Lighting Co. KANSAS Kansas Gity: W. T. Foley Elec. Co. KENTUCKY Paducab: Ohio Valley Sup. LOUISIANA Baton Rouge: Electrical Wholesalers New Orleans: New Orleans: Interstate Elec. Co. MAINE Bangor: Standard Elec. Co. MARYLAND MARYLAND
Baltimore:
Atlantic Illuminating Co.
MASSACHUSETTS
Boston:
Mass. Gas & Elec. Light Co.
Henry L. Wolfers Inc.
Fitchburg:
Service Elec. Sup. Co.
Pittsfield: Carr Supply
Springfield:
Eastern Elec. Sup.
Worcester:
Atlantic Elec. Sup.
Benjamin Elec. Sup.
Benjamin Elec. Sup. Benjamin Elec. Sup. MICHIGAN MICHIGAN
Detroit:
Madison Elec. Co.
Michigan Chandelier Co.
Flint: Royalite Co.
Grand Rapids:
Purchase Elec. Sup. Co.
Saginatu: Standard Elec.
MINNESOTA
Dulutb:
Northern Elec. Sup. Co.
Minneapolis:
Charles A. Anderson & Co.
Northland Elec. Sup. Co.
St. Paul: Lax Elec. Co.
MISSOURI
St. Louis: M. K. Clark
NEBRASKA NEBRASKA Omaba:
Electric Fix. & Sup. Co.
NEW HAMPSHIRE
Portsmouth:
Mass. Gas & Elec. Light Co.
NEW JERSEY
Atlantic City:
Franklin Elec. Sup. Co.
Camden: Camden: Camden Elec. Fix. Co. NEW YORK NEW YORK
Albany:
Havens Elec. Co. Inc
Bingbamton:
Freije Elec. Sup. Co.
Buffalo:
Buffalo incan. Light Co. Inc.
Niagara Falls:
Hyongbkeepsie:
Electra Sup. Co.

Rochester: Rowe Electric Sup. Co. Syracuse: Superior Elec. NORTH CAROLINA Charlotte: Independent Elec. Sup. Durham: Noland Co. Greensboro:
Elec. Sup. & Equip. Co.
Kinston: Kinston Elec.
Winston-Salem:
Noland Co.
OHIO OHIO
Akron:
The Sacks Elec. Sup. Co.
Canton: The Electric Sales
Cincinnati: B. & B. Elec.
Cleveland: H. Leff Electric Columbus:
Elgee Elec. Co.
The Loeb Elec. Co.
Dayton: Martin Elec. Co.
Toledo: Gross Elec. Youngstown:
Mart Industries
OKLAHOMA
Tulsa: Lawson Elec. Co.
PENNSYLVANIA Allentown: Coleman Elec. Co. Erie: Kraus Elec. Co. Erie: Kraus Elec. Co.
Harrisburg:
Fluorescent Sup. Co.
Hazleton:
Power Elec. Co. Inc.
New Castle:
Midwestern Elec. Co.
Pbitadelphia:
Ace Lighting Flx. Co.
Gold Seal Elec. Sup. Co.
Sylvan Elec. Fix. Co.
Pittsburgh:
Allied Elec. Sup. Co.
Argo-Lite Studios
Doubleday-Hill Elec. Co. Argo-Lite Studios
Doubleday-Hill Elec. Co.
Wally Elec. Sup. Co.
Reading: Coleman Elec. Co.
Scranton: Lewis & Reif
Wilkes-Barre:
Anthracite Elec. Sup. Co.
RHODE ISLAND
Pawtucket: Pawtucket:
Major Elec. Sup. Co.
Providence:
Leavitt Colson Co.
SOUTH CAROLINA Anderson: Sullivan Hdwe. Co. Capitol Elec. Sup. Co. Capitol Elec. Sup. Co.
Noland Co.
Greenville:
Sullivan Hdwe. Co.
TENNESSEE
Johnson City: Noland Co.
Nashville:
Nashville Elec. Sup. Co.
TEXAS
Dallas: Rogers Elec. Sup.
Ft. Worth:
Anderson Fixture Co.
Houston: Houston: Marlin Associates Marlin Associates
San Antonio:
Southern Equip. Co.
VIRGINIA
Arlington-Rosslyn:
Noland Co.
Lynchburg:
Mid State Elec. Sup. Inc.
Norfolk: Noland Co.
Roanoke: Noland Co.
WEST VIRGINIA
Charleston:
Goldfarb Elec. Sup. Co.
Virginian Electric Inc.
Huntington: Huntington:
West Virginia Elec. Co.
Wheeling: The Front Co.
WISCONSIN Appleton: Moe Bros. Northern Co. Moe Bros. Northern Co.

Eau Claire:
W. H. Hobbs Sup. Co.
Milwaukee:
Lappin Elec. Co.
Standard Elec. Sup.
WASHINGTON
Seattle:
Seattle Lighting Fix. Co.
ALASKA—Anchorage:
Northern Supply Co.
CANADA
Montreal:
The Gray Elec. Co.
Toronto: Revere Elec. Dist. McDonald & Wilson Co. Toronto Elec. Sup. Co. HAWAII Honolulu: Hawaiian Light, & Sup. Co. PUERTO RICO



THE ARCHITECTURAL LIGHTING DIVISION

IGHTOLIER X ARCHITECTURAL LIGHTING . RESIDENTIAL FIXTURES . PORTABLE LAMPS

9 E. 36 St., New York SHOWROOMS: 1267 Merchandise Mart, Chicago 527 W. 7 St., Los Angeles

Santurce: Antillas Elec. Corp.

in August and are now under review. HHFA further requires that when land is resold to nonprofit groups this must be done for at least this "fair value," with no consideration to purchasers' ability to pay or other factors. "There is no authority granted under Title I to subsidize public or institutional facilities by providing land therefor at less than its fair value," says the rule.

Before the special cultural center corporation was established in June,

1956, Moses announced separate offers of \$5 per sq. ft. from Fordham; \$8 per sq. ft. from the Met and the Philharmonic, and \$9.35 per sq. ft. for housing area land "from responsible private redevelopers." Last July, however, Mayor Wagner announced that the Slum Clearance Committee had reached agreements to sell land to Fordham and the cultural center sponsors for \$6.75 per sq. ft., and housing area land for \$7 per sq. ft. These reductions occurred,

according to Moses, because of the elimination of the Roger Stevens group of commercial theaters, which would have occupied the most expensive property in the project.

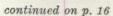
Another puzzler in the Lincoln Square land resale plan is a statement in the reuse appraisal section of the project plan filed with the Planning Commission. This was written by George A. Hammer, vice president of the Charles F. Noyes Co., Inc. (who died Aug. 10). Describing various subsections of the project, he wrote:

"Area 2 is to be devoted to cultural use. . . . This consists of 376,762 sq. ft., of which 23,854 sq. ft. underlies the so-called Kennedy building. The latter area is worth \$9.58 per sq. ft., but as I understand it, negotiations have been completed whereby this building and the land underlying it is to be purchased by the City of New York from Joseph P. Kennedy for the sum of \$2,500,000 and is to be purchased by the sponsor of this area for \$1,500,000. This indicates a purchase price of \$62.88 per sq. ft. The larger area containing 352,908 sq. ft., in our opinion, has a resale value of \$7.11 per sq. ft."

Allowing for the Kennedy building subplot, this indicates that cultural center sponsors actually have offered to pay an average of more than \$10 per sq. ft. for their site, rather than the same \$6.75 per ft. rate reported for Fordham. The Kennedy building is owned by the former US Ambassador to Great Britain and father of Senator John F. Kennedy (D, Mass). It is currently assessed at \$1,750,000, and is occupied mainly by the US Immigration Service and Atomic Energy Commission offices.

Principals are reluctant to discuss the special Kennedy arrangements. Federal officials say they cannot explain why this parcel is to be appraised and resold separately, and as part of the total project they will treat its purchase (against their maximum purchase price on each parcel) on exactly the same basis as every other parcel. Short of a thorough search of the records of all projects, said URA Commissioner Richard Steiner, he cannot recall another instance anywhere of a subplot of one sponsor's site handled this way.

Authoritative sources, however, say the Kennedy arrangements were made at a time when the whole Lincoln Square project was very much smaller in scope and city officials did not think federal officials would consent to including the 12-story nonslum blockfront Kennedy structure in the project. Now





Translucent, Custom-Colors. Any color—to your order—can be built into IPCOR Panels at no extra cost—when ordering 2,000 sq. ft. or more. Top quality, light-stable resin gives IPCOR translucent colors unexcelled lasting qualities.

Rugged, Weatherproof. Tough, fiber glass reinforced IPCOR Panels can't chip, shatter, warp or rot. Easily embed in wet concrete or damp earth without harm. Ideal for exterior walls, beautiful interior partitions, maintenance-free sky-lights, illuminated "hanging" ceilings.

Diffused, Natural Lighting. Light through IPCOR Panels — "wakes up" production, adds attractive airiness to plant interiors.

Easy Installation, Low Cost. Light weight IPCOR Panels are easy to install. Can be cut right on the job with hand or power tools... fastened into place with nails, screws or bolts. In addition, IPCOR Panels save on framing cost, millwork, glazing or painting.

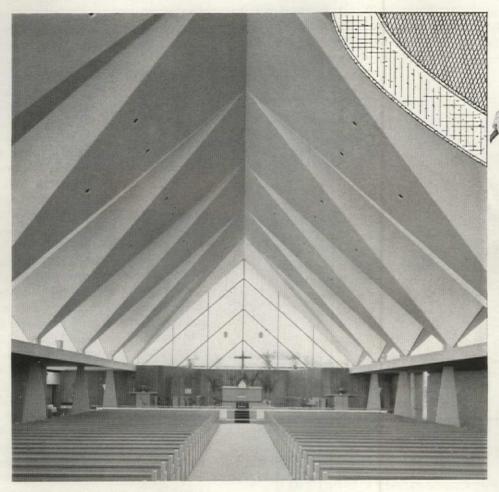
WRITE TODAY for the name of the distributor nearest to you, and for quotations on special orders.

THE INTERNATIONAL PLASTICS CORPORATION

Dept. AF 10. Branford, Conn.

139

Design versatility with Gold Bond SPRAYOLITE





Cutaway shows Sprayolite applied to a basecoat of extra fibered plaster. The 3.4 Diamond Metal Lath is supported by 1½" channel iron. All building materials shown are by Gold Bond.

Immoculate Conception Church, Marrero, La. — Architect: Curtis & Davis, New Orleans, La. General Contractor: Gervais F. Favrot Co., Inc., New Orleans, La. Plastering Contractor: Sam Bird, Metairie, La.

Spray-on acoustical plaster proves itself in contemporary Louisiana church

A reverent atmosphere for worship is created by a combination of many design elements including beauty, quiet and the utilization of natural light. Gold Bond Superwhite Acoustical Plaster helps to achieve this goal by permitting complete freedom of ceiling design. Sprayolite follows the most intricate contours ... dries to uniform color and texture ... even with starting and stopping during application.

Sprayolite has exceptional bonding qualities, drying

rather than setting, to form a porous, sound-deadening surface with a .55 NRC rating. Its super-white color provides an unusually high light reflectance rating of 69%, so important in using natural light to the fullest.

Specify Gold Bond® Sprayolite...the acoustical plaster that sets no limits to your ceiling design. Consult Sweet's catalog, Section 12d/Na, or write National Gypsum Co., Dept. AF-107, Buffalo 2, N.Y.

SPRAYOLITE ACOUSTICAL PLASTER

NATIONAL GYPSUM COMPANY



that it has been included and its land reuse value would seem to be in the range of only \$9.50 per ft., embarrassed cultural center representatives are known to feel they will be paying dearly for this subsection at \$62.88 per ft. (to the seeming benefit of the US and the city). But their efforts to revise their original agreement with the city on this parcel, since it has been included in the project as submitted for federal aid, have so far been in vain.

BUSINESS

National lumber exchange opening in Portland

Something new of major significance in the wholesale lumber business will be inaugurated this month.

Made possible in part by the use of a \$960,000 Univac computer to speed various calculations and records for many simultaneous carload-lot transactions, a group of leading Western lumbermen will open a National Lumber Exchange in Portland, Ore., planned to function in a manner similar to long-established cotton, grain, and other commodity exchanges. Initially this exchange will handle only sales of existing lumber stocks (including in-transit carloads), but in due course it is even expected to deal in lumber "futures," and plywood as well as lumber.

Mill owners admitted to the exchange will pay simply \$5 per car for each carload of lumber offered for sale through the exchange, and will be free to list any or all of their output with it as they see fit. In addition, through arrangements for Walter E. Co., of Chicago, to factor any transactions on the exchange, sellers will be able to obtain immediate cash on any sale, if they so desire.

Wholesalers who qualify will pay a \$1,000 per year membership fee, plus \$5 per car for each carload they buy or sell through the exchange. (For the first 200 carloads they purchase, however, they will receive \$5 per car credit toward their membership fee.)

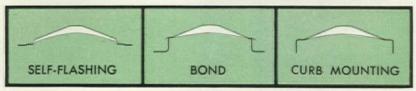
Buyers and sellers will both have hour-to-hour wholesale quotations on various grades and quantities of lumber at different locations at their disposal through the exchange, and thus will be able to complete transactions as efficiently and as rapidly as transactions on any other stock or commodity exchange. A mill will be able to offer its output simultaneously to hundreds of wholesalers. A buyer likewise will be able to list his requirements with the exchange with a single message, instead of querying many mills.

According to its sponsors, "the exchange will provide a far more efficient and less costly method of marketing lumber and lumber products on a volume basis. The average net cost to a mill of moving a car of lumber is now approximately a 5% sales commission, plus selling and financing costs. Through the exchange, total costs, including factoring, if it is desired, will be reduced to about 1¼%, and will be on a cash basis and without recourse."

Among the sponsors, who have worked since 1954 to develop this modern lumber merchandising service, including clearance with SEC, are: board chairman, Frederick C. Talbot, of Pope & Talbot; president, H. E. Van Allen, Montana lumberman and mill owner, and executive vice president, Howard R. Baker, of Portland.



Corrulux Double Dome Skylight



Integrally Molded of Reinforced Shatterproof Plastic

- Permanently Bonded Double Dome Unit
- Hermetically Sealed Insulating Air Space
- Eliminates Condensation
- Easily Installed Self-Flashing And Curb Type Models
- Glare-Free, Diffused Light, High Transmission
- Shatterproof, Long-Lasting, Lightweight
- No Metal Parts To Maintain Or Replace

Send for literature and specifications.







Shatterproof, Corrulux panels are the modern answer to construction that requires light transmission, structural strength and beauty. Whatever your construction* requirements may be—motels, schools, hospitals, restaurants, industrial plants, homes, banks, office buildings—there is a use for Corrulux. For skylights, sidelights, partitions, awnings, decorative panels, and in flat

panes, specify this structural, translucent panel.

Corrulux is available in all popular corrugations — 15 attractive colors.

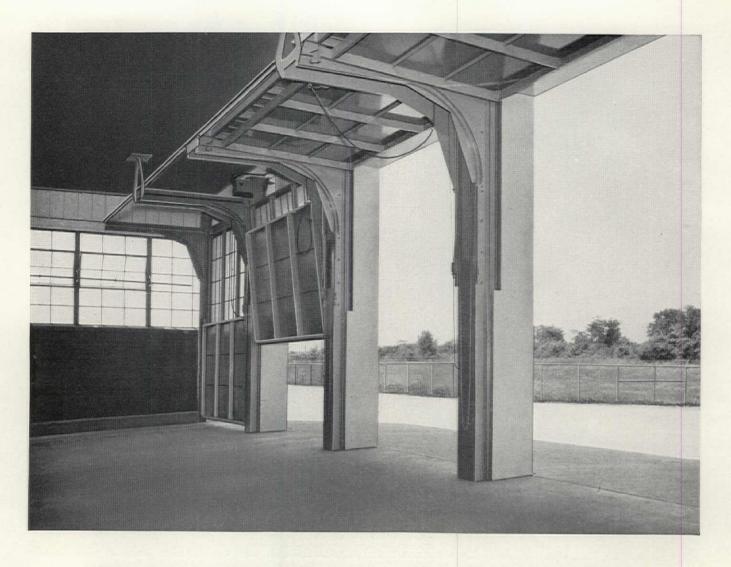
*For use where building codes are restrictive, Fire Retardant Corrulux PyroPanl is available.





L.O.F GLASS FIBERS COMPANY, Dept. T - P. O. BOX 20026, HOUSTON 25, TEXAS





These industrial doors require only 24 inches of head room above lintel



THE BYRNAPERTURE—The latest in many Byrne innovations in aircraft hangar door design. Provides a completely weather-tight closure around the plane fuselage.

When head room above door openings is limited, the Byrne Custom Turnover Door provides the perfect solution to the problem. Also, in its full open position it projects back into the building only half of the door opening height. It is a "space-saver" in every sense of the word.

This is only one of a wide variety of doors built by Byrne for industrial and commercial buildings. All are thoroughly engineered to meet specific requirements—structurally, mechanically and architecturally. Complete information is contained in the new Byrne catalog. May we send you a copy?

BYRNE doors, inc.

1603 E. Nine Mile Road, Ferndale, Detroit 20, Michigan
 101 Park Ave., New York 17, N.Y. • Cafritz Bldg., Washington, D.C. Byrne Doors, Ltd., 381 College St., Toronto 2B, Ont.

PRINCESS

There's no limit when you design with Panelyte



NO LIMIT TO CONCEPT—Versatile Panelyte is the decorative laminated plastic that enhances the beauty of *all* installation and furniture surfaces.

NO LIMIT TO COLOR—Available in 66 different, authentic woodgrain finishes, marble effects, patterns and decorator solids, Panelyte will blend with any design for any décor.

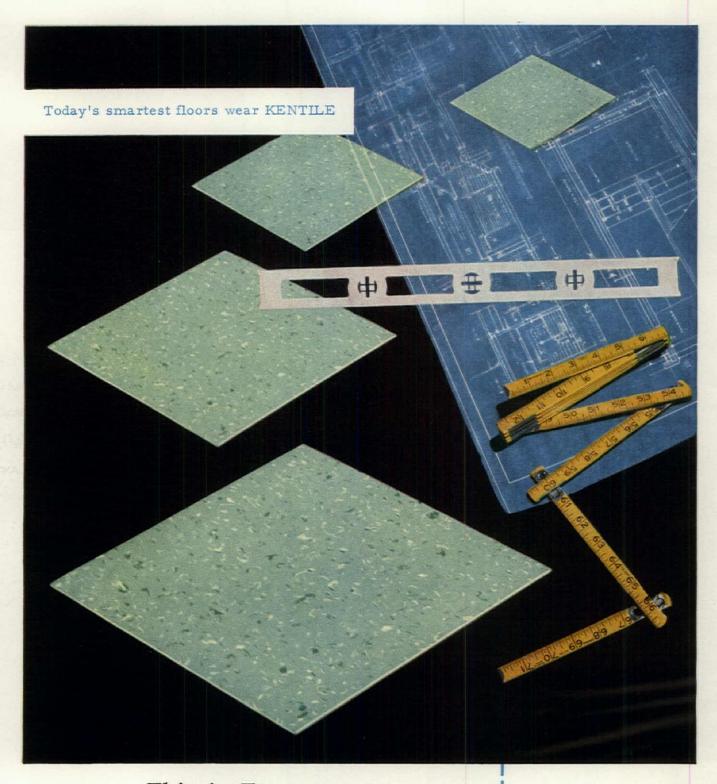
NO LIMIT TO WEAR-Practically indestructible, Panelyte resists heat, stains, scuffs and impact-provides a lifetime of dependable service.

See for yourself how Panelyte adapts itself to your most creative design concepts. For free color samples and illustrated material, write: Panelyte Division, Dept. AF-1057, St. Regis Paper Company, 150 East 42nd St., New York 17, N. Y.

GALAXY

Illustrated here are 3 new patterns developed exclusively for Panelyte...pre-tested *Princess*, true metallic-lustre *Coppertone*, gold and silver-sprinkled *Galaxy*.





This is Terrazzo... in KENTILE® Solid Vinyl Tile

...latest, liveliest, loveliest tile of all -with a wide range of soft, rich colors straight out of the Italian Renaissance!

KENTILEFLOORS

available in Solid Vinyl, Vinyl Asbestos, Cushion-back Vinyl, Asphalt, Cork and Rubber Tile...over 150 decorator colors!

SPECIFICATIONS:

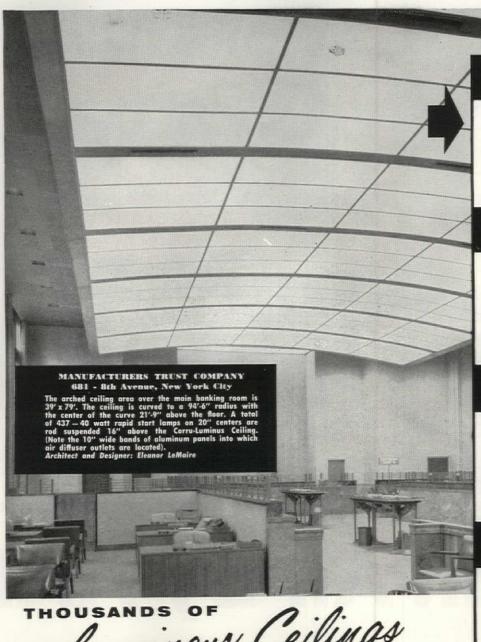
SIZE: 9" x 9"

THICKNESSES: 5/64", 1/8"

COLORS:

Regular -- 8
DeLuxe -- 7

Decorator -- 7



Luminous Ceilings

Luminous Ceilings are an engineering specialty!

We at Luminous Ceilings, Inc. have been practicing this specialty exclusively for 7 years — with more than 20,000 ceilings installed!

Roll-up, Vinyl plastic, vacuum formed plastic squares, Plexiglas in many forms, louvres in plastic, steel, aluminum, many kinds of glass are just some of the diffusers used.

Our nationwide staff of engineering specialists know ceilings — and they are supported by the country's most experienced staff at our headquarters.

The most comprehensive engineering manual on Luminous Ceilings yet compiled, is furnished gratis to qualified persons. Write for your copy!

NATION'S LEADING PRODUCER OF LUMINOUS CEILINGS

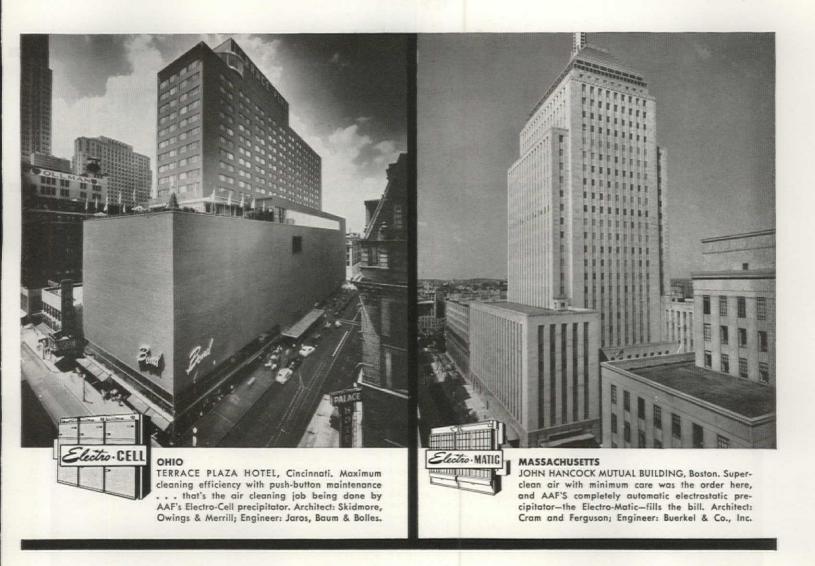
Home Office: 2500 W. North Ave., Chicago 47, III. . . . ARmitage 6-2800 . . . District Offices in Principal Cities. . . .

Brochures Available. Check Types. ... Write Today! CORRU-LUMINUS CEILING Corrugated Vinyl Plastic Steel or Aluminum Tracks MODU-LUMINUS CEILING Molded Vinyl Panels Steel "V" Track Corrugated Vinyl Plastic LUVR-LUMINUS CEILING Metal or Plastic Louvres All Sizes - Aluminum "T" Track ACRI-LUMINUS CEILING Flat or Formed Plexiglas Steel or Aluminum "T" Tracks MAGNA-LUMINUS CEILING Large Formed Vinyl Panels



Clean Air by AAF.





.. COAST to COAST

The buildings pictured on these two pages are thousands of miles apart—both geographically and architecturally. They differ, too, in their selection of air filters. But they do have this in common: all filters are AAF filters!

Instead of selling merely one or two kinds of filters, AAF sells clean air, and manufactures more than a dozen different types of filters to achieve it. From the complete AAF line, you can select the filter that gives you the efficiency you need plus the maintenance characteristics you want!

AAF—and only AAF—can recommend the one right filter for your specific requirements without compromise. Call your local AAF representative or write direct for further information.



427 Central Avenue, Louisville 8, Kentucky American Air Filter of Canada, Ltd., Montreal, P. Q.





Illinois Heating Specialties

BETTER AIR IS OUR BUSINESS -

Herman Nelson Unit Heaters





Herman Nelson Unit Ventilators

MILCOR STEEL



Easy installation of Milcor Steel Roof Deck helped save time in getting the Lincoln plant in Novi ready to produce 1958 models. The light-weight deck afforded additional savings on size and cost of structural members.

The protective value of Milcor's exclusive Bonderized, bakedenamel primer resists mars and scratches in shipping — in hoist-ing — and in construction! It stands up under workmen's heavy shoes, carts, wheelbarrows, asphalt buckets, and countless other factors of building traffic.

ARCHITECTS AND ENGINEERS

Smith, Hinchman & Grylls Associates, Inc., Detroit

GENERAL W. E. Wood Company,
CONTRACTOR Detroit



ROOF DECK

250 squares a day!

25,000 square feet every day — that's getting under cover in a hurry! Ford Motor Company did it on the Lincoln Motor Division Plant in Novi, Michigan.

Steel Roof Deck was chosen for this job because it can be laid fast in any weather in which a man can work—no costly delays due to the effects of rain, snow, or zero weather. Time is vital in any business, but especially in the expansion of the automobile industry—this plant had to get into production fast.

Speed is the rule on any Milcor Deck job. 24-inch width means less welding. Lengths up to 28'6" cover faster. Die-set ends make fitting easy and rapid. 3/4"-wide ribs permit welding from the top.

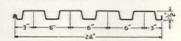
See the Milcor Roof Deck Catalog in Sweet's — Section 2d/InL. Or write for a copy of Catalog 240.

MILCOR® STEEL ROOF DECK

... available in three different sizes



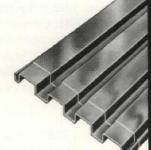
"A" Section
The standard of the industry for closedrib decks full 24" width.



"B" Section
Wide rib distributes metal for greater structural efficiency — gives higher section properties per pound of steel.



"C" Section
Carries normal roof loads over spans
up to 20'! Offers freedom of design.

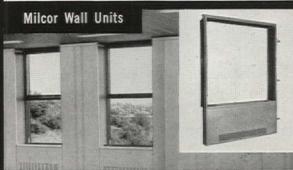




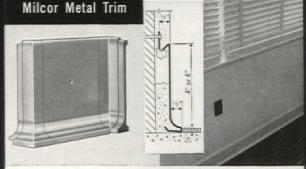
Gives clients electrical flexibility that keeps pace with the constant increases in electronic office equipment. Does this at savings in steel, footings, time, overhead. See Sweet's, Section 2 a/In—or write for your own copy of Catalog 270.



Rigid centering for concrete on spans up to five feet. Quickly installed — eliminates scaffolding — uses as much as 20% less concrete than flexible centering — permits monolithic finishing, without costly topping. For planning help, see Sweet's, Section 2F/In — or write for copy of Catalog 245.



Clean, space-saving units have built-in window trim and integral enclosures for convectors, radiators, and air-conditioning equipment. Available as factory-welded assemblies or knocked-down for assembly on the job. See Sweet's, Section 12a/InL—or write for your copy of Catalog 102.



A complete line of steel trim in designs, sizes, and weights for every exposed interior detail. All afford permanence, fire-safety, and resistance to use and abuse. See Sweet's, Section 12a/InL — or write for your copy of Catalog 102.



INLAND STEEL PRODUCTS COMPANY

Dept. V-4031 West Burnham Street • Milwaukee 1, Wisconsin
ATLANTA • BALTIMORE • BUFFALO • CHICAGO • CINCINNATI • CLEVELAND • DALLAS • DENVER • DETROIT
KANSAS CITY • LOS ANGELES • MILWAUKEE • MINNEAPOLIS • NEW ORLEANS • NEW YORK • ST. LOUIS.

RD-



Reception room on the Executive Floor of the new Procter & Gamble building in Cincinnati, Ohio Architects & Engineers - Voorhees, Walker, Smith and Smith, New York City

Carpet-for better sound control, lower maintenance costs

Recent studies at a nationally-known acoustics laboratory prove that carpet is a highly effective sound control agent.

Carpet has a sound absorption coefficient equal to many materials used exclusively for sound control and it virtually eliminates floor impact noises.

Combined with the 50% reduction in maintenance costs that carpet achieves in heavy traffic areas, its two-fold importance to your clients becomes apparent.

And, of course, your clients benefit from the increased safety and prestige carpet brings to an office —not to mention the effect of its beauty and comfort on employee morale and efficiency.

Send today for your file copy of "Sound Conditioning With Carpet", the complete study of carpet's ability to control airborne and impact noises. You'll discover that, in addition to the beauty, dignity, safe footing and maintenance economy carpet gives to your clients, it is the only dual-purpose sound control you can specify.

If you don't already have your copy of "Cutting Costs With Carpet", a comparative study of the maintenance costs of carpeted and non-carpeted floors, ask for that, too. Write Dept. A-4, Carpet Institute, Inc., 350 Fifth Avenue, New York 1, N. Y.

Specify carpet designed and made for the American way of life by these American manufacturers: Artloom

Beattle • Bigelow • Cabin Crafts-Needletuft • Downs • Firth • Gulistan • Hardwick & Magee • Hightstown • Holmes

Karastan • Lees • Magee • Masland • Mohawk • Philadelphia Carpet • Roxbury • Sanford • Alexander Smith

CARPET INSTITUTE, INC., 350 Fifth Avenue, New York 1, N. Y.



New office building of The W. T. Rawleigh Co., Freeport, Ill. Exterior: stainless steel and marble. Interior: painted with latex paints.

Why latex paints were singled out for Rawleigh Building

Latex paints were chosen for the Rawleigh Building because of ease of application, excellent coverage, durability and pleasing effect. You'll agree, those are four mighty good reasons! More and more leading architects are specifying these truly modern paints. The wide color selec-

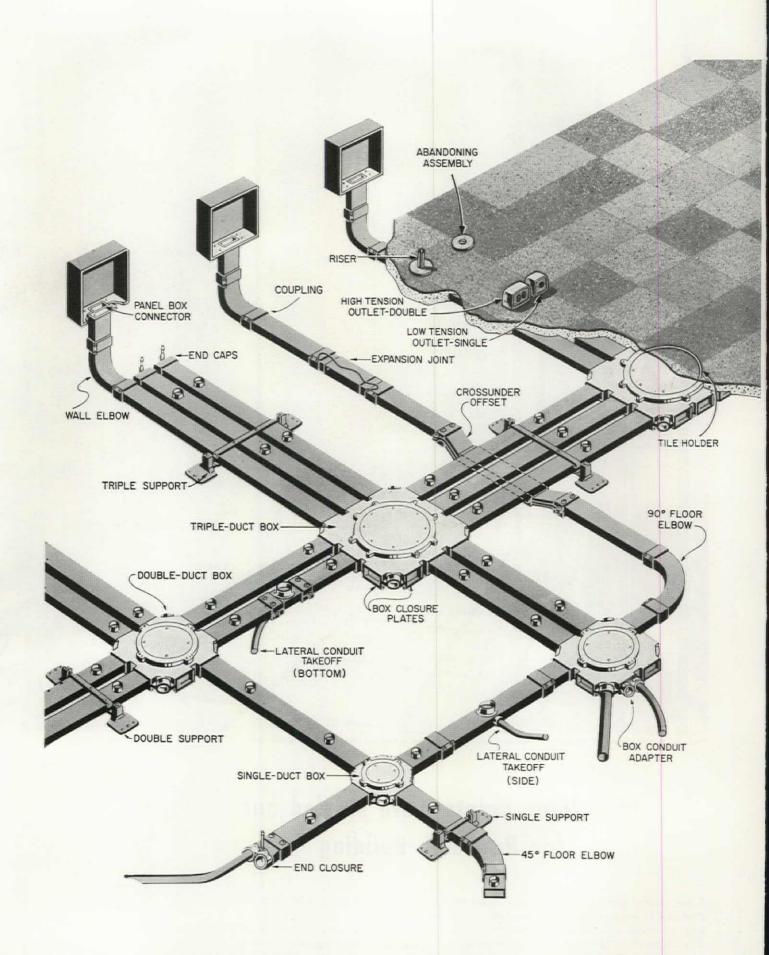
tion and long-lasting finish help assure satisfied clients.

You, too, will be ahead by specifying latex paints. See your supplier. Or write THE DOW CHEMICAL COMPANY, Midland, Michigan — Plastics Sales Department PL1883R-1.





YOU CAN DEPEND ON



General Electric's new single-level steel underfloor wiring system provides a low-cost but efficient means of handling both feed and branch circuits. The simple, flexible design permits installation under any conventional floor layout without special adaptations.



NEW SINGLE-LEVEL STEEL underfloor wiring system

For all types of floor constructions . . . can be used in fills as shallow as $2\frac{1}{2}$ inches.

You have a complete choice of steel underfloor wiring systems from General Electric: The G-E cellular-steel floor system . . . the G-E two-level steel system . . . and now General Electric's new single-level steel system.

This addition to the G-E line of steel underfloor systems is designed for standard floor layouts where the greater flexibility of the two-level system is not required, or where fills are too shallow to accommodate other systems.

General Electric engineers have designed this system for easy installation—box and duct leveling is done quickly with a screw driver . . . slip couplings simplify duct connections . . . and wire pulling is a fast job because the galvanized ducts have smooth, organic-coated interior surfaces.

The standard-size steel ducts (3.357 sq. inches) provide adequate feeding and distribution capacity. Single, double, or triple runs of duct can be used

according to the number of services needed.

All three General Electric steel underfloor wiring systems are listed by Underwriters' Laboratories, Inc.

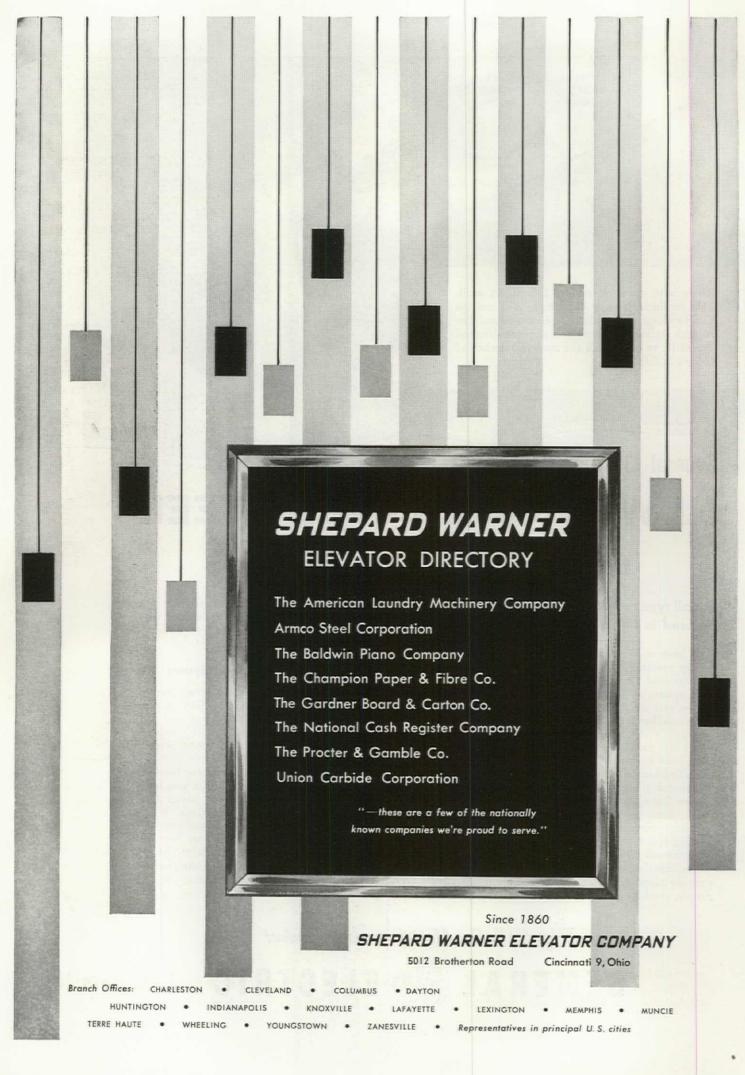
When to Use the G-E Single-level System

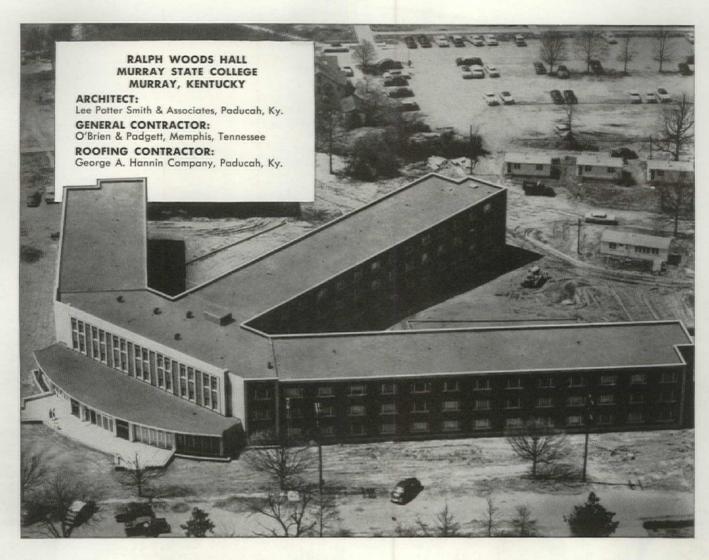
Consider these factors before choosing an underfloor wiring system for your next project: a. Can a standard floor layout handle feeding and distribution? b. Is the floor fill less than $3\frac{1}{2}$ inches? c. Can a single-level system fulfill future wiring requirements?

If so, you should consider this new General Electric single-level steel system. But, if you have other power requirements, find out about G-E cellular-steel floor and two-level systems. Whatever your needs, General Electric's experience and complete product line can provide your best answer. Call your nearest General Electric Construction Materials district office or write Section C77-104, Construction Materials Division, General Electric Co., Bridgeport 2, Conn.

Progress Is Our Most Important Product







On Murray State College's new dormitory . . .

A RUBEROID BUILT-UP ROOF

Was engineered to fit the job

Ralph Woods Hall, the new dormitory for women at Murray State College, has a unique design feature. Three dormitories are joined into one by connecting three wings with a large circular lobby.

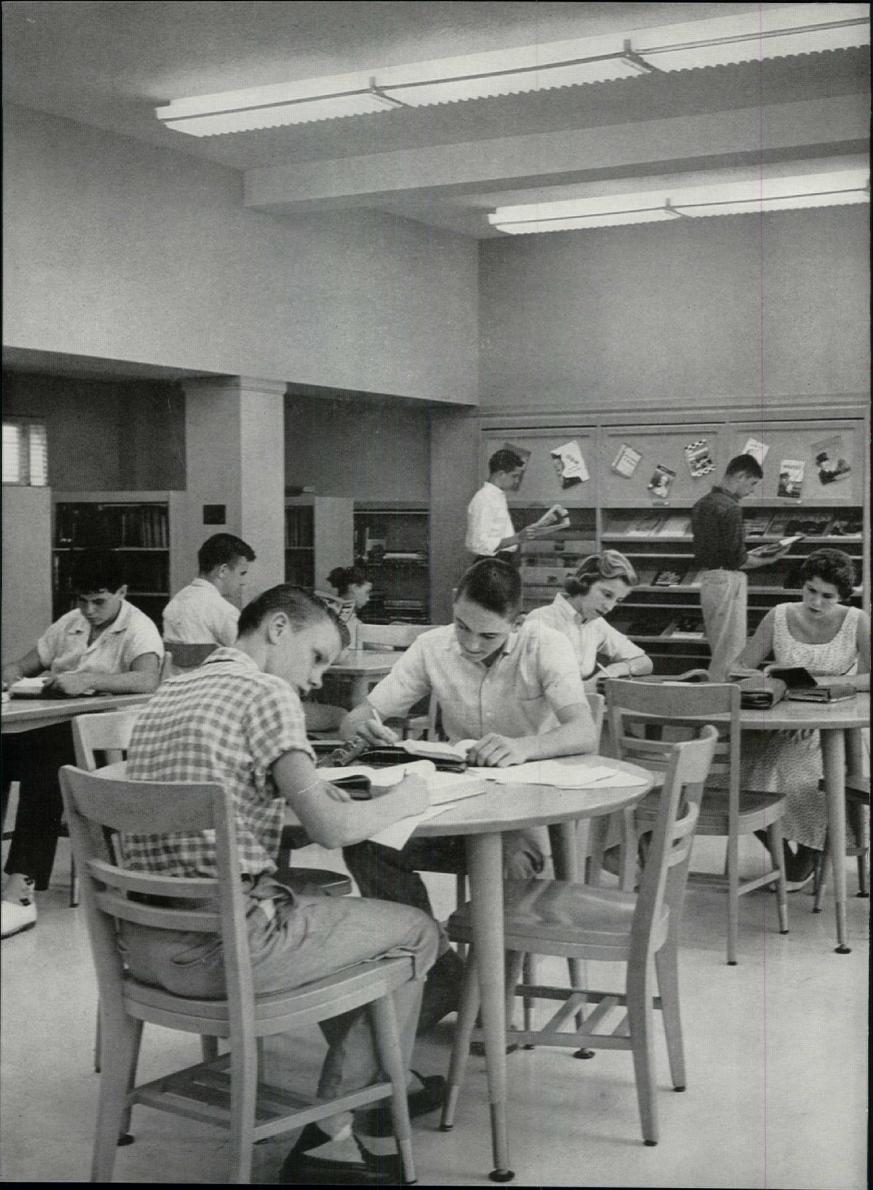
But there is nothing unique in the use of Ruberoid Built-Up Roof specifications. The fact that Ruberoid Built-Up Roofs are the answer to many roofing problems has long been known to progressive architects and builders everywhere.

In engineering the roof construction to fit the needs of the building, three different Ruberoid specifications were used. The largest portion of the roof-398 squares -is Coal Tar Pitch and Tarred Felt with a Gravel Finish (Specification #202). A second section is a Dubl-Coverage Mineral Surface Roof (Specification #159). In still another area, Asbestos Felt and Asphalt Felt with a Smooth Finish (Ruberoid Specification #208) was used.

As with all Ruberoid Built-Up Roofs, rigid standards of manufacture will assure Murray State College of many more years of trouble-free service for their roofing dollar.

Ask your Ruberoid Approved Roofer to demonstrate the advantages of Ruberoid products when next you are faced with a built-up roofing job. You will find that there is a WRITE CATALOG Ruberoid specification to fit whatever requirements you may have.

The RUBEROID Co. Asphalt and Asbestos Building Materials







The Millburn High School, Millburn, N. J. Architects: Epple and Seaman; Consulting Engineer: Herbert Fox. Heating & Ventilating Contractor: Johansen Companya

The right atmosphere calls for quality heating and ventilating "custom" controlled

WHETHER it's in learning and doing at school or in business, having the right atmosphere is of major importance to your clients. For by insuring comfort, promoting the health and well-being of students, employees or customers, it raises efficiency and productivity.

To create such an atmosphere takes quality heating and ventilating under coordinated *control*. And the best way to provide such control is with a Honeywell *customized* installation designed to fit the specific needs of the building and its occupants.

A good example is the Millburn High School in Millburn, N. J.

In large rooms like the cafeteria, auditorium and gymnasium, area control of heating and ventilation by strategically placed thermostats permits adjustment of temperature to suit the number of occupants, level of activity and other conditions of use.

Classrooms have individual room temperature control. A thermostat on the wall of each classroom permits the instructor to adjust temperature and ventilation to suit the size and activity of the group.

So when you develop new construction or modernization plans for your clients, insure the right atmosphere. Plan for quality heating and ventilating, with a Honeywell customized control installation.

To learn more about Honeywell customized control, call your local Honeywell office. Or write Minneapolis-Honeywell, Dept. MB-10-242, Minneapolis 8, Minnesota.

Increased efficiency with Honeywell Custom Control

Comfort is assured in the library as well as every room in this modern school with Honeywell Customized Temperature Control. Room thermostat automatically adjusts heating to number of occupants, weather conditions—and always maintains the right atmosphere.



The Honeywell Round ...
World's Most Popular Thermostat

Honeywell



First in Controls



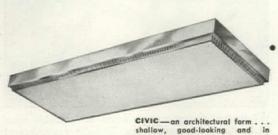
*George Kolbe, manager of Smithcraft's New York City team of Kolbe, Goren and Smith . . . part of the nationwide Smithcraft sales organization

Smithcraft fluorescent lighting units are installed in thousands of offices, factories, stores, schools and diversified interiors from coast to coast. Wherever good lighting is important, you'll find . . . SMITHCRAFT — "AMERICA'S FINEST FLUORESCENT LIGHTING"

r o m Smitheraft

He's the man whose experience and knowledge of lighting is backed by Smithcraft's highly diversified line of fluorescent lighting units. The "Man from Smithcraft" can suggest the new CIVIC, for example, for interiors requiring the

very finest in "prestige lighting". Or he can turn to the brand new top value TWOSOME for general office, store or school lighting. Ask the man from Smithcraft to show you Smithcraft's "4 GOOD NEW IDEAS IN LIGHTING."



shallow, good-looking and in excellent taste. An extruded alumi-num-framed unit.



TWOSOME — Top value, low cost, shallow and attractive. With new 45° x 45° compound shielding, or with plastic louvers, flanged polystyrene or various types of



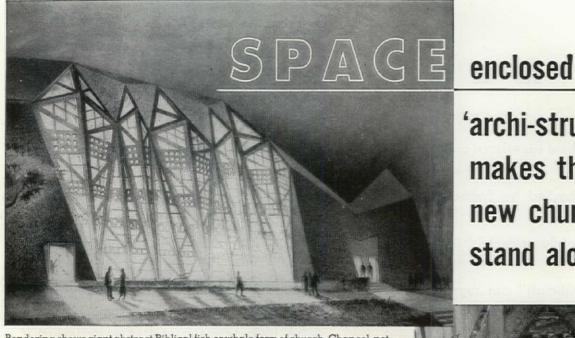


3 good NEW ideas in lighting

In addition to the CIVIC and the TWOSOME, Smithcraft's new developments include the EXECUTIVE and the FREEWAY. You'll find all four units useful to you in the planning of lighting for today's interiors.

Smitheraft

PLEASE ATTACH TO YOUR Smitheraft LIGHTING	BUSINESS LETTERHEAD and mail	to OF-10
	a, CHELSEA 50, MASS.	<
NAME		
TITLE	CO	
ADDRESS	CITY	STATE
Please send me the mon keep in touch with the lat	thly publication, "Light Side of the I est trends in lighting.	lews", so that I ca
☐ Please send me folders a	and catalog sheets on the "4 Good Ne	w Ideas in Lighting'
Please send me the com	plete SMITHCRAFT CATALOG, containi	ng data on America



'archi-structurally' makes this new church stand alone

Rendering shows giant abstract Biblical fish or whale form of church. Chancel, not shown, is at observer's left. Church is 234' long, 54' at its widest, and seats 670.

Cathedral-Like Vastness Achieved by Wrapping Space in Pre-Cast Concrete

 Construction of the new First Presbyterian Church of Stamford. Conn. in which space is literally wrapped in precast concrete wall and roof elements that are selfsupporting, without columns, beams or lintels can perhaps best be described as 'archi-structural' — the shell or frame being both structural and enclosing.

Reinforced concrete wall and roof elements, factory-fabricated to closest tolerances, were trucked to the job site. Panel bottoms were fastened to the footing, slanted

panels being supported by false-work until roof panels were lowered into position, making the integrated wall and roof self-supporting. An eight-inch band of concrete connects the panels, resulting in a monolithic structure of great strength and rigidity.

The glass of inch thick amber, emerald and sapphire pieces was made in France from the templates of the triangular sections sent there for that purpose.

Dependable 'Incor'* high early strength, used throughout this job, makes possible assembly-line precision in casting ... faster form re-use, maximum production with minimum form investment. *Reg. U.S. Pat. Off.



152 precast elements were used—80 triangles some perforated, others solid, and 72 solid quadrilateral panels-maximum sizes for panels 36 ft. x 10 ft.; for triangles 35 ft. on longest measure—maximum weights: for panels 10 tons; for triangles 5 tons.

> Associated Architects: HARRISON & ABRAMOVITZ New York City SHERWOOD, MILLS & SMITH Stamford, Conn.

THE DELUCA CONSTRUCTION COMPANY Glenbrook, Conn.

Precast Sections:
PRECAST BUILDING SECTIONS, INC.
New Hyde Park, N. Y.

Consulting Engineer: F. J. SAMUELY London, England

Structural Engineers: EDWARDS & HIDRTH New York City





LONE STAR CEMENT CORPORATION

ALBANY, N.Y. BIRMINGHAM - BOSTON - CHICAGO - DALLAS - HOUSTON INDIANAPOLIS . KANSAS CITY, MO. . LAKE CHARLES, LA. . NEW ORLEANS NEW YORK - NORFOLK - RICHMOND - SEATTLE - WASHINGTON, D. C.

LONE STAR CEMENT, WITH ITS SUBSIDIARIES, IS ONE OF THE WORLD'S LARGEST CEMENT PRODUCERS: 21 MODERN MILLS, 47,900,000 BARRELS ANNUAL CAPACITY

Projects

A roundup of recent and significant proposals

MONTREAL TOWER

Right in the middle of Montreal's business district Canadian National Railways plans a three-block transformation of its station area property. On one block (below), Webb & Knapp (Canada) Ltd. will erect a 40-story office skyscraper and another 15-story building facing a paved plaza. Architects: I. M. Pei & Assoc., Henry N. Cobb.

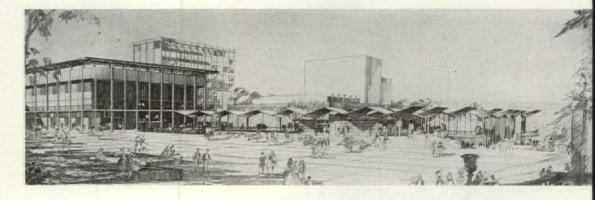




ST. LOUIS TV-RADIO STUDIOS AND OFFICES

Prestressed concrete shaped in narrow barrel vaults will roof the executive offices of CBS quarters in St. Louis, designed by Minoru Yamasaki, of Yamasaki, Leinweber & Associates. The two-story office section (foreground), entered over an air-conditioning pool, will have radio executive and sales offices on the first floor, TV offices above. An open court

behind the office section leads to a skylighted cafeteria. The entire structure will rest on a platform containing the TV and radio studios of KMOX-AM-FM-TV. Two microwave discs in the tower (r) will be painted with the CBS eye. Not shown: employee parking and a small power plant at rear. Estimated cost with complete equipment: \$4 million.



PRIZE-WINNING CALIFORNIA STUDENT CENTER DESIGN

A cosmopolitan student center for the University of California's Berkeley campus—with an open square, alfresco dining, and a rathskeller—was chosen from designs submitted by six architectural firms. The winners, Vernon DeMars

and Donald Hardison, grouped four units around a paved square: (1 to r) student union with information center, meeting rooms, campus store, roof garden, and campus hangout; student office building; theater auditorium; cafeteria.



HIGH-RISE STUDENT UNITS AT MISSOURI UNIVERSITY

Architects Hellmuth, Obata & Kassabaum reconciled the University of Missouri's preference for "house" dormitories with rising construction costs, and came up with this solu-

tion: four duplex "house" units stacked to a building, plus another floor for joint activities. Three of these ninestory structures will surround a central cafeteria.

DEPARTMENT STORE BRANCH IN PALM SPRINGS

Merchandise and scenery will be on display in the new Palm Springs branch of J. W. Robinson. Large glass areas will make the store interior, by Raymond Loewy & Associates, visible from the outside, and enable shoppers to see mountain views to the west. Pereira & Luckman designed the new Robinson's, as well as two of their other stores.



SCHOOL LIBRARY-OFFICES

Another Hellmuth, Obata & Kassabaum project is the Riverview Gardens High School, St. Louis. Sixth in a projected total of ten buildings is this library - administration - business education unit, protected on two sides by a clay tile sun screen. Bids on this worked out to a cost of \$11.73 per sq. ft. To be added later: two classroom units and an auditorium.



SUBURBAN BUSINESS CENTER OVER RAILROAD TRACKS

Just off the New England Thruway this \$41 million business center, to include a 250room hotel, department store, six-story air-conditioned office building and multidecked garage for 8,000 autos (mostly commuters') has been started above the tracks of the New Haven Railroad in New Rochelle, N.Y. Architects: Boak & Raad.

HOSPITAL GROUP FOR PARK AVE. CORNER

To mark its centennial, New York's Lenox Hill Hospital has started construction of the first 12-story unit (r), at the corner of Park Ave. and 77th St., in an \$11 million modernization and renovation program. Rogers & Butler are architects for the entire project, including health center and nursing school and residence units (1) to be erected later.





LOWER MANHATTAN SHAFT

A full 5C,000 sq. ft. block in the financial and insurance districts will be covered by this 38-story New York office structure to be erected by Samuel Rudin one block east of the dramatic new Chase Manhattan Bank tower. Emery Roth & Sons are architects; net rentable area, 950,000 sq. ft.



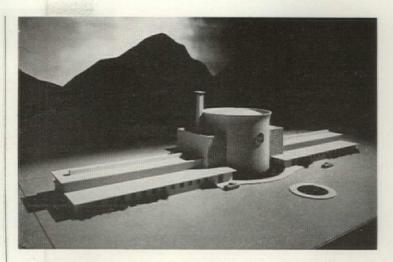
MEDICAL UNIT FOR MEAT CUTTERS' UNION



Architect Harris Armstrong designed this medical unit (above) for Local 88 Amalgamated Meat Cutters and Butcher Workmen in St. Louis to provide outpatient and minor surgical care for members and their families.

OPEN-FRONT NEWS PLANT

Sharp-eyed pedestrians will be able to read the news before the ink is dry through the street-floor pressroom windows of the new Montreal Star building (1) designed by Barott, Marshall, Merrett & Barott; Ballard, Todd, and Snibbe.



NUCLEAR REACTOR FOR VENEZUELA

On a mountain top 9 mi. from the center of Caracas, the Venezuelan government will build a nuclear research center for the Instituto Venezolano de Neurologia e Investigaciones Cerebrales. Grills at each side of the cylindrical reactor will contain cooling towers and mechanical equipment for the reactor and laboratories. Architects: Shaw, Metz & Dolio, Chicago; Dr. Walter Zinn, consultant on nuclear aspects.



HONOLULU OFFICES WITH ROTATING COCKTAIL LOUNGE

A rotating cocktail lounge could be a hazard, except that no one would protest a slowly changing panorama of sea and sky in Honolulu. John Graham and Co. designed this 17-story

office building with roof-garden restaurant and revolving cocktail lounge. Vertical aluminum and plastic shades operated by an electric-eye system will shield office workers from sun.

PACIFIC BEACH CLUB

Anyone with a yen for seaside sports should enjoy the Harbor Point Beach Club at Strawberry Point, Marin County, Calif. The main clubhouse (center) will include a dining room with terrace and dance floor; other facilities: badminton courts, golf practice course. Architects: Anshen & Allen; landscaping: Lawrence Halprin.



A BIG, BRIGHT GYMNASIUM

BLUFFTON HIGH SCHOOL GYMNASIUM

Architect: A. M. Strauss, Incorporated, Fort Wayne, Ind.

General Contractor:

TITT

W. A. Sheets & Sons, Fort Wayne, Ind.

Structural Steel Fabricator:

Art Iron & Wire Works, Inc., Toledo, Ohio.

Clear-span construction with USS STRUCTURAL STEEL keeps costs down

The vast, postless interior of Bluffton High School Gymnasium at Bluffton, Indiana, gives every spectator a clear, unobstructed view of the playing area. The rigid frame steel construction offers strength, safety, economy of erection, and minimum maintenance—four considerations which are mandatory in present-day school building. Notice the ample amount of window area made possible by rigid frame construction.

WHY IT PAYS TO USE STRUCTURAL STEEL

No other common structural material is as *strong* as steel, as *practical* as steel, as *safe* as steel. But architects and engineers need no convincing. They specify structural steel every day for more and

more schools, churches, and similar medium-sized structures—as well as for huge skyscrapers, bridges, and aircraft hangars. The versatility of structural steel is not limited by the size of the building. Look at some of these specific advantages of structural steel:

- It is the strongest, yet most economical of load-bearing materials.
- Structural steel will withstand more abuse than other structural materials, effectively resisting tension, torsion, compression and shear.

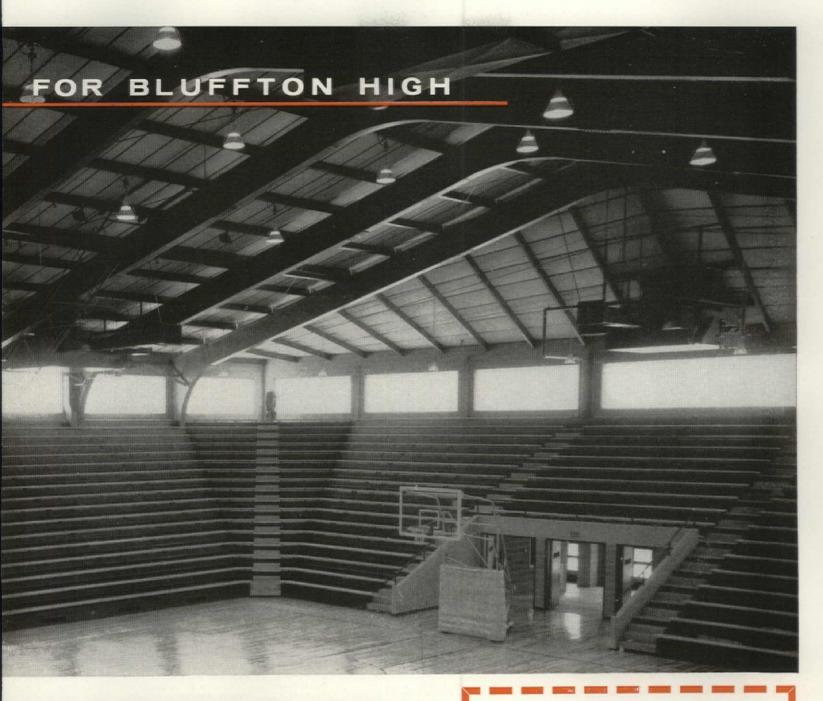
- Once enclosed in buildings, it requires no maintenance—lasts indefinitely.
- Structural steel may be riveted, bolted or welded . . . can be erected in any weather.
- Steel members are fabricated indoors, where weather can have no effect on the quality of the workmanship.

United States Steel Corporation, Pittsburgh Columbia-Geneva Steel Division, San Francisco Tennessee Coal & Iron Division, Fairfield, Ala. United States Steel Supply Division, Warehouse Distributors

UNITED STATES STEEL EXPORT COMPANY, NEW YORK

USS STRUCTURAL STEEL

USS





Approximately 240 tons of USS Structural Steel were used in the construction of the gymnasium. The steel framework was erected in seven weeks—joining accomplished by bolting and welding. The total structure—masonry, floor, seats, fixtures, everything—was completed and ready for use in 12 months.

GET THIS INFORMATIVE BOOK, FREE!

United States Steel Corporation 525 William Penn Place, Room 2801 Pittsburgh 30, Pennsylvania

> Please send me a free copy of Hot Rolled Carbon Steel Shapes and Plates—a handbook containing details, dimensions and weights of all USS Structural Steel.



Name						*10		-::-			18(1)		*	0.40		***	- 12	*					
Compa	iny	* * *	150	10.00			195		*				*		*	* .							
Title															(2)								
Addre	ss) w (p)	40(#.) #)		***		*(*)	(#)		 			(4)		10.5	*	*		13%	• 55		,	
City													s	ta	te						W.A.	9.50	210

THE NEW BRADLEY

Most people have tried to wash their hands in standard wash basins equipped with separate hot and cold water faucets controlled by spring shut-offs, and have been by spring shut-offs, and have been by spring shut-ons, and have been annoyed by the difficulty of the operation. If the person has normal sensibilities, he dislikes shorping the basin and running water ping the pash and running water in on the soil residues of previous users; so, the hot water usually being too hot to use untempered he turns on the cold faucet and holds it open with one head while holds it open with one hand while wetting the other, then reverses hands, then applies soap.

BANISH THIS WASHROOM TROUBLE!

Excerpt from Article in "Modern Sanitation" Magazine.



New beauty of design, stronger construction, improved firm wall mounting, floor clearance, and wide hinged foot-treadle are featured in the latest model Duo-Washfountain.

As in the previous model, the Duo has no faucets (regular or spring type) and tempered water is supplied at the touch of the foot-treadle via the central sprayhead.

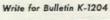
By flipping the hinged foot-treadle, the floor area below is cleared for easy cleaning. By serving two persons, more washing facilities are provided in less space with fewer piping connections. For complete specifications and data, ask for latest Bulletin K-1204.



BRADLEY WASHFOUNTAIN CO.,

2235 West Michigan St.,

Milwaukee 1, Wisconsin.





Distributed Through Plumbing Wholesalers



For Worthwhile Help call the Bradley Representative nearest you

ALBANY 5, N. Y., Alexander Mitchell
ALBUQUERQUE, N. M., Herlin Engr. Co.
ATLANTA 3, GA., J. B. Barton, Jr.
BALTIMORE 1, MD., Paul H. Werres
BIRMINGHAM, ALA., H. Ben Brown, Jr.
BOSTON 10, MASS., Mills Engineering Co.
BUFFALO 7, N. Y., Kolstad Associates
CHARLESTON 28, W.A., Fireproof Products Co.
CHARLOTTE 5, N. C., Lee A. Smith
CHICAGO 10, ILL., Struck Equip. Co.
CHICAGO 11, ILL., West & Lasley
CINCINNAT1 2, O., Loftus-Schoenberger
CLEVELAND 15, O., Fielding-Wales Co.
COLUMBUS 15, OHIO, A. G. Peterson
DALLAS, TEXAS, The Ray Co.
DENVER 4, COLO., Carl H. Roath
DES MOINES 10, IA., Ostrander-McDonald
DETROIT 1, MICH., D. T. Randall & Co.
EL PASO, TEXAS, Herlin Engineering Co.
EVANSVILLE 8, IND., Shouse-Brill Mach. Co.
FORT WAYNE 2, IND., A. Frank Ausman
GRAND RAPIDS 3, MICH., D. T. Randall & Co.
HONOLULU, HAWAII, Arthurs Hawaii
HOUSTON 6, TEXAS, Thos. E. Price
INDIANAPOLIS 18, IND., J. Edwin Aspinall
JACKSONVILLE 4, FLA., G. P. Coyle & Sons
KANSAS CITY 2, MO., Rivard Sales Co.
KNOXVILLE 12, Tenn., Chas. F. Sexton
LOS ANGELES 33, CALIF.,
Frank Peck Specialty Co.
LOUISVILLE 5, KY., Shouse-Reed Co.
LUBBOCK, TEXAS, The Ray Co.
MEMPHIS 3, TENN., Geo. R. Douglas
MIAMI, FLA., John W. Holiam
MILWAUKEE 2, WIS., J. R. Petley Co.
MINNEAPOLIS 16, MINN., S. H. Bartlett
NASHVILLE 4, TENN., Goo. R. Douglas
MIAMI, FLA., John W. Holiam
MILWAUKEE 2, WIS., J. R. Petley Co.
MINNEAPOLIS 16, MINN., S. H. Bartlett
NASHVILLE 4, TENN., Goo.
MEMPHIS 3, TENN., Geo. R. Douglas
MIAMI, FLA., John W. Holiam
MILWAUKEE 2, WIS., J. R. Petley Co.
MINNEAPOLIS 16, MINN., S. H. Bartlett
NASHVILLE 4, TENN., Southern Sales Co.
NEW ORLEANS 12, LA., W. H. Grant, Jr.
NEW YORK 17, N. Y., Edwards & Platt)
OKLAHOMA CITY 6, OKLA., M. F. Fishell
OMAHA 2, NEBR., B. G. Peterson
PEORIA, ILL., M. Frank Riddile
PHILADELPHIA 8, PA., Arthur Hicks, Jr.
PHOENIX, ARIZ., Baker-Thomas Co.
OCHESTER 20, N. Y., Kolstad Associates
ST. LOUIS 8, MO., Heinkel Sales Service
SALT LUIS 8, MO., Heinkel Sales Service
SALT LAKE CITY, UTAH, Geo. Parry & Sons
(FOR Montana—Rev W. Williams

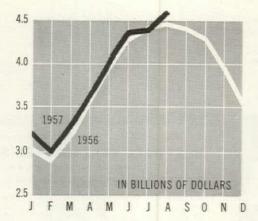
August outlays set all-time monthly record; plant and equipment boom leveling off

Construction expenditures in August set an all-time monthly record of \$4,591 million, a 3% gain over the previous peak of \$4,474 reached in August, 1956. From January through August they totaled \$30,469 million, or a 2% gain over the \$29,825 million spent in the first eight months of 1956.

As the peak of the building season passed, the first forecasts for 1958 construction volume appeared. FORUM's, by Construction Economist Miles L. Colean, predicts another dollar volume record, totaling approximately \$48.7 billion, compared with an estimated \$47.25 billion by the end of this year (for details see p. 133).

Based on Commerce and Labor Dept. estimates, this year's private nonfarm nonresidential construction from January through August totaled \$5,960 million or a 5% gain over \$5,657 million in the same period a year earlier. Contributing to this advance have been alltime record outlays for new office, warehouse and loft buildings (11% ahead of 1956), hospital and institutional buildings (up a hefty 54%), and churches (up 17%). In addition, public utility construction expenditures in this period have totaled \$3,626 million, an 11% advance over 1956.

Housing starts also showed a mild spurt in August, with private units rising contraseasonally to 92,600 from 90,200 in July. Seasonally adjusted, August's private starts were at a rate of 1,010,000 annually—the first month this year topping the 1 million mark.



TOTAL EXPENDITURES for new construction set an all-time record of \$4.6 billion in August, or 3% above the previous record of \$4.5 billion in August, 1956.

At the same time, applications for FHA insurance on new houses rose 21% over July, and, seasonally adjusted, reached their highest level in almost two years. Most observers feel that homebuilding has about hit bottom of its recession and will be showing some improvement from now on.

Late in July, Treasury Under Secretary W. Randolph Burgess told a Senate committee that heavy spending and credit demands of business for new plants and equipment were partly to blame for current inflation. Last month, however, a joint Commerce Dept. and SEC survey saw this major construction boom force "leveling off" after its steep climb ever since the start of 1955. In the third quarter, according to this survey, plant and equipment expansion outlays would hit a record rate of \$37,230 million annually, but in the last quarter of the year they will decline a trifle, to a rate of \$37,170 million annually. For the full year they

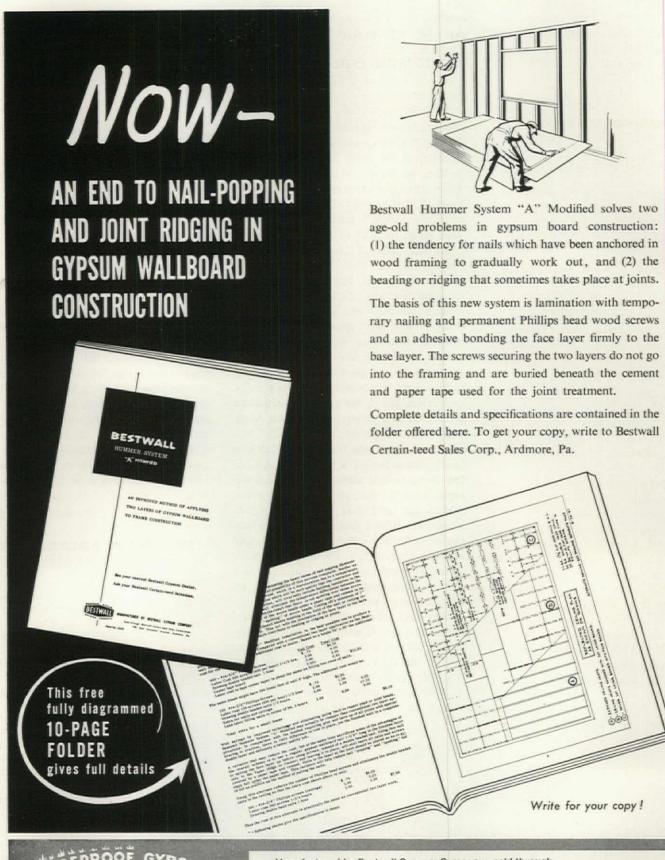
continued on p. 45

SPENDING BY BUILDING TYPES

(in millions of dollars)

PRIVATE BUILDING				
		First	t 8 mor	iths
At	ıg. '57	1957	1956	士%
Residential (nonfarm).	1,553	10,697	11,529	-7
Nonresidential	805	5,960	5,657	+5
Industrial	266	2,147	1,978	+5
Commercial	319	2,275	2,364	-
Offices; lofts;				
warehouses	167	1,164	1,050	+11
Stores; restau-				
rants; garages	152	1,111	1,314	-15
Religious	80	555	475	+17
Educational	47	335	345	-3
. Hospital; institutions	47	312	203	+54
Public utilities	553	3,626	3,263	+11
*PRIVATE TOTAL	3,101	21,451	21,590	-1
PUBLIC BUILDING				
Residential	47	286	176	+63
Nonresidential	418	2,966	2,652	+12
Industrial	42	332	280	+19
Educational	260	1,854	1,681	+10
Hospital; institutions	30	229	189	+21
Military	125	806	893	-10
Highways	620	3,140	2,850	+10
Sewer; water	130	897	824	+9
*PUBLIC TOTAL	1,490	9,018	8,235	+10
*CRAND TOTAL	4 504	20.460	20 00=	-
*GRAND TOTAL				

Minor components not shown, so total exceeds sum of parts.



BUILDING PRODUCTS

Manufactured by Bestwall Gypsum Company-sold through

BESTWALL CERTAIN-TEED SALES CORPORATION

120 East Lancaster Avenue, Ardmore, Pa.

EXPORT DEPARTMENT: 100 East 42nd St., New York 17, N.Y.

SALES OFFICES: ATLANTA, GA. BUFFALO, N.Y. CHICAGO, ILL. CHICAGO HTS., ILL.

CLEVELAND, OHIO DALLAS, TEXAS DES MOINES, IOWA DETROIT, MICH.

EAST ST. LOUIS, ILL. JACKSON, MISS. KANSAS CITY, MO. MINNEAPOLIS, MINN.

WILMINGTON, DEL. RICHMOND, CALIF. SALT LAKE CITY, UTAH TACOMA, WASH.

will hit a record high of \$37,030 million, a 6% increase over 1956 outlays that totaled \$35,080 million. At the beginning of 1955, these outlays were running at a rate of only \$25,650 million annually.

BUILDING MONEY

Several signs hint rates may soon start easing

Money continued scarce and expensive last month, but with several signs that some rates may have reached their peak, and over-all demands may be about to decline a little.

In its latest refinancing, totaling \$3 billion, the Treasury offered \$500 million of 12-year 4% bonds, \$1,750 million of five-year 4% notes redeemable for cash after 21/2 years, and \$750 million of one-year 4% certificates. This indicated in several ways the Treasury's belief that money was a little easier than several months earlier. Only six weeks previously, for instance, Treasury Under Secretary Burgess had testified before the Senate Banking Committee that the Treasury could only sell new long-term bonds if it would pay 41/4 or 41/2% interest, and it had dropped plans for issuing a tenyear 4% bond late in July because at that time it would have faced "pretty heavy going." In July the Treasury paid 4% to float an issue of four-year securities redeemable at the purchaser's option after two years - popularly dubbed "2 x 4's"-but last month it felt it could borrow for a year longer at the same rate, with its new "21/2 x 5's."

State and municipal bond yields also gave another small sign that interest rates might have touched their zenith, or were at least leveling off for a while before turning higher or much lower. For three weeks in August the Dow Jones average yield for 20 representative 20-year issues, based on current sales prices, stood at a 20-year high of 3.58%, but in the first half of September edged off to 3.55%.

Such signs, however, were no guarantee that rates were sure to decrease, or would become easier any faster than they had tightened steadily month by month over the last two years. Many devious, interacting forces shape the total money market, and last month another sector registered still another record interest rate. To float a \$200 million, 11-month debenture issue for the purchase of FHA and VA home mortgages, Fanny May paid 4.7% interest, compared with the VA's own 4.5% ceiling on G.I. mortgages.

At the start of 1957, the Prudential Insurance Co. of America, owner of the world's largest home mortgage portfolio, had \$5.7 billion invested in real estate loans-\$4.4 billion on homes, and \$1.3 billion on business and industrial properties. Last month Pru President Carrol M. Shanks reported that 60%, or \$762 million out of the company's total new investments of about \$1,250

million this year, has been earmarked for mortgage loans (contrasted with 42% of its new investments during the first half of the year put into mortgages by Metropolitan Life, the only life company bigger than Pru). Shanks told the Wall Street Journal that he feels interest rates have gone about as high as they are likely to go, but he does not look for any sharp change immediately. He thinks "the next big move is likely to be toward lower interest rates" but adds wryly: "But I said the same thing just before the last big bulge."

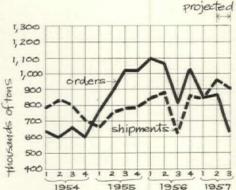
BUILDING MATERIALS

Steel shipments running well ahead of orders; increases noted in lumber, glass demand

Steadily increasing shipments and a decline in new orders have wrought a major change in the fabricated structural steel supply situation in line with earlier forecasts (AF, May '57).

All through 1955 and 1956, structural shipments trailed new orders. The industry's backlog of unfilled orders rose from 1.3 million tons in Jan. 1955, to 3.4 million tons in Dec. 1956more than a full year's output at the record rate of 3.2 million tons shipped during all of 1956.

But through July this year, shipments have exceeded new orders in all but two months-January and April. According to data of the American Institute of Steel Construction, shipments through July this year topped new orders by 194,100 tons. Taking into ac-



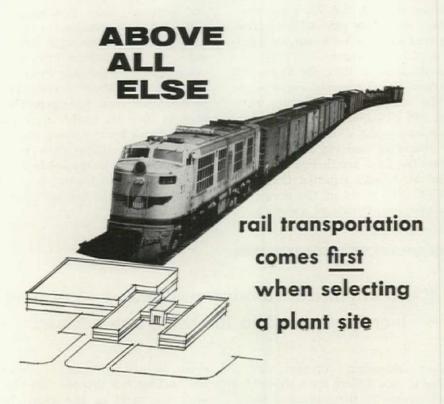
STRUCTURAL STEEL SHIPMENTS exceeded new orders in each quarter of 1954, but through 1955, 1956 and the first quarter of this year trailed new business. With orders showing a decline from their 1956 records and production now reaching new heights, shipments have been exceeding new orders again since the second quarter of this year.

count revised and canceled orders too. the backlog has dropped 235,849 tons since the start of the year. In the accompanying chart of AISC data by quarters, shipments of structurals trailed new orders by a scant 7,000 tons (orders 852,000 tons, shipments 845,000 tons) in the first three months of this year. But in the second quarter, shipments rose to a record 972,000 tons -or 100,000 tons above new orders. Then in July new orders dropped to 202,000 tons, while shipments totaled 303,000 tons, a difference at a rate that could trim the backlog of unfilled orders as much as another 300,000 tons in the third quarter.

Through July this year shipments of



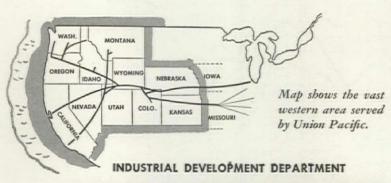
BACKLOG of unfilled orders for fabricated structural steel totaled 3.1 million tons on Aug. 1, a decrease of 82,382 tons from July 1, according to the American Institute of Steel Construction. In the six months after it reached its all-time peak of 3.5 million tons on Feb. 1, the backlog dropped 338,129 tons, or 9.7%.



We know that many factors are important when deciding on a new plant location. Available materials, utilities, labor and pleasant living conditions all have a place in the picture, and the growing West can supply them.

Yet, in the final analysis, those factors are secondary to rail transportation, particularly freight service. The shipment of materials and commodities calls for the dependable, 'round-the-clock service provided by Union Pacific.

For information regarding western industrial sites, phone your nearest Union Pacific representative or contact us direct.



UNION PACIFIC RAILROAD

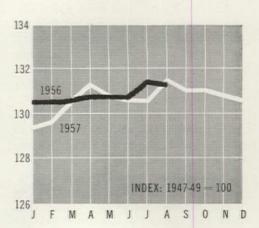
Omaha 2, Nebraska

fabricated structurals totaled 2.1 million, a 12% gain over January to July, 1956. New orders, however, at 1.9 million tons, were 22% below comparable 1956 orders.

Further improvement in its steel supply situation was promised construction last month by Inland Steel Co., which announced a multimillion dollar program to double its capacity for producing wide-flange beams at its Indiana Harbor plant, where it will discontinue its production of steel rails. Current wide-flange capacity at this plant is 22,000 to 28,000 tons a month: remodeling and expansion will boost it to 54,000 tons. Said Inland President Joseph L. Block: "Our studies indicate there is excess capacity in the country for rail production now and in the foreseeable future. The reverse is true in respect to wide-flange structural steel beams. There has been a severe shortage and the estimated requirements in the future indicate continued growth."

Lumber, glass orders up

At the end of August orders for Western pine lumber and Douglas fir plywood took noticeable upturns that were expected to stabilize prices, but not necessarily cause any immediate price increases. Lumber industry sources felt the spurt in orders represented mostly inventory buildups by jobbers and retail dealers who apparently believe prices will not go any lower and have been encouraged to increase their stocks at present prices: 1) by indications that homebuilding has been turning the corner and could advance as much as 10% next year; and 2) the possibility of higher prices if real demand does continue upward. Despite the recent upturn, orders through Aucontinued on p. 48



BUILDING MATERIALS PRICES declined imperceptibly from 131.4 in July to 131.3 in August on the BLS index of average wholesale prices. The latest index figure was 0.1% under the all-time 131.5 peak in Aug. 1956.



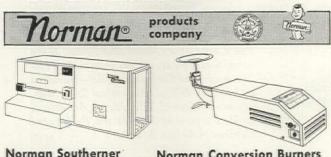
Beautiful Answer to 101 Overhead Heating Jobs

Morman Three-Sixty ® RADIAL DOWNFLOW AND DOWNBLAST UNIT HEATERS

Your prospects will like the exclusive features of the ultra-modern Norman Three-Sixty . . . and you'll enjoy a profitable edge on competition.

Radial Downflow Three-Sixty units draw air from floor up into bottom of unit, heat the air, then gently distribute it outward and downward to form a 360° umbrella of warmth.

Downblast Three-Sixty units for high ceilings draw air in through top of unit, then propel warm air downward. As warm air is thrust toward floor from bottom of unit, it expands to cover a wide area with comfortable warmth.



Horizontal Gas Furnace

Norman Conversion Burners
Available with capacities
from 50,000 to 2,000,000 BTU/h.

- * Sealed Combustion System
- * Exclusive Electric Ignition
- * Forced Exhaust
- * 100% Outside Air For Combustion

Exclusive sealed combustion system, that forces combustion products out flue under pressure, and electric ignition, that eliminates need of dangerous standing flame, give Norman Three-Sixty units greater performance safety, wider range of installations.

Here's your answer to increased sales and profits. Find out more about the Norman line of Three-Sixty Unit Heaters.

Send the coupon today for literature and details.

NORMAN PRODUC 1158 Chesapeake Ave	CTS CO. e., Columbus 12, Ohio
Rush literature and c Convection Overhead gas-fired heating equ	details on the Norman Three-Sixty Forced I Gas Heater and other quality Norman pipment.
NAME	TITLE
FIRM NAME	
ADDRESS	
CITY	ZONESTATE

gust this year were still down 6% compared with 1956 for mills reporting to the Western Pine Assn., and their shipments in this period off 7%.

As a result of steady improvement in demand throughout the summer, Pittsburgh Plate Glass Co. last month recalled 350 to 400 workers it had laid off last February and March at its 1,000-employee Mt. Vernon, Ohio, window glass plant. The layoffs (shutting down two of the plant's three tank furnaces) had been attributed to a decline in demand because of reduced homebuilding and mounting imports.

FINANCE

School bond issues face growing resistance

Despite rising interest rates, and without benefit of any federal aid program. bonds to finance new schools were being marketed early this year at a record rate of over \$170 million a month.

If this pace should develop any signs of slowing up during the 1957-58 year of most school boards, it will probably be only because of the increasing number of "taxpayer rebellions" that have been killing proposed bond issues in some areas.

In 1955-56, for instance, voters throughout New York state rejected 19% (or less than one out of five) of 221 school bond proposals that totaled \$145 million, according to a State Education Dept. survey. In 1956-57 the number of proposals rose to 259, for a total of \$253 million, but so did the vetoes-to 27% (or more than one out of every four). Significantly, samplings also indicated that approvals won by an average of 59% of the vote in 1955-56, by only 57% in 1956-57. (Quantitatively, nevertheless, the issues approved in this state in 1956-57 still totaled \$160 million-10.3% more than the sum of both approved and disapproved issues put to the voters the previous year).

Asked to explain why voters had rejected bond proposals, 52 school superintendents in the New York survey blamed disputes over sites, "poor public relations," or citizen dissatisfaction with various educational or administrative policies of their school boards. But 28 placed the blame squarely on resistance to the higher taxes that would be required if the new construc-

continued on p. 50

CEILING: FORESTONE THE



LaTorre Restaurant San Francisco, California General Contractors: Reliable Alterations Acoustical Contractor: Cramer Acoustics

Economical Forestone is available through the following Simpson Certified Acoustical Contractors:

ALABAMA
Badham Insulation Co., Birmingham
Stokes Incorporated, Mobile

ARIZONA
Fiberglas Engineering & Supply, Phoenix
Hall Insulation & Tile Co., Tucson

ARKANSAS

Buck Hendershott Company, Little Rock CALIFORNIA
Coast Insulating Products, Los Angeles

Cramer Acoustics, Fresno and San Francisco John K. Haas Company, San Diego H. W. Rivett Company, Sacramento

COLORADO

Construction Specialties Company, Denver CONNECTICUT
Wilson Construction Company, Hartford

FLORIDA
Anning-Johnson Company, Miami
Anning-Johnson Company, Tampa
Center Brothers, Inc., Jacksonville

GEORGIA

Anning-Johnson Company, Atlanta The Linoleum & Shade Shop, Inc., Savannah

IDAHO

Fiberglas Engineering & Supply, Boise Idaho Acoustical & Building Specialties Co., Boise

ILLINOIS

General Acoustics Company, Chicago George S. Grimmett & Co., Champaign, Decatur, Mattoon and Springfield

INDIANA
The Baldus Company, Inc., Fort Wayne
E. F. Marburger & Son, Inc., Indianapolis
Parkinson Brothers, Evansville

IOWA

Lamoreaux and Assoc., Inc., Marshalltown KANSAS Ecoff & Co., Wichita

KENTUCKY
Atlas Plaster & Supply Company, Louisville LOUISIANA King & Co., Inc., New Orleans

MARYLAND Lloyd E. Mitchell, Inc., Baltimore MASSACHUSETTS
Acoustical Contractors, Inc., Brighton

MICHIGAN
Detroit Acoustical Contracting Co., Detroit Grand Rapids Acoustical Co., Grand Rapids and Lansing

MINNESOTA
Dale Acoustics, Inc., Minneapolis
MISSISSIPPI
Stokes Incorporated, Greenwood
Stokes Incorporated, Jackson

MISSOURI
Hamilton Company, Inc., St. Louis
B. J. Lutz, Inc., Kansas City
Midwest Services, Inc., Joplin

NEBRASKA

NEBRASKA
Kelley Asbestos Products Co., Omaha
NEW JERSEY
Connor & Company, Inc., Kenilworth
Kane Acoustical Company, Inc., Fairview

NEW MEXICO Fiberglas Engineering & Supply, Albuquerque

NEW YORK

Buffalo Acoustical Corporation, Buffalo
The Cronin Acoustical Corp., Stony Point
Davis Acoustical Corp., Albany
Davis-Fetch Acoustical Corporation,

Davis-Fetch & Company, Inc., Buffalo and

James A. Phillips, Inc., Lynbrook, L. I. James A. Phillips, Inc., New York Rochester Davis-Fetch Corp., Ithaca and Rochester

NORTH CAROLINA
The Bonitz Insulation Co., Greensboro and
Goldsboro
Bost Building Equipment Co., Charlotte

OHIO Acoustical Contracting & Supply Corp.,

Acoustical Contracting & Supply Corp.,
Cleveland
Cincinnati Floor Company, Cincinnati
Riethmiller Acoustic Company, Columbus
OKLAHOMA
Denman Floors Company, Oklahoma City
Harold C. Parker & Company,
Oklahoma City
Midwest Marble & Tile Company, Tulsa

OREGON
Commercial Tile Company, Eugene
R. L. Elfstrom Company, Salem
Johnson Acoustical & Supply Co., Portland

PENNSYLVANIA Acousti-craft, Inc., Philadelphia Standard Floor Company, Pittsburgh

SOUTH CAROLINA Bonitz Insulation Co., Columbia

TENNESSEE
Alexander Marble & Tile Company, Memphis
Anning-Johnson Company, Knoxville
Nelson Baird Company, Inc., Nashville

TEXAS
Blue Diamond Company, Dallas Builders Service Company, Fort Worth Collins Roofing & Sheet Metal Company, Odessa

Odessa
General Supply Company, Inc., Houston
Houser Resilient Floors Co., El Paso
Raymond Rambo Materials Co.,
Corpus Christi
Rufus A. Walker & Co., San Antonio
Stanford Engineering Company, Abilene

Utah Pioneer Corporation, Salt Lake City VIRGINIA
Anning-Johnson Company, Alexandria
Manson-Smith Company, Inc., Norfolk and

Richmond

WASHINGTON
Elliott Bay Lumber Company, Seattle
Fiberglas Engineering & Supply, Spokane WEST VIRGINIA

Asbestos & Insulating Co., Charleston

WISCONSIN
Building Service, Inc., Appleton and

Milwaukee WYOMING

Construction Specialties Company, Casper CANADA

ANADA F. Drexel Company Limited, Calgary, Alberta; Vancouver and Victoria, B. C. Hancock Lumber Ltd., Edmonton, Alberta

HAWAII
Hawaii Builders Supply Company, Limited,



The Contractors above also install these other Simpson acoustical materials: Hollokore-drilled Perforated Tile-standard and scatter drilled, Acoustical Roof Slab, Fissured Mineral Tile, Metal Acoustical Units, Perforated Hardboard, Perforated Cement Asbestos Board.

SIMPSON LOGGING COMPANY

1010 WHITE BUILDING, SEATTLE, WASHINGTON General Offices in Shelton, Washington



John La Torre, owner, and Martin van London, chef, of La Torre's well known San Francisco restaurant, receive continuous praise from guests who have enjoyed the food, the wine and the quiet and elegant atmosphere.

Attractive, Economical Sound-Conditioning— A Most Important Part of Good Building Design

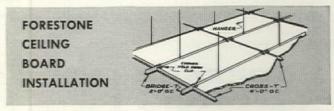
Simpson Forestone is the world's first fissured woodfiber acoustical tile. Its random textured surface adds beauty and warmth to the design of any building and the decor of any room. Its sound absorption efficiency is comparable to that of standard perforated woodfiber acoustical tile. And Forestone costs no more than the popular thicknesses of perforated woodfiber tile.

Forestone is available in 12" x 12" and 24" x 24" tiles, installed by nailing, cementing or hanging in mechanical suspension systems; in 12" x 23\[^3/4\]" tiles for exposed Z and T suspension systems; in 12" x 24" flange-jointed tile for

easy nailing or stapling; and as 24" x 24" and 24" x 48" ceiling board to fit exposed grid suspension systems. The La Torre Restaurant installation (shown above) is Forestone Ceiling Board.

Consider Forestone when you are planning or designing your next job. It quiets rooms—beautifully and economically! You can get full information about Forestone from your nearest Simpson Certified Acoustical Contractor (see list on opposite page).

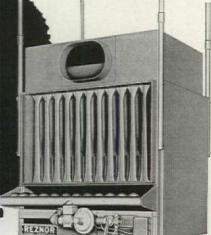




Forestone Celling Board is made to fit exposed grid suspension systems, which are composed of lightweight inverted T-sections into which the board is laid. The grid is usually suspended directly without the necessity for $1\frac{1}{2}$ " channels. The individual boards may be removed for easy access to ventilating and utility lines above the suspended ceiling.

*Reg.U.S.Pat.Off.—U.S.Pat.No.2,791,289

How to Match a Heating System to Exact Job Requirements



Reznor sectional duct furnaces free the designer from the limitations imposed by packaged heating equipment . . . equipment which can't be exactly right for any one job because it has to be good enough for so many different jobs.

A heating or heating-cooling system designed around a Reznor duct furnace can be matched to exact job requirements. Each duct furnace is a compact, highly efficient heat exchanger with a full set of operating controls. All other components,—for air moving, cooling, cleaning and moisture control—are separately specified and installer-supplied. Only those components which are necessary on the particular job need be included, with each individually selected to fit that one job.

Sectional assembly (a completely new concept in duct heating equipment) completely eliminates the installation problems which formerly prevented the use of large capacity custom-engineered duct heating systems. With the Reznor Series DS sectional duct furnace, systems with capacities in excess of 2,000,000 Btu can be assembled on the job from sections weighing no more than 315 pounds. Each of four basic sections—150, 200, 250, and 300 thousand Btu—is complete with controls and is provided with its own built-in draft diverter, flue connections and mounting pipes.

If you aren't taking advantage of the design flexibility of Reznor sectional duct furnaces, you're missing a good bet on many of your commercial, industrial and institutional jobs. Don't delay getting all the details on this versatile line of heaters. Give your nearby Reznor distributor a call—today.



Trends

cont'd

tion were approved by the voters.

Through August, total state and municipal bond issues approved by voters this year totaled \$1.3 million, down 19% from \$1.6 million in the first eight months of 1956, according to data from *The Daily Bond Buyer*.

BUILDING ACTIVITY

Central cities still lead in big buildings

Except for industrial buildings, the largest and most costly structures of virtually every type, particularly office buildings, parking garages, and institutional structures, are still being built more often within central cities than in their rapidly growing suburbs, according to a recent study by the BLS Construction Statistics Division.

New amusement buildings provide a clear example of this central city dominance in the construction of larger buildings. In numbers, about 65% of all new amusement buildings in metropolitan areas were scheduled for construction outside of the core cities. according to an analysis of the 1954-56 permits for 24 of these Commerce Dept. "standard metropolitan areas." In contrast, the central cities, with only about 35% of the permits, accounted for about 55% of the total value of such new buildings. Buildings in the fringe areas included bowling alleys, drive-in theaters, buildings associated with swimming pools and the like, whereas the new city structures frequently included such costly types of buildings as large auditoriums and recreation centers.

Permit data also indicated that central cities were the sites for about 57% of both new office and institutional buildings, in numbers, but about 75% of both of these types of construction by cost.

Numerically, suburban areas have been receiving about 68% of the new dwelling units in metropolitan areas (about 72% of the total value). As a result of industrial decentralization, they have been acquiring about 65% of new industrial buildings, accounting for about 70% of the total value of such structures.

Suburban and fringe sections of metropolitan areas also have been getting about 65% of new educational buildings, numerically, but only about 55% by total value.

RIGID ROOFTOPS BY THE ACRE!

Time and labor saving PERMAGILE*, a product based on CIBA Araldite® Epoxy Resins, anchor-welds precast concrete roof slabs to the basic structure.

Everything's up-to-date in Kansas City where roofing of new J. M. Forrest Building went ahead with unprecedented speed and clock-like precision as PERMAGILE CLADDING COMPOUND quickly joined the pre-formed concrete slabs. Here is another example of how formulations based on CIBA Araldite Epoxy Resins bring about new and better ways and means to realize for designers, contractors, rehabilitation and maintenance specialists, the achievement of more efficient, low cost new construction and repair.





Above:

Cured PERMAGILE Joint showing positive bond between precast concrete members.

Below:

Application method— PERMAGILE daubed onto four corners of roof slab, average five square inches per corner. PERMAGILE'S PERMANENT, DURABLE
"SUPER-STRENGTH" JOINTS
ELIMINATE STEEL CLIPS.



*Permagile is a registered trade mark of Permagile Corporation of America.

CIBA

"FIRST IN EPOXIES"

AF-10

In the U.S. and Canada, Ciba produces basic resins only.

CIBA COMPANY INC., Plastics Division Kimberton, Pennsylvania

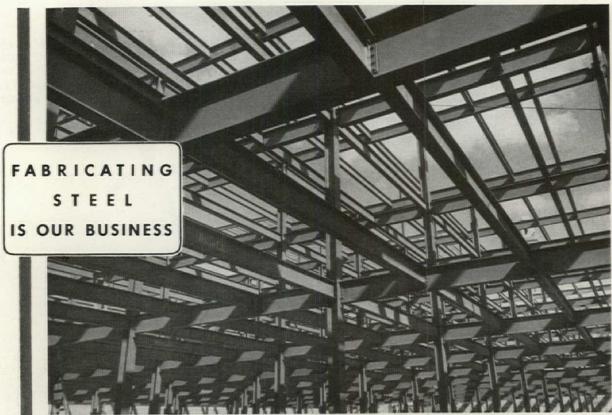
Please send me full information on CIBA Epoxy Resins for

☐ Structural Laminates ☐ Hi-Strength Adhesives ☐ Surface Coatings ☐ General

NAME_____

COMPANY_____TITLE ____

ADDRESS ______STATE ____



FRAMEWORK FOR THE FUTURE!

When completed, Louisiana State University's new library building can still grow . . . two more stories!

The specially engineered structural steel framework, fabricated by Ingalls, is designed to accommodate two more floors with no additional strengthening of original under-structure . . . yet, the column dimensions are held to a minimum. All future splices on both exterior and interior columns can be made with a very minimum of disturbance to construction.

Ingalls' ability to coordinate and excellent shop control resulted in perfect matching and alignment of the structural steel. This effected substantial savings in fabrication and erection costs.

Ingalls' 47 years experience in fabricating structural steel ... and in structural steel erection, too ... will work for you, as well. Whatever you plan to build, using fabricated structural steel, give Ingalls the opportunity to help you do it better! Write for complete information ...

Architects and Engineers: Bodman, Murrell and Smith, Baton Rouge, La.



INGALLS' PLANTS GREATLY EXPANDED

Capacity has been increased nearly 70% at Ingalls' Plants within the past three years . . . part of a program designed to give Ingalls the facilities to meet every modern requirement for fabricated structural steel for any construction purpose.

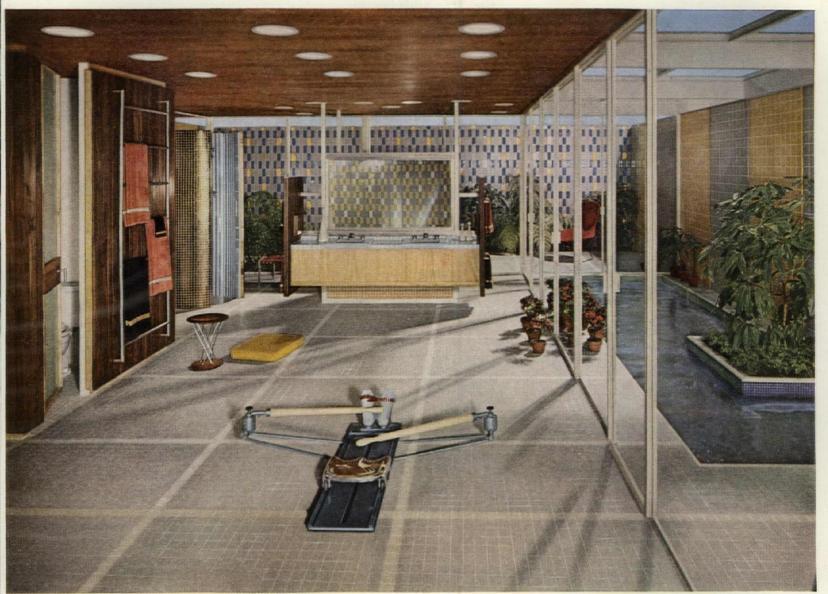
THE NGALLS IRON WORKS COMPANY

Established 1910

BIRMINGHAM, ALABAMA

450

Plants: Birmingham, Ala.; Verona, Pa.; North Birmingham, Ala.; Decatur; Ala.; Pascagoula, Miss. FABRICATED STEEL for Power Plants • Stores Stadia • Hangars • Bridges • Office Buildings Theatres • Hotels • Apartment Buildings • Bins Hospitals • Churches • Schools • Industrial Buildings • Tanks • Pressure Vessels • Stacks



Design for family retreat by Charles Goodman, A.I.A.

"A CERAMIC TILED FAMILY RETREAT...PIONEERING A HOME BATH-RELAXATION AREA"

Architect Charles Goodman fires the imagination with a pri-

vate multiple-use area aimed against today's tensions. Mr. Goodman's philosophy: refresh yourself in the dipping pool, restore yourself in the exercise area, bask in the rear sungarden. In short, achieve vital relaxation as a family unit.

And, of course, you have the brilliant circular shower stall, the enclosed water closet, and the twin lavatory-vanity in the center (with a tub behind it).

Ceramic tile plays a tremendously versatile role: sparkling with beauty, promising lifetime durability, impervious to water, with no replacement costs and requiring the absolute minimum in cleaning care.

Ceramic tile can give you and your clients the same beauty, durability and long-range economy. Your next residential, institutional or commercial project can benefit from other ceramic tile advantages, too. Looking for a surfacing material with real design flexibility? Tile has a tremendous range of colors, sizes and surface textures. Remember, too, ceramic tile gives your clients the important bonus of low maintenance costs over the years. Cleaning costs are extremely low, waxing is unnecessary and replacement costs are nil.

Your local tile contractor can tell you more about tile—including the information on new, lower cost installation methods.

The Modern Style is

tile

TILE COUNCIL OF AMERICA, INC., 800 Second Avenue, New York 17, New York. Room 933, 727 West Seventh Street, Los Angeles 14, California • Room 220, 3409 Oak Lawn Avenue, Dallas, Texas. Participating Companies: American Encaustic Tiling Co., Inc. • Atlantic Tile Mfg. Co. • Cambridge Tile Mfg. Co. • Carlyle Tile Co. General Tile Co. • Gladding, McBean & Co. • Jordan Tile Mfg. Co. • Lone Star Ceramics Co. • Monarch Tile Mfg. Inc. • Mosaic Tile Co. • Murray Tile Co., Inc. • National Tile & Mfg. Co. • Olean Tile Co. • Pacific Tile and Porcelain Co. • Pomona Tile Mfg. Co. Ridgeway Tile Co. • Robertson Mfg. Co. • Royal Tile Mfg. Co. • Sparta Ceramic Co. • Stylon Corp. • Stylon Southern Corp. Summitville Tiles, Inc. • Texeramics, Inc. • United States Ceramic Tile Co. • Wenczel Tile Co. • Winburn Tile Mfg. Co.

Report to architects:

PORCELAIN ON ALUMINUM!

This message on the new, easy-to-keep-clean, Columbia Gas System building appears in the October issue of Fortune. Its purpose is to acquaint America's business leaders, your clients, with this exciting new development in aluminum, with the idea that there will be acceptance when you suggest porcelain on aluminum as a fresh, new solution to a building problem. And the possibilities are almost endless . . .

Complete data ready for you now!

The detailed story on the how and why of porcelain on aluminum is available for architects in the latest of Alcoa's series, Architectural Achievements. For your copy, write Aluminum Company of America, 1887-K Alcoa Building, Pittsburgh 19, Pa.

A beauty bath every time it rains

... that was the objective of the economy-minded management at Columbia Gas for its new headquarters office in Charleston, W. Va. To eliminate exterior wall maintenance in a corrosive atmosphere and achieve the architectural splendor of this building, took a new and exciting development. One that combined the magic of color and the practicality of aluminum. Architects and engineers studying the problem turned to porcelainized curtain walls of Alcoa® Aluminum. A flint-hard porcelain surface in gorgeous color that's washable by the gentle scrubbing action of rain drops. A permanent panel of



Building: Headquarters Office, Charleston Group Companies,
Columbia Gas System, Charleston, W. Va. Occupied
by United Fuel Gas Co. and Affiliates.
Architects: Douglas Orr, New Haven, Conn.
Associate Architect: Martens & Son, Charleston, W. Va.
General Contractor: Southeastern Construction Co., Charleston, W. Va.
Aluminum Subcontractor: Flour City Ornamental Iron Co., Minneapolis, Minn.
Porcelain Enameler: Hamlin-Stevens, Inc., Fairfield, Conn.

aluminum that doesn't rust or deteriorate! Since glass bonds better to aluminum than any other metal, other progressive managements can take a cue from this important advancement for long-range economy, too. Such a wall never needs maintenance.

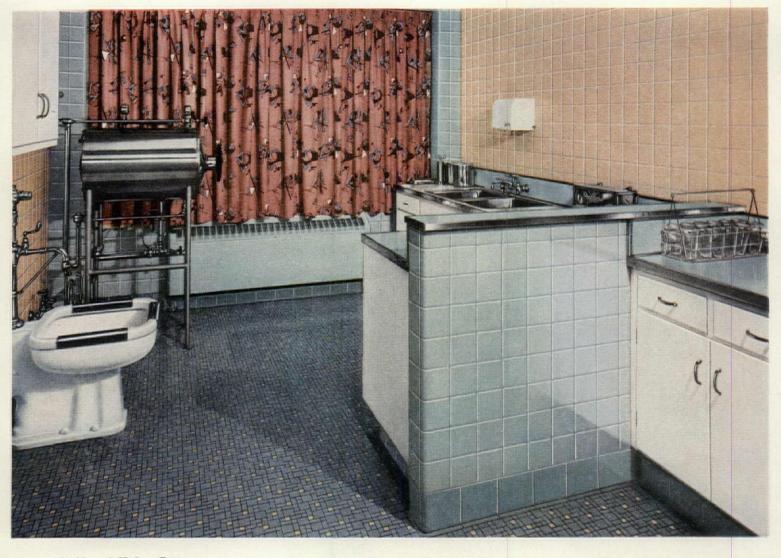
This new step in Alcoa's new look for architecture is another means of obtaining color for building exteriors. What we have learned here and in other applications of aluminum we will gladly share with you. Aluminum Company of America, 1887-K Alcoa Building, Pittsburgh 19, Pa.



Your Guide to the Best in Aluminum Value



NEW! "ALCOA THEATRE"
Exciting Adventure—Alternate MONDAY Evenings



1. Nurses' Utility Rooms

In hospitals . . . five key areas need tile



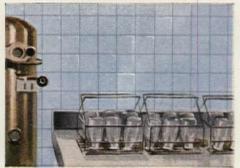
2. Operating Suites



3. Food Preparation Areas



4. Delivery Rooms



5. Infants' Formula Rooms

Swift, inexpensive sanitation and colorful permanence are benefits you get wherever you use American-Olean ceramic tile. In five key areas, these advantages—and others—are especially important.

In nurses' utility rooms and food preparation areas, resistance to stains make tile essential. Because its surface and color withstand frequent scouring with harsh disinfectants, tile is preferred for operating suites, delivery rooms, and infants' formula rooms.

Main Illustration: Utility Room, North Penn Hospital. Lawrie and Green, Architects. Color Plate No. 351. Walls: 19 Bluet and 83 Honeysuckle. Base: 21 Cornflower. Floor: Block Random, Cascade with Buffsquares. American-Olean Conduct-O-Tile, which safely dissipates dangerous accumulations of static electricity, eliminates the main threat of anesthetic explosions in operating suites.

Free booklets give you valuable suggestions. Booklet 900 "New Large Size in Glazed Tile". Booklet 600, "Tile for Hospitals", includes color photos of many tile installations. Booklet 506 supplies more facts on Conduct-O-Tile. Send for your copies today.

American-Olean Tile Company

Executive Offices: 1233 Cannon Avenue, Lansdale, Pennsylvania
Factories: Lansdale, Pennsylvania - Olean, New York - Member, Tile Council of America - Producers' Council



NEW! Copyflex Model 300!



Brings "Inside" Reproduction within the Means of the Smallest Architectural Firm or Department!

Now, with your low-cost, versatile Model 300, you can make high quality prints when you want them—rapidly, privately, and in any quantity. You can exercise complete control over valuable originals at all times.



Provides Large Companies an Economical Way to Supplement Main Reproduction Centers!

With its compact size, big printing width, and low cost, the Model 300 is an ideal helper for your big reproduction machine. Strategically located throughout your company, Model 300s can bring new speed, convenience, and efficiency to your reproduction operations.

Here it is! The compact, low-cost reproduction machine that offers all the versatility and big printing width of a large, expensive whiteprinter!

Just think—you can make sharp, black-on-white prints in seconds of a drawing or tracing up to 30 inches wide by any length. And anyone can operate the Model 300 after only brief instruction. One fingertip control turns the machine on or off and regulates its speed. Exposure and development are automatically synchronized.

The new Copyflex Model 300 is ideal for drafting rooms and offices because it can be operated anywhere without annoyance to personnel in the vicinity. It is clean, quiet, and odorless. No exhaust venting, plumbing, or accessory equipment required. It needs only a connection with a 115-volt AC outlet for operation.

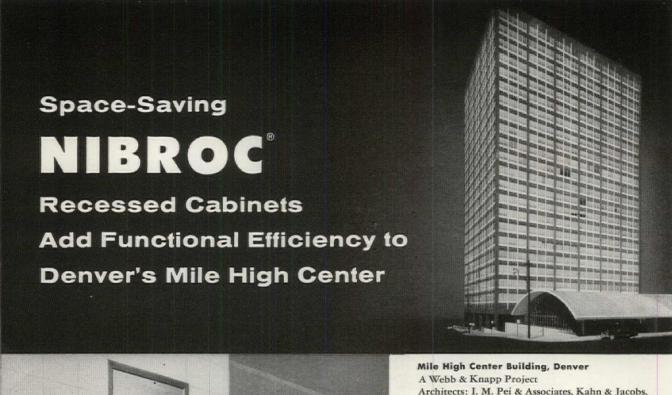
If you're pressed by the boom in production for more and more drawings and prints, the all-new Copyflex Model 300 is your answer! Its low initial cost, outstanding economy of operation and maintenance, and convenience make it your soundest, low-cost investment of the year. Mail coupon today! You'll be glad you did!



Offices in 38 Cities of the U.S. and Canada

CHARLES BRUNING COMPANY, INC., 4700 MONTROSE AVE., CHICAGO 41, ILL. In Canada: Charles Bruning Co. (Canada) Ltd., 105 Church St., Toronto 1, Ont.

	BRUNING CO., Dept. 103-AF ose Ave., Chicago 41, III.
Please send Model 300.	me information on the all-new Copyfler
Name	Title
Name	Title
	Title





CONSULT SWEET'S CATALOG for complete information about Nibroc Cabinets—wall, floor model and recessed.

Mile High Center Building, Denver
A Webb & Knapp Project
Architects: I. M. Pei & Associates, Kahn & Jacobs,
G. Meredith Musick
Consulting Engineer: Jaros, Baum & Bolles,
Severud-Elstad-Krueger
General Contractor: George A. Fuller Co.

NIBROC RECESSED DISPENSERS and Waste Receptacles and Nibroc Towels are keyed to every requirement of modern washroom design.

provided by the Recessed Dispenser. It loads faster, holds more, is made of 22 gauge stainless steel for lasting good looks. Dispenser and waste receptacle are obtainable separately for staggered installation.

TOWEL SATISFACTION results from the built-in wiping properties of Nibroc Towels. One Nibroc Towel dries both hands. They speed washroom traffic; end waste. Nibroc was America's original wet-strength towel and is today the most widely used in business, industry and by institutions.

When planning your next building specify Nibroc Cabinets and Towels. Look in the "Yellow Pages" under "Paper Towels" or write to Dept. NU-10, Boston, for name of your nearest Nibroc distributor.



Berlin, New Hampshire

General Sales Office:

150 Causeway Street, Boston 14, Mass.

ACOUSTICAL and TROFFER FORMS



... for Acoustical Ceilings with Recessed Lighting!

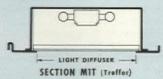
Mahon Acoustical and Troffer Forms provide an effective acoustical ceiling and recessed lighting as well as serving as the permanent forms for concrete joist and slab construction of floors and roofs. These are long span units which are integrated with and supported by conventional concrete beams at each end. Only a minimum of temporary shoring is required at mid-span during pouring and curing of concrete. This is permanent, fireproof construction which has a broad application in modern buildings . . . it is used extensively for auditoriums, school classrooms, and in other rooms where an acoustical ceiling with recessed lighting is desirable. Mahon Troffer Sections are also available for use with Mahon M-Deck Sections to provide a combined roof and acoustical ceiling with recessed lighting. In this arrangement the long span M-Deck serves as the structural unit, the interior finish material and the acoustical treatment—all in one package. Purlins are eliminated . . . M-Deck Sections span from wall-to-wall or from truss-to-truss. Some of these Mahon Forms and Structural Sections do not appear in the current Sweet's Files. Why not have a Mahon sales engineer call and bring you up to date on Mahon products now available for Floor, Roof and Ceiling Construction?

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

Manufacturers of Acoustical and Troffer Ceiling Forms; Steel Roof Deck and Long Span Acoustica M-Decks; Electrified M-Floors; Insulated Metal Curtain Wall; Rolling Steel Doors, Grilles, and Underwriters' Labeled Automatic Rolling Steel Fire Doors and Fire Shutters; and Underwriters' Rated Fire Walls.

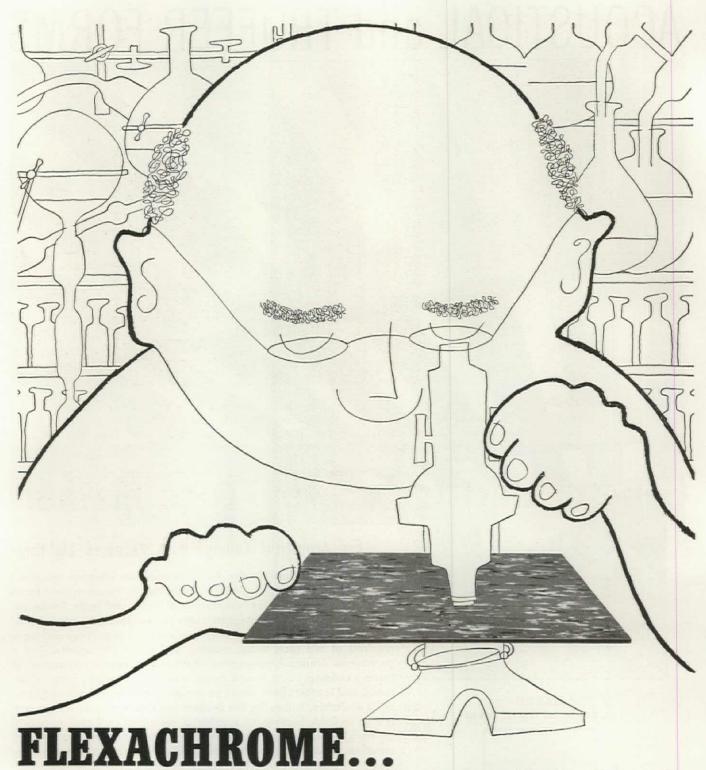


PERFORATED AREA
SECTION MIA (Acoustical)



Above is the Ceiling of the Auditorium in the Eugenia Mettetal School, Detroit, Michigan. It is one of 50 rooms with Mahon Acoustical-Troffer Ceilings. Shreve, Walker & Associates, Inc. Architects. Alfred A, Smith, Inc., Gen. Contractors.

MAHON



"measures up" to everything you ask of a floor tile

Heard about Tile-Tex Quality Control? It's the work, and hobby, of men who are extreme perfectionists. Real worriers. They're able to sleep well only because they know that every piece of tile will live up to Tile-Tex's fine reputation. These Tile-Tex men live just to test tile. They test to try to develop formulas that will make Tile-Tex floor tile products better. They test to find the best raw materials. They test every shipment of raw materials. Test along every step of production. They test the finished tile in special "proving grounds." So you can take their word for it... that Tile-Tex is by far best, by test.

THE TILE-TEX DIVISION, THE FLINTKOTE COMPANY 1234 McKinley Avenue, Chicago Heights, Illinois

In the 11 Western states: Pioneer Division, The Flintkote Company, P. O. Box 2218, Terminal Annex, Los Angeles, Calif.

In Canada: The Flintkote Company of Canada, Ltd., 30th Street, Long Branch, Toronto.



TILE-TEX... Floors of Lasting Beauty

MANUFACTURERS OF FLEXACHROME* • TILE-TEX* • TUTACHROME* • HOLIDAY* • SKYTRAILT • HOLIDAY FLEXACHROME* • KORKOLORT • AND MODNAR*, THE PLANK-SHAPED ASPHALT TILE.

*REG. U. S. PAT. OFF TRADEMARK OF THE FLINTKOTE COMPANY



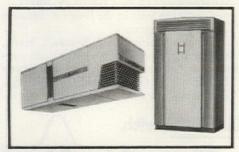
Air Conditioning at low cost in a men's clothing factory, with its many batteries of steaming presses, was considered impractical—until General Electric Zone-by-Zone Air Conditioning solved the problem

for H. Daroff & Sons, Philadelphia, manufacturers of Botany "500" and Worsted-Tex clothing. Note that General Electric Ceiling-Mounted Units take no floor space—require little or no ductwork.

General Electric Zone-by-Zone Method selected for world's first fully air conditioned men's clothing plant



H. Daroff & Sons, Phila., first plant of its type to be fully air conditioned – thanks to General Electric Zone-by-Zone method.



CEILING-MOUNTED UNITS (left). Use no floor space-air-cooled and water-cooled.

FLOOR-MOUNTED UNITS (right). May be stationed in space or away from area served.

The H. Daroff and Sons plant is a typical example of how General Electric Zone-by-Zone Air Conditioning fully meets requirements for any type of factory or office building—even overcomes seemingly insurmountable problems. This system is also a sure way to solve budgeting problems. It is easy to install—no costly interruptions—no major alterations—no heavy initial outlay. Its operation is economical, and it minimizes the problem of space.

More and more architects are specifying General Electric Zone-by-Zone Air Conditioning as the most practical answer for every requirement. General Electric Company, Commercial and Industrial Air Conditioning Dept., 5 Lawrence St., Bloomfield, N. J.

Progress Is Our Most Important Product



In Canada, Canadian General Electric Co., Ltd., Montreal



STAINLESS CURTAIN WALLS

give you the best "long pull" investment

"INFO" for Architects and Builders

- "AL Stainless Steels for Building"—12 pages on stainless grades, properties, forms, finishes, standard "specs," uses and advantages.
- "Stainless Steels for Store Fronts and Building En-trances"—40 pages of val-uable data on examples and details. A1A File No. 26D,
- "Stainless Steel Curtain Walls"—A 24-page prog-ress report on methods. A1A File No. 15-H-1.

Write for Details

Address Dept. B-94

Curtain wall panels faced with AL Stainless Steel have all the advantages. They can give your building the truly modern look. They have a soft, highly attractive luster and permit wide latitude in design for individual appearance. They're light and strong . . . can be used for sheathing or "face-lifting" operations on existing structures, as well as for any type or size of new commercial building or institution.

Compared to brick or masonry construction, stainless curtain walls present savings at every turn: in lighter foundations; in enlarged floor space; in fast all-weather erec-

tion; in reduced maintenance, easy cleaning and freedom from painting. And-compared to any other curtain wall facing material-stainless steel is the hardest, strongest and most resistant to smoke, fumes, weather, wear, etc. It is the one material that can best take a beating . . . that costs the least in the long run because it lasts the longest.

Our Engineering and Research Staffs, etc., are at your service-anywhere, anytime. . Let us work with you. Allegheny Ludlum Steel Corporation, Oliver Bldg.,

Pittsburgh 22, Pa.

Make it BETTER-and LONGER LASTING-with

WAD 5208C Warehouse stocks carried by all Ryerson Steel plants





SHOWN: Quartered Benge Weldwood Paneling, Occidental Life Insurance Company, Raleigh, N. C. Architects: Kemp, Bunch and Jackson, Jacksonville, Fla.

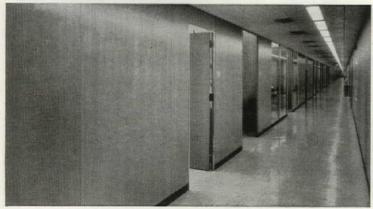
Now-Weldwood offers you 3 ways to get the beauty of real wood paneling

Office walls "talk" about their owner all day long. You can be sure that they say the right things when they're wood paneled with Weldwood. From rich, glowing Walnut to modern-as-today Birch, Weldwood walls are handsome, warm, distinctive. And they cost much less than you might think.

FREE WELDWOOD BOOKLET, "Functional Beauty for Business and Institutional Interiors." Write for your copy and list of Weldwood lumber dealers in your area, Or, we will be glad to have a Weldwood Architects' Service Representative consult with you — no obligation. United States Plywood Corporation, Dept. AF10-57, 55 W. 44th St., New York 36, N. Y.



WELDWOOD MOVABLE PARTITIONS give real wood beauty, let you change office layout overnight. Mineral core stills noise. Shown: Korina[®] Weldwood Partitions, Ford Motor Company's Staff Building, Dearborn, Mich. Architects: Skidmore, Owings & Merrill, N. Y.



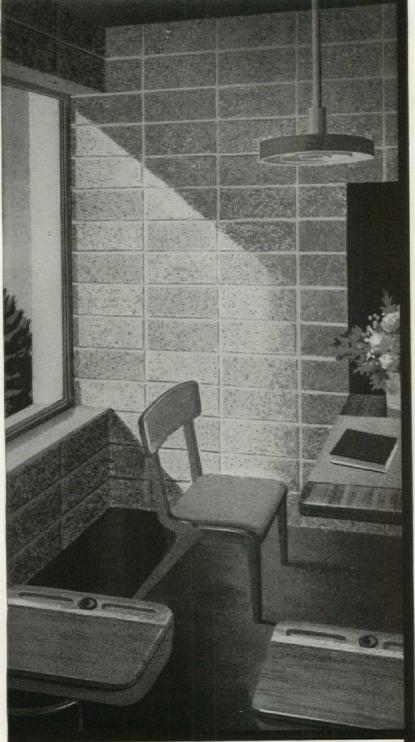
Real wood is easy to keep beautiful — needs only occasional waxing. A satisfied client is good reason to suggest Weldwood real wood paneling, partitions, or Flexwood. You can see a complete display of over 70 types and finishes of Weldwood Paneling at any of our 87 offices in principal cities.

₩ Weldwood®

PANELING • FLEXWOOD • PARTITIONS
UNITED STATES PLYWOOD CORPORATION

WELDWOOD FLEXWOOD® — selected wood veneer on cloth backing — is quickly installed to any hard, smooth surface, flat or curved. In more than 40 woods. Shown: Budget-priced Random Grade Birch in Conference Room, Veterans Administration, Washington, D. C.





A WAYLITE SURFACE

needs no acoustical treatment

In addition, it has high thermal insulative qualities . . . offers many decorative possibilities . . . it is low in cost . . . fire-safe

A large number of schools are being built these days of Waylite concrete masonry units.

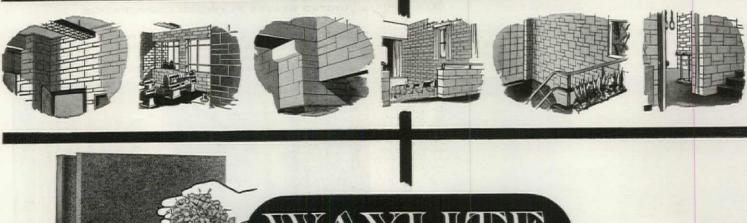
The fact that the exposed surface of Waylite is one of the most efficient acoustical treatments known is in part responsible. Rooms that are comfortable to the ear are equally important in churches, auditoriums, offices, and many other structures.

Exposed Waylite is not only comfortable to the ear, but it is pleasing to the eye. The unit patterns shown give some idea of the varied decorative effects that can be easily achieved. The natural surface of Waylite units is attractive in color and texture. Units may be painted—or pigmented during manufacture.

Waylite concrete masonry units are structurally adequate and give a combination of four important factors: (1) high thermal insulative qualities; (2) excellent acoustical values; (3) a wide range of decorative possibilities;

(4) low in cost—and fire-safe.

You will find 24 pages of engineering data on Waylite in Sweet's Catalog. Additional information is available on request. Address the Waylite Company, 20 North Wacker Drive, Chicago, Illinois or Box 30, Bethlehem, Pennsylvania.





a short cut to "finish time"

Steelcraft steel doors can help you meet completion dates on big jobs or small. This is because Steelcraft doors are standard doors — offering big savings in time all down the line.

They eliminate time-consuming detail in planning and specifying. They are mass-produced and factory-stocked for quick delivery. And they are shipped complete with framing and all hardware prepared for fast installation.

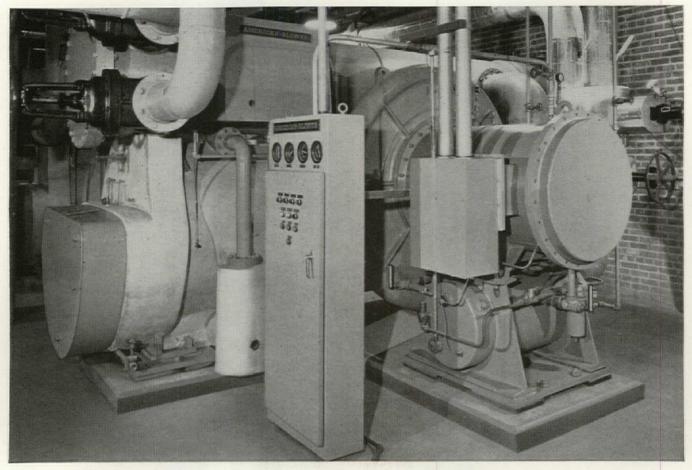
For any type of opening — standard or heavy-duty — in industrial, commercial or institutional buildings, Steelcraft standard steel doors are always "a short cut to finish time."

standard steel doors by STEELCRAFT

MFG. COMPANY ROSSMOYNE, OHIO

THE INDUSTRY'S MOST COMPLETE LINE OF STANDARD STEEL DOORS

AMERICAN BLOWER AIR CONDITIONING



Two 350-ton American Blower Tonracs supply chilled water for the entire Sheraton air-conditioning system.

Tonrac - heart of the air-conditioning system in Philadelphia's new Sheraton Hotel

To help extend a traditional Sheraton welcome to travelers in the City of Brotherly Love, engineers, builders and mechanical contractors selected two American Blower Tonrac Centrifugal Refrigerating Machines to supply the air-conditioning system in the new Sheraton Hotel.

They chose Tonracs on the basis of their high capacity; their quiet, vibration-free operation; and American Blower's engineering know-how and reputation as a leader in the air-handling and air-conditioning field. The Tonracs supply all the chilled water for 1,000 individual American-Standard Remotaire room units that aircondition 5,700,000 cubic feet of space.

When your client's plans call for air conditioning call our nearest branch office for invaluable product information. American Blower Division of American-Standard, Detroit 32, Michigan. In Canada: Canadian Sirocco products, Windsor, Ontario.

The 22-story Sheraton Hotel, Philadelphia. Tonracs, installed on the fourth floor, operate so quietly that guests on adjoining floors never

AMERICAN BLOWER

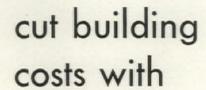
Division of American-Standard



Building Credits

Architects: Perry, Shaw, Hepburn & Dean Consulting Engineers: Slocum & Fuller Builders: McCloskey & Co. Mechanical Contractors: Ambrose-Augusterfer Corp.

QUALITY PROTECTS YOUR INVESTMENT . . . AMERICAN-Standard QUALITY IS AVAILABLE AT NO EXTRA COST



custom doors

STANDARDIZED

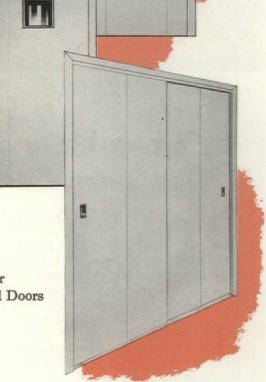
built to the highest quality standards in the industry

Why pay for individualism? USF "Wooster"

Metal Doors and Frames are customdesigned and standardized to strict
engineering principles and are mass-produced
on the finest precision tooling in the
industry. The result is custom appearance
... engineered accuracy, strength and
rigidity ... with mass production economies.

When you can get all this, why pay for individualism?
You can make a sound reduction in building costs for
your clients by specifying USF "Wooster" Metal Doors

and Frames. Just see us in Sweet's.





Standardized "WOOSTER"
METAL DOORS and FRAMES

Manufactured by UNITED STEEL FABRICATORS, Inc., Wooster, Ohio

AMERICA'S FIRST MANUFACTURER OF STANDARDIZED METAL DOORS AND FRAMES



This striking Wilton carpet in San Francisco's charming Caravan Lodge was installed by Carl Wald Company, San Francisco.

GULISTAN CARPET

invites enjoyment...yet drastically reduces cost*

The tone and the taste that fine Gulistan Carpet lends to decor helps you create that "I'll be back" customer reaction. The luxury of its deep, lush pile of long-wearing wool, establishes an intimate and comfortable atmosphere. Gulistan Carpet cuts the clatter of impact noise at the source, as well as absorbing airborne noise efficiently. These important acoustical properties increase customer pleasure and improve employee efficiency. Often carpet is the only acoustical material needed for satisfactory sound conditioning.*

Moreover, Gulistan Carpet pays for itself in substantial maintenance savings, up to 50% over non-carpeted floors.* Original designs are immediately available from stock... custom designs on order. Consult your Certified Gulistan Carpet Dealer or write Dept. AF-10, at address below:

An all-wool, tufted Gulistan Carpet with a traditional hooked rug feeling that captures the mood of modern casual living.

*Send for free cost study "Cutting Costs with Carpet" and "Sound Conditioning with Carpet."

GULISTAN CARPET

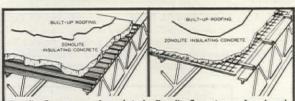
costs no more than ordinary carpet

MADE IN THE U. S. A. BY AMERICAN CRAFTSMEN . A. & M. KARAGHEUSIAN, INC., 295 FIFTH AVENUE, NEW YORK 16, N. Y.

they all shopped for Firesafe, Lightweight, Low Cost Construction



they all bought ZONOLI1



Zonolite Concrete over form Zonolite Concrete over formed steel Zonolite insulating concrete meets any combination of requirements for roof design. Poured monolithically over formed steel, form boards, metal lath, paper-backed wire lath.

ZONOLITE VERMICULITE PLASTER FIREPROOFING

Now-machine-placement of Zonolite is enabling architects and builders to build greater performance into structures faster and at lower cost!



BE INFORMED on the remarkable new developments now taking place in roof deck construction and in machine placement of fireproofing. Mail coupon for free booklets on cost-saving, permanent, firesafe Zonolite products. Includes full technical data, drawings, specifications.

Vermiculite Concrete Roof Decks or Plaster Fireproofing

*Shopping Centers "shop," too. That's why leading architects and engineers specify Zonolite "poured-in-place" concrete roof decks-and Zonolite fireproofing for floors, ceilings, beams or trusses.

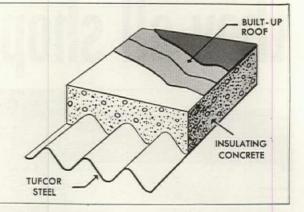
Zonolite roof systems, adaptable to any design, speed construction-cut labor costs. But, above all, they provide important superior qualities...added benefits that mean so much to your clients. Zonolite is one-hundredpercent non-combustible; it cannot burn-it reduces insurance premiums as much as half! It insulates! It cuts thousands of tons of dead weight. And, it's permanent!

Zonolite fireproofing means the "best possible fire protection,"-earns highest fire ratings. It saves on steel -permits the use of lighter structural members, hence providing initial economies in addition to "over-the-longrun" savings.

If you are now planning a shopping center-or school, church, hospital, commercial building-get the complete facts about time-saving, cost-saving Zonolite roof deck systems or Zonolite fireproofing.

FREE	ZONOLITE COMPANY, Dept. AF-107, 135 S. La Salle St., Chicago 3, III. Send me booklets PA-32 "Plaster and Acoustical Systems," and CA-19, "Systems of Lightweight Roof Construction." Name Firm
Get Handy Data Booklets	Address

TUFCOR® offers permanent firesafe roof construction at low cost





EASY TO PLACE. Galvanized corrugated Tufcor sheets arrive at the job site conveniently bundled and pre-cut to fit structural framing. No measuring or cutting is required. Three men can easily place and weld 5000 to 7500 sq. ft. of Tufcor in a single day. Low dead load of the finished Tufcor roof system (4 to 6 psf less than most types of roof construction) offers pronounced savings in the structural steel requirements.



BUILT-UP ROOF. Rigidity and firmness of the Tufcor system provide a firm base for built-up roof, add years to the life of this roof, lower maintenance cost. Fast construc-



STRUCTURAL DECK. After tough-temper Tufcor sheets-80,000 psi and stronger-are welded in place, they help stiffen framing, provide an immediate work platform for trades. Tufcor easily withstands normal construction abuse.

OUTSIDE TEMP. 0°F.



VAPOR BARRIER. Water vapor can't penetrate Tufcor. Sheets stay dry, maintain insulating properties, cut fuel bills. Firesafe Tufcor roofs need fewer sprinklers. Insurance savings, alone, often pay for the entire roof deck in 10 years!

tion means faster profits from occupancy. can be varied to obtain desired insulation. FOR MORE INFORMATION, contact Granco home or district office, ATTN: Dept. F-714.



EFFECTIVE INSULATION. Because insu-

lating concrete is inert, it is one of the most

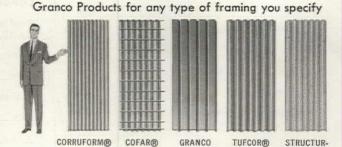
permanent, desirable types of roof insulation.

Thickness of concrete fill placed on Tufcor

See our catalogs in Sweet's Architectural and Industrial Construction Files

GRANCO® STEEL PRODUCTS COMPANY A subsidiary of GRANITE CITY STEEL COMPANY 6506 N. Broadway, St. Louis 15, Mo. Executive Offices: Granite City, III.

DISTRICT OFFICES: St. Louis • Kansas City • Cincinnati • Dallas • Houston Chicago • Minneapolis • Atlanta • San Francisco Distributors in 80 principal cities



BUILT-UP ROOF INSULATING

TUFCOR VAPOR BARRIER TUFCOR PREVENTS WARM INSIDE AIR FROM RISING TO COLD ROOF ABOVE AND CONDENSING

For walls that go with any decor



"V" GROOVE REDWOOD PLYWOOD

When you have a client who says, "I want a room that goes with the furniture we already have," you'll be wise to recommend Simpson Toasted "V" Groove redwood plywood paneling. This versatile wood goes with any decorating scheme.

It consists of clear, all heart rift grain redwood plywood, with a rich sheen to it, and with deep grooves literally "toasted" in every 5, 11, 7, 9, 10 and 6 inches for a relaxed, friendly random-planked effect.

This distinguished paneling by Simpson offers architects rare opportunities for warm yet dramatic effects in new homes, offices and public buildings. It is also ideal for remodeling, since it can be put up right over old wall surfaces.

So if you want to give your client's project inherently warm and welcoming overtones, specify interiors of Simpson Toasted "V" Groove redwood plywood paneling. Simpson Toasted "V" Groove plywood paneling is also available in fir, Philippine mahogany and knotty pine.





PLYWOOD & DOOR PRODUCTS

You can rely on Simpson for a complete line of specialty plywoods and doors, plus Acoustical, Insulating Board and Hardboard Products. Simpson Logging Company, Sales Office, Plywood & Doors, Room 901-B 2301 N. Columbia Blvd., Portland 17, Oregon

FREE Toasted "V" Groove Redwood sample together with Simpson's new 36-page booklet, "Manual on Finishing Plywood," which has 68 full-color finish illustrations plus decorating ideas and suggestions for the use of plywood in the home.

NAME

ADDRESS

CITY

PLEASE PRINT

ZONE

STATE

PD-73

PROSAIC SUBJECT + ARCHITECT = NATIONAL ACCLAIM



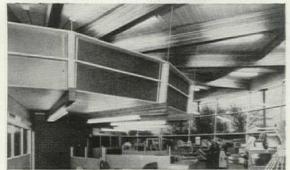
Architect: W. F. Bernbrock, Moline, Illinois

Even the drab lumber yard — given the imaginative design and functional beauty of an architect's touch — can win local sales and national acclaim. Such is the experience of Builders Lumber Company, Moline, Illinois, where Rilco laminated-wood beams and deck help express the dramatic "open feeling" that seems to say "welcome" to customers.

While only a small portion of the complete structure, this store area has become the focal point which lifts this building out of the ordinary. Interest and sales have increased to a "happy" degree.

Rilco laminated-wood arches, beams, purlins, trusses and deck offer unlimited variations that stimulate new, interesting and practical design at low cost. For complete information just write

Note mezzanine supported from above and below by Rilco laminated wood beams

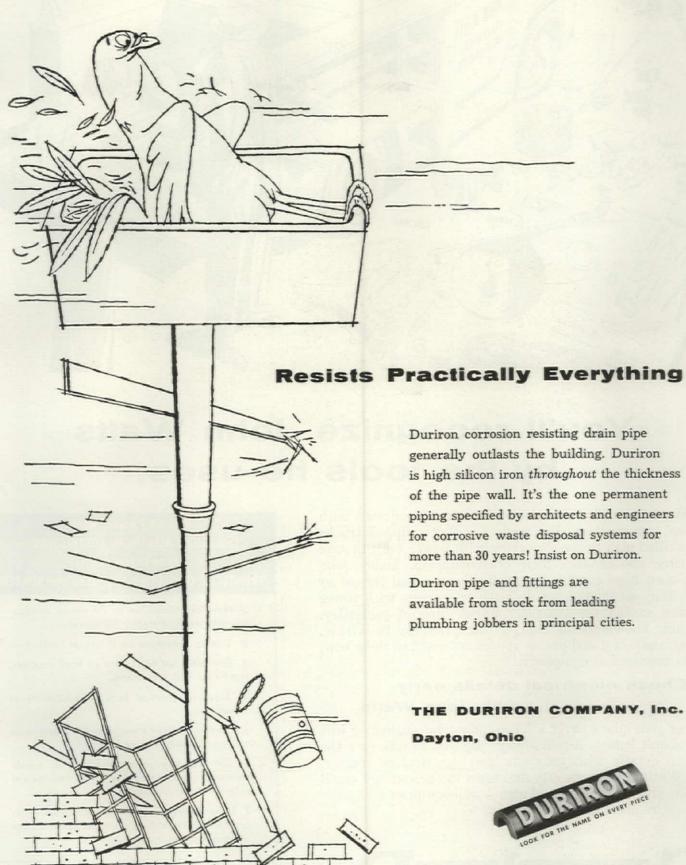




RILCO LAMINATED PRODUCTS, INC.

W824 1st National Bank Bldg., St. Paul 1, Minnesota District Offices: Newark, N. J., Fort Wayne, Ind., Tacoma, Wash.

DURIRON®



Duriron corrosion resisting drain pipe generally outlasts the building. Duriron is high silicon iron throughout the thickness of the pipe wall. It's the one permanent piping specified by architects and engineers for corrosive waste disposal systems for more than 30 years! Insist on Duriron.

Duriron pipe and fittings are available from stock from leading plumbing jobbers in principal cities.

THE DURIRON COMPANY, Inc.





You'll recognize John Watts by the tools he uses

John Watts, qualified electrical contractor, has grown with electrical construction. His modern, fully equipped trucks carry skilled men to the job, along with power tools to save their time and enhance their craftsmanship. Today John Watts' men bend conduit hydraulically; cut and thread by power. They set studs in brick, block or concrete with power fasteners, saving the laborious star-drilling of yesterday. And their knowledge of today's best practices in wiring, lighting, signaling and power apparatus matches their new, efficient mechanical equipment.

Check electrical details early with John Watts

Whether your plans cover a large industrial project or just a few simple homes, it will always pay you to talk over the electrical details with your qualified electrical contractor, "John Watts." In every city and town in the country you'll find him, and his well-trained men — well-equipped with tools and supplies obtained via Graybar.

688-3110

Here are 7 ways in which QUALIFIED ELECTRICAL CONTRACTORS can be of real help to ARCHITECTS, CONSULTING ENGINEERS and BUILDERS

- Providing information on the newest developments in specified electric equipment.
- 2. Sharing experience on details of installation.
- Furnishing first hand data on local practices, regulations and preferences.
- Supplying practical facts on availability of equipment.
- 5. Offering "related items" experience with units and supplies they require.
- Contributing years of experience as coordinators to help on material delivery schedules and project completion dates.
- Using Graybar's nationwide warehouse stocks and facilities to deliver the smallest to the largest equipment anywhere, fast.

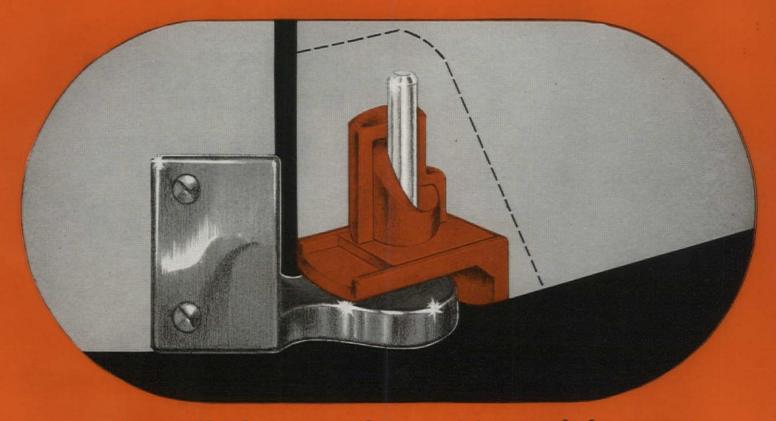
GraybaR

ak ... serving the nation's building industry through electrical contractors

GRAYBAR ELECTRIC COMPANY, INC., 420 LEXINGTON AVENUE, NEW YORK 17, NEW YORK. IN OVER 130 PRINCIPAL CITIES

Only FIAT. TOILET COMPARTMENTS

have the ZYTEL** NYLON Gravity Hinge



unexcelled properties put to work in new, outstanding LIFE-LINE* door hinges

Here, at last, is a hinge that can be built into a compartment door and then forgotten! Complete load bearing and cam action surface of DuPont Zytel. Tested over a million times with no visible signs of wear, this hinge is truly a marvel of mod-

ern science and engineering. There are no springs to replace-no undersized ball bearings to wear out -no periodic adjustments to make-no lubrication required. Check the amazing advantages of Zytel nylon.













GET ALL THE DETAILS NOW! Find out why FIAT Toilet Compartments are years

Another fine Fiat installation of Commerce, New Orleans, La. Architects: Nolan, Norman

General Contractors: R. P. Farnsworth & Co.,



Please have your re	presentative call.	
Firm		
Address		
City	Zone	State
Individual		

FIAT METAL MFG. COMPANY * 9319 Belmont Ave. * Franklin Park, Illinois

FOUR COMPLETE PLANTS STRATEGICALLY LOCATED FOR BETTER SERVICE, LOWER COST



Long Island City 1, N. Y. - Franklin Park, III. - Los Angeles 63, Calif. - Orillia, Ontario, Canada Manufacturing Quality Showers and Compartments since 1922



14 PLANTS AND 3 TERMINALS SERVING SOME OF THE MOST RAPIDLY GROWING AREAS OF THE NATION

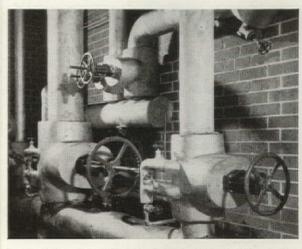


Textron's first fully integrated woolen mill is equipped with JENKINS VALVES

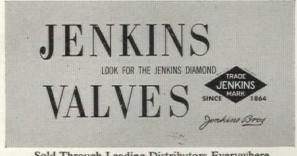
The nation's largest woolen mill, with weaving, dyeing and finishing facilities all under one roof, occupies 430,000 square feet at Barnwell, S. C. This huge plant, operated by Amerotron Corporation, a Textron company, contains the most modern equipment that textile technology and modern engineering could provide. Utilizing U-shaped production flow, the Barnwell Mill achieves the utmost in economy of movement and handling of raw and finished materials.

The equipment for this ultra-modern, air conditioned plant was selected to match the efficiency and advanced concept of the building design. To control much of the complex piping system, Jenkins Valves were the unanimous choice of Textron's management and the engineers and contractor involved in this project.

Expectation of an extra measure of performance and economic service from Jenkins Valves has been universal among building experts and plant operating personnel for three generations. The symbol of this reputation is the famous Jenkins' Diamond and Signature trade-mark . . . and, moreover, the valves that bear it cost no more. Jenkins Bros., 100 Park Avenue, New York 17, N. Y.

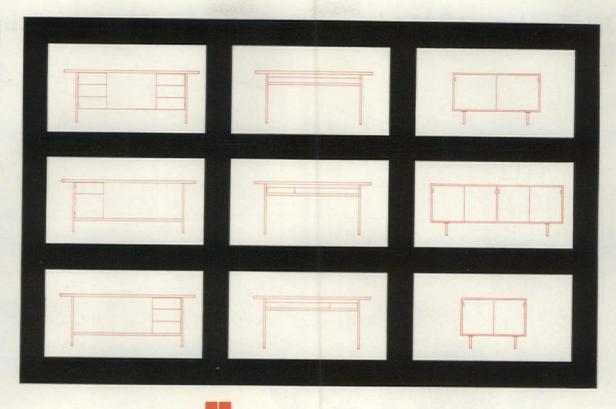


Example of the wide variety of sizes and types of Jenkins Valves required to control the complex piping system of Textron's new Barnwell Mill.



Sold Through Leading Distributors Everywhere





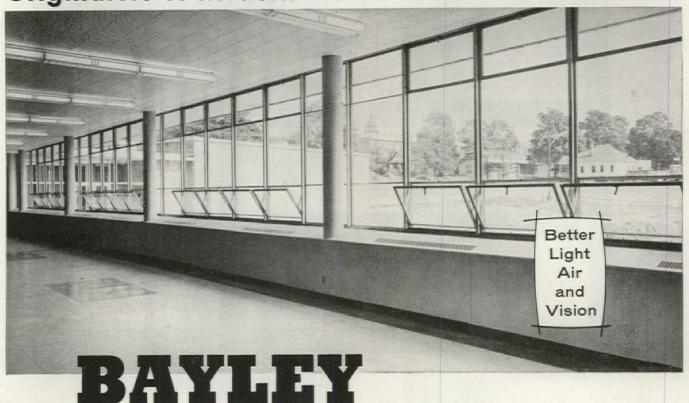
KNOLL ASSOCIATES, INC.,

For added flexibility Knoll Office Planned Furniture series of executive, secretarial desks and storage cabinets are now available with both solid walnut and metal bases. Desk tops are walnut veneer, grey plastic laminate, walnut plastic laminate.

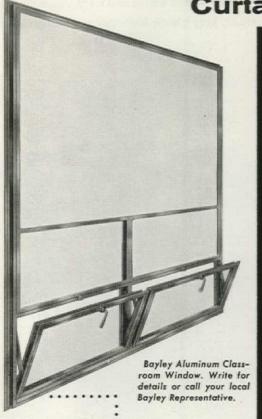


3516 WR small executive desk

Originators of Modern Windows for Modern Schools



School Windows and Curtain-Wall Systems



That Bayley Projected Windows — in both aluminum and steel — are gaining widespread preference for modern school use did not just happen! As a pioneer in metal window design Bayley has continually counselled with school authorities on what features they felt constituted a good school window. Taking those recommendations and combining them with their own window knowledge, Bayley has originated window designs unexcelled for modern school installation.

Bayley Windows afford nature-quality light and better vision; provide any desired degree of draft and weather controlled ventilation; and insure maximum service life with the minumum maintenance or upkeep. Their designs are suited to any type of wall construction, including the newer curtain or window-wall treatments employed in many of today's modern schools. Supplementing these product qualities, Bayley's window service is *complete* — counseling and engineering the job from the building's inception until approval at time of final occupancy.

Consult Bayley on your window needs.

77 Years of Reliability

THE WILLIAM BAYLEY COMPANY

Springfield, Ohio

District Sales Offices:

Springfield

Chicago 2

New York 17

Washington 16



adds incomparable distinction to any commercial interior

The imaginative use of decorative lighting is an all-important element in today's most widely acclaimed hotels, motels, stores, offices and institutions. By specifying the superb IL* fixtures shown in Moe Light's exciting new Commercial Lighting Catalog, you can add beauty and originality to your commercial installations. They combine functional lighting with a dramatic individuality that results from the creative use of well-designed decorative appointments.

FREE! A manual of creative lighting for the discriminating professional

MOE LIGHT'S NEW IL* COMMERCIAL CATALOG

dramatic lighting helps set your "theme"

Famous Cordette Casuals by Moe Light can create many moods—in this interior, they add a gracious look to the dining area, while lending an air of informality to the bar.

(Fixtures shown: M-1427 3-Lite cluster in main dining area; M-1437 "3-in-line" accents the wall; M-1421 cones over bar.)



Dozens of interior sketches; plus Moe Light's commercial IL* fixtures. Free to members of the profession ONLY. Write to:

THOMAS INDUSTRIES INC.

MOE LIGHT DIVISION, Dept. AF.9
410 So. Third St., Louisville 2, Ky.

Leaders in Creative Lighting

Safeguarding the lives of millions



Von Duprin.

"THE SAFE WAY OUT"

On schools, churches, hospitals... wherever people congregate... you can depend on Von Duprin exit devices to protect lives. Choose from a complete line. Select the right installation for any opening... for

normal or rugged, demanding service.

Specify Von Duprin! Your Von Duprin
"Exit Specialist" will be glad to help you
plan the best exit for your needs. If you
don't know his name, write direct to factory.

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



SCHOOLS, CHURCHES, HOSPITALS, WHEREVER PEOPLE CONGREGATE





HOW ANEMOSTAT

Air Diffusers help make movies

A carefully designed air conditioning system enables Production Center, Inc. to make movies at top speed during the hot summer months. In fact, production has been increased by three to four times, according to Center estimates.

Anemostat Air Diffusers help do this vital job. They draftlessly diffuse 20,000 cubic feet of cooled air per minute pushed by giant fans through the soundproofed ducts. The two main studios have 32 vertical ducts, ranging in diameter from 18 to 24 inches; of these, 24 are telescopic and can be raised or lowered to suit requirements. The conditioned air, efficiently distributed by Anemostat Air Diffusers, offsets the heat from the tremendous wattage of the lights needed for film-making.

Movie-viewing, as well as movie-making, is aided by Anemostat Air Diffusers. They are installed in hundreds of theatres throughout the country. Anemostat Air Diffusers also provide *true* draftless comfort and uniform air distribution in schools, hospitals, banks and practically all types of commercial and industrial buildings.

One of three completely air conditioned sound stages at Production Center, Inc. in New York City.





Note the Anemostat Air Diffusers installed on the telescopic ducts.

+--

Joseph B. Klein, Architect Robert Glenn, Inc., General Contractor Wolff & Munier, Inc., Mechanical Contractors



For complete data, write for your copy of the new Anemostat Selection Manual No. 60 to Anemostat Corporation of America, 10 E. 39th Street, New York 16, N. Y.

Compare the Appearance



Handsome Modernfold doors save space, keep their good looks for years

For saving space in homes, businesses and institutions, Modernfold doors are the overwhelming choice of architects.

It's not just that they have a double-strength, all-steel inner framework. Or that they can take year-in-year-out punishment. It's because they are truly beautiful! Modernfold is the only folding door manufacturer maintaining a complete, quality-controlled fabric coating plant. The durable vinyl coverings of Modernfold doors come in a rainbow of colors—dozens to choose from—and in such favored finishes as wood grains and leather grains. These doors retain their fresh, original appearance for years and years, with only soap and water washing.

Only Modernfold, among all folding doors, can serve your needs so well. You'll find out why, in detail, when you refer to Sweet's Catalogue. Choose from four complete lines. In new construction or remodeling, check your Modernfold distributor; he's listed under "Doors" in classified telephone directories.

NEW CASTLE PRODUCTS, INC., Dept. K32, New Castle, Indiana. In Canada: New Castle Products, Ltd., Montreal 23. In Germany: New Castle Products, GMBH, Stuttgart. Available in over 60 countries throughout the world.

Vinyl covered, many colors. Easily washed while in place.
Inconspicuous overhead track needs no unsightly cornice.
Double strength, all-steel framework.
Available in standard or custom sizes.



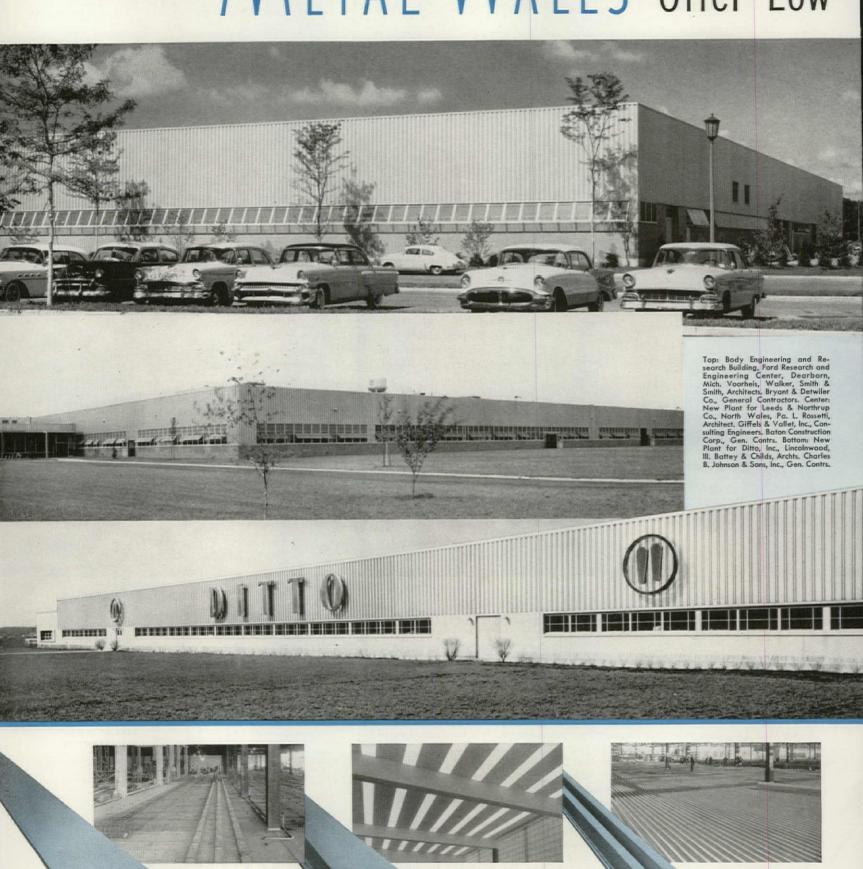
MODERNFOLD DOORS HAVE BEEN USED BY 97% OF ALL ARCHITECTS

modernfold

DOORS

THE FIRST AND FINEST IN FOLDING DOORS

INSULATED /VIETAL WALLS Offer Low-



ELECTRIFIED M-FLOORS

Mahon M-Floors provide electrical availability in every square foot of floor surface—safeguard buildings against electrical obsolescence in years to come.

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

CONCRETE FLOOR FORMS

Mahon Permanent Concrete Floor Forms

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

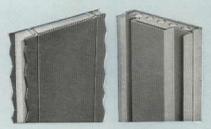
Cost Permanence in Continuous Patterns that Produce Attractive Exteriors!



MAHON FLUTED WALL



MAHON RIBBED WALL



FLUSH FLUTED
MAHON PREFAB WALL PANELS

Almost everywhere you look in America today, you will see new, modern buildings with bright metal exteriors which give them a neat, clean-cut appearance—a certain look of trimness and distinction that sets them apart from the conventional . . . these are truly modern buildings constructed with permanent, light weight, stainless steel or aluminum curtain walls.

Some of the country's outstanding architects have employed Mahon Insulated Metal Curtain walls skillfully and to good advantage, costwise, in producing striking exterior design effects in office buildings, schools, armories, military barracks, sports arenas, parking garages, warehouses, industrial buildings of all types—including powerhouses, and some important monumental buildings. The engineering-research building and the two industrial plants illustrated at the left are typical examples.

Metal Curtain Walls with exterior plates of embossed or colored aluminum, stainless steel, or cold rolled steel painted, employed in combination with brick, ornamental stone, glass block or other materials offer unlimited possibilities in architectural treatment of exterior design. Bright metal, or colored metal, provides the designer with the means of individualising and creating distinctiveness in almost any type of building.

In Mahon Insulated Metal Walls, vertical joints are invisible—symmetry of pattern is uninterrupted across the wall surface . . . and, the field constructed walls can be erected up to sixty feet in height without a horizontal joint. These two design features, which are extremely important from an appearance standpoint, were engineered into Mahon Insulated Metal Curtain Walls to give you a finer appearing wall surface with a continuous pattern free from unsightly joints.

You'll want to investigate these Mahon "better look" features before you select a metal curtain wall for any building.

See Sweet's Files for information, or write for Catalogue W-57.

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

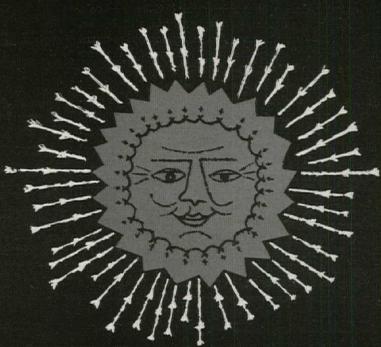
MAHON







NEW WASCOLITE REFLECTADOME* SOLATEX SILVER



NOTE how Solatex Silver is crinkled for maximum efficiency



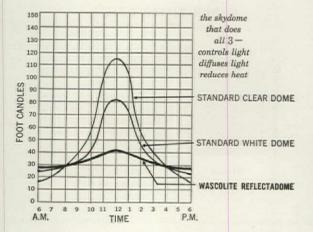
Bay State Road, Cambridge 38, Massachusetts Wasco Chemical (Canada) Ltd., Toronto 12, Canada the skydome that does all 3 reduces heat...eliminates glare...controls daylight

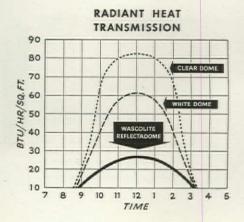
After years of development and research Wasco Products, the company that originated Skydomes, now offers you a revolutionary new overhead daylighting unit. It's Reflectadome, the one dome that reduces objectionable solar heat gain, eliminates glare and controls daylight — without supplementary light control fixtures.

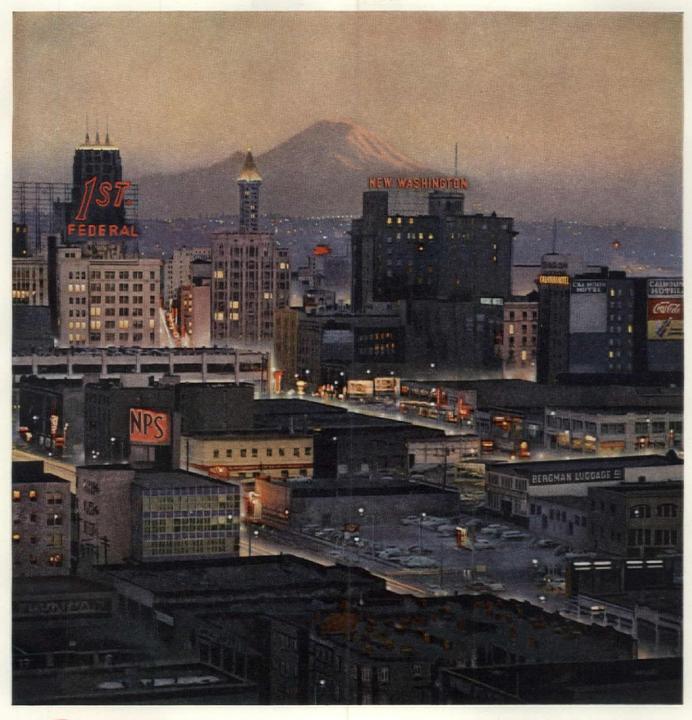
Reflectadome's secret is Solatex Silver, a special material embedded (not laminated) right into the acrylic dome. Reflectadome produces a remarkably level lighting curve to keep interiors evenly illuminated throughout the daylight hours for top visual performance.

Naturally, Wascolite Reflectadome features all the improved functional advantages of the Wascolite Skydome. <u>Solatex Silver</u> embedments are available only from Wasco, so specify Wascolite Reflectadome by name.

Write immediately for full details on exciting new Reflectadome, the one Skydome that does all 3!—reduces heat...eliminates glare...controls daylight.
*Trademark of Wasco Products. Inc.







Seattle where the dominant word for elevators is OTIS

The tallest skyline in the West is silhouetted against the spectacular snow-capped beauty of Mt. Rainier. It symbolizes a growth based upon a long understanding of true values. 64% of Seattle's elevator installations are by OTIS—the originator of every important elevator development. As always, progress is expected of the leader. Outstanding value has made OTIS the accepted word for elevator quality in the cities of the world.



OTIS ELEVATOR

260 11th Avenue, New York 1, N. Y. Offices in 501 cities around the world



Automatic Autotronic® or Attendant-Operated Passenger Elevators • Escalators • Trav-O-Lators Freight Elevators • Dumbwaiters • Elevator Modernization and Maintenance • Electronic Systems The Baker Raulang Company, an Otis subsidiary, is the maker of Baker Gas and Electric Industrial Trucks •

CARLTON STAINLESS STEEL SINKS For Everlasting Beauty Dlub Built-in Efficiency

The home-owners first choice



Standard equipment for hundreds of modern homes and remodeled kitchens. Available in 4 sizes and designs. Carlton's exclusive sparkle finish.

The new, exclusive Vegi-Prep design



Very much in demand by the woman who likes to do her kitchen chores while seated, Shallow bowl is for paring and rinsing fruit and vegetables.

Good neighbor to your dishwasher



A ledge type single compartment design frequently installed next to the automatic dishwasher, or in kitchens where sink top space is limited.

Newly designed for laboratories, schools



One of many new Carlton combination ledge type and drinking fountain sinks. Installation of bubbler puts drinking fountain right in the schoolroom.

For hotels, restaurants, schools,



One of several triple compartment designs used where health regulations require an extra bowl for sterilizing.

For boats, corners, powder rooms



"We give this seal to no one the product that has it—earns it."



A lavatory bowl idea that adapts perfectly for use in mobile homes, boats, any place where sink space is very limited.

Carlton advertising in dozens of consumer magazines is creating an ever-increasing nation-wide demand for these fine Carlton Sinks. Carlton's many exclusive features, including its exclusive sparkle finish, are making more and more people realize that simply specifying a stainless steel sink is not enough—since it doesn't cost any more to specify Carlton . . . Write for our New Illustrated Catalog No. 216, and the name of our nearest distributor . . . CARROLLTON MFG. CO., (Sink Division), Carrollton, Ohio.



The bright spot in your kitchen



STRUCTURAL CLAY FACING TILE

THERE IS NO "SUBSTITUTE"... Only Clay Facing Tile gives your clients advantages they want in structural walls, partitions and veneers. The most economical and durable walls in the world for schools, hospitals, commercial and industrial structures. Rich, permanent colors and smooth surfaces clean sparkling new with soap and water.

First cost is low. Modular sizes lay up fast. A single material and a single trade. Elimination of maintenance insures tremendous savings over the years.

Now—with increased production *and* faster deliveries, it's professionally wise to remember—there is no substitute for genuine Structural Clay Facing Tile.

FACING TILE INSTITUTE

2556 Clearview Avenue, N. W., Glendale 5-5329, Canton 8, Ohio 1520 18th Street, N. W., Hudson 3-4200, Washington 6, D. C. 1949 Grand Central Terminal, Murray Hill 9-0270, N.Y. 17, N.Y. 228 N. LaSalle Street, Randolph 6-0578, Chicago 1, Ill.



This seal is your assurance of highest quali Facing Tile.

In the interest of better Facing Tile construction these companies have contributed to this advertisement. Charleston Clay products Co., Charleston 22, W. Va. • THE CLAYCRAFT CO., Columbus 16, Ohio • MAPLETON CLAY PRODUCTS CO., Canton, Ohio • METROPOLITAN BRICK, INC., Canton 2, Ohio • McNees-Kittanning Co., Kittanning, Pa. • NATCO CORPORATION, Pittsburgh 22, Pa. • STARK CERAMICS, INC., Canton 1, Ohio • WEST VIRGINIA BRICK CO., Charleston 24, W. Va.

Why should store doors offer only a means of entrance and exit when they can also improve entrance appearance ... attract business . . . provide added convenience to customers . . . control and speed the flow of store traffic? Doors that are opened and closed automatically by Stanley Magic Door Controls do all this.



Stanley Magic Door Controls can be installed on any new or existing doors that swing, slide or fold. They actuate Magic Door Operators - visible or concealed — that open and close the doors automatically. Both controls and operators meet every architectural requirement for appearance and space.

A Stanley Representative near you will be pleased to consult with you, offer helpful advice and provide installation drawings and wiring diagrams.

For immediate information, see Sweet's Architectural File or write to Magic Door Sales, Stanley Hardware, Division of The Stanley Works, Dept. H, 1005 Lake Street, New Britain, Conn. for A.I.A. File No. 16-D.



STANLEY MAGIC CARPETS IN 4 DISTINCTIVE COLORS

LINTON GRAY

BETTER

Stanley Magic Carpets that are available in a range of pleasing, weatherfast colors.

USSELL BLUE

BAILEY BROWN

BUILDS

AND LIVES

BETTER

This famous trademark distinguishes over 20,000 quality products of The Stanley Works-hand and electric tools · drapery, industrial and builders hardware · door controls · aluminum windows · metal parts · coatings · steel and steel strapping-made in 24 Stanley plants in the United States, Canada, England and Germany.

... insight ... 16% ... housing ... fresh air

THIS MAN OSMAN

Forum:

Anyone involved in local planning would be greatly impressed by the validity of John Osman's insights in "Citizens Make Cities" (AF, Aug. '57). He is not alone in recognizing that most of the US urban problems cannot be solved within the framework of our present local governments, and that these problems were created by the apathy and ignorance of urban citizens.

> STEPHEN SUSSNA, assistant director Kentucky Division of Planning and Zoning Frankfort, Ky.

Forum .

It was a distinct pleasure to read John Osman's penetrating analysis of the civic problem in America's cities of today (AF, Aug. '57).

However, I am somewhat disappointed that your footnote capsule on the amazing Osman only partly revealed the background of this modern day Renaissance man.

He is an accomplished athlete, at one time progressing to the Olympic tryouts in track (circa 1936, I believe). Even today, on his occasional visits to Southwestern University at Memphis (where he once was a member of the faculty), he may be seen circling the track, or otherwise engaged in some unlikely endeavor, such as pressing a large chunk of stone overhead.

This man has left a lasting imprint on the minds of many young Americans in his career as a teacher. My decision to study architecture can be undeniably traced to Osman and his fine arts courses. Please give your readers a keener insight into this man, this amazing Osman.

WILLIAM A. BOWDEN JR.
A. L. Aydelott & Associates,
architects & engineers
Memphis, Tenn.

\$21 PER SQ. FT.

Forum:

Everyone concerned with your Stanford Medical Center story (AF, June '57) was most impressed with FORUM's excellent presentation. Here are some late-developing facts for your further interest.

Bids received in May now indicate that construction cost for the 321,000 sq. ft. gross of hospital will be \$6,915,800.

Our original estimates prepared two months in advance of receipt of bids indictated that our construction cost might



have been \$8,428,000. Of the 16% saving against the estimate, at least 6% is attributed to a competitive market situation and the other 10% to the contingency allowance for this part of the budget.

MILTON F. JOHNSON, coordinator Stanford University Medical Center Stanford, Calif.

SUBSEQUENT HOUSING

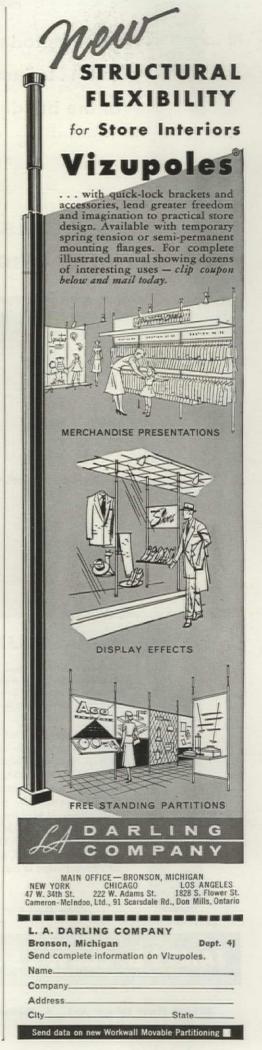
Forum:

Catherine Bauer's article, The Dreary Deadlock of Public Housing (AF, May '57), and the subsequent letters and comments appearing in the June and July issues add up to a general recognition that something must be done about public housing at various levels. This involves general policies, financing, tenant-relations and, last but not least, matters of design and relationship of public housing to community planning. Movements are already under way, doubtless stimulated by FORUM's treatment of the matter, to revise basic housing legislation and its administration through the federal agencies. Less has been said, so far as I can find out, about changes at the local, municipal level.

During a recent stay in Germany, I had occasion to study the administration of planning and housing matters in the major cities of West Germany where, as in the United States (but unlike Britain and many European countries) practices vary considerably from city to city.

I should like to give a sort of composite picture of the regulations in some larger German cities. On the one hand there is coordination, under a single responsible head, of all the various city departments having to do with the physical plant of the city; and, on the other hand, there is total absence of public housing as such, substituting careful analysis and planning for the city's over-all housing needs, with

continued on p. 94



cont'd



New as today's newspaper, but...to last the life of the building

CLOW

was chosen for



CHICAGO SUN TIMES

Owner: Field Enterprises, Inc., Chicago Architect: Naess and Murphy, Chicago General Contractor: George A. Fuller Company, Chicago Plumbing Contractor: G. F. Connelly Co., Inc., Chicago

Like the latest edition on the street, Clow I.P.S. cast iron pipe is as modern as today, yet has proved itself in hundreds of important installations. In this new \$15,000,000 Chicago SUN TIMES building, replete with up-to-the-minute materials and equipment, Clow I.P.S. cast iron pipe is used for all non-pressure plumbing lines: downspouts, vents and waste lines. It is chosen because it is permanent piping, assured to last the life of the building. Clow I.P.S. Cast Iron Pipe has the same O.D. as steel pipe . . . and is available with plain, threaded, or hub ends in sizes 3, 4, 5, 6, 8, 10, and 12". Installation is fast and economical.

Clow Cast Iron Pipe can be . . .

*Iron Pipe Size O. D.



on the job, with ordinary tools of the piping trade.

201-299 North Talman Ave. • Chicago 80, Illinois

JAMES B. CLOW & SONS, Inc.

Manufacturers of Cast Iron Pipe Wholesalers of Plumbing and Heating Supplies financial aid, granted on a sliding scale, based on the amount and location of housing in all categories that is required to meet the program adopted.

It is my suggestion that something valuable might be learned from this.

ROBERT C. WEINBERG New York 17, N.Y.

Forum:

To answer one of Miss Bauer's points: a subsidy is at best a makeshift, designed to overcome a lag in the development of the economics of the system of exchange which makes civilization possible. When administered with understanding for the community needs of a particular locality a subsidy to aid construction may serve a good purpose by accelerating both social and physical development. But when a subsidy is administered from the top by officials who are principally charged with the task of seeing that the conditions of the appropriation are met, then that type of subsidy is likely to create exactly the conditions which Miss Bauer deplores.

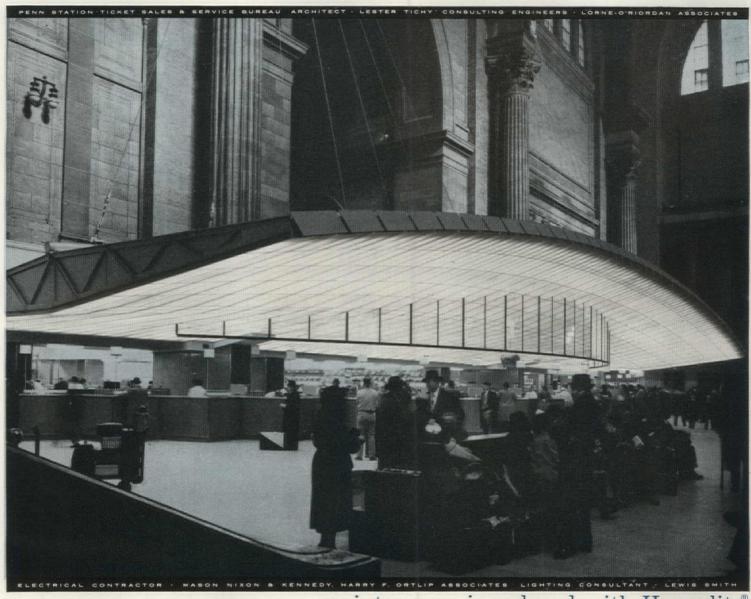
Miss Bauer is now conscious of the mistake that has been made, for she comes out strongly in favor of pilot and experimental projects, designed with originality to satisfy neighborhood and community needs. This raises the question as to how understanding leadership may be related to the awakening of community consciousness that is essential to bring our lagging social institutions to self-consciousness. How otherwise can we realize the potential that is promised by our overgrown, and as yet only partially understood, industrial power?

If there is to be a subsidy it should be applied to restore initiative to community. This means giving the local community power to think and plan for its future.

ARTHUR C. HOLDEN, architect New York, N. Y.

Forum:

Another thought: we have new kinds of sites today-new because they are both in-lying and large-and these sites require new kinds of thinking and planning. How to make normal American families want to stay in rebuilt areas is a basic question, answerable only by investigation of optimum city space, facilities and environment. If it goes unanswered, there is the very real threat of spending large amounts of city renewal money for inadequate results. Unless we have such an investigation, we will create new slums. And unless we study improved planning methods, we will use inner-city land uneconomically, together with the utilities and public services that



Even in this big and busy railroad station maintenance is reduced with Honeylite. It takes an army of 200 men to keep New York's Pennsylvania Station clean. Every 24 hours they remove more than 25 tons of scrap paper, refuse and dust. An ordinary light-diffusing ceiling would be a maintenance headache with this amount of dirt and dust. Not so with Honeylite! This 7,000 square foot canopy of light over the Pennsylvania Railroad's new TV ticket sales counters means fewer hours of tedious and expensive cleaning time. Dirt and dust just fall through Honeylite's open hexagons. Furthermore, Honeylite is all-aluminum, which means that it is non-static, so it does not attract dust, nor does it require destaticizing after handling. Removing smoke stains and grease from Honeylite under normal conditions is not difficult . . . rinse it off in ordinary detergent and put it back to air dry. And, of course, all this ease of maintenance is but one of Honeylite's advantages. For efficiency in diffusing soft, even light, for ease of installation, for glare elimination, and for beauty Honeylite is unexcelled.

See our Catalog in Sweet's file 31a/He



Yes! SATISFABRICATED! ©



It's our way of telling the world that Governair Products are guaranteed to satisfy the widest range, the most exacting capacities, and the most truly unusual space requirements.

Governair offers a SPECIAL saving of time and trouble with its complete line of Self-Contained Units. They're easier to order, since you specify ONE unit in place of picking several components. Easier to install, too, since they are delivered fully tested and ready to operate with simple electrical, water and duct connections.

Best of all, Governair's quality engineering and construction assure you of lower cost maintenance so important to the purchaser.

WRITE OR CALL FOR DETAILED INFORMATION

GOVERNAIR CORPORATION 4840 NORTH SEWELL OKLAHOMA CITY, OKLA.



Letters

cont'd

run with the land. The result: city rebuilding will become too costly for the country to support. Only by analyzing what people need in cities, and learning how to produce these neighborhood conditions within our means, can we stabilize the use of city land and halt the slum-generation process.

HENRY WHITNEY
Tippetts-Abbett-McCarthy-Stratton
New York, N. Y.

COMMUNITY ARCHITECTURE

Forum:

The photographs and the story of Pittsburgh's Mellon Square (AF, July '57) were excellent.

The work that you are doing to get architects to appreciate the value of civic developments of this kind is very good.

> EDMUND N. BACON, executive director City Planning Commission Philadelphia, Pa.

Forum:

We would like to congratulate the editors for the excellence of the July issue, both cover and coverage—particularly for their growing recognition of the architect's role in the space planning of communities.

A. A. EICKHOLT, chairman Redevelopment Agency Fresno, Calif.

AIR CRUSADE

Forum:

The article "The Crusade for Clean Air" (AF, Aug. '57) was both interesting and informative. Although it ranged throughout the field of air pollution control, it was always clear and accurate.

Your staff are especially to be commended on the manner of presentation. Together with the illustrative matter, the article should do much to arouse more interest in the need for more air pollution control measures.

LEONARD GREENBURG, M.D., commissioner Air Pollution Control New York City

METROPOLITAN GOVERNMENT

Forum:

You have done a remarkably good job of putting together the various problems inherent in metropolitan government (AF, Aug. '57). It seems to be quite clear that, considering the state of metropolitan government, metropolitan (or regional) planning has a long way to go.

As you put it, we can plan for, and do something about, "things that flow and fly." These are the essential dynamic forces that influence the use of land: we must start with them. If we are going to have effective planning, we must commence with movement, the flow of cars and planes that

continued on p. 98

CLASSIC BEAUTY for modern doors

From classic to contemporary . . . Corbin Heavy Duty Cylindrical Lockset designs add a new dimension to modern door styling . . . make striking new door effects possible for your finer residences, schools, commercial and industrial buildings.





CORBIN heavy duty cylindrical locksets

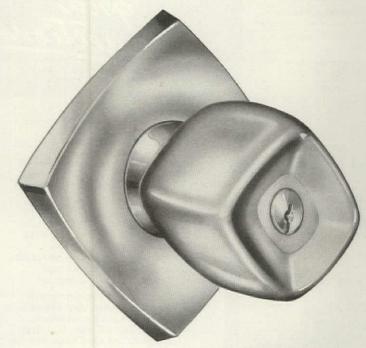


Precision operation makes this Corbin lockset line the finest of its kind. Compact,

heavy-duty construction assures smooth, flawless service over the years. And there's famous Corbin security: each lock features a full 5% inch throw for extra-secure locking, even if doors shrink or warp. See your Corbin dealer for full details.

Other Outstanding Features:

- 27 functions covering all standard requirements
- 100% reversibility
- Most flexible master-keying system available
- Varied and extremely durable finishes
- · Automatic deadlocking feature
- Approved by Underwriters' Laboratories for B, C, D and E label doors
- Meets Federal Specification Type 161



New VEGAS Design No. 813

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





Good Buildings Deserve CORBIN Hardwar



CRESTWOOD Design



WINDSOR Design (Colonial)



CHALICE Desig



MELODY Desig



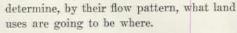
HARMONY Desig



PARTAN Design

All designs available in brass, bronze, and aluminum; except Windsor design, brass metal only. (Spartan also available in Stainless Steel.)

cont'd



Land use cannot be predicated first and transportation second. Land use cannot be effectively controlled by zoning in advance of use: zoning is the dead hand that tries to "maintain values" by preventing change. Highways, which can be controlled, are the prime movers.

Metropolitan planning must attempt to influence superhighway routes, see that they follow some logical course in relation to geology (not just the easiest gradient) and the existing ecology (not just highway economics) of the area, see that these basic determinants of the future do not hog all the drainage ways. If the highways can be fairly well set, the land uses can be reasonably guessed at, trunk sewers and water mains can follow on the map, and eventually detailed land use determined locally, as it should be, within the major transportation network.

The main difficulties with this procedure are: 1) highwaymen have no sense of social responsibility; 2) planners have little else; 3) administrators, as pointed out in your article, are only now becoming aware of the problems they face.

HENRY S. CHURCHILL, architect Philadelphia, Pa.

ERRATUM

In its August issue Forum failed to credit the Charles Herman Contracting Co. for its important contribution to the Restaurant on the Mountain at Suffern, N.Y. and Turner Construction Co., for its part in the rebuilding of the Pennsylvania Railroad Station in New York City.—ED.

ARCHITECTURAL FORUM is published monthly by TIME INC., Time & Life building, 9 Rockefeller Plaza, New York 20, N. Y.

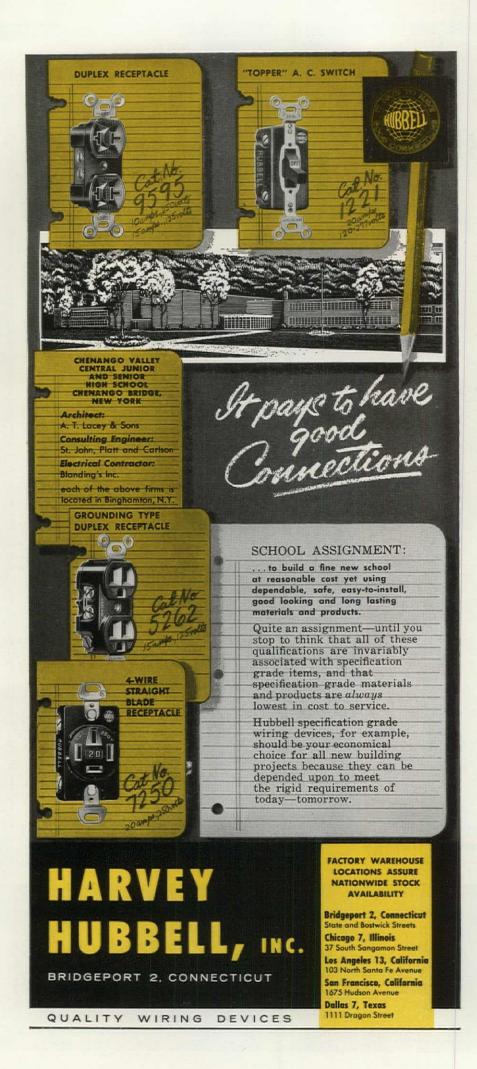
Subscription service: Address all subscriptions and correspondence concerning them to: Architectural Forum Subscription Dept., 540 N. Michigan Ave., Chicago 11, Ill. Subscription rates: in US, US Possessions and Canada, one year \$5.50; elsewhere one year \$10. Single copies, if available, \$1.

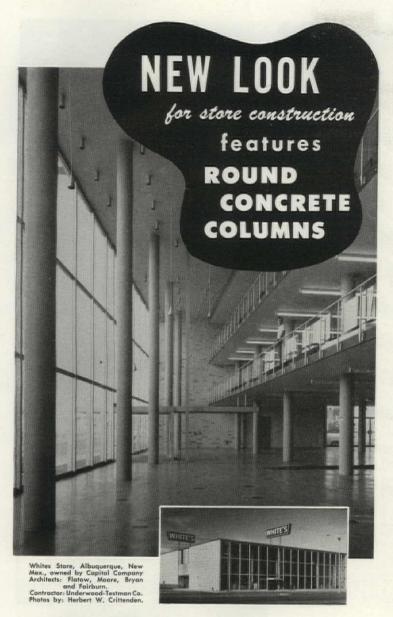
CHANGE OF ADDRESS: Four weeks are required for change of address. When ordering a change please name magazine and furnish a label from a recent wrapper. If no label is available, please state as exactly as possible the address to which magazine has been sent. Changes cannot be made without old as well as new address.

EDITORIAL CORRESPONDENCE should be ARCHITECTURAL FORUM, 9 Rockefeller Plaza, New York 20, N.Y. FORUM will not be responsible for unsolicited manuscripts or illustrations submitted, and it will not return such material unless accompanied by postage.

ADVERTISING CORRESPONDENCE should be addressed to the advertising director, Architectural Forum, 9 Rockefeller Plaza, New York 20, N.Y.

TIME INC. also publishes Time Life, Fortune, Sports Lllustrated and House & Home. Chairman Maurice T. Moore; President, Roy E. Larsen: Executive Vice President for Publishing, Howard Black; Executive Vice President and Treasurer, Charles L. Stillman: Vice President and Secretary, D. W. Brumbaugh; Vice Presidents, Edgar R. Baker, Bernard Barnes, Clay Buckhout, Arnold W. Carlson, Allen Grover, Andrew Heiskell, C. D. Jackson, J. Edward King, James A. Linen, Ralph D. Paine Jr., P. I. Prentice, Weston C. Pullen Jr.; Comptroller and Assistant Secretary, John F. Harvey.





For beautiful, functional columns . . . specify

SONOCO SONOTUBE® FIBRE FORMS

Economical Sonoco Sonotube® Fibre Forms of 9". 10", 12" and 14" I.D. were used to erect the round columns of concrete which are the major architectural features of this building.

These fibre forms are lightweight, easy-to-handle and require minimum bracing. Contractors save time, labor and money when you specify Sonoco SONOTUBE® fibre forms.

Available in sizes from 2" to 48" I.D. up to 48' long. Can be ordered in specified lengths or sawed on the job. Specify Sonoco SONOTUBE® Fibre Forms for your next work . . . patented "A-coated" for finished columns, wax-coated also available.

See our catalog in Sweets

For complete information and prices, write



SONOCO PRODUCTS COMPANY

CONSTRUCTION PRODUCTS DIVISION

HARTSVILLE, S. C.

LOS ANGELES, CAL. 5955 SOUTH WESTERN AVE.

14 SOUTH PARK STREET

AKRON, IND. . LONGVIEW, TEXAS BRANTFORD, ONT. . MEXICO, D. F.

RESEARCH DATA RELEASED BY DUR-O-WAL

Independent Study Now Available to Industry

In an effort to obtain pertinent information as to how joint reinforcing actually affects the strength of masonry construc-tion, Dur-O-waL sponsored a program of research carried on by the Research Foundation of the University of Toledo in 1956. The study was designed to provide data on the following

- 1. The relative lateral strength of walls constructed with various types and amounts of reinforcing.
- 2. The relative effectiveness of various types and amounts of reinforcing used in walls laid up with mortars of widely varying strengths.
- 3. The effect of deformation in the side rods on the bond in both weak and strong mortars.
- 4. The effect on bond of the joints formed by the side rods and cross rods.
- 5. The effect of deforming on the strength of the side rods.

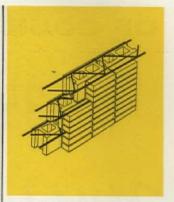
A total of 39 walls, 9'-4" x 4' were built and tested. More than two dozen tension tests were made on plain and de-formed wires; 80 pull-out tests were made to determine bond characteristics.

Guide for Comparison

Three points of importance in comparing quality -

- 1. Weight of material
 - a. Comparison of actual weight per 1000 lineal feet.
 - b. Flexural strength in relation to weight of steel in wall.
- 2. Deformation a. Report of tests
- Mortar Locks
- a. Report of comparative

available in your area now.



Widening Design Horizons

By scientifically combining steel with concrete, architects are provided with new freedom of design and new economy of construction. Dur-O-waL is de-signed to fill a basic need for an economical, fabricated reineconomical, fabricated rein-forcing member for masonry walls. You are invited to send for your copy of the research findings to learn how this truss design member provides su-perior lateral and horizontal reinforcing.



Adequate Manufacturing **Facilities**

Dur-O-waL is manufactured by the Dur-O-waL Division, Cedar Rapids Block Company, Cedar Rapids, Iowa; Dur-O-waL Prod-ucts, Inc., Box 628, Syracuse, N.Y.; Dur-O-waL of Illinois, 119 N. River Street, Aurora, Illinois; Dur-O-waL Products of Dur-O-wal Distribution

More than 8,000 dealers stock Dur-O-wal, which is distributed in key markets throughout the United States. It is readily available in your area now St., Toledo, Ohio.

Advertisement

NEW TISHMAN BUILDING 3325 Wilshire Boulevard Los Angeles, California

Air Conditioned

OF COURSE

with 35

M. Quay

RIPPLE FIN COILS



MECHANICAL ENGINEER

Ralph E. Phillips, Inc., Los Angeles, California MECHANICAL CONTRACTOR....J. Herman Co., Inc.,
Los Angeles, California

The new, completely air conditioned Tishman Building is an example of the versatility of McQuay heating and cooling coils, as it was necessary to design this flexible system so that it would meet the space requirements of future tenants as the building became leased. McQuay heating and cooling coils were used in central supply systems located on every other floor which supply hot and cold air to a duct system which passes through the central part of the building. As floor space was rented, lateral duct run-outs were installed to precisely and economically serve the areas occupied. There is a McQuay heating or cooling coil to exactly meet the requirements of every heating, cooling or air conditioning job - and do it efficiently and economically with the lowest possible investment. Years of experience, years of research provide the know-how for which McQuay is famous.

M. Guay INC.



AIR CONDITIONING

1609 Broadway St., N. E., Minneapolis 13, Minnesota · Representatives in all principal cities

McQuey "W" water cooling coils also utilize the famous Ripple Fin and staggered tube construction. Extremely flexible to expansion and contraction with supply and return connections at one end, for long life and simplified piping and service. Also available in a wide variety of sizes, styles and capacities, 1 to 10 rows. 23 McQuay "W" coils were used on the Tishman system.

McQuay "J" Steam heating coils have the exclusive Ripple Fin and staggered tube construction. Designed for use on heating, ventilating and special process applications, and are especially suitable for modulated steam control with uniform discharge temperatures. Extremely flexible under expansion and contraction. Made in a wide variety of sizes, styles and capacities to meet the requirements of every application. 12 McQuay "J" coils were used on the Tishman system.



Philip Klutznick planning \$500 million port city

in Israel; Architect-Professor Bruno Funaro dies

ASSOCIATED PRESS



KLUTZNICK

A leader in both private homebuilding and public housing in the US is the driving force behind a plan to develop a brand-new \$500 million city of 150,000 population that will become Israel's second largest seaport (1st, Haifa), as well as a resort and industrial center. Energetic Philip M. Klutznick, 50, head of PHA from 1944 to 1946, and then the builder (with Nathan Manilow) of the huge Park Forest development in Chicago, revealed that he and Oved Ben-Ami, founder and mayor of the new Israel resort city of Natanya, have obtained a government concession on a 10,000-acre tract beside the Mediterranean 20 mi. south of Tel Aviv, provided they develop 2,500 acres in the next six years, and 2,500 acres more in each of the next three five-year periods. The new port of Ashdod, to rise from the ruins of a Biblical town of the same name, is being started with a \$20 million rayon plant erected by private US investors. Its master plan, being drawn by Tel Aviv Architects Itzhak Perlstein and Arieh Doudai, will provide for a 175-acre commercial and business center, also park areas for light industry, warehouses, resort and recreation facilities. In May, 1953, Kansas City-born Klutznick stepped up from president to board chairman of American Community Builders (corporate developers of Park Forest), to free himself for duties as international president of B'nai B'rith, Jewish service organization, which he still heads. But building the new city of Ashdod, he stressed, will be a private capital venture, not a government or B'nai B'rith project.

Presidential Assistant Sherman Adams even tried, but unsuccessfully, to recruit Milford A. Vieser, mortgage vice president of Mutual Benefit Life Insurance Co., of Newark, N.J., as Cole's successor. But if the White House wanted to replace Cole, top administration aides had never formally informed Cole of the fact, and in ensuing events Sigety got caught off base and was tagged out. Cole was furious when he learned from Senator Homer Capehart (R, Ind.) that Sigety had been lining up support throughout the industry for a double play to promote Mason to Cole's HHFA job, and Sigety into Mason's FHA spot. (On key appointments in Washington, Congressional committees are frequently consulted on the acceptability of prospective persons who would represent various agencies before them on legislative matters.) Sigety's successor is Cyrus B. Sweet, former president of the National Retail Lumber Dealers Assn. and



SWEET

member of the construction and civic development committee of the US Chamber of Commerce. Sweet joined FHA three years ago as director of its Title I home repair loan program, and has been Assistant Commissioner for Operations since July, 1956.

UPHEAVAL IN FHA



SIGETY

As an attorney, economist and accountant, youthful Charles Edward Sigety, 35, won considerable respect as Deputy Commissioner in FHA headquarters in Washington, second in command to Commissioner Norman P. Mason. He stumbled as a political arranger, however, and departed abruptly late in August under forced draft, and the wrath of HHFAdministrator Albert M. Cole.

The background that was not contained in the official press releases:

For some months there have been unofficial reports that Cole might leave HHFA. By some published accounts

POETIC PROMOTIONS

Architecture and building will be glorified to the public as never before via poetry and TV this season.

For a promotion campaign to "dramatize Chicago's architectural heritage in a building renaissance that could make it the world's first truly contemporary city," Mayor Richard J. Daley proclaimed Oct. 27 to Nov. 2 as Chicago Dynamic Week. As part of this project, Poet Carl Sandburg (Chicago Poems, 1916) has been enlisted to write a new ode to the city's current

continued on p. 103



BY ZEUS!

incandescent fixtures are TOPS!



SQUARE RECESS UNITS

with Holophane and Corning lenses for Intensive, Diffusing, Concave, Convex, Focusing and Asymmetrical distributions.



ALZAK PIN-HOLE RECESS LIGHTS

For intense downlighting— 100 watt to 1000 watt sizes in Gen-

eral Service and Silver Bowl lamp types.





SILVER BOWL DIFFUSING fixtures in 4' x 4' and 2' x 4' sizes with the amazing GRATELITE Louver Diffuser*.



THE ROTATORS

Both EYEBALL (shown) and CONCEALED rotator. Adjustable recess downlites for PAR and R-lamps.



CORRIDOR PRISMATIC RECESS FIXTURES

Three types for 21/2:1 and 1:1 ratios.



door or outdoor mounting, or for accent



ROUND CONCAVE RECESS

Also available with Flat or Prismatic glass, and with metal concentric rings or open types.



lighting.

BABY RECESS LIGHTS

For directional markers, night lights, other minimum intensity installations.

Narrow beam or drop-lens types.



ALZAK HINGED GLASS Drum Units

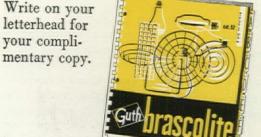
Hinges on concealed chain for easy relamping and cleaning.



GRATELITE INDIRECT **Pendant Type**

For luminous indirect lighting in schools, stores and offices. Something new...and beautiful!

*GRATELITE Louver Diffuser® U. S. Pat. No. 2,745,001. Canadian Patented 1957, No. 538,245.



These and many, many more incandescent fixtures are included in

this new Brascolite Catalog by Guth.

A complete working tool, it contains

all information needed to figure any

incandescent lighting job.

your compli-

THE EDWIN F. GUTH COMPANY 2615 Washington Blvd. . St. Louis 3, Mo.



Behold! My New Name: SEEMORE

In response to my pleas for a name, many splendid suggestions were presented. After much thoughtful consideration, I have chosen the name "Seemore", submitted by

> MR. WILLIAM J. MAGILL Lighting Consultant Southern California Edison Co. P. O. Box 410 Long Beach 1, California

To Mr. Magill, and to the others listed below, whose suggestions were also deemed worthy of reward, I am dispatching a bottle of Metaxa—that most excellent Greek brandy. My warmest thanks to all of you who so kindly assisted in my quest for a name.

MR. A. E. BRUNER **Lighting Specialist** The Electric Supply Co. 128 Walton St., N.W. Atlanta, Georgia MR. R. S. SMITH Consulting Engineer 3230 Ave. "J" Fort Worth, Texas MR. JACK PARSONS Illuminating Engineer Niagara Mohawk Power Corp. Buffalo 3. New York MARY MacD. TRACY Eaton W. Tarbell & Assoc., Inc., Architects 173 Exchange St. Bangor, Maine



building spurt—particularly its architecture and technology. He will read this for the first time at a banquet on Oct. 30. Other renaissance week events will include a curtain wall workshop for architects and builders and a cities revitalization forum with Frank Lloyd Wright, Realtors William Zeckendorf and Arthur Rubloff, and Chicago Planning Commissioner Ira Bach among the participants.

Sponsored by The Producers' Council, more than 200 TV stations will present a series of half-hour documentary programs, "Building America," starting this fall. Council President Fred M. Hauserman says "this is the first time any concerted industry-wide effort has been made to inform the public of the importance of the building industry to their living standards and mode of living. At the same time, we feel the series will be of direct benefit to architects, builders, distributors and other segments of the building industry."



TOPPING

RESEARCH, STANDARDS OFFICERS

The building industry's technical society, the Building Research Institute, elected as 1957-1958 president Charles H. Topping, senior architectural and civil engineering consultant of E. I. du Pont de Nemours, and as vice president Harold L. Humes, of the Baldwin-Hill Co., of Trenton, N.J. As membership committee chairman, Topping helped produce an 89% growth in BRI during the past year (now composed of more than 1,200 persons representing more than 350 different organizations). He succeeds Armstrong Cork's Research Director Edmund Claxton.

Elected as the first officers of the newly incorporated Modular Building Standards Assn.: president, Architect Cyrus E. Silling, chairman of the ASA's Committee A62; 1st vice president, James E. Coombs, representing AGC; 2d vice president, M. Edwin Green, representing AIA; secretary, H. Dorn Stewart, representing the Producers' Council, and treasurer, Martin L. Bartling Jr., representing NAHB.

NAMED: Ben C. Gerwick Jr. of San Francisco as president of the Prestressed Concrete Institute, succeeding J. Ashton Gray of Leesburg, Fla.; former Treasury Secretary George M. Humphrey as board chairman of National Steel Corp. (returning to the company he helped found in 1929); Bridge Designer O. H. Ammann, Boonton, N.J., as design consultant on the second deck of the George Washington Bridge, which he designed originally when he was chief engineer of the Port of New York Authority 25 years ago; Raymond Loewy, as interior designer of the Atlantic, new luxury liner of American Banner Lines; Designer Peter Muller-Munk of Pittsburgh, as first president of the International Council of Societies of Industrial Designers; Muller-Munk also recently was appointed a design consultant for US Steel.

BRUNO FUNARO DIES

Young in years, but well established as an imaginative designer, architectural author and teacher, Bruno Funaro, 46, died in New York on Aug. 12 after a long illness. After graduating from the Royal School of Architecture in Rome, Funaro came to the US in 1934, and two years later received his Master's degree from the Columbia University School of Architecture. In 1939 he was associated with architectural work for the Italian Pavilion at the New York World's Fair. Based on his practical design experience, he was the co-author (with Geoffrey Baker) of: Windows in Modern Architecture; Shopping Centers, Design and Operation and Motels. He was intensely interested in research on materials and methods in their specific application to design, and at different periods was associated with the work of both the Pierce Foundation and Howard T. Fisher in these fields. His death was a major loss for Columbia's School of Architecture, which he joined as an assistant professor in 1953, and where he was associate professor and assistant dean in charge of evening classes at the time of his death. Both the stature of the school and enthusiasm for it received a lift they had not had in many years under his effective forward-looking contributions to its direction, including a special project last summer on "Imaginative Building" at the Columbia engineering camp in Litchfield, Conn.



FUNARO

3 POMEROY SERVICES

specified for this modern building!



THE NEW YORK COFFEE & SUGAR EXCHANGE - Henry G. Greene, arch. - Felgreene Building Co., Inc., gen. contractor

- * MONUMENTAL TYPE 360° REVERSIBLE ALUMINUM WINDOWS
- * SELF-CLOSING STEEL FIRE WINDOWS-UNDERWRITERS' LABELED
- * "SERIES 7" AIR-CONDITIONING ENCLOSURES

SINCE 1897

Call POMEROY today to arrange for a representative to outline the many products and services POMEROY offers. Equip your next project with highly efficient and economical custom-built POMEROY products.

COMPLETE ENGINEERING SERVICE AVAILABLE FOR ANY SIZE PROJECT.

S. H. POMEROY COMPANY, 25 BRUCKNER BOULEVARD, NEW YORK 54, N. Y.

manufacturers of

DOUBLE-HUNG WINDOWS VERTICALLY PIVOTED WINDOWS

FIXED and HINGED COMBINATION WINDOWS

CUSTOM-BUILT **ENCLOSURES**

SPANDREL SYSTEMS

ACOUSTICAL CEILING SUSPENSION SYSTEMS

FABRICATION IN ALUMINUM - STAINLESS STEEL and COATED STEEL

Rolling Steel Doors

Manually, Mechanically or Electrically Operated

In truck openings, loading dock openings, and railroad openings, in modern plants and warehouses where the time element and operating space requirements are primary considerations, the rolling steel door has no equal . . . because, a quick-opening, quick-closing, power operated rolling steel door saves both time and space. The vertical roll-up action is fast—requires no usable space either inside or outside the opening. And there are no overhead tracks or other obstructions to restrict headroom and interfere with crane handling or stacking of goods or materials adjacent to the door opening. No other type of door can give you this space-saving compactness in operation . . . and no other type of door can give you the positive security, firesafety and permanence inherent in a good rolling steel door. The all-metal construction of a rolling steel door reduces maintenance to a negligible factor, and assures you a lifetime of continuous, trouble-free service. When you buy a rolling steel door, it will pay you to check specifications carefully . . . you'll find that Mahon doors are built better to give you better service over a longer period of time -for instance, the galvanized steel in Mahon curtain slats is BONDERIZED and DIP-COATED with Synthetic Enamel which is baked on at 350° F. prior to roll-forming. This is just one of the extra-value features of Mahon Rolling Steel Doors . . . comparison will disclose many others that add up to a much better door investment. See Sweet's Files for information or write for Catalogue G-57.

THE R. C. MAHON COMPANY - Detroit 34, Michigan

Sales-Engineering Offices in Detroit, New York and Chicago • Representatives in Principal Cities

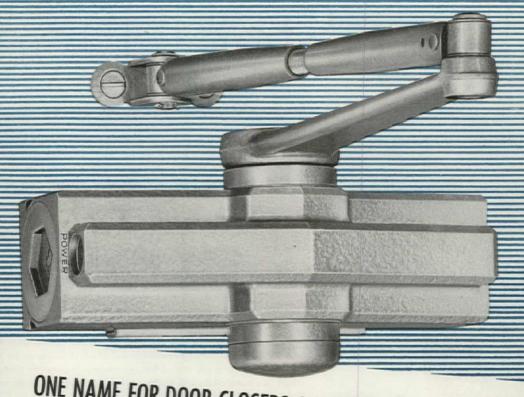
Manufacturers of Rolling Steel Doors, Grilles, and Automatic Underwriters' Labeled Rolling Steel Fire Doors and Fire Shutters; Underwriters' Rated Fire Walls; Insulated Metal Curtain Walls; Electrified M-Floors; Acoustical and Troffer Forms; and Steel Roof Decks and Long Span M-Decks.



SHUTTERS AND GRILLES TO MEET EVERY REQUIREMENT STEEL ROLLING DOORS,

Shown above are Eight of Thirty-four Mahon Rolling Steel Doors installed in a new, modern building for the Giant Food Distribution Center, Landover, Maryland, Eighteen of these doors were installed in Double Truck Openings and Four in Railroad Openings. Stanford Construction Company, Inc., General Contractors.

POWER OPERATOR 920-F



ONE NAME FOR DOOR CLOSERS AND HEAVY-DUTY LOCKS

Your concern for quality appearance and construction are evident when you specify Schlage for every doorway operation.

For automatic closing power— Schlage's modern, completely reversible door closer. For durable, troublefree lock performance—Schlage's heavy-duty locks.

The quality you expect is designed right into Schlage products; they are precision-built to fine tolerances and will withstand heavy traffic for decades. Cleanly designed to fit contemporary trends, they are quickly and easily installed.

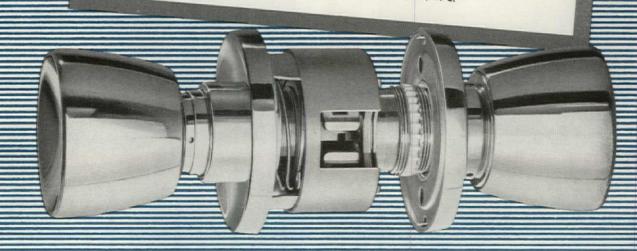
On every count, in every situation, Schlage stands out.

For complete information about Schlage's modern door closer and Schlage heavy-duty locks, write the Schlage Lock Company, Dept. EE-10, P.O. Box 3324, San Francisco, Calif.



LOCK COMPANY

SAN FRANCISCO . NEW YORK . VANCOUVER, B. C.



Editorial

ARCHITECTURAL FORUM
PUBLISHED BY TIME Inc.
EDITOR-IN-CHIEF: Henry R. Luce
PRESIDENT: Roy E. Larsen

EDITOR:

Douglas Haskell, AIA

MANAGING EDITOR: Joseph C. Hazen Jr.

ART DIRECTOR:
Paul Grotz

ASSOCIATE EDITORS:

David Allison, Russell Bourne,
David Carlson, Frank Fogarty,
Mireille Gerould, Marilyn Grayboff,
Jane Jacobs, Mary Jane Lightbown,
Walter McQuade, AIA, Joan Mebane,
Richard A. Miller, AIA, Anne Peyton,
Richard Saunders, Ogden Tanner,
Stephen G. Thompson,
Mary Elizabeth Young

ASSISTANTS:

Anne LeCrenier, Dorothy O'Shea, Henry Martin Ottmann, Ann Wilson

ART STAFF:

Ray Komai, associate director; Martha Blake, Charlotte Winter

CONSULTANTS:

Miles L. Colean, FAIA Carl Feiss, AIA Lawrence Lessing

PUBLISHER: Ralph Delanaye Paine Jr.

GENERAL MANAGER: Charles B. Bear

ADVERTISING DIRECTOR: S. C. Lawson

ASSISTANT TO THE PUBLISHER: John Fistere

Those expensive "school palaces"

About 1½ million more kids than ever before are now in school, bulging out the walls with the help of the other 40 million kids the nation is trying to educate. A desperate shortage of classrooms demands the most economical building program. This means that costs must be examined by the most careful experts.

Amateurs have lately been trying at it, and while their good intentions are indispensable, they have been adding lamentably to an existing overstock of confusion.

For example, two shocking articles appeared in popular magazines during the summer, their contents remarkably parallel.

"Must schools be palaces?" asked Dorothy Thompson in the August Ladies' Home Journal, and Reader's Digest for September asked, "Do school pupils need costly palaces?"

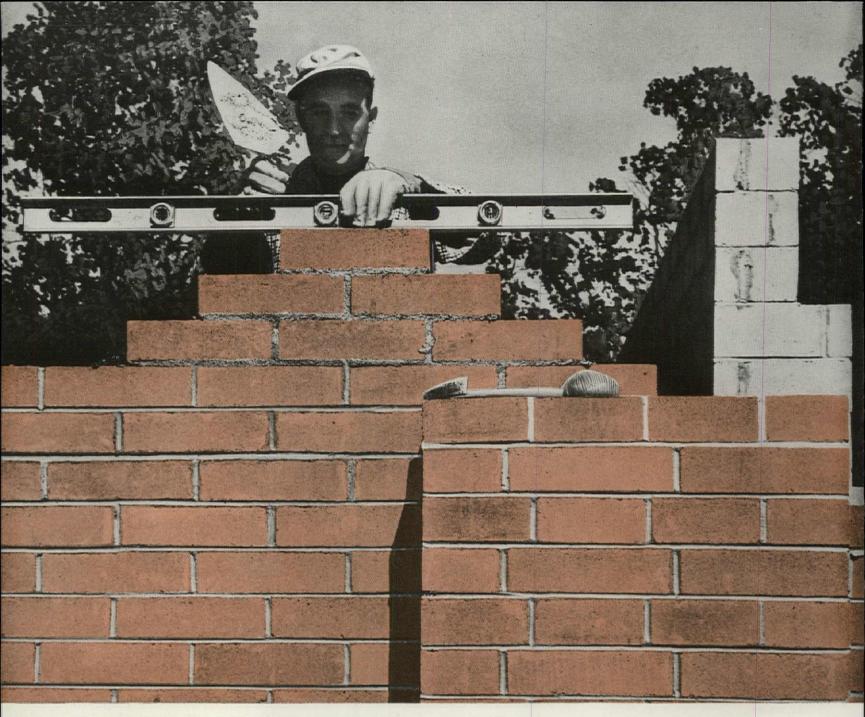
Both articles conveyed the seriousness of the problem. Yet both illustrated three temptations of the beginner: to fasten on only the most visible symptoms of high cost rather than the most important reasons; to use statistics, half-understood; and to blame the architect only, as a "dreamer."

For example, there was repeated again the theme of that overgrown school clock-tower chimney which stands so prominently on the land-scape. Way back in 1937, the sub-urb of Winnetka near Chicago built the famous Crow Island School

in the middle of a fine residential neighborhood. A heating plant was needed with chimney which, undisguised, would have been an eyesore. The late genius Architect Eliel Saarinen then said: "Why not cover it with brick, enlarge it a little more. put a clock on it, and make it a school symbol?" So successful was this move that it was widely imitated, sometimes sensibly, sometimes not. Obviously at Winnetka it saved property values in surrounding houses, and added to the taxpayers' wealth instead of subtracting from it. But such niceties do not always reveal their full purpose visibly, and especially not to a professional group who are neither architects nor teachers and are therefore highly critical of both. Reporters should listen to such people warily, just as they should listen warily to any architect who runs down his rival.

So an "overgrown" school chimney may turn out to be an economy asset and not a liability. And if such a chimney ever did involve enough waste brick "to build 12 classrooms" —FORUM seriously doubts it—the architect was going too far with a good idea, not pursuing a bad idea.

Then again there is the amateur play with statistics, and especially "square-foot costs," which to a beginner look so solid. But experts have long been asking one another exactly what a "square foot of school" really is. Does it, or does it



TRUE, TIGHT JOINTS were obtained with Atlas Mortar cement in laying colored masonry units (8" x 12" x 3½") at McKinley Shopping Center, South Bend, Ind., according to masonry contractor Hugh M. Lee of Niles, Mich. General contractor, Paul Woodcox; Architect, Charles T. Donegan; both of South Bend.

ATLAS® MORTAR cement stays plastic and workable...spreads easily with less effort

- Field results consistently confirm that Atlas Mortar cement produces excellent mortar workability and also gives high yields.
- This mortar workability helps masons to produce serviceable, watertight masonry walls.
- Quality-controlled manufacture of Atlas Mortar cement maintains high product standards and assures uniform performance and appearance, job after job. (Complies with ASTM & Federal Specifications.)

Write for your copy of "Build Better Masonry," Universal Atlas, 100 Park Avenue, New York 17, N. Y.



UNIVERSAL ATLAS CEMENT COMPANY-member of the industrial family that serves the nation-UNITED STATES STEEL

OFFICES: Albany - Birmingham - Boston - Chicago - Dayton - Kansas City - Milwaukee - Minneapolis - New York - Philadelphia - Pittsburgh - St. Louis - Waco

Editorial cont'd.

not, include the following: land costs, architect's fees, contractor's fees, financing costs, equipment (and if so, where does "building" end and "equipment" begin)? Were square feet measured by AIA rules covering such queazy items as semiopen space? Were only classrooms included, or other kinds of space? Just what year was the school in question built? (Three years' difference in date could easily mean 15% difference in cost.) square-foot figures are blandly thrown together, as they were in the Digest article, undocumented as to source or base, comparisons can be so misleading as to be wholly worthless. The author did indeed throw in a warning about regional differences, but a three months' shift in time of year can also easily make a 15% difference in bids, as can the "hunger" of a single contractor. Obviously, if a price of \$7 a sq. ft. will build a new school that is not also a new slum in industrialized Ohio (and FORUM believes this would be a fantastic exception even in a rural Ohio district) then there is something seriously unexplained about praising simultaneously a school costing \$14 a sq. ft. in the nearby state of New York.

A third temptation to amateurs is confusion of values. Eager beavers like Miss Thompson are especially ready to be carried away, and probably not one clear-thinking educator is thanking Miss Thompson one little bit for her condemnation in the Journal of a 300-pupil high school for picking a 28-acre site, allowing playground space which good practice would consider just nicely adequate. Miss Thompson's own cost accounting was hasty. And when she went further and held up as an ideal the austerities that are unavoidable in Morocco, did she mean that we must discard American civilization altogether and that the parents should give up their Buicks and air conditioning in order to stay primitive with their children?

America can meet the challenge of

adequate schools with economy and without skimping.

The very first step is to try to establish real measuring sticks of cost, and on this FORUM will get help from real experts in its special school issue next month. But there must also be weighed hidden factors of finance, administration, and social policy. And the last thing that America can afford to do is to cut off her children from creative dreams.

Capitol debate

Just before Congress adjourned, two moves were made respecting changes to the Capitol. One was the proposed amendment by Henry S. Reuss (D, Wis.) in H.R. 9238, which would have released the architectural advisory committee from preconceived solutions discarded in 1904 and left them free to make their own best proposals. This would have the effect of leaving the historic East Front alone. Architect of the Capitol J. George Stewart brought out his proposed plans, which would, sure enough, extinguish the historic aspect of the East Front by the prescribed extension. In his report, Stewart praised his architect consultants who, he said, all supported his East Front changes; specifically he cited Arthur Brown of San Francisco who died last July. But when FORUM interviewed Brown just before, he spoke with withering scorn of the "bumbling milliners" who wanted this change, expressed enthusiastic agreement with a LIFE editorial against the change, and asked that his conversation be kept off the record because "he was not free to express his own opinions." This is just one of many strange facts that make the time more than ripe to put the Capitol into top architectural hands, free and ungagged, as Reuss would.

Designed for human beings, not for abstract consumers—for real communities, not for circles on the map

Three successful





The Boardwalk, Tiburon, Calif.

shopping centers



Northland, Detroit

Eastland, outside Detroit



Here we revisit the most successful of all the big regional shopping centers built thus far, Northland in suburban Detroit, to see what lessons and changes have resulted from its three years of unparalleled pulling power. Then we will take a first look at Northland's new sister center, Eastland, and at how and why it differs from Northland (p. 112). Finally, we will examine a small community center which has also had an unexpectedly large, though well-deserved, success at four-acre scale (p. 118).

This is a good moment to reappraise shopping center experience. During the past 18 months, so many new centers opened that at times it seemed they must be coming off a hidden assembly line. In one threemonth period alone, 17 new regional centers added more square footage than all regional centers built in the previous eight years. Smaller centers opened by the hundreds. But in the next 18 months or two years, relatively few centers will open, especially few large ones. This is partly because of tighter money, partly because such great surges in retail space are followed by digestive pauses. But although it will be a period of relatively little construction activity, it will be a period of intense planning activity. Indeed, if plans are any indication, the next surge of construction will outdo the last. Right now, when the shape of the centers of the sixties is being forged, past successes have much to teach developers, investors, architects and prospective tenants.

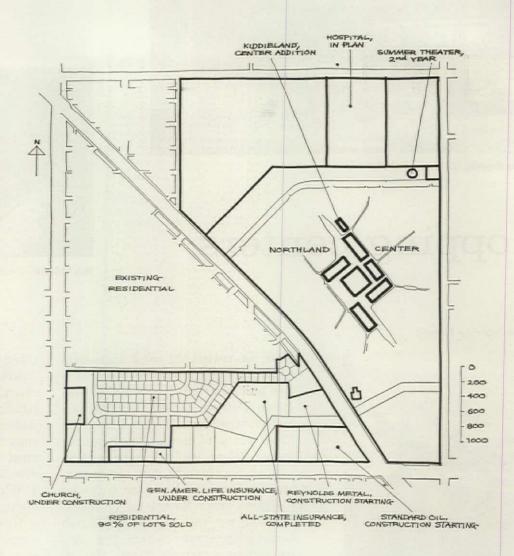
Existing centers, in common with

other real estate ventures, run the entire gamut from failure (or more often, in this period of prosperity, sliding by) to extraordinary success. Among the many and complex reasons for the differences, by far the most important are location, tenant selection, and financial planning ("Why Aren't There More Good Shopping Centers?" AF, Dec. '56).

However, the happy centers that succeed well beyond even the best expectations, secure from conceivable competition, have something else—something no conscientious formula can contribute. In fact formula can be the enemy. They have a careful fitting to *local* conditions in such matters as merchandising, facilities, appearance, and land use. This usually means breaking some of the "rules," or rather knowing when to make new ones.

In the pages that follow, scrutiny is not on the fine basic planning which underlies these examples of success, but on the thinking that went into them above and beyond the call of duty. One immediately visible evidence of this thinking is their architectural design which, above all, is hospitable to people and merchandise. These centers look better with people, signs and goods in them, than without. Architecturally, they have the strength to be successful containers, splendid visual organizers for clamorous diversity. It is surprising how few centers, including many that aspire to outstanding design, can meet this rugged test. Standard storefronts are no solution; they only stress the chaos they are trying to frame.

Site plan shows new housing and offices built or under construction on land bordering Northland. Extra land was bought up by Northland's owner to protect the area from blight and take advantage of the center's enhancement of land values. The block to the west of the proposed 400-bed general hospital will probably be residential; the block to the east is being studied for a regional health center. The wedge-shaped block south of Northland is proposed for an office-building group under study. In the shopping center, parking has been increased from 7,500 to 10,000 cars by using some of the allotted reserves. The summer theater. in its successful second year, is about to move out of its tent and under a geodesic dome. A broadcasting station. gas stations and a children's amusement area have been added. An addition to the restaurant down in the corner is under construction.



1. Northland revisited: its great investment in amenities has paid off

Northland shopping center, backed by its department store, J. L. Hudson Co., and designed by Victor Gruen Associates, architect, is a thoroughly cheerful place to revisit three and a half years after its opening in March, 1954 (AF, June '54). The aura of success is unmistakable, along with the tangible evidence of crowds of shoppers. There has been no creeping infringement on sign controls, no letdown in maintenance. It looks as well kept and gay as the week it opened.

Northland departed from usual shopping-center design at the time it opened, and it is far from usual design to this day. Among its departures were expensive (some predicted extravagant) amenities, such as underground servicing with a full basement beneath the whole center, lavish use of planting, fountains, sculpture and art, generous public meeting rooms, and owner-financed storefronts and interiors, of great variety (not a standard front in the

place). Besides, it had only one department store in a million-squarefoot center, when the rules prescribe at least two-but so does downtown Detroit peculiarly have only one department store (Hudson's) of real size. It had a high proportion of nonchain tenants, usually considered a poor risk, but these local stores had proved their popularity with Detroiters. It had two furniture stores, totalling an outlandish 55,000 sq. ft., for furniture stores are notoriously unable to pull their weight in shopping centers-but a single department store, it was figured, needs strong competition all along the line. Its 168-acre site included big reserve and future development areas, out where the cows were hardly giving way to the houses.

How has it all worked out? In the huge basement, every cranny has long since been put to use—much for increased sales space and for tenants never originally contemplated, such as a dancing school and physicians.

One of the furniture stores is doing a business of \$91 per sq. ft. of gross area, probably a record even for big city downtowns; the other is doing fine too. Hudson's Northland store is doing an estimated 80% better per sq. ft. than any other department store branch in the country (except the Abraham & Straus branch in Hempstead. L. I.) and five times better than many. The sculptures are so popular and persistently photographed, everybody in Detroit must have snapshots of them by now. The public rooms have an average 100 bookings ahead on any given date; they have obviously filled a genuine vacuum in the area. The site sketch shows what is happening to the reserve areas.

The only real miscalculation, and it is a significant one, seems to have been in the amount of business predicted. The pre-opening calculations by Economic Consultant Larry Smith were that Northland would do about \$35 million in its first year,



Jollity in one of Northland's lesser malls

\$50 million by its fifth. Immediately after its opening, it exceeded the \$50 million rate. For the fiscal year of 1955 (ended Jan. 31, 1956) it did \$88,678,000; for fiscal year 1956 it did \$99,342,000 and for the first half of this year it has been running at a rate of \$108,283,000, 9% over last year. With the competition of its new sister center, Eastland, coming along, this is expected to drop to an average 6% gain for the year, or about \$105,300,000. These figures exclude 14 "nonmeasurable" tenants, such as the bank, which calculated on breaking even in two years; it was in the black after seven months.

Smith, although conservative, usually predicts close to the mark. How could his estimates have been so far off? Horace Carpenter Jr., vice president and general manager of Northland and Eastland, explains it thus: "All Smith or any of us had to go on was experience in previous centers. But nobody had ever designed and built a Northland

before. There just was no experience that applied; that's about the size of it." Gruen puts it this way: "Economic studies cannot predict what new kinds of environmental qualities will do to calculations."

Does every tenant share in a success so sweeping? No, there have been six failures among the 89 stores. Two, a meat shop and a children's shop, were attributable to bad management. They are doing well under a change of proprietors. Of the others, one was a dress shop (replaced by children's shoes) and three were gift shops. Moreover, these three were the sum total of gift shops at Northland. They have been replaced by delicatessen, watch repair and sportswear. Carpenter thinks the lesson is that gift shops should probably stick with a moderate overhead. "Unless very unusual, they are just not high-rent enterprises, and Northland is a highrent operation."

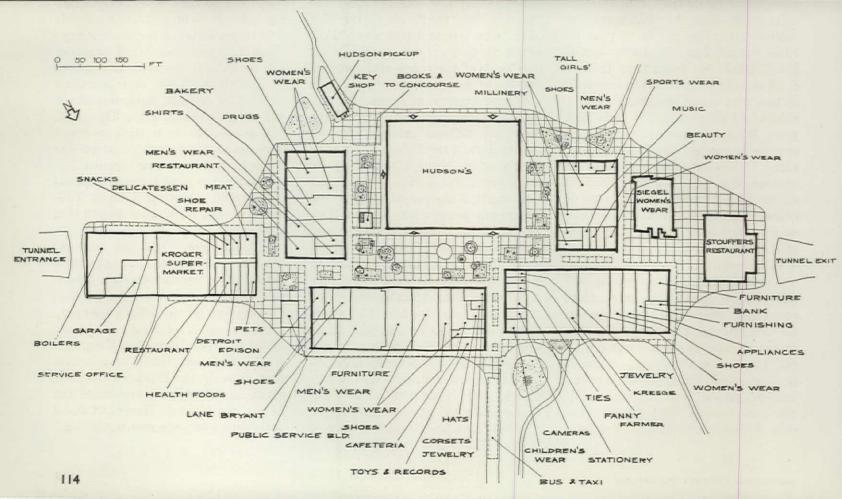
What has Northland's success

done to Hudson's downtown? Hudson officials, who converse publicly only in percentages, not dollars, say: "Eastland and Northland together will do 50% of the Hudson business — Northland 30% and Eastland 20%. The parent store downtown will do the other 50%. This 50% will amount to 80 to 85% as much business as the downtown store was doing before Northland opened."

Plainly, the total Hudson business is therefore showing a 60 to 70% increase, but downtown is showing a drop.

If the branch stores had not been opened, would the downtown store be better off? "We had no such choice, realistically," says Carpenter. "There was going to be a shopping center in the Northland area, if not by us, by somebody else. We did it better, I'm sure, but it would have been done. In the Eastland area, our plans halted at least one other big center, possibly two. You can't stand still when everyone else is moving."







Malls are many and various; this one is near the western end, seen from the pet store arcade

2. Eastland is the Northland idea with a big difference

Eastland has the same backer—the J. L. Hudson Co.— as Northland, same architects, same main store, many of the same smaller tenants, is almost the same size (a million sq. ft.) and almost the same distance from downtown Detroit (eight miles). Its basic planning and facilities are the same too.

But Eastland is no carbon copy of Northland, largely because of difference in clientele. Eastland's trade population is not the middle class of Northland's. Instead it includes Detroit's highest income population—the Grosse Pointe people—and a large segment of relatively low-income families. Eastland, like the city downtown, is built for both, the first shopping center to attempt such

a spread. This has affected the scheme in major respects.

Merchandise planning: Eastland has, for example, at the high end of the scale, a women's specialty store, Siegel's. It is higher priced than any Northland store, much bigger than its nearest equivalent there, and in its own distinctive building. At the other extreme, Eastland has a very low-priced specialty store three times as large as its nearest Northland equivalent. Hudson's at Eastland includes both the high-style, high-priced Woodward Shops of the parent store and a full, popularpriced basement store with its own entity emphasized, neither of which is true of Hudson's Northland. Similar leaning toward one end of

the income scale or the other can be found among many other tenants. Appearance: Here the distinction is subtle but very real. Eastlandjust as handsomely built, planted and equipped as Northland-is, however, more informal, looser. This is partly a matter of more curves in the landscaping, but also because four of the main tenants-Hudson's, Siegel's, Stouffer's and Kroger'sare in buildings each with its own separate character The informality works hand-in-glove with the policy of pulling divergent publics. The last thing Eastland's owner and architects wanted was to make customers conscious of class distinctions, and in the ordered informality of Eastland the differences between the

grander and less grand tenant groupings do appear as perfectly casual incidents of physical arrangement and architectural variation. It would take an acute observer indeed to sense the provision for dif-

ferent publics.

Site planning: The differences here arise from Eastland's longer, narrower, site, which determined a cluster more elongated than Northland's tighter, centralized grouping. But again, this works hand-in-glove with the aim of freer architecture.

Eastland was expected, before its opening, to do a \$70 to \$75 million business for the 1958 fiscal year (beginning Feb. 1). The first seven weeks' business indicates it will handsomely exceed this even during the 12 months beginning with its opening last July. Total cost, close to \$30 million, has not yet been broken down to construction per sq. ft. of rentable area, but will be somewhere close to Northland's \$21.50 although meantime building costs in the area have risen 17%. Eastland's considerable "saving" is attributed to 1) competitive bidding instead of Northland's cost-plus contract and 2) complete advance planning, impossible at Northland where construction began when few leases were fixed. At Eastland virtually all tenant work was included in the landlord's working drawings and was done at the same time. The Saturday before opening at Eastland only 150 workmen were still around; the equivalent day at Northland there were 1,500, on double time. Eastland's financing included a \$201/3 million mortgage from Northwestern Mutual. Another \$41/2 million was raised by increasing Equitable's \$161/2 million mortgage on Northland (originally \$171/2 million) to \$21 million.





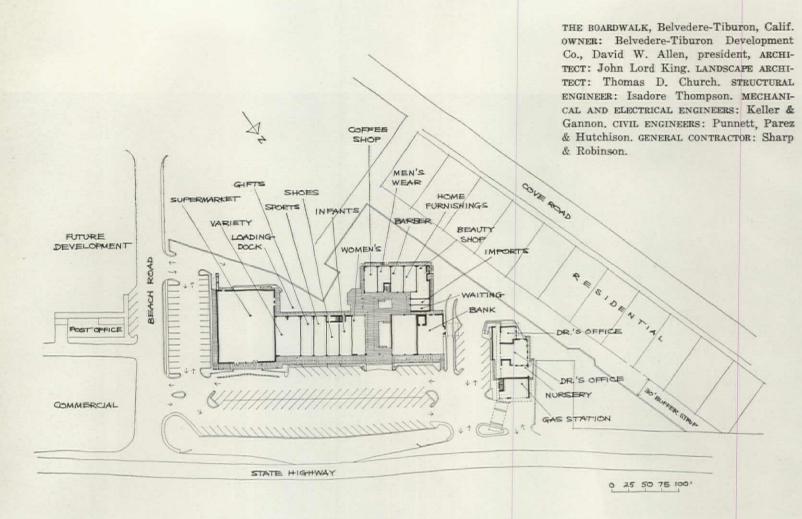


Large tenant (1) has its own building, but smaller tenants also have their own distinctive character, like the toy store example (4). Cut out aluminum sculpture by Lindsey Decker makes sun patterns on the floor beside phones (2). The granite hippo by William McVey (5) was designed for what it is getting. The bronze against wall (3) is by Morris Brose who also did the pool, "Marine Metamorphosis," in Eastland's grand court (p. 110). The view of Hudson's (6) is from the other end of the court. This main outdoor space is larger than Northland's grand terrace, because special events there have proved to draw crowds of city square scale.





EASTLAND REGIONAL SHOPPING CENTER, Harper Woods, Mich. owner: Eastland Center, Inc. ARCHITECTS AND ENGINEERS: Victor Gruen Associates. PARTNER IN CHARGE: Karl O. Van Leuven Jr. PROJECT DIRECTOR: Raymond O. Brinker. LANDSCAPE ARCHITECT: Edward A. Eichstedt. ELECTRICAL AND MECHANICAL ENGI-NEERS: Hyde & Bobbio, Inc. CIVIL ENGINEERS: Hubbell, Roth & Clark. ECONOMIC CONSULTANTS: Larry Smith & Co. TRAFFIC CONSULTANT: Lloyd B. Reid. SCULPTORS: Morris Brose, Joseph Bullone, Marshall Fredericks, Louise Kruger, Mary Callery, Lindsey Decker, Thomas McClure and William McVey. GEN-ERAL CONTRACTORS: O. W. Burke Co. and A. A. Smith Co. MECHANICAL CONTRACTOR: Donald Miller Co. ELECTRICAL CONTRACTORS: John H. Busby Co. and F. J. O'Toole Co.



3. The Boardwalk is a trim little world in four acres

The owner and architect of this 45,-450-sq. ft. shopping center had many aims in common with the owner and architects of the million-square-foot giants in the preceding pages, and the results show in the little center as surely as in the big ones.

So the Boardwalk would be a preserving, not blighting, influence and at the same time be fun to come to—its character is that of a wellbred resort, complete with outdoor café and a second-floor auditorium much used by amateur theater groups. Consideration for the neighborhood extended even to deeding adjoining home owners wide, planted back-yard buffer strips, with a maintenance agreement by the recipients. The site is a silted-in lagoon; the wood-decking scheme, on concrete pad footings, turned the foundation problem into an asset.

In merchandise planning, the owner broke some rules—for sound local reasons. He put fabric and furnishing shops in so small a center because these were well-established outlets for local artisans, well patronized by a growing population of young families. He also exceeded the 30,000-sq. ft. area which an economic study pegged as advisable, and business has justified him. Soon after the opening in Feb. 1956 every tenant was paying above the guaranteed minimum; they are doing 20 to 25% higher per sq. ft. than forecast, in spite of the 50% increase in size.

PHOTOS: DEAN STONE/HUGO STECCATE



Supermarket (left) is the dominant building. Framed with steel bents, as is the rest of the center, it has a 90' span.

Pedestrian deck (right) is 18" higher than the parking lot to minimize the "sea of cars"; the walk is reached by cantilevered steps. The service side grade is even with the deck. Next stage: a storage-service building across Beach Road.



















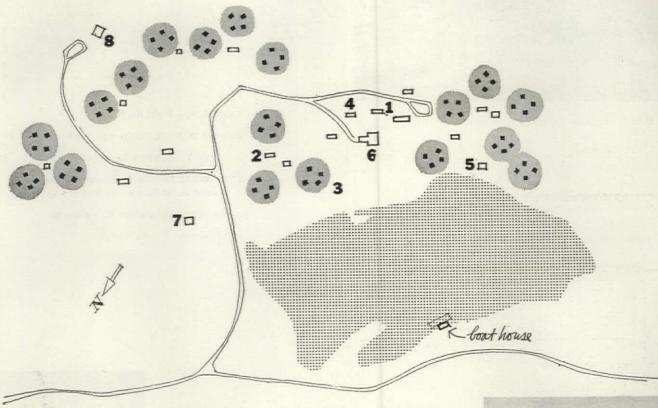


Decentralized plan of Camp Bliss has room for a variety of building types. At left and above are the flatroofed infirmary 1; a washhouse 2; a four-bunk tent, 12 of which in three informal groupings compose a "village" 3; a staff house 4; a village

hall, focal point of camp social life 5; the tent-shaped dining hall 6; the Mary Louise Lodge for girls' counselors 7 was completed within the past year. Equally new, the Great Lodge 8 is used for girls' dramatics and rainy-day activities.



These days modern design is found in many unusual places. Here it is camping in the woods



Architecture in the rough



PHOTOS: BEN SCHNALI

New York City's much-headlined, much-filmed youth is given a free chance to get away from it all for two weeks by the *Herald Tribune*'s Fresh Air Fund. Each summer about 1,000 of them, in groups of 200, are sent to the Fund's camp near Fishkill, N.Y. For many of the teenagers this is a first meeting with the outdoor version of nature. For all of them it is a fine vacation with a built-in challenge: getting along with people in a natural setting.

Most of the job at Camp Bliss falls to the counselors (there is one for every four campers). But an important part of the work is done by the subtly ordered environment that Architect Edward Barnes has created.

FORUM carried its first report on the camp in July,

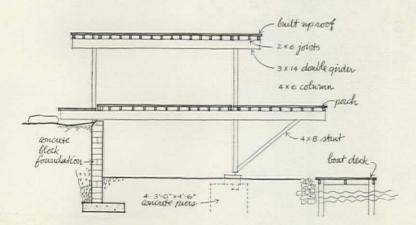
1955. Since then, and without exceeding his modest budget, Barnes has designed a full complement of buildings that blend with the surrounding wilderness, yet are exact and human. On the opposite page the major building types, old and new, are pictured and keyed to the site above.

Fresh Air Fund officials are particularly pleased with the precise but reposed appearance of the Ogden Reid Boathouse.

Situated across the lake, the boathouse is used mostly by the boys' counselors. They approach it by water and, from its wide landing and broad, cantilevered porch, can look back to the tree-hidden shapes of the camp. Says Barnes: "They can look back at it, and think it over."



Counselors take in the view from the cantilever



edge of lake—

we was a way of the services of

CAMP BLISS, Fishkill, N.Y.

HERALD TRIBUNE FRESH AIR FUND

ARCHITECT: Edward Larrabee Barnes

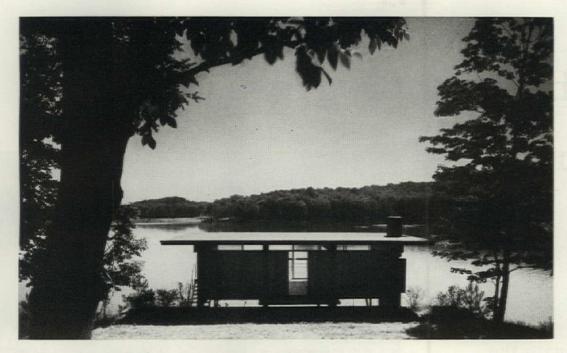
ENGINEERS: Farkas & Barron (structural)
John J. Baffa (water and sewage)

CAMP PLANNER: Julian H. Salomon

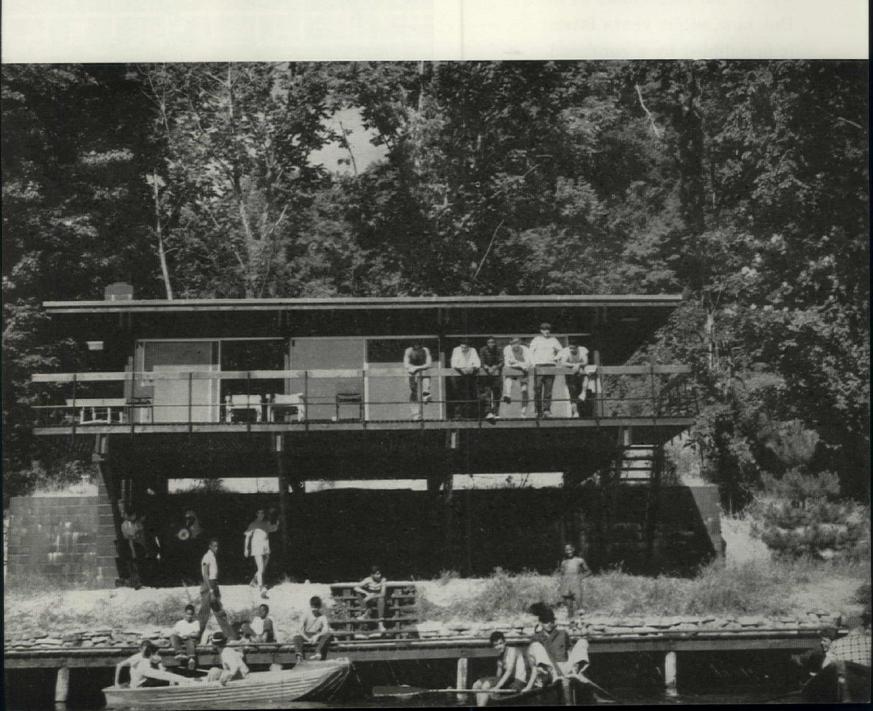
CONTRACTOR: Frank Rotunno

Stone fireplace dominates the south wall of the one-room boathouse (see floor plan, left), giving meaning to a modest space. The true size of the boathouse can only be seen from outside, preferably from the lake (right), where the full, welcoming effect of the overlapping roof, porch, and boat deck is felt. Barnes here again used simple techniques (note lack of fascia beneath the eaves) to produce a natural but neat structure. Wood is stained and painted dark brown, concrete block exterior chimney is bright red, foundation work is black.





Boathouse from behind looks deceptively small and delicate



The halting progress of

urban renewal

Any program dealing with the destiny of whole cities was bound to stumble at first. But now, eight years later, it is hobbled by a confused federal housing policy which favors suburb over city



"Whenever America really wants to do something, the immediate power it gives to government is phenomenal."

This has been said many times by that bright housing and planning expert Catherine Bauer. It is fantastically true of urban renewal. The so-called Title I of the Housing Act of 1949 inaugurated an entirely new epoch. Up until then cities had of course possessed powers of eminent domain: they had been able to take private property by condemnation for the sake of building streets, squares, parks and other public utilities. But since 1949 they have been able to take it on a vastly altered and extended basis. A man who is decently and productively using city land may now have it taken from him, under certain circumstances, for some other private enterpriser to build on. How can this be? It happens when the community decides that the area as a whole is economically blighted and is either a slum or a potential slum. By marking the whole area as a

"renewal area," the city can take the patches of good land along with the surrounding bad for comprehensive renewal operations.

The profound discovery behind the process was that singlehanded operations could not arrest urban blight by which they were surrounded, and again that the necessary comprehensive operations could be stymied by the vast difficulty of assembling the needed parcels.

There was a precedent for forced assembly of parcels in "slum clearance" by public housing (another kind of public utility). But the gist of the new Title I was that, first of all, rebuilding was to be by private enterprise or public authority; and, secondly, it could embrace many kinds of buildings and not only residential ones. The act recognized that commercial and industrial facilities could be just as essential as dwelling units for the recovery of a neighborhood.

Consequently when urban renewal is discussed as a branch of federal housing policy, it must always be remembered that urban renewal is housing and a good deal more. The new idea extends the government's historic concern with housing into a broader concern with how Americans live in cities.

This decision by the nation that it would control its destiny was naturally too complex to be framed easily into legislation. To begin with, there was the ethical question: might it not be better to leave slum land to rot so it could be picked up cheaply in the open market? Might this not be abetted by enforcing health and fire laws in the slums, thus penalizing the slum owners? For complicated reasons it was decided in the end that responsibility for the slums could not be ethically fastened always on the present owner, nor should sickness and crime be allowed to continue just so slum-owners might be punished. The existence of slums is the outcome of a whole series of errors involving the whole of society. Rather than engage in endless altercation, might not society better take this burden on itself.

This is the last in a series examining America's confused housing program. Early next year, in time for consideration by Congress, Forum will report the industry's suggestions for developing a housing policy related to the needs of today's cities and suburbs.



pay the present owners in keeping with assessed valuations (which are organically tied into the credit structure of the city itself), and rely on the fact that everybody concerned would be immensely better off after renewal has been carried out? In restrospect would not the question whether this owner or that one had received a penny too much or too little in the early stages of the process be inconsequential?

But if land was not to be acquired at the higher price, a write-down formula had to be used, so the land could be resold or leased to the private builder at a price which his projected operation could absorb. Of this write-down burden the federal government assumes two-thirds, and the city, one-third, which it contributed in the form of services.

A gauntlet of procedures

But, even before land can be acquired and sold, the city, under the Housing Act of 1954, has to run through a gauntlet of federal procedures, some necessary, others not

necessary. Here's how it works:

Before it can get an urban renewal project approved for federal aid, a city must prove its legal eligibility for federal assistance. Then it must have a workable program, a master plan for community development encompassing sound housing and health codes, proof of citizen support and the administrative and financial capacity to effectuate the whole program. This workable plan must be approved by HHFA as a first step, although a city may get from URA-which administers the grants and loans and aids in planning-some federal funds for planning prior to such approval.

The city then can go to work on a specific urban renewal area. This is just a very sketchy first step toward pinpointing an actual area for clearance, rehabilitation or both. The plan that is made, actually just a more detailed eligibility report, is approved by URA. If it is thought that residential re-use will enter into the redevelopment, FHA is sometimes consulted at this early

date for advice on land prices and possible rent schedules for the area.

When all its planning is finished -and URA requires a tremendous amount of detail even though in every case the local agency isn't even certain about important elements of the plan that might effect utility lines, sewers, etc.—a "final" project report is submitted to URA. This comprises a fat portfolio of some 37 basic documents; maps. photographs, budgets, street and utility layouts, schedules and just about everything needed to start work. URA makes suggestions and revisions on these plans, and usually forwards them to FHA for advice on land price and other elements affecting residential re-use. Until URA, and the local city council, approve this "final" report, the local agency cannot enter into a formal loan and grant contract with HHFA. And, until the area is certified for section 220 mortgage insurance by the HHFAdministrator, the city cannot assure redevelopers that such

continued on p. 238

Gallery

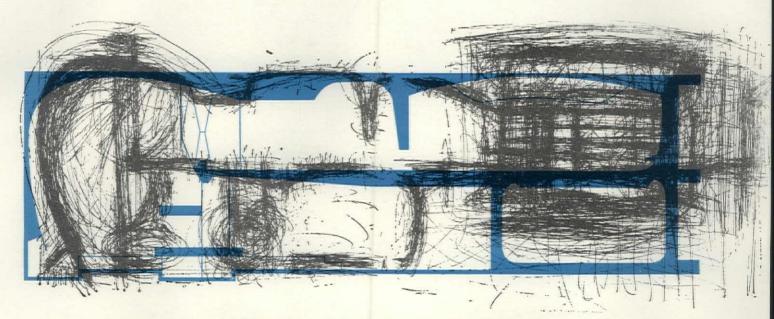
Forum's gallery this month is given over to a new art gallery in New York by Architects Kiesler & Bartos—The World House Gallery.

And Frederick J. Kiesler, one of the ever pioneering spirits in architecture, gets the podium as well. On these pages he describes this remarkable exhibition space in which the contours are so ever changingly flowing that the space itself, through which the visitor walks, takes on a kind of flow. The visitor's experience is like walking around inside a piece of sculpture. This, of course, is quite unlike going through the cellular, mechanically skeletonized spaces of the typical building.—ED.

DESIGN IN CONTINUITY

FROM L. TO R. SCULPTURE BY GIACOMETTI, PAINTINGS BY DUBUFFET, STUART DAVIS, MACDONALD-WRIGHT, KANDINSKY, VAN DOESBURG





SECTION THROUGH WORLD MOUSE GALLERY INTERIOR SUPERIMPOSED OVER ARCHITECT KIESLER'S ORIGINAL SKETCH

BY FREDERICK J. KIESLER

The venerable Bauhouis-Fradition AND the de Stije - are dead. Dead as a doornail. No chromium plating mill, bring it back alive." Mary's Lomb has lost Its Wool. Valuable covers were spun from its yarn. All is gone.

A new Lamb was born. NO ONE paid
any attention for 14. That new animal
has been growing rince, and is exactly (-24)
33 years old. Comparatively young
for a new structural system. It was 1924, when
I first estibited the n Endless in continuous tension?
By now the baby is played with, and
borrowed from lap to lap. Domes are leaping
in shell-constructions.



COLUMN IN SPACE

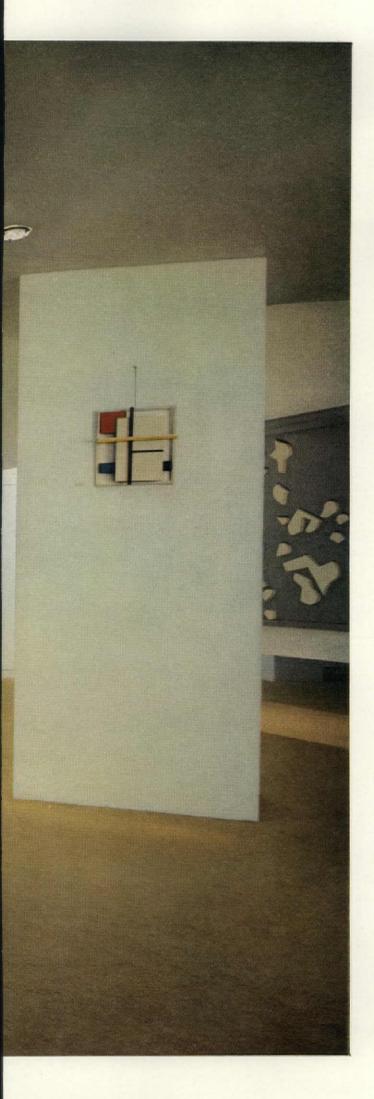
A Gallery's life is within its home — endless. Coming back from the Psinter's world or the Soughton's or the Architects to one's own world, and from there again outreaching for the fruit of the Creative artist; there is a never-ending cycle of correlation. What else could the space and place of a Gallery be, but a planetary system of continued correlation between the work of the artist and the potential Lover 2 There too is, continuous tension', and the prixe of peace.

FROM L. TO R. PAINTINGS BY SCHWITTERS, MIRO, DE KOONING. BELOW, MATHIEU. SCULPTURE AND PAINTING BY BOCCIONI.





FROM L. TO R., PAINTINGS BY MONDRIAN, VAN DOESBURG, LEGER, GORKY, MIRO. SCULPTURE BY GIACOMETTI. RELIEF BY DILLER. PARTIALLY SEEN RELIEF BY ARP.



No, The limited function of the Square has ended. No trames, he they of Gold. The T-Square has done its share.

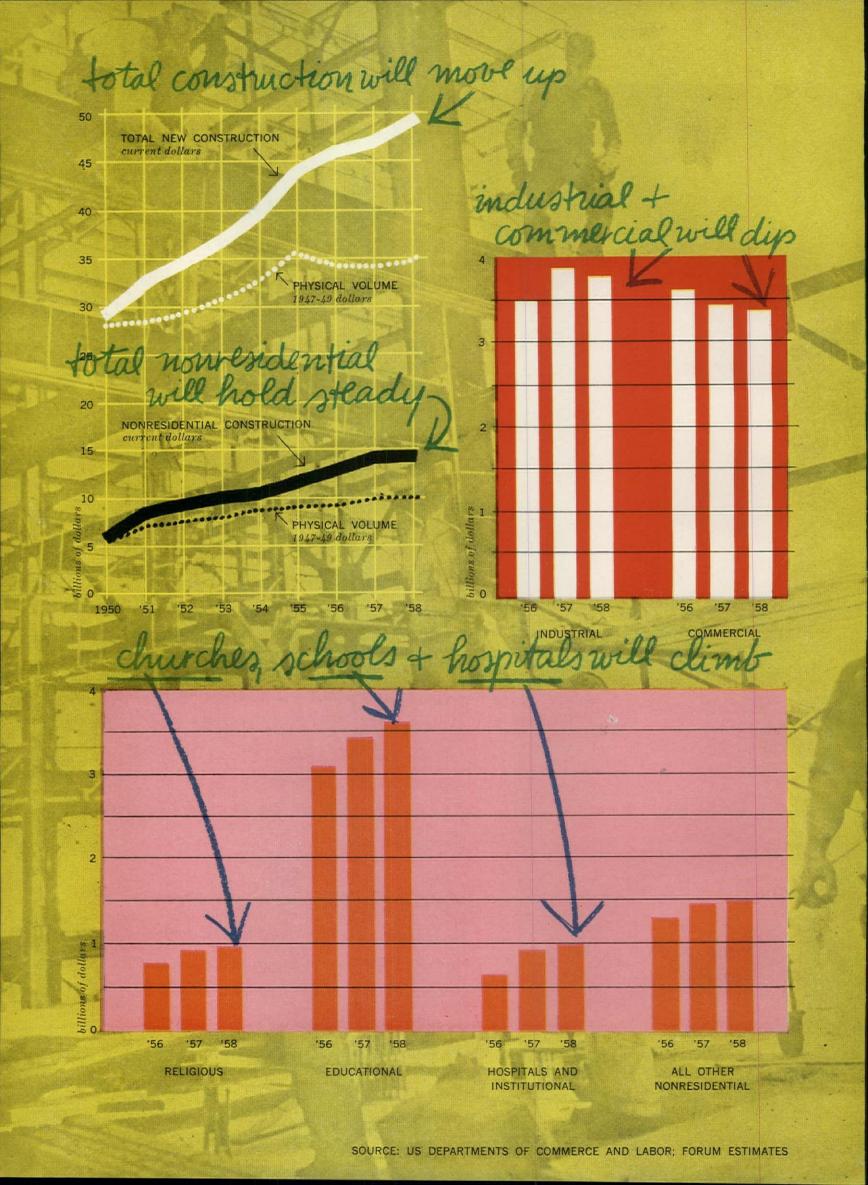
It has dehimmanized Design and dry-cleaned it. The victorian age with its over-stuffing was put on a diel. The fat is gone. The bony structure speaks ower more through a transparent skin. After feasting—fasting too is over. We can start to live a normal life again.

A new aesthetic imfolds its wings, freed from the prison of the good.

It tries to rise our being beyond the more physio-functional. It does not depend on richness of Materials, Equip—ment or Décor; its sets a scale to measure the distance between ourselves and reality; to help our awareness of it. The progressive ashier—ments of mechanical Service are something to behold. But our lives cannot be based on it, neither can Architecture.

Beyond the seductive Hon'som of the Intelled — the heart ranaius the initial and ultimate beat of feemdity or death.

The prison of the grid in Assign is history — past.



It won't be a terrific year for building, but it will be good. Public spending should balance the drops in private construction and boost total volume to a new high of \$48.7 billion

Forum forecast for 1958

by MILES COLEAN

The two most significant things about building in 1958 will be these:

Construction, as a whole, will be strong. Though volume will sidestep through most of the year, dollar totals for new work will edge up about 3% to a record high of \$48.7 billion. Public building should more than make up for sags in the private sector, with the result that physical output will climb, too—at least enough to top 1957, possibly enough to shade the 1955 high.

Parts of construction—notably industrial and commercial buildingwill be weak, at least when compared with the past two years. Factory and office construction, which have been strong counterbalances to the drop in residential building, are now themselves trailing off. Industrial work will show a mild dip in 1958, reversing a three-year trend. The climb in office construction will come to a halt, and store building will continue to drop, though at a cushioned rate. Over-all, the outlook is for about a 4% dip in the commercial-industrial sector.

Given the fact that construction is the reflector, rather than the generator, of general business conditions, neither of these two prospects should be surprising. This year has been one of sidewise movement for the economy; though business, generally, has been good, it has been marked by noticeable weak spots, a general lack of zip, and above all, by uncertainties about costs, both of money and production. Construction

has already felt some of the impact of this, and next year it is due to feel more. For while the problems of cost will probably not get tougher, there is little sign that they will clear up enough to make a marked difference in attitudes, at least during the early and most crucial part of the 1958 building year.

There is no question that construction costs today are high. In the last year, they have risen nearly 5% (on the composite index of the Department of Commerce), compared with rises of less than 4% in wholesale prices and less than 3.5% in consumer prices. Since 1950, the gain in construction costs has been 22.7%, well above the jumps in wholesale and retail prices; building materials prices alone have gone up about 21%. Clearly, construction has not been increasing its productivity sufficiently to make up for the mounting cost of labor.

During 1958, costs should show greater stability. Materials prices will give little if any push to the cost index. But though this will help, it is doubtful that there will be any decline in price or increase in efficiency to make up wholly for the further wage increases that are in store. Building costs, therefore, will still be a deterrent to expansion.

So will credit. This year has seen a record outpouring of corporate and tax exempt obligations. It has also seen a rise in federal expenditures which has forced the Treasury to compete strongly with other borrowers for the inadequate supply of savings available in the financial markets. With the Federal Reserve

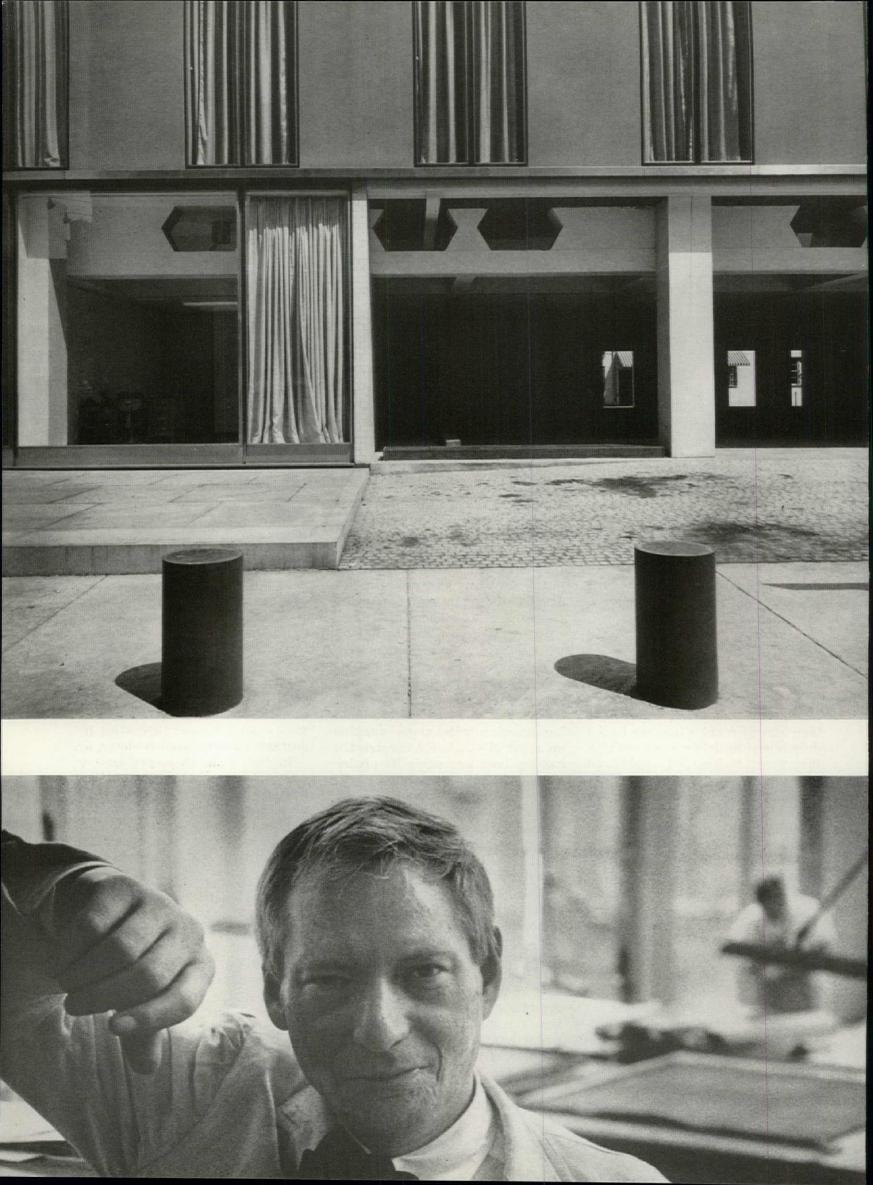
Board clinging to a policy of restraint, and holding back on an infusion of bank money, interest rates have mounted to levels unseen since the early thirties. By mid-1957, tight credit had definitely become a restraining force through the whole range of private construction (with the exception of institutional building and utilities) and was exercising at least a mild curb on state and local projects.

Credit will still be a problem in 1958, though not of these proportions. As the year progresses, an increase in savings, the leveling of capital expenditures, and a modest reduction in federal outlays should ease some of the pressure. Still, demand for money is likely to remain high for some time after the decrease in expenditures shows up.

In the main, these problems of costs and credit will leave their heaviest marks on the private sector of building. Government construction will probably go on gaining as it has for the past three years. Here, specifically, is what seems to be in store:

Private construction, as a whole, in 1958 promises to be about the same as this year. But this appearance of stability conceals a number of divergent trends. Thus the spectacular three-year boom in industrial building, as we have noted, is due for a modest reversal, while the even more

Text continued on p. 246; see p. 254 for a tabular summary of the forecast for the various types of construction.



Architect Louis Kahn and his strong-boned structures

by WALTER MCQUADE

Modern architecture is in some danger of losing its bones. Nobody, it is said, builds in the spirit of the cathedral builders. Walking through the great vaulted bays of the cathedral. each held by four "fat" columns, the visitor feels each separate bay as a kind of event-a space all to itself though bound by nothing but air to the succeeding space. That is how powerful and how noble the interplay can be between construction and space. In modern architecture by contrast the structure tends to be either suppressed in slick smooth-looking buildings, or else celebrated as "engineering" just for itself. Architect Louis Kahn, a bold, direct, elemental spirit, points anew to a Gothic way for modern times.

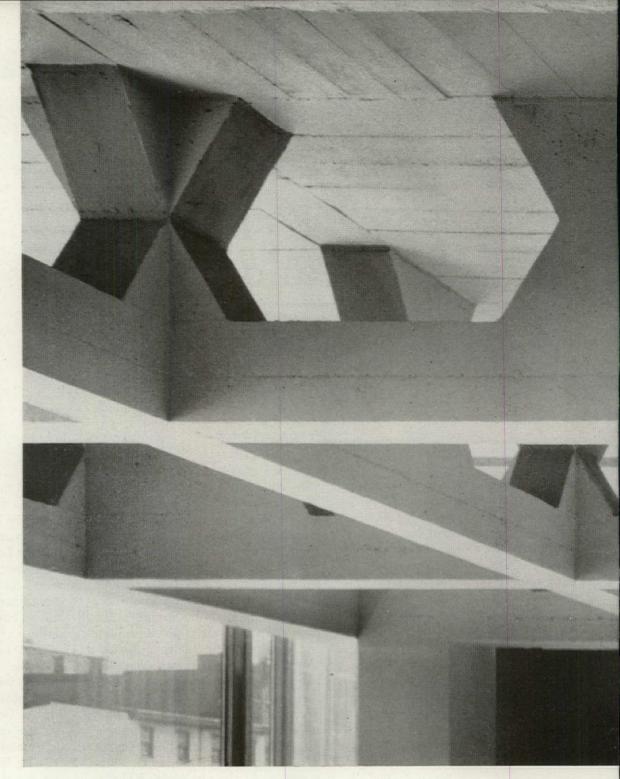
One midnight several years ago. when the night watchman climbed to the drafting room of the Yale Architectural School to turn out the lights, nudge the lingering students from their high stools and lock up for the night, he also had to turn out a member of the faculty. The watchman was new, or he wouldn't have been surprised. It is not uncommon for Design Critic Louis I. Kahn, a short, wiry architect who has been one of the mainstays of the Yale Architecture faculty for ten years (in addition to maintaining a busy, unbusinesslike practice in Philadelphia), to keep his elbows on the drafting boards as late as the latest student. At the age of 56, Kahn remains as eager, as idealistic as the rebellious undergraduate. equally scornful of the complacency that exists in modern architecture today. Unlike most undergraduates, however, he has a substitute for today's "automatic" architecture, and he builds it.

Kahn looks young, too. A client once said Kahn reminded him of a disheveled mother bird. Spare, with no loose flesh, his shrewd, lively face has narrow bright eyes under a shock of coarse, whitening hair. His cheeks are scar tissue, formed at the age of three when he tried to play with some live coals at the family fireside on the Estonian island where he was born. "I looked so terrible my father wasn't sure he

wanted me," he says in his thin, hoarse, urgent voice, and laughs, "but my mother said I would be a great man." Like many teachers on the Ivy League circuit, Kahn dresses somewhat like the students. He wears flannel slacks and a tweed or linen sports coat, an off-white shirt and a bow tie knotted like a cigar butt.

That night in New Haven Kahn and the handful of students who were ejected from their drafting room headed for an all-night restaurant a few blocks away. Their discussion never flagged; Kahn led it, as usual, like a symphony conductor, waving his arms eloquently, reaching for the truth above the head of the lankiest of the little gang of serious, tired, happy undergraduates as they walked down the empty sidewalks. He is a brilliant talker, just as he is a fast, eloquent sketcher. A conversation with him can be like a series of terse emphatic softpencil sketches on a roll of tracing paper which he keeps unrolling, keeps filling with diagrams, frequently until the whole night has unrolled and it is morning. Inside the restaurant, the talk continued: "Concrete columns are better," Kahn was saying. "They're real columns! Of course, steel is a marvelous material. You can do wonderful things with it, build great machines, but in architecture you're not building airplanes after all, are you?

PHOTOS: JOHN EBSTEL

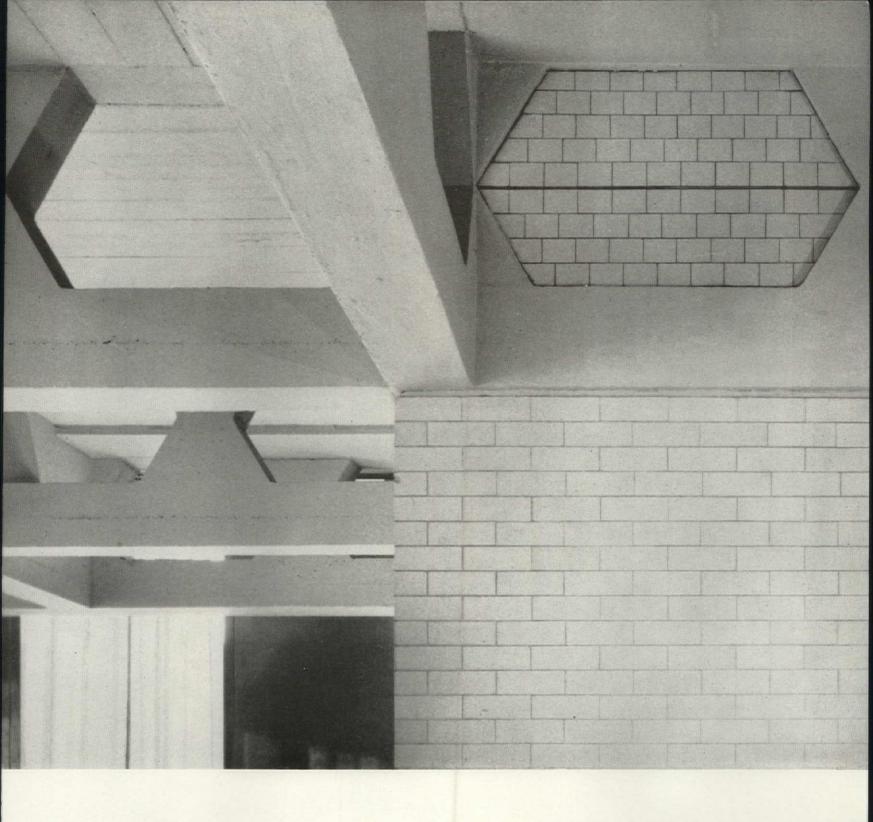


AFL-CIO Medical Center in Philadelphia is a central clinic for union members. Behind the stone and glass walls the construction is emphasized by sculptural perforations in the trusses. Their practical purpose: to leave openings for future services such as additional piping and duct runs, permitting considerable flexibility in this final-looking structure.



"A building should be a more stable and *harboring* thing. If you can now put columns as much as 100' apart you may lose more than you gain because the sense of the enclosed space disappears.

". . . Today architects have so many commissions to build that no-body is thinking any more. Instead of thinking, we are trying to remember what was in our minds in the thirties, when we had plenty of time to think. But that's old, that's a quarter of a century back! We're a lot of old young men, and the young-



est, the new graduates, are the oldest in their architectural ideas!"

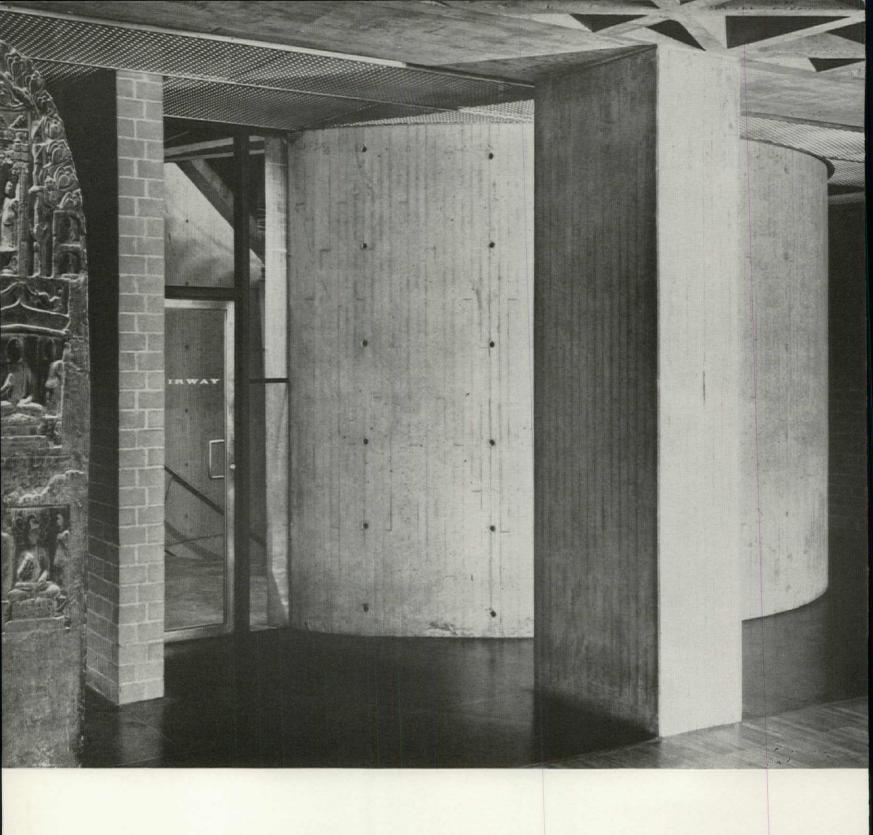
From across the room, a waitress was examining Kahn with languid interest, trying to figure out just what he was, this strange, vivid man who needed a haircut and was bringing the tumult of ideas into the weary late shift. After a few minutes she slouched boldly across the room, insinuated a thigh into the group, leaned against the table edge, and looked down at Kahn. "Say," she asked, "are you a musician? Is that what you are?" Riding the crest

of his conversational enthusiasm, Kahn hardly heard her. "Yes! Yes!" he exclaimed. The waitress retreated back across the room. He hunched forward over the bare table and continued talking.

But after watching and listening another five minutes, the waitress wasn't satisfied. Back across the room came the pelvis, back came the interrupting thigh against the table.

"Well, if you're a musician," she demanded, "what do you play?" Surprised, Kahn glanced up. Then he gave her a gleeful, alert look. He threw his hands out before him. "Bach! Nothing but Bach!"

In a way, he was right. As Bach brought a deeper force to the well-developed patterns of eighteenth-century music, Kahn brings to the accepted forms of modern architecture a deeper and more active conviction. In a day of easy, confident, rather set solutions in design of buildings, Kahn is a violent, beloved—and somewhat feared—man among students and a wide circle of architects. A man who worked for him describes what it was like.



"His office is something above an ordinary architect's office. It's really not an office but an atelier . . . the discussion is very open. All the men may express their opinions of the design and although Kahn's decision is always the final one, of course, he honestly values criticism. It's as if you are in school again. There is nothing but architecture. At about 2 A.M. we would all go out for a quick snack and then come back and work until 3 or 4 A.M., when everybody went home. Kahn would always be among the last to leave. But while

most of the others wouldn't come in until 10 or 11 the following morning, Lou would always be there at 8:30, no later."

If Kahn is a revolutionary, he is a positive one As a man who has grown up with the modern movement, from the tastefully pared classicism of Paul Cret (for whom he worked as a young draftsman) to the steel and glass geometry of today, he is distressed by the ebbing of visual strength in architecture which he sees taking place today. His basic credo is a very strange



Yale Art Gallery and Design Center in New Haven used concrete without finishing. Imprint of the formwork remains evident, especially on the stair well (photo, left). The structure of the slab is a tetrahedral skeleton formed of T-beams, poured into re-usable forms. Oil from the forms mottled the concrete richly. Photographed straight up (right), this powerful slab also includes air ducts, electrical runs and acoustical treatment.

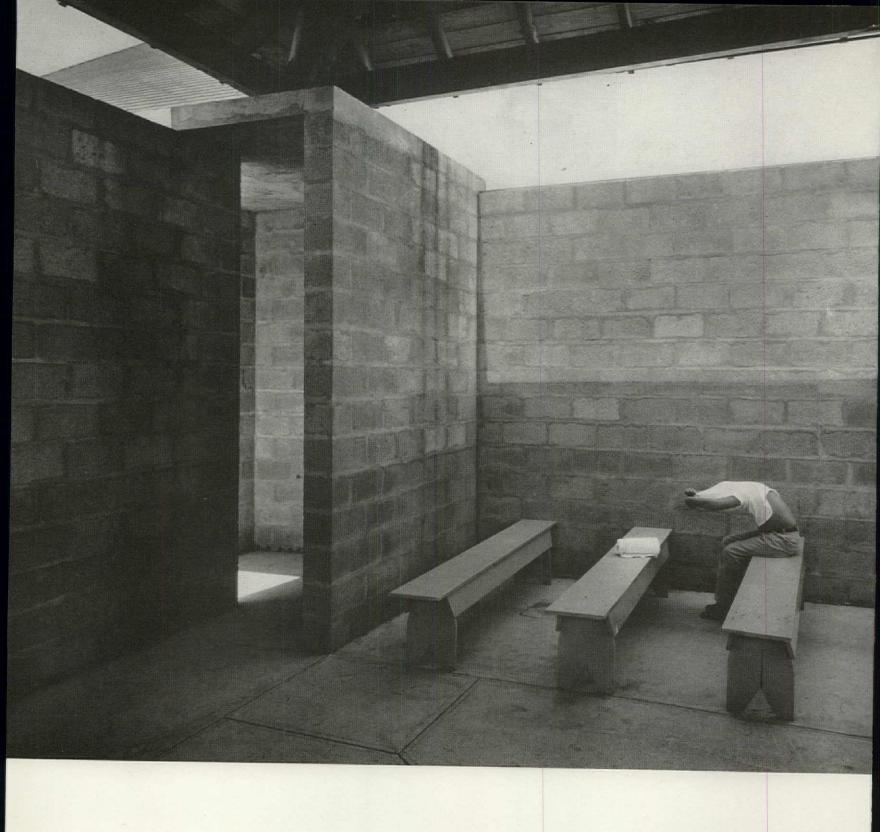
one in the face of the current monolithic belief in form follows function. Kahn says form evokes function.

Another way he puts it is: "Space evokes its use. Merely to put a package of walls and roof around a process, whether it is a manufacturing plant or a family's life, is not doing anything for it. That isn't efficiency. A building should add something to the process it harbors, and make it better, *more* efficient, *more* rewarding.

To do his bit in bracing up a complacent profession Kahn not only teaches but is almost always ready to take time from his own pressing practice to dart to architects' meetings from Toronto to Charleston, and show slides of what he thinks architecture should be struggling upward toward, a new kind of order: "Order is not repetition. It is a central idea. An architect's sense of order is like a composer's sense of music; it has nothing to do with counterpoint or orchestration. It is something underneath and beyond these elements of style. It is something beyond design. The elephant

and man are different designs. But the same order created them."

If Kahn were just a talker, people still would listen. He has great spell-binding charm, even when he talks above the head of his audience, as he does frequently. He has been described by a puzzled listener as the Bucky Fuller of esthetics, and he is hard to stop. But the thing that is making architects pause and listen very carefully to his rock-cut utterances are those final convincers, buildings. In the past several years Kahn has been building sizable struc-



tures which seem to be modern, all right, but also contain a character unlike other modern.

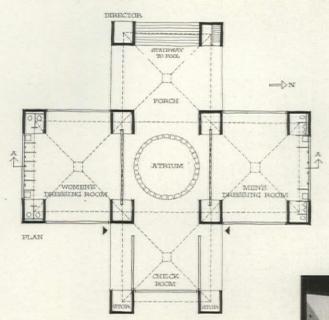
Their principal characteristic is emphatic, burly structuring. Even though Kahn includes the modern tracery of glass and metal walls, his work has the muscularity of Egyptian architecture. The ceiling of the Yale Art Gallery was the first thing that made other architects sit up and take notice. It is a space frame cast in concrete, a highly forceful design.

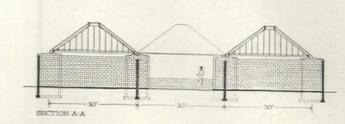
Since completing the gallery, however, Kahn has gone further. His next move: to enlarge and re-emphasize the column. He thinks it is in danger of being lost as a definer of architecture. Technology has trimmed its bulk down into pilaster proportions and absorbed it.

The column, Kahn says, should be the significant punctuation of architectural space. "It was a great architectural event, centuries ago, when the walls parted and columns became.
... You should never invade a space between columns with partition walls. It is like sleeping with your head in one room and feet in an-

other. That I will never do."

He uses two methods to re-emphasize the column (see drawings): building in reinforced concrete, which brings back bulk and visual importance, and using columns in pairs to define space in uneven bays. His big bays are accompanied and spaced out by smaller ones which harbor "servant areas." These smaller ones, in a house, may be closets or stairways, entrances or passages. "The hollow column can become a room. It also can contain things that must be there—vertical services





Bathhouse of Trenton Jewish Community Center, a plan of classical clarity, is the simplest exposition of Kahn's system of "servant areas"-small structural bays used for subsidiary services or traffic, buffer zones between the bigger bays. Here the servant areas are actually small rooms inside hollow columns. Their uses range from baffle-entrances into dressing rooms, to toilets, storage, and the pool director's booth. A low-cost building, the bathhouse lifts its strong, symmetrical plan upward to attain a kind of classic nobility in its walls and roofs. Kahn likes to use coarse, porous materials like this concrete block, but shapes them grandly. The roof is separated from the walls for ventilation.



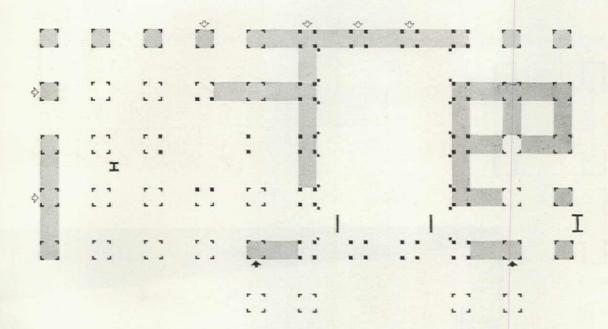
that cluster naturally around a column." In larger buildings these may be elevator shafts, duct runs, or even left empty for the inevitable gimmicks Kahn expects to be developed in the future. "In our time service elements multiply and tend to eat away the space. Le Corbusier does not anticipate the stuff that is going to ruin his magnificent rooms. He has no 'servant' areas. People are going to put escalators in his buildings, and other mechanics. These are not important, but they are what the people want. People

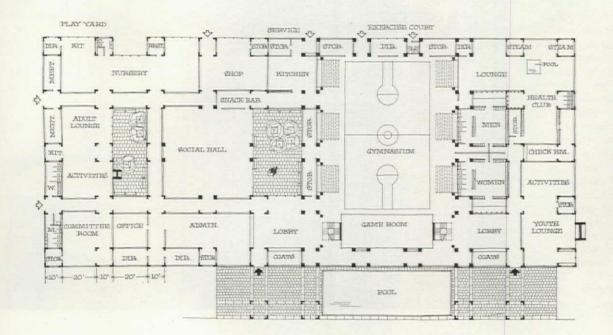
will always have to keep convincing themselves that they are progressive; you cannot keep the gimmicks out, so you have to plan for them so they do not ruin your building later.

"...The mechanics — all those pipes and ductwork—are a destroyer of architectural spaces. Most of our columns end up festooned with them, or alternated with fake columns of them. They destroy the clear picture between a column and a no-column.

"I used not to know anything at all about the mechanics, nothing at all. Really. But you must learn it, and I did. I've hated mechanics, but I've learned to respect it because it's a destroyer."

Kahn's systems of paired columns, producing big and little bays alternately, also give him an opportunity to create massings that are anything but sleek and dull (see photographs). Building up, he emphasizes the differences in height between the "servant" areas and larger bays and comes out of it with irregular, exciting silhouettes—one of the qualities lacking in most modern ar-



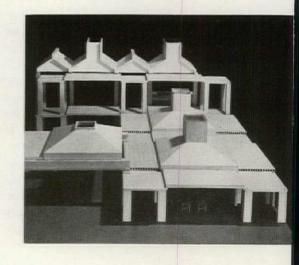


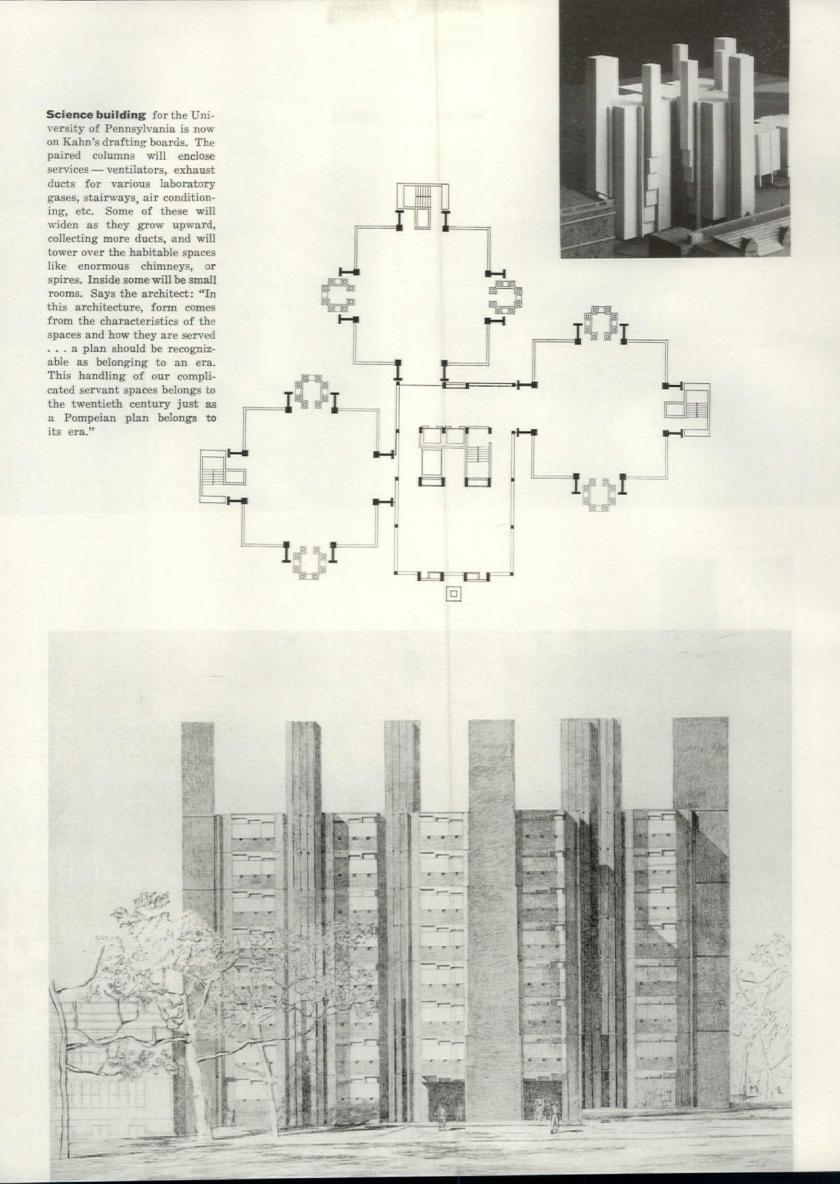
Community Center for Trenton's Jewish population will be completed with a large cultural-education building. The site is a wooded tract of 42 acres. The schematic structural model (below) indicates how Kahn plans to emphasize his bay system in the silhouette of the completed building. At the left are two plans of the group: top, a simple diagram of the structural columns which set the rhythm of the whole building with "servant areas" shaded; beneath it, a more conventional room plan. This design is a further development of the thinking behind the bathhouse. Except for those bays with plumbing, all spaces will be interchangeable.

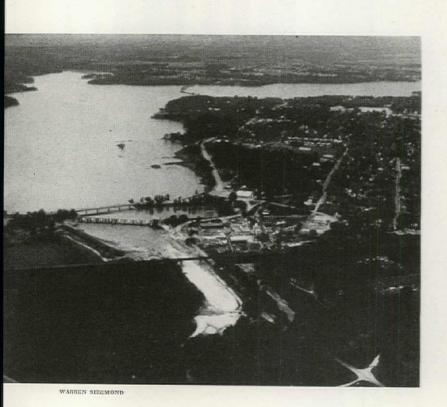
chitecture. There are also many joints in these buildings to be dramatized, and Kahn rises to this opportunity with a sculptor's joy. Late one night, recently, sitting with a friend in the vast dim desuetude of the new railroad station in Philadelphia, waiting for a train, he described excitedly how he felt about these details: "A building is like a human. An architect almost has the opportunity of creating life. It's like a human body—like your hand. The way the knuckles and joints come

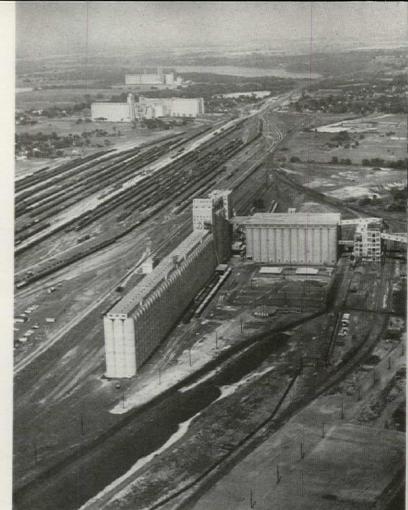
together makes each hand interesting and beautiful. In a building these details should not be put in a mitten and hidden. You should make the most of them." There was a pause, then a sudden, almost irrelevant moment of self-revelation: "Thought is to me the satellite of feeling."

NOTE: The second article on Architect Louis I. Kahn, to be published early next year, will treat Kahn's theories and practice in the field of city planning.

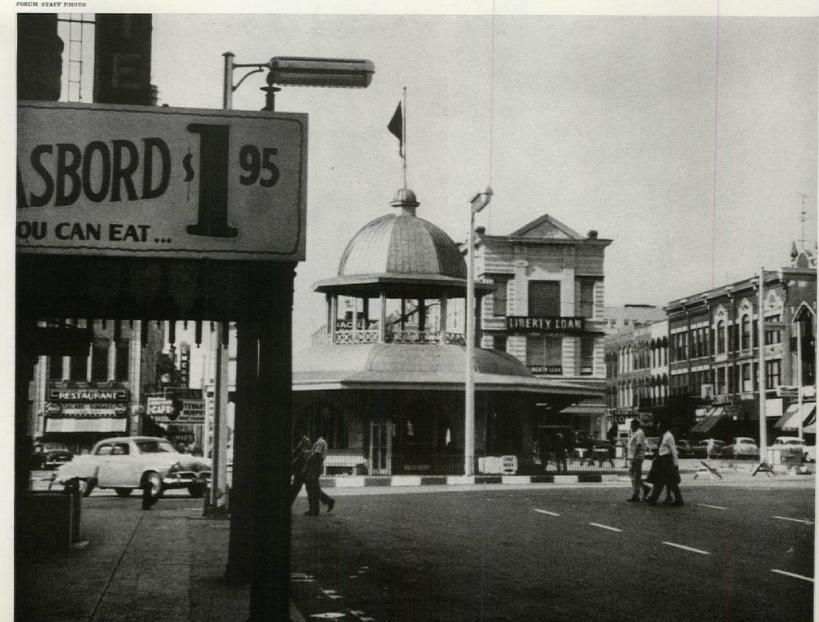








DECATUR HERALD & REVIEW



Lake Decatur (far left), created in 1922, is the town's biggest asset. Around it and through the town another asset is now being added: a framework of 25 parks and playgrounds whose 1,500 acres already provide twice as much park space per resident as the national average.

The silos of Staley, out by the Wabash yards (left), can be seen for miles around. Phrase-minded Decaturians call them the "cathedrals of the prairie." Beyond are the silos of two other corn and soybean processors.

Old Transfer House in Lincoln Square (below) is the original center of town. The octagonal cupola of the Transfer House, built just after the turn of the century and only recently abandoned as a bus terminal, now awaits its fate: a trinket stand, a taxi stand, a tourist "museum," or a wrecker's contract.

Here is a community so healthy it could just stretch back and fall asleep by a lovely lake.
Unless its leaders keep it awake to the continuing need for urban planning, a crisis one day will force a crash program

Will Decatur meet its challenge?

by OGDEN TANNER



Decatur, Ill., a pleasant little metropolis of 112,000 at the heart of the corn belt, has a particularly knotty problem: it could easily lean back on its laurels and crush them. In Decatur's case, as in many others, this could eventually mean the difference between a prosperous city and a broken one.

Today Decatur proudly calls itself the "Soybean Capital of the World," "A New Kind of Home Town," "Playland USA." It was first patterned on the rich black loam of the plains and nurtured by the railroads. Lincoln practised law here. Gradually corn and soybeans and then World War II built the town into a new industrial center. Caterpillar, General Electric, Borg-Warner and others moved in, attracted by Decatur's homemade lake, its prodigious park and recreation system, its bustling schools and churches. Today Decatur spends twice as much as the average city for public works (\$2 for every \$5 of private construction), and it will "vote schools every time."

The trouble in Decatur, as in many a ruddy-cheeked community today, is that the real dangers are tomorrow. There are slums, but they are still scattered behind the elms. There is congestion, but Decatur has its own highway program and a plausible-looking collection of one-way streets and downtown parking facilities, including a new 400-car garage. There is suburban sprawl, but most of it gets annexed to the city somehow as it spreads.

If there were a crisis, of course, Decatur could doubtless count on its good citizens to attack it quickly. But there is no crisis, no easy way to command attention to Decatur's broad needs and unique possibilities, no ugly situation to use as a starting point for wider action. Why, then, should Decatur entertain the notion of "urban renewal"?

This is precisely what disturbs some of the town's more thoughtful leaders, who are beginning to realize that urban renewal is not only a vital, but a continual, never ending process that all cities must perform or die. These men—a chamber of commerce secretary, a newspaper editor, a housing authority director, two or three industrialists, a lumber dealer—are working separately and together to do what they can. They have inherited a basic city structure and a civic spirit that might gradu-

ally be built into a city of real balance and delight. But, like leaders in most other towns their size, they have yet to learn how to use the bold ideas of architecture, the continuous help of planning, and the proper machinery of management.

Planners and engineers

These men, and their predecessors, have seen the strengths and weaknesses of plans. Decatur's first was dreamed up back in 1919, when a group led by Newspaper Editor Warren Hardy raised \$3,600 and asked the American Park Builders of Chicago to outline the city's future. As a sort of bonus at the end of their report, the Park Builders showed a magnificent civic center in the bloom of Beaux-Arts style: six full blocks of neoclassical temples along a fountain mall leading to a noble Union Station. This, fortunately, was not built.

What was built in that era was a dam across the nearby Sangamon River, to supply water for the growing town and for the Staley Co.. which had been threatening to move its big cornstarch production elsewhere. For 35 years the 12-mi. lake this dam created has been a wonderful selling point, as well as a daily joy to its citizens. Today it is filled with some 1,200 small motorboats and skiffs, which create a happy traffic jam on Sundays. It is also filled, not so happily, with millions of tons of rich Illinois loam which have washed down from upriver farms, settling in the placid waters and slowly robbing the lake of onethird its original capacity. Recently, while Decatur's own soil conservation department urges the farmers toward more scientific methods, the city has added 5' bascule gates to the top of the dam and is studying ways to build two more dams upstream to renew the vital supply.

Decatur called for its second plan in 1938, this time from Harland Bartholomew of St. Louis, and this time with the more realistic participation and financing of Decatur's six separate official bodies: the city, the township, the school district, park district, sanitary district, and Macon County. But, like many decisions of the day, the plan's projections were based on the declining birth rate of the thirties. New industries and new birth rates brought on by the war soon threw the estimates into a cocked hat.

Now Decatur is launched on its third and biggest effort. A 1952 report by Chicago Engineers H. W. Lochner & Co. has been translated into a 20-year, \$12.5 million program of street widenings, railroad underpasses and highway links, highlighted by a \$5 million relocation of the main east-west highway to a full four-lane route across the center of town just north of the business district. Next, a "Decatur's Future" committee was formed to draw up a 15-year, \$86 million capital improvement program for water supply, a big peripheral interceptor sewer, more highways, schools and recreation. Now the Bartholomew planners are back in earnest, working on a \$40,000 revision of the 1938 plan, emphasizing future sites for industry, zoning toward clusters instead of strip developments, working on areas to be covered by the new dams (and trying to placate a stream of taxpayers invading city hall to find out what's going on). Decatur, somehow omitted from the federal highway web, is also trying to get attached to a link from Springfield to Champaign.

Businessmen and industrialists

Behind most of these bursts of planning energy has been the fine and active hand of Decatur's 54year-old Association of Commerce. an organization which prides itself on doing more than just making up brochures for new industry and stringing colored lights along the shopping streets at Christmas. In its offices at the entrance to the Decatur Club, where most of the town's leaders gather for lunch and meetings, the association displays a large sign that reads not only THINK, but THINK BIG. Behind the sign, and the association's allembracing program, is a gentleman

named Henry Bolz, who for 33 years has been quietly pushing Decatur forward as the association's executive secretary, helping its volunteer officers and committees, guiding discussion junketing to Springfield and to Washington to keep in touch and get things done.

Of late, one of the association's most active subgroups has been its Urban Renewal Committee, headed by Roger Pogue, a young lumber dealer and developer whose uncle and associate has long been an active civic leader, and Richard Wozniak, another young man who has taken more than a clinical interest in Decatur as Bartholemew's field representative. Before turning over the committee reins to Everett Bickford of the new General Electric plant, Pogue helped Mayor Clarence Sablotny organize a much larger Citizens Action Committee of 450 (headed in turn by a steering group of 13). The purpose of this group, now awaiting further developments, was to involve as many individuals and community organizations as possible in the urban renewal movement as insurance of wide understanding and support. Its main functions so far have been to hear a renewal talk by Sears Roebuck's Urban Renewal Adviser Yates Cook, and to prepare Decatur for the LIFE magazine-ACTION road show, "Our Living Future." Some 800 citizens turned up at the Masonic Temple last April to see the latter performance, in which Narrator David Hardy held his audience with pictures of Decatur as well as other cities. Says one observer now: "I wish we could have harnessed some of the steam generated by that show, right away."

As an outgrowth of the meeting, a handful of the town's younger architects, businessmen and visiting planners are now working evenings in a basement on before-and-after models of what may become Decatur's first demonstration project: a blighted area of shanties in the so-called "Oklahoma" district, temptingly bordered by the lake and one of the city's loveliest parks.

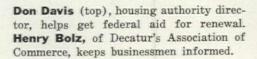


Roger Pogue (left), lumber dealer and developer, organized the Citizens Action Committee, of which **Everett Bickford** (right), a local GE executive, is chairman.



PHOTOS: (BELOW) WARREN SIEGMOND (OTHERS) KILEEN STUDIOS







Frank (left) and Edward Lindsay are president and editor of the local newspapers; they publish not only news but ideas for the betterment of Decatur.

Newspapermen and architects

Right along with the civic movement, often ahead of it, are the town's Lindsay-Schaub newspapers, the morning Herald and evening Review. Editor Edward Lindsay, a sophisticated newsmen, and his uncle Frank, president of the chain and long-time member of the city planning commission, are furthering the traditions of their predecessor, Warren Hardy. Besides covering the city's planning news in detail, the papers have plumped for lakeview apartments on the "Oklahoma" site, chided proposals to spread industry to the windward side of town, outlined ideas for new highways, and kept drumming on the city's need for a permanent, paid planning director. Recently Ed Lindsay devoted his own column to a detailed explanation of Victor Gruen's Fort Worth plan (AF, May '56) and is publishing similar downtown schemes by students from the nearby University of Illinois architecture and planning school. These, Lindsay readily admits, are "head-stretchers," and are plainly labeled as the work of students, not professionals. But the basic idea—an open downtown core, laced together by pedestrian walks reached from a highway-parking ring and serviced from a lower level -is as interesting to Lindsay as it is to people elsewhere, and he would prefer to see individual projects

downtown related to some such over-all thinking. This, it has been suggested, is where Decatur's own architects might come in.

As in many other cities, this professional group (of 20 or so) has not yet been conspicuous in stimulating or guiding the urban renewal that sooner or later will touch on its own domain. A few of the architects, such as Don Livergood, a young Decatur native, have worked through the Association of Commerce to push through a modernized building code and to study urban renewal proposals. At a recent meeting of their informal monthly luncheon club, a handful of the architects listened to the impressions of an out-of-towner and took the occasion to formalize their association toward a definite role in city planning-and their own good public relations. One specific idea in the wind: that they take the lead in organizing a full-scale exhibit of Decatur's progress and plans, timed to display the wall maps of the new Bartholomew report, panels of the town's industrial growth, and perhaps some of their own designs.

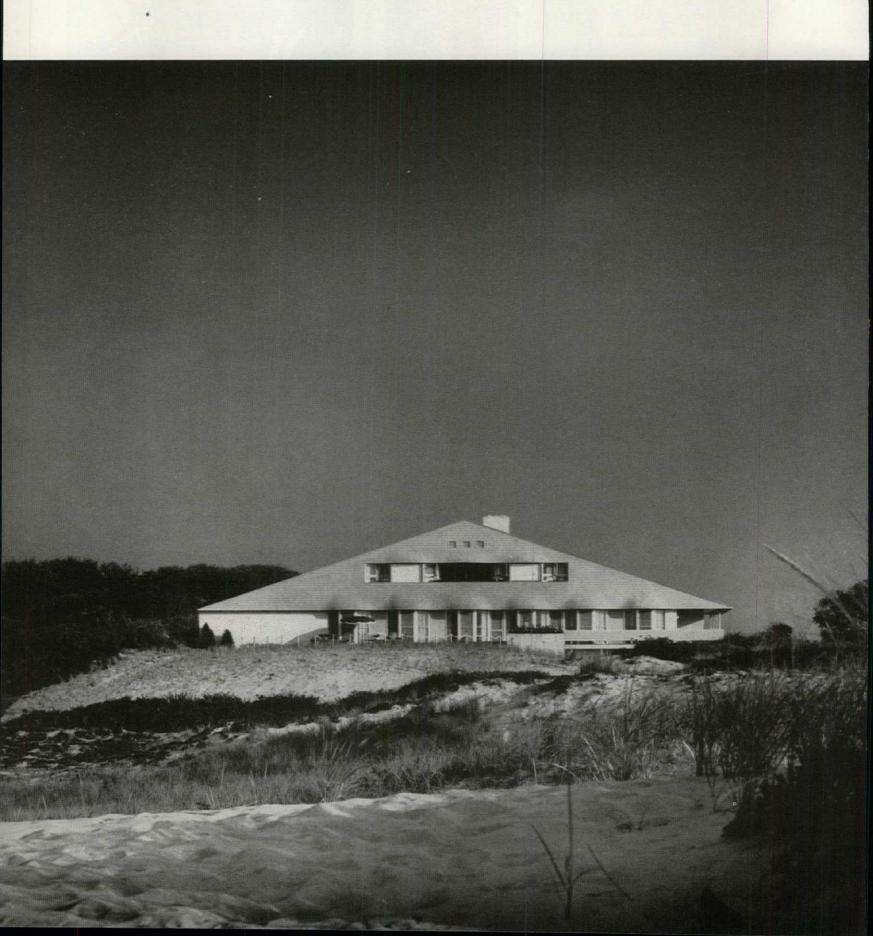
As a place where the man in the street would be bound to see such an exhibit, one nominated the old Transfer House in Lincoln Square (photo, p. 144), a unique Victorian object recently abandoned as a bus terminal and now awaiting its fate as a taxi stand, a tourist-trinket

center or a wrecker's contract. This square, where Abe Lincoln's little log courthouse once marked the crossroads of the village, still has a relaxed, turn-of-the-century charm about it, with some of the festive overtones of an old European market place. The exhibit, it was suggested, might even include some proposals for rebuilding of the square itself, preserving its basic assets.

Decatur's other downtown focus, Central Park, is a more typical patch of civic greensward a block or so away, occupied by a Civil War monument, an ancient fountain, a wooden platform for Monday night band concerts, and a scattering of elderly gentlemen in Panama hats. Containing the two downtown squares is a grid of streets, all screeching efficiently with new oneway traffic, fronted by a typical assortment of Victorian and modern façades and lighted by new fluorescent lamps on tall aluminum poles. To some, the squares are far more precious than the newer streets and lights, as anchors of open space around which to plan the downtown dream. To others, of course, they are choice real estate still unbuilt.

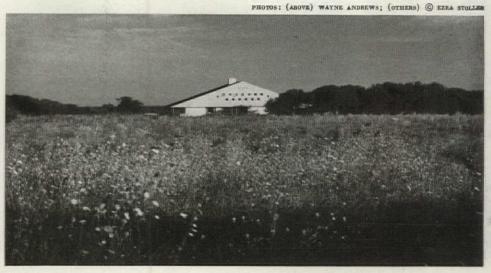
So far, Decatur's major move toward renewal has not been a downtown appraisal, but a detailed report on eight substandard neighborhoods around it, drawn up by Housing Authority Director Don Davis with A house with a familiar silhouette but new eyebrows recalls an age of elegant relaxation by the sea

The grand old shingle





1887



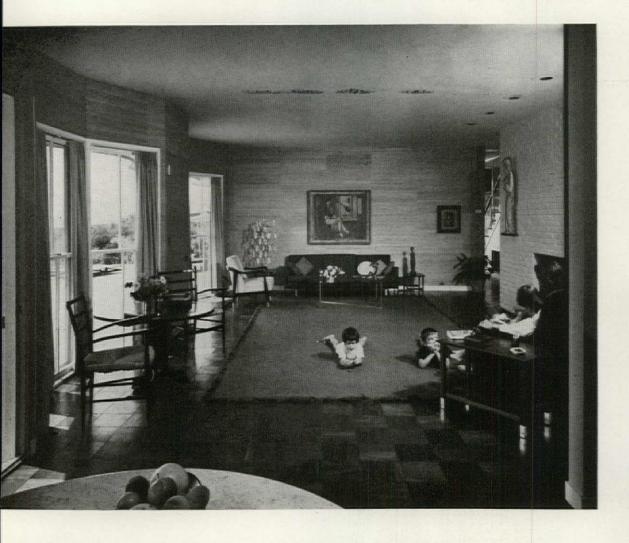
1957

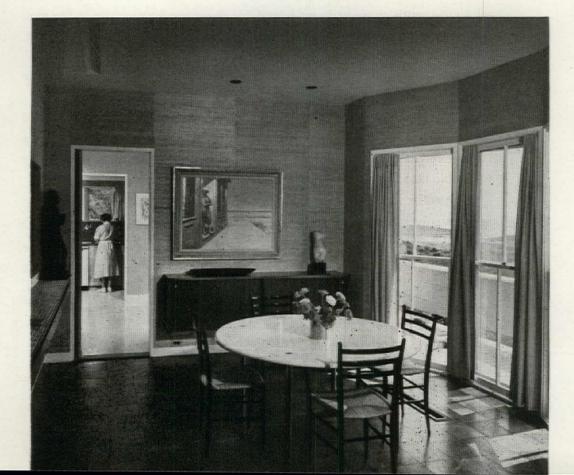
Now that the beaches are empty, the ghosts of summers past are blowing back to the south shore of Long Island for their peculiar season in the sun. There they will find a new house they can move into with barely a shudder. For, modern as it is, it honors the memory of one of the truly great examples of US seaside architecture, the venerable (1887), shingled low house by McKim, Mead & White.

But the East Hampton home designed by Architects George Nelson and Gordon Chadwick for the Otto Spaeths is more than a memorial. It is a natural expression of the summertime living of its owners—set as naturally as possible into the meadows and dunes and beach grass of its site.

The Spaeths are, simultaneously, patrons of the arts and grandparents. These usually separate pursuits are comfortably carried on beneath their generous, wide-spread roof. As there was once time and space for people of means and taste to enjoy all of life's parts within the home, so now this distinctive, modern adaptation of the "shingle style" may forecast a loosening up of our tense, cramped era.

Wide-angled roof of the Spaeth house at East Hampton, L.I., brings it into friendly contact with local beachscape.





 \leftarrow ((((

Living room is large (17' x 24'), relaxed with the entire south wall open to the view of the ocean and dunes. The wall is formed by a wavelike series of floor-to-ceiling bay windows.



Entrance hall of house is reached by crossing a wooden bridge and turning in under the eaves (see front view of house, opposite). There the mixture of art and informality begins, as the hall stretches down toward the living room.

}}}} →

Triangular front of house is marked by the entrance ramp at left, broad hall windows and square portholes on the second floor. Steps down to the pingpong and maids' rooms lead off the entrance ramp.

\\\\\

Dining room also has a full view out to sea, is separated from the kitchen and breakfast room by a wall (see floor plan, opposite). Otherwise the living area is doorless, allowing informal sprawl and flow.

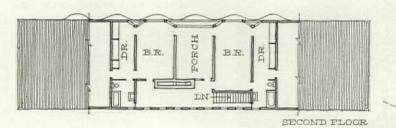


Upstairs hall will be used to store and display more of the Spaeths' art collection. The architects have designed an ingeniously flexible system of shelves and cabinets that can be built in against the north wall without blocking off light

from the square windows. The aluminum uprights will be anodized and brass-colored; the shelves will be walnut to match the floor; vertical panels (for mounting pictures) will be painted various, appropriate colors.





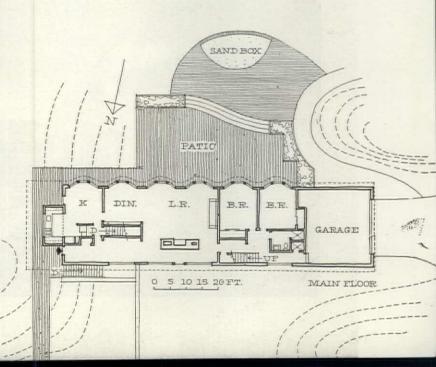


OTTO L. SPAETH HOUSE, Easthampton, L. I., N. Y. ARCHITECTS: George Nelson & Gordon Chadwick

LANDSCAPE ARCHITECT: Karl Linn

STRUCTURAL AND MECHANICAL ENGINEER: Peter Bruder

LIGHTING CONSULTANT: Gerald Ewing
GENERAL CONTRACTOR: Charles Rush







Modern wrinkles added to the familiar shape of the house are the "eyebrows" over the undulating wall of the living and dining rooms. They serve the practical purpose of sun and wind protection and simplify the window design of the 1887 house.

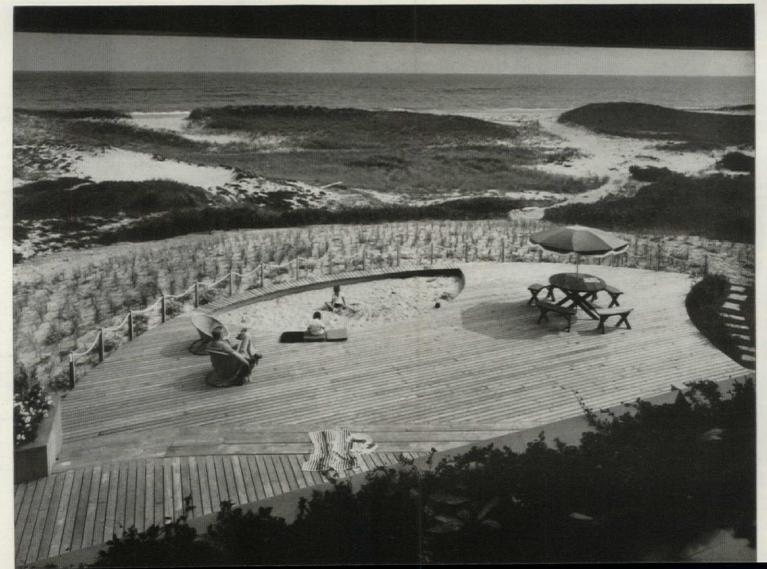


Porch on the second floor between the Spaeths' bedrooms overlooks a sizable portion of the Atlantic and is equipped with a telescope for pinpointing distant ships. The porch front is completely open, except for the parapet and window box. The casement windows in the flanking bedrooms are carefully hinged to avoid mangling the flowers.



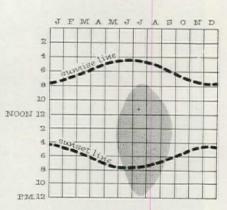
Beyond the bay windows stretches a wooden terrace for sunning, playing, and even sand-piling, designed in a California manner by Landscape Architect Karl Linn.





Thermal

THE PROBLEM of heat transmission in modern curtain walls is graphically characterized in the picture, left, and pin-pointed in the temperature charts, below, for four typical US locations. In these charts, daily temperature changes are plotted by months over a typical year to indicate times when temperatures go over 70° F. (shaded areas), heart of the thermal problem, when shading and later cooling are needed.



MINNEAPOLIS, MINN.

Cooling costs must be taken as an integral part of wall costs, this study shows, before the thermal problem in modern buildings can be solved

economics of curtain walls

by ALADAR OLGYAY*

The battle of the "window wall" versus the "hole-in-the-wall" for the façades of modern buildings illustrates the schism that has taken place in the architectural trend toward ever larger glass areas. The most notable break was Pittsburgh's now familiar Alcoa building, for which Architects Harrison & Abramovitz studied many variations in the proportion of opaque to transparent areas before adopting their wellknown "TV windows," which provide a glass area of about 25%. Yet along comes the great new Connecticut General building (AF, Sept. '57), by Architects Skidmore, Owings & Merrill, to show again the charm, spaciousness and opening vistas of large glass areas. An even more dramatic joining of the battle occurs within one block on New York's Fifth Ave., where the famous "fish-bowl" bank of the Manufacturer's Trust is now joined by the new, conventional-windowed Bank of New York to exhibit widely differing convictions.

The battle cannot be resolved or understood until the curtain wall, relieved now of all load-bearing functions, is first considered for what it is: a skin or an environmental filter between outdoor and indoor conditions, closely interlocked in function with the more and more completely controlled interior environment. Its economically most significant function, like that of the skin, is to help regulate the heat or thermal conditions within the building.

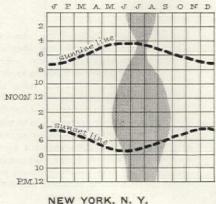
Different materials of wall construction have various capacities to intercept heat, particularly as between opaque and transparent materials. The most efficient curtain wall for low heat transmission is the fully opaque or windowless wall. At the opposite extreme is the full glass window wall, a clear expression of the freedom of the new technology, but transmitting most of the penalties of temperature variations. In between are the heat-absorbent glasses, which exclude a sizable portion of the sun's heat rays in summer (and also, unfortunately, in winter), various shading devices, which offer a more flexible type of seasonal insulation, and all degrees of opacity-transparency in the wall itself, ranging from the 25% glass areas common before 1930 to the better than 50% glass areas today.

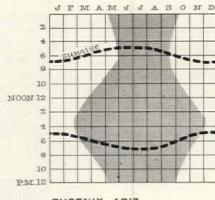
The problem of deciding among these alternatives cannot rest, of course, on thermal or technical considerations alone. To do so would be something like following a physician's over-rigorous regimen for a long, healthy life-no smoking, no drinking, no sex, no life. For instance, the most efficient engineering solution-the windowless building-often has human psychological deficiencies that preclude its use. On the other hand, the unshaded all-glass wall raises heat loads in summer to the point where discomfort begins and a waste of

productivity or excessive expense of conditioning must be faced. Before more balanced design decisions can be made and architecture given freer play, the thermal factors must first be considered in a rather rigorous, isolated way. That is the aim of this study of thermal behavior in curtain walls, sponsored in part by the School of Architecture. Princeton University, and by American Iron and Steel Institute, to set out the technical perimeters within which design solutions may be reached.

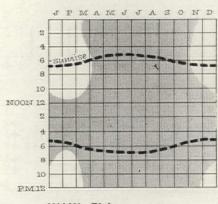
The study, of which this is a condensed version, considers four basic wall ratios of opaque to transparent surfaces (100:0, 75:25, 50:50, and 25:75) and four types of glass treatment-clear unshaded, heat-absorbent, 50% shaded and 100% shaded. shows how the amount of air-conditioning tonnage required is so closely interlocked with the type of curtain wall chosen that it must be considered an integral part of the wall and its costs to arrive at any balanced design decision. It concludes that the shading device or double-wall screen offers the widest architectural latitude for maintaining the openness of modern design without suffering the thermal penalties of large glass areas.

*This article is one in a continuing series of solar control studies by the architects and twin brothers, Aladar and Victor Olgyay, of Princeton University, two of which have previously appeared in FORUM.

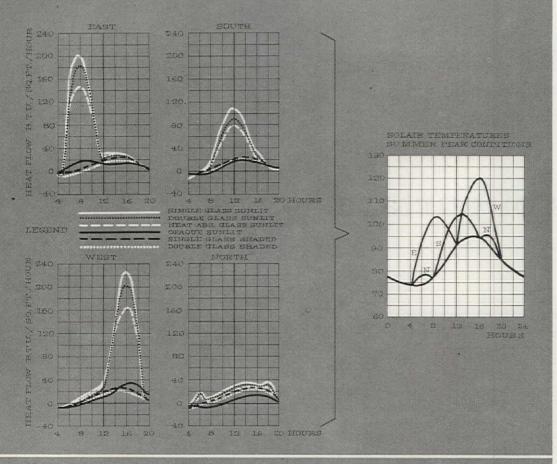




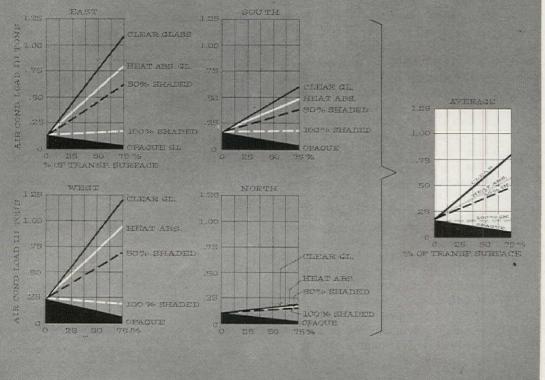
PHOENIX, ARIZ.



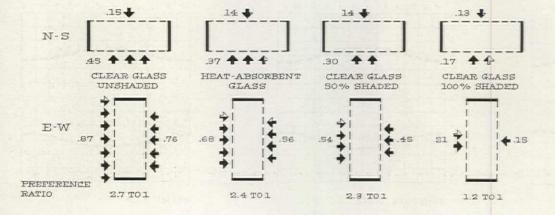
MIAMI, FLA



HEAT LOAD: The five graphs at the left show heat loads as curves for various wall materials in four orientations, and the peak outside sol-air temperatures, in a composite for four elevations, from which these heat loads come. Such curves are derived from two measurements: sol-air temperature (a combination of solar radiation and air temperature by formula) and the periodic rate of heat flow through the materials, opaque or transparent.



COOLING LOAD: These five graphs demonstrate how the heatload data above is converted to air-conditioning tonnages in diagram form, again for four main orientations, which in turn are merged into a composite. The conversion is done by taking the average of three maximum hours of heat gain as the peak cooling load and by taking 70% of the peak heat gain, then finding mean values. From these charts the required cooling tonnages may be found for any opaque-transparent ratio.



ORIENTATION: The diagrams at the left show the effects on cooling loads of different orientations of a narrow building at 40° N. lat., having solid end walls with negligible heat transfer and long walls with a transparency of 50%. Earh arrow represents 0.15 ton of cooling load. In all cases, eastwest orientation shows a preference ratio in cooling load requirements over the north-south axis, with shading reducing the difference between the two.

Heat transmission in generalized form

Very precise measurements can now be made of heat impacts on the skin of a building and the exact air-conditioning tonnages required to offset themtaking into account such variables as latitude, location, orientation, date and hour. Since 1,248 data points must be taken for one region and season, and specific locations introduce even more confusing amounts of data, measurements here are generalized on the basis of peak summer design data as recommended by the Heating Ventilating Air Conditioning Guide (1956) for all normal air-conditioning estimates in the US. Correction for latitude is necessary only where extreme accuracy is required.*

The steps shown here in graph form are, first, to establish the heat loads induced in a generalized building through the various wall materials and combinations of materials, then to translate these heat loads into air-conditioning tonnages required, and finally to examine the effects of building orientation on tonnage requirements. Comparisons then become pointed. For example, on a building with 50% glass area, taking the averages of wall types and tonnages per 100 sq. ft., the results, shown at top of next column, are:

*For more precise data and details of its compila-tion, see full copy of this report and the authors' recent book, Solar Control and Shading Devices.

Wall type Clear glass: Heat absorb: 50% shaded: 100% shaded Solid wall:	ir cond. tonnage 0.56 0.44 0.36 : 0.16 0.14	% saved over clear glass 0 25 37 72 75
---	---	--

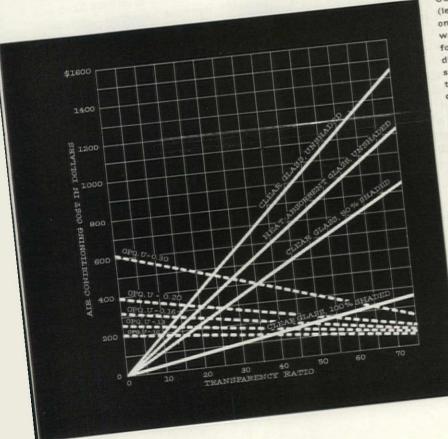
The economics

When cooling tonnages are in turn converted to dollars, and the various wall types and ratios compared, some striking conclusions emerge. The conversion factor used here, checked with leading manufacturers, is 1 ton=\$1,900 -of which \$1,000 represents average initial cost as a lump-sum payment and \$900 represents running cost, arrived at, to make lump-sum comparisons possible, by figuring operating costs at 7% per year of initial cost and then amortizing this over 20 years at a rate of $4\frac{1}{2}\%$. Using this factor, all the generalized data found for a square building on the preceding page may be averaged out and converted to dollars and shown in a simplified master chart (bottom left), in which one axis represents air-conditioning costs, the other, percentage of transparent area.

This chart shows that in some cases "hidden" cooling costs may be higher than the cost of the wall itself (assuming erection costs at \$8 to \$10 a sq. ft.). The chart also shows how more bal-

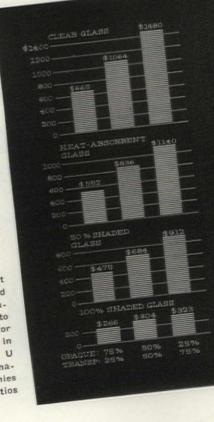
anced solutions and savings may be effected. For example, on a 50% transparent wall using clear glass and solid panels with insulating U value of 0.20, total air-conditioning costs would be \$1,120 (\$930 for window areas plus \$190 for opaque) per 100 sq. ft. By using panels with a better U value of 0.13 or 0.10, savings of \$60 or \$98, respectively, could be made in cooling costs on the opaque area. Or, instead of using clear glass alone, one might spend an additional \$228 for heat-absorbent glass, or \$380 for 50% shading devices, or \$760 for 100% shade, and break even economically. Wherever these better insulating materials cost less than the savings indicated, there is a net saving in cooling costs.

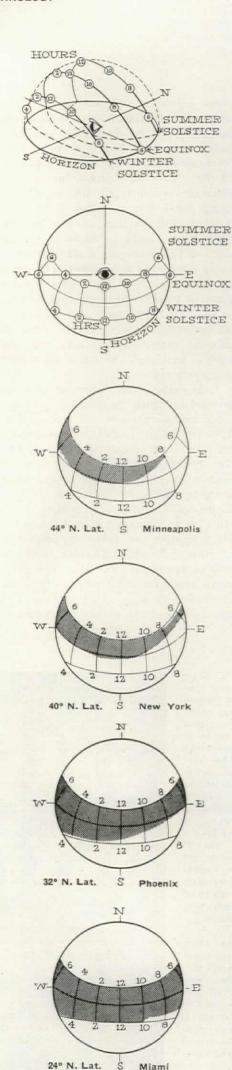
It is evident that transparent areas account for much the larger part of airconditioning expenses (88% as against 12% for opaque in the above example), hence are the areas to consider first for improvement. One solution, of course, is to reduce the transparent areas to small ribbon windows or "holein-the-wall" windows, or return to the old pier and window scheme. Another is to improve the reflective properties of glass to "bounce off" solar radiation, still experimental. The third and presently most promising solution is to use shading devices as an integral part of the wall, as shown on the next pages.

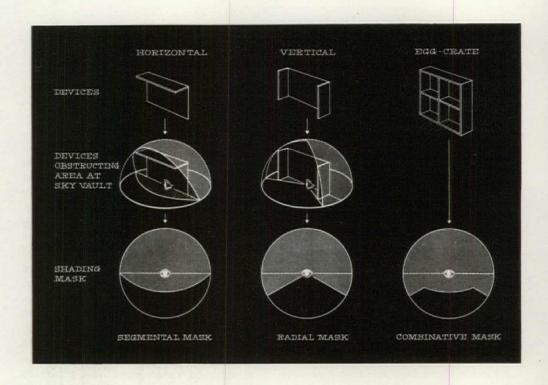


COOLING COSTS: The chart (left) combines all general data on thermal behavior of curtain walls, based on an average of the four elevations, to show air-conditioning costs per 100 sq. ft. of surface area for the different wall types considered. Pick the percentage of transparency, follow its line up to the intersecting line indicating the opaque material selected (graded by insulating U values) to find cooling cost for the opaque area; do the same for the transparent material selected; then add the two sums to get total cooling cost. For specific buildings, of course, these costs will naturally vary, but this chart can be used as a handy preliminary yardstick in design.

DOLLAR COSTS: The chart (right) translates the generalized cooling costs for the different materials, found opposite, into graphic form. Cooling costs for opaque surfaces are included in the totals, with an average U value of 0.13. This chart emphasizes the proportional economies in different treatments and ratios of transparent surfaces.







Shading as a façade element

The shading of glass surfaces shows by far the best results in reducing a building's air - conditioning tonnage. The economics are simple. If air-conditioning costs are added to the costs of the wall, as they should be, then the additional cost may equal or surpass the cost of the wall itself. In these cases, the building of a second wall or "double elevation" to act as a screen against undesirable sun rays is actually justified economically. In other cases, if the cost of a shading device equals the savings it effects in cooling costs, then it breaks even economically. If it costs less, it will save money.

In actual practice, the cost of shad-

SUN PATHS: Where shading is to be done is determined on the sun-path diagram (top left), in which positions of the sun appear as curved lines on a sky-vault projected on a horizon plane (outer circle). Connecting lines indicate the hours. The sunpath curves will change with location, being nearer the horizon in northern latitudes, closer to center in the south. Below this, the diagram is converted to flat charts on which are superimposed the temperature charts showing overheated periods from p. 155. The composite charts not only show the position of the sun but also indicate whether shading is desirable at a given time or not.

ing devices is generally less than the possible savings. There are three basic types of shading device-horizontal, vertical and egg-crate, in both fixed and movable louvered varieties-and their costs range as follows per sq. ft. of elevation: horizontal fixed, \$1.50 to \$1.80, movable, \$2.50 to \$3; vertical fixed, \$2.60 to \$3.40, movable, \$8.50 to \$12; egg-crate fixed, \$4.50 to \$6.20, movable, \$8.50 to \$12.50. As "spatial insulators," shading devices have another economic advantage in that their insulating value changes with the sun's path and hence with the seasons. If properly designed, they will insulate in hot periods and let the sun's warming rays through in cool or cold ones to balance cooling and heating loads.

All the economics of shading devices depend on proper design, which cannot be overemphasized. To make them function well, the architect must know something of the basic technical considerations, which may be summarized as knowing when to intercept the sun's rays (the seasonal consideration), where to intercept them (the angles of the sun's rays during the desired shading period), and from these, how to intercept them by the most suitably designed device. We have already seen

- ||||

SHADING MASKS: How shading is devised to intercept undesirable rays from the sun is shown in the "shading mask" diagrams (left), for the three major types of shading devices. These are plotted in the same way as sun-path diagrams, projecting the area they cover on a sky vault from a center observation point. The area covered represents the area of sky from which no sunlight will come and from which the observer will be shaded if the sun passes through. By overlaying these masks in proper orientation on the sun-path charts, one can read off the times when the sun will be intercepted and the extent to which the device acts as a shield.

SHADING TYPES: These charts show only a few of the possible variations under the major classes of shading devices—horizontal, vertical, and egg-crate. Plan views and sections are shown, with dotted lines indicating the angles from which the sun's rays will be intercepted. From these angles, shading masks are drawn, showing the 100% shading in gray tones. Masks can be drawn for any shading device, even very complex ones, and, being independent of latitude and orientation, may be used in any given situation.

the data for the first determination in the temperature charts on p. 158 for four typical regional locations—Minneapolis, New York—New Jersey area, Phoenix and Miami—on which the "overheated" periods indicate when shading is needed. The other two determinations are shown in the charts on this page. The most efficient shading devices to be achieved are those that cover as much as possible of the overheated period, while not covering too much of the underheated periods when warmth from the sun is needed.

An almost endless variety of shading devices, built as an integral part of the wall, is possible in all regions. A few of the actual variations and subdivisions of design under the major types are shown in the pictorial tables on this page along with some brief notations on their most advantageous use.

Art in variation

It is this variational possibility that makes shading devices the most appetizing and fruitful solution to solar control problems, giving architecture widest play. Masking diagrams do not define the scale of the devices, only the angle determining their ratio of depth to wall dimensions. A small scaled de-

0 R til 0

Horizontal overhangs are most efficient toward south or near southern orientations. Characteristic mask is segmental.

Louvers parallel to wall permit air circulation near the wall. Slanted louvers are more efficient than straight ones.

Canvas canopies have the same characteristics as solid overhangs, and can be retractable.

Louvers hung from solid overhangs are efficient where protection is needed from low sun angles.

A solid or perforated screen strip parallel to the wall cuts out lower rays of sun.

Movable horizontal louvers change their mask characteristics according to their positioning angle.

Vertical fins work best toward east and west or near these orientations. Their characteristic mask is segmental.

Vertical fins oblique to wall result in an asymmetrical mask. Separation from the wall avoids heat transmission.

Movable vertical fins can shade the whole wall, or open in different directions according to the sun's position.

Egg-crate with movable horizontal elements shows flexible mask. Because of high shading ratio, egg-crates are most efficient in hot climates.

Solid egg-crate with slanting vertical fins results in an asymmetrical mask.

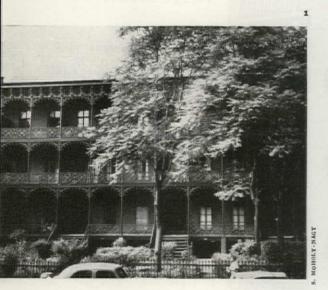
Egg-crate devices are combinations of horizontal and vertical types. Their mask is a superimposed diagram of the two types.

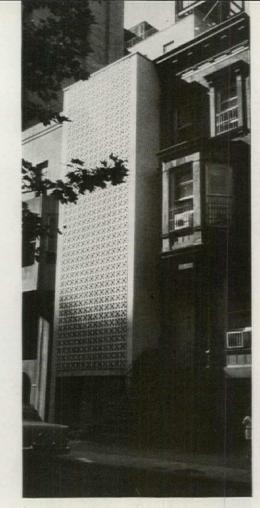
159

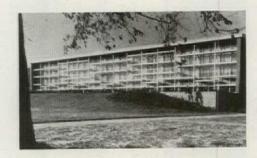
vice, such as a slotted insect screen, and a larger scaled outside Venetian blind will have the same shading effect as tiered balconies, for instance, providing their proportions are the same. Once the basic rules are learned and a mask worked out, there will be many possible design solutions for each situation. Here technical method ends and imagination should take over.

Design solutions may open out in all directions. Shading devices need not be regimented on a building façade but may be staggered or placed at different depths for different effects. Beyond the shading device is the screen, placed independently as a second wall before the glass or window wall, approaching a "double façade" effect. And within the double-façade, ideas may range from small metal screens hung for a diversity of sculptural effects to balconies or heat-dispersing galleries interrelated in function. Some of the current play on these ideas is seen in the pictures on these pages.

Thus by solving the heat transmission problem of large glass surfaces, and doing it in an economic way, the shade-screen may also move architecture away from the weary clahé of the ribbon window and revitalize it with depth and with a maturity that may allow emotional variation again. The façade may return again, as it has always been in architectural history, to the status of a plastic art.





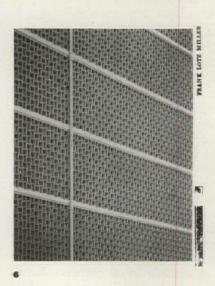


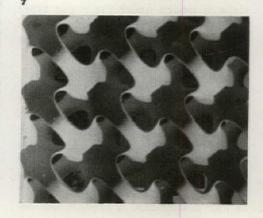
The double façade

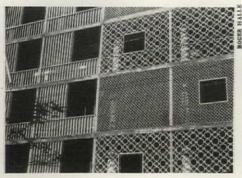
VARIETY in shades and screens shows a return in modern idiom to the portico and doublefacade effects that long gave architecture a plastic depth, as seen (1) in the 1850 Renwick apartments, New York. Shading devices (3) on the University of Louisville Library by O'Connor & Kilham (A. Olgyay, consultant) exhibit a staggered pattern at two depths. Beyond these devices are a wealth of new screens or double facades: (2) E. D. Stone's own apartment, New York; (4) P. A. Ribero, office building, Bahia, Brazil; (5) M. Roberto, I. R. B. building, Rio de Janeiro; (6) A. Raymond. apartments, Pondichery, India; (7) E. Hauer, sculptured screen, Vienna, Austria; (8) A. F. Costa, apartment, Rio de Janeiro; (9) O. Niemeyer, apartments, San Paolo, Brazil; (10) M. Yamasaki, Wayne University conference building, Ohio; (11) M. Yamasaki, screen, Reynolds Metals building, Detroit: (12) P. Rudolph. screen, Wellesley Art and Music Center; (13) A. Reidy, apartments, Rio de Janeiro; (14) E. Hauer, sculptured screen, Vienna, Austria; (15) M. Yamasaki, screen, Wayne University conference building; (16) V. Gruen, Tishman building, Los Angeles; (17) Lucchichenti & Monaco, apartments, Tarente, Italy; (18) P. Gasparini, hotel, Caracas, Venezuela.

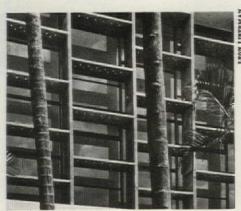


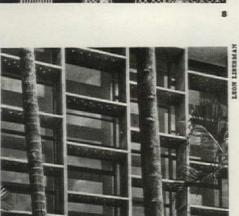




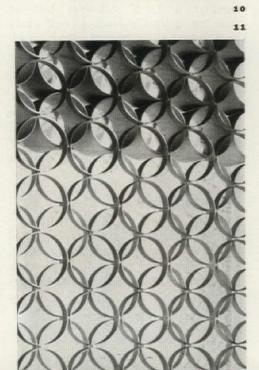


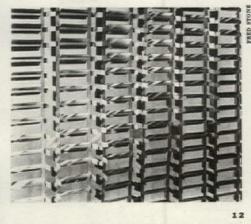


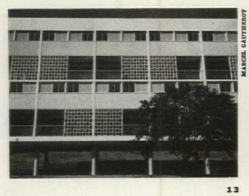


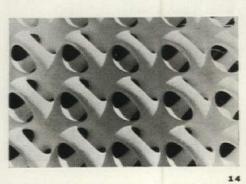


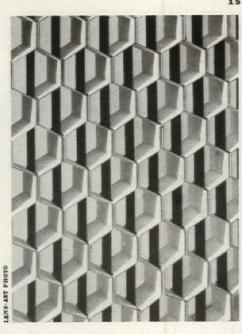


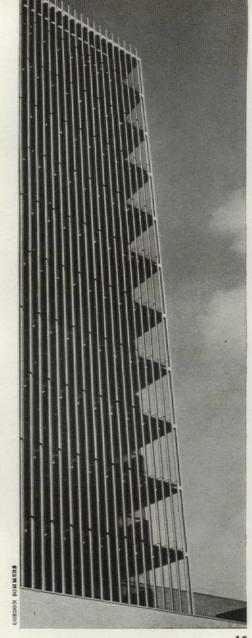


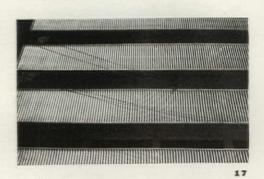


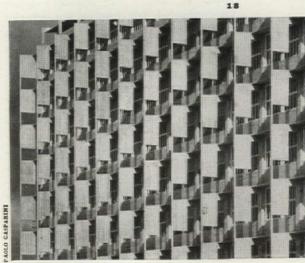












Brief accounts of noteworthy developments

PASTEL BRICK

Scientists in North Carolina have developed a new technique by which brick can be produced in a variety of colors. It differs from existing coloring methods-such as glazing which produces a hard, glossy veneer, and solid-coloring, a high-skill technique which only a few manufacturers have mastered to turn out bricks of many colors, from pink to deep chocolate. The new method treats only a single surface, just as in glazing; but unlike glazing, the color can be applied to the surface in any of a number of ways, by rolling, spray-on, or brush. Because the technique is relatively simple it seems to be the kind of production step the average brick manufacturer will be willing to try.

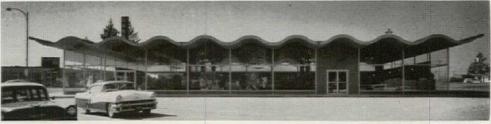
To the architect, this may mean that color variety will be available in brick masonry, just as in other wall and partition materials like porcelain enamel and aluminum.

The process was developed jointly by scientists of the pyrochemical research program in the School of Engineering at North Carolina State College, headed by Dr. W. C. Bell, and the Greensboro firm, Brick & Tile Service, Inc. According to Dr. Bell, the colored bricks are acid- and stain-resistant, and can be produced with virtually any red clay. In texture, the colored brick resembles a conventional kiln-fired brick which has been coated with a nonglossy paint. The finish is said to be quite hard, based on recent weatherability tests. However, Dr. Bell says that insufficient field testing has been done in cold climates to justify the product's being recommended for use as an exterior wall material in the colder parts of the US. Further testing of this type is going on now.

WAVY STEEL ROOF

Much of the curvaceous form of today's architecture—such as this undulating roof (picture) on the Bell Department Store in Burien, Wash.—is due to such supple materials as concrete and plastics. But it is this very fact that makes the Bell roof different: Architect Ralph Burkhard put the roof together with pieces of steel.

The ceiling consists of perforated



PHOTOS: CHAS. R. PEARSON



flat plates of light-gage steel, which rest on the lower flanges of the undulating steel beams. The entire roof is supported by two structural steel beams (not shown in photos) which stretch over the roof's 120' length, parallel to the wave crests, and rest upon four columns within the building. Thermal insulation boards are attached to the upper side of the ceiling, over which built-up roofing is applied.

Construction cost, excluding the architect's fee and the cost of the land, was \$115,000. The building contains about 10,300 sq. ft. of space.

GLASS AND THE SUN

In the past, probably the best-known source of information on solar heat transmission through light-transmitting materials (see p. 154) has been the American Society of Heating and Air-Conditioning Engineers, whose Cleveland laboratory has developed

much data on glass and solar energy. But in the future, through stimulation by ASHAE itself, a number of other organizations are to take up supplemental research in this field, indicating its growing importance. As a result of a national survey conducted by the society's Technical Advisory Committee on Heat Transfer through Fenestration, a dozen institutions are now prepared to discuss such research programs with potential sponsors.

The organizations are: Battelle Memorial Institute, Columbia University, Duke University, Cornell University, University of Maryland, University of Michigan, University of Minnesota, Pennsylvania State University, New York University, Purdue University, Rensselaer Polytechnic Institute, and Southern Methodist University.

DALLAS' MOVING BELT

At Dallas' new Love Field, scheduled to open for commercial air travel later this month, trudge-weary travelers will have their first sample of tomorrow's pedestrian-pampering airport. sample: a 1,435' conveyor belt-or "moving sidewalk"—which will carry passengers to and from the main terminal building and the loading gates. Conveyors have been put to work in other public buildings in recent months, e.g., railroad terminals, shopping centers; Love Field will be the first airport to experiment with one. At first, the belt will operate at 132' per minute-or about half of average walking speed.

THE NEW ARMY

A remarkable thing has happened within the New American Army where, it turns out, you really do learn while you earn. Witness this hyperbolic par-

continued on p. 167

The IDEA of the architect . . .

The beauty of WOOD ...

The SKILL of Woodwork craftsmen . .

these are the elements of . .

DISTINGUISHED INTERIORS

Blending these elements to produce architectural woodwork and cabinetwork has been the service of Woodwork Corporation for two generations. Our versatile organization is adaptable to large and small projects, prepared to build and finish to specification, with installation optional.



CURRENT CONTRACTS INCLUDE:

STATE DEPARTMENT BUILDING, WASHINGTON, D.C. THE MAY COMPANY, CLEVELAND, OHIO STATE OFFICE BUILDING, MADISON, WIS. NORTHERN TRUST COMPANY, CHICAGO, ILL.

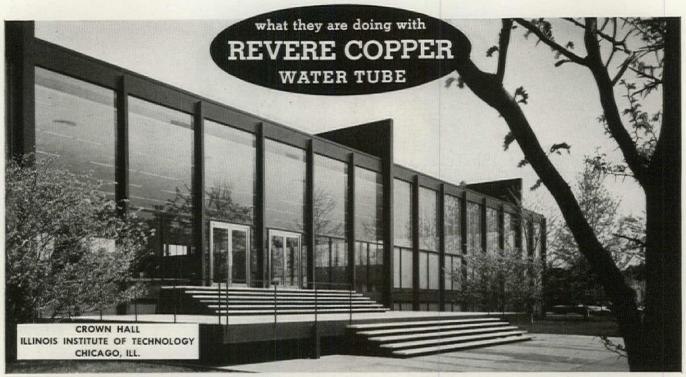


VOODWORK CORPORATION OF AMERICA

1432 WEST TWENTY-FIRST STREET, CHICAGO 8, III.

Serving Architects, Designers and Contractors for Nearly Half a Century





Architect: MIES VAN DER ROHE. Associate Architect-Engineer: PACE ASSOCIATES. Structural Engineer: FRANK J. KORNACKER. General Contractor: DAHL-STEDMAN COMPANY. Landscape Architect: ALFRED CALDWELL, all of Chicago.

UNIQUE SPLIT SYSTEM meets air change requirements and at the same time gives occupants the many benefits of RADIANT PANEL HEATING

In this split system, ventilation ducts in the ceiling provide the necessary air changes per hour as required by the Chicago Building Code. In the winter the air is heated, supplemented by the radiant panel system in the floor. The warm air system carries the principal heat loss while the radiant panel system offsets the heat loss of the large glass areas.

Revere Copper Water Tube was used for radiant heating panels because the standard 60' lengths mean fewer fittings, the sure soldering of copper means tight joints and its non-rusting qualities mean no clogging or reduction of flow. In addition, contractors are finding out that when properly applied, copper water tube not only is dependable and easier to work, but actually costs less than rustable materials.



13,580 FEET OF TYPE "L" Revere Copper Water Tube were supplied the Heating Contractor, CHICAGO CONDITIONAIRE COMPANY by the Revere Distributor, COLUMBIA PIPE & SUPPLY CO., both of Chicago.

The inherent qualities of Revere Copper Water Tube also make it the first choice for hot and cold water lines, underground service lines, processing lines, drainage and waste lines, vent stacks. See your Revere distributor for your needs.

REVERE COPPER AND BRASS INCORPORATED



AN IDEAL HEATING COMBINATION—Air ducts in the ceiling and radiant panel heating coils in the floor. Note that, due to greater heat loss, panels near the windows are spaced on 12" centers, while the remainder are on 24" centers.



Air, rail or bus traffic all begin with foot traffic — lots of it. Rugged and durable, Vina-Lux reinforced vinyl-asbestos tile withstands this punishment. Spilled foods, grease, muddy tracks present no problems, either. Tightly-textured Vina-Lux is easy to clean, economical to maintain.

And now, Vina-Lux with the subtle styling of *Micromatic veining* brings new beauty to busy floors — suggests dramatic design techniques for modern terminals. Specify Vina-Lux — solve tough floor problems. Reduce the cost per square foot per year. Samples are yours on request.



AZROCK FLOOR PRODUCTS DIVISION

UVALDE ROCK ASPHALT COMPANY

505A FROST BANK BUILDING . SAN ANTONIO, TEXAS





INTRODUCING THE





Now on display at your Steelcase Dealer

Before you come in, however, discard all preconceived notions of what a desk should look like, what a desk should do. The Flight Line represents an entirely different kind of executive office furniture. Setting the theme is the new Sabre (above) with flight styling indicative of the limitless horizons of tomorrow. And, appearance is matched by performance. Each desk has a full complement of personal features deliberately conceived to help a busy executive get through a busy day more effortlessly, more

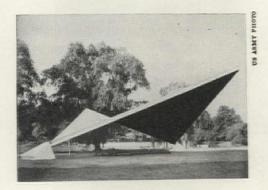
efficiently and with a good deal more pleasure. Come in and see the new Flight Line—it's a whole new approach to executive office living. Steelcase Inc., Grand Rapids, Mich. In Canada: Canadian Steelcase Co., Ltd., Don Mills, Ontario.



Write for our full-color brochure

Ask your secretary to write for a copy of our new full-color brochure on the Flight Line. Write Dept. A. Steelcase Inc., Grand Rapids, Mich.

STEELCASE INC



aboloid band shell (see picture) at Fort George G. Meade, Md. It was designed by Pfc. Steven M. Jones, now of the Post Engineer's Office, formerly of the University of Virginia, where he received a bachelor's degree in architecture two years ago. Pfc. Jones's 2,000 sq. ft. roof is demountable for winter storage; it can be reassembled in three days, presumably by someone other than Pfc. Jones.

FIBROUS METALS

A technique for forming random metal fibers into mats, somewhat like the techniques for making felt, fibrous glass or paper, may soon be ready for commercial production. The process, by which the fibrous metals are layed down and sintered into sheets or molded into intricate shapes of high strength, like plastics, was in the laboratory stage of development only a few months ago (AF, Jan. '57). Now two pilot plant operations have been reported-one by S.O.S. Co. (metal scouring pads), the other by American Viscose Corp .aimed mainly at finding economic ways to draw or spin the fibers in filament or ribbon form. Avisco is also working on a development that may be of considerable importance to the plastics industry and eventually to building: using the mats for reinforced plastics of superior strength. S.O.S., meanwhile, is hopeful that its new technique may be useful in production of industrial filters. Both companies are working with technicians of Armour Research Foundation, where the early research work was done.

SMOG AND THE AUTO CONT'D.

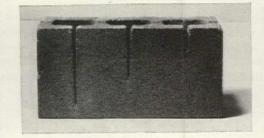
In the brisk, fresh air of Seattle recently, many of the foremost authorities on smog gathered together to hear of new progress in the struggle to control the chief US smog source: the automobile.

For an instant, the meeting's hero was a new catalyst, vanadium pentoxide, a fluffy yellow powder, which was reported by its developers at Ford Motor Co. to be 80% effective in the collection of unburned hydrocarbons. now known to be a major contributor to smog in Los Angeles and other cities (AF, Aug. '57). But Ford Research Supervisor James Chandler was quick to temper the news of the new discovery by adding that "it's going to be a long, thorny, stormy road before this or any other catalytic afterburner can turn up on the motorist's car." Chandler estimated that the auto industry was still five years away-"and probably closer to ten"-from finding the answer to autogenerated smog.

At day's end, members of the Society of Automotive Engineers, who sponsored the meeting, carried these words back to Detroit—spoken by Los Angeles' smog Control Chief Smith Griswold: "We've already knocked out most industrial sources of contamination in Los Angeles and by this fall we will have it all controlled. After this year, if we have smog, everybody will know it's the automobile. . . . The auto industry has some fine engineers on the exhaust problem, but over all, if you ask me, 'Is the industry doing enough?' I can give only one answer, 'No.'"

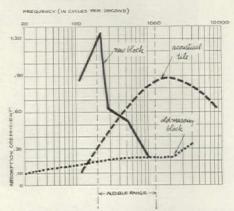
ACOUSTICAL BLOCK

The concrete block shown in the photo (below) is designed to absorb the troublesome sound in the low-

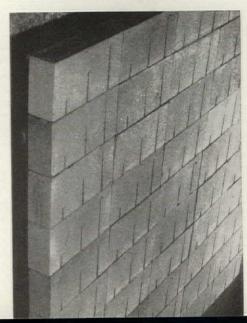


frequency range. It was developed by two consulting organizations of New England: Nichols, Norton & Zaldastani, Boston consulting engineers, and the Cambridge Acoustical Associates.

The three cone-shaped cavities within each block are purposely of unequal length, so that each cavity, in effect, is tuned to a different natural frequency. As the graph indicates, the absorptive capability of the block is maximum at about 250 cycles per second, where conventional tile-type acoustical material and most other sources of absorption are poor. At higher frequencies, the block's effectiveness as a sound absorber diminishes, while the effectiveness of conventional materials increases. (In this higher-frequency range, the effectiveness of the new block can be increased by filling the cavities with a sound-absorbing material, such as fibrous glass.)



According to the designers, the new block can be produced by adding a special mold to an existing block-making machine, thus requiring no manual operations—such as cutting or drilling—after the blocks are cast. It is estimated that the cost of the acoustical block will be 15¢ to 25¢ above that of a conventional concrete block of the same size—4" x 8" x 16".





O'CONNOR & GOLDBERG, CHICAGO, ILL.

MODERNIZE, COMFORTIZE

and . . . minimize overhead

SPECIFY AN INTERNATIONAL REVOLVING DOOR ENTRANCE



Write for your personal copy of "Modern Entrance Maintenance"—packed with helpful data tips on maintaining both entrance beauty and efficiency. The nationwide International service organization is available to you for the asking.

"Always open" to welcome all who enter a place of business . . . yet "always closed" to all unwelcome drafts, dirt, and wintry discomfort . . . only revolving doors insure the constant interior comfort that today's competition demands.

However cold the weather and heavy the in-and-out traffic, these doors will cut your clients' heating costs as much as 25% . . .

minimize decorating and maintenance costs
. . . AND make all floor space profitably usable right up to the entrance.

Framed in stainless steel, bronze, or aluminum that defies wear and weather . . . affording fullest visibility . . . business always looks better through an always-modern International Revolving Door Entrance!



Revolving Door Entrance Division

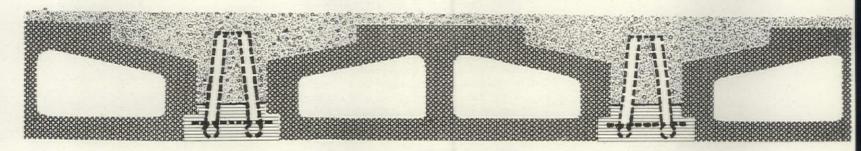
INTERNATIONAL STEEL COMPANY

1327 Edgar Street • Evansville 7, Indiana



Products

Imported decking . . . open sky ceiling . . . foam filled sandwich . . . three-ply flooring



PLANK AND BLOCK DECK acts as own girders and formwork

Part precast and part poured on the job, an *Omnia* deck sets up as a level, fire-resistant, monolithic floor or roof. Although new to this country, the hollow block and beam construction has bedecked 75 million sq. ft. of European buildings. *Omnia* weighs in at one-third to one-half the heft of a solid slab. It easily spans

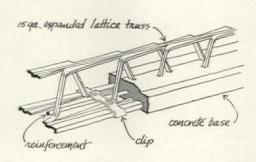


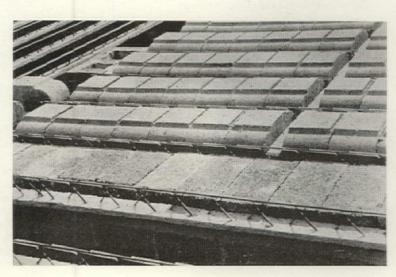
8' or will extend for a 4' cantilever without supplementary reinforcement. The system can be heavied up to meet ACI code requirements for a 100' live load over a 25' floor span in multistory buildings and, under normal roof loads, a 10" to 1' deep deck will stretch 30' or more. The two prefabricated components in the system—lattice trusses of 15 ga. cold rolled steel with cast concrete bottoms and masonry blocks—serve as forms for the concrete

topping that fills in the negative spaces between the block rows. T-section beams are created by the poured concrete with the slotted splines becoming tensile reinforcement. Since the location of these trusses is predetermined, the system requires less field supervision than a conventionally rod-bolstered slab. Temporary shoring on 5' centers is the only kind of formwork necessary. By jacking up the supports strategically, an Omnia roof or floor can be cambered to offset any deflection. All supporting girders are melded mechanically into the floor system, and so the entire ceiling surface is flush and flat. Once it cures, an Omnia deck has the crack resistance and stress absorption characteristics of a continuous poured-in-place slab, spreading concentrated loads, impact, and vibration over large areas. Service facilities can be run through the hollow blocks, in the cross ribs, or laid in between the block rows before the topping is poured. In Germany the lattice girders are shipped flat and expanded on the job and their bases cast in a trough. For use here, Omnia planks will be furnished with their bases on. Depending on load span and insulation factor called for, Omnia decks are being installed for 80¢ to \$1.34 per sq. ft. including the concrete pour.

Manufacturer: Omnia Construction Corp., 30 S. Broadway, Yonkers, N.Y.

continued on p. 170







Altec Lansing is proud of its contribution to the new home of the Prudential Insurance Co. in Houston, Texas. Altec equipment serves a vital function in the public address system of the magnificent structure.

Prudential is another of the many great American businesses to be found listed in Altec's Blue Book of Satisfied Customers...a long and imposing list that includes many of the nation's newest and finest schools, hotels, department stores and public buildings.

Wherever the best sound system is called for, the call is for Altec Lansing. Altec Lansing products are qualityengineered, quality-built for a long lifetime of unsurpassed performance.

See our catalog in the Architectural File (32a/AL) and in the Industrial Construction File (12j/AL) of Sweet's Catalog.



1515 S. Manchester Ave., Anaheim, California 161 Sixth Avenue, New York 13, N. Y.

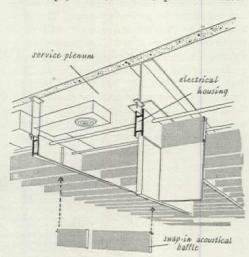
BAFFLES AND BULBS make open sky ceiling system

A second major packaged product to come out of one building, Smithcraft Integrated Lighting represents an inventive liaison between architect and manufacturer—made possible by a receptive client. Like the Connecticut General partition fabricated by E. F. Hauserman & Co. (AF, March '57), the new ceiling system was conceived by Skidmore, Owings & Merrill and modified as a mass-producible building component by a manufacturer's engineer staff. The acoustic-lighting grid has worked out so well for the insurance company's building (AF, Sept. '57) not only in initial



installation (about \$2.25 a sq. ft. in place, complete) but also in coincidental savings, that Smithcraft is now offering the baffled-bulb system as one of its catalogued products.

Adaptable for remodeling as well as new construction, *Integrated Lighting* consumes as little as 1' of ceiling depth and yet will work well in a cavity extending 2' above the lamps, if the area is painted white.



Standard inexpensive fire sprinklers and outlets for air conditioning can be used above the grid instead of models dressed up for show. The network of soundabsorbent fins acts as a casual blinder arrangement for any ductwork or utility lines above. Low brightness lamps, mounted bare along the baffles, can operate at high efficiency and are cleaned and changed easily. The module dimension (6' in the first installation) is governed only by the

length of existing fluorescent lamps and by the amount of shielding specified (i.e., for 45° cutoff in one direction and 30° cross shield, 11" deep fins would run 1' apart and traverse baffles 2' o.c.). Channels on the baffles can be fitted with grooves to receive movable partition members. Noise reduction coefficient of the wide-open ceiling is a whopping 70 to 80%. (To get the miniscule hole pattern and spacing on



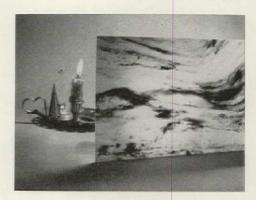


the metal-faced fins called for by the acoustical engineers, Smithcraft found itself in the perforated sheet-metal business. Another novel production problem was posed by the shape of the glass-fiber fillers. To make a double concave shape section that would not pick up inhibiting paint whenever the baffles were redecorated, a multiple-stitch sewing machine had to be found. Smithcraft men found two that could do the job—in a Boston antique shop.)

Manufacturer: Smithcraft Lighting Chelsea 50, Mass.

TRANSLUCENT VINYL makes elegant, comfortable flooring

Vinyl's inherent translucency is capitalized on rather than muted with pigment in Robbins' Pompeiian tile. Colored random tracings are blended into the milky background, giving the floor material a close resemblance to an elegant marble, the maintenance advantages of a random pattern, plus the underfoot comfort and quiet of a resilient surfacing. The new vinyl



is available in $9'' \times 12''$, $9'' \times 18''$, and $9'' \times 24''$ rectangles, as well as the standard 9'' square, and can also be ordered in full $3' \times 3'$ sheets for lobbies and commercial interiors where a larger scale is

continued on p. 172



Pleasing Low Brightness Lighting for Bank Customers, Personnel and Management - by LITECONTROL

To give you an idea of the efficiency of this lighting installation, the photographer who took the picture found it unnecessary to use any auxiliary lighting. Yet there's no glare!

The brightness is very, very low, puts no strain on the eyes, eases paper work (and minimizes errors) by customers and the bank staff and provides a very comfortable interior. The high efficiency of the illumination is

proved by the intensity levels reached with 3-lamp fixtures.

This is another example of good functional lighting supplied by standard, cost-saving LITECONTROL fixtures. It happens to be a bank installation but it could be a school, office, store or plant — all of which are currently benefiting by LITECONTROL equipment — everywhere.

INSTALLATION:
Winchester Trust Company, Winchester, Mass.
AREA SHOWN: General bank area.
ARCHITECT:
Hutchins & French, Boston, Mass.
ELECTRICAL ENGINEER:
Cleverdon Varney & Pike, Boston, Mass.
ELECTRICAL CONTRACTOR:
Barges Electric Co., Watertown, Mass.
FIXTURES:
Lit econtrol No. 8334RS 3-lamp recessed
fixtures, using Holophane No. 6024 acrylic
l enses, and 3 special No. 8384RS 8-lamp
recessed 4' x 4' fixtures with No. 6024 lenses.
CEILING HEIGHT: 10'-0".
FIXTURE SPACING: 8'-0".
INTENSITY:
95 foot-candles average on top of tellers'
counters;
85 foot-candles average throughout room,
at working level.

THECONTROL

KEEP UPKEEP DOWN

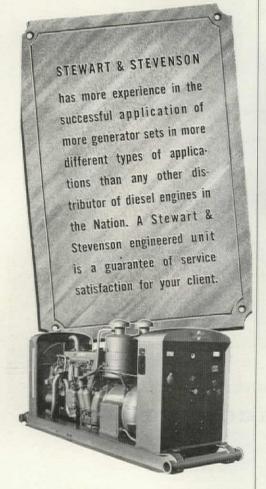
Fixtures

LITECONTROL CORPORATION, 36 Pleasant Street, Watertown 72, Massachusetts

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

cont'd

PROFIT FROM THIS EXPERIENCE



For continuous service or standby duty 3 KW to 1000 KW Diesel or gas/butane

Please write for specifications or additional information to

STEWART & STEVENSON SERVICES, INC.

4516 Harrisburg Blvd. Houston 11, Texas Phone CApitol 5-5341

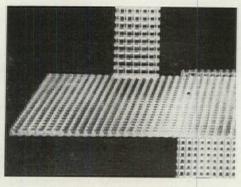


appropriate. All sizes are 1/8" thick and can be furnished for adhesive installation or with Robbins' factory-applied Peel N'Stick pressure sensitive backing. The Pompeiian line comes in two pattern styles: one has marblelike markings (pictured above); the other a tighter, crushed-stone effect. Price, not including installation, is about \$1.25 a sq. ft.

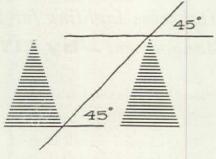
Manufacturer: Robbins Floor Products, Inc., Tuscumbia (Muscle Shoals), Ala.

PLASTIC LIGHT LOUVER molded with cross-grid of prisms

Catering to designers who are wearying of uniform brightness lighting fixtures and ceilings, Guth has devised a prismatic



louver of high calculable illumination, but not so predictable sparkle. Refracting light into little flashes of color with the playful irreverance of a crystal chandelier, the geometric grid of clear plastic boasts an 86.1% efficiency—bettering white translucent louvers and corrugated plastic sheeting by 30%. Injection molded of clear polystyrene or acrylic, the *Prismoid Grate*-



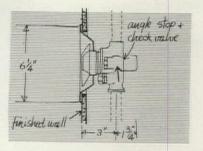
lite relies on the lens effect of its tapered cross-grid to provide 45% shielding in two directions, to camouflage the lamps and distribute light where it will do the most good-on work surfaces. The panels are made in two sizes: 11" x 4" and 1'-4" x 4' and are currently available only in Guth's luminaires. Prices run about \$4 more a luminaire than for a fixture with a translucent Guthlite grid. The prismatic grid offers very little surface for dust collection; cleaning requirements are reported to be half that of solid panels of glass or plastic. Allowing air to circulate freely, the open louver adds to lamp ballast life. It also could be utilized to distribute conditioned air. Cost on a square-foot basis for the Prismoid Gratelite alone is about \$2.25

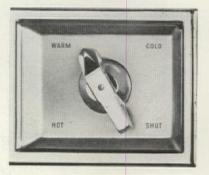
for polystyrene, \$4.20 for acrylic. As yet, no formal acoustic tests have been made of the grid, whose intricate angled shape presents a natural sound trap. However, the noise reduction coefficient is expected to be especially high for the acrylic lenslouver (polystyrene plinks; acrylic plunks).

Manufacturer: Edwin F. Guth Co., 2615 Washington Blvd., St. Louis 3, Mo.

SHOWER MIXER recesses neatly and safely in wall

Lawler's Recesso thermostatic control valve has no sharp projections to injure a closed-eye bather. Designed to be mounted in a wall so that its chromed bronze mixer handle extends no farther out than the tile or plaster surface, the valve is a practical shower accessory for hospitals, hotels, and schools where accidents are not only discomforting but expensive. The Recesso has





one other essential safety feature: should the cold-water supply fail, the valve cuts off automatically to prevent any possibility of scalding. Under normal operation, the valve provides a thermal range selection of tap—cold up to 115° F. Its neat face plate is stainless steel and all working parts are brass, copper or stainless. List price is \$62.

Manufacturer: Lawler Automatic Controls, Inc., Mount Vernon, N.Y.

SANDWICH PLANKS fabricated by the mile by Alcoa

Deviating from its usual policy of producing aluminum building materials in raw form only—sheet, foil, extrusions, etc.—Alcoa is now fabricating foam-filled sandwich panels for interior and exterior application. The continuous process which will bond aluminum, wood, enameled metal, or glass to a rigid core of cellular plastic, is being used to make laminates in widths

continued on p. 17.4

MODERN DESIGN CALLS FOR VERSATILITY

. . . As a Decorative, Structural and Functional material, Irving Grating offers a wide variety of architectural applications in all types of structures.



Curtis Hall, Temple University, Philadelphia Nolen & Swinburne, Architects

As unusually light and transparent appearance is achieved in this new 4-story classroom building by the extensive use of IRVICO type CC pressure-locked aluminum grating as sunshades. These help reduce air-conditioning costs and help control sky glare. They also serve as window cleaning walkways.

Angell Hall, University of Michigan Kahn Associated Architects and Engineers, Inc.

Vestibule mats of Irving grating prevent excessive grit, mud and wetness from being

buildings, schools and the like. Grit, rain, snow and slush drop through the open-mesh grating to receptacles below which can then be flushed into sewers. Thus a clean entrance is always assured, and the cleanliness of the interior is in turn preserved.



Capital Building, Waikiki, Oahu, Hawaii

Wimberley and Cook, Architects

Beauty and utility are combined in the balcony railing around the second floor of this new office and retail store building through the use of IRVICO type AA.

FITTING GRATING FOR **EVERY** PURPOSE"



Consult local classified telephone directory in principal cities for nearest Irving Sales Engineer (or request AIA No. 14P20 directly).

IRVING SUBWAY GRATING CO., Inc.

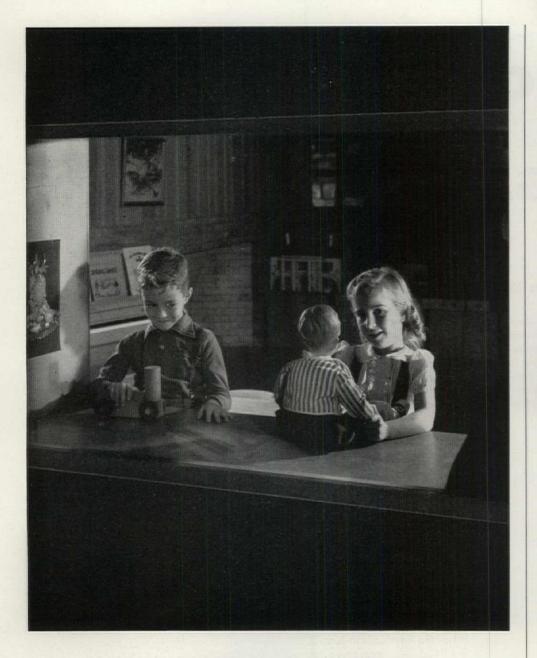
ORIGINATORS OF THE GRATING INDUSTRY

Offices and Plant at:

5061 27th St., Long Island City 1, N. Y. 1861 10th St., Oakland 20, California

Representatives In Canada, Mexico and South Africa

cont'd



You're looking at these children through a mirror!

You see the children, but they can't see you.

From your position in a semi-darkened room, *Mirropane®* is a window. But from the other side—in the brighter room—it is a mirror. The children see no one but their own reflections.

Mirropane has many uses . . . in schools, hospitals, banks, homes . . . anywhere you need to observe without being observed.

For complete details, call your L·O·F Glass Distributor or Dealer (listed under "Glass" in the yellow pages). Or write to Liberty Mirror Division, Dept. LM167, Libbey Owens Ford Glass Co., 608 Madison Ave., Toledo 3, Ohio.



MIRROPANE®

THE SEE-THRU MIRROR

LIBBEY · O W EN S · F O R D G L A S S C O M P A N Y up to 4' and thicknesses up to 6". Length varies according to the size limit of the facing material. Conduit and heating or cooling tubing may be specified for placement in the panels during manufacture.

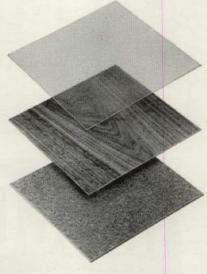


Aluminum faced panels are available anodized or plain, in flat, ribbed, or textured sheet.

Manufacturer: Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.

LAMINATED TILE combines cork, wood and vinyl

Dodge is plying the floor field with a product that makes attractive, practical use of three materials. The new *Vinylwood Cork Tile* sandwiches a veneer of choice hardwood between a clear plastic topping and cork cushion base. Made in six different wood grains in 9" and 12" squares



1/8" thick, the flooring rates well on maintenance, appearance, and resilience. Inplace price runs about \$2.25 a sq. ft. for walnut, mahogany, red gum and birch, and approximately \$2.75 a sq. ft. for exotic teak and paldao.

Manufacturer: Dodge Cork Co., Inc., Lancaster, Pa.





RACEWAY FIXTURE takes lights anywhere along post

Spot and reflector lamps can be snapped into the Lytespan vertical lighting device at any point on its slim aluminum shaft. Bringing the flexibility of a continuous raceway to a single floor-to-ceiling fixture, Designer Gerald Thurston planned the Lytespan primarily for the consumer market, but its simplicity, usefulness and price make it welcome for commercial interiors, too. The fixture is produced in heights to fit ceilings up to 9'-6". Its dual electrified tracks are contained in the extruded column, and lamp connections are made as safely as plugging appliances into base outlets. The raceway shaft sells for \$25.50. Molded phenolic bullet lights are procurable in black, white, brown and red at \$8 each. Opal glass chimneys (\$11.50 each) and torchère-type reflectors (\$15) are available for atmospheric effects.

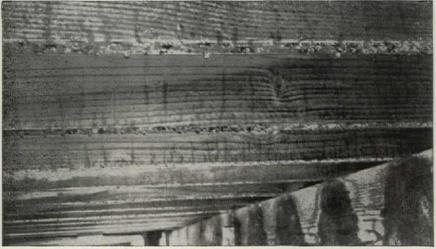
Manufacturer: Lightolier, 11 E. 36th St., New York, N.Y.

SLIM FIELD CASE of aluminum has built-in board

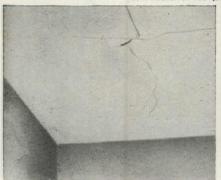
A compact case designed for travel and field use, the *Draftakit* contains a drawing board with sliding rule, a clip-on board and file compartment. Made of anodized aluminum, the \$12.95 case is 12¾" wide by 11½" high and 1¼" deep. Lifting the plastic handle automatically holds both hinged covers closed; pressing down on *continued on p. 176*







Condensation on floor joists above a crawl space





Cracked plaster ceiling due to condensation on the inside of a flat roof deck

Condensation in the wall caused framing to decay and plaster to crack

Eliminate the ravages of excessive vapor

Rotting walls...blistering and peeling paint...masonry efflorescence (the white powder that forms on the outside of brick buildings)... warping and rotting wood floors and termite problems are just a few of the many evils we have learned to live with...all of them are directly or indirectly caused by excessive vapor condensation.

Governmental and academic research has proven that more than 80% of the moisture induced into the home is from the ground source. It makes little difference whether gravel is used under the basement, slab floor or crawl-space...or whether the site is on high or low ground, whether it's on a sand dune or a cess pool—somewhere below the structure water

exists and vapor will soon rise into the building. The only way to eliminate destructive moisture is in the original construction with the installation of "PRE-MOULDED MEMBRANE," the industries only TRUE vapor seal. In construction application the 4" x 8" sheets of "PREMOULDED MEMBRANE" are laid directly over the hard tamped grade or fill with a 6" head and side lap that is sealed with Sealtight Catalytic asphalt . . . producing a monalithic vapor seal with mechanically sealed joints, that will expand and contract with the concrete slab above . . . without breaking the bond. "PREMOULDED MEMBRANE" has a permeance rating of only .0066 grains per square foot. We sincerely invite your comparison of "PM" against all other socalled vapor barriers on the market.



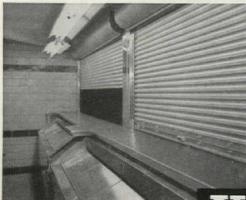
Kinnear Steel Rolling Grilles CONTROL SPACE

without blocking light, air, sound or vision



Use! Artistic, modern beauty and great strength plus space-saving convenience! Kinnear Rolling Grilles are ideal for "space control" — closing off corridors, bays, or other room areas. Curtain of heavy round bars locked in rugged steel links defies burglars, trespasers, vandals. Coils upward, stays out of view until closed and locked. Heavily galvanized for lasting beauty (aluminum or bronze also available). For face-of-wall or under-lintel mounting. Any size. Manual or motor control. Send for full information,

KINNEAR Rolling Counter Shutters Also Provide Space-Saving Protection



The counter shutter that coils upward, completely out of the way! Protects with a rugged all-metal curtain when lowered. Made like the famous Kinnear Steel Rolling Doors used so widely in service openings of all types, but with a curtain of one of Kinnear's "midget" slats. For all counter openings up to 20' wide. Steel, aluminum, bronze, or stainless steel. Write for details.

The KINNEAR Mfg. Co. FACTORIES:

1440-40 Fields Avenue, Columbus 16, Ohio 1742 Yosemite Ave., San Francisco 24, Calif. KINNEAR
ROBBING DOORS
Saving Ways in Doorways

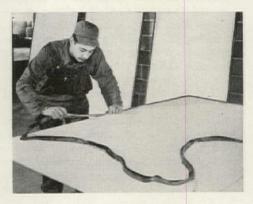
the handle and turning two small levers releases one or both sides. (The reflective metal case also could keep an emergency sandwich sedately cool for field consumption.)

Distributor: Abbco Industrial Sales, 18055 James Couzens, Detroit 35, Mich.

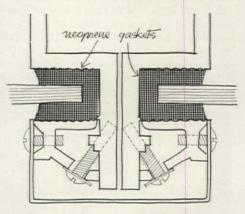
NEOPRENE BORDER

seals large glass curtain wall

To weatherproof the thousands of large glass panels that skin the Idlewood Arrivals Building, the architects, Du Pont and Pawling Rubber, worked out a hug-on U border of neoprene. The special gasket



evolved after extensive research into comparative costs and longevity of sealants and calking. It has vulcanized corners and arrives at the site as a limp, four-sided frame which is fitted around each sheet of glass by a workman before the panel is set in place. A glass stop applies pressure uniformly around the gasket. The frame sections passed hurricane wind and water tests in fine style. The neoprene's natural give over a wide temperature range allows the glass to bend under heavy winds and

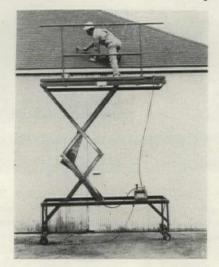


also works as an expansion joint, counteracting movements in the curtain wall framing. Chemical resistant and durable, the resilient gasket can be reused whenever any panel breaks and is replaced. Price of the gasket alone, with factory-joined corners, is about 20ϕ a lin. ft. Inplace cost, including glass handling, runs about 40 to 50ϕ a ft.—about one-half the charge for a quality calk-type synthetic bead with comparable performance.

Manufacturer: Pawling Rubber Corp., Pawling, N. Y.

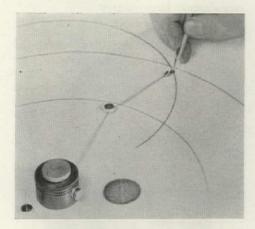
SCISSORS SCAFFOLD can be toted in pickup truck

Useful for repair work and light construction, the 860 lb. Jim Dandy Jr. scaffold pantographs up to 10' with a platform and 800 lb. pay load. Easily carried around in a small truck, the hydraulic unit is fitted with casters for mobility on



the job. A workman controls the elevating and lowering from the 2½' x 8' platform, and a ½ hp motor provides the power. The model sells for about \$450.

Manufacturer: Grell Enterprises, Box 628, Perry, Okla.

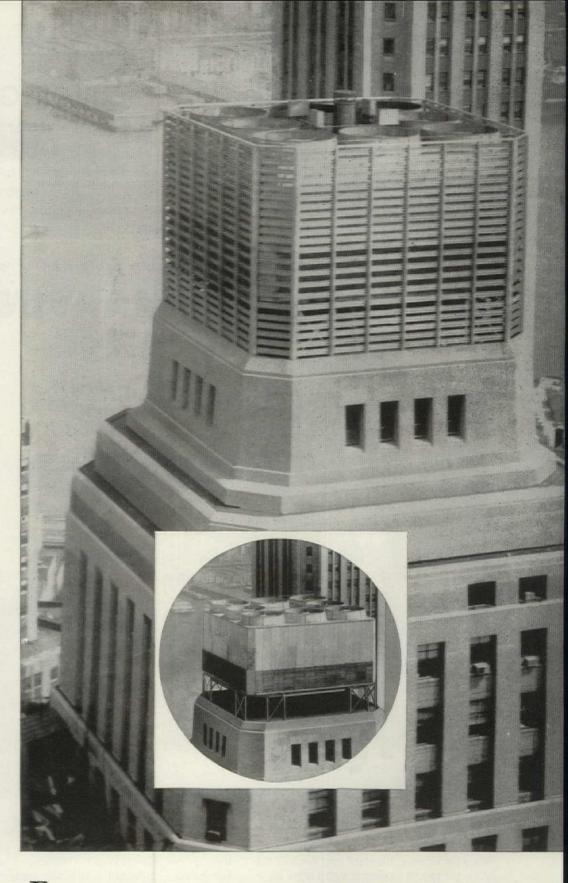


SIDEWINDER COMPASS makes 12' circles and spirals

Not much bigger than a half dollar, this metal beam compass pays out enough linen cord to scribe circles up to 12' wide on any surface-wood, paper, fabric, metal, plaster, or turf. Unlike the inaccurate stringand-tack method on which its design is based, the Sidewinder has a line-locking clutch and rewind knob which permit measurement control to a minute fraction of an inch. The gripsocket for pen or pencil is clamped securely to one end of the line and the reel is affixed to the surface at the other end. Price, including three interchangeable pins that act as seating anchors, rewind handles and curvature guides, is \$2.75.

Manufacturer: Laramie Chemical Corp., 290 Main St., Stamford, Conn.

continued on p. 178



For Wall Street or Main Street, for new or old buildings, single-story or skyscraper, only Marley offers more than 100 models of steel or wood structure water cooling towers from which you can select one that is compatible with your building design, compliant with your building codes, and specifically fitted to your exact cooling requirements.



For information, call your Marley Application Engineer . . . see Sweet's File (Architectural) . . . or write for bulletins on Marley Double-Flow Aquatowers, CS (counterflow steel) Towers, and CW (counterflow wood) Towers.

The Marley Company

Kansas City, Missouri

cont'd



EVERY OFFICE BUILDING

needs vault space on every floor!

Vital records can be returned to vault at end of day more easily and efficiently. No floor-to-floor confusion in the movement of vital files. No needless exposure of irreplaceable records to possible loss, damage or other mishandling.

and every vault needs the dependable protection of a

HERRING-HALL-MARVIN **VAULT ENTRANCE**



Flat Sill Non-Grout*

Bears label of Underwriters' Laboratories

*CAN BE GROUTED IF SO DESIRED BUT NOT NECESSARY FOR MAXI-MUM PROTECTION



ATTRACTIVE EXTERIOR

Newly designed, the exterior presents a handsome appearance. Standard door finish is flat gray, but special finishes to match office decor are available at low extra cost.

The combination lock assembly is set in a modern stainless steel plate and is protected by an inner plate of hardened, drill-resistive material. Design of the dial permits easy reading of numerals, yet provides concealment from anyone standing near.

In designing an office building, providing

space for at least one vault on every floor is practical planning. Specify for those vaults the dependable protection and convenience of Herring . Hall . Marvin Vault Entrances. The line includes single and double-door models, with two, four and six-hour certified fire resistance. For ease of access-particularly when record buses will be used for vital files -double-door models, as shown above, are recommended.

There are also available File Storage Room Doors in one-hour and half-hour certified models and a Merchandise Vault Door.

DETAILED INSTRUCTIONS for building the vault and installing the equipment are furnished with each vault entrance. Complete catalog of all models furnished free on request; or see Section 23b in Sweet's Architectural File.

HERRING · HALL · MARVIN SAFE CO. HAMILTON OHIO

BUILDERS OF THE U. S. SILVER STORAGE VAULTS AT WEST POINT



BIG LIFT TRUCK takes 100 tons on platform

The 55 Yale & Towne personnel standing resolutely on the deck of the 21' long diesel electric lift truck add up in tonnage



to only 1/20th the truck's 200,000 lb. capacity. The heavy-duty handler, in spite of its bulk and weight, is reported to steer easier than any passenger car equipped with power steering. Its 13' x 8' platform is designed to rise 2'4" hydraulically. Price: \$90,000.

Manufacturer: Yale & Towne Manufacturing Co., 11000 Roosevelt Blvd., Philadelphia 15, Pa.

RECESSED SPOTLIGHT has no visible means of support

No screwhead, nut, or hinge is revealed by the flat-face ring of Curtis' new recessed light. The 24000-25000 series maintain a flush or flanged front by means of a hidden spring latch that firmly grips the collar to the fixture but may be released for access by exerting a slight upward pressure. Alzak coated reflectors also rest on the support collar without screws or mechanical fasteners. The group includes



models with aperture openings of 5%" to 9%", with flush or setback lenses. The latter are designed to reduce ceiling brightness without subtracting from lighting efficiency. Prices range \$13.50 to \$18.95.

Manufacturer: Curtis Lighting Inc., 6135 W. 65 St., Chicago 38, Ill.

CLEANING MACHINE does wet and dry maintenance work

Caddying its own assortment of slip-on brush and nozzle attachments, the *Pullman Vacmobile* is a versatile maintenance machine on wheels. The compact floor and wall cleaner can be used for scrubbing, dusting, vacuuming, or polishing all kinds of surfaces from marble and wood to linoleum, carpet and upholstery. *Vacmobiles* range from \$175.45 for a *model 90*

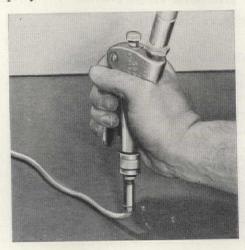


dry cleaner with 9 gal. tank capacity up to \$301.57 for a wet and dry model 152 with a 1¼ hp motor and 12 gal. capacity.

Manufacturer: Pullman Vacuum Cleaner Corp., 25 Buick St., Boston, Mass.

HIGH PRESSURE GUN flows ribbon of mastic into joint

Weighing less than 1 lb., the aluminum *Graco Flo Gun* weatherproofs joints quickly and positively with calking, sealant, or putty. Comfortable to use for long



stretches, the tool has a control knob for regulating flow rate. Three interchangeable outlets, a %", %" and pencil tip, are provided with the gun. The tool works well on any kind of viscous compound requireing pressures up to 5,000 psi. Price: \$25. Manufacturer: Gray Co., Inc., 1098 Sibley St., N.E., Minneapolis 13, Minn.

LAMSON



cut costs, improve service

AT RHODE ISLAND HOSPITAL of together as a team, Lamson's Selective Vertica

Working together as a team, Lamson's Selective Vertical Conveyor and Automatic Airtube® System speed communication of requisitions and other paperwork, central supply room items, laundry packs, drugs, lab. specimens and medical records through the Rhode Island Hospital.

Urgently needed drugs, supplies, linens, etc., are requisitioned 'round the clock without having nurses leave their stations, by means of a 29-station Airtube System. 28 more stations have been provided for to service future additions and remodeled buildings of the hospital.

To assure speedy delivery of these items through 11 floors of the new main building, the Selective Vertical System carries them automatically from central supply areas to the nurses' stations.

Integration of these Lamson systems has allowed Rhode Island Hospital to combat the increased costs of operation without lowering its rigid standards. First of all, the systems allow nurses and their aides to devote their full time and energies to the care of their patients by saving them literally thousands of steps a day. Second, they provide faster service at lower cost than can be performed manually. Third, they establish a "level workload"—a steady and uniform amount of work throughout the day, eliminating peaks and valleys.

Why not talk over your transfer-of-materials-problems with a Lamson engineer? He'll show you ways to cut costs and improve service.



Valuable Information! Clip to Your Letterhead

RPORATION | appointment | Send me these bulletins: | "Lamson Selective Vertical Con-

veyors"

"Airtube on Target"

"Automatic Airtubes System"

Hospital Case Histories

Have an engineer call me for an

LAMSON CORPORATION

95 Lamson St., Syracuse 1, N. Y.

Plants in Syracuse and San Francisco Offices in Principal Cities



8 to 12 feet tall—easy to install

Johns-Manville TRANSITOP® prefabricated panels meet the trend to curtain wall construction in modern buildings

When used as curtain walls, J-M Transitop insulated structural panels often pay their own costs for economy, speed of installation and permanence, in buildings of heavy or light construction.

For instance, a Transitop 1 9/16-inch-thick curtain wall has the equivalent insulation value of a 24-inch thick brick or masonry wall. Because these Transitop panels weigh only 4.7 lbs. per square foot, they reduce the dead load factor. They permit lighter wood or steel framing and

make for less expensive foundations.

Comparative cost figures will show clearly that Transitop structural panels can cut dollars from total building costs. You'll note big savings in steel, lumber, labor and time.

Attractive in appearance yet amazingly durable, Transitop panels cannot rust or corrode. They require no painting or other preservative treatment.

J-M Transitop is a prefabricated panel of integrally impregnated insulating board, faced on both sides with noncombustible Asbestos Flexboard sheets. Available in panels 4' wide by 8', 9', 10' or 12' long; and 11/16", 1 1/8", 1-9/16" or 2" thick.

For complete information send for a copy of "J-M Asbestos Transitop." Write: Johns-Manville, Box111, New York 16, New York. In Canada, write: 565 Lakeshore Road East, Port Credit, Ontario.



Johns-Manville congratulates the American Institute of Architects on its 100th Anniversary.

- Consult an architect—use quality materials.



Johns-Manville



New MOVABLE Fenestra Fire Partition

makes plant space safer!

Guard industrial plants against fire hazards with low-cost Fenestra* Fire Partition Panels. Made like a sandwich, with two galvanized 18-gauge steel Fenestra Panels on either side of four 1/2" layers of fire-resistant materials, this Fenestra Fire Partition is easy to assemble and erect. It can be moved to another location just as easily.

With a 21/2-hour fire rating, Fenestra Fire Partition Panels can be used to divide large open areas against fire spread, and to enclose paint rooms, inflammable storage or other hazards.

For existing plants, or for new construction, investigate Fenestra Fire Partition Panels. Your local Fenestra Representative-listed in the Yellow Pages-can give you all the details, including the results of a large-scale

fire rating test conducted to ASTM standards at Ohio State University and witnessed by Factory Mutual Laboratories. Call him, today, or mail the coupon.

*Trademark

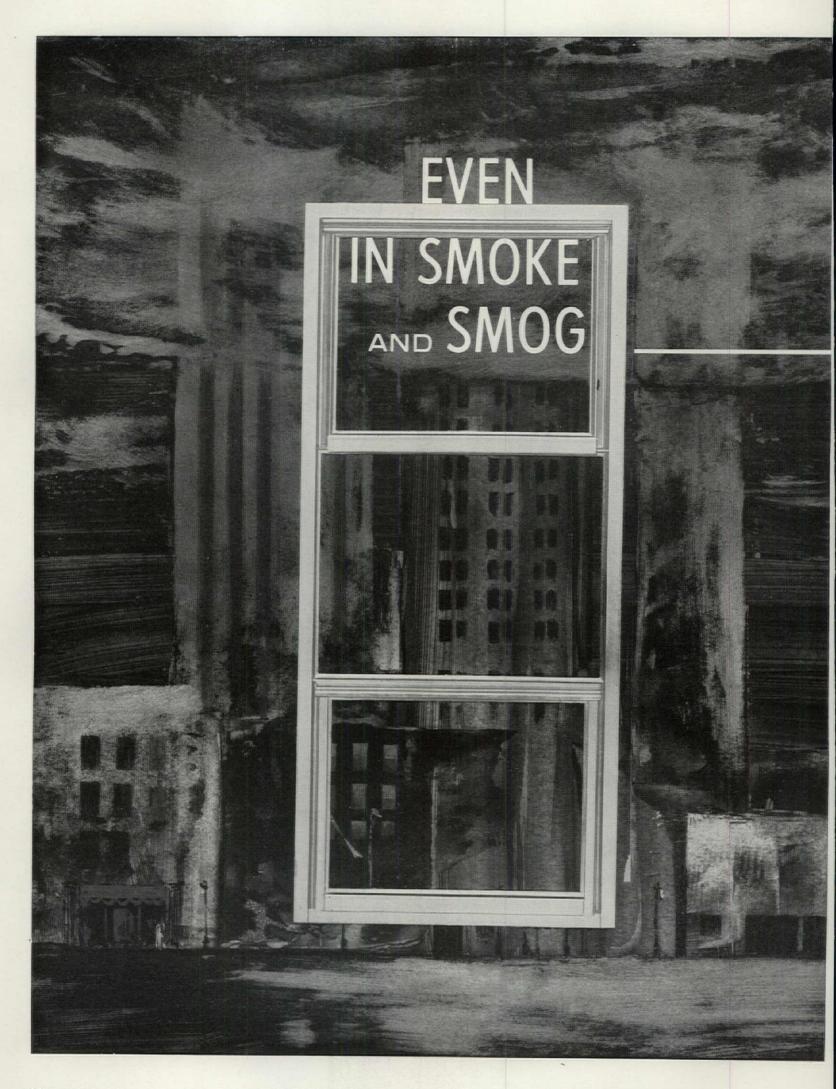
-		4		
La	MAC	tres	Incorpora	4.0
IPI			Incorpora	Tel

AF-10, 2296 East Grand Blvd., Detroit 11, Michigan

Please send me information on

Fenestra Fire Partition Panels for industrial buildings

NAME FIRM ADDRESS STATE





New Fenestra® FENLITE Industrial Steel Windows are the answer to window maintenance problems in new or existing plant buildings. They give you distinctive appearance . . . lifetime corrosion resistance without painting . . . plus the strength of steel! And they cost no more than ordinary steel windows with two-coat field painting.

This new corrosion-resistant steel window finish is produced by an exclusive Fenestra process developed through years of research and testing. The FENLITE process alloy-bonds a lifetime zinc surface with the steel of the window. A special chemical polishing treatment protects the surface against the natural early corrosion of free zinc. Standard 20% salt spray tests indicate that resistance to the start of white corrosion of the zinc is increased 3 to 12 times by this treatment. The window is also prepared for a tight glazing compound bond and for decorative painting, if desired. Maintenance protective painting is not required. Precision electronic control is needed for every step in the FENLITE process. The windows

must be completely submerged in one dip in each bath! Fenestra's specially designed "million-dollar" plant is the only one in America with facilities to produce FENLITE.

Fenestra FENLITE Industrial Steel Windows are now being installed in new industrial plants from coast to coast. Other leading firms are solving their window maintenance problems in existing plants by replacing the windows with Fenestra FENLITE Windows. They estimate their savings in painting and maintenance costs will quickly pay for the new windows and eliminate future problems and expense.

If you have the responsibility of designing or maintaining industrial buildings under all types of



CITY

atmospheric and weather conditions, you should get complete information on Fenestra FENLITE Steel Windows. Your local Fenestra representative—listed in the Yellow Pages—can show you an actual sample. Call him, today, or mail the coupon below for details.

The Fenestra FENLITE Finish is also available on the complete line of Fenestra Intermediate Steel Windows for schools, office buildings and other fine structures.

Fenestra INCORPORATED

FENLITE INDUSTRIAL STEEL WINDOWS

Your Single Source of Supply for DOORS • WINDOWS • BUILDING PANELS

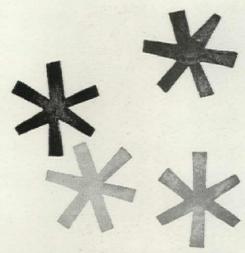
Fenestra Incorporated Dept. AF-10, 2296 East Grand Blvd. Detroit 11, Michigan

Please send me complete information on the New Fenestra FENLITE Industrial Steel Windows.

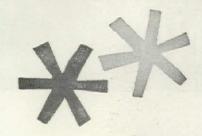
NAME FIRM

ADDRESS

STATE



Which is the best way to air condition a building?



That depends on the building. Its size, age and shape are important.

Its construction details, such as windows, walls and columns,

affect the location of individual units. Carrier has all the answers—

here's the newest! Modular Weathermaster* units. Based on the

"building block" principle, they adapt to windows and wall construction

in both new and old buildings, provide individual climate control

in each room. Only Carrier makes Modular units like these to fit any

building problem. Here are six of many combinations—note how

flexible they are. For complete information, call your nearest Carrier office.

Or write Carrier Corporation, Syracuse, New York.





*

For column-to-column treatment, trim wall-hung units with standard prefabricated enclosures, accessories and shelving are "tailored" to fit building modules.



*

For a clean, continuous appearance, two wellproportioned Weathermaster base units separated by a filler piece look good, make future partitioning easy.





For pleasing corner assemblies, a wall-hung Modular Weathermaster unit with prefabricated cabinet and run-out enclosure is both attractive and economical.





For floor-fed services, a pedestal arrangement attractively conceals air and water risers. This method of distribution eliminates the need for furred-in risers.





For harmony with custom interiors, a decorative furred-in arrangement with base unit, inlet panel and discharge grille matches any interior treatment.





For modern, all-glass buildings, a "foot-high" column-to-column arrangement is extremely flexible and blends well with modern architecture and furnishings.

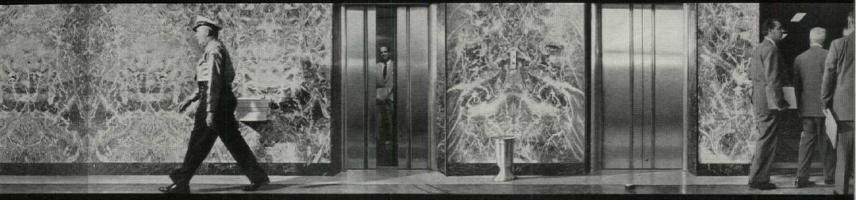




Polite elevator doors allow Mayor to wait for important message.



Doors remain wide open while Mayor stands in the entrance.



Doors close promptly when entrance is clear.

J-98745AA



Mayor deLesseps S. Morrison and the New Orleans City Council have their offices in the new City Hall, one of several buildings which comprise the modern Civic Center. *Architects:* Goldstein, Parham & Labouisse and Favrot, Reed, Mathes & Bergman.

WITH WELL-MANNERED WESTINGHOUSE DOORS

YOU NEVER GET THE RUSH ACT

In the recently completed New Orleans City Hall, operatorless elevators never "close in" on passengers—or rush them into the cars. The reason?—basic politeness is built into Traffic Sentinel® doors, an original Westinghouse development for its modern elevator systems. Door openings and closings are synchronized to cope with the demands or needs of passengers.

You can see Traffic Sentinel doors in action in leading cities throughout the nation. If you are plan-

ning a new building, or contemplating modernization of an older one, ask your nearest Westinghouse Elevator representative for full details about operatorless elevators equipped with these always-courteous doors.

Westinghouse

what's the best floor treatment, to

Protect TERRAZZO against "exploding"?

Eliminate building paper, wet burlap, etc., on new CONCRETE?

Protect ASPHALT TILE from softening. cracking, fading, etc.?

Double the life of industrial WOOD floors?

Condition GYM floors for perfect televising?

Keep hospital CONDUCTIVE floors conductive?

Protect walls of SWIMMING POOLS against algae, body oil stains?

vou answers...

SWEET'S CATALOG



in HILLYARD **AIA Numbered FOLDERS**





for your own files. Complete with Architect's specifications, and long specs with detailed stepby-step instructions for contractors.

in PRODUCERS' COUNCIL BULLETINS



Pertinent product data and treatment procedures for long-lasting floor beauty and service.



in TECHNICAL Field Service

of the HILLYARD "MAINTAINEERS®" ... the nationwide staff of floor treatment specialists. Ask your nearby Maintaineer to survey any or all floors on your boards, advise on treatment problems, act as your "Job Captain". His services are freely available-consider the Maintaineer as your Floor Treatment Consultant.

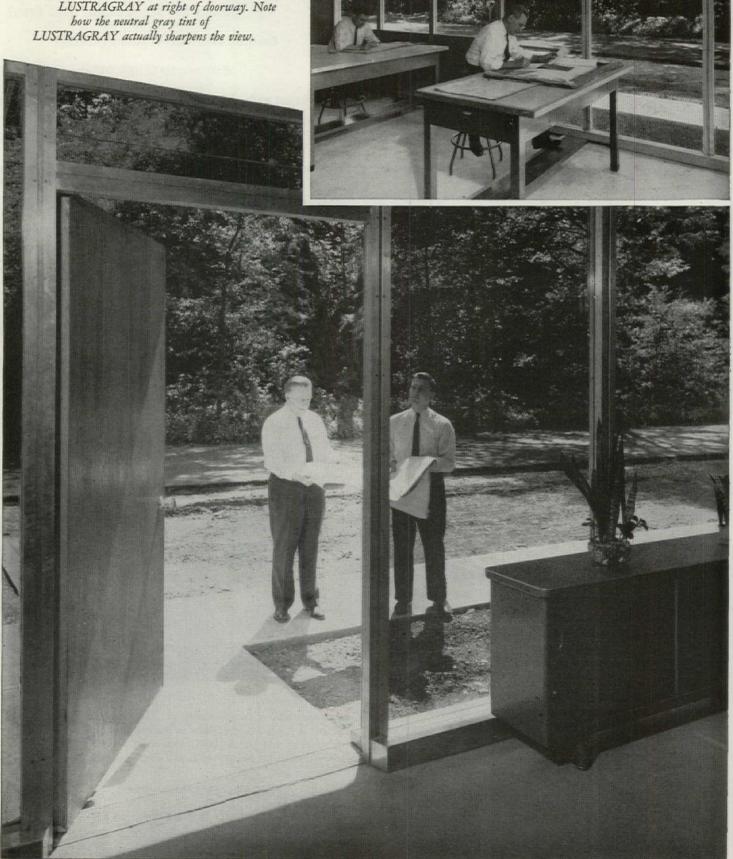
"On Your Staff, Not Your Payroll."

T. JOSEPH, MISSOUR!

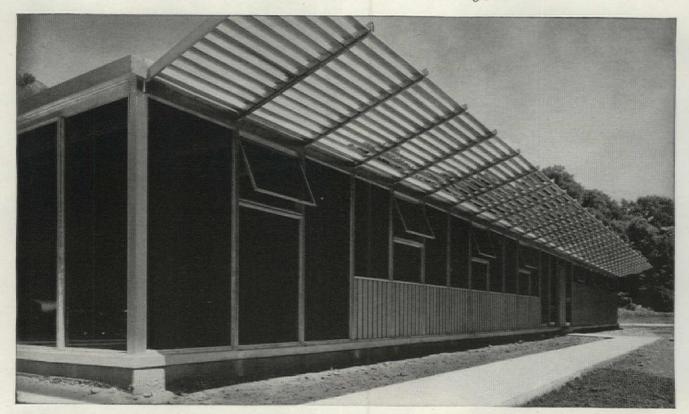
Passaic, N. J. . San Jose, Calif.

BRANCHES AND WAREHOUSE STOCKS IN PRINCIPAL CITIES

Right—Efficiency is high all day in new drafting room of Aluminum Structures, Inc., because the glare reduction provided by AMERICAN LUSTRAGRAY sheet glass results in greater eye comfort. Below—Glare seen through opened entrance doorway at left is reduced approximately 50% by windows of AMERICAN LUSTRAGRAY at right of doorway. Note how the neutral gray tint of LUSTRAGRAY actually sharpens the view.



Below—Viewed from exterior, windows of AMERICAN LUSTRAGRAY provide an attractive appearance and interior privacy. Photo shows exterior of new plant-office of Aluminum Structures, Inc., Upper St. Clair Township, Bridgeville, Pa. Architects: Schell, Deeter & Stott, Pittsburgh, Pa. General Contractor: Dick Corp., Large, Pa. Aluminum Fabricator and Erector: Aluminum Structures, Inc. Glazier: Watson-Standard Co., Pittsburgh, Pa.



GLARE REDUCING SHEET GLASS

For efficiency | appearance | economy | privacy

-the architects chose american LUSTRAGRAY

Here's an example of how AMERICAN LUSTRAGRAY, a neutral gray sheet glass, has become a very functional part of modern building.

The owners of this spanking new industrial building wanted daylight without glare. LUSTRAGRAY gives them that—and at the same time provides a significant reduction in the transmission of solar heat. Result: increased task efficiency for occupants.

The appearance of LUSTRAGRAY has a very unique effect. Viewed from the exterior, LUSTRAGRAY is just dark enough to afford interior privacy and yet the occupant is provided excellent, undistorted vision. LUSTRAGRAY has an attractive, highly lustrous appearance with a minimum of distortion, and its neutral gray tint eliminates undesirable effect on interior or exterior colors. With AMERICAN's continuous drawing process, there is no variation in the color or quality of LUSTRAGRAY.

Significant economy is one result of the use of glass for wsw 6723

walls in place of other building materials, and glass lasts longer with practically no maintenance or deterioration in appearance.

The advantages of efficiency, appearance, economy, and privacy are available to you on your next design job. For glazed areas in industrial, commercial, institutional or residential designs, specify AMERICAN LUSTRAGRAY sheet glass—the new look in functional glazing.

Write our Architectural Promotion Department for literature.





RUBBER AND VINYL FLOORING helps reduce 4 o'clock drag!

When feet hurt . . . sales tumble. And you're just the "efficiency expert" who can solve the problem of 4 o'clock "drag"—by specifying colorful, luxurious WRIGHT flooring. Completely quiet and comfortable underfoot, WRIGHT floors are noted for giving years and years of trouble-free service . . . are easily maintained with a minimum of care. For your next department store project—or any project where foot comfort and noise reduction are especially importantspecify WRIGHT Rubber or All-Vinyl Tile Flooring.



MANUFACTURING COMPANY • A Div. of Mastic Tile Corporation of America

Houston, Tex. • Joliet, Ill. • Long Beach, Calif. • Newburgh, N. Y.

COUPON TODAY

WRIGHT MANUFACTURING CO., DEPT. W6-10, BOX 986, Newburgh, New York

Please send me free samples and full information on Wright Rubber and All-Vinyl Tile Flooring.

....ADDRESS

CITY......ZONE....STATE

... Greenough ... Mumford ... Sullivan ... Walker

FORM AND FUNCTION. (Remarks on Art, Design and Architecture.) By Horatio Greenough. Published by University of California Press, Berkeley 4, Calif. 136 pp. 4" x 7". Paper bound. \$1.25

One of the precarious facts of modern architectural philosophy is that, chances are, Horatio Greenough said it 100 years ago. (It was Greenough, for example, who first said that, in architecture, form must follow function.) Greenough considered himself first a sculptor. But, posterity being a fickle custodian of reputation, his writings are what are remembered. However, his readable prose has too long been confined to excerpts and anthologies. Here, at last, is the bulk of his writing taken directly from the original editions first published in 1852 and 1853.

STICKS & STONES. By Lewis Mumford. THE BROWN DECADES. By Lewis Mumford. THE AUTOBIOGRAPHY OF AN IDEA. By Louis H. Sullivan. Published by Dover Publications, Inc., 920 Broadway, New York 10, N.Y. 238, 266, and 330 pp., respectively. Illus. 8" x 51/2". \$1.60, \$1.65 and \$1.85

Dover Publications has done everyone a good turn by bringing out these landmarks of American architectural criticism and self-criticism in paper-backed volumes. Old Modern Architecture Hands will find Mumford's preface to the second, revised edition of Sticks & Stones (1954) particularly worth reading: he is courageous enough to let most of his youthful errors of judgment survive for their historical interest. Also well worth the combined price of these books (\$5.10) is the experience of reading Mumford on Sullivan, then Sullivan on himself.

RALPH WALKER, ARCHITECT. An autobiography published by Henahan House, 461 Eighth Ave., New York, N.Y. 259 pp. 10" x 12". Illus. \$25

This handsomely wrought edition of 1,000 copies celebrates Ralph Walker's fiftieth year as an architect.

RELIGIOUS BUILDINGS FOR TODAY.

Edited by John Knox Shear, Published by F. W. Dodge Corp., 119 W. 40th St., New York, N.Y. 183 pp. 9" x 12". Ilius. \$7.50

The most valuable part of this Architectural Record book is the section called "Worship and the Arts." With few omissions, the branches of Judaeo-Christian faith are analyzed to find what special elements must be expressed in a denominational design. Distinguished representatives from the various denominations have

given highly informative answers to the question.

The book's other sections are, unfortunately, less impressive. It seems downright peculiar that, for a book that does so much talking about the necessary color and texture of religious architecture, there are no color plates. It is also disappointing that so many of the pictures have been so poorly reproduced.

Uneven but worth-while.

DATA BOOK FOR CIVIL ENGINEERS,

Vol. II, Specifications and Costs. By Elwyn E. Seelye. Published by John Wiley & Sons, Inc., New York, N.Y. Revised Third Ed. 550 pp. 9%" x 1134", \$20

This volume is designed to provide data for the specifications writer. It includes sample specifications for most types of buildings and heavy construction, including industrial buildings, airports, roads, drainage, foundations, and others. The volume also includes relative cost analyses for each type of work, as well as cost figures for labor, materials, and other factors involved in construction work.

Author Seelye has broadened the coverage of this third edition, adding such items as: suggested form of agreement between engineer and client; warnings—termed "Red Lights"—relating to specification writing; costs of shopping centers, and cost of cleaning and painting existing steel structures.

BOOKS RECEIVED

ANNUAL PUBLICATION OF THE NATIONAL ASSOCIATION OF STUDENTS OF ARCHITECTURE, 1956-1957. Edited by Donald R. Roark. Published by the National Association of Students of Architecture in cooperation with the American Institute of Architects, 655 Quebec St., Denver 20, Colo. 81/2" x 11". Illus. \$1.50

EARTH PRESSURES AND RETAINING WALLS. By Whitney Clark Huntington. Published by John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N.Y. 534 pp. 6" x 91/4". Illus. \$11.50

CENTURY OF BALTIMORE ARCHITECTURE. By Wilbur H. Hunter Jr., and Charles H. Elam. Introduction by Eleanor Patterson Spencer. Published by the Peale Museum, 225 North Holliday St., Baltimore 2, Md. 48 pp. 81/2" x 11". Illus. \$1

FINANCING OF HOUSING AND COMMUNITY IMPROVEMENT PROGRAMS. Compiled and edited by the Dept. of Economic and Social Affairs, United Nations. 61 pp. 81/2" x 11"

continued on p. 192



1,000 car, 2-level hotel parking area. Architect: Welton Becket & Associates.

glamour hotel guests park on



surface seal

At the fabulous, new Beverly Hilton, as at leading airfields, parking lots, playgrounds and parkways, asphalt pavements are protected by Jennite J-16 liquid surface seal.

Jenniting stops destructive effects of gasoline and oil, seals out frost . . . stops crumbling and retards drying action of the sun. The attractive, satin black Jennite surface is tough, easy-to-clean . . . a sound investment in improved appearance and increased service life.

New bulletin describes 6 basic uses

In addition to maintaining asphalt surfaces, Jennite J-16 is ideal for sealing concrete floors and pavements, dampproofing cement or masonry construction, coating reinforcing fabric, preserving metal roofs and protecting all types

of exposed metal.
Specifications covering these uses are listed in catalog LL-4874 or in Sweet's Architectural
File, 5/Ma.

AA-5198

Distributors and Stocks in principal cities

Maintenance In Wooster, Ohio	c.
Send us catalog	LL-4874
Name	
Company	
Address	
City	State

cont'd

TECHNICAL PUBLICATIONS

A selection of new handbooks, textbooks, technical reports, brochures and commercial leaflets, noteworthy for their information content or pictorial format or both

A CITIZEN'S PLANNING GUIDE TO LOW COST SCHOOL CONSTRUCTION. Published by the Allied Masonry Council, 1520 18th St., N.W., Washington, D.C. 32 pp. 25¢ This booklet, illustrated with good examples, explains in simple terms what the citizen should know about advance planning for schools, site selection, building codes, fire safety and maintenance. While heavily angled toward masonry construction and against prefabricated buildings, it contains a useful synthesis of advice from architects, educators and planners.

ASTM STANDARDS ON CEMENT. Published by the American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pa. 272 pp. \$3 A substantially revised edition of a standard reference. Contains all ASTM standards on cement: specifications, definitions, methods of chemical analysis and physical testing.

BASIC FACTS ABOUT FIR PLYWOOD DIA-PHRAGMS. Published by the Douglas Fir Plywood Assn., Tacoma 2, Wash. 10 pp. Illus.

A concise, well-designed fact book, compressing the data and results of recent research by this association as well as the USDA Forest Products Laboratory and Oregon Forest Products Laboratory on a relatively new design method using plywood as a stressed-skin sheathing for walls and roofs of buildings up to 500,000 sq. ft. Shows details, cost data and examples of diaphragm structures which have withstood earthquakes and hurricanes.

IDEAS FOR INDUSTRY. Published by US Gypsum Co., 300 W. Adams St., Chicago 6, III. 33 pp. Illus.

This large, handsomely illustrated brochure explores and suggests new design uses for the company's basic materials—gypsum, expanded metals, hardboard—in fireproof roofs, acoustical sheathing, gratings, decorative and interior paneling.

BIBLIOGRAPHY OF INFORMATION ABOUT ALUMINUM FOR THE DESIGNER. Published by Aluminum Co. of America, 799 Alcoa Bldg., Pittsburgh 19, Pa. 8 pp.

A selected list of literature and cinema subjects available in the Alcoa library, of interest to metalworkers and designers, with forms to simplify ordering of literature and films.

FLEXICORE ELECTRIFIED CELLULAR CON-CRETE FLOORS. Published by the Flexicore Co., Inc., 1932 E. Monument Ave., Dayton 1, Ohio. 32 pp. Illus.

This well-detailed manual describes an extremely flexible and ingenious concrete floor system with electrical fittings for office buildings. Design data is given for a typical four-story and 30-story structure.

ARCHITECTURAL DATA HANDBOOK. Published by Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh 22, Pa. 87 pp. Illus.

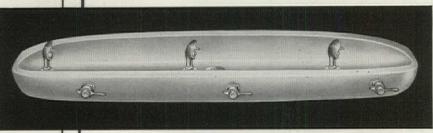
Third edition of a compact, notebooksize catalogue of this company's complete line of window, plate and architectural glass, glass doors, frames and hinges, glass blocks, fibers and paints, with property tables and design details.

STYROFOAM INSULATION CONSTRUCTION DETAILS. Published by the Dow Chemical Co., Plastics Sales Dept., Midland, Mich. 15 pp. Illus.

A handy folder with complete physical property tables on this rigid foamed plastic. Also contains a sheaf of blueprints on specific construction applications from foundations to roofs.



A bright new idea in drinking tountains! Model 10Y combines HAWS famous sanitation features with amazing lightweight toughness of Fiberglas plastic...the modern strength material.



Model 10Y

In color! Choose from five decorator colors and white, permanently bonded to receptors to assure lasting vitality. Fiberglas strength foils vandalism, too! Color appeal and ruggedness make this model ideal for school use.

Write today for details . . .

and ask for your free copy of the 1957 HAWS Catalog...72 pages, with hundreds of design ideas for drinking facilities.



HAWS DRINKING FAUCET CO.

1443 FOURTH STREET (Since 1909) BERKELEY 10, CALIFORNIA



YOU SPECIFY MEET THESE 10 BASIC REQUIREMENTS?

- 1. Rugged hard to damage
- 2. Clean-cut, snug-fitting edges
- 3. Smooth, solid base for felts
- No worry about punctures or depressions that become weak spots under felt
- 5. Withstands heavy traffic
- 6. Strong, rigid, crush-resistant
- 7. Uniform density and thickness
- 8. Permanent, efficient insulation
- 9. Over 30 years job-proved service
- 10. Billions of feet in use

PROVED CELOTEX BRAND ROOF INSULATION BOARD

You get the "BASIC 10" requirements when you specify the CELOTEX brand . . . assurance of job-proved performance . . . and then some! You know what to expect of Celotex Roof Insulation . . . not how it SHOULD, but how it DOES perform. That's what we mean when we say Celotex is "PERFORMANCE-PREDICTABLE!"

AVAILABLE IN 3 TYPES

PRESEAL

Dependable "REGULAR" . . . asphalt-coated "PRESEAL" . . . and exclusive "CHANNEL-SEAL" . . . all 3 in a variety of thicknesses.

CELOTEX REG. U. S. PAT. OFF.

ROOF INSULATION

See 1957 Sweet's Architectural File Catalog 10a Ce. Write for specifications, Samples, Information Manual

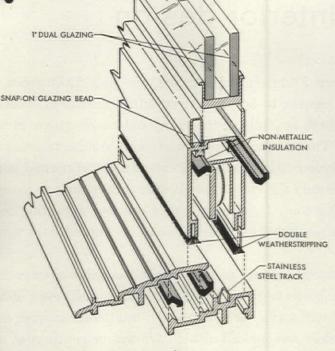
THE CELOTEX CORPORATION, 120 SOUTH LA SALLE STREET, CHICAGO 3, ILLINOIS

Now-a sliding glass door designed exclusively for cold

New Ador Insulated Thermo Door makes this installation a comfortable, enjoyable feature of the home the year 'round. Despite subzero weather, inside temperatures are maintained and the problem of condensation is reduced by full door and glass insulation.

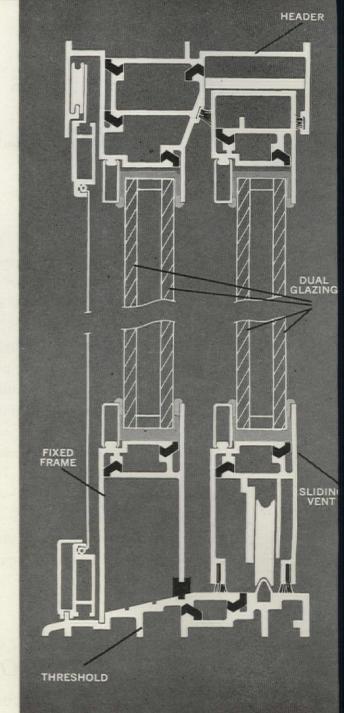






Secret of Ador Insulated Thermo Door is shown by this exploded view of threshold and sliding unit bottom rail. Black areas are non-metallic strips of insulation. They effectively seal interior metal surfaces from the outside. This restricts heat flow, reduces condensation. Note also double weatherstripping, inside and out.

Schematic of new Ador Insulated Thermo Door Features extremely heavy-duty extrusions, 134" o.d. hard brass sheaves with stainless steel bearings, alumilite finish, stainless steel track, custom hardware and many other advances.



This is a completely new kind of sliding glass door

IT'S NEW because it's designed exclusively for use with 1-inch dual glazing. It extends the practical use of sliding glass doors to every climate, regardless of temperature or humidity conditions.

IT'S NEW because it's the first insulated sliding glass door. Each aluminum extrusion incorporates a non-metallic insulation barrier. Thus, each extrusion is actually insulated, inside from outside. Heat flow is reduced to an absolute minimum. This reduces the problem of condensation on interior metal surfaces.

IT'S NEW because it has the most effective weatherstripping ever devised for a sliding glass door. It's double weatherstripped, inside and out. It utilizes a special, silicone-treated, extra-long, hi-pile mohair weatherstripping.

These are but a few of the many advanced features of the new Ador insulated Thermo door. This is truly the first unit to apply the full benefits of dual glazing to sliding glass doors. Your inquiry is invited. Ador distributors and dealers have full information, or write factory direct: Ador Sales, Inc., Fullerton, California.



Philadelphia's newest hotel specified

MULTICOLOR LACQUER for

contemporary interior design

A dramatic addition to downtown Philadelphia's skyline, the new 1,000-room, \$16-million Sheraton Hotel used multicolor* lacquer to help create colorful interiors of luxurious beauty.

The Sheraton Hotel is one more example of the many outstanding new buildings which have utilized multicolor lacquer. That's because more and more architects and builders have learned the advantages of this unique coating. Involving only the use of normal techniques and equipment, multicolor lacquer permits the simultaneous spraying of two or more colors on a primed surface as a single finishing coat. It offers complete and eye-appealing coverage for a variety of surfaces including concrete, plaster, canvas, wood, wallboard, and various plastics and metals.

From a cost standpoint, multicolor lacquer permits many economies since it can be applied directly over irregular surfaces. Imperfections and rough surfaces vanish; even unlike materials can be merged into an attractive and serviceable area when multicolor lacquer is applied.

Hercules Powder Company does not make finished lacquers or coatings of any kind. If, however, you have difficulty securing adequate information on multicolor lacquers, write us and we will be glad to assist you.

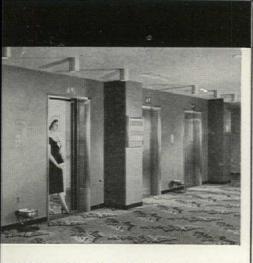
> This advertisement is one of a series prepared to explain the suitability of multicolor lacquer finishes for a wide variety of architectural applications.

HERCULES POWDER COMPANY

Cellulose Products Department • 900 Market Street, Wilmington 99, Delaware

CHEMICAL MATERIALS FOR INDUSTRY

*Multicolor lacquer used in the Sheraton Hotel is "Tweed," made by Raffi and Swanson, Inc., Wilmington, Mass., under license from Coloramic Coatings, Inc. (U. S. Patent No. 2,591,904)



EASY TO USE-Multicolor lacquer can be applied with the use of conventional spray equipment. It is used here in The Sheraton Hotel for walls surrounding the elevator entrance.



DIFFERENT - Since two or more colors can be applied simultaneously, multicolor lacquer offers designers new and exciting color combinations. This multicolor wall provides striking beauty to supplement the rich carpeting.



DURABLE-Multicolor lacquer can stand any normal abuse. It is long-lasting and can be quickly scrubbed clean when necessary. It is ideal for such traffic areas as stairways, entrance halls, and corridors.





EYE-APPEALING — The combination of colors possible provides the architect and designer with the opportunity to vary the decorative scheme to fit the mood of any room. Here multicolor lacquer provides a restful and relaxing background.

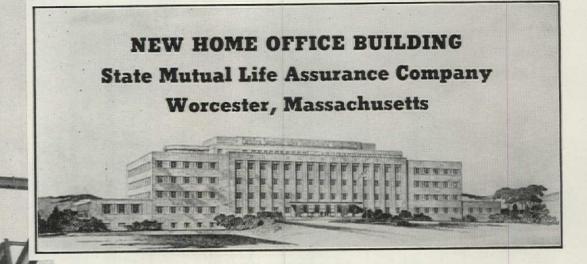


COMPATIBLE—Multicolor lacquer can be used to blend with a variety of other decorative touches. Used on the wall here, it adds to the beauty of the carpeting and to the contemporary motif of the ceiling.



PRACTICAL—A variety of textures ranging from large granitelike particles to small ones the size of pin-points is easily achieved. In the Sheraton rooms, multicolor lacquer is used on the heat and air conditioning casings to make them an integral part of the decor.

Structural Steel for



by AMERICAN BRIDGE

One of the most interesting of the many office buildings erected by American Bridge is the handsome new home of the State Mutual Life Assurance Company in Worcester, Mass.

Six stories, 180' x 500', with basement and penthouse, this imposing 500,000-sq.-ft. structure features a unique executive core in the center with column-free work space surrounding it. Ultramodern in design, it has automatic elevators and moving stairways, and is completely air-conditioned.

American Bridge fabricated and erected 4,820 tons of structural steel

for the framework of this large building which is now ready for occupancy . . . right on schedule. Field connections were made with high-tensile and ordinary bolts, and welding.

This new building, while by no means one of our biggest, certainly is typical of all American Bridge jobs... in the quality of field engineering, workmanship and materials that went into it. You can depend on American Bridge to handle any job with maximum efficiency, economy and speed—anytime, anywhere. For detailed information regarding your requirements, please call the nearest office.

Designed by: Cram & Ferguson, Architects & Engineers Boston, Mass.

Contractor:
Turner Construction Company
Boston, Mass.



AMERICAN BRIDGE DIVISION, UNITED STATES STEEL CORPORATION . GENERAL OFFICES: 525 WILLIAM PENN PLACE, PITTSBURGH, PA.

Contracting Offices in: AMBRIDGE . ATLANTA - BALTIMORE . BIRMINGHAM . BOSTON . CHICAGO . CINCINNATI . CLEVELAND . DALLAS . DENVER . DETROIT . ELMIRA . GARY
HOUSTON - LOS ANGELES . MEMPHIS . MINNEAPOLIS . NEW YORK . ORANGE, TEXAS . PHILADELPHIA . PITTSBURGH . PORTLAND, ORE. . ROANOKE . ST. LOUIS . SAN FRANCISCO . TRENTON

UNITED STATES STEEL EXPORT COMPANY, NEW YORK

AMERICAN BRIDGE



What other people are saying

Education and the architect

The rumor that the artist or architect is merely an intuitive genius has long needed to be dispersed. Dean Joseph Passonneau of the Washington University (St. Louis) School of Architecture recently did the job—and made an eloquent plea for even more artistic education

I reject the notion that the creative artist is simply an "inspired idiot." I contend rather that the creative artist is a man who knows more than his neighbor. His knowledge comes from technical training and a liberal education. The artist must have technical competence of the highest order, but this knowledge, where it can be taught at all, is relatively easy to communicate. More difficult and more fundamental is a liberal education. It should be the common possession of all citizens of a free society, but, most important, of the professional, creative men in that society.

Many engineers and architects will argue that an education is unnecessary. The curriculum of most architectural schools is based on that proposition. The typical graduate of most schools of architecture and engineering can barely read, he cannot write in any manner worthy of the name, he is mathematically illiterate and he cannot even define symbolic logic.

I believe the liberal arts curriculum should include courses in "seeing." I am convinced that the intellectual training which the average architectural student brings with him to professional school is inadequate, and that this training must be prolonged.

The roaring fifties

To quiet fears that our present boom will usher in a bust like the twenties, Mortgage Banker Edward E. Thomas, partner of Brooks, Harvey & Co., did some comparative research. His results were reported before the 50th Annual Convention of the National Association of Building Owners and Managers in New York in June

Let's take an honest look at the building finance relationship between the situation today and the situation that existed in the late twenties. There have been alarmed cries from many realtors and others to the effect there is "too much building"—and that today's loans are fast resembling the "mistake" of the twenties. This is far

from true. I want to emphasize the fact that there is no similarity between conditions today and the conditions of the late twenties and early thirties. In those days there was a high rate of vacancies in both old and new buildings. Leases were for short periods and without regard to the credit ratings of the tenants. Loans were made mainly against estimated costs.

Today, vacancies are few in both old and new properties. Financing is based primarily on long-term leases to top credit tenants. Escalator clauses take care of possible increases in real estate taxes and building maintenance costs.

The boom-bust analogy is nonexistent.

Cities as sellers

Selling Title I land has posed unexpected difficulties for many cities. An old hand at the business offered some suggestions at the silver anniversary conference of the American Institute of Real Estate Appraisers in Chicago. The expert: Philadelphian Philip W. Kniskern, former president of the NAREB

Whenever a city undertakes a redevelopment project it enters the land development business. This is a serious business, [and] failure to meet its rigid demands has resulted in serious delays and failure in many projects.

A redevelopment project is not complete, nor a success, until the lands allocated to private reuse are sold, improved and in actual use. Anything short of this is failure to accomplish a major purpose of the whole undertaking. Thus it becomes axiomatic that planning must be subordinated to the business demands of salability, a requirement that is too often unrealized or overlooked.

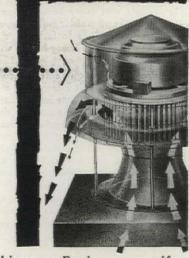
The redevelopment agency is not strictly a willing and able seller, but to a large degree a necessitous seller. It is completely at the mercy of the market for the sale of its reuse lands. Buyers dictate offers, sellers accept or reject them. The buyer will set the terms and conditions of a purchase—he can and will invest elsewhere if onerous, unrealistic or unsatisfactory conditions are imposed. A real opportunity for financial benefit to the purchaser is a sine qua non before a sale can be made, although he may also be influenced by some other considerations.

Virtually all important real estate transactions in this country are created by realtor-brokers. The use of brokers is a necessity in selling reuse lands. Agencies, continued on p. 202

All Power Roof Exhausters have some of these features...

Only GALLAHER has them all!!!

Inconspicuous Appearance
Low Installed Silhouette
Corrosion Resistant Finish
Sound Structural Design
Shipped Completely Assembled
Quiet Operating
Certified Ratings
Scroll Design
Weatherproof
Safe Fume Handling System
Meaningful Guarantee
Standard Motors



Architect or Engineer...specify Gallaher Air-Vans for your clients, and you can assure them years of high performance, low maintenance costs. All of the 12 features are necessary...Gallaher has all of them,

For full information, contact:

The GALLAHER Company

4108 Dodge St. Omaha, Nebraska Export Office: 306 Paul Bldg., Utica, N.Y. Cable: Keiserquip — Utica, (N.Y.) to be successful, must be prepared to pay full brokerage commissions. Unwillingness to pay commissions or an endeavor to reduce standard rates closes the door to a large majority of potential purchasers.

Almost every real estate improvement uses mortgage and other financing in addition to the investor's capital. Buyers who cannot find financing will not buy. Any conditions, restrictions, circumstances and controls created by the city or agency must be acceptable and attractive to mortgage lenders.

Many agencies have been tempted to sell all reuse land to one redeveloper-purchaser as an easy quick solution to the reuse problem. This reduces the market to the relatively few in the country with the know-how, the interest and the capacity to handle projects of several million dollars. There are many reasons why a sale to a single redeveloper will inevitably reduce the price to the agency for the land. And, numerous failures of buyers to perform have given some agencies unnecessary problems and shown the expectancy

of this as an easy way out to be a false and fallacious hope.

Sale to a single redeveloper, except in very small projects in large cities, will generally result in the exclusion of a majority if not all local interests.

Barren and unloved

These are the adjectives applied to modern, linear architecture by Ralph Walker, senior partner of Vorhees, Walker, Smith & Smith. His suggested cure, in the Spring issue of the National Sculpture Review: add a liberal quantity of human form

Our modern so-called straight-lined architecture is becoming more and more lacking in individuality. The result has been to wash out all emotion from buildings. You are pleased at the smartness and brilliancy of some of them but you realize that fundamentally the general effect is one of extreme brittleness and that emotion pays very little part in your appreciation of the building. It is not enough that a building reflect the sun and the trees and perhaps the moon. It must have some feeling of life about it. Sculpture may make simplicity and starkness more bearable.

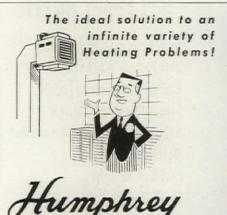
A short time ago pattern design became a most important architectural objective, with human relationship not counting for much. This was an outgrowth of Dadaism, which verged away from mankind, not toward him. Mass thinking dominated the structure. The building was designed for the mass. No person was considered a leader and so there was no symbol of leadership. A city continuing at this rate would soon find no individual to love it. The straight-line construction is becoming tiring even to architects. The barren architecture is merely the end of Victorian morality. The trend today is back toward delight

Other-directed architecture

Demonstrating that there is another side to every argument, John B. Jackson, writing in the magazine Landscape, of which he is editor, defends US roadside architecture and questions the benefits of our new highways

Might the time come when the superhighways end the "broadening" effect of travel? Tourists will be funneled onto the wide strips of asphalt, where they will speed along at such a pace that they can see but little of the countryside. When they stop at a huge motel they may meet only other travelers like themselves, from far-away areas, and have no contact with the residents of the immediate countryside. On the other hand, local residents might become discouraged by the increas-

continued on p. 204



UNIT HEATERS

Every day customers tell us about new installations of Humphrey Gas Unit Heaters. It appears that every kind of commercial, industrial, and public building, ranging from filling stations to factories, and from churches to jails, is being heated with these Humphrey units.

Where service requirements are severe, Humphrey Gas Unit Heaters are a particularly good choice. These heaters have built-in performance features that put them in a class by themselves. Exclusive features—such as Free-Flow Heat Exchanger; Dual-Flame Burner with stainless steel heads; non-clogging, stainless steel pilot; and Tilting Front that gives the warm air direction without restriction.

When your next heating problem comes up, you, too, may find that Humphrey Unit Heaters offer the most practical and satisfactory solution.

GENERAL GAS LIGHT COMPANY

KALAMAZOO, MICHIGAN





NOW V-GIRDERS



The Macomber V-GIRDER is now available for spans 44 to 96 feet.

To aid in the handling and transportation of the longer lengths, shipment is made in two segments with the same type of strong, simple field splice used in Macomber Bowstring Trusses over the past 35 years.



The reserve strength of the V-GIRDER exceeds both of the AISC and AISI Specifications as they apply with a structural adequacy twice the published loading capacities.

Designer, General Contractor and Steel Erector will rejoice in the strength and appearance of the finished job. Send for catalog.



MACOMBER CANTON

ing difficulty of getting on and off the new superhighways and confine their short-distance traveling to the secondary roads. This could lead to the superhighways, designed to bring parts of the country closer together, actually becoming barriers to the meeting of minds and of ideas of the various parts of the nation.

I am inclined to believe, moreover, that we have become entirely too fastidious, too conformist, in architectural matters. In our recently acquired awareness of architectural values we have somehow lost sight of the fact that there is still such a thing as a popular taste in art quite distinct from the educated taste, and that popular taste often evolves in its own way. Not that a recognition of such a distinction would automatically lead to an acceptance of roadside architecture. Most of that, by any standards, is bad. But it would perhaps allow us to see that highway architecture is changing and improving very rapidly all around us, and allow us to find certain virtues—or at least certain qualities—in it worth respect-

ing and fostering. In all those streamlined façades, in all those flamboyant entrances and deliberately bizarre decorative effects, those cheerfully self-assertive masses of color and light and movement that clash so roughly with the old and traditional there are, I believe, certain underlying characteristics which suggest that we are confronted not by a debased and cheapened art, but by a kind of folk art in midtwentieth-century garb.

We must accustom ourselves to the fact that the basic motive in the design of these establishments-whether motels or drive-in movies or nightclubs-is a desire to please and attract the passer-by. The austere ambitions of the contemporary architect to create a self-justifying work of art have no place in this other part of town. Here every business has to woo the public-a public, moreover, which passes by at 40 mi. or more an hour-if it is to survive. The result is an other-directed architecture, and the only possible criterion of its success is whether or not it is liked; the consumer, not the artist or the critic. is the final court of appeal.

Overwritten architecture

William G. Quinn, editor of The Bulletin of the Southern California Chapter of the AIA, feels that some architectural journalists are making the profession even harder to understand than it might be otherwise. He put the thesis forward in his May issue

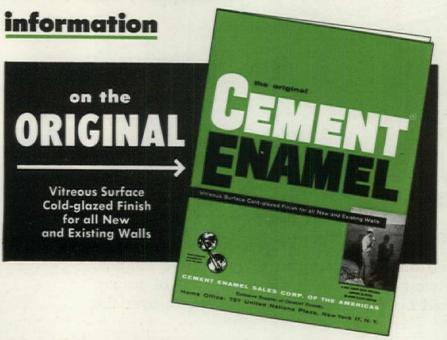
Many publications read deep meanings into architecture that do not exist. A well-planned office structure suddenly becomes a rocket of tomorrow, where even the lowest paid clerk finds herself aching in every bone to come to work, where she feels free as a bird with her beautiful filing cabinet within easy reach.

Why can't something be esthetically perfect without being a symphony reaching to heaven and Utopia? Why can't a building give pride to workers, employer and the community without being a poem or "ahead of tomorrow"? Why can't a building be something that we can all understand? People make their own music and have their own way of expressing esthetic satisfaction without a handy guide. I feel that "head in the clouds" writing has done a great deal to drive people away from architects. There are many who would disagree, but I feel the architect must take more interest in the things that are being said about his buildings, his designs and his planning. The architect must see that it is told in a language everyone can believe. When this is done the architect will find where there was once aloofness there is friendship and where there was once misunderstanding there is respect.

continued on p. 206

Newly Published Catalog

features complete



- Explains what this colorful, infinitely durable glass-hard surfacing is composed of, and how it is used for New and Existing walls—interior or exterior, bare or painted, concrete, masonry units, stucco, plaster or hardboard.
- Details the many cost-saving, spacesaving advantages: reasons why architects prefer CEMENT ENAMEL over synthetics or "laminated" finishes.
- Illustrates application techniques in complete detail.
- Shows how CEMENT ENAMEL saves up to two full inches of floor area as compared with ordinary wall surfacing materials.
- Added Feature: page of recommended Architect's Specifications.
 Complete and detailed—just clip it and use it.

SEND FOR YOUR FREE COPY TODAY!

CEMENT ENAMEL SALES CORP. OF THE AMERICAS, DEPT. F, 787 UNITED NATIONS PLAZA, NEW YORK 17, N. Y.	Please send, without cost or obligation, you newly published catalog CEMENT ENAMEL
NAME	
TITLE	
COMPANY	
ADDRESS	
CITY	ZONE STATE



Putting up the curtain

The Producer's Council recently held a seminar on curtain wall construction. Norman Collyer, President of the F. H. Sparks Company took that occasion to tell the assembled architects some of the problems that lie beyond the blueprint. His words were reported in the June issue of the Council's Technical Bulletin

In talking about erection of curtain walls, we should take first things first. The first thing we have to do when we get on a job (if the blueprint requires it) is to put up a scaffold. This is something we hate to do-and it is very costly. So, I must first ask you architects to design your wall to avoid the use of scaffolds. As well as cost savings, this will produce fewer weather troubles. If we can build from the inside of the building, we can usually work on almost any type of day, unless it is a hurricane. I always like the story of the

Socony Mobile building where, thanks to interior scaffolding, we worked every day from start to finish except for a couple of days up in the cooling tower on the top of the building (and that was during a hurricane).

The next thing we have to think about is the connections to the building itself. I don't want to go into the details of the fasteners, but I do want to throw out a few points:

- Locate your fastening devices so they can be easily reached, easily installed. Make them accessible, do not put them up on the ceiling or out on the face of the building where nobody can get at them. Put them right at the floor level.
- Provide for adjustment in your connections; that is, adjustment usually in three directions. Along the face of the building, up and down, and in and out.
- Do not use fixed connections. So often we see one piece fixed to the mullion or to the panel and the same piece is supposed to be fixed to the structure.
- We like to see the attachment brackets installed after the steel or other structure, preferably five or six floors behind the completion of the concrete. The main reason for this is that your steel structure will move around considerably until your concrete is in place. After you are five or six floors behind your concrete, there will still be some movement, but not nearly so much. We do not like to see brackets put on attached to the steel ahead of the con-
- And we do not like to see anchor bolts which, once they are placed in the concrete structure, cannot be moved.

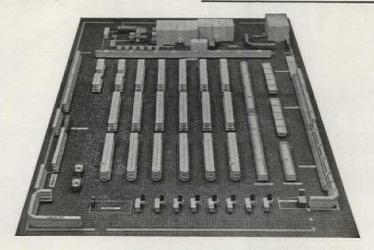
I want to whisper one word of caution. I've heard people swear that they can put up structural steel and pour concrete within 1/8" of line and level. You had better ask somebody else because it won't be done that way. You must fit a finished material around the structure, a column or post-whatever it may be. Do not, except to show, say a quarter of an inch clearance between that structural element and the finished metal and then let somebody put up that steel or concrete a couple inches out of plumb. If you are willing to let the structure go that much out of plumb, then let the finish material be that much out. Do not expect the erector to cover up for all the sins of the building structure.

And another word of caution: if you want perfection and must have your building erected very precisely like a watch should be put together, you should expect to pay for it. The last little refinements of getting precision cost a lot of money. If you can stand a little bit of variation and tolerance, well then, say so in your specification. If you want it exactly, say so and it will cost you more money. That is my favorite expression.

continued on p. 208



first complete color system exclusively for supermarkets



... specialized assistance in supermarket planning

Go right with color in the supermarketuse the NEW TYLER-KETCHAM COLOR COMPATIBILITY SYSTEM developed in consultation with Howard Ketcham, Inc., color experts. Covers Tyler equipment in color and its relation to walls, flooring, signs, the entire store interior! Flexible, simplified. Wide range of selections. Storetested. Write Store Planning Dept. for complete details, today,

The Tyler Store Planning Department can help you take advantage of the very latest ideas in successful supermarket planning and operations. For prompt assistance, write Tyler today.

NEW TYLER SALES-CASE LINE (Series Y) for selfservice Meat, Produce, Dairy, Ice Cream, Frozen Food Depts. Introduces new, low 33" merchandising height; many other new "Advanced Design" features that simplify, speed up installation; cut costs; boost profits! Send coupon for complete data.

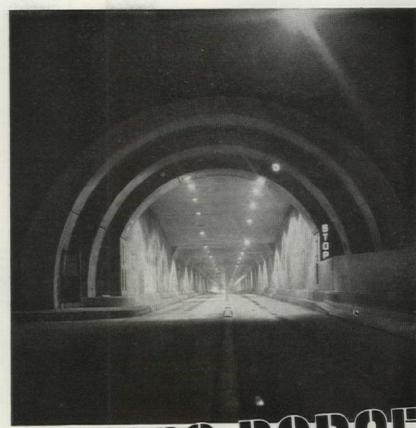
TYLER REFRIGERATION CORPORATION Niles, Michigan ida: Tyler Refrigerators, 732 Spadina Ave., Toronto

Send coupon for complete Information.

Tyler Refrigeration Corporation, Dept. AF-10
Niles, Michigan.
Rush information on Tyler ☐ Color Compatibility
System ☐ Supermarket Planning Assistance ☐ Complete line of Food Refrigeration aquipment for
☐ food stores ☐ restaurants, hotels, etc. NAME

ADDRESS

Pennsylvania's
Turnpike...
Model for
Modern Motoring



WIRE BY PHELPS DODGE

When the Pennsylvania Turnpike opened in 1940, it was the first modern highway of its kind in the East. Since then, it has earned a reputation as a model super-highway whose design combines a free flow of traffic with a low accident rate.

One of the requirements for the Turnpike tunnels, interchanges, approaches and portal buildings was an electrical system of the highest quality. That's why Phelps Dodge building wire and rubber insulated, neoprene-jacketed cable was installed. For 17 years, this wire and cable has been giving the Turnpike dependable, trouble-free service.

On every wiring job where top-quality performance, expert workmanship and experienced "know-how" are called for, it pays to rely on Phelps Dodge and your Phelps Dodge distributor!



SALES OFFICES: Atlanta, Birmingham, Ala., Boston, Buffalo, Charlotte, Chicago, Cincinnati, Cleveland, Dallas, Detroit, Fort Wayne, Greensboro, N. C., Houston, Jacksonville, Kansas City, Mo., Los Angeles, Memphis, Milwaukee, Minneapolis, New Orleans, New York, Philadelphia, Pittsburgh, Portland, Ore., Richmond, Rochester, N. Y., San Francisco, St. Louis, Seattle, Washington, D. C.

cont'd

The lost planner

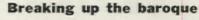
Some planners go off into the field, never to be heard from again. This mystery was recently examined by John E. Vance, chief of the Planning Division of the Rhode Island Development Council, in a speech before the Rhode Island Municipal Finance Officers Assn.

It is not only the towns and cities without a planning program that are vulnerable to extinction by urbanization. Quite often a city or town has all the machinery necessary for doing an intelligent planning job but does not get the expected benefits. For example, in many cities a staff is provided for the preparation and direction of a plan. This is typically done following a civic movement for city planning or by the establishment of a new

city charter. For a while everyone loves planning, and its activities are watched closely. However, after the honeymoon is over, one of several things often happens:

- 1) The staff become lost in the complex of municipal administration and find themselves not much more than errand boys for the planning board or other city officials.
- 2) The technical staff finds themselves spending as much as 90% of their time reviewing subdivision plats and plans, attending zoning hearings, and taking care of other administrative function with no time left for preparation of a comprehensive plan.
- 3) Planning is gradually relegated to a minor position in the official family with accompanying cuts in the budget.
- 4) Some towns and cities have been known to hire a planner more or less as window dressing for the community to please a certain segment or group within a community.
- 5) Smaller communities that cannot afford a full time planning staff often have a set of good plans prepared by some planning consultant in the past, but they are collecting dust on a shelf in city hall.

Where any one of these five situations exists, the community is no better prepared for urbanization than towns and cities which have not yet taken the first step towards an intelligent planning program.



Richard Rosenthal, an American Fulbright scholar in England, recently made some remarks on new plans for city centers in the British Architectural Design. A few of his comments:

The growing number of modern city centers being officially planned and built is an indication both of the penetration of modern architecture into this last stronghold of the Baroque-revival and of public acceptance of the profession of the city planner.

With modern architecture in its third generation, we have finally reached the point where we can expect not merely isolated buildings and groups, but whole downtown areas, and ultimately whole cities of considerable size, planned by contemporary social science and executed under the new esthetic of space. Projects such as Victor Gruen's Fort Worth "downtown" and the Vallingby town center for Stockholm show the fallacy of the familiar criticism that modern architecture the world over is a standard abstract product; each reflects its national origin to a marked degree, in magnitude of undertaking, concept, and treatment. Perhaps indeed a little more agreement on the twentieth-century esthetic, and not less, is the indicated revision; for with plans of this scale the mass of local conditions often overpowers the designer's intention.

continued on p. 210



How right is a reach?



Gimbels, Cross County Shopping Center, Yonkers, N.Y., a Bastian-Blessing Installation.

One of your fundamental objectives in planning an efficient food-service or fountain installation is, of course, to hold employee "reaches" to a minimum. That's an integral part of design for efficiency.

Here's where Bastian-Blessing Planning Service can help you . . . in any of three ways you may choose. First, we will furnish you specs, catalogs and technical plans. *Or* we will give you personal assistance in planning, designing and selecting equipment. *Or*, at your request, we will accept full responsibility for the entire assignment, including installation and final inspection.

It's a service proved-in-practice by

leading architects. What aspect of it can best aid you? Write The Bastian-Blessing Company, 4205 W. Peterson, Chicago 30, Illinois.

COMPLETE . . . fountain, food-service and serving-counter equipment . . . for coffee shops, snack-bars, lunch counters and soda fountains . . . in hotels, motels, hospitals, colleges, factories and drive-ins.

See Our Catalog Insert 24c/Ba in Sweet's Architectural File.

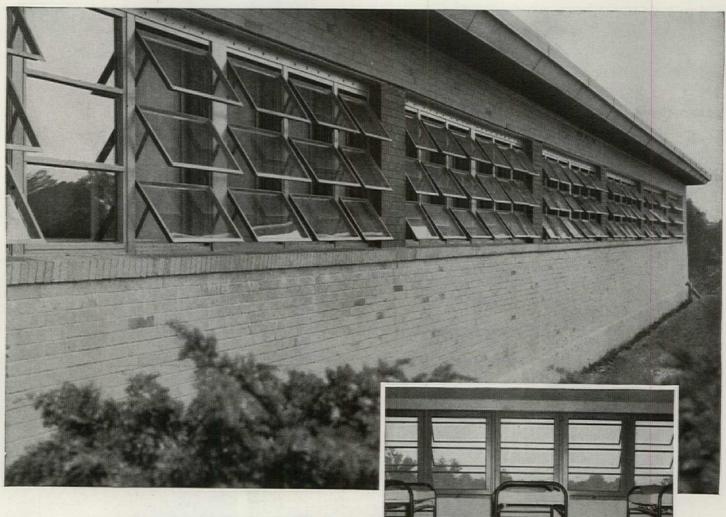
BASTIAN-BLESSING

World's largest manufacturer of fountain and counter food-service equipment



Kentucky Children's Bureau Reception Center, Lyndon, Kentucky. Arrasmith and Tyler, architects; Rostetter Construction Co., contractor.

Fresh



Truscon Steel Intermediate Projected Windows. Tamper-proof mechanism can be operated by authorized personnel only. Interior view shows detention screens installed.

REPUBLIC



REPUBLIC World's Widest Range of Standard Steels

air and sunlight...

PLUS RESTRAINT

Look at that sweep of fresh air and sunlight designed into the new Kentucky Children's Bureau. Certainly no appearance of detention. But, it's there!

The windows are Truscon Steel Intermediate Louver, fitted with detention screens. Easy-acting, tilt-out ventilators operate simultaneously to provide precisely controlled ventilation and close snugly to provide positive weather protection. In detention applications, degree of vent opening can be controlled by authorized personnel only.

While detention is but one use for this versatile intermediate window, it is an important application. If you expect to be dealing with problems involving specification of psychiatric or detention windows, it will pay you to talk to Truscon. It's taken us forty years of specialized experience, but we've got the answers in this highly technical field.

And, Truscon has a knack of designing psychiatric and detention windows that conceal or minimize all indications of enforced restraint. That's important. As is careful engineering to protect patients against selfinjury and to prevent escape.

Check with your Truscon district office for specialized help, or send coupon for complete window catalog.

MORE TRUSCON PRODUCTS FOR INSTITUTIONAL SAFETY...



Truscon "O-T" Steel Joists make floors and roofs fire-resistant, strong, lightweight. Fire-resistant ceilings of Truscon Metal Lath and plaster can be suspended from joists. Truscon "O-T" Steel Joists bear the Seal of Approval of the Steel Joist Institute. That's your assurance of quality construction, dependable performance. Send coupon for facts.



Truscon Steel Doors are as handsome as they are functional. Dependable operation assured even in high traffic locations because steel won't warp, swell, shrink or splinter. Furnished complete with hardware and frames. Easiest of all to install. Economical. New booklet tells all. Send coupon.

STEEL

and Steel Products

REPUBLIC STEEL CORPORATION Dept. C-3018 3108 East 45th Street Cleveland 27, Ohio

I'm interested in more facts on these products of Republic's Truscon Steel Division:

- ☐ Psychiatric and Detention Windows ☐ Steel Doors
- ☐ Truscon "O-T" Steel Joists

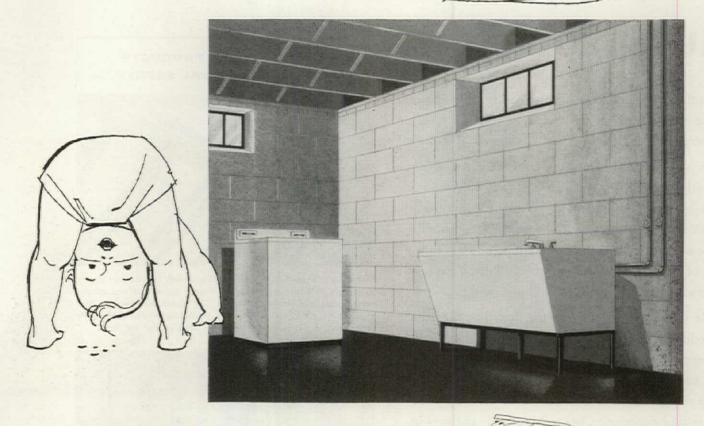
Name_____Title___

Firm___

Address

City______State____

Basements like babies
need CONSTANT WATER PROTECTION!



Babies and basements have a lot in common. Both need water protection! Basement water protection must be permanent and constant in nature. Since coatings eventually peel, flake, chip, crack or wear off, the only lasting method is to make the foundation and floor water-repellent all the way through. Do this by using Medusa Waterproofed Portland Cement for the concrete itself when it's poured concrete construction. If it's a masonry type foundation, then Medusa Water Repellents should be used in the block, in mortar and as an exterior plaster coat. In this manner you make the wall and floor a solid water-repelling mass. If Medusa Waterproofed Gray Portland Cement is unavailable use Medusa Waterproofing Paste or Powder with any portland cement . . . you'll get the same results. Write for our complimentary A.I.A. File No. 3-A-10.



· CONSULT YOUR ARCHITECT



MEDUSA WATER REPELLENTS

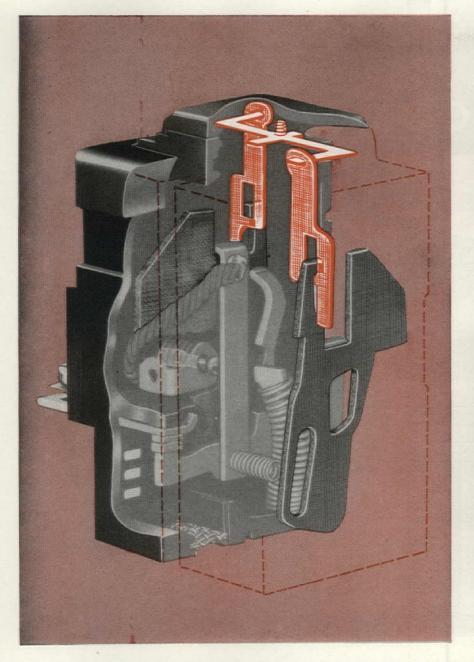
MEDUSA PORTLAND CEMENT COMPANY . P. O. Box 5668 . Cleveland 1, Ohio

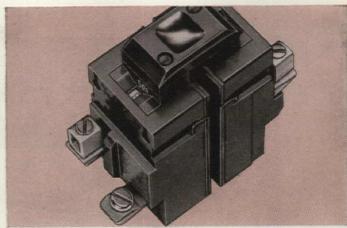
WHITE • WATERPROOFED WHITE • GRAY • STONESET • WATERPROOFED GRAY • AIR ENTRAINING • BRIKSET • HIGH EARLY STRENGTH • WHITE TILE GROUT CEMENT •

SALES OFFICES: Cleveland, Ohio • Chicago, III.
Toledo, Ohio • Pittsburgh, Pa. • New York, N.Y.
Milwaukee, Wis. • Baltimore, Md. • Paris, Ont.



OVER SIXTY-FIVE YEARS OF CONCRETE PROGRESS





Cutaway view (left) shows interior of 50-amp, 2-pole common trip Duo-Guard Pushmatic. A common push button controls both poles simultaneously. These 2-pole, 120/240V AC units are available in 15-, 20-, 30-, 40- and 50-amp ratings... fit any BullDog Electri-Center®.



Let your BullDog field engineer demonstrate all the advantages of Duo-Guard Pushmatic circuit breakers and Electri-Centers. A complete range of sizes and ratings meets all applications, providing complete client satisfaction.

Top protection - 2-pole common trip Duo-Guard Pushmatics

New safety, new convenience! Now, wherever you need full protection for 220V circuits—in residential, commercial or industrial applications—BullDog's new 2-pole common trip Duo-Guard Pushmatics® will deliver it. You'll get all the advantages of single-pole Pushmatics—the famous 2-way Duo-Guard thermal and solenoid magnetic protection—plus simultaneous tripping action on both poles.

Simple and safe! A push of the button gives simultaneous "ON" or "OFF" operation. In event of an overload or short circuit, both poles are automatically de-energized. Specify BullDog equipment for all your electrical work—count on it to provide the safety, convenience and quality that build client satisfaction.

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

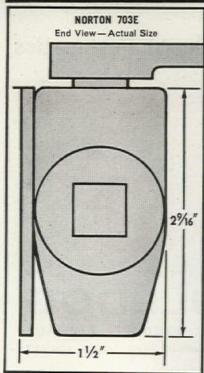


IF IT'S NEW ... IF IT'S DIFFERENT ... IF IT'S BETTER ... IT'S

BULLDOG

ELECTRIC PRODUCTS COMPANY
A DIVISION OF 1-T-E CIRCUIT BREAKER COMPANY

Announcing 2 More "Firsts" for NORTON DOOR CLOSERS! Norton 703E Surface-mounted type... First door closer ever made NORTON with extruded aluminum alloy shell. Norton 750 Revolutionary corner design with concealed arms and extruded aluminum alloy shell.



Ultra-Modern in clean-lined functional design...Traditional in ruggedness of construction...full rack and pinion dependability of operation.

After years of research to perfect suitable alloys and designs, Norton now offers the very first door closers which are not cast iron...not die cast or sand cast but extruded from tough aluminum alloy of such density that leakage through the shell is eliminated.

Utilizing this advance are two brand new Norton models specifically designed to complement the structural simplicity of modern doors...engineered to serve indefinitely with the efficiency, low maintenance and durability typical of all Norton Door Closers.

NORTON 703E: Surface mounted type, can be used on either side of door...only 11/2" projection...can be finished to match hardware...up to 180° opening, trim permitting.

NORTON 750: Corner type of unique design for outside doors . . . arms completely concealed when door is closed...blends unobtrusively with latest aluminum frame doors.

But, not all advantages of these newest Norton Closers can be listed here. Write today for new data sheets just off the press giving full description and specifications.

NORTON® DOOR CLOSERS
Dept. AF-107, Berrien Springs, Michigan

Another fine



Lambert-St. Louis Municipal Airport. Hellmuth, Yamasaki and Leinweber, Architects.

heating assignment for Petro

The Petro-Kewanee burner-boiler units shown below were chosen for one of the most magnificent new buildings in America. Says Architectural Forum, "St. Louis has now given the age of air travel its first appropriate terminal." This "new kind of big room" is a series of concrete cross-vaults 412 feet long.

The heating plant consists of two Petro forced draft firing units with matched Kewanee boilers. They are fully integrated units with all burner components factory engineered, installed and mounted. The burners are equipped to fire either oil or gas with peak efficiency, and fuels can be switched quickly.

The Petro forced draft firing system can be

used with a Scotch type boiler as shown here, or can be applied to any other type of boiler. Models are available for modernization of existing firing systems or as a component part of a packaged boiler-burner unit. Hundreds of Petro distributors and dealers are located in all parts of the United States and Canada to help you and your consulting engineer in planning boiler room modernization or construction.

For more information please mail the coupon below.



HEATING AND POWER

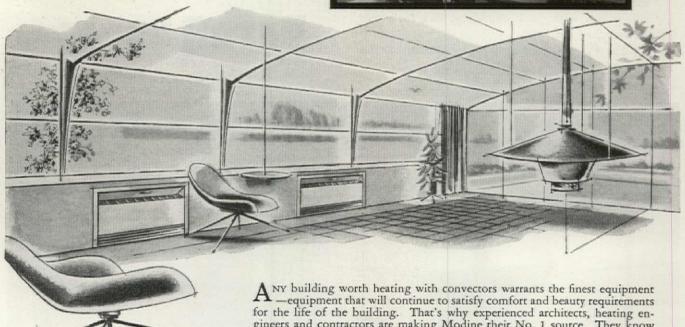
Heating contractors: American Power & Piping Corp., St. Louis. Consulting Engineers: Ferris & Hamig, St. Louis. Petro distributor: Becker Marsden Company, St. Louis.



PLAN FOR 1999 with MODINE convector radiation

30 types, 8,000 sizes ... to help you plan for the years ahead





Any building worth heating with convectors warrants the finest equipment —equipment that will continue to satisfy comfort and beauty requirements for the life of the building. That's why experienced architects, heating engineers and contractors are making Modine their No. 1 source. They know that ruggedly built Modine convectors last for decades, require no attention, cost less in the long run.

You'll find the Modine line unusually broad. There are types for every floor, wall, recessed and concealed installation, with standard or heavy-gauge, heavy-duty enclosures.

heavy-duty enclosures.

For complete details contact the Modine representative listed in your classified phone book. Or write to Modine Mfg. Co., 1507 DeKoven Ave., Racine, Wisconsin. Ask for Catalog 257. R-1352







BRAND CURTAIN WALL SEALER

New curtain wall sealer flexes to stay weather-tight!

You can actually tie knots in WEATHER-BAN Brand Curtain Wall Sealer. Try it . . .

Send for a cured bead. You'll see for yourself the flexibility that helps WEATHERBAN Sealer lock weather out far more securely than conventional caulking compounds.

Based on polysulfide rubber, this new sealer is designed by 3M Research specifically for curtain walls. It flexes like rubber, bends, stretches, compresses with wall movement. The result...a durable, solid rubber seal that stays weather-tight

and cushions glass and metal against damage in buffeting winds.

What's more, WEATHERBAN Sealer cures chemically without shrinkage, doesn't flow out of seams. It adheres strongly to curtain wall materials, resists exposure to water, sunlight, atmosphere and temperature extremes.

Most important, tests show that WEATHERBAN Sealer can go on flexing, adhering and sealing tightly with exceptional durability. SEE WHAT WEATHERBAN SEALER OFFERS YOU! Consult 3M Research. Send for a cured bead of WEATHERBAN Sealer and free brochure. Write on your company letterhead to: 3M, Department 210, 417 Piquette Avenue, Detroit 2, Michigan.



MINNESOTA MINING AND MANUFACTURING COMPANY . ADHESIVES AND COATINGS DIVISION

417 PIQUETTE AVE., DETROIT 2, MICH. . GENERAL SALES OFFICES: ST. PAUL 6, MINN. . EXPORT: 99 PARK AVE., NEW YORK 16, N. Y. . CANADA: P. O. BOX 757, LONDON, ONT.



FALL IN...

... shouts the sergeant and a host of heavy combat boots tramps across the Ironbound drill floor in the 161st Infantry Armory. Forward march...left flank... double to the rear to the right — the men respond with mechanical precision, the boots beat out a rhythmic cadence—and the floor, too, performs.

It does its job exceptionally well, in fact – refuses to let beating boots or bounding basketball players mar its beauty – and retains its unmatched uniform resiliency and dimensional control for generations. Reason: It's an Ironbound* Continuous Strip* Hard Maple Floor.

There are reasons, too, why only Ironbound meets the rigid requirements of the 161st. The flooring is selected edge grain strips of finest Northern maple, 33/32" thick to assure long service. Strips are laid over mastic and cork and bound by a sawtooth steel spline. This floor and all Ironbound floors are installed by expert flooring contractors. And every Ironbound installation is guaranteed.

Next time you're planning a floor that must be able to take a beating and remain smoothly beautiful, stable and resilient, be sure to consider Ironbound. For name of your nearest authorized installer, write Robbins Flooring Company, Reed City, Michigan, Attn: Dept. AF-1057

Available vacuum-treated by the Dri-Vac process.



*T.M. Reg. U.S. Pat. Off., Canadian Pat. Off.

ROBBINS FLOORING COMPANY

World's Largest Maple Flooring Manufacturer

Reed City and Ishpeming, Michigan

CONSTANT VOLUME CONTRO

Here's An Important New Control Idea by Johnson That Vastly Improves the Comfort and **Economy Values of** High Velocity, Double Duct Air Conditioning

With the new R-316 Johnson Air Flow Controller, you get comfort and economy that surpasses anything yet achieved in the popular high velocity, double duct type of air conditioning.

Continuous Flow Pattern

Designed for use with leading makes of mixing units, the extremely accurate R-316 assures delivery of a constant volume of conditioned air through every unit in a building-regardless of the number of mixing units, the length of duct runs, differences in pressures between the hot and cold ducts or changes made by the room thermostats in the proportions of hot and cold air supplied to the individual units. Comfort is complete, uninterrupted!

Reduces Equipment and Power Outlays

Major savings in initial fan costs, fan horsepower consumption and duct design are possible with the R-316, since only the very minimum pressures required to distribute air properly need be maintained.

Eliminates Manual Balancing

The complete elimination of costly and difficult

manual balancing results in another important saving. Simply presetting the R-316 dial for the desired rate of air flow does it all. And the entire system then remains in balance permanently!

No Sound Changes

Another result of constant volume air delivery is the elimination of objectionable variations in sound levels of the air conditioning.

No Upkeep Problems

Costly upkeep problems due to residual dirt in ducts and dirt contaminated duct air are avoided by powering the R-316 with the same filtered, dehumidified air that operates the temperature control

If your plans call for high velocity, double duct air conditioning, a Johnson Pneumatic Temperature Control System with provision for constant volume control will help you produce incomparable results. The R-316 is made only by Johnson. Your local Johnson branch has full details, or write for Bulletin M-104-6. Johnson Service Company, 507-E East Michigan St., Milwaukee 1, Wisconsin.

JOHNSON CONTROL



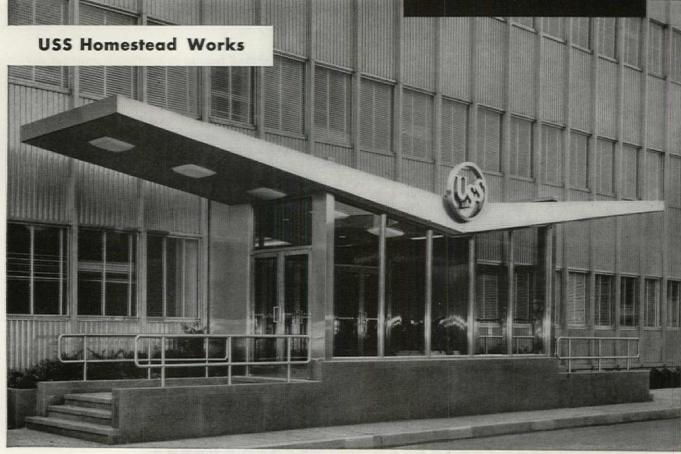
DESIGN . MANUFACTURE . INSTALLATION . SINCE 1885

Querline STAINLESS ENTRANCES

For heavy-traffic installations, these enduringly beautiful entrances are being specified more and more by architects and building owners. Typical applications are: office buildings, banks, chain stores, schools, hospitals—in fact, wherever finest appearance and genuine permanence are desired.

Write us today for Overline Entrances Catalog No. 1057. Learn about the superlative finish, superior design and workmanship, 10-year warranty against failure, and why the first cost is the owner's last cost with Overline 100% stainless steel entrances.

Overly Manufacturing Company Greensburg, Pennsylvania • Los Angeles 39, California



Ultramodern, five-story general office building at the Homestead District Works of United States Steel Corporation near Pittsburgh, Pa. Photo shows stainless curtain wall and, in front of it, the stainless steel entrance crafted by Overly. This consists of a number of Overline all-stainless-steel doors, frames and other members forming the four sides of the entrance vestibule. Architects: Hoffman & Crumpton, Pittsburgh. General Contractor: Crump Inc., Pittsburgh.

A coating in COLORS that really sticks to new Galvanized, Aluminum and Terne Plate







GALVINOLEUM, COATINGS

Remember? If you didn't go over every square inch of new galvanized metal with a chemical solution before painting . . . chances are that the paint "peeled off" leaving you with a costly eye-sore!

The development of Galvinoleum Coatings by Rust-Oleum changes all this! Now... you simply brush Galvinoleum right over brand new or unpainted Galvanized, Aluminum, or Terne Plate... no etching... no weathering... and it lasts and lasts! No "peeling"

worries, no costly "headaches"... you have your choice of Red, Gray, Green, and Metallic! And you can use Rust-Oleum 575 Outside White, or any high-quality oil base house paint, over the Galvinoleum to match trim. Pioneered, developed and field-tested by the Rust-Oleum

Corporation—you have the assurance of a brand name backed by over thirty-five years of proved performance throughout industry. Try Galvinoleum... write for your illustrated Galvinoleum booklet with color charts.

RUST-OLEUM.



Rust-Oleum, Galvinoleum, and Stops Rust are brand names and registered trademarks of the Rust-Oleum Corporation. Prompt delivery from Industrial Distributor Stocks.



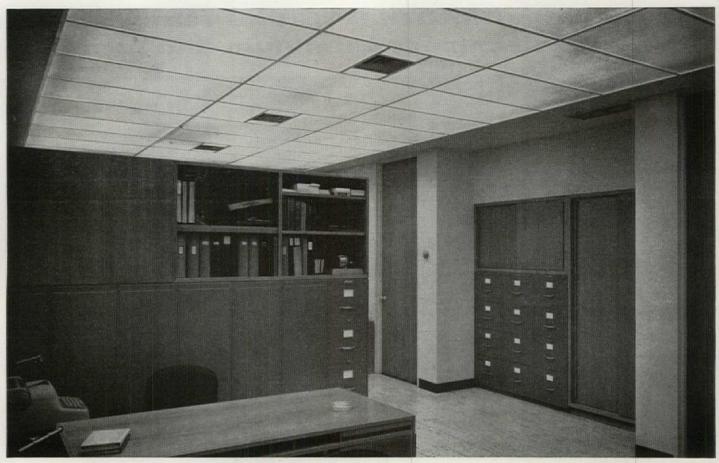
Rust-Oleum is distinctive as your own fingerprint. Accept no substitute.

ATTACH COUPON TO YOUR LETTERHEAD-MAIL TODAY!

Rust-Oleum Corporation

2459 Oakton Street • Evanston, Illinois

- ☐ Complete Rust-Oleum Galvinoleum Literature
 With Color Charts.
- ☐ Free Test Sample:
 - ☐ Red ☐ Gray ☐ Green ☐ Metallic
- ☐ Nearest Source of Supply.



 GENERAL OFFICE AREA in a new administration building makes extensive use of panels of Pattern No. 70 with luminous element. Illumination is glare-free and pleasing to the eye.



2. LABORATORY gets the kind of low surface brightness required for close work with these suspended troffers. Main panels are Pattern No. 70; sides of Alba-Lite provide excellent diffusion. Suspended troffers also permit fitting lighting fixtures around needed venting apparatus.

Only you would

3. CONFERENCE ROOM in recently erected building to house an advertising agency uses PYREX® lenslites mounted in free-form wood unit of custom design and fabrication.

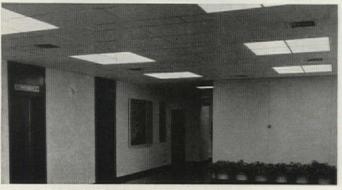




 FLUSH troffers using Pattern No. 70 bathe secretarial work area in soft, glare-free light. Ceiling mounts like this add to neat looks of office, minimize maintenance and cleaning problems.



FOTA-LITE provides subdued but highly efficient illumination for a top executive's office. This glass combines the advantages of smooth sheet glass with the control afforded by louvers.



 GOOD LOOKS and adequate illumination are provided by these Square Alba-Lite Bowls mounted flush in lobby ceiling. Diffusing property of this glass obscures fluorescent elements.



7. END-TO-END troffers attached to ceiling have main panels of Pattern No. 70 with Alba-Lite side elements. This arrangement provides optimum light and service conditions for new office in a large printing establishment.

look UP in any of these 7 settings!

What's the best test of the effectiveness of any lighting system?

Quite probably it's the number of people who don't look up. The reason is simple: When illumination is adequate, pleasant, unobtrusive, there's little reason to examine its source.

Except, of course, from your standpoint.

And for you Corning makes the kind of lightingware that provides the *control* you need to achieve the *effects* you want.

From the situations pictured, you can get an idea of the variety of lighting problems that can be effectively handled with Corning glassware.

Extra value

You'll also find a number of important bonus values in lightingware by Corning. It looks good. It comes in many shapes and forms to fit into (even add to) every kind of décor and setting.

And your customers get the added advantages of lighting that's readily serviced, easy to keep clean and newlooking, rugged, and long-lasting.

Still more

Corning also makes special lightingware for use in max-

imum security situations and environments involving adverse conditions like wide temperature fluctuations.

At your fingertips

All the important details of what's available from Corning are summed up in "Commercial Lighting Application Guide." In it you'll find data on types of fixtures, varieties of glassware, suggested applications, in-use photos, and estimating tables. Free with the coupon.

Inquiries about specific problems, glasses and availabilities will receive prompt replies.

mpany

Street.....

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

Corning means research in Glass



CORNING GLASS WORKS, 64-10 Crystal Street, Corning, N. Y.





Steinhardt and Thompson, Architects; Flooring Installation-William Gold.

ROBBINS CORK FLOOR TILE KEEPS THE NOISE DOWN AS TRADING VOLUME RISES

People move fast and frequently when "buy" and "sell" orders begin to flow in a stockbroker's trading area. And there's plenty of noise—

To muffle the sounds of busy feet, Robbins Cork Floor Tile was specially chosen for this trading area at Blair & Company, members of the New York Stock Exchange. This tile, which is made of finest imported cork and compressed to a high density, reduces the noise level substantially—to a degree much lower than is possible with other hard-surface floorings. Furthermore, it has a natural toughness that ensures lasting wear in heavy-traffic installations.

Robbins Cork Floor Tiles come in soft, mellow tones that enable you to design distinctive, beautiful floors. So if you have an installation that requires lustrous appearance, as well as quiet comfort underfoot, specify Robbins Cork Floor Tile. The cost, including installation, is lower than that of many luxury floorings.

FREE! NEW SAMPLE TILEBOOK

Where can you find the exact floor tile color you need? Look here—in Robbins' new Architect's Sample Tilebook!

Just flip through the pages. You'll see the precise colors of Robbins' fabulous vinyl and rubber floor tiles, both solid and marbleized. You'll also see samples of Robbins' exclusive Patio Tile for outdoor installations and samples of Robbins Vinyl Matting. It also contains a folder which illustrates the complete Robbins line, and typical specification sheets to make ordering easier.

Write for this handy, compact Robbins Sample Tilebook today. It's light, easy to carry around and refer to—and it fits your office bookshelf! For your free copy, write: Robbins Floor Products, Inc., Tuscumbia, Alabama.





ROBBINS MATCHES DESIGNERS' COLORS FOR ULTRA-MODERN BUILDING

New York's newest building, the C.I.T. Financial Corporation's ultra-modern black granite and stainless steel structure, will feature three unusual colors of rubber Terra-Tile—which Robbins prepared specially to match the interior designer's specifications. The colors—driftwood, sand, taupe—were chosen by Eleanor Le Maire, famous interior designer. The tile will cover 125,000 sq. ft. of floor space on seven floors. Installation—W. Gold.

Robbins' ability to match special colors, and to produce uniform-quality tile in quantity is a major reason why architects and designers prefer to work with Robbins. If you have a custom job like this on your books, why not call your nearest Robbins distributor today?

DESIGNERS CHOOSE ROBBINS FLOOR TILE FOR NEW SUBURBAN MEN'S STORE

D. C. O'Connell Associates, Store Designers, had many specific reasons for choosing Robbins vinyl floor tile for a 15,000 sq. ft. installation in the new John David men's store at White Plains, New York

The tile they chose, Robbins' fabulous Lifetime Vinyl Tile #178, is light in color, refreshing and reflective—perfect for a suburban men's store. Installed by William Gold, it lends itself to the store's luxurious but casual atmosphere, permits soft spotlighting of merchandise. Then, too, this decorator tile has a lustre that lasts and lasts with minimum care. It's also highly resistant to scuffing and indentation, extremely durable and long wearing—ideal qualities for every area where traffic is heavy.

ARCHITECTS:

Like to know more about Robbins' fabulous tiles? See Sweet's or write us for complete details,

MARIETTA PRECAST CONCRETE WALL PANELS ADD TO THE UNUSUAL BEAUTY AND PERMANENCE OF NEW MEDUSA BUILDING



National Headquarters Building of the Medusa Portland Cement Co., Cleveland, Ohio

Marietta wall panels were attached to the lift-slab floors of Medusa building with steel angle connections rather than being supported by grids. This method results in greater safety since slab carries the load.



BRANCH OFFICES:

Baltimore 21, Md., Charlotte 6, N. C., Nashville, Tenn., Jamestown, N. Y. The almost unlimited architectural use and practical application of concrete products is graphically demonstrated in this beautiful new Medusa Portland Cement Company Building.

Marietta precast concrete wall panels in various colors and finishes were used to create the striking, harmonious exterior. Exposed aggregate finishes in white and green marble provide a rich, colorful texture that will never need maintenance.

On all types of buildings Marietta precast concrete wall panels speed up erection and lower costs. Reduced wall thickness and weight means added floor space, more economical foundations.

Write for complete architectural specifications on Marietta wall panels and other precast concrete products. Consult Marietta, too, on precast structural components and prestressed units.

on precast structural components and stressed units.

CONCRETE CORPORATION MARIETTA, OHIO

New York Office: 501 Fifth Ave., N. Y., 17



No "OR EQUAL" can match it!

Comfortable . . . compatible . . . Day-Brite lighting. Specify it. Stick with it. You'll *never* be sorry. For, in quality of lighting and construction, no other fixture on the market can match Day-Brite. There are no "or equal's."

Strong words... and we can back them up. Ask your Day-Brite representative to arrange a demonstration. He's listed in the Yellow Pages. See, compare Day-Brite fixtures—side by side—with any other fixtures at any price.

Inspect. Handle. Ask questions. Look at the line. Compare the lighting.

Compare fixture design. Be a tough critic. Choose slowly . . . carefully . . . wisely.

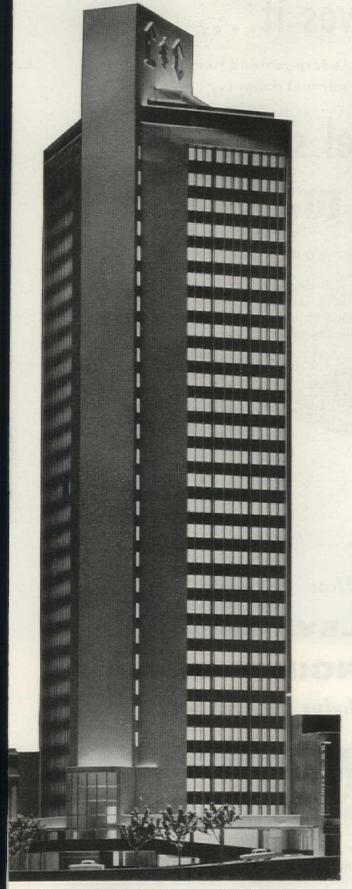
Isn't that the best way to select lighting . . . to satisfy clients . . . to uphold your own reputation? It's the best way to see Day-Brite superiority for yourself!



DAY-BRITE LIGHTING, INC.

5471 Bulwer Ave., St. Louis 7, Mo. Day-Brite Lighting, Inc., of California, 530 Martin Ave., Santa Clara, Calif.

71162



Slim and stately, Nashville's new Life & Casualty Tower is the Southeast's tallest commercial structure. Offices are lighted with Day-Brite fixtures.

EDWIN A. KEEBLE ASSOCIATES, Architects BURNS & THORPE, Associated Mechanical Engineers

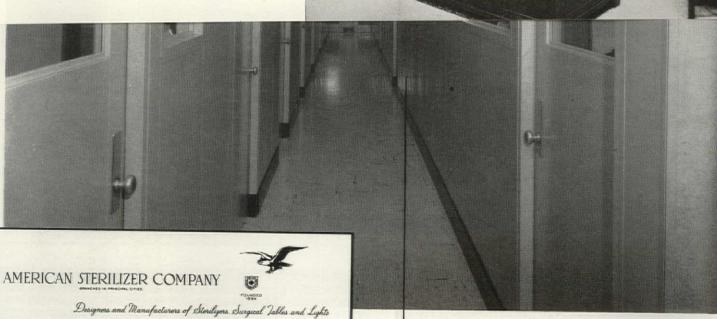
J. A. Jones Construction Company, General Contractors Sadler Electric Company, Electrical Contractor Others—General Elec. Supply Co., Distributor



Think of Day-Brite lighting fixtures as a hard-working production tool. Here they make seeing easier, increase worker efficiency, reduce turnover and absences, encourage cleanliness and order.

Day-Brite lighted executive office looks modern, reflects prestige, welcomes visitors





ERIE I, PENNSYLVANIA

The Prosperity Company 125 Marcellus Street Syracuse, New York

We have found your partitions to be very satisfactory. The installation went very smooth, last minute changes made with very little trouble and the results, appearancewise and functional, met our highest expectations.

Sincerely yours,

P. MARTIN

June 7, 1957

This is a typical bank of metiwal offices in the recently completed American Sterilizer Company building in Erie, Pennsylvania. Installation was fast and easy, using only a few standard parts. While these attractive metlwals are completely permanent in appearance, they are easily moved without damage to floors or ceilings whenever a new floor plan is desired.

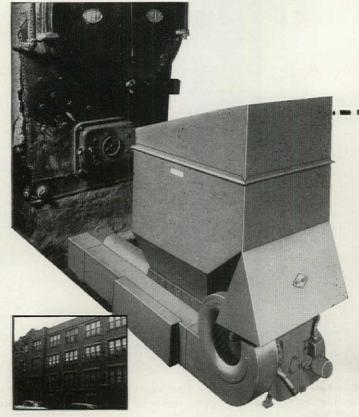
OD Thats Office Manager



at low cost ... your choice of railing height, semi-private, or private enclosures . . . adaptable to any floor layout . . . as easily rearranged as office furniture . . . in 6 decorator colors.

SYRACUSE, NEW YORK

Performance Proves it...



the modern method to more heat per fuel dollar...

fuel saving 25%!

WILL-BURT

ORRVILLE, OHIO

This Will-Burt Hopper Stoker Model is used in a large apartment in Chicago. Installed approximately one year ago it has already produced fuel savings of 25%!



Added benefits.. more uniform temperature control, less custodian supervision.

Write for literature. Engineering and advisory services available.

SIMPLE AS a B C!

a RCHITECTS

specify

hull DERS



How

ELEVATOR

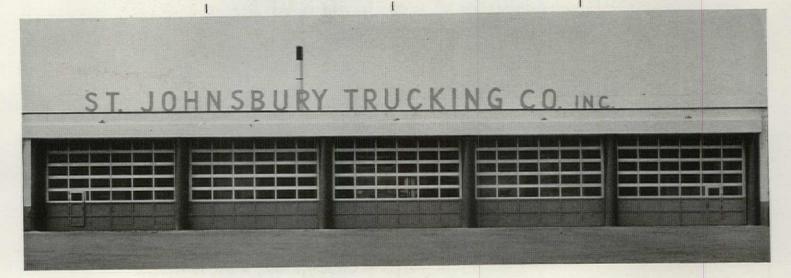


for Rugged Heavy-Duty Installations specify RAYNOR Overhead Doors



PROJECT
St. Johnsbury Trucking Company
Portland, Maine

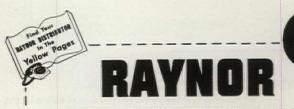
ARCHITECT Stewart Associates Cambridge, Massachusetts CONTRACTOR Ellis C. Snodgrass Inc. Portland, Maine RAYNOR DOORS sold by Maine Home Installation Co. Portland, Maine M. L. True, Mgr.



This addition to the St. Johnsbury Trucking Company in Portland, Maine is another outstanding example of the everincreasing use of Raynor overhead doors in commercial installations. In planning the addition, St. Johnsbury management specified that the 5 loading platform doors be "easy to operate, yet wide enough to accommodate two trucks at a time." The Raynor doors installed are over 20 feet wide... they lift easily, will never sag due to the special center support design. The next time your job calls for sturdy and dependable door installations, specify RAYNOR... BUILDERS OF A COMPLETE LINE OF WOOD SECTIONAL OVERHEAD DOORS.

ONLY RAYNOR OFFERS:

- ★ finest quality construction
- ★ long, dependable performance
- * complete selection of designs



RAYNOR MANUFACTURING COMPANY Dixon, Illinois



Some insulations feed a fire . . .



FOAMGLAS®

INSULATION

won't burn!

—and only inorganic FOAMGLAS insulation offers all these added benefits...waterproof and vapor-proof (closed glass cell structure)...dimensionally stable...high compressive strength...vermin-proof...easy, economical to handle and install. Write for detailed literature.

FOAMGLAS is listed by Underwriters' Laboratories, Inc. under Label Service.



Pittsburgh Corning Corporation

Dept. D-107, One Gateway Center, Pittsburgh 22, Pa. In Canada: 57 Bloor Street West, Toronto, Ontario



WHY WEIRZIN?

"It resists rust, forms easily and holds paint."

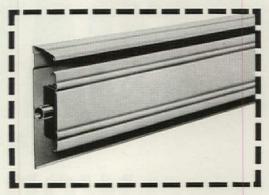
So reports the Vulcan Radiator Company, Hartford, Connecticut.

"We must bend Weirzin electrolytic zinc-coated steel like a pretzel in producing our high quality Trimline baseboard radiators. Weirzin goes right along with us—doesn't balk one bit. Our finished baseboard radiators have a constant flow of bends and turns. But in forming them, not one speck of Weirzin's protective zinc coat flakes or peels off. This assures us that recoating of our radiators is a thing of the past and that rust is a real 'goner' having no bare steel to feed upon. And, chemically treated Weirzin takes and keeps paint as if it were the natural thing to do. A decided advantage over other metals that can 'take' paint but don't hold it all."

That's Weirzin electrolytic zinc-coated steel sheets! They never give rust a start, thereby eliminating any future corrosion problem. They have a natural paint bonding surface which means the end product has a beautifully painted finish that will fit into any décor. They have the strength of their steel base which means a longer life of worry-free service.

What better characteristics could any product have to meet the exacting demands of progressive architects, builders and contractors?

See how Weirzin can meet your building requirements—better! Just write Weirton Steel Company, Dept. P-26, Weirton, West Virginia, for your free informative booklet.





WEIRTON STEEL COMPANY

WEIRTON, WEST VIRGINIA
a division of



Powers Pneumatic Temperature Control for Heating



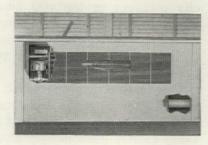
NOW, it's Canada's First Completely Air Conditioned Hospital with



Powers Temperature and Humidity Contral helps Nurses to work more effectively and care for more patients. Surgeons operate with less fatigue and strain. Patients recover sooner and require less service.

Powers Pneumatic Thermostats maintain set temperatures constantly. They need no daily checking or readjusting.

Over 619 Powers Heating-Cooling Thermostats and 708 PACKLESS Control Valves regulate the volume of chilled or heated water to unit air conditioners used in the perimeter areas of the buildings.



POWERS

Quality System of Air Conditioning Control

St. Boniface Hospital with 670 beds, offers the most advanced facilities and equipment for diagnosis and treatment of disease, patient care and comfort.

Year 'round Air Conditioning regulated by Powers individual room control provides the right temperature required for every hospital activity. Powers pneumatic thermostats are used in:

13 OPERATING ROOMS, central sterilizing and supply area, recovery and delivery rooms, 9 nurseries, attractive rooms for patients, offices, public spaces, pharmacy, laboratories, radiology and therapy departments, kitchen, cafeteria and dining rooms, laundry, autopsy room, solariums for convalescent patients and a colorful playroom for children.

Central Supply Units furnish properly conditioned primary air and heated or chilled water to over 600 unit air conditioners in the perimeter areas of the buildings. Occupants in each space can dial the temperature they like best.

Interior Zones, operating rooms and other spaces receive conditioned air from central supply units. Here Powers control automatically adjusts temperature and humidity to the requirements of occupancy and outside weather.

Nurses Home and School of Nursing with over 200 students, have direct radiation throughout controlled by Powers.

Powers Thermostatic Shower Controls insure comfort and safety of patients and nurses.

Are You Planning a New Hospital or any other type of building? Ask your architect or engineer to include a Powers Quality System of Temperature Control. You will help insure utmost comfort and lowest cost for upkeep.

THE POWERS REGULATOR COMPANY

SKOKIE, ILLINOIS

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



65 Years of Automatic Temperature and Humidity Control





the sanction of the Association of Commerce and the city council, and assistance from an earlier ACTION study by Washington Consultant Nathaniel Keith. In related moves, the city council has designated itself the official urban renewal agency required for federal help, and Davis and association and city officers have journeyed to Washington to per-

suade the government to sell them a decrepit wartime housing project on the north side of town, which they will use for relocation purposes under future land clearance programs.

The missing elements

Now Decatur has the interest not only of its business and editorial leaders, but of some government men, architects, and potentially its church, school and cultural leaders as well. But the next key to an urban renewal program, as Davis and others have repeatedly pointed out, is a housing code for existing dwellings and the machinery to enforce it, a requirement for federal aid that has been kicking around Decatur for at least two years. Also awaiting action is the question of a permanent planning director on a metropolitan or regional basis, to coordinate and carry out all the accumulated plans and the ones Decatur hopes to map out for slum clearance and rebuilding, rehabilitation and blight prevention. Like other cities without a permanent planner to guide as well as stimulate its progress, Decatur has suffered the embarrassment of the right hand vs. the left; schools, for instance, have been built without adequate roads to serve them.

There is now talk of setting up a \$15,000 budget for such a planning officer, which some doubt will be enough for an experienced and politically effective man and the help he must have. (Other cities, well convinced of the need, have been addressing letters to Decatur's still-unborn planning department, hoping to lure its men away.) Besides a city planner, there are those who feel Decatur could also use a professional city manager or business administrator to get things done more efficiently, with fewer meetings and political pressures from private interests.

New standards, new staff, new stimuli-these are big decisions that Decatur and other cities must make today to stay continuously ahead of their creeping obsolescence and to shape their physical patterns and their pleasures of living for years to come. Citizens again and again in their own ways have shown their determination to achieve a better city. Now they need the help of architecture, planning, and government. Decatur's challenge-and the challenge to all cities like Decaturis to get this coordinated planning underway before a crisis requires a crash program.

America's New Schools Can Have Strong, Student-Safe, and Attractive ALUMINUM ENTRANCES WITH

ALUMILINE CENTER PANEL DOORS

Alumiline Factory Prefabricated Narrow Stile Center Panel Doors, Note concealment of Panic Crash Bar.

STRENGTH

- Horizontal mullions reinforced and welded into place for greater strength.
- Heavy alumilited aluminum sheet glazed into center panel.
- Corners of doors completely welded with heavy machined reinforcements.

STUDENT SAFETY

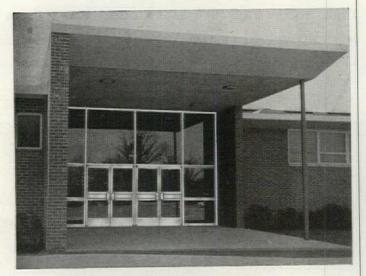
- Student safety provided by extra protection of high strength center panel.
- Protects against injury from glass breakage should student's hands slip from panic crash bar.
- Tempered glass can be specified for the bottom glass light (kick area).

ATTRACTIVE DESIGN

- Mullions fabricated of same sections as door rails to present smooth, clean lines across the door, concealing panic crash bar.
- Alumiline Center Panel Doors available in narrow stile and wide stile construction.
- Aluminum sheet in center panel glazed in same plane as upper and lower glass openings to carry glass line throughout.

Photo shows Alumiline Entrance of East Greenwich High School. Architects: Harkness, Albert, & Peter Geddes Associates, Previdence, R. I.





The ALUMILINE CORPORATION

Dept. F, Dunnell Lane, Pawtucket, R. I.



BAKELITE Rigid Vinyl Sheet...

True color was the goal in this 40'x28' building for Kallenbach Florist, Erie, Penn. 96 four-foot, 40 watt units are wired in three groups for individual control of lighting in separate areas. Eight months after installation, 65 foot-candles are being obtained. "Panel-Glo" Ceilings by Benjamin Electric Mfg. Co., Des Plaines, Ill.

make sales blossom

Beauty needs the proper setting...and life-like lighting makes a difference in this florist's sales. Here, the soft, unobtrusive light shows the flowers in their natural colors.

Display rooms, offices, homes all benefit when translucent ceiling panels are made from BAKELITE Rigid Vinyl Sheets. This material resists cracking,

warping and discoloration. It is normally unaffected by moisture, corrosion, and being light in weight, BAKELITE Rigid Vinyl Sheet is easy to install, easy to remove, easy to maintain.

For your next job...new building or modernization...consider the many advantages of ceiling lighting. For complete information, write Dept. ZW-2.

PLASTICS UNION CARBIDE

BAKELITE COMPANY, Division of Union Carbide Corporation, 30 East 42nd Street, New York 17, N. Y. The terms Bakelite, Union Carbide and the Trefoil Symbol are registered trade-marks of UCC.

insurance will be forthcoming. This often creates a great deal of difficulty, however. For even though HHFA certifies an area eligible for FHA mortgage insurance, FHA can still make its own demands on the redeveloper. As much as two and a half years have intervened between HHFA certification and actual granting of FHA insurance.

Another element in the renewal process is the Public Housing Administration. PHA is in the slum clearance business, too, mainly to provide relocation housing for URA. With FHA its relations have never been cordial. Cities can apply for slum clearance aid through URA and still, through the local housing authority, get other areas cleared

via PHA. And PHA is often a better deal, because usually the federal government bears nearly all the cost of public housing (excepting the loss of revenue to a city due to the projects' exemption from taxes). Under renewal, it frequently pays less than that. Thus little federal public housing is built in federally aided urban renewal areas.

Although all these units-HHFA, PHA, URA, and FHA-are presumably in the same family, with HHFA at the head of the table, they frequently are working at cross purposes. Some of this stems from differing philosophies and apparatus of the agencies themselves, such as FHA and PHA. But much of it results from the fact that HHFA, instead of simply coordinating these varied operations, also is in the operating picture itself. And it doesn't have the same degree of authority over either FHA or PHA that it has over URA.

FHA has been a particular problem although much less so in recent months. When URA was born, FHA was undergoing the painful scrutiny of an overzealous congressional committee in the "windfall scandals" of 1954. This, on top of FHA's long-standing lukewarm attitude toward urban housing anyway, just about killed the chances of Section 220—providing liberal mortgage insurance terms for rental housing in cleared areas-from the start. Private redevelopers, smarting from the windfall mess when FHA turned on many of them with suits for recovery of profits, were suspicious of 220 anyway. When FHA threw up a whole barricade of restrictions through charter regulations, stiff equity requirements and cost certifications, many of them turned away from urban renewal.

Poets and philosophers

"Excessive regulation . . . inconsistent policies . . . fear to make a decision . . . incessant back and forth between local offices and Washington . . ." are all charges that have been leveled at urban renewal from the start. Most of them were true at many times, and some still are.

continued on p. 240

An institution laundry planning service for architects

Planning laundries is our business, so why burden your organization with costly, time-consuming detail work. Given a few key facts, our survey engineers will provide a detailed plan to integrate laundry facilities with the other important elements of your institution design. The American Laundry Machinery Company is uniquely qualified to offer architects a comprehensive laundry planning service for institutions of all types and sizes.

Information we need includes: Number of beds, number of patients or inmates, type of institution (orphange, home for aged, convent, seminary, sanitarium, penal, etc.), number of uniforms and types, whether medical care is provided, whether equipment will be operated by patients or salaried employees, whether laundry equipment will be used for occupational therapy or training.

We provide the following: Our survey engineers will prepare detailed drawings, floor plan layouts and complete specifications for your installation. Finished plans include size and type of laundry equipment needed, proper arrangement for smooth work flow, operating personnel required, water and steam requirements including size of piping, electrical connections, ventilation, lighting, foundation support, floor space, size of openings for admittance of equipment, approximate operating cost—every detail you will need to design an efficient space-saving laundry department. This planning service is available to architects without obligation. Call your nearby American representative, or write.



Our Lady of Grace Convent, Beech Grove, Indiana. Architect: Charles M. Brown, A.I.A., Indianapolis, Ind. General Contractor: John Helm & Sons. Laundry Equipment: The American Laundry Machinery Co.

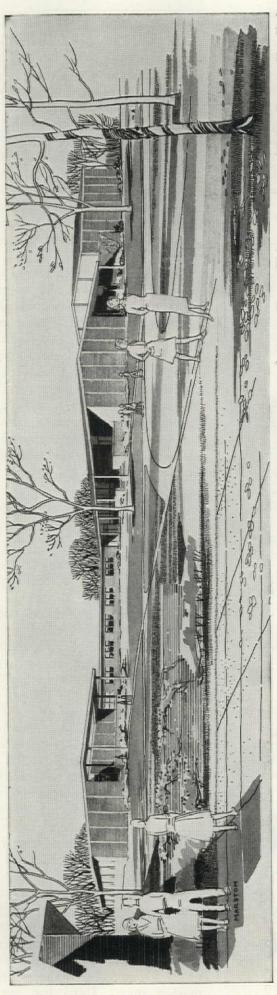


Send for your copy of American's ARCHITECT'S REFERENCE GUIDE showing our complete line of laundry equipment.

The American Laundry Machinery Company, Cincinnati 12, Ohio

You can expect more from





View looking toward the Chestnut Hill Elementary School. Architects: Sargent, Webster, Crenshaw and Folley, Syracuse, New York

LIVERPOOL SCHOOLS COST 18.6% LESS WITH STRAN-STEEL FRAMING

By using lightweight Stran-Steel framing for construction of the new Chestnut Hill elementary and junior high schools, the school board of Liverpool, N. Y., saved \$286,361 over median cost figures for the state of New York.

Savings were achieved through these basic design and construction innovations, combined with material and labor saving economies:

- framework was assembled from standard lengths of joists, channels and studs. One-floor design using Stran-Steel framework, site-fabricated. Complete steel
- The nailable feature of Stran-Steel framing for low-cost finishing. Collateral materials were nailed directly to framework by carpenters.

These schools are in a northern climatic area requiring fully insulated buildings and complete heating systems. Proportional savings can be obtained with Stran-Steel in less costly schools in milder climates as well

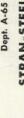
CHESTNUT HILL ELEMENTARY SCHOOL

Designed for 600 students. There are 21 regular classrooms, a cafeteria seating 200 also used as an assembly room, a library, a music room, two guidance rooms, a two-station gym-playroom with changing rooms and showers. Also, an administrative suite, a conference room and lounge for the teaching staff, a service area and a complete kitchen. Total: 50,028 square feet.

CHESTNUT HILL JUNIOR HIGH SCHOOL

Also designed for 600 students. There are 20 regular classrooms, a cafeteria-assembly room, a library, a home-making suite of two classrooms, two industrial arts shops, one art room and a large separate double gymnasium. It also has administrative and teacher facilities similar to the elementary school, two service rooms and a complete kitchen. Total: 55,835 square feet.

Just send the coupon for more information on how Stran-Steel architectural products can save your clients money on their next school construction job.



STRAN-STEEL CORPORATION Detroit 29, Michigan • Division of

NATIONAL STEEL CORPORATION

orgonia Fores	bout school ral products.		1				
Dept. A-65	Please send me more information about school design utilizing Stran-Steel architectural products.				THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON A		State
Stran-Steel Corporation, Dept. A-65 Detroit 29, Michigan	send me more			,y			
Stran-Ste Detroit 2	Please s design u	Name	Title	Company	Address	Phone	City

FHA and URA frequently disagree on land prices. That is, FHA might find a given project won't support rentals needed to jibe with the price of land as set by URA. A redeveloper would then be forced either to buy the FHA formula—meaning heavier investment for him and possibly less income through lower rents—or back out altogether, which

some redevelopers have done when FHA valuations were lower than what was paid. Because of these procedures and other restrictive terms imposed by FHA early in the game, there were few developers in urban renewal, and, say many city officials, there are still too few. So far, a relative handful of large developers, who, as one of them re-

cently said, "are poets and philosophers more than businessmen," have spearheaded the urban rerewal program. There are signs of awakening interest by smaller developers and by some other large operators, but until this becomes a reality, the program is bound to suffer. "FHA still has to prove it will give me a square shake—and not come back at me five years later with a club in its hand—before I get into urban renewal," was the comment of one big builder.

Capital, too, has been scared away from urban renewal. At a recent conference, one experienced urban renewal hand cited "government attitudes, procedures and inflation" as the three biggest factors keeping private capital out of urban renewal. Like many others, he sees, as a possible source of future capital, the establishment of private development foundations or corporations which will set up revolving funds to finance developers.

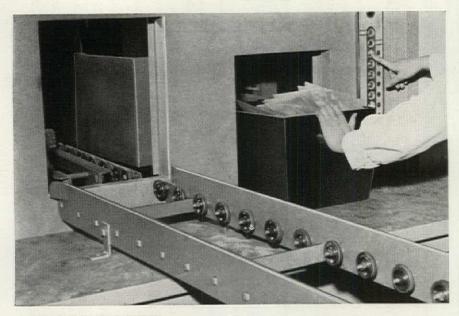
A death step pace

The federal urban renewal program has not, as some critics have charged, been a failure. Mayors, city planners, redevelopment officials and federal administrators are all enthusiastic about the program. The cities, reluctant at first to become partners with the federal government in such a complex undertaking, now are its fiercest supporters. In recent months, they say, they have seen the first signs of coming success on a fairly broad scale.

There are two reasons why urban renewal has been so vulnerable to criticism: 1) the HHFA-URA people administering the program have not yet been able to transmit their own enthusiasm to other, more influential, federal officials who feel that the program is relatively unimportant; 2) the program has been agonizingly slow.

No one, not even the most fervent urban renewal supporter, can deny that the program has moved at death-step pace. Not long ago a planner said: "Our cities are still wearing out faster than we are replacing them. Until you see the

continued on p. 242



RECORDLIFT speeds important papers floor-to-floor automatically

If you have an office building job on the board — read this

HERE'S the perfect answer to inter-floor handling problems in modern multi-story buildings. This STANDARD conveying system can distribute tons of mail, supplies and business papers every day—quickly and safely.

RECORDLIFT convenience and speed permit the uninterrupted coordination of related departments, regardless of their location. Containers can be sent to any floor in just a few minutes. And because of its simplicity and push-button control, the RECORDLIFT can be easily operated by anyone.

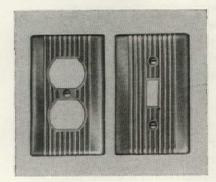
For complete details on cur-

rent RECORDLIFT installations, contact STANDARD CONVEYOR COMPANY, General Office: North St. Paul 9, Minnesota. Sales and Service in Principal Cities.

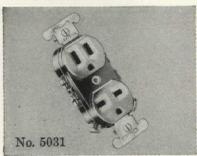


PRODUCT NEWS

New Leviton Wall Plates Have Clean Line Design



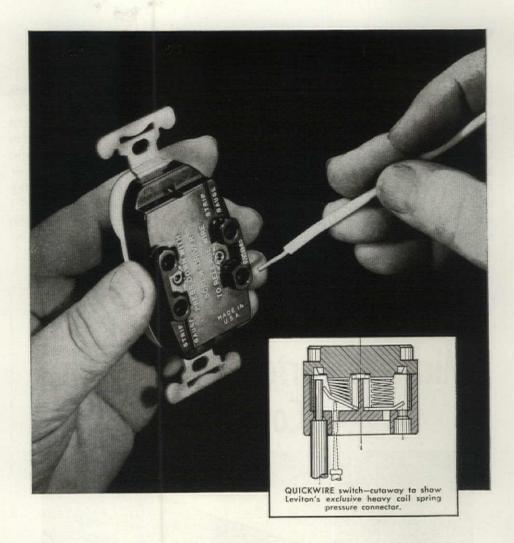
In step with today's trend toward clean, functional design, the new Leviton wall plates are smartly styled to complement any decorative scheme. Molded in rich brown phenolic or gleaming ivory plastic, these distinctive low relief design wall plates eliminate dust collecting problems . . . wipe clean in a jiffy. Complete range in 1, 2, 3, and 4-gang plates, with combinations to meet all wiring installations. Also available for Interchangeable Series Devices. Individually packed in cellophane together with necessary mounting screws. Meet NEC and Federal specifications.



New U-ground Devices Added to Leviton Line

Among the many new items constantly being added to the U-ground line of Leviton specification grade devices are the duplex outlet combinations with parallel and tandem slots. These combinations are particularly applicable where 125V and 250V is required at one outlet. For use with air conditioners, portable power tools, washers and dryers. New and also available are single pole switch and U-ground outlet combinations. Meet all Federal specifications. Listed by U.L.

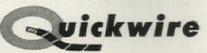
For complete information write Leviton Manufacturing Company, Inc., Brooklyn 22, New York.



EASILY THE BEST!

- Quick and easy installations are done best with

NEW LEVITON



spring type, screwless terminal switches and receptacles.

QUICK — because there are no wire loops to make, no screws to loosen and tighten. EASY — because you simply strip the wire and push it into hole. BEST — because Leviton's **exclusive** heavy coil spring connector holds the wire in place firmly, making permanent contact. To release, simply insert a screwdriver into the release hole.

You save time, money, labor costs when you use QUICKWIRE spring lock switches and receptacles. Simple, easy-to-read instructions are molded into the Bakelite on each device. Deeply recessed wire wells prevent exposure of bare wire. Fully enclosed housing, plaster ears, and handy strip gauge marking on each device.

QUICKWIRE receptacles are available in brown or ivory phenolic. Switches have either brown or ivory toggles and the same famous Leviton switch mechanism — known for service and dependability the world over. And both devices meet UL, CSA and Federal Specifications, of course.

Your best jobs are done with

For full information write:

LEVITON MANUFACTURING COMPANY . BROOKLYN 22, N. Y.

Chicago • Los Angeles • Leviton (Canada) Limited, Montreal
For Best Results Use Wire By AMERICAN INSULATED WIRE CORPORATION

opposite of that, we are not winning. We are merely receding slower." Steiner himself, now URA Commissioner, said earlier this year: "I think we have made tremendous gains in techniques and mechanisms. I think we still have to see most of the accomplishment. As of now, we have had a very helpful experimental program."

There are currently capital grant reservations and contracts outstanding for 435 slum clearance and urban renewal projects in 265 cities in 33 states, the District of Columbia, Hawaii, Alaska and Puerto Rico. (Ten states still have no enabling legislation for urban renewal.) Roughly one-third of all capital grant money has so far been re-

served for projects in four cities: New York, Chicago, Washington and Philadelphia. The Treasury has disbursed to date only \$95 million of the \$895 million in capital grants reserved.

So far, 122 projects have been abandoned by communities, mostly because of the inability to finance them, changes of local administration, too much local opposition or because of court action.

Four projects have been physically completed: in Philadelphia, New York, Baltimore and Manchester, N. H. Another 181 are approved for execution and 254 are in the planning stage.

To many observers, this is a disappointingly small achievement. It is true, as URA Commissioner Steiner says, that so far the big gains have been in "techniques and mechanisms." But it has been the techniques and mechanisms that have stalled the program for so long. Nothing has so heartened urban renewal advocates as the signs that, in recent months, some significant changes in these techniques have been made to further the progress of the program.

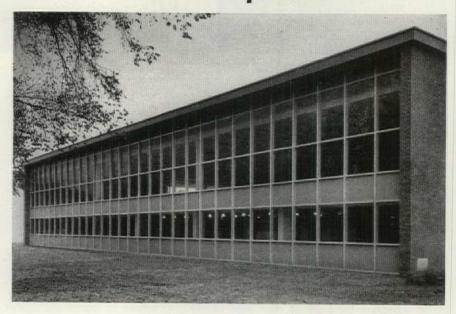
Needed: continuity and faith

Many of the problems in federal handling of urban renewal have been overcome by either the agencies themselves or by Congress. FHA seems to have shaken free of its "windfall paralysis" and, in the past year or so, has taken many steps to speed up the renewal process. URA is now pushing for a clarification of its own procedures, and is in the process of giving its regional offices more authority so they will not have to forward so much detail to Washington. However, at present duplicate reviews of the regional and Washington offices are frequent.

But those who are doing the shirtsleeve work in urban renewal—the architects, planners, builders and government officials—believe there are limits to what can be done through administrative patchwork. Urban renewal is now at a cross-roads. It has emerged from its experimental stage, and its future

continued on p. 244

FROM START TO FINISH Michaels Curtain Wall Service is Complete



Michaels has the know-how and facilities to detail, produce and install porcelain enameled steel, stainless steel, aluminum or bronze curtain walls. One typical example is illustrated, the University of Louisville library building now under construction.

With Michaels Curtain Wall Systems, construction is faster and less costly. Curtain walls are insulated, weathertight, and will give you a lifetime of service.

In addition to curtain wall systems, Michaels manufactures many architectural metal building products in stainless steel, aluminum and bronze. We believe it will be to your advantage to contact Michaels on your next project. For additional information, look in Sweet's.

MICHAELS PRODUCTS Architectural Metal - Curtain Walls - Tablets Reversible Windows - "Time-Tight" Exhibit Cases - Memorials

THE MICHAELS ART BRONZE COMPANY, INC. P.O. BOX 668-F - COVINGTON, KENTUCKY

Experts in Metal Fabrications Since 1870



All hardware of aluminum and stainless steel

Talk about quality and economy! To withstand years of everyday use, ravages of weather, these Pella wood windows are equipped with aluminum and stainless steel hardware. Weather-resistant, wear-resistant Pella win-

dows are "for keeps."



Full 134" wood sash. Mortise and tenonjoints provide greater gluing surface, assuring more rigid construction for longer service life. When furnished as awning-type operation, these windows are

ROLSCREEN COMPANY, Pella, Iowa
Dept. I-120
Please send helpful 20-page book, "Library of Window Ideas."

FIRM

ADDRESS

CITY

ATTENTION MR.

equipped with PELLA's exclusive GLIDE-lock,

underscreen operator at no extra cost. No

screen interference. Open wide for easy clean-

ing. Self-storing storms optional. Mail coupon.

WOOD MULTI-PURPOSE WINDOWS

TEL. NO.

STATE

must be very carefully mapped.

Perhaps the most badly needed element in urbar renewal's future is a certitude that the federal program will be a continuing one. In next year's housing legislation, say the experts, Congress, despite the President, must provide for long-term federal participation or run the risk of bogging renewal down.

On a day-to-day working basis, everyone in urban renewal makes a pitch for less red tape, fewer steps and papers to shuffle. The federal system could be examined in light of the 1953 advisory committee recommendation that all federal housing agencies "should be grouped within a single agency headed by an administrator with clear supervisory

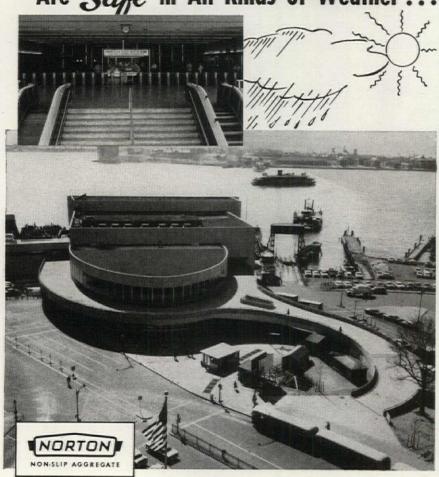
authority... relieved of direct operating responsibilities." Proposals have been made to let URA handle all the elements of urban renewal, including mortgage insurance. Urban renewal and public housing should definitely be tied more closely together, say local officials.

Also, local officials have long clamored for a land bank system, which would allow land to be cleared and kept idle, even though no one knew to what re-use it would be put. This would remove much of the pressure now on cities to plan out their cleared areas immediately even though in their over-all development, it might be better to leave certain areas cleared until the eventual best re-use is ascertained.

Some observers say that urban renewal should be the pivot for a new agency that would incorporate all multifamily housing, including mortgage insurance and public housing. The ultimate goal behind some of these proposals is the establishment of a permanent, cabinet-level Department of Urban Affairs.

Urban renewal's problems splash over into many areas. Coordination with the federal highway program, metropolitan area government and problems of social development, particularly regarding racial integration, are all vitally related to urban renewal but are seldom treated in the light of a city's redevelopment. Before the federal government can supply the sort of leadership and direction that urban redevelopment, in its many facets, needs, it must forge more effective tools. And even before such tools can be put to work, it must be demonstrated that faith in the renewal of our cities, in the cities themselves, is as strong at the federal level as it is at the local level. The federal government must demonstrate its belief in the essential future of our cities, and their vital role in the national economic and social structure. It must understand that the US is now city oriented, managed largely by urban activities and fortunes, and that the vigor of these activities will in large measure determine the vigor of our whole society.

Whitehall Ferry Terminal Walking Surfaces
Are Safe in All Kinds of Weather...

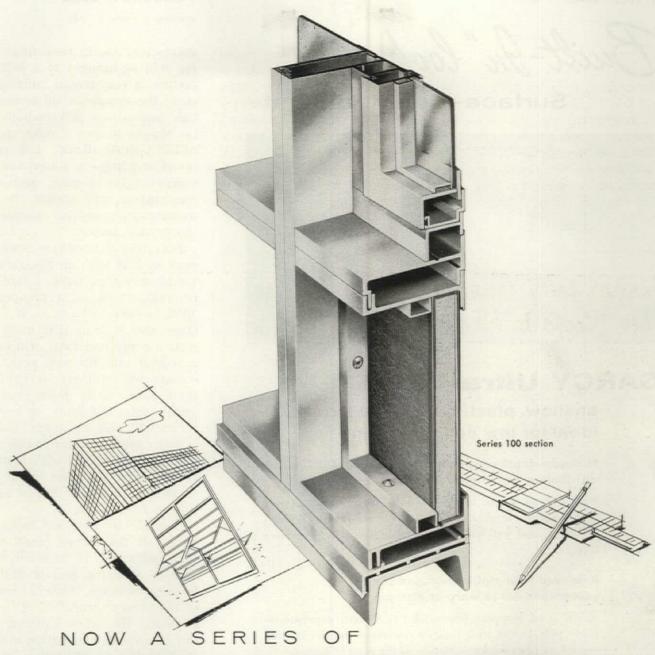


Staten Island Ferry passengers are safe from slipping hazards because of Norton ALUNDUM Aggregate. Outside ramps and platforms have been made permanently nonslip, wet or dry, and wear-resistant by ALUNDUM (C.F.) Aggregate incorporated in cement. Inside surfaces, too, have no slipping hazard because the terrazzo floor areas and stairs contain ALUNDUM Terrazzo Aggregate.

Architect — Roberts & Schaefer Co. General contractor — Frank E. Freeman, Inc. Terrazzo contractor — Ross Tile & Terrazzo Co.

See our catalog in Sweets or write for a copy of No. 1935F

* NORTON COMPANY * WORCESTER 6, MASSACHUSETTS



YOUR NEEDS FOR ENGINEERED

Four window-wall series, engineered to meet your individual requirements, have been designed by Ware engineers for structural strength, weather tightness and ease of erection.

• Series 100 and 150 4" for one and two floor

- heights.
 Series 200 Gridwall for multi-story construction.
 Series 300 4½'' Customwall for monumental multi-story construction.

Interlocking mullions on the 100, 150 and 300 series (caulking and weatherstrip rabbet on the 200 Series), eliminating leakage points, expansion and contraction taken up by unit, inside or outside bead glazing, wide variation of panel material and venting arrangement are only a few of the many features. Why not send us the requirements for your next job, today? Write Dept. AF-10.



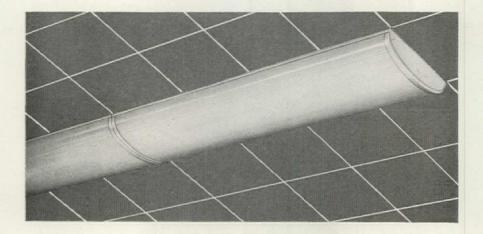




WARE LABORATORIES, INC., 3700 N.W. 25th ST., MIAMI, FLORIDA Member Producers Council; Aluminum Window Manufacturers Association

"Built-In" look ...

Surface-Mounted Cost



GARCY Ultra-Lux...

shallow, plastic enclosed fixture... ideal for low ceiling lighting

Minimum depth consistent with good light distribution and brightness control

With curved shield, unit is only 3¼" at it deepest point ... yet surface brightness is virtually uniform at all viewing angles and well within acceptable limits for glare-free comfort.

Improved light-stable extruded plastic guaranteed not to warp or discolor

Shield is of Koppers improved EVENGLO*, a premiumgrade polystyrene with built-in resistance to discoloration caused by ultra-violet radiation of fluorescent lamps.

*EVENGLO is a registered trade mark of Koppers Company, Inc.

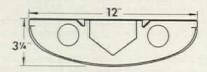
Easy to install . . . only two basic parts

Completely assembled chassis with integral end plates is light-weight, sturdy, easy to handle.

Separately cartoned one-piece shield hooks on after installation.

Easily cleaned . . . no need to remove shield from fixture

Curved shield is invisibly framed and hinged...lets down at a touch, wipes clean in seconds.



Garcy offers a complete line of lighting fixtures for commercial, institutional and display lighting.



Garden City Plating and Mfg. Co. 1736 N. Ashland Ave. • Chicago 22, Illinois In Canada: Garcy of Canada, Ltd., 1244 Dufferin Street, Toronto 4

FORECAST: 1958

continued from p. 133

spectacular sag in residential building will be brought to a halt. The decline in commercial building will ease; the expansion of nonresidential, nonbusiness private building—i.e., the whole area of religious, educational, institutional, and recreational building—will continue at a somewhat lower rate; and utility construction will remain the most important element of expansion in the private sector.

Industrial construction reached its peak in 1957 with an 8% gain over the already high level of 1956. The reversal, which is in prospect for 1958, is sure to be mild, if for no other reason than that many projects already underway will be carried over into the new year. Total outlays will still exceed 1956, and there seems little doubt that once credit eases, the drive for new factories will pick up again. Industry is under great pressure to counteract mounting labor cost with more efficient plants; that fact is far more important than the talk of saturation and overcapacity.

Commercial building appears to have felt the money pinch earlier than industrial. In addition, in the case of shopping centers and now in office buildings, there is some sign of temporary saturation. As a consequence, the office building boom can be expected to flatten out, and store building will continue to sag, though at a lessening rate as the year advances. In the absence of a serious setback in business, however, the declines are certain to be both mild and short lived. Commercial building should respond fa-

vorably to any improvement in the availability of credit.

Other nonresidential building will

continue a healthy expansion. The boom in religious buildings probably makes this the greatest church building era in history. Private school building should recover from the moderate slump which it fell into this year, and hospital building, with the help of generous research grants, should do almost as well as in 1957. This whole area, financed mainly with tax-free or tax-deductible funds, is relatively insulated from

continued on p. 248

it's RIXSON

throughout

AT LASALLE HIGH SCHOOL



nearly 400 doors pivotal hung offset style . . . an achievement in modern uniformity

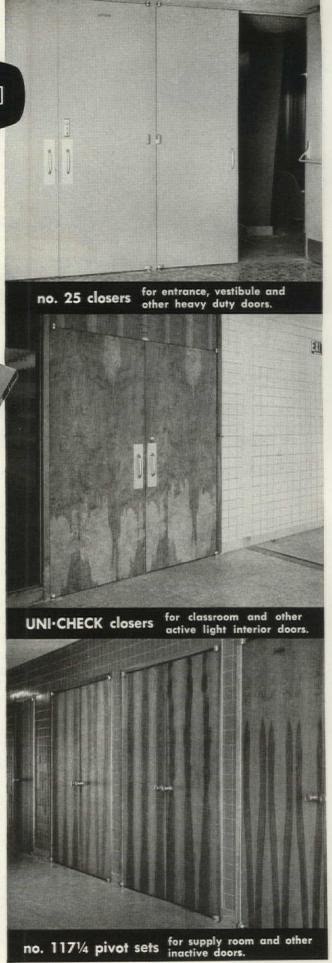
In keeping with the contemporary design of this outstandingly well planned high school, all of the doors have a uniform simplicity in hanging style. Regardless of the door's function or size, a suitable offset style RIXSON floor type closer or pivot set was specified. Many more RIXSON offset style closers and pivot sets are available for doors ranging from the heaviest lead lined x-ray room door to the lightest interior door. And with each, a variety of top and side jamb pivots for varying problems in construction and material.

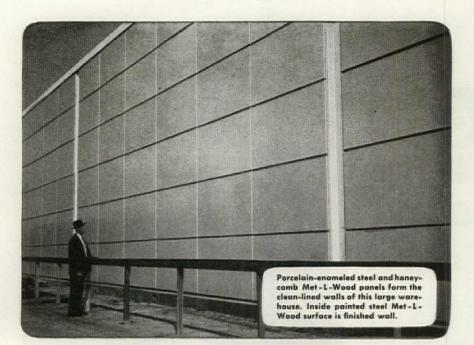
write for details and templates of offset type closers

THE OSCAR C. RIXSON COMPANY

9100 west belmont avenue • franklin park, ill.

CANADIAN PLANT: 43 racine rd. • rexdale, ontario





IET-L-WO

CURTAIN WALLS COMBINE

Design Leeway

Low Finishing Costs

Fast Installation Minimum Upkeep

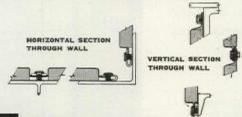
From architect to occupant, everyone connected with use of Met-L-Wood curtain walls has good reason to be pleased with the results. The porcelain enamelhoneycomb panels shown above are only one combination in a wide variety of surface and core materials available in Met-L-Wood.

All Met-L-Wood curtain wall panels are designed for quick, permanent installation and finishing. Upkeep costs depend on the finish - nil where porcelain enamel or stainless steel is used; occasional painting on bonderized steel or aluminum surfaces.

A new Bulletin-No. 522-describes Met-L-Wood in detail, tells how you can get exactly the type of structural Met-L-Wood to fit your needs. Write for it today: Met-L-Wood Bulletin 522.

MET-L-WOOD CORPORATION 6755 West 65th Street Chicago 38, Illinois

TYPICAL JOINTS FOR PORCELAIN ENAMEL PANELS



STRONG DURABLE LIGHTWEIGHT

FORECAST: 1958 cont'd.

conditions in the money market. It is, however, sensitive to cost, and the rise in cost undoubtedly accounts for a slightly reduced tempo in 1958.

Utility construction is another area which will grow despite the tightness of money. Faced with accumulated demands from the suburban explosion, and the unprecedented industrial and commercial expansion, utilities have little choice but to expand, irrespective of cost. High interest rates may lend a tone of caution, but no more. As usual, from 5 to 10% of the total utility expenditure will go into the construction of actual buildings.

Private residential building presents the greatest anomaly of the coming year. Despite the relatively low volume in prospect, there is little question that the demand for housing is increasing and is now actually ahead of production. Nonfarm household formation appears to be considerably higher than has been widely assumed; the pressure of increasing family size continues; vacancies have been declining, and purchasing power increasing.

Counteracting these favorable forces has been a marked upward shift in house prices, which unquestionably has had some deterring effect, especially when combined with the difficulty of purchasing houses with low down payments. The big factors, however, have been the near extinction of the VA loan guaranty program through congressional refusal to permit an effective interest rate, and the crippling of FHA activity by the addition of discount control to interest rate control, and by the setting of a yield pattern that is plainly unappealing to investors. In looking ahead, it may be assumed that either administrative action or changes in the money market will bring a better balance between yields on insured mortgages and those on other investments-a balance that will at least keep housebuilding at today's level.

Apartment construction, in terms of the trend, has fared better than the building of houses for sale. Of the probable 950,000 new dwelling units started in 1957, about 100,000

continued on p. 250

Sales Engineers

ALBANY, N. Y.: Frank J. Spath ATLANTA, GA.: °F. B. Hamilton, G. F. Reeves, B. D. Granger

BALTIMORE, MD.: F. P. Bauer, E.

BETHLEHEM, PA.: H. L. McGrath BIRMINGHAM, ALA.: J. D. Fetter-man, Martin Elf, P. A. Hamilton

BOSTON, MASS.: "R. J. Butze, J. A. Bowen, W. G. Hawley, Frank Dane, Robert Walker

BUFFALO, N. Y.: R. H. Mansfield, C. R. Eyer, Raymond Frenz

BURLINGTON, VT.: Vermont Engr. & Supply Co.

CHARLESTON, W. VA.: Fireproof Products Co.

CHARLOTTE, N. C.: Edwin C. Boyette & Son

CHICAGO, ILL.: E. G. Hart, John Wismar, K. R. Cox, R. M. Stodgell, Andrew Ewing

CINCINNATI, OHIO: "H. P. Hawkes,

CLEVELAND, OHIO: R. B. Parker, R. J. Moorman, George Trimble, J. G. Gilliland, Laird Becker

COLUMBUS, OHIO: George Klein, H. B. Groetzinger

CORAL GABLES, FLA.: Ed Henderson DALLAS, TEXAS: G. G. Gables, G. W.

DAVENPORT, IOWA: J. L. Griffith DAYTON, OHIO: John MacLeod

DENVER, COLO.: Paul R. Spencer &

DETROIT, MICH.: °W. B. Commons, L. R. Hendrickson, D. D. Snavely, David Clymer

EL PASO, TEXAS: Derbyshiré Steel Co.

FRESNO, CALIF.: Healey & Popovich

GARDEN CITY, N. Y.: D. D. Robinson GLEN BURNIE, MD.: Jack Vermeire

GREENVILLE, S. C.: R. H. Wade

HAMDEN, CONN.: H. J. Keally

HARRISBURG, PA.: D. A. Carlson

HOUSTON, TEXAS: C. A. Pickett, John Hodgson, M. H. Miller

INDIANAPOLIS, IND.: A. M. Alexander, H. E. Peters

JACKSONVILLE, FLA.: L. W. von Hofen, Theodore Stone, O. P. Luetscher

JOHNSTOWN, PA.: A. H. Cook

KANSAS CITY, MO.: °D. A. Sandberg, C. M. Hall KENMORE, N. Y.: A. J. Grenier

LANSING, MICH.: J. H. Stephen

LONG BEACH, CALIF.: J. W. Verholtz

LOS ANGELES, CALIF.: °J. T. Beals, W. G. Aspy, John Killeen

LUBBOCK, TEXAS: E. P. Taylor

MANHATTAN, N. Y.: °R. A. Finlayson, W. M. Ellis, F. J. Frei, R. M. Kramer, Samuel Anthony, A. J. Derringer, J. D. Hegeman, P. W. Blanchard, Ronald Gebhardt, Edward Binder, N. J. Pennachio, Warren Landolt

MILWAUKEE, WIS .: C. C. Banholzer MINNEAPOLIS, MINN.: E. R. Deegan,

MORGANTOWN, W. VA.: E. W. Riley NASHVILLE, TENN.: John W. McDougall

NEWARK, N. J.: °T. H. Trimble, R. W. Danis, C. M. Haag

NEW ORLEANS, LA.: R. E. Johnson

this list certainly shows that you will always have plenty of technical assistance when Robertson products are specified.



OKLAHOMA CITY, OKLA.: Wayne Startzell

OMAHA, NEB.: D. S. Gaeth PHILADELPHIA, PA.: T. J. Taylor, H. V. Mount, A. V. Dolan, Lingan Deitrick, Patrick Law

PITTSBURGH, PA.: M. G. Eighmy, R. P. Goldsbury, C. K. Hertrick, W. C. Brennan, A. F. Giles, David Horning, W. B. Marshall

PLATTSBURG, N. Y.: Vermont Engr. & Supply Co.

PEORIA, ILL.: J. G. Jacobs

RICHMOND, VA.: T. E. Hunter

ROCHESTER, N. Y.: S. T. Hyde

ST. LOUIS, MO.: "J. C. Combs, J. Pantukoff, Richard Wagner

SALT LAKE CITY, UTAH: Paul R. Spencer & Co.

SAN FRANCISCO, CALIF.: °T. E. Newman, R. S. Heilman, J. J. O'Connor SCRANTON, PA.: R. E. Brooks

SEATTLE, WASH.: "D. R. Aldrich, E. A. Olsen

SOUTH BEND, IND.: D. W. Collette SHREVEPORT, LA.: J. B. Smoak

SYRACUSE, N. Y.: F. J. Ludwick

TOLEDO, OHIO: John Hilton

WASHINGTON, D. C.: "Martin Mac-key, P. S. Hudnell, Gen. St. Clair key, P. Streett WHIPPANY, N. J.: Frank Vandeputte

WILMINGTON, DEL.: J. C. Waizen-

WOLFEBORO, N. H.: K. B. King YOUNGSTOWN, OHIO: H. B. Jacobs

District Manager

Qualified Service Dealers

ALEXANDRIA, LA., Flynn Building Specialties Inc.

ALLENTOWN, PA., Allentown Roofing & Sheet Metal Co.

BALTIMORE, MD., The Fingles Com-

BOISE, IDAHO, Gate City Steel, Inc. BOSTON, MASS., Atlantic Roofing & Skylight Works

BUFFALO, N. Y., Arrow Roofing & Sheet Metal Works, Inc.

CHICAGO, ILL., Sykes Sheet Metal

CINCINNATI, OHIO, Imbus Roofing

CORPUS CHRISTI, TEXAS, Sechrist-Hall Company

DALLAS, TEXAS, Southwestern Sheet Metal & Mfg. Co. Inc.

DAYTON, OHIO, The Charles Wuichet Company

DECATUR, ILL., Mississippi Valley Structural Steel Co.

DULUTH, MINN., Walker Jamar Co. EAST MOLINE, ILL., Johnson Sheet

EVANSVILLE, IND., U. S. Sheet Metal

FLINT, MICH., Zack, Inc.

FORT WAYNE, IND., C. L. Schust

FORT WORTH, TEXAS, Lydick Roofing

GRAND RAPIDS, MICH., Haven-Busch HARLINGEN, TEXAS, Sechrist-Hall

HOUSTON, TEXAS, Jamar-Olmen Con-HOUSTON, TEXAS, Metallic Building

INDIANAPOLIS, IND., General Asbestos & Supply Co.

JERSEY CITY, N. J., Jacob Ringle &

JOPLIN, MO., Ozark Engineering Company

KANSAS CITY, MO., Jamar-Olmen Construction Co.

LITTLE ROCK, ARK., Arkansas Foun-LONG ISLAND CITY, N. Y., A. Munder

LOS ANGELES, CALIF., George S.

LOS ANGELES, CALIF., Metal Fabri-

LOUISVILLE, KY., J. F. Wagner's Sons

MELROSE PARK, ILL., Jamar-Olmen

MERIDEN, CONN., G. R. Cummings

MILWAUKEE, WIS., Reinke & Scho-

MINNEAPOLIS, MINN., Crown Iron Works Company

MUNCIE, IND., Indiana Bridge Co. NEW ORLEANS, LA., Holzer Sheet Metal Wks.

OKLAHOMA CITY, OKLA., Bissell Builders Supply Company

OMAHA, NEB., Olson Bros., Inc.

PERTH AMBOY, N. J., Chris Andersen Erecting Co.

PHILADELPHIA, PA., Wm. C. Kulzer

PHOENIX, ARIZ., Allison Steel Mfg.

PORTLAND, ORE., Portland Wire & Iron Works

PORTSMOUTH, VA., Craddock Sheet Metal & Roofing Co.

QUINCY, ILL., Michelmann Steel Const. Co.

ST. LOUIS, MO., Mississippi Valley Struct. Steel Co.

ST. LOUIS, MO., Stupp Bros. Bridge

SAN DIEGO, CALIF., Chambers Steel

SAN FRANCISCO, CALIF., The Brook-

SAN FRANCISCO, CALIF., Mitchell Steel Inc.

SEATTLE, WASH., Leckenby Struct. Steel Co.

SHREVEPORT, LA., H. H. Bain Co.

SPRINGFIELD, MO., Paul Mueller

SYRACUSE, N. Y., Joseph Cashier &

TERRE HAUTE, IND., Hartmann Com-

TRENTON, N. J., R. A. Steelman

TULSA, OKLA., Bissell Builders Sup-VICTORIA, TEXAS, Sechrist-Hall Co.

WILMINGTON, DEL., James Cullen WILMINGTON, DEL., Union Whole-

Robertson **Products**

Q-FLOOR—the original structural sub-floor with electrical availability.

Q-DECK-steel roof deck to meet every span and load requirement.

Q-PANELS—an insulated wall-building unit with architectural beauty.

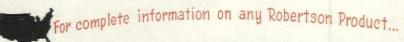
GALBESTOS—the improved protected metal roofing and siding now available in attractive colors.

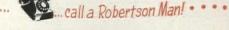
DAYLIGHTING-Puttyless, leakproof industrial skylights and sash. VENTILATORS—gravity or power type for every ventilation need.

VERSATILE WALL—a curtain wall as individual as your signature.

PORCELAIN ENAMEL ARCHITECTURAL PRODUCTS—many colors on aluminum or steel.

STYPOLS AND COATINGS—polyes-ter resins and corrosion-resistant paints.





H. H. Robertson Company

2403 FARMERS BANK BLDG. . PITTSBURGH 22, PA.

will be in multifamily structures (three or more families) with a large part of them cooperatives. At least the same number can be expected in 1958, and should a more attractive yield be permitted for insured mortgages on rental property, a marked gain would be certain. The advancement of urban renewal provides a strong incentive once financing conditions improve.

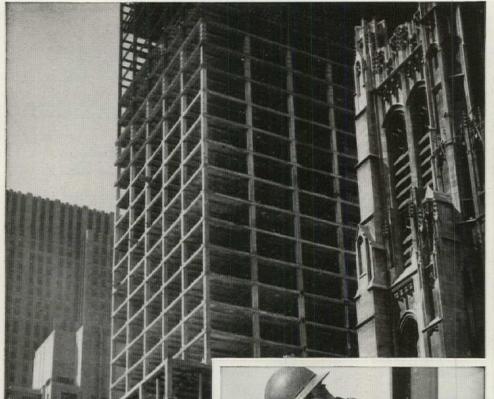
Finance will also be a key element in motel building. Construction will get increased impetus from the advancement of the highway program. But credit problems are likely to hold it to about its present level. Meanwhile, college dormitory building, aided by federal loans, will move merrily ahead.

On the whole, the stable rate of private construction that is expected in 1958 represents a pause for necessary adjustments of activity to the availability of financial resources and to such obstacles as cost. Generally, underlying demand throughout the private sector is either strong or certain quickly to regain strength. And while the construction industry cannot increase the supply of savings, it can produce economies, which is another way of accomplishing the same thing. If it is to remain vigorous, it will have to do this. And it will have to sell hard.

Public construction, for its share, will more than make up for the slight fall-off in private activity. As it has for 11 years now, government spending will go on to a new high. Not only that, but the gains will be spread consistently throughout the whole range of activity (about 78% of government construction will be contracted for by state and local bodies). The only negative elements in 1958 will be public housing and military construction.

Industrial construction, under the impetus of an enlarged atomic energy program, will continue the expansion that started up again in 1956. School building, despite high interest rates and the refusal of Congress to increase federal aid for education, will be pressured by population growth to a new high (the

continued on p. 252





Tishman Building, 666 Fifth Avenue, New York. Carson and Lundin, Architects; F. H. Sparks, erector.



CURTAIN WALL ANCHOR

RAMSET THREADED FASTENER

SPANDREL BEAM

O O O O O

CONCRETE
FLOGR
SLAB

Foreman checks curtain wall anchor bolted to RAMSET stud set in structural steel beam.

Fastening detail shows how RAMSET threaded fastener holds curtain wall anchor firmly in position.

Ramset'

helps skeleton don skin . . . in a hurry!

This skeleton was ready for its curtain wall exterior ahead of schedule. The steel flanges to which curtain walls are attached, were fastened to the beams with RAMSET powder-actuated fasteners . . . 15 times faster than old-style methods, because RAMSET eliminates pre-drilling! Says the erector, "RAMSET is the most satisfactory and economical method of setting curtain wall brackets for collateral steel work."

For complete details about RAMSET for your uses, ask for new catalog and AIA file, now ready.



Ramset Fastening System

WINCHESTER-WESTERN DIVISION OLIN MATHIESON CHEMICAL CORPORATION

12157-J BEREA ROAD

CLEVELAND 11, OHIO

The BEAUTY of

Grinnell





Ceiling Sprinklers

By planning your fire protection in the blueprint stage, you not only get the most efficient protection, but a system that *harmonizes* with interiors.

Because the Grinnell Ceiling Sprinkler protrudes only 1 inch below the ceiling and is available in a variety of finishes and colors, it is the ideal sprinkler for offices, shops, stores, restaurants, lounges, country clubs. It gives reliable, unobtrusive fire protection.

Grinnell Company, Inc., Providence, Rhode Island—manufacturing, engineering and installation of automatic sprinklers since 1878.



New Guide for Architects 1958 edition just off the press!

252 pages of complete data on office desks, chairs, filing cabinets and Fire-File equipment which eliminates need for record vaults.

A valuable aid in planning offices for factories, office buildings, schools, banks or public buildings. Dimensions, space requirements, descriptions, prices, and hundreds of illustrations, many in full color. Contains many useful ideas developed by Shaw-Walker's famous "Time-Engineering" principles which save space, time, steps, make work easier.

Free to Architects, Designers, Purchasing and Office Executives. Please request on business letterhead.

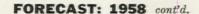




SHAW-WALKER

ctories and Home Office—Muskegon 37, Mich. Largest Exclusive Makers of Office Furniture and Filing Equipment in the World





rate of advance, however, may be somewhat slower). So will hospital and institutional building, which started a new uptrend in 1957.

Administrative building, for both the federal and local governments.

the federal and local governments, should show a slight climb in 1958, though the lapse of the lease-purchase plan for federal buildings will slow the rate of gain. Against this, government residential building will sag, partly because of a slowing down of the federally subsidized local authority program, and partly because of a more circumspect scheduling of new housing for military personnel under Title VIII of the National Housing Act. Military facilities, which was the only minus area in the 1957 range, will be off too, reflecting the now serious effort to curtail government expenditures.

The highway program will move ahead during 1958 in much more tangible form than in 1957. Many of the initial problems of organization, site acquisition, and engineering have been sufficiently solved to assure a substantial set-up of expenditures for construction materials and labor in the coming year. But even with the large increase foreseen for 1958, the program will still be behind schedule. The biggest years in highway volume, and in the influence of the highway program on other kinds of construction, are yet to come.

In view of the gains to be made in government activities, the total volume of construction will be well sustained. Since many local projects have been deferred or stretched out. because of the problems of cost and money, even greater volumes of public works may be counted on in the future. School building-with emphasis gradually changing from elementary schools to secondary schools and colleges-will be a big item indefinitely. The highway program has no more than begun, and the stimulus it will exert on private, as well as public construction will continue through the next decade and a half. The same long-range potentials exist for sewer and water installations.

Whether viewed in total or as continued on p. 254



ADVANCE

Offers
The World's
Most Complete
Line of
Quality
Fluorescent
Lamp Ballasts



Through outstanding engineering developments and modern manufacturing facilities, ADVANCE TRANSFORMER COMPANY has become the world's largest manufacturer devoted exclusively to the production of quality fluorescent lamp ballasts. These precision built, power regulating instruments supply exacting amounts of electrical energy for the efficient operation of all fluorescent lamps and are aptly called "THE HEART OF THE LIGHTING INDUSTRY."

Continuing research and constant new developments in both engineering and manufacturing divisions have made possible the introduction of many new ballasts with exclusive patented features. Thus, ADVANCE provides lighting equipment manufacturers, designers, architects, engineers, contractors and other fluorescent lamp ballast users the world's most extensive line of fluorescent lamp ballasts. When you use ADVANCE, there is a ballast for every specific purpose, never a need to compromise.

ADVANCE ballasts are listed by Underwriters' Laboratories, Inc., meet the Canadian Standards Association requirements and many meet or exceed Certified Ballast Manufacturers' specifications. Specify ADVANCE to be sure to get the ballasts with the "plus factors" that have built the world's largest company devoted exclusively to the manufacture of fluorescent lamp ballasts.

The Advance Transformer Company will replace, at no charge, any ADVANCE fluorescent lamp ballast which becomes inoperative within two years from date of manufacture, provided the conditions of ballast operation have conformed to the company's recommendations and the inoperative ballast is returned to an authorized ADVANCE Service-Stocking Distributor.

For anyone who manufactures, specifies, installs or uses fluorescent lighting, ADVANCE TRANSFORMER COMPANY has prepared helpful literature which they will gladly send without cost or obligation.



rescent Lamp Ballasts



2950 NO. WESTERN AVE. CHICAGO 18, ILL. U.S.A.

Fluorescent Lamp Ballast Buyer's Guide

This eight-page brochure gives data on the world's most complete line of Fluorescent Lamp Ballasts. It includes specifications, wattage, watt loss, circuit voltage, dimensions, weight, etc. This brochure is an invaluable aid for specifiers and users of fluorescent lamp ballasts.

Fluorescent Lamp Ballast Cross Reference Guide

This helpful guide lists many popular ballasts by catalog number and the ADVANCE ballast that should be used whenever ballast replacement becomes necessary. It is an invaluable reference chart that saves time and money for all users of fluorescent lamp ballasts,

Service-Stocking Distributor Plan and List of Distributors

This is a six-page color brochure that lists, by city and state, more than 550 distributors who carry a stock of ADVANCE Fluorescent Lamp Ballasts, to provide immediate replacement service for ballasts of any make that become inoperative.

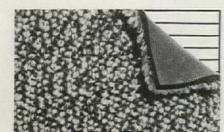
You may receive a copy of one or all of these brochures by writing ADVANCE TRANSFORMER COMPANY, Marketing Division, 2950 North Western Avenue, Chicago 18, Illinois.

The Heart of the Lighting Industry

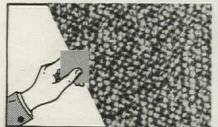


LOMA LOOM CARPETING

Should be in your specs - here's why:



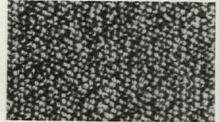
It can be laid on concrete or sub flooring



2 It can be color matched to your swatch



It has its sponge rubber cushion built-in



4 It is made of wool and nylon for longer wear

Our selling agents will be pleased to send you samples and prices...you'll be pleased to find Loma Loom costs no more than ordinary carpeting.

SELLING AGENT:

Weil Bros. Textiles, Inc., Box F-3, One Park Ave., N. Y. 16

LOMA LOOM MANUFACTURED BY

SIDNEY BLUMENTHAL & COMPANY, Inc., New York, N.Y.

LOMA LOOM, THE ORIGINAL CARPET WITH THE BUILT-IN SPONGE RUBBER CUSHION

FORECAST: 1958 cont'd.

individual items, the construction estimates for 1958, public and private, seem conservative. In most instances, lower results are likely only in the case of a slump in business and this does not seem likely now. While not the best building year, 1958 adds up to an impressive total, a total that conceivably could turn out to be somewhat higher than suggested here.

New construction expenditures1 (millions of dollars)

TOTAL \$46,060 \$47,250 2.6%

1956 actu		1958 forecast	
Tun-real sale	2000		

			-		
PRIVATE TOTAL	\$33,242	\$33,100		\$33,300	+*
Nonresidential	8,817	9,300	5.5%	9,150	-1.69
Industrial	3,084	3,350	8.6	3,200	-4.5
Commercial	3,631	3,450	-5.0	3,350	-2.9
Warehouse, office, loft	1,684	1,850	9.9	1,850	0
Store, restaurant, garage	1,947	1,600	-17.8	1,500	-6.2
Other nonresidential	2,102	2,500	18.9	2,600	4.0
Religious	768	930	21.1	950	2.2
Educational	536	520	-3.0	530	1.9
Hospital and institutional	328	520	58.5	580	11.5
Social and recreational	275	320	16.4	330	3.1
Miscellaneous	195	210	7.7	210	0
Residential	17,632	16,400	-7.0	16,500	+*
New dwelling units	13,490	12,000	-11.0	12,050	+*
Additions and alterations	3,695	3,900	5.5	3,950	1.3
Nonhousekeeping ²	447	500	11.9	500	0
Farm	1,560	1,450	-7.1	1,400	-3.4
Public utilitys	5,113	5,750	12.5	6,000	4.3
All other private	120	200	66.7	250	25.0

PUBLIC TOTAL	\$12,818	\$14,150	10.4%	\$15,400	8.8%
Nonresidential	4,072	4,700	15.4	5,000	6.4
Industrial	453	550	21.4	600	9.1
Educational	2,549	2,850	11.8	3,050	7.0
Hospital and institutional	298	380	27.5	400	5.3
Administrative and service	362	470	29.8	500	6.4
Other nonresidential	410	450	9.8	450	0
Residential	292	450	54.1	420	-6.7
Military facilities*	1,395	1,250-	-10.4	1,200	-4.0
Highways	4,470	4,900	9.6	5,750	17.3
Sewer and water ⁵	1,275	1,430	12.2	1,550	8.4
Miscellaneous public service	384	400	4.2	410	2.5
Conservation and development	826	880	6.5	900	2.3
All other public	104	140	34.6	170	21.4

^{*}Less than 1%.

Sources: 1956 and 1957, US Departments of Commerce and Labor; 1958 estimated by Miles Colean.

¹ Also includes major alterations and additions.

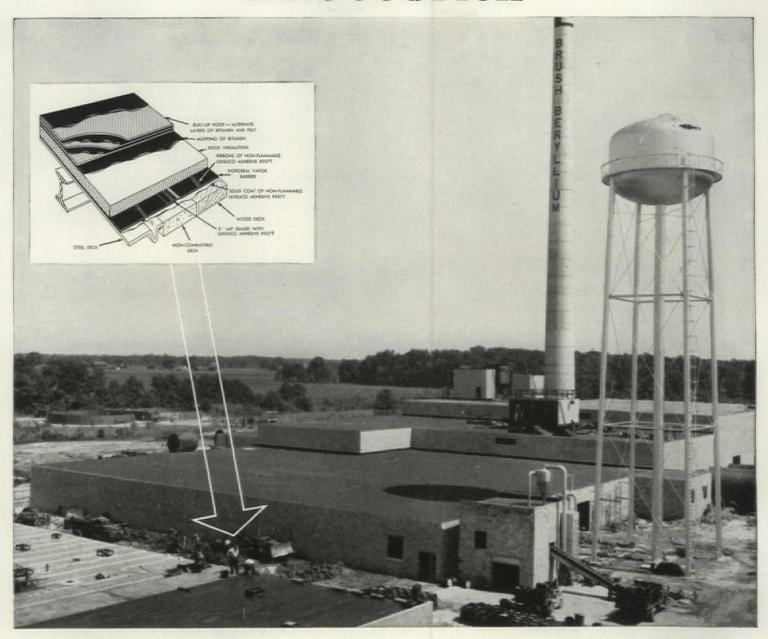
² Includes hotels, motels and dormitories.

³ Includes buildings of various types (power plants, telephone exchanges, stations, maintenance shops, warehouses, etc.) as well as power, telephone, and telegraph lines and other nonbuilding construction.

⁴ Includes mainly buildings of various types (warehouses, barracks, theaters, hangars, schools, etc.) as well as airport and other nonbuilding construction.

⁵ Includes buildings of various types (sewage plants, pump stations, etc.) as well as nonbuilding construction.

B.F.Goodrich



Lexsuco roof with Koroseal guards new metals plant against fire

When Brush Beryllium Company built its new plant in Elmore, Ohio, maximum fire protection was a key consideration. That's why the builders insisted on Lexsuco Roof Construction with Koroseal Vapor Barrier.

Lexsuco Roofing with Koroseal Vapor Barrier reduces fire danger by eliminating flammable asphaltic materials. These flammable materials are replaced with flame-resistant Koroseal Vapor Barrier secured with either Nonflammable Lexsuco Adhesive R907T or the Lexsuco Insulation Clip.

Because Lexsuco Roof Constructions with Koroseal are fire-retardant with a Factory Mutual Class 1 rating, they can often influence insurance rates and reduce sprinkler requirements, depending on building contents. Installation is simple, fast and economical.

To protect building investment against fire disaster as well as moisture damage, always specify Lexsuco Roof Constructions with Koroseal Vapor Barrier. There is no "or equal". Lexsuco is the only roof construction with metal roof deck that will not feed a fire. So why take chances on flammable construction? Insist on Lexsuco with Koroseal Vapor Barrier—a specially compounded fire retardant material made by B.F.Goodrich Industrial Products Company, Marietta, Ohio.



MARIETTA, OHIO

LEXSUCO, INCORPORATED Dept. AF-10
4815 Lexington Ave., Cleveland 3, Ohio
Please send me free informative folder on
the Lexsuco system of roof construction.

Name

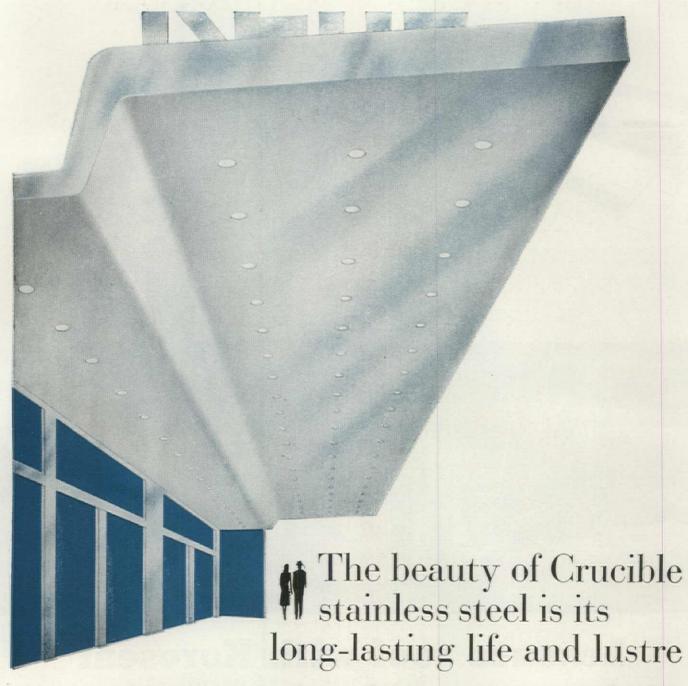
Company

Address

City

Zone

State



"Long-range economy? Can you pin-point the benefits for me?" These are questions clients often ask when you specify stainless steel. Your answers come easily and convincingly because stainless steel pays for itself in long-term economies.

For example:

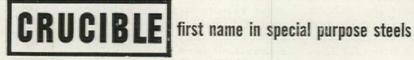
1. Stainless steel has high strength and durability, superior resistance to corrosion and weathering-qualities that assure maximum service for years to come. There'll be no replacement or refinishing costs.

2. The natural lustre of stainless steel means maintenance sav-

ings, right from the start. There's no need for finishing or coating; just occasional washing keeps this metal clean. Through the years, clients save considerable sums on cleaning time and the cost of cleaning materials.

Like more information on the economies of stainless steel? And on new design ideas? Crucible, one of the largest manufacturers of stainless steel sheet and strip, has prepared a special 20-page booklet "A Guide to Future Uses of Stainless Steel in Architecture and Building". For free copies, write:

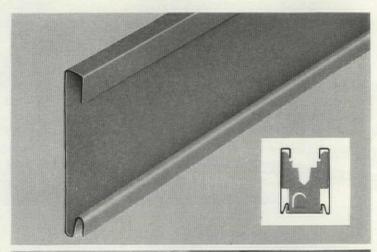
Crucible Steel Company of America, The Oliver Building, Mellon Square, Pittsburgh 22, Pa.

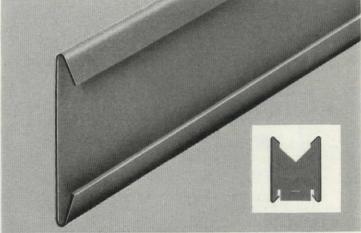


Crucible Steel Company of America

Canadian Distributor-Railway & Power Engineering Corp., Ltd.

For that CLEAN, MODERN look in any partition system specify a Gold Bond METAL BASE







SNAP-ON METAL BASE

Gold Bond's exclusive design of the base and attaching clips permits the fastest installation possible. This plastered-in flush type base is easily snapped into position and positively secured in one operation. Both top and bottom edges are locked, forming an accurate ground for plastering. Being extremely rigid, it is resistant to rough treatment which might weaken or damage plastered walls.

LOCK-ON METAL BASE

A plastered-in, flush type base that is permanently locked by a simple bending of the base clip into position. Installation is fast and it is easy to compensate for any uneven floor. Cutting and forming angles can easily be done right on the job. Completed sections give a finished trim that adds clean, modern lines to the entire wall.

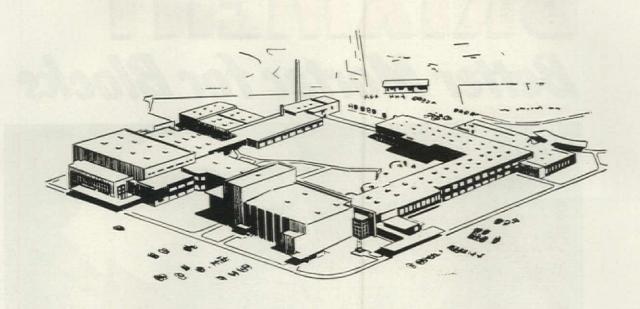
Both Gold Bond® Metal Bases perform two important jobs. They form a good looking, durable base board trim and provide an accurate plaster ground in a single operation. For complete technical details, write Dept. AF-107, National Gypsum Company, Buffalo 2, New York.

METAL LATH PRODUCTS

NATIONAL GYPSUM COMPANY







PLANNED ENVIRONMENT...

Johnson Pneumatic Temperature Control Solves the Comfort Problems of the Modern School

Impressive design, exceptionally complete educational facilities, a carefully controlled environment for student learning and development, plus integrated facilities to meet the social, recreational and cultural needs of the adult members of the community...

Success in incorporating all this in a building that was low in first cost and is easy and economical to operate and maintain makes the Northwest Classen High School* one of the most talked-about schools in the Southwest.

Designed to accommodate 2,500 students, it includes 97 teaching stations, a 1,555-seat auditorium, a 3,500-seat gymnasium, a 250-seat gymnasium, a little theatre, a social center for 500, a library, cafeteria and numerous special purpose rooms.

An essential of the school's planned environment is the accurate regulation of heat and ventilation by a Johnson Pneumatic Temperature Control System. All rooms are individually comfort controlled by Johnson Room Thermostats which direct the operation of 17 central fan systems, unit ventilators, unit heaters and direct radiation. With a Johnson Thermostat on the wall of each room, heat and ventilation are matched to usage and occupancy requirements at all times. Each of many different comfort demands can be met simultaneously.

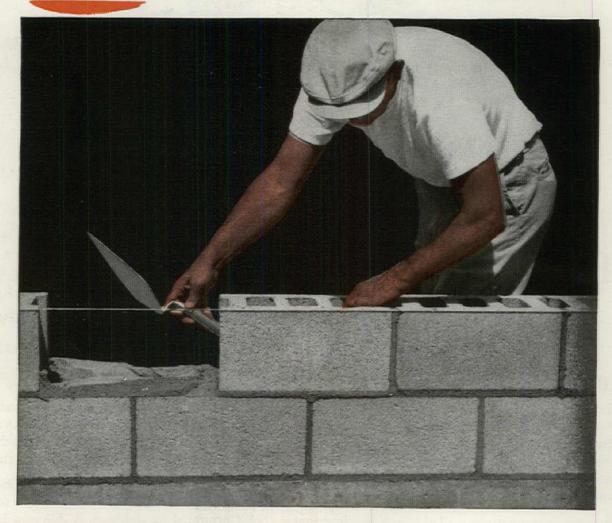
Progressive school planners everywhere find that the diversified, exacting demands of today's schools are best answered by Johnson. A Johnson Pneumatic System pays off in lower heating costs... systemwide simplicity of operation and upkeep... and the complete flexibility of control needed to produce ideal thermal conditions. Johnson Service Company, Milwaukee 1, Wisconsin. Direct Branch Offices in Principal Cities.

* Northwest Classen High School, Oklahoma City, Oklahoma. Hudgins, Thompson, Ball and Associates, architects; William J. Collins, Jr., mechanical engineer; Builders Construction Company, general contractor; White and Messer Plumbing and Heating Company, heating contractor; all of Oklahoma City.



DESIGN . MANUFACTURE . INSTALLATION . SINCE 1885

BRIXMENT Better Mortar for Blocks

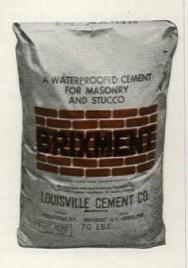


STAYS WORKABLE LONGER

To get a good bond between concrete blocks, the bricklayer must shift and adjust each block to its final position, before the mortar has stiffened.

Brixment makes it easier for the bricklayer to do this. Brixment mortar stays plastic longer in the wall because it has high water-retaining capacity, which provides greater resistance to the suction of the block. This gives the bricklayer more time to adjust and shift the block to its final position, while the mortar is still plastic enough to form a good, tight bond.

Louisville Cement Company . . . Louisville 2, Kentucky



when you know **VEMCO** there's a difference.....





Before

After

The VEMCO Drafting Machine combines all the working features of a T-square, protractor, and various scales and triangles

Speed and efficiency are lost in the shuffle, when you have to fuss and fumble over a drawing board that's cluttered up with equipment. The modern solution to that is the VEMCO Drafting Machine, which combines the working features of several pieces of drafting equipment. See your VEMCO dealer, and you'll see what a happy difference the VEMCO Drafting Machine can make in your work.

Write today for free illustrated brochure.



V. & E. Manufacturing Co.

P.O. BOX 950-M • PASADENA, CALIFORNIA Drafting Equipment of Quality

WINCO

PROJECTED WINDOWS



That's one reason these rugged, trouble-free units were specified for the modern new Metal Goods Corporation building * shown here.

Available in standard sizes or engineered to specifications.

*Architect: Syl G. Schmidt & Associates

"Not just a window...a WINCO"

WINCO VENTILATOR COMPANY . ST. LOUIS 15, MISSOURI

FOR BUILDINGS OF ALL TYPES

. . first in efficiency, economy and client satisfaction



TODD BURNERS

GAS OR OIL



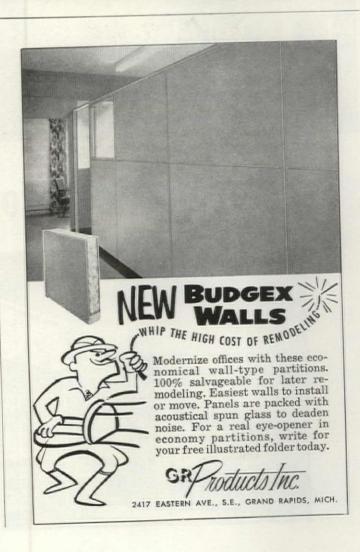
TODD SHIPYARDS CORPORATION

Headquarters: Columbia & Halleck Streets, Brooklyn 31, N. Y.

Plant:

Green's Bayou, Houston 15, Texas







America's foremost plants* feature

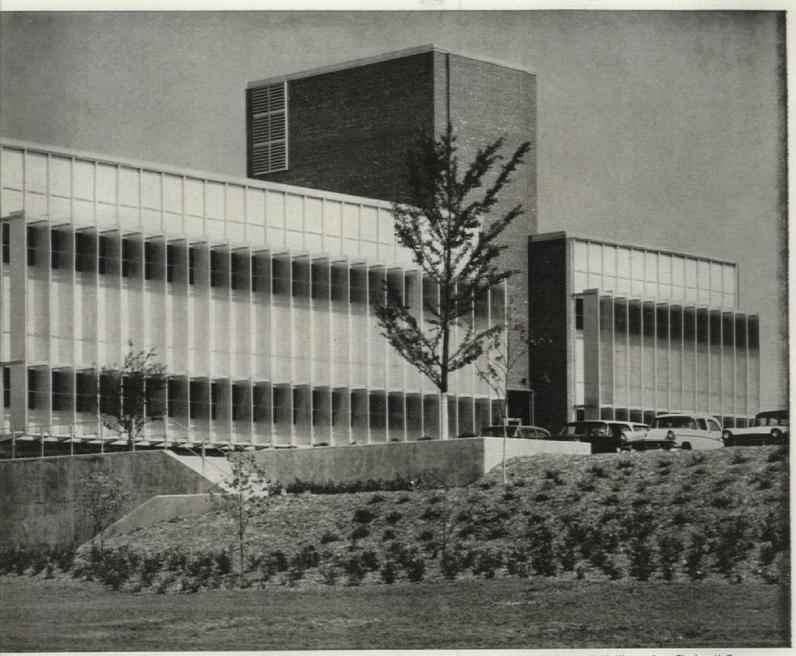


New Lambert-Hudnut plant, one of the nation's "top ten", brightens the landscape with a LUPTON Curtain-Wall System

Voted one of this country's most efficient and beautiful new industrial installations, the Lambert-Hudnut building at Lititz, Pa., makes interesting and practical use of LUPTON Aluminum Curtain Walls and Windows.

The light green porcelain-enameled spandrels of this LUPTON curtain-wall system are visually pleasing, permanently clean and attractive, and in keeping with the impeccable atmosphere desired for a proprietary-cosmetic products manufacturing plant.

In combination with the wide curtain-wall areas and the masonry construction, the use of LUPTON Aluminum Projected Windows gives the final touch of modern functional beauty to this outstanding new building. On approaching



New Lambert-Hudnut building, Lititz, Pa. Architects and Engineers: A. M. Kinney, Inc., Cincinnati, O. Contractors: Robert E. Lamb, Inc., Philadelphia, Pa. Photographs by Courtlandt V. D. Hubbard.

LUPTON metal windows and curtain walls

the Lambert-Hudnut plant, one feels that an exterior of such striking design must shelter an efficient, well-run office and production operation.

The wide range of Lupton curtain walls offers great freedom of design to the architect, low-cost installation and maintenance to the owner. And leaving the entire job to Lupton—from manufacture to erection—often effects additional benefits. If you wish, skilled Lupton crews can install custom or standard Lupton aluminum curtain-wall systems—quickly, economically. Lupton's undivided responsibility for the job assures exact compliance with your instructions.

Why not investigate the variety and economy of LUPTON Aluminum Windows and Curtain Walls? See the Michael Flynn catalogs in Sweet's (Sec. 3a and 17a), and speak with your nearest LUPTON representative (listed in the Yellow Pages under "Windows—Metal"). Or write or wire for more information.

LUPTON

ALUMINUM CURTAIN WALLS AND WINDOWS

MICHAEL FLYNN MANUFACTURING COMPANY
Main Office and Plant: 700 E. Godfrey Ave., Phila. 24, Pa.

*

Of the "top ten" plants of 1957—chosen by the Editors of Factory Management and Maintenance from nominations by leading architects and builders—three feature LUPTON curtain walls and windows: Lambert-Hudnut at Lititz, Pa.; Leeds & Northrup at North Wales, Pa.; and Owens-Corning Fiberglas at Barrington, N.J.

THE NEW ADMINISTRATION AND MORTUARY BUILDINGS OF ROSE HILLS MEMORIAL PARK SHOW

How copper alloys lend warmth and

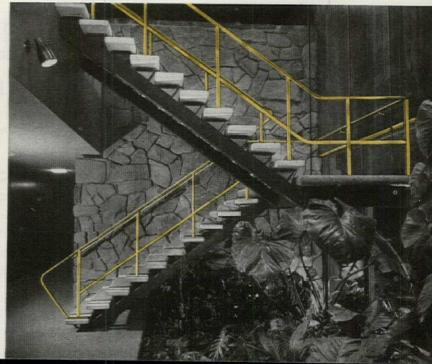


THE NEW ADMINISTRATION and Mortuary Buildings, Rose Hills Memorial Park, Whittier, Calif. Architects and Engineers: Albert C. Martin & Associates, Los Angeles. General Contractor: L. E. Dixon Company, San Gabriel. Ornamental Bronze Fabricator: A. J. Bayer Company, Los Angeles.

DECORATIVE TINTED GLASS panel framed with Anaconda Red Brass Rectangular Tube. Vertical tubes, $3\frac{1}{4}$ " x $6\frac{1}{2}$ " x 3/32" wall thickness, reinforced with a 6" structural steel channel. Top and bottom cross members, 3" x $1\frac{1}{2}$ " x 3/32" tubes. Intermediate dividers, Red Brass Strip. (See details A, B, C.)

GENERAL VIEW of the front of the building. Extruded shapes of Anaconda Architectural Bronze were used for the decorative and functional louvers covering the second floor at the right in illustration above (see detail on facing page). The metal fascia is Anaconda Red Brass.

THE WARM COLOR OF an Extruded Bronze Shape for the handrail, combined with Red Brass Rectangular Tubes for the railing of this open stairway, provides a pleasing contrast with the surrounding masonry, wood paneling and living plants of the indoor tropical garden.



color to fine contemporary design

"The use and appeal of bronze is historic," says Albert C. Martin, Jr., of Albert C. Martin & Associates, Los Angeles, architects of Rose Hills Memorial Park Administration and Mortuary Buildings, "The architect who molds its traditional character into his design achieves an element of strength, overlaid with the mellowing patina of time."

Architectural Bronze and complementary copper alloys give zest to the architectural composition and enhance the beauty of other building materials whether they be stone, glass, or other metals. The architect will find that copper alloys in extrusions, drawn shapes and sheets offer almost unlimited opportunities in design and color effects.

Architectural alloys of copper, when exposed to the weather, will acquire the rich, soft coloring of the patina. Only occasional cleaning to remove dirt and grime is necessary to maintain the beautiful appearance of the weathered metal. If the weathered effect is desired at the time of installation, the patina can be produced artificially by the architectural metals fabricator. Or, if desired, the bright but warm colors of the metals may be maintained by applying a protective, colorless surface coating and renewing it as required.

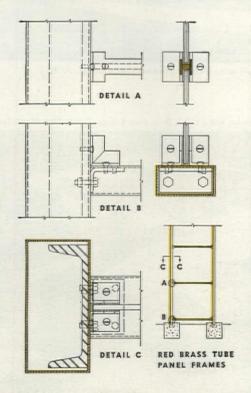
As a leader and pioneer in producing extrusions and other forms of copper alloy metals for architectural applications, The American Brass Company has the experience to help you achieve outstanding designs in Copper, Red Brass, Architectural Bronze, Yellow Brass and Nickel Silver. For further information write: Architectural Service, The American Brass Company, Waterbury 20, Conn.

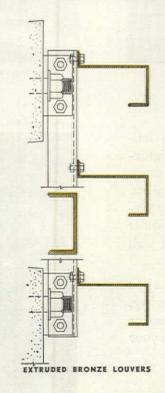
ANACOND ARCHITECTURAL METALS

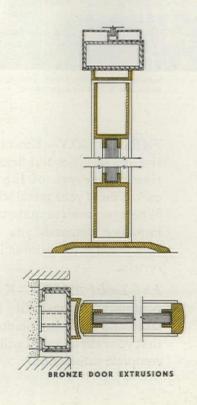
MADE BY THE AMERICAN BRASS COMPANY



CURVED SECTION OF JAMBS and the stiles, rails, push bars and thresholds of exterior doors are bronze extrusions. (See detail below.)







KAWNEER...

A single source for a complete

CUSTOM

ANALYSIS AND ENGINEERING

—The Kawneer engineering team considers every curtain wall application as unique. Each is subjected to a searching analysis.

Such points as (1) the curtain wall's effect on load bearing elements, (2) adequate accommodation for wall movement due to wind load and temperature change, (3) weathering features and (4) integration of all components within the wall system are the subjects of careful study. The result of this careful analysis is a curtain wall design that provides the highest standards of performance while retaining the most expressive appearance of the architect's design.



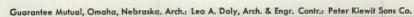
Imperial Oil Company, Sarnia, Ontario, Canada Arch.: John B. Parkin Assocs., Sarnia

FABRICATION— Kawneer modern fabricating facilities and flexibility of production assure you of the most effective execution of your metal wall requirements. Whatever finish or material, whatever performance demands you make, Kawneer will provide the answer in its metal wall system.

INSTALLATION—Kawneer takes complete responsibility for engineering, fabrication and installation . . . assurance that your curtain wall will perform to your complete satisfaction.



Tishman Building, Los Angeles, Calif. Arch.: Victor Gruen Assocs. Arch. & Engr., A.I.A.





Mutual Benefit Life Insurance Co., Newark, N. J. Arch.: Eggers & Higgins, F.A.I.A., Newark Gen. Contr.: Geo. A. Fuller, New York City

curtain wall system



BROAD PRODUCT RANGE-COMPREHENSIVE SERVICE

Kawneer as a single source for curtain wall means high quality units are available in aluminum, stainless steel or porcelain finish. You have a selection of roll formed, brake formed or extruded shapes. Specially designed operating sash with neoprene or vinyl

weather seal or fixed glazing can be used. Insulated sandwich panels, custom-engineered sun con-

trol devices can be adapted to any job. The finest aluminum entrance units and aluminum or vinyl covered flush doors are also available.

Kawneer is your best single source for curtain wall components. Kawneer metal wall engineers will assist you to design, detail and specify curtain walls that will maintain your high standards of design and construction.



Central Illinois Light Company, Peoria, Illinois. Gregg & Briggs, Architect and Engineer. General Contractor: V. Jobst & Son

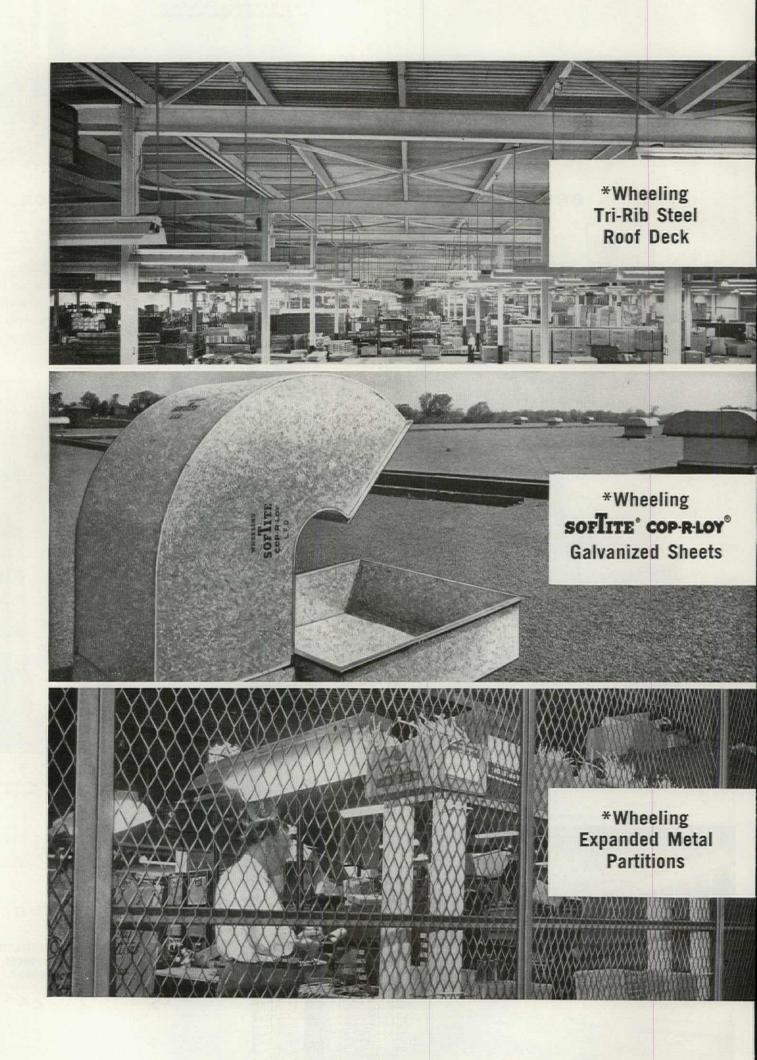


Equitable Life Insurance Bldg. San Francisco, Calif. Arch.: Loubet & Glynn, San Francisco Consultant Arch.: Irwin Claven, New York City

Geigy Chemical Co., Greenburg, N.Y. Arch.: Skidmore, Owings & Merrill, NYC. Contr.: Vermilya-Brown, NYC









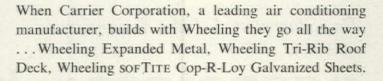
Welded directly to purlins, Tri-Rib helped give Carrier a quality roof in record time. Strong, lowcost, rugged and maintenancefree. Topped with a 4-ply built-up roof, Tri-Rib is expected to give lifetime service.

Wheeling* helps Carrier build





Long, sturdy spans of duct work made of Wheeling Cop-R-Loy gives Carrier long-lasting economical service. It's easier to work, doesn't flake and eliminates waste...still more money-saving reasons!



For—like builders all over America—Carrier has found that Wheeling building products save time and give long life, dependable service and economical installation. You, too, can expect these features from every product in the Wheeling building line. That includes—Steelcrete Bankvault Reinforcing, Metal Lath and Lath Accessories, Tri-Rib Steel Roof Deck, sofTite Cop-R-Loy Galvanized Sheets, Expanded Metal and ExM Gratings and Angle Frame Partitions.

For full details see our catalogs in Sweet's or contact the Wheeling warehouse or sales office nearest you.

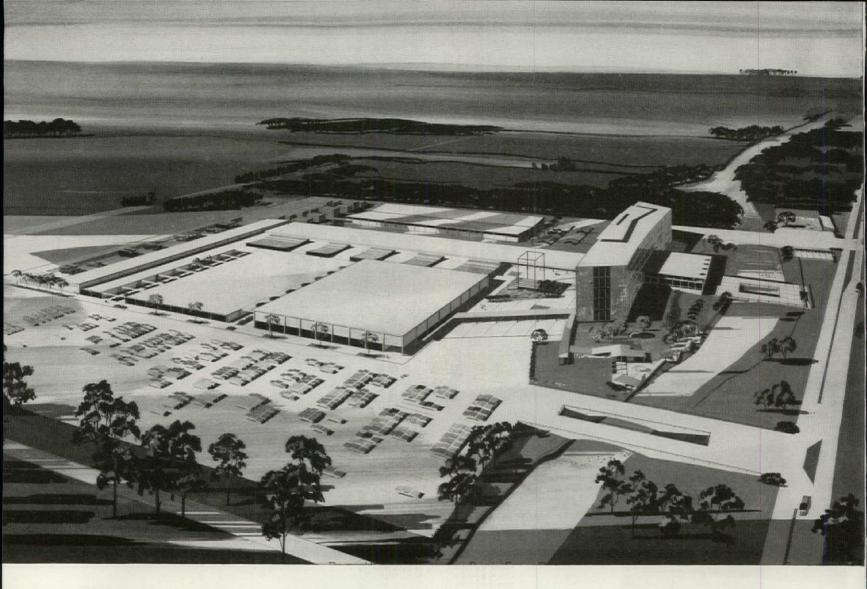


WHEELING CORRUGATING COMPANY, WHEELING, W.VA.
IT'S WHEELING STEEL



This amazing, versatile metal saves money all along the line for Carrier. Used throughout the building, it protects plant personnel, protects moving parts and products, eliminates solid walls increasing ventilating efficiency.

Atlanta Boston Buffalo Chicago Columbus Detroit Houston Kansas City Louisville Madison Minneapolis New Orleans New York Philadelphia Richmond St. Louis



Ray Stuermer, A.I.A., Chicago



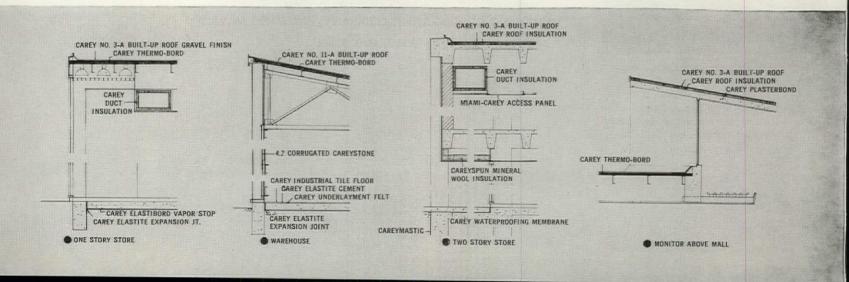
Ray Stuermer, A. I. A., designs an . . .

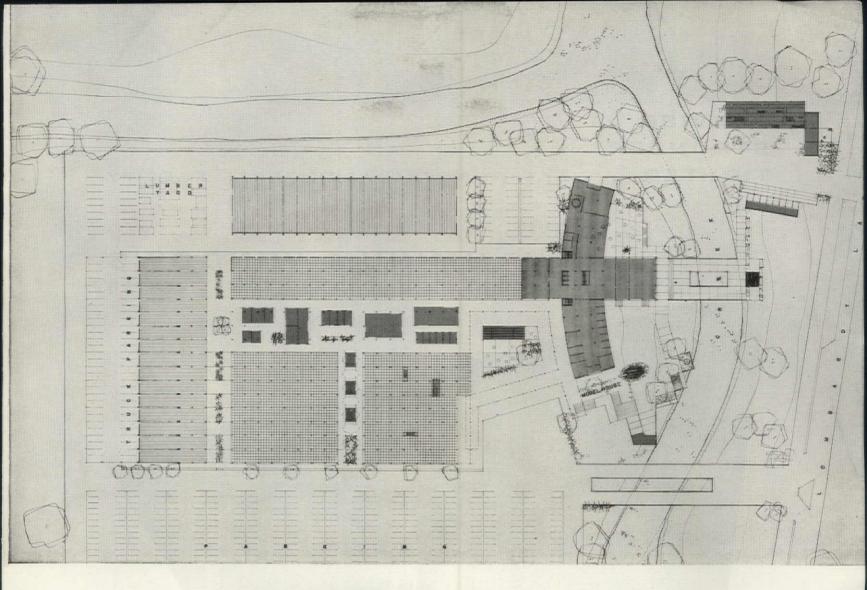
associated builders'

... a project originated

The concept of supermarketing in the light construction field was first proposed in 1955 by Arthur Bohnen, Chicago builder, land developer, and construction materials specialist. Drawing on his wide background in the design, financing, and construction of residential property, Mr. Bohnen proposed a "shopping-center for homes"—a place to which the public could bring all its building and remodeling problems for logical and practical answers.

Chicago architect Ray Stuermer has interpreted this concept in his design for an associated builders' center. The project includes stores, offices, display space, facilities for architects, builders, materials suppliers, land developers, mortgage bankers, title and insurance specialists; areas are provided for meeting rooms, model homes, exhibition hall and auditorium, parking—for "centralized responsibility from land to land-scape", as Mr. Bohnen expresses it.





Arthur Bohnen, Developer, Chicago

center

by Arthur Bohnen

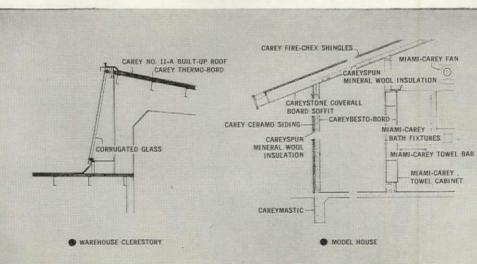
Because such a project provides so many interesting design and product application opportunities, Carey commissioned Mr. Stuermer to adapt some of his original design ideas to show how Carey Building Products could be used in constructing a shopping-center for homes.



Architect Ray Stuermer's plan and detail sheets are available to architects and builders. Ask your Carey representative or write The Philip Carey Mfg. Company, Lockland, Cincinnati 15, Ohio, Dept. AF-107.



BETTER PRODUCTS FOR BUILDING SINCE 1873



HEAVIER STRONGER TIGHTER

THAT'S WHY ARCHITECTS SPECIFY

FOR NEW BUILDING IN MEDICAL CENTER MAINE MEDICAL CENTER-NEW BUILDING Portland, Maine Voorhees, Walker, Smith & Smith, John A. Volpe Construction Co.,

> High on the list of outstanding features in the seven-story addition to the Maine Medical Center are Cupples' Series 500 fixed and double-hung aluminum windows. This is another example of the wide acceptance of Cupples Aluminum Windows where sound design and precision fabrication are of prime importance.

The Cupples' 500 is proved to be stronger, heavier, more monumental and massive than other commercial double-hung windows, yet is competitively priced. Weather-tight, never needs painting or maintenance, operates silently-easily.

Cupples is a foremost designer and manufacturer of many types of commercial and residential aluminum windows, curtain walls, doors, Alumi-Coustic grid systems and special ornamental products. Our catalogs are filed in Sweet's.

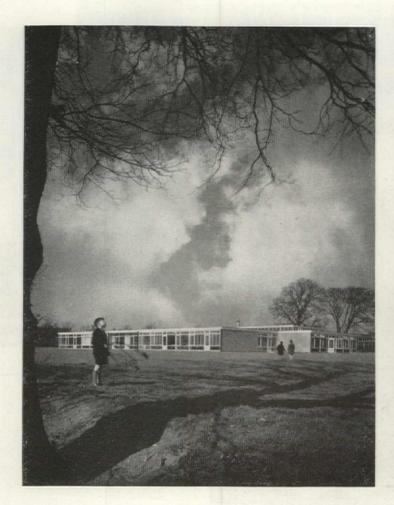


PRODUCTS CORPORATION

2659 South Hanley Road • St. Louis 17, Missouri

Abroad

A continuing review of international building



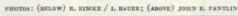
ENGLISH GOLDFISH BOWL

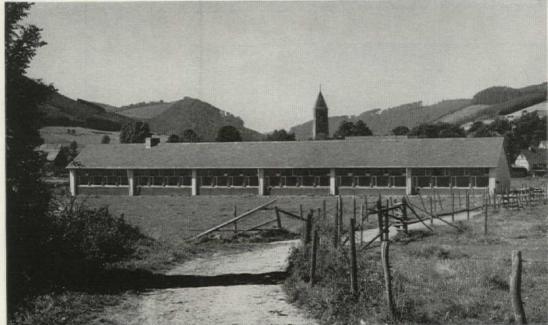
A proper place to train young people in both the manners of society and the delights of nature, the Aldermans Green Infant School in Coventry was designed by the Architects' Co-Partnership. Six classrooms and an assembly hall are arranged in the form of a squared-off comma; the assembly hall being at the head, the classrooms in the tail. At the center is a glass-enclosed courtyard, which lets the faculty observe their charges' play as easily as they might watch guppies in a bowl.

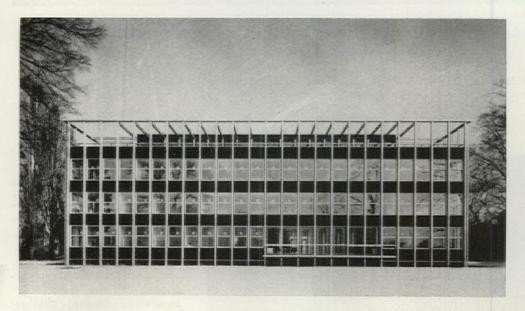


GERMAN BARNYARD

Saalhausen is a farming community in Germany's fertile Rhineland district; its most common architectural denominator is the barn. In seeking a vernacular style for a new elementary school, Architect Paul Schneider-Esleben did not, therefore, have to look very far. The resulting low-silhouetted building, with its stalllike openings, makes a most successful shelter for a herd of local scholars.



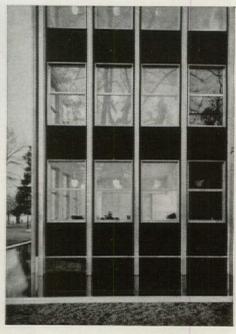




SWISS ICONOCLAST

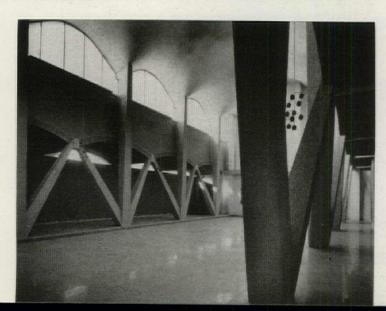
The mansions along Zurich's lakefront began to disappear years ago, but the stuffy atmosphere was retained by a cluster of stone office buildings. The city, hoping to remake the area as a showplace for Swiss industrial vitality, invited Dr. Hans Hofmann to design the

first experiment. The bright steel skeleton of his recently completed glass and aluminum administration building for the Aluminium - Industrie - Aktiengesellschaft now rises out of a rectangular pool with iconoclastic boldness and sets a fresh pattern for the lakefront.



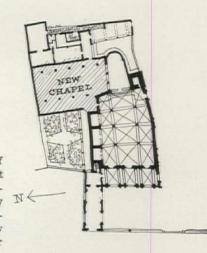


POTOTECNICA FORTUNATI

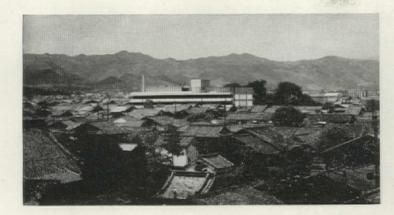


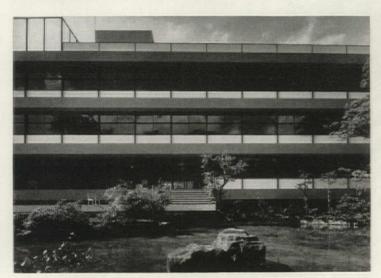
ITALIAN DYNAMICS

In the small Italian hill city of Viggiù, Engineer - Architect Enrico Castiglioni has reconstructed a sixteenth-century church in a manner which sensitively combines old and new architectural forms. After carefully restoring the main church, Castiglioni turned his attention to the ruined chapel and exploited the opportunity for innovation. The wave-patterned roof of the chapel now brings its own kind of harmony into the ancient building. Inside, reinforced concrete struts support a refound dynamism.



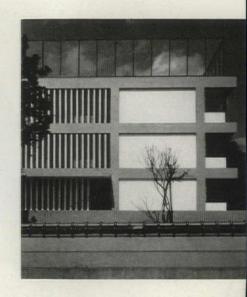






JAPANESE SURPRISE

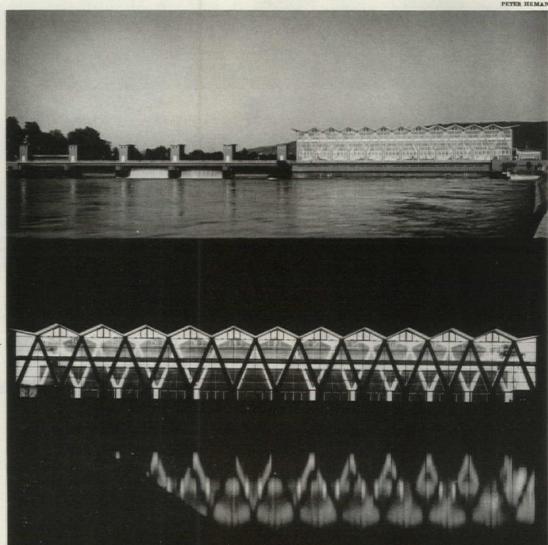
Above the detailed clutter of neighboring roofs, Kyoto's Local Postal Savings Office Building rises with the obviousness of a warehouse. But inside the walls, and within the brutality of its eastern face (right), is a collection of architectural surprises: gardens, "culture rooms," an auditorium, and volleyball courts on the roof. Architect Hideo Kosaka saw to it that the official function of the building (and the requirement that its walls be strong enough to withstand earthquakes) did not shut out the charm of Japanese life.



PETER HEMAN

RHINE BOATHOUSE

As mechanization and industry creep into every corner of Switzerland, the problem is to retain as much of the country's natural beauty as possible. Famed Architect Dr. Hans Hofmann (see opposite page) answered this challenge successfully in the case of his new hydroelectric power station at Birsfelden. The plant not only has a finely drawn distinction that tells of its industrial purpose, but also has an informality that looks right in its Rhine River setting. One might even expect to see a collegiate crew of oarsmen emerge from the generator building (top), rather than a team of engineers. And at night (below) the building looks like a floating pavilion.





Irving Trust Co. Building, New York has Westinghouse PRECIPITRON electronic air cleaners installed throughout.

costly to maintain. For the full story, call your nearest Sturtevant Division Sales Engineer today . . . or write to Westinghouse, Sturtevant Divisionpioneers in electronic air cleaning and builders of the PRECIPITRON.

Westinghouse Electric Corporation, Sturtevant Division, Dept. 1C, Hyde Park, Boston 36, Mass.

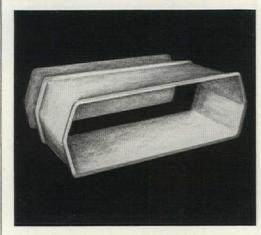
WESTINGHOUSE AIR CLEANING

YOU CAN BE SURE ... IF IT'S Westinghouse

J-80601



Modular office units of reinforced plastics



Plastic, modular office storage unit based on market research and design development work in collaboration with Richard Neagle Associates.





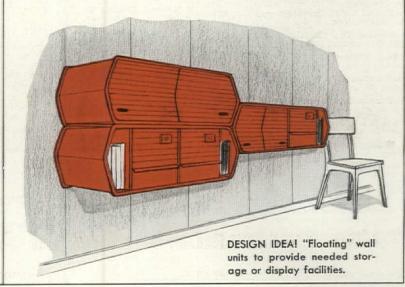
storage cabinet combination.

Weighing less than aluminum, molded as

(or three) for spacious bookcase-

for a super-smooth surface in a highgloss color. If so, the molded unit will take practically any standard finish without priming. The units are dentproof, shatterproof. The material has higher tensile strength than steel.

Qualified molders can make these units today to your specifications. Here's an opportunity to pioneer in manufacturing, in merchandising.



glass reinforced plastic can be adapted for virtually any office or reception-room storage need. These units hold shelves, files, drawers, or display material. Structural strength? Incredibly high.

a single piece-modular units of fibrous

Structural strength? Incredibly high. Practical? Yes, from all standpoints—manufacturing, shipping, and merchandising. No finishing needed. Color can be "molded in"—unless your design calls

MONSANTO CHEMICAL COMPANY Organic Chemicals Division, Dept. RI-3B, St. Louis 1, Mo. FOR NAMES of qualified molders who can produce reinforced plastic units to your specification, write today to Monsanto—manufacturer of raw materials for reinforced plastic products.



WHERE CREATIVE CHEMISTRY WORKS WONDERS FOR YOU

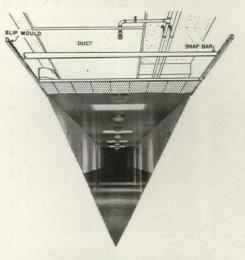
Ador Sales, Inc
Advance Transformer Co
Allegheny Ludlum Steel Corp
Altec Lansing Corporation
Alumiline Corp., The
Aluminum Company of America54, 55 Fuller & Smith & Ross, Inc.
Aluminum Cooking Utensil Co 251
Fuller & Smith & Ross, Inc. American Air Pilter Co. (Air Filter Division)
Doe-Anderson Advertising Agency
American Biltrite Rubber Co. (Amtico Flooring Div.) Al Paul Lefton Co., Inc.
American Blower Corp. (Div. American-Standard)
American Brass Co
American Bridge Division (United States Steel Corp.)
American Hardware Corp. (P. & F. Corbin)
American Laundry Machinery Co 238 Farson, Huff & Northlich, Inc.
American-Olean Tile Company
American Sisalkraft Corp. 12 Sutherland-Abbott
American Window Glass Company188, 189
W. S. Walker Advertising, Inc. Anemostat Corp. of America
Michel-Cather, Inc.
Bakelite Company (Division of Union Carbide Corp.) 237 J. M. Mathes, Inc.
Bastian-Blessing Co., The
Bayley Co., William
Benjamin Electric Mfg. Co 52A, B Hanson & Stevens, Inc.
Bestwall-Certain-Teed Sales Corp 44 Gray & Rogers
Blumenthal & Co., Inc., Sidney
Bradley Washfountain Co. 42 Kirkgasser-Drew Advertising
Brown Company
Bruning Co., Inc., Charles
H. W. Kastor & Sons Adv. Co., Inc. Bulldog Electric Products Co
MacManus, John & Adams, Inc. Byrne Doors, Inc
Gray & Kilgore, Inc.
Carey Co., The Philip
Carpet Institute, Inc. 26 Morey, Humm & Warwick, Inc.
Carrier Corp
Carrollton Mig. Co 90 Grant, Schwenck & Baker, Inc.
Ceco Steel Products Corp
Ceco Steel Products Corp
Cement Enamel Sales Corp. (Universal Builders Supply Co.) 204 Wilson, Haight, Welch & Grover, Inc.
Ceramic Tile Panels, Inc. (Subsid. of U.S. Ceramic Tile Co.) The Griswold-Eshleman Co. 88A, B, C, D
The Griswold-Eshleman Co.
- The second according to 0,
- The second accompany Co.
Ciba Company, Inc. 51 Briggs & Varley, Inc. 51 Clow & Sons, James B. 94 Henry M. Hempstead Co.

Corbin, P & F (American Hardware Corp.)
Corning Glass Works
Crucible Steel Co. 256
G. M. Basford Co. Cupples Products Corporation
Ridgway Advertising Co.
Darling Co., L. A
Day-Brite Lighting, Inc
Dow Chemical Company
Duriron Company
Dur-O-Wal
Erie Enameling Co
Downing Industrial Advertising, Inc.
22
Facing Tile Institute
Fenestra Incorporated
Fiat Metal Mfg. Co
Flynn Mfg. Co., Michael
Gallaher Company, The 201
Ayres, Swanson and Associates, Inc.
Garden City Plating & Mfg. Co
General Electric Co
General Electric Co
General Gas Light Co. 202 Crescent Advertising Service
Goodrich Industrial Products Co., The B. F
Govenair Corporation
GR Products, Inc 261
Granco Steel Products Co 70
Gardner Advertising Co. Graybar Electric Co., Inc
G. M. Basford Co. Grinnell Company, Inc. 251
Grinnell Company, Inc
Guth Co., Edwin F
Wanley Co., Inc.
Hanley Co., Inc
Hauserman Company, E. F Cover III Meldrum & Fewsmith, Inc.
Haws Drinking Faucet Co. 192 Pacific Advertising Staff
Hendrick Manufacturing Company 228 G. M. Basford Co.
Hercules Powder Co
Herring-Hall-Marvin Safe Co
Hexcel Products Co
Hillyard Chemical Company
Hubbell, Inc., Harvey
toon-Addmis, 170C.
Ideal Cement Company
Ingalls Iron Works 52
Robert Luckie & Co. Inland Steel Products Co
Modfan and A Wards Too

International Molded Plastics, Inc. Structoglas Div
International Plastics Corp
International Steel Co
Irving Subway Grating Co., Inc. 173 Richmond Advertising Service, Inc.
Jenkins Brothers
Johns-Manville Corporation88F, 180 J. Walter Thompson Co.
Johnson Service Co
Karaghensian, Inc., A. & M
Fuller & Smith & Ross, Inc.
Kentile, Inc. 20 Benton & Bowles, Inc.
Kinnear Mfg. Co
Knoll Associates, Inc 79 The Zlowe Company
Lamson Corporation
Lerch & Associates, Charles W
Leviton Mfg. Co
Libbey-Owens-Ford Glass Co
L.O.F. Glass Fibers Co. (Corrulux Div.) Rives, Dyke & Co. Lightalian Inc.
Rives, Dyke & Co. Lightolier, Inc
Litecontrol
Lone Star Cement Corp 36
Donahue & Coe, Inc. Louisville Cement Co
Doe-Anderson Advertising Luminous Ceilings, Inc
Buiot, Jaynes & Baruch
Macomber, Inc 203 Agency-Direct
Mahon Company, The R. C 59, 86, 87, 105
Maintenance, Inc. 191 Palm & Patterson, Inc. 200
Marble Institute of America, Inc 200 Moore & Company, Inc.
Marietta Concrete Corp 225 Harry M. Miller, Inc.
Marley Co., The
McQuay, Inc 100 Grubb-Cleland Co.
Meadows, Inc., W. E 175 Connor Associates, Inc.
Medusa Portland Cement Company 212 Will, Inc.
Methwall Div. Prosperity Company, Inc., The Barlow Advertising Agency, Inc.
Met-L-Wood
Michaels Art Bronze Co., Inc., The 242
Mills Company, The
Minneapolis-Honeywell Regulator Co 32, 33 Foote, Cone & Belding
Minnesota Mining & Mfg. Co
Modine Mfg. Co
Moe Light Div. of Thomas Industries, Inc
William Hart Adler, Inc. Monsanto Chemical Co

National Gypsum Company
New Castle Products, Inc
Norman Products Co
Norton Company
Norton Door Closer Co
Ruthrauff & Ryan, Inc.
Olin Mathieson Chemical Corp.
(Bamset Fastening System) 250 Fuller & Smith & Ross, Inc.
Otis Elevator Company
Overly Manufacturing Co
The state of the s
Petro
Joseph R. Gerber Co.
Phelps-Dodge Copper Products Corp 207 Compton Advertising, Inc.
Pittsburgh Corning Corporation
Pittsburgh Plate Glass Co
Pomeroy Co., S. H. 104 C. Thomson Agency
Pomona Tile Mfg. Co
Portland Cement Association
Powers Regulator Co
Prosperity Company, Inc., The Methwall Div
Ramset Fastening System
(Olin Mathieson Chemical Corp.) 250 Fuller & Smith & Ross, Inc.
Raynor Mfg. Co. 230 Shoaf Advertising Agency
Republic Steel Corp
St. Georges & Keyes, Inc 164
Reynolds Metals Co
Reznor Mfg. Co
Richmond Plumbing Fixtures Div. (Rheem Manufacturing Co.) Cover II Buchanan & Company, Inc.
E. T. Holmgren, Inc 72
Edwin E. Geiger C 247
Robbins Flooring Co
Robbins Floor Products, Inc 224 G. M. Basford Co.
Bobertson Company, H. H
Rolscreen Company, The
Rotary Lift Company
Ruberoid Company, The
Rust-Oleum Corporation 221 O'Grady-Andersen-Gray, Inc.
St. Regis Paper Company
Schlage Lock Company
Seaporcel Metals, Inc
Shaw-Walker Co., The
Shepard Warner Elevator Co., The 30 Baer, Kemble & Spicer, Inc.
Baer, Kemble & Spicer, Inc. Simplex Ceiling Corp
Simpson Logging Company
Sloan Valve Company 4 Reincke, Meyer & Finn, Inc.

Smitheraft Lighting Division
Sonoco Products Co
Standard Conveyor Co
Stanley Works, The
Steelcase Inc
Steelcraft Mfg. Co
Stewart & Stevenson Services, Inc 172
Rives, Dyke & Company Stran-Steel Corporation
Campbell-Ewald Co. Structoglas Division of International Molded Plastics, Inc 252
Penn & Hamaker, Inc.
Summitville Tiles, Inc
Thomas Industries, Inc. (Moe Light Division) 81 William Hart Adler, Inc.
Tile Council of America
Tile-Tex Div., The
Marschalk & Pratt Co., Inc., Division of McCann-Erickson, Inc.
Todd Shipyards Corp 261 Wendell P. Colton Co.
Tremco Manufacturing Co., The 208 The Henry P. Boynton Advertising Agency, Inc.
Tyler Befrigeration Corporation 206 Jones & Taylor & Associates
Jones & Lugior & Listonieos
Union Carbide Corporation Bakelite Co
J. M. Mathes, Inc. Union Pacific R.R. 46
The Caples Company United States Plywood Corp 63 Kenyon & Eckhardt, Inc.
United States Steel Corp. (American Bridge Div.)
United States Steel Corp. (Structural)
United Steel Pahricators, Inc. 67
Downing Industrial Advertising, Inc. Universal Atlas Cement Co
Universal Builders Supply Co. (Cement Enamel Sales Corp.)
Uvalde Rock Asphalt Co
V. & E. Manufaturing Co 261 Graphic Advertising Service
Vonnegut Hardware Co
Ware Laboratories, Inc
Wasco Products, Inc
Waylite Company, The
Weirton Steel Company
Westinghouse Electric Corp186, 276 Fuller & Smith & Ross, Inc.
Weyerhauser Sales Co
Wheeling Corrugating Co
Will-Burt Co., The
Winco Ventilator Co
Woodwork Corporation of America 163 Raymond C. Hudson & Associates, Inc.
Wright Mfg. Co. (Div. of Mastic Tile Corp. of America) 190 S. R. Leon Company, Inc.
Zonolite Company



DESIGNED FOR CORRIDORS

The SIMPLEX wall-hung aluminum acoustical ceiling spans up to 8 feet without intermediate support. It was designed to satisfy the need for complete accessibility in today's service-filled corridor plenum areas. Other outstanding features of the ceiling are:

- every panel is an access door—easily removed, easily replaced,
- permanent aluminum finishes which stay new looking, cut maintenance costs,
- noise-squelching 85% Noise Reduction Coefficient,
- ease of integration with recessed lighting fixtures,
- fast, responsible one trade installation.



Above: New Coney Island General Hospital in Brooklyn, N. Y. has some 226,000 sq. ft. of SIMPLEX ceilings, mostly corridor. Architects: Andrew J. Thomas & Katz, Waisman, Blumkrantz, Stein, Weber.

For modern corridors specify "SIMPLEX wall-hung aluminum acoustical ceilings as manufactured by the SIMPLEX Ceiling Corp., 552 W. 52 St., New York 19, N. Y." Send coupon today for AIA literature containing photos, details and complete specifications.

		CEI	LING (CORP.			
	552 W	. 52 5	ST., N.	Y. 19	, N.	Y.	
Please	send	me l	ooklet	AIA	39F	on v	wall-
hung	corrido	or ce	iling.				
Name							
Firm							



Precise harangue—a sculpted orator and his stone-still audience are measured against the module of a neat, new curtain wall.