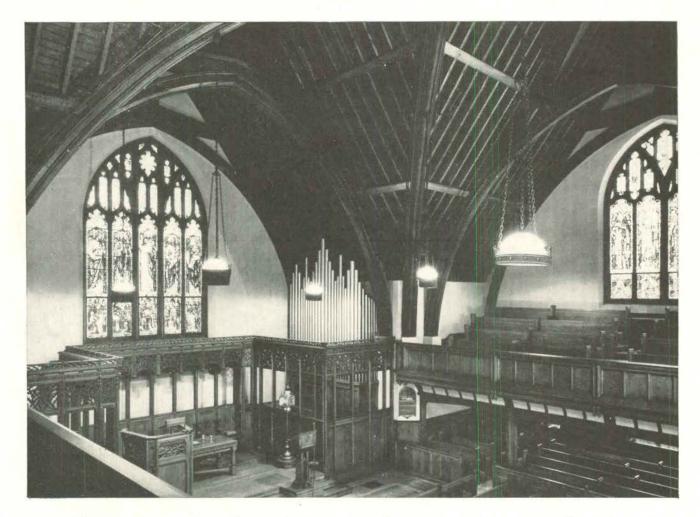




Building Types Study: Churches 175

Brussels Fair 163



Hardly noticeable...always dependable

All Souls Church Bangor, Maine

GRINNELL SPRINKLERS

"You will find it difficult to get pictures of the Grinnell Sprinkler installation in the auditorium of our church", states correspondence from All Souls Church,

Bangor, Maine. "The pipes blend so well with the ceiling rafters that one hardly ever sees them, which, of course, is just what we wanted."

"As to our reason for installing a sprinkler system", continues the letter, "there was no fire or threat of fire. Our insurance committee simply wanted to protect our property more adequately and economically."

Good reasons, too! With at least 8 church fires occurring every day, your church needs positive

protection to stop fire at its start. A Grinnell Sprinkler System gives you this protection—stops fire at its source, wherever and whenever it strikes, night or day, *automatically*. Seventy-eight years experience proves this.

The cost of installation? Much more economical, certainly, than the cost of a fire. And especially so, since a Grinnell Sprinkler System usually makes possible sizable reductions in fire insurance premiums.

Get the complete facts. Grinnell will gladly submit a fire protection program for you, without obligation. Write Grinnell Company, Inc., 277 West Exchange St., Providence, R. I.





Manufacturing, Engineering and Installation of Automatic Sprinklers since 1878—



PRC Protection is more than "Skin" Deep

Both the Aircraft and Construction Industries Require Quality PRC Sealants. Just as the designers of the Lockheed Prop-Jet Electra utilized PRC products for sealing its integral fuel tanks and pressurized cabin, architects have used PRC sealing materials to permanently seal the new San Francisco Airport. Combining the beauty of porcelainized steel panels with the flexibility of a liquid synthetic rubber-based sealing compound provides lasting durability and positive protection from the extremes of weather.

PRC "Rubber Calk"® sealer is a two-part polysulphide

liquid Polymer base material especially compounded to cope with sealing problems such as those found in curtain wall or tilt-up construction. Chemically cured, the compound forms a firm, resilient, permanent seal that expands and contracts with structural movement to prevent leaks. Far surpassing products used in the past, PRC "Rubber Calk." adheres positively to glass, metal and masonry. Franchised dealers and applicators in principal cities. See him today and find out why PRC sealing protection is more than "skin" deep. See Sweet's catalog for descriptive brochure.

PRODUCTS RESEARCH COMPANY

Manufacturers of Liquid Synthetic Rubber products for the Construction Industry

Western Factory: 3126 Los Feliz Blvd. Los Angeles 39, California, NOrmandy 5-5951 Eastern Factory: 410-416 Jersey Avenue Gloucester City, New Jersey, WOodlawn 4-3010



Why key people profit...

when you specify preferred

ARCHITECTS PROFIT! Specifying Imperial Watrous valves paves the way to greatest satisfaction all down the line. Not only contractors and plumbers, but users as well, benefit from your decision. Imperial Watrous gives users more than their money's worth in economy and service. And architects know it. That's why so many leading architects prefer Watrous valves — *it pays!*

with Watrous one feature alone often makes the difference. For example, exclusive self-cleansing by-pass eliminates danger from sand or sediment always present around new construction. These valves avoid nuisance calls so common with other flush valves. Imperial Watrous flush valves don't need pampering... won't plague busy plumbers with time-wasting, no-profit calls. And they offer many other plus factors such as handy, single-step servicing.

USERS PROFIT! The result of Imperial Watrous economy. A simple screw adjustment sets water use at correct minimum. Actually saves thousands of dollars per year for schools, institutions, etc.

KEY PEOPLE PREFER WATROUS! Architects, contractors, plumbers and users *all* prefer Watrous flush valve features. Here's why. With Watrous they get more advanced design... more attractive styling... a wide choice of diaphragm and piston-type valves...plus water economy, dependability and easy service features other flush valves cannot equal. Find out how Imperial Watrous flush valves will make your job easier, more profitable. Call your Watrous representative for full information. Write for catalog No. 449-A.

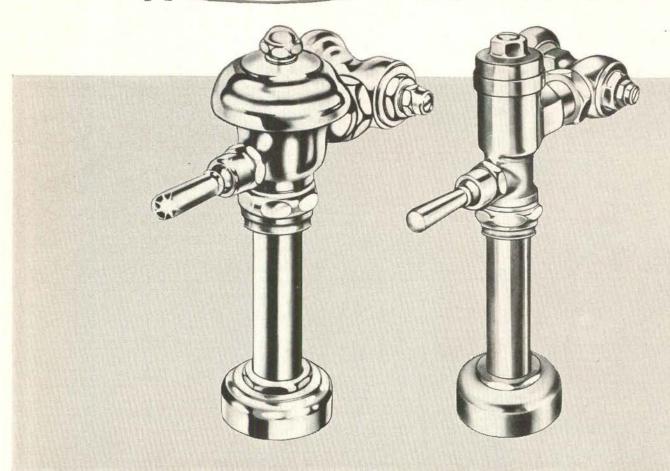


The IMPERIAL BRASS MFG. CO. 6300 West Howard St., Chicago 31, Illinois, Dept. AR-68

ADJUSTABLE FLUSH VALVES BOTH DIAPHRAGM AND PISTON TYPES

Also Manufacturers of Watrous Liquid and Lather Soap Dispensers

atrous flush valves





Self-cleansing by-pass guards against dirt or sediment in water. Thoroughly cleans by-pass orifice each time flush valve is actuated.



Silent action design eliminates objectionable line, shut-off and closing noises. Substantially reduces bowl noise. Optional.

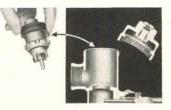


Watrous Water-Saver Adjustment, externally regulated with water on, cuts consumption as much as a gallon per flush for lowest operating cost, year after year.



Self-tightening handle packing prevents leakage. Handle spring maintains tension. Eliminates periodic re-tightening.





Single-step servicing. Entire operating unit of diaphragm or piston-type flush valve can be replaced in minutes, without taking valve off the line.



BLOK-JOINT Permits Contraction AND Expansion In Control Joints **BLOK-MESH** Reinforcing Has Deep Swedges For Better Mortar Bond

Today's accepted method of building masonry walls includes reinforcing and control joints. Control joints relieve stresses and strains and reinforcing adds strength and resistance to cracking. Use both to provide maximum strength and protection.

BLOK-JOINT is a cross shaped rubber extrusion for making fast, effective control joints in masonry walls. It is used with ordinary metal sash blocks. No special blocks or building paper and mortar fill is needed. Blok-Joint forms a secure interlock for lateral stability—allows both contraction and expansion. It can be used in single walls, block walls faced with other masonry, cavity walls and at pilasters or columns. Molded of

"100-year life" rubber, Blok-Joint meets ASTM and Federal specifications.

BLOK-MESH is the masonry reinforcing with the exclusive deep swedged deforming. The well-defined, squared notches give more gripability with the mortar than conventional reinforcing with superficial nicks or burrs. Blok-Mesh provides effective dovetailing—yet requires no more area in the joint than other types.

For Further Information See



4h Car Architectural File

Car Industrial Construction File

CARTER-WATERS

Blok-Joint and Blok-Mesh are products of The Cartar-Waters Corp., 2440 Pennway, Dept. AR Kansas City, 8, Miscouri Available in the U. 5. through Concrete Block Manufacturers and Building Material Dealers. Blok-Joint is distributed in the Canadian Provinces of Alberta, Saskatchewan and British Columbia by CONSOLIDATED CONCRETE INDUSTRIES, Ltd., 9th Ave. & 24th St. East, Calgary, Alberta, Canada.

ARCHITECTURAL RECORD

June 1958

THE RECORD REPORTS: Perspectives 9

Buildings in the News 12-13, 16

Meetings and Miscellany 25

Architecture Abroad 32

A Washington Report by Ernest Mickel 40

News from Canada by John Caulfield Smith 44

Washington Topics by Ernest Mickel 56

Required Reading 60

Construction Cost Index 70

Calendar and Office Notes 336

WATER AND ARCHITECTURE: Article by Elizabeth B. Kassler 137

CLEVELAND'S ILLUMINATING BUILDING

Current Trends in Construction 352

Office building Carson & Lundin, Architects 153

ARCHITECTURE AT BRUSSELS:

Festival of Structure 163

AN ASSEMBLED CONCRETE BUILDING

Parke-Davis Warehouse-Office Building
Menlo Park, Cal. Yamasaki, Leinweber and Associates, Architects 171

BUILDING TYPES STUDY 259: Religious Buildings

Introduction 175

"A Place of Worship" by Victor A. Lundy 176

Bee Ridge Presbyterian Church Sarasota, Fla. Victor A. Lundy, Architect 178

Faith Lutheran Church Frayser, Tenn. Robert Thomas Martin, Architect 182

St. Mary's Episcopal Church Tacoma, Wash. Robert Billsbrough Price, Architect 186

Non-Sectarian Chapel for a Mid-Western Hospital Henry Hill, Architect 190

St. Catherine of Siena Roman Catholic Church

New Orleans, La. Burk, LeBreton & Lamantia, Architects and Engineers 192

Jewish Community Center White Plains, N. Y. Fritz Nathan, Architect 196

First Presbyterian Church Boulder, Colo. Hobart D. Wagener, Architect 200

ARCHITECTURAL ENGINEERING

Technology Misapplied by Robert E. Fischer 203

TECHNICAL ROUNDUP

Madrid Racecourse: Eduardo Torroja 207 "Weatherstripping" for Metal Walls 210

PRODUCT REPORTS 212

TIME-SAVER STANDARDS: Useful Curves and Curved Surfaces 31,32 & 32

Hyperbolic Paraboloid by Seymour Howard 215

OFFICE LITERATURE 266

Semi-Annual Index 354

INDEX TO ADVERTISING 360

Cover:

Top: Eternal Spiral from the Brussels World's Fair. Victor Bourgeois, Architect. Magnum: Kryn Taconis photo. Bottom: Cross Section, Bee Ridge Presbyterian Church, Sarasota, Fla. Victor A. Lundy, Architect

ARCHITECTURAL RECORD
June 1958 Vol. 123 No. 6
Copyright 1958
by F. W. Dodge Corporation,
with all rights reserved.
ARCHITECTURAL RECORD
(combined with
AMERICAN ARCHITECT and
ARCHITECTURE)
is published monthly,
except May 1958
when semi-monthly,
by F. W. Dodge Corporation,
10 Ferry Street,
Concord, New Hampshire,
Editorial and executive offices:
119 West 40th Street
New York 18, New York,
Western editorial office,
2877 Shasta Road,
Berkeley 8, California.

Coming in the Record

BUILDING TYPES STUDY: MULTI-FAMILY HOUSING

The July Building Types Study will cover both public and private housing. Included, in addition to several examples of recent good design in this field, will be three pertinent articles: Philosophy of Housing Design, by Harry Weese, A.I.A.; The Public Housing Problem, a roundup of reactions by architects to Harrison Salisbury's series of articles in *The New York Times*; and Accent on Better Living, by Thomas S. Holden.

CONTEMPORARY DESIGN IN JAPAN

An interesting July feature will be a group of eight buildings designed by Kenzo Tange, whose work is illustrative of how architects in Japan are working toward a Japanese expression for modern techniques and materials.

INDUSTRY BUYS ART-THE SEAGRAM BUILDING

A study of the new building by Mies van der Rohe and Philip Johnson, including an article by Arthur Drexler of the Museum of Modern Art tracing its development.

other F. W. dodge Services: Dodge Reports—Dodge Construction Statistics—Sweet's Catalog Services—Dodge Books—Dodge Mailing Service—The Modern Hospital—The Nation's Schools—College and University Business—Hospital Purchasing File—Chicago Construction News—Daily Pacific Builder—Denver Daily Journal—Real Estate Record & Builders Guide.

Members of Audit Bureau of Circulations and Associated Business Publications. ARCHITECTURAL RECORD is indexed in Art Index, Industrial Arts Index and Engineering Index.

Every effort will be made to return material submitted for possible publication (if accompanied by stamped, addressed envelope), but the editors and the corporation will not be responsible for loss or damage.

Subscription prices: Published monthly except May 1958 when semimonthly. U. S., U. S. Possessions and Canada: \$5.50 per year; other Western Hemisphere countries, Spain, to those who by title are architects and engineers, \$9.00 per year. Single copy price except Mid-May 1958 issue \$2.90; Mid-May 1958 issue \$2.90. Beyond Western Hemisphere, excluding Spain, to those who by title are architects and engineers, \$9.00 per year for 12 monthly issues not including Mid-May 1958 issue. Subscriptions from all other outside U. S., U. S. Possessions and Canada for 12 monthly issues, not including Mid-May issue, \$24.00 per year. Change of address; subscribers are requested to furnish both the old and new address, sending if possible stencil impression from magazine wrapper; allow four weeks for change

Staff of Architectural Record

MANAGING EDITOR Emerson Goble

CONSULTING EDITOR John E. Burchard

SENIOR EDITORS
James S. Hornbeck, A.I.A., Features
Elisabeth Kendall Thompson, A.I.A., West

ASSOCIATE EDITORS
Robert E. Fischer, Engineering
Florence A. van Wyck, Production
Jeanne M. Davern, Assistant to Managing
Editor
Herbert L. Smith, Jr., A.I.A., Houses
Mildred F. Schmertz, Design
John T. Weeks

CONTRIBUTING EDITORS
Ernest Mickel, Washington
Dan Street, Washington
John Caulfield Smith, M.R.A.I.C., Canada

ASSISTANT EDITORS
Margaret R. Fuerst, Engineering
Dianne Thomas

EDITORIAL ASSISTANTS Helen C. Manning, Production Pamela C. Forcey

DESIGN
Eugene H. Hawley, Director
Richard P. Kluga
Mary Ann Godfrey

CONSULTANTS
Thomas S. Holden, Industry Relations
George Cline Smith, Economics
Clyde Shute, Statistical
Clifford Dunnels, Jr., Field Research
Daniel J. Howe, Jr., Public Relations
Sigman-Ward, Drafting

PUBLISHING DIRECTOR
H. Judd Payne

GENERAL MANAGER Robert F. Marshall

CIRCULATION MANAGER Marshall T. Ginn

Officers of F. W. Dodge Corporation

CHARMAN OF THE BOARD James McV. Breed

VICE CHAIRMAN OF THE BOARD Paul Abbott, Thomas S. Holden

PRESIDENT Howard Barringer

EXECUTIVE VICE PRESIDENTS
Irving W. Hadsell, Chauncey L. Williams

VICE PRESIDENT AND TREASURER Howard M. Thompson

VICE PERSIDENTS
Julius T. Little, Robert F. Marshall,
T. Oliver Morgan, O. O. Paulsell,
H. Judd Payne, George Cline Smith

REGIONAL VICE PRESIDENTS Carl S. Bennett, Clinton C. Bennett, Ralph M. Hairston, Roy J. Hard, Arthur D. Prior, Richard H. Ray, William H. Hatch

ASSISTANT VICE PRESIDENT AND COMPTROLLER Edwin H. Freed

ASSISTANT VICE PRESIDENTS
Walter F. DeSaix, Clifford G. Dunnels, Jr.,
Gault Eastman, Clyde Shute, Marc Wayne

SECRETARY Sanford D. Stockton, Jr.

ASSISTANT SECRETARIES
William C. Breed, Jr., George W. Morgan

ASSISTANT TREASURER Irving B. Satin

BOLD NEW DESIGN

for a Fine Old Tradition



The Spirit of Southern Hospitality Finds Dramatic Expression in These Modern New College Campus Buildings

MEMORIAL STUDENT UNION
SOUTHWESTERN LOUISIANA INSTITUTE,
Lafayette, Louisiana

11 11

General Contractor: BARKSDALE & LeBLANC, Baton Rouge, Louisiana

Architect and Engineer: BURK, LEBRETON & LAMANTIA, New Orleans

Lone Star Concrete Supplied by LAFAYETTE LUMBER COMPANY Lafayette, Louisiana Memorial Student Union strikes a note of pleasing contrast amidst academic surroundings and architecture of by-gone days.

Set beside a small pond, overhung with magnolia and Spanish moss, the impressive structures dominate the social life of the students on the campus of Southwestern Louisiana Institute, in Lafayette, Louisiana.

Three interconnected buildings comprise the student union, housing the college bookstore, post-office, snack bar, ballroom and other recreational facilities.

Significantly, the structures are built with reinforced concrete to meet today's needs and the challenge posed by the generations of tomorrow.

Concrete combines great strength, economy, fire-safety and beauty in one versatile material, providing the widest possible latitude for the designer's creative skill backed up by sound construction know-how.

In these fine structures, there were 4000 barrels of Lone Star Portland Cement used. For complete dependability and assured uniform quality, use Lone Star Portland Cement.

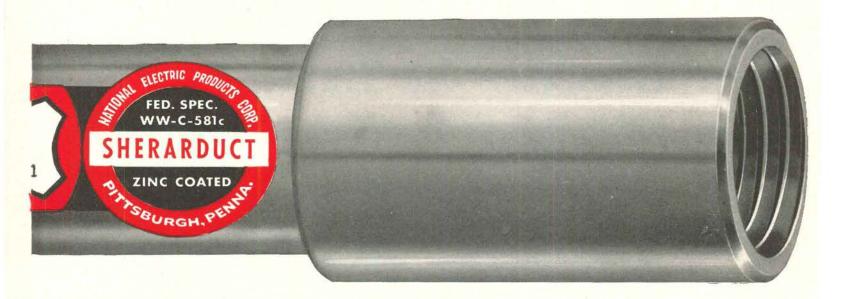


LONE STAR CEMENT
CORPORATION

Offices: ABILENE, TEX. - ALBANY, N.Y. - BETHLEHEM, PA.
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, 48,900,000 BARRELS ANNUAL CAPACITY

HERE'S double PROTECTION



NOW galvanized Sherarduct is coated with NEW

FORMULA MVC-1

the modified vinyl copolymer that provides the most effective barrier against corrosive agents of all kinds

National Electric has developed a new way to combat conduit corrosion. It is called Formula MVC-1, a new modified polyvinyl chloride resin coating that's available only from National Electric.

Here's what MVC-1 does to even further increase the protection against corrosion offered by the Sherardizing process of galvanizing.

RESISTANCE TO CORROSIVE ATTACKS—In accelerated salt spray, sulphuric acid and caustic tests conducted by the Pittsburgh Testing Laboratories, new Sherarduct with Formula MVC-1 far outlasted all hot dipped and other high-grade coated and galvanized conduits tested.

RESISTANCE TO FLAKING—Formula MVC-1 makes a tight, uniform, adhesive coating that withstands bending without cracking or flaking.

TEMPERATURE RESISTANCE—Formula MVC-1 is extremely resistant to high and low ambient temperatures and will withstand the majority of all industrial temperature conditions.

NOW ADD THIS NEW CORROSION RESISTANCE TO SHERARDUCT'S OTHER FEATURES

- The Sherardizing process of galvanizing that alloys zinc with the conduit walls.
- Normalized, highly ductile steel for easy bending and threading.
- Zinc protected threads for complete end-to-end protection.

These are the features that convince architects, engineers and contractors it is best to specify National Electric Sherarduct when real corrosion protection is required. Write for complete information on new Sherarduct today.

Listed by Underwriters' Laboratories, Inc.

Sherarduct is Galvanized Conduit at Its Best



National Electric Products

PITTSBURGH PA

2 Plants • 12 Warehouses • 41 Sales Offices

THE RECORD REPORTS Perspectives

Topping out the Guggenheim

Undeterred by the realities of this particular organic architecture ("structure and building are one . . . you can't pull it apart"), the construction workers at the Guggenheim Museum in New York last month raised a tree atop the last spiral of Frank Lloyd Wright's poem in concrete. It is not reported that Mr. Wright was present at this unique topping-out ceremony; but it seems safe to assume that if he had been he would have found an ancient tradition justified at long last.

Wanted: Architectural Diagnosis

What is lacking most in the profession today is "architectural diagnosis," architect William Caudill told a recent meeting of the Wisconsin Chapter of the American Institute of Architects. "If we are to remain above the mess of this patent medicine age of building, we had better start stressing architectural diagnosis. . . . We had better make more effort to find out what our clients need, not necessarily what they want. There's a difference—a big difference. The salesman capitalizes on wants; the truly professional architect concerns himself with his client's needs. The analysis of these needs is today the most important phase of architectural practice." Mr. Caudill called it also the weakest part of today's architectural practice, though he noted that there were indications of progress by a few practitioners. "These days we are hearing more about 'programming.' I'm not sure that's the right word for us to use. It reeks too much of the mere listing of space needs. What I'm talking about is more than listing. It's really writing specifications for an architecture in terms of qualitative space as well as quantitative space." Although the schools are not yet training men in this area, architects must, Mr. Caudill insisted, learn to determine the problem as well as to solve it. "Architectural practice is destined for activities which will require less drawing and more thinking. . . . The skillful and creative designer as always will remain the key man in the architectural process because a great architecture results

from the fusion of creativity with the skill of architectural composition and the technical knowledge of the day. But a new team member will emerge to work with the designer and make his architecture have greater significance. As the surgeon needs the diagnostician so will the designer need the architectural analyst."

Rudolph at Yale

In a speech at his first "Alumni Day" as chairman of Yale's Department of Architecture, Paul Rudolph gave a straightforward and eloquent account of his purposes as an architectural educator. Remarking to begin with that architecture is at a point where action has outstripped ideas and theory, he said: "Many have asked why I should come to Yale. It is because I believe that action has indeed outstripped theory and that it is the unique task and responsibility of a great university such as Yale to study not only that which is known but, far more important, to pierce the unknown. My passion is to participate in this unending search. Theory must again overtake action." Mr. Rudolph listed four major areas of concern in which he said the effort would be pursued at Yale-"We must find ways of rendering our cities fit for humans, and develop the esthetics of change ("our first concern at Yale")." . . . "Secondly, we will search for more eloquent relationships between the conceptual aspects of building and techniques ("The unique forms inherent in any given material and the construction process must become more clear. . . . We have almost everything, including the industrialized structure which was such a romantic favorite of the theorist of the International Style, but we seldom know what to do with our wealth.")."... "Third on our list of forgotten fundamentals is the concern for visual perception ("An architect should be concerned with how a building looks in the rain, or on a summer day; its profile on a misty day, the different treatment required for that which is close at hand vs. that which is 20 stories removed, with angles of vision, symbolism and content.")." . . . "Fourth and last on our list will be a renewed concern

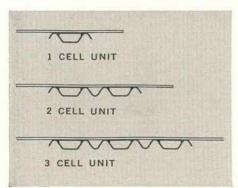
with visual delight ("This is indeed the architect's prime responsibility, for other specialists can do everything else that he does and, quite often, much better.")."

Un-humanity and the Aged

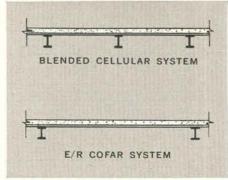
A Swedish architect named Bo Boustedt whose firm in Stockholm has done more than 40 projects in Sweden's community-centered program for housing the aged recently made a lecture tour of the U.S. under the auspices of the U.S. Public Health Service. He found nothing to praise in current U.S. efforts to provide for the elderly and one general word of condemnation for most of them-"un-human." Noting that in this country groups (religious, union etc.) most frequently are sponsors of projects for the aged, Mr. Boustedt remarks that "in U.S. you often have to move the old to this home that often is situated far away from their home communities. We think it is unhuman to move the old. Instead we try to keep the old in their own milieu. The home for the aged serves only the own local community or the section in the town where it is built. Of course we try to keep our old in their own homes as far as possible (with home-care, modernizing of old houses, economical security etc.). I have been told that our tendency to put the home for the aged in the center of the community or residential part of the town should be expensive with regard to the land-costs. The home for the aged, however, needs no large land, not much more than an ordinary apartment house. . . . In my opinion the home for the aged with its residential character should be situated in the residential center. This center is the shopping center. Here there is a lot of activity to look upon, and many visits by shopping friends and relatives to expect. Here is a stimulating milieu, not disturbing at all. When you in U.S. solve your homes for the aged by means of groups it means that a lot of people will be outside, perhaps they who are in most need of help. I have also noticed a tendency for monumental architecture in your homes for the aged. Long dominating façades. . . . The building must be scaled down to human size.'



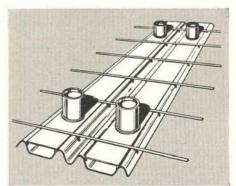
Electrical flexibility and wider spans with Granco's new Cofar®



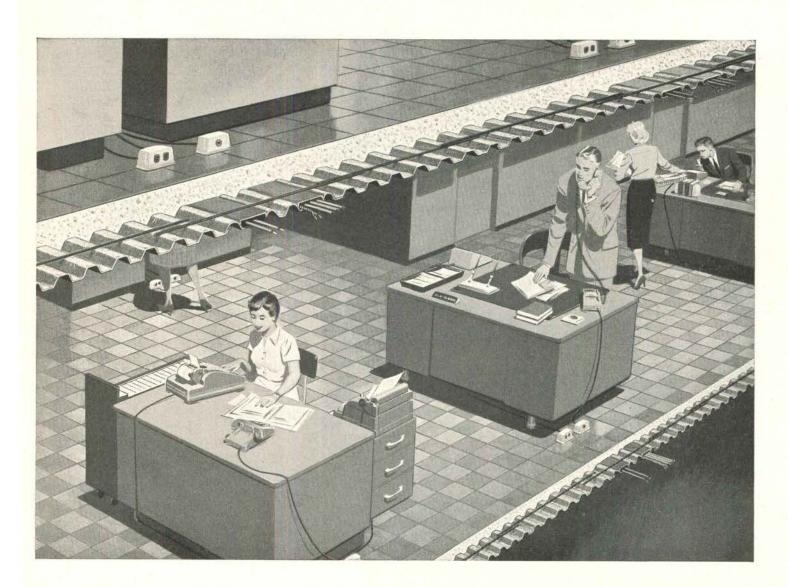
ELECTRICAL FLEXIBILITY. Electrical needs of today and tomorrow are easily satisfied by blending in one, two, or three cell E/R Cofar units with sections of standard Cofar.



LESS FRAMING. Cofar reinforced concrete construction permits wider spans, saves on structural framing costs, speeds up building completion and permits earlier occupancy by the owner.



PRE-SET INSERTS. Costly concrete drilling is eliminated by optional pre-set inserts. Install outlets after building is occupied! After-set inserts may also be used with E/R Cofar.



In 1957, Granco introduced a totally new method of providing raceways for electrification, plus reinforcing and forming of floor slabs—all in one operation!

Today, the Granco product that made it possible—Cofar—is available in a new pattern and longer lengths that extend effective span range to 16'.

E/R Cofar units—wide troughs capped to form spacious raceways for wiringare used between standard Cofar units to provide electrical flexibility at lowest possible cost. Both E/R units and "new pattern" Cofar have T-wires welded across corrugations to furnish necessary temperature reinforcing and mechanical anchorage between concrete and steel.

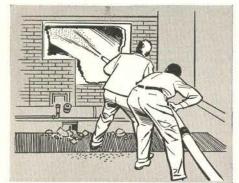
CHECK THESE MONEY-SAVING FEATURES OF THE E/R COFAR SYSTEM

A low-cost, high-strength floor with

complete electrical flexibility . No wasted fill · Eliminates conventional forms · Units easily handled and quickly placed . Provides immediate working platform.

New-pattern Cofar and E/R Cofar may now be ordered through Granco distributors from coast to coast. For more information, contact your local distributor or mail coupon below.

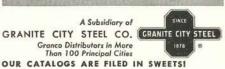
• Visit Granco Booth #34, A.I.A. Convention!



FIRE-RETARDANT. In a recent 2-hour UL fire test, Cofar became the first electrified cellular floor system (with header ducts and junction boxes in place) to earn a fire-retardant rating.



A Subsidiary of GRANITE CITY STEEL CO. GRANITE CITY STEEL Granco Distributors in More Than 100 Principal Cities



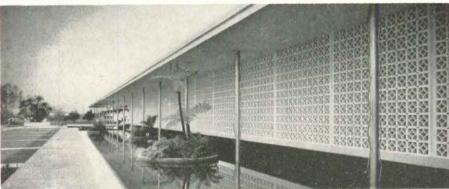
MAIL THIS COUPON FOR COFAR-E/R COFAR MANUAL Free 24-page booklet gives complete de-

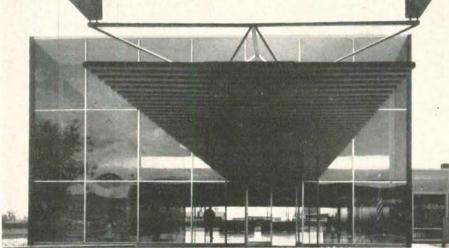
scription, uses, advantages, specifications, and design data on Cofar-E/R Cofar floor system. Mail coupon to Granco address shown at left. Attention: Dept. R-86.

| Name | |
|---------|-------|
| Title | |
| Firm | |
| Address | |
| City | State |

Buildings in the News











FOURTEEN BUILDINGS CITED

Five First Honor Awards and nine Awards of Merit have been selected in the tenth annual Honor Awards Program of the American Institute of Architects. Prof. Jean Labatut, director of Graduate Studies at Princeton University's School of Architecture, headed an all-architect jury whose other members were Igor B. Polevitzky, Miami; Frederick James MacKie, Houston; John Gaw Meem, Santa Fe; and Welton Becket, Los Angeles. There were 312 entries.

FIRST HONOR AWARDS

Home Office Building at Bloomfield, Conn., for Connecticut General Life Insurance Company. Architects: Skidmore, Owings & Merrill. General contractor: Turner Construction Company

Pharmaceutical Plant Headquarters at Pasadena, Cal., for The Stuart Company. Architect: Edward D. Stone. General contractor: Myers Brothers, Brummett & Demblon

Elementary School, Sonoma, Sonoma County, Cal. Architect: Mario J. Ciampi. General contractor: Herbert Crocker Company

Westmoor High School, Daly City, Cal. Architect: Mario J. Ciampi. General contractor: Theodore Meyer & Sons

Specialty Shop, Robinson's Palm Springs, Palm Springs, Cal. Architects: Pereira & Luckman. General contractor: Robinson & Wilson Inc.

IN A.I.A.'s TENTH HONOR AWARDS PROGRAM

The jury listed these reasons for First Honor Award selections: "1. For rare and great quality of unity in the entire work from exterior space to interior space, and from the ensemble to the smallest details,—for unity achieved without monotony or extravagance. 2. For achieving an expression of strength without heaviness and lightness without weakness, resulting in definite elegance and refinement. 3. For well-controlled physical and psychologi-

cal scale leading to meaning and character corresponding to the particular program. 4. For achieving esthetic quality by means of the structural elements becoming pleasing and decorative. 5. For exploring further the inexhaustible field of architectural composition—by showing originality and inventiveness."

The Awards of Merit were said to show these same qualities "only to a lesser degree or fragmentarily."

The jury regretted that there were

not more examples of buildings, parking areas and landscape treatment expressed as an integral part of architecture; also that representation from various sections of the country was so uneven.

Presentations of certificates to architects and owners of award-winning buildings will be made at the annual convention of the A.I.A. next month at Cleveland; plaques for installation in the buildings also will be presented to top winners.

AWARDS OF MERIT



Washington State Bank, Bellevue Office, Bellevue, Wash. Architects: Mithun & Nesland; associate architects, Ridenour & Cochran. General contractor: Wick Construction Company



Cafeteria Building, Southeastern Louisiana College, Hammond, La. Architects: Desmond & Davis. General contractor: Frank Cucchiara



Studio at Pasadena, Cal. Architect: Thornton Ladd. Builder: S. O. Bennett



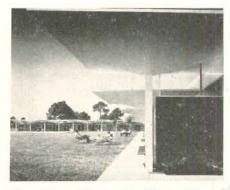
Immaculate Conception Church, Marrero, La. Architects: Curtis & Davis and Associated Architects & Engineers, Harrison Schouest. General contractor: Gervais F. Favrot Company Inc.



U. S. Pavilion, Universal and International Exposition, Brussels. Architect: Edward D. Stone. General contractor: Blaton-Aubert



Beckman/Helipot Corporation Plant, Newport Beach, Cal. Architects: Pereira & Luckman. General contractor: M. J. Brock & Sons



Warm Mineral Springs Inn, Venice, Fla. Architect: Victor A. Lundy. General contractor: Spear Inc.



Union Service Center, Los Angeles, Architects: Smith & Williams. General contractor: Roulac Company



Residence at Beverly Hills, Cal, for Mr. and Mrs. Neil Lakenan. Architects: Richard Dorman & Associates; Associate Architect, Dan Morganelli. General contractor: owner



Here at last is a really strong, lightweight roof deck, designed by roofing engineers who understand your problems. Diamondeck (pat. pend) is a new, roof deck, available in a full range of gages, sizes and lengths. And, shown on the next page are all the facts. Clip this ad for your AIA file, or write Schumacher, at the address below for full information and suggested specifications.

DIAMOND DESIGN FOR GREATER STRENGTH . . .

Provides greater rigidity, greater strength than any comparable material. Fabricated from 80,000 psi high ultimate strength Republic Steel Corporation galvanized steel sheets.

LESS DEFLECTION . . .

Less deflection means a more rigid roof deck, capable of carrying greater loads with complete safety. Eliminates the breaking of roof felts in cold weather when people walk on the roof or when heavy snow loads are present. See deflection figures on next page.

CONVENIENT CHANNEL LOCK CONSTRUCTION . . .

Easy, fast, erection is assured by channel lock construction. Gives con-

NEW...

A LIGHTER, STRONGER GALVANIZED STEEL ROOF DECK WITH FAR LESS DEFLECTION...

DIAMONDECK BY SCHUMACHER

tinuity over all purlins. Diamondeck is designed to take up negative moments over all supports.

LOWER TOTAL COST ...

Diamondeck costs less per square foot of load carrying capacity because the weight per square foot is less, the deflections are much less. The cost of field and maintenance painting are eliminated. Cost of lighting is less due to the permanent reflectivity from the use of hot-dip galvanized sheets.

AVAILABLE IN A FULL RANGE OF SIZES . . .

Diamondeck is available in both $1\frac{1}{2}$ " and $2\frac{1}{2}$ " depths. Either depth is available in 18, 20, 22, or 24 gage. Lengths up to 30 feet are standard.

SPECIFICATIONS ON NEXT PAGE...SEE FOR YOURSELF WHY DIAMONDECK IS THE BEST ROOF DECK
FOR YOUR NEXT BUILDING



NEW . . A STRONGER, MORE RIGID

ROOF and FLOOR DECK with ROLLED-IN VENT OPENINGS



BY SCHUMACHER

Coru-Vent Form Deck is a new material, designed by roofing engineers to provide a more useful, more practical, stronger roof deck. Its new flattened corrugated design assures maximum rigidity, less deflection, greater adaptability under all conditions.

NEW, STRONGER DESIGN . . .

Coru-Vent Form Deck features flattened corrugations, manufactured from high tensile 80,000 psi Republic Steel Corporation sheets. Flattened design assures greater rigidity, less deflection.

ROLLED-IN VENT OPENINGS ...

No vent clips to forget with Coru-Vent Form Deck. The vent openings are

rolled right in the sheet, providing absolute uniformity, easier erection, positive "breathing," just the way you design it.

LONGER LENGTHS TO SUIT ANY JOB ...

Coru-Vent Form Deck is available in lengths up to 30 feet as standard, in the gages shown. This means fewer overlaps, neater, faster construction.

GOOD REFLECTIVITY - LONGER LIFE . . .

Coru-Vent Form Deck makes an ideal roof or floor deck for practically any job. Galvanized, hot-dip finish assures long life, and good reflectivity. Initial and upkeep painting can be entirely eliminated.

AVAILABLE IN A FULL RANGE OF SIZES ...

Coru-Vent Form Deck is available in 28, 26 and 24 gage material. All weights are available in sheets up to 30 feet in length and over 32" wide.

SEE SPECIFICATIONS ON OPPOSITE PAGE -



SCHUMACHER INDUSTRIES, INC.

627 SALEM AVENUE . DAYTON 6, OHIO

| | | | | | | | PI | nysical | Propertie | es | | | | | | |
|-----------------|--------------------------------------|--------------------------------|---------------------------------------|---------------------------------|--|---------------------------------|--|---------------------------------|--|---------------------------------|---------------------------------|------------------------------------|------------------------------------|--|----------------------------|--|
| Depth Inches | | Metal | Metal | Wt. I | | | | | Section Modulus S | | | K Where W = K/L ² | | | niform Lo | |
| Incr | nes | Gage | Thickness | | (4) | ' Section | 1' Width | 18" | Section | 1' Width | 18" S | ection | 1' Width | U = 1 Sp | | 2 Spans |
| 11/2 | | 24 22 20 18 | .024 .030 .036 .048 | 1.78 2.09 2.73 | 1.46 .129 1.78 .162 2.09 .189 2.73 .258 | | .086 .108 .126 .172 | | .144 .096 .180 .120 .210 .140 .288 .192 | | 3 4 5 | 880 600 200 760 | 1920 2400 2800 3840 | .000009 .000007 .000006 .000004 | 2 .0 2 .0 5 .0 | 0000375 0000300 0000255 0000187 |
| 21/ | 1/2 | 24 22 20 18 | .024 .030 .036 .048 | 1.57 1.91 2.25 2.93 | | .405 .495 .585 .810 | .270 .330 .390 .540 | | 270 330 390 540 | .180 .220 .260 .360 | 6 | 400 600 800 800 | 3600 4400 5200 7200 | .000002 .000002 .000002 | 35 .0 00 .0 | 0000120 0000100 0000083 0000060 |
| | | | | | | | De | flection | Constar | its | | | | | | |
| | /20 | 5′-0 25.00 625.0 .250 | 5′-6 30.25 915.0 .275 | 6'-0 36.00 1296.0 .300 | 6'-6 42.25 1785.0 .325 | 7'-0 49.00 2401.0 .350 | 7′-6 56.25 3164.0 .375 | 8'-0 64.00 4096.0 .400 | 8'-6 72.25 5220.0 .425 | 9'-0 81.00 6561.0 .450 | 9'-6 90.25 8145.0 .475 | 10'-0 100.00 10000.0 .500 | 10'-6 110.25 12155.0 .525 | 11'-0 121.00 14641.0 .550 | 11'-6 132.25 17490.0 | 12'-0 144.00 20736.0 |
| | 4 UL ⁴ VL ⁴ | .00563 .00234 | .00824 | .01166 .00486 | .01606 .00670 | | : | | | | : | : | | | : | |
| nepth 2 | 2 UL4 VL4 | .00450 | .00659 | .00933 | .01285 | .01728 | .02278 | .01230 | 9 | * | | * | | | • | |
| 2 | O UL4 | .00388 | .00567 | .00803 | .01107 | .01488 | .01962 | .02540 | 1 | • | i | i | W. | i | : = | - |
| - 1 | VL4 | .00281 | .00412 .00171 | .00583 .00243 | .00803 | .01080 .00450 | .01424 .00592 | .01843 .00766 | .02350 .00976 | .03665 .01230 | .04500 .01523 | .01870 | | Ų. | 2 | |
| | 4 UL ⁴ VL ⁴ | .00180 | .00263 | .00372 .00156 | .00512 .00214 | .00689 .00288 | .00908 .00380 | .01176 .00491 | .01500 .00626 | .01883 .00787 | .02340 | | | | : | |
| õ | 2 UL ⁴ VL ⁴ | .00147 | .00215 | .00304 | .00420 .00179 | .00564 | .00744 | .00962 | .01227 | .01542 .00656 | .01914 | .02350 | .02856 .01256 | | | |
| 7 | O UL4 VL4 | .00125 | .00183 | .00259 | .00357 | .00480 | .00633 | .00820 | .01044 | .01313 | .01630 | .02000 | .02431 | .02928 | .03498 | |
| N 1 | 8 UL ⁴ VL ⁴ | .00090 | .00131 | .00187 | .00257 | .00346 | .00456 | .00590 | .00752 | .00945 | .01173 | .01440 | .01750 | .02110 | .02520 .01058 | .02990 |

Deflection Formulae: Deflection D = WUL4 for 1 Span; D = WVL4 for 2 Spans.

| Loads per Square Foot, Uniformly Distributed | | | | | | | | | | | | | | | |
|--|------------|------------|------------|----------------------|----------------------|----------------------|----------------------------|----------------------------------|----------------------------------|----------------------------------|----------|----------|----------------------|----------|----------|
| SPAN | 5'-0 | 5'-6 | 6'-0 | 6'-6 | 7′-0 | 7′-6 | 8'-0 | 8'-6 | 9'-0 | 9'-6 | 10'-0 | 10'-6 | 11'-0 | 11'-6 | 12'-0 |
| M(MOM) | 77 | 63 | 53 62 | 45 48 | | | | | | | | | | | |
| (MOM)W . Cas | 96 | 79 | 67 | 56 61 | 49 48 | 43 40 | | | | | | | | | |
| W(MOM) | 112 | 92 | 78 91 | 66 71 | 57 57 | 50 46 | 44 38 | | | | VIII C | 71 | H 201 | | |
| - œ œ W(MOM) W(2SD) | 154 | 126 | 107 123 | 66 71 90 97 | 57 57 78 78 | 50 46 68 63 | 44 38 60 52 | 53 43 | 47 36 | 42 31 | | | HHE | 11 1 | |
| A & M(SSD) | 144 333 | 119 250 | 100 192 | 85 152 | 74 121 | 64 99 78 | 56 82 | 50 68 | 44 57 | 40 48 | PL II | | | | |
| W(MOM) | 176 | 145 | 122 | 104 | 90 | 78 118 | 56 82 69 98 81 | 61 81 | 54 69 | 49 58 | 44 50 | 40 42 | | | |
| S W(MOM) | 208 | 170 | 144 | 123 | 107 | 92 | 81 | 50 68 61 81 72 98 | 57 54 69 64 82 89 | 40 48 49 58 57 70 | 52 60 | 47 52 | 43 45 | 40 45 | |
| W(MOM) G = W(MOM) | 288 | 238 | 200 | 170 | 147 | 128 | 112 | 100 136 | 89 114 | 80 97 | 72 83 | 65 72 | 43 45 59 62 | 54 54 | 50 48 |

In all discussions and tables, the following symbols are used: M = Bending moment in inch lbs., W = Uniform load in lbs. per sq. ft., L = Span in ft., f = maximum unit stress, = 30,000 psi, L/20 = deflection of <math>1/240 of span, D = deflection coefficient for load conditions as indicated W(MOM) <math>= load per sq. ft. causing maximum permissible moment. W(2SD) is uniform load per sq. ft. on 2 adjacent spans continuous over center support. If single span load is required multiply W(2SD) figure by .416. UL⁴ is coefficient for uniform load single simple span and VL⁴ is same for uniform load over 2 continuous spans so that WUL⁴ or WVL⁴ = deflection.

| - |
|--------|
| 7 |
| - |
| ш |
| > |
| |
| - |
| |
| 00 |
| = |
| О |
| |
| \sim |

| | | | | | | | En | gineer | ing Prop | perties | | | | | | | | |
|------------------------|----------------------------|----------------------|-------------------------------|---|----------------|---|-------------------------|----------------|----------------------------|----------------------------|----------------|---|----------------------------|-------------------------------|---|---|----------------|---|
| Gage 28 26 24 | TI | .015 .019 .024 | ess | Sq. Ft. Weight .887 1.020 1.300 | | Depth 5/8" 5/8" 5/8" | .01: .016 .026 | 6 | \$.039 .050 .063 | C %6" %6" %6" | | f(psi) 30,000 30,000 30,000 | | K 780 000 260 | U-1 .000 | flection Span 00646 00485 00388 | .00 | ient Span 00268 00201 00161 |
| | | | | | | | | Deflec | tion Fac | tors | | | | | | | | |
| Gage 28 26 24 | .00103 .00077 .00062 | 6 | .000429 .000322 .000258 | .0025 .0018 | 9 | an VL ⁴ .00105 .00078 .00063 | .0052 .0039 .0031 | 3 | .00217 .00163 .00131 | .00970 .00728 .00582 | 3 | an VL ⁴ .00402 .00302 .00241 | .01656 .01242 .00993 | 2 . | an VL ⁴ .00686 .00515 .00412 | .0265 .0199 .0159 | 0 | NL4 .01100 .00824 .00680 |
| | | | | | | | - | Square | Foot L | oads | | | | | | | | |
| Gage | W (M) | '-0" S W 1 | W 2 | W (M) | '-6" Sp W 1 | W 2 | W (M) | '-0" Sp W 1 | W 2 | W (M) | -6" Sp W 1 | W 2 | W (M) | '-0" Sp W 1 | W 2 | W (M) | '-6" Sp W 1 | W 2 |
| 28 26 24 | 195 250 315 | 98 129 161 | 311 | 125 160 202 | 50 66 82 | 118 160 200 | 87 111 140 | 29 38 48 | 70 92 114 | 64 81 102 | 18 24 30 | 43 58 72 | 49 62 79 | 12 16 20 | 30 39 48 | 38 49 62 | 8 11 14 | 20 27 33 |

I = Moment of Inertia of section $1'\cdot0''$ wide. S = Section Modulus of same, C = Distance from extreme fiber to neutral axis, K = 20000S and for conditions where M = 1/8WL², M being the Moment in Ft. Ibs., L = Span in ft. and W = Load in Ibs. per sq. ft. uniformly distributed and W = K \div L², U = A deflection constant for single simply supported span so that deflection = UL⁴. V = similar deflection constant for 2 Spans continuous over center support so that deflection = VL⁴. WM is uniform sq. ft. load on simple span causing 30,000 psi stress, W 1 is uniform sq. ft. load causing deflection of 1/240 span on simple span and W 2 is similar load on 2 Spans continuous over center support.

SCHUMACHER INDUSTRIES, INC.

627 SALEM AVENUE . DAYTON 6, OHIO

Buildings in the News



REYNOLDS AWARD, IN THE YEAR OF THE FAIR, GOES TO BRUSSELS' TRANSPORTATION PAVILION

The second edition of the Reynolds Memorial Award, annually presented to "the most significant contribution to the use of aluminum, esthetically or structurally, in the building field," was given this year to a team of six Belgian architects, designers of the all-aluminum Transportation Building at the Brussels World's Fair. The six who share the \$25,000 prize: T. Hoet-Segers, F. Hoet-Segers, H. Montoies, R. Courtois, J. Goossens-Bara and R. Moens de Hase, all of Brussels.

Commented jury member Nervi: "In effect the finesse of the posts, the expressiveness of the form in double parabola of the trusses and covering, and the feeling of elegance which forms the most remarkable characteristic of this work, has been possible only as a result of the original solution of the tie-rods in permanent tension which connect the posts and trusses. This solution resolves in a most elegant way the difficult problem of permitting the thermic expansion and to preserve the necessary stability in either transverse or longitudinal direction."

Members of the jury: seated, left to right—Richard J. Neutra, F.A.I.A., Los Angeles; Arthur Loomis Harmon, F.A.I.A., New York City; Pier Luigi Nervi, Rome; standing—Richard M. Bennett, F.A.I.A., Chicago; J. Roy Carroll Jr., F.A.I.A., Philadelphia









ONE MILLION DOLLARS OUT THE WINDOW

BY THE WRONG ANSWER
TO ONE BUILDING QUESTION*

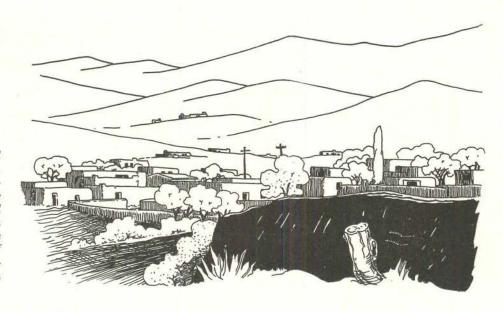


Do you know the answers to these important problems?

- 1. Is it true that WHITE PAINT indoors, and MIRRORS, have no more reflectivity to heat rays than a heavy coating of BLACK PAINT? (20, 22)
- 2. What causes timber rot, peeling paint, wet and cracked plaster, rust? (16, 35)
- 3. Is it true the average family creates 152 lbs. vapor (76 qts. water) a week; each person breathes and perspires 3 lbs. vapor per day? (16, 35)
- 4. Should you ever ventilate below insulation? (11)
- 5. How good an insulation is an ordinary air space? (18, 25, 26, 27, 29)
- 6. Is it true that HEAT RAYS HAVE NO TEMPERATURE? (19, 21)
- 7. Do metals in air spaces absorb, reflect and emit less or more heat rays than wood, plaster, brick, paper? (20, 22)
- 8. Which has the greatest and which has the least heat ray absorptivity: asbestos, ice, aluminum, paper, rock or wood? (22)
- 9. Are there more invisible rays than visible rays? (18, 19)
- 10. Are there any DEAD AIR CELLS in insulations with respect to heat flow? (28)
- 11. Since metals are good conductors of heat, why are they exceptional insulators against heat flow? (18. 20)

The Record Reports

Can the special character of a cherished place be preserved by law? Fifteen U.S. cities so far have voted to make the attempt, among them Santa Fe. In the following report, Librarian Thetford LeViness of the State Capitol at Santa Fe reports on some of the arguments which preceded adoption last fall of Santa Fe's architectural control ordinance. Drawings are by Irene von Horvath, A.I.A.



SANTA FE SEEKS PRESERVATION IN ARCHITECTURAL CONTROL BY THETFORD LE VINESS

Santa Fe, oldest capital in the United States, has recently adopted an architectural controls ordinance. This law makes Pueblo-style architecture, named for the Indians who first used it, mandatory in certain historic areas of the city. The aldermen passed the measure unanimously, but not without a public protest hearing at which several architects and homeowners expressed many misgivings and some actual disapproval.

Generally speaking, business interests and cultural groups joined in support of the ordinance. Some of the city's architects and a few others opposed it.

Merchants, in a region which has practically no factory payrolls and is dependent almost entirely upon a multi-million-dollar tourist industry, saw the new law as a boon to profits. "People come to Santa Fe to see our historic landmarks," said a spokesman for the city's Chamber of Commerce, which heartily endorsed the measure. "They'd just as soon spend their vacations and their money elsewhere if we clutter up our old streets with the kind of modern buildings that may be seen in Oklahoma or Texas."

History-minded Santa Feans

called attention to buildings like the Palace of the Governors, built in 1610-12, and to San Miguel mission, whose foundations, at least, date from c.1605 and are the oldest of any church in the nation. They pointed with pride to recent edifices modeled after the early structures—the art gallery of the Museum of New Mexico, the National Park Service headquarters, the First Presbyterian and Cristo Rey churches, and innumerable private homes in all portions of the city. They looked with disdain at the Desert Inn, a branch of a motel chain built within recent months in sharp angles and glass fronts near the old mission, and said, "There ought to be a law."

Now there is one. Proponents of the "style ordinance," as it is called, are convinced that it is a step in the right direction—that Pueblo-style housing best befits the city's Indian and Spanish heritage.

From Indian-Spanish beginnings until the middle of the 19th century, Santa Feans built their homes, churches, and commercial establishments of just one material—adobe. Large bricks of mud were made, dried in the sun, and laid with mortar to form walls. Round wooden raft-

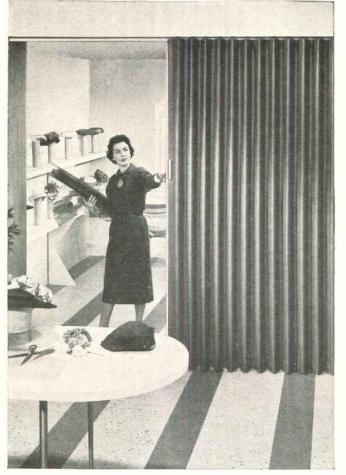
ers called *vigas* were placed horizontally in parallel rows as a framework for the roof—also of adobe. Windows were small; doorways had high sills to keep out the rain. It was an indigenous development, a folk architecture—of the earth, earthy.

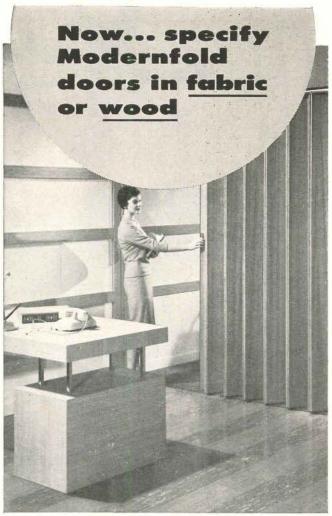
"Anglos," as those of English descent in New Mexico are called, liked adobe construction and used it from pioneer days—with interesting variations. Clay bricks were brought in on the first freight trains. These formed the copings of many adobe houses and gave to the building arts another style—called "modified Pueblo" or "Territorial."

Today, the people of Santa Fe—Indian, Spanish-speaking, and "Anglo"—still like Pueblo-style houses. Even when they build with other materials they often simulate this "adobe way." The result is a city with block after block of mud-colored façades, uneven roof lines, and protruding vigas which—to proponents of the ordinance at least—are as charming as they are functional.

"Voluntary" construction hasn't been enough, however. Museum officials restored the old palace to its former elegance, but many of the newer buildings on the plaza have continued on page 302







Choose handsome, sturdy Modernfolds exactly suited to your purpose

ALL-NEW WOOD LINE—Rich, mellow appearance. Quiet, graceful, easy-gliding. Wide assortment of selected, matched veneers, laminated to solid core for extra stability.

FAMOUS FABRIC LINE—MODERNFOLDS, covered in fabulous fabrics and weaves, all washable. Perfect balance, lifetime service from exclusive double-strength, all steel inner frame.

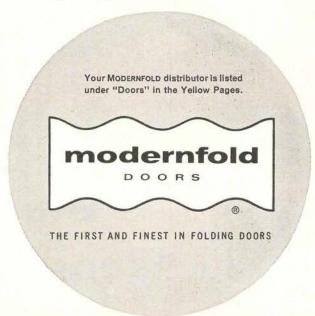
NEW SOUND-RETARDING DOOR—Test after test proves Modernfold's new sound-retarding door sets new standards in the industry. Only Modernfold has it.

BEAUTIFUL HARDWARE—Gracefully executed, yet rugged and practical as can be. Modernfold enhances folding door eye-appeal with specially designed hardware in rich brass or satin finish chrome.

EXTRA-VALUE FEATURE—Dimensional stability...so vital to the life and appearance of folding door fabrics. Modernfold achieves it with an exclusive back-coating process (patent pending).

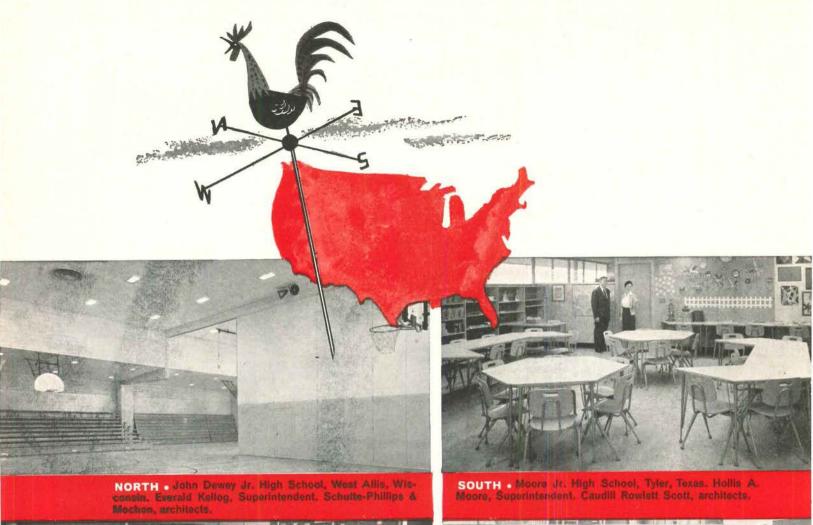
COLOR RANGE—The smartest in the industry. Modernfold offers an inspired choice of decorator colors... plus neutral and natural shades for blending, matching or contrasting with any room's color scheme.

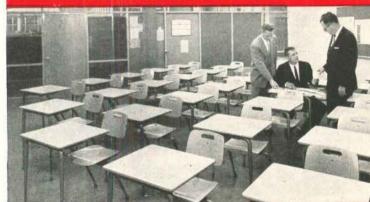
Modernfold offers you an almost limitless flexibility of use, with the most handsome, rugged folding doors in the industry.



NEW CASTLE PRODUCTS, INC., New Castle, Indiana Manufacturers of Folding Doors, Air Doors, Shower Enclosures, Vinyl-coated Fabrics, and Peabody School Furniture.

In Canada: New Castle Products, Ltd., Montreal 23,





EAST . South High School, Hagerstown, Maryland, William M. Brish, Superiotendent. McLood and Ferrara, architects.

WEST - Westmoor High School, Daly City, California, E. A. Morgan, Superintendent, Mario J. Ciampi, architects.



LARGE CITY • Glendale Jr. High School, Salt Lake City, Utah, Dr. M. Lynn Bennion, Superintendent, Scott & Beecher, architects.



SMALLER CITY - Missoula County High School, Missoula, Montana, D. H. Berry, Principal, Brinkman & Lennon, architects and engineers.

Invest in

Brunswick

SCHOOL EQUIPMENT

for better learning . . . for lasting value



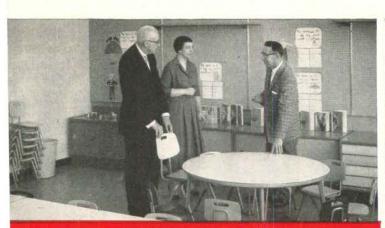
Looking for proof?

It's here...there...everywhere!

Since its introduction to the field in 1953, more school districts have switched to Brunswick than to any other line made. Today, you'll find Brunswick furniture, movable cabinets, and gymnasium equipment of *Advanced Design* in thousands of schools in all 48 states

Why this overwhelming nationwide acceptance? Because Brunswick—and only Brunswick—is designed, constructed and distributed to serve the expressed needs of today's educator, business official

Continued



SUBURB • Royal View Elementary School, Willoughby, Ohio. J. B. Woodside, Superintendent. Spahn & Barnes, architects.



RURAL - The John Hugh Reynolds Elementary School, Morriton, Arkansas, Paul G. Liddicast, Superintendent, Sinocchio Cromwell & Associates, architects.

Continued from preceding page

and investing community. No other line is as complete—from kindergarten through college, for specialized classrooms and school areas. No other line has been awarded the coveted Industrial Designers Institute Gold Medal for "answering the need for modern, functional school furniture..." Every unit is constructed to meet a 20 Year minimum life (plus new Lifetime Fiberglass seating in new Colors for Learning!). No other line gives so great a learning return on the dollar invested in it.



SCHOOL EQUIPMENT



ELEMENTARY • Selby Grove School, Rivers, California, St. R. Steed, Superintendent, Kistner, Wright & Wright, architects and engineers.



SECONDARY • Belleville Township High School and Junior College, Belleville, Illinois, Dr. Donald Matthews, Superintendent, The Frank F. Hilliker and Associates – Food Service Consultants, Charles King and Associates, erchitects.

Planning a new school? Remodeling an older one? It will pay you well to visit a few Brunswick installations in your vicinity... talk to the men and women who know Brunswick best—educators who continue to specify Brunswick, the standard in school equipment.

Get the facts...and figures— Contact your local Brunswick representative for a list of installations in your area.

BRUNSWICK FIBERGLASS ... in new COLORS FOR LEARNING

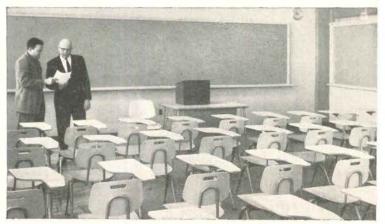
SEND TODAY FOR FULL INFORMATION ON BRUNSWICK FIBERGLASS FURNITURE. An important new contribution to the educational environment.

| The Brunswick-Balke-Collender Compan | У |
|--------------------------------------|---|
| School Equipment Division, Dept. 156 | |
| 623 South Wabash Avenue, Chicago 5 | |

Please send literature on

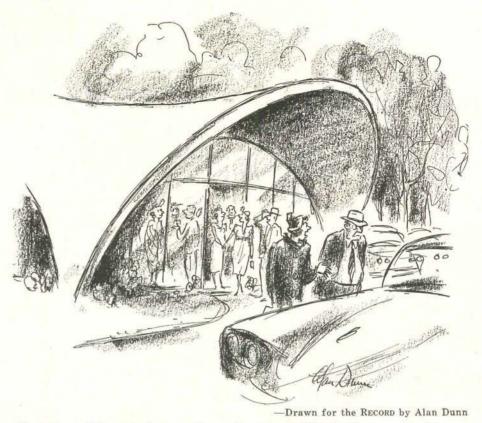
- ☐ Color/Fiberglass Furniture
- ☐ Furniture Catalogue
- ☐ Movable Cabinets
- Gymnasium Equipment
 (Folding Partitions, Gymnasium Seating
 Basketball Backstops)

| | sketball Backstops) | nnasium Seating | he |
|----------------|----------------------|-----------------|----|
| ☐ Mod | uwall Chalkboard Sys | stem | |
| Name | | | |
| Title | | | |
| School or Firm | | | |
| City | Zone | State | |



COLLEGE • Northern Illinois State Teachers College, DeKalb, Illinois. Z. H. Dorland, Business Manager. Frank Vaughan, Director of Purchases. Perkins and Will, architects.

Meetings and Miscellany



"The balance of forces in the space-frame—the mastery of the bending moment, of torque, of sheer, of creep—and all you could say was 'Hot dog!'"

A.I.A. Gold Medal to John Root

The American Institute of Architects' Gold Medal will be awarded this year to John Wellborn Root, of Chicago, the Institute has an-



nounced. The Medal, the highest honor the A.I.A. offers to architects in recognition of their service to the profession or to the Institute, will be

presented at the annual convention, scheduled July 7-11 for Cleveland. The Institute also announces the selection of Viktor Schreckengost, Cleveland sculptor and ceramist, as recipient of the Fine Arts Medal, and of François Lorin, of Chartres, designer and executor of the stained glass window which the A.I.A. presented to Chartres Cathedral, to receive the Craftsmanship Medal. New York engineer Fred Severud has been awarded one of two new medals established this year-the Allied Professions Medal for achievement in the design professions related to architecture. The other new medalthe Industrial Arts Medal-goes to graphic artist Merle Armitage of Yucca Valley, Cal. The Edward C. Kemper Award will be presented to Edmund R. Purves, executive di-

rector of the A.I.A. At the same time, the Institute announced its list of Honorary Members for 1958: F. Moran McConihe, Commissioner of the Public Buildings Service, General Services Administration, and Deputy Commissioner Fred S. Poorman of PBS; John Douglas Forbes, editor of the Journal of the Society of Architectural Historians was made an honorary member in January of this year. Honorary Fellowship in the Institute has been extended to eight foreign architects: Alvar Aalto, Finland; Matsudo Gumpei, Hector Mardones-Restat, Japan; Chile; Pavel Abrossimov, U. S. S. R.; Augusto Guzman R., Peru; I. Caro De Castro Mello, Brazil; and Frederico Ugarte, Argentina. The eighth is Flemming Grut of Denmark, who was made an Honorary Fellow in May. Major points of the convention's program, as outlined by the A.I.A., include a keynote speech by Secretary of the Treasury Robert B. Anderson; an address "The Anthropologist Looks at Architecture" by Dr. Margaret Mead; an architectural keynote speech by Vincent G. Kling, Philadelphia architect; an address "The Western Reserve-Part of Our Heritage" by Harlan Hatcher, president of the University of Michigan; and seminars and panels on cost estimates, "where to find construction money," developing the building program, working with the homebuilder, urban planning, office organization,

chapter affairs and "professional status." Institute business will include the election of officers—contests are scheduled for all major offices—and of four regional directors; for slate, see Architectural Record, April 1958, p. 21.

Pate heads Consulting Engineers

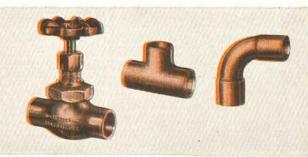
Charles C. Pate of Tulsa has been elected president of the Consulting Engineers Council, which held its second annual general meeting in San Francisco May 1-3. Mr. Pate succeeds Edward J. Wolff of Chicago. Among the important actions of the meeting were admission of two new member associations, Michigan and Houston; authorization of the Ethical Practices Committee to draft a very complete code of ethics for consulting engineers; and adoption of a new definition of "consulting engineer." Text of the definition is as follows: "A consulting engineer is a professional engineer who offers his services on a fee basis and who has no commercial affiliation to bias him. He is trained in the expert and judicious application of science and technology to the solution of engineering problems, and is one who, through special application, broad experience, proven ability and professional integrity, provides his client with technical advice of the highest quality, in the fields where he practices as an expert." There was discussion of such matters as the

USE Streamline DWV FOR QUALITY LOW-COST



These two men are preparing a DWV prefabricated assembly for a multiple bath sanitary drainage system. With the variety of fittings available, the use of fittings especially designed for the job saves many joints in the fabrication. The strong, rigid assembly may be placed into position with a minimum number of connections needed to complete the installation. Contractors report DWV copper tube and fittings can be installed in half the time normally required when using cumbersome caulked or threaded piping materials.

IN ADDITION TO A COMPLETE LINE OF DWV TUBE AND FITTINGS, the Mueller Brass Co. also manufactures a wide range of solder-type wrot fittings, cast valves, and K, L and M tube for every piping need . . . always available from better wholesalers everywhere.



COPPER TUBE AND FITTINGS SANITARY DRAINAGE

Lifetime copper is recognized as the ideal material for modern piping . . . that's why Streamline DWV copper tube and fittings for sanitary drainage has



gained widespread acceptance by architects, building and plumbing contractors everywhere.

Here are just a few of the many ways that DWV tube and fittings can make a better installation at a new, lower cost:

DWV copper tube and fittings are easy to handle and are far lighter than competitive rustable materials. Lengths up to 20 feet can be easily handled by one man. Fewer joints are needed and every step of installation is quicker, easier, allows more work per man-hour. DWV copper tube and fittings are corrosion resistant . . . cannot rust. DWV copper tube and fitting joints never leak . . . always form permanently water-tight and gas-tight connections. DWV copper tube and fittings have smooth interiors with no internal projections or threads to trap particles and clog the system. DWV copper tube and fittings take up less space. 3" stack fits in 2" x 4" wall partition with no furring or buildouts. DWV is also ideal for remodelling. DWV copper tube and fittings can be prefabricated in the shop or on the job to cut time and costs to a minimum. DWV copper tube and fittings in a drainage system improve the quality of any home or building. Everybody accepts copper as the symbol of permanence and dependability.

VISIBLE PROOF OF STREAMLINE QUALITY...

All Streamline tube is color coded for your convenience . . . in a flash you can tell size and type, BUT more important, it's your guarantee of quality. Genuine Streamline

tube is made to the highest American standards and it never varies. Type "M" is coded Red . . . Type "L", Blue . . . Type "K", Green . . . and DWV is coded Yellow.



250





PORT HURON 8, MICHIGAN

Meetings and Miscellany

corporate practice work of the "Ccmmittee on Engineering Laws" which the C.E.C. Corporate Practice Committee has been set up to watch; the brochure being prepared by the Public Relations Committee on the services of consulting engineers; the effort to form a national group for errors and omissions insurance; the work of the Documents Committee, which has a new architect-engineer form of contract now awaiting A.I.A. approval; and the work of officers of C.E.C. with various Washington agencies toward solving some common problems of consulting engineers on public work. C.E.C. will issue a yearbook and membership roster in the near future.

1958 Graham Fellows Announced

The Graham Foundation for Advanced Studies in the Fine Arts has announced the award of eight fellowships for 1958; the recipients: Eduardo Chillida, sculptor, Spain; Balkrishna V. Doshi, architect, India; Jose Guerrero, painter, U. S.; Thomas J. Houha, architect, U. S.; Norbert Kricke, sculptor, Germany; Wifredo Lam, painter, Cuba; Fumihiko Maki, architect, U. S.; and Lancelot Law Whyte, philosopher, England. Frederick J. Kiesler, U. S. architect, selected as a fellow last year but unable to participate, will be a member of the 1958 group. The Graham Foundation is the result of a legacy of the late Ernest R. Graham, partner of the Chicago architectural firm Graham, Anderson, Probst & White. It bestows grants of up to \$10,000 a year for selected fellows "to engage in individual or group pursuits in advanced studies in architecture, painting, sculpture and related arts." Members of the 1958 Board of Advisors who selected this year's fellows were architect William E. Hartmann, Director of the Foundation; Sigfried Giedion, architectural critic; Daniel Catton Rich, director of the Art Institute of Chicago; James Johnson Sweeney, director of the Solomon R. Guggenheim Museum; Ludwig Mies van der Rohe, director of the Department of Architecture, Illinois Institute of Technology; and José Luis Sert, dean of the Graduate School of Design, Harvard University. John Ely Burchard, dean of the School of Humanities and Social Studies at Massachusetts Institute of Technology and consulting editor to ARCHITEC-URAL RECORD, serves the board as a consultant. In September, the new fellows will conduct a seminar, under the direction of Dean Burchard, on various aspects of the arts; it will be held at the Foundation's headAmerican architect in Palladian settingliterally Palladian, that is: Edward D. Stone on the porch of Palladio's Villa Malcontenta, near Venice, which he and Mrs. Stone took for the month of May; enjoying, Mr. Stone says, "evidence of an era of grace before the philosophy of the splitlevel subjugated man." . . . (Below) Graham Foundation advisers at recent meeting in Chicago-(left to right) William E. Hartmann of Skidmore, Owings & Merrill, Foundation director; Dr. Sigfried Giedion, presently of Harvard's Graduate School of Design; Daniel Catton Rich, director of the Art Institute of Chicago; James Johnson Sweeney, director of the





Solomon R. Guggenheim Museum of New York; Dr. Grace McCann Morley, director of the San Francisco Museum of Art; Ludwig Mies van der Rohe of Chicago; Dean José Luis Sert of Harvard's Graduate School of Design; and Dean John Ely Burchard, of the School of Social Studies and Humanities at M.I.T. . . . Newly elected officers (above right) of Consulting Engineers Council-(standing, left to right) Hueston M. Smith, St. Louis, secretary; Ralph M. Wescott, Los Angeles, second vice president; (seated, left to right) L. K. Crawford, Springfield, Ill., first vice president: B. M. Dornblatt, New Orleans, treasurer; Charles C. Pate, Tulsa, president; Edward J. Wolff, Chicago, past president. . . (Right) Gumpei Matsuda, president of the Japanese architectural Association, and his partner, Shigeo Hirata, dining at the American Club in Tokyo with Tom Tredwell, advertising manager of ARCHITECTURAL RECORD, and Mrs. Tredwell. Messrs. Matsuda and Hirata, both Cornell graduates, are architects of Tokyo International Airport

quarters, 216 East Superior Street, Chicago.

Regionalism in New York?

"Is there any regional architecture in the New York area?" was the question at an Architectural League of New York forum recently. Each of the three panel members answered with a definite "no." The forum was held in connection with the League's Regional Residential Architecture Exhibit—19 architect-designed houses in the New York City region. Olindo Grossi, dean of the School of Architecture at Pratt Institute, was moderator. The panel





members were Peter Blake, New York architect: Robert Martin Englebrecht, architecture editor, Living for Young Homemakers; and Charles Magruder, managing editor, Progressive Architecture. They all concluded, in general, that there is no New York regional architecture and. specifically, that the 19 houses exhibited could be anywhere in the country. Sibly Moholy-Nagy, of the School of Architecture at Pratt Institute, commenting from the floor, remarked that the houses on exhibit showed "regionalism of the Harvard school," an intellectual approach she said is exemplified by Gropius and Breuer.



The exclusive full random pattern of Armstrong Acoustical Formboard heightens interest in this ceiling while it muffles noise. Multipurpose room, Harlan Elementary School, Birmingham, Michigan. Architect: Smith, Tarapata, MacMahon, Inc., Birmingham. General Contractor: David Pettibone, Romeo. Deck Applicator: Rohn Fireproofing Company, Detroit.

New Armstrong Acoustical Formboard keeps roof costs down — offers attractive ceiling at the same time

HERE ARE the three major benefits you can obtain by specifying Armstrong Acoustical Formboard for your next poured-in-place roof deck job.

First, noise control. Second, more interesting decorative ceiling effects. Third, low installation costs.

The extra strong T&G joints of this new Armstrong Formboard eliminate the need and expense of supplemental splines or cross (joint) tees.

The elimination of these supporting members also makes possible a cleaner, undivided ceiling design.

Armstrong Acoustical Formboard is fabricated from two ½" fiberboard panels. It is perforated in an attractive full random design and finished with two coats of factory-applied white paint.

It has an NRC specification range of .50-.60 and a Certified "C" value of 0.36 Btu at 75° mean temperature.

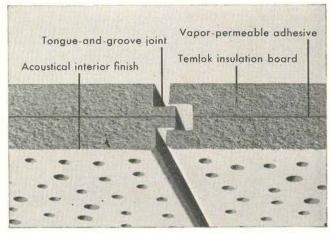
It is available in 24" x 48" x 1" and 32" x 24" x 1" sizes.

Armstrong FORMBOARDS

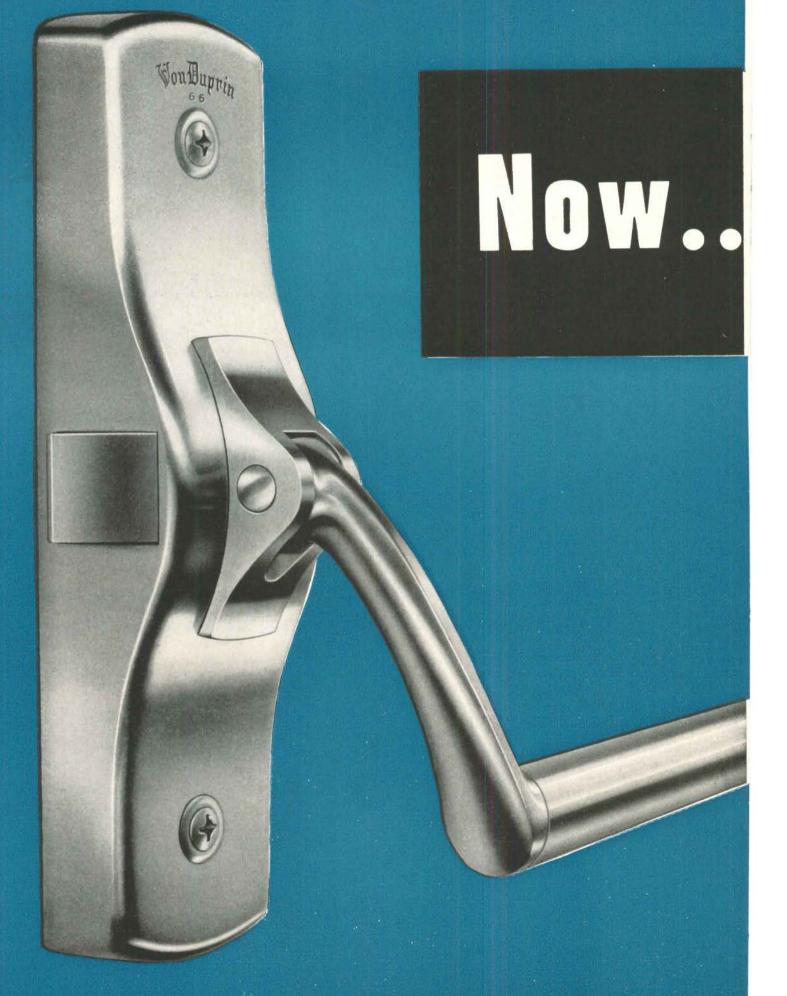
Acoustical Formboard

Insulation Formboard (T&G or Cut-to-Length)

For complete details and specifications, refer to Sweet's Architectural File 2h/Ar, or write Armstrong Cork Company, 3806 Rock Street, Lancaster, Pennsylvania.



High strength of Armstrong Acoustical Formboard results from two-layer lamination. Vapor-permeable fiberboard and laminated adhesive allow free escape of moisture for slab curing. Special adhesive retains its strength when wet.



Stainless Steel

Von Buprin 66

It's here . . . a sleek, slim exit device of stainless steel! Available in a complete line —rim, mortise lock and vertical rod models in either stainless steel or bronze. And a smart new series of matching outside trims.

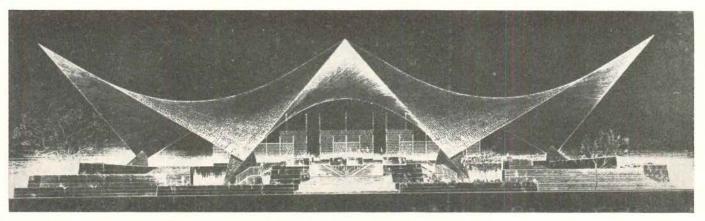
If you have not yet received your catalog section on Type 66, please write:



"the safe way out!"

VONNEGUT HARDWARE CO. Von Duprin Division Indianapolis 9, Indiana

News of Architecture Abroad



A MAUSOLEUM FOR JINNAH: LONDON FIRM TAKES FIRST PRIZE IN INTERNATIONAL COMPETITION

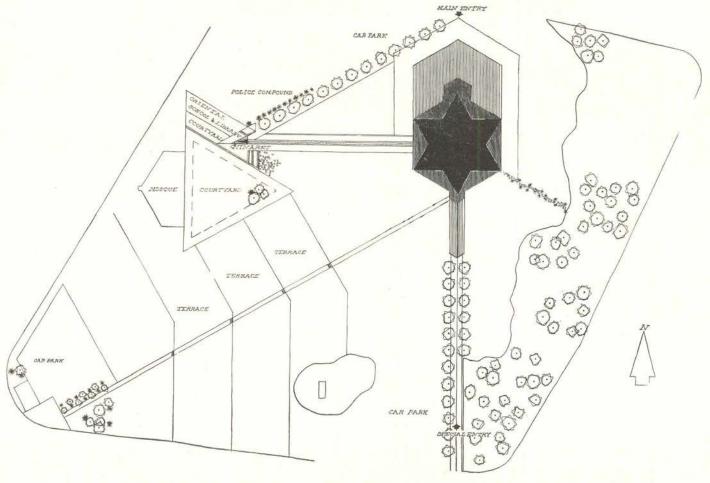
Winner in the international competition for a mausoleum to be built for the Pakistani hero Mohammed Ali Jinnah, announced February 24 in Paris, was the English firm Raglan Squire and Associates, which was awarded the first prize of 25,000 rupees (about \$1190). The competition program called for a memorial to be built on the site of the sarcophagus of the Qaide-Azam Ali Jinnah, the founder of the Republic of Pakistan (Qaide-Azam can be translated as "Great Leader"), and was to incorporate the burial place of Liagat Ali Khan, the country's first prime minister. It also called for a master plan of buildings to be built in the future:

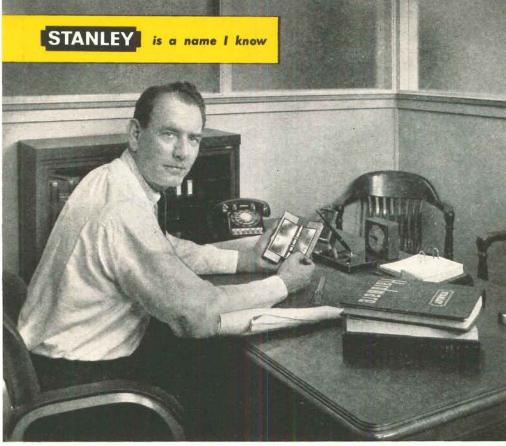
a mosque for 25,000 people, a restaurant, shops, police station, post office, guard house and rest rooms; for the present, only the mausoleum and the gardens will be executed.

Describing their approach to the design, the architects write: "From the beginning, our work on this project was motivated by the belief that the solution to the problem would be an idea, an idea which by its scale, simplicity and dominating form would express the stature, faith and strength of this very great leader. We believed at the outset that this idea, when it came, would appear as a fully developed architectural conception rather than the product of a long

process of analysis. Insofar as we belive this, we believed that the answer we were looking for would be the result of personal inspiration rather than collective designing."

The inspiration, as it developed, was for a canopy of six hyperbolic paraboloids, which will shelter both tombs. Jinnah's sarcophagus will be raised on a marble slab in the center of a terraced series of concentric hexagons, and will be encircled by a pair of anodized aluminum grilles. Liaqat Ali Khan's tomb will be set outside this core, but will be dignified by gardens located in the eastern area of the site, to be known as the Qaide Millat gardens. The Qaide-





Why Stanley hardware was used at the N.Y. International Airport

The new International Arrival Building at Idlewild is designed to create the best possible first impression. It's modern, convenient, artistic — an inspiring sight to travelers getting their first glimpse of the United States.

This terminal is expected to welcome visitors for a long, long time. The hinges must last that long, too, with a mini-

mum of maintenance.

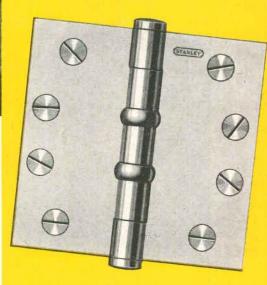
The nature of the installation called for stainless steel, ball bearing hinges, which will resist corrosion and swing the doors for generations of world travelers.

On all counts, Stanley hinges are expected to do a thoroughly satisfactory job for all the doors.



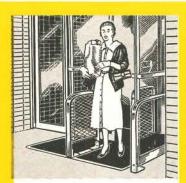
The Port of New York Authority's new International Arrival Building at Idlewild — gateway to the United States for most air travelers from abroad.

Architects: Skidmore, Owings and Merrill, Inc. Hardware supplied by Charles Kurzon, Inc.

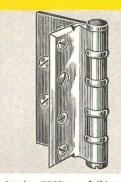


STSDBB193 stainless steel, ball bearing hinges, used on interior doors throughout the International Arrival Building.

STANLEY IS THE NAME TO LOOK FOR ON QUALITY PRODUCTS LIKE THESE



Stanley MAGIC-DOOR Controls offer a modern, helpful "automatic welcome" to passengers as they enter the terminal.



Stanley BB98 — a full-jeweled, ball bearing, half-mortise hinge for high-frequency hollow metal doors with channel iron jambs.



Stanley "Hinge Template" book — 43 pages containing all standard templates on hinges — a "must" for every consultant.



Stanley STSDBB199 hinges swing the heavy exterior doors noiselessly, will provide a lifetime of "care-free" service.

AMERICA BUILDS BETTER AND LIVES BETTER WITH STANLEY



This famous trademark distinguishes over 20,000 quality products of The Stanley Works—hand and electric tools

- builders and industrial hardware - drapery hardware - door controls - aluminum windows - stampings - springs

- coatings - strip steel - steel strapping—made in 24 plants in the United States, Canada, England and Germany.



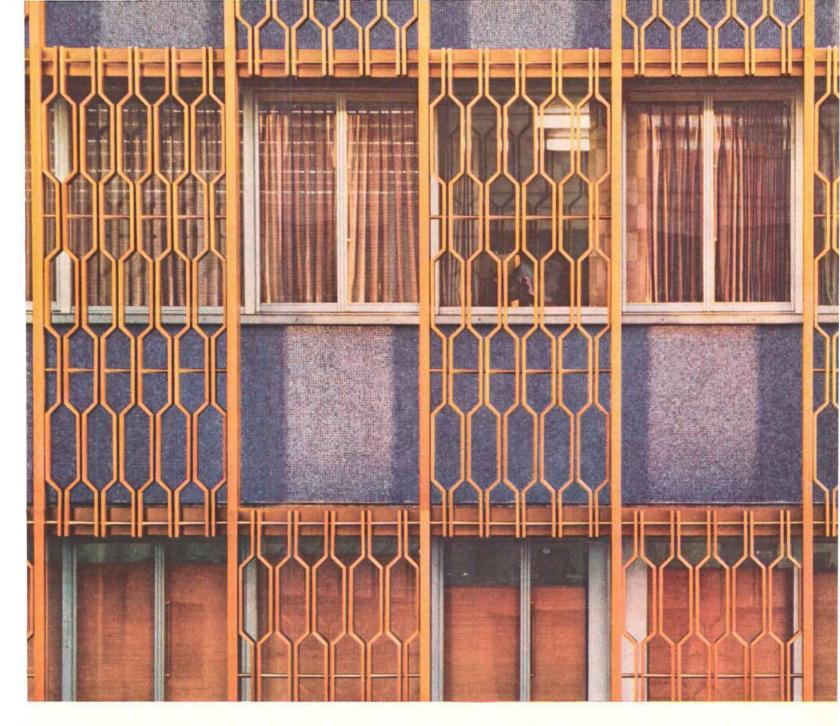
- Exclusive cam lock compression seal with "down" and "in" action assures positive gasket contact.
- Exclusive shock absorbing chain link absorbs shock of start and stop—minimizes power requirement.
- Exclusive calibrated balancing spring gives cushioned no shock closure and counterbalances weight of door for easy opening.
- Exclusive full height safety edge is sensitive full travel of door.
- Exclusive enclosed reduction gear sealed in oil.

- Emergency controls; padlocking provision; rear emergency release.
- Tough, durable gaskets. All gasket contacts visible.
- Doors are factory assembled and given operating tests before they are shipped in easily erected units.

For descriptive bulletin write today to Jamison Cold Storage Door Co., Hagerstown, Md.

*JAMISON TRADEMARK





Golden Grillwork of Alcoa Aluminum blends beauty of form with color and texture



BUILDING: Industrial National Bank,
Miami, Florida
ARCHITECT: Edwin T. Reeder & Associates,
Miami, Florida
GENERAL CONTRACTOR: Arkin Construction
Company, Inc., Miami Beach, Florida
ALUMINUM FARRICATOR: Metallic Engineering
Company, Miami, Florida
FINISHING PROCESSOR: Southern Aluminum
Finishers, Atlanta, Georgia

All three elements of fine design—form, color and texture—are masterfully combined in this golden grillwork of Alcoa® Aluminum. Geometric patterns add depth and variety to the façade. The golden color is an integral part of the metal surface . . . for lasting brightness. The unusual texture is an everlasting invitation to the eye. Interiors and exteriors take on new splendor with the limitless form, color and texture possibilities of this new use for Alcoa Aluminum . . . the architect's metal.

Call your nearest Alcoa sales office for technical data and counsel. Or write Aluminum Company of America, 1888-F Alcoa Building, Pittsburgh 19, Pa.

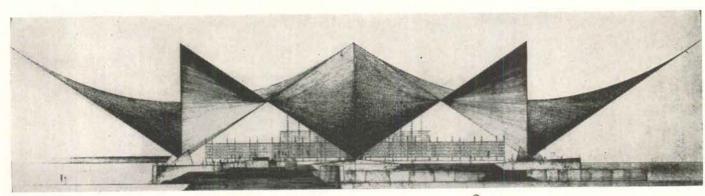
SOLAR SHADING. Sun's rays are deflected, air-conditioning load lightened, by handsome aluminum golden grille.



Your Guide to the Best in Aluminum Value



News of Architecture Abroad



Jinnah Mausoleum

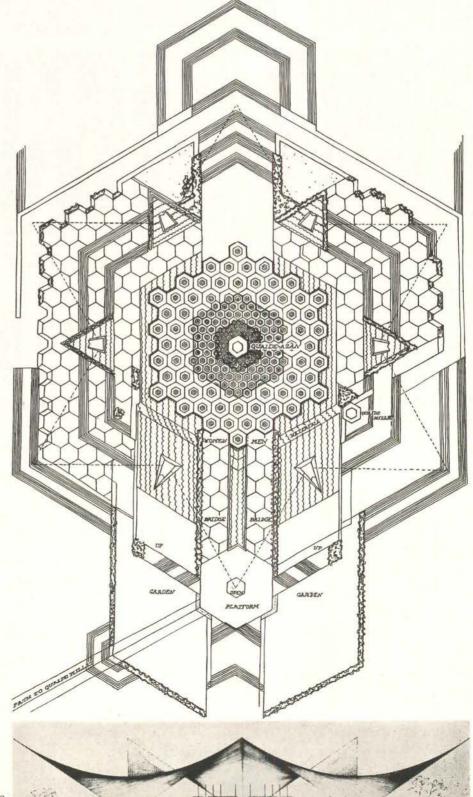
Azam grove will be set in an area to the southwest.

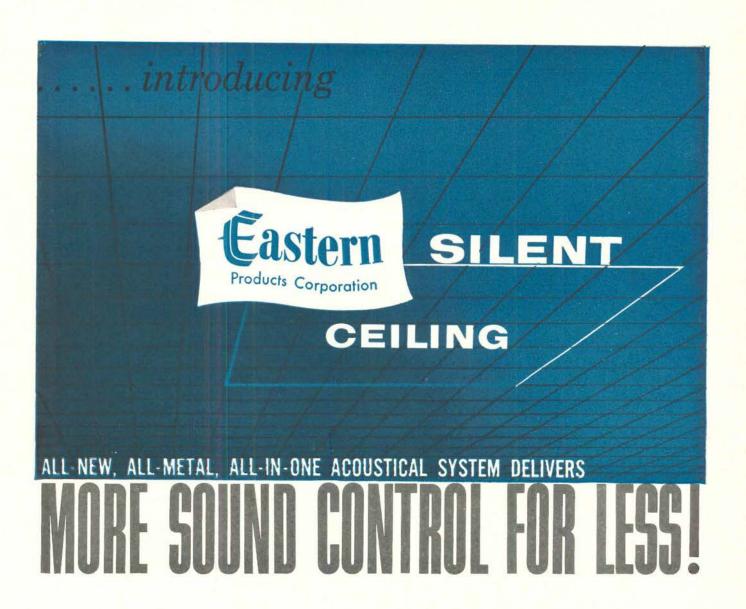
Water will also play an important part in the design, with large pools at two levels. A "high level" pool will be in effect a moat surrounding the tomb and will fall into lower pools at the main entrance; visitors approaching from the main entrance will cross a bridge to reach the tomb. A walk raised to the level of the tomb will make it possible to walk around the central structure. The canopy will be supported by triangular shaped abutments, four of them set in the higher pools, the other two set in lower pools on either side of the main entrance. The water from the higher pool will also fall into a trough which will connect the mosque's minaret with the mausoleum.

The structure of the canopy will be of $2\frac{1}{2}$ -in. concrete shells, with an exterior facing of gold-colored mosaics laid on a screed. The floor will be finished with hexagonal marble sections; retaining walls and pool facings will be stone.

Other awards in the competition, which was sponsored by the Central Committee of the Qaide-Azam Memorial Fund: two second prizes, each carrying awards of 7500 rupees (about \$357), went to Pierre Dufau and Paul Herbe, both of Paris; three honorable mentions, carrying prizes of 3300 rupees (about \$157), were given to the firm Andrault, Parat and de la Tour d'Auvergne of Paris, to Naqvi & Siddiqui of Karachi, and to Primakoff, Marett, Thariana & Ankolar, also of Karachi. Two other mentions, with no prize, were given to Flurin & Andry, Bienne, Switzerland, and to Mr. Meeking, London.

The international jury was composed of the Prime Minister of Pakistan, Eugène Beaudouin of France, Robert H. Matthew of Great Britain, Pier Luigi Nervi of Italy, Gio Ponti of Italy, and Georges Candilis, representing the International Union of Architects.





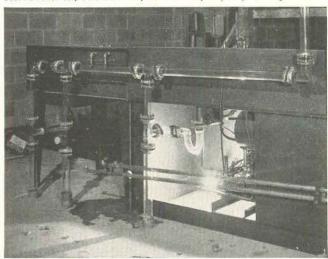
Eastern's new "Silent Ceiling" is a major breakthrough in the technology of acoustical ceilings. It integrates the most advanced metal-ceiling components into a complete, easy-to-specify system.

COSTS LESS TO INSTALL AND MAINTAIN

Unlike most conventional-type panels which are available only in small sections, "Silent Ceiling" modules are the longest in the industry . . . up to 12 feet in length. These speed and simplify installation . . . eliminate time-consuming clipping of small tile units to T-bars. Eastern's extra-long panels fasten directly to $1\frac{1}{2}$ " channel, wood joists or other flat surfaces . . . with minimum loss of room height. Panels are both rolled and stamped, double-coated with high-bake Du Pont enamel for extreme durability and washability . . . supplied complete with pre-fitted sound absorbing pads. The entire "Silent Ceiling" system is rated Class A in flame resistance. Its smooth, level plane is unaffected by vibration. Its architectural advantages are unique!

| Eastern Products Corporation | Acoustical Division, Eastern Products Corp. 1601 Wicomico St., Baltimore 30, Md. Please send, without obligation, full details on the new Eastern "Silent Ceiling". |
|------------------------------|---|
| Mail coupon today for | NAME |
| full information! | STREET |
| | CITY ZONE STATE |

Chicago Sun-Times Bldg.: Field Enterprises Inc., Owner; Naess & Murphy, Architects; Geo. A. Fuller Co., Gen. Contractor, G. F. Connelly Co., Inc., Plumbing Contractor.



Why they put glass pipe in new Sun-Times building

Ever work on a building where you had to get rid of corrosive wastes? A laboratory? Or a hospital? Manufacturing plant? Or a newspaper building?

In the Chicago Sun-Times building the problem was nitric acid and ferric chloride used in photoengraving.

The architects decided on Pyrex® Glass Pipe. It's a special kind of glass. Can't corrode . . . not even with nitric acid bubbling through it.

You can see through it, too. Makes inspection and maintenance just a few minutes' work . . . and there's no guessing.

Pyrex drainline installs as easily as the conventional pipe . . . comes in diameters from 1" to 6" with all standard fittings, traps, and sink cups.

For a bulletin on this newest of answers to an old, old problem, write us.



Can't corrode. You see through it. It's "Double-Tough." It's PYREX Glass Drainline.



CORNING GLASS WORKS

25-6 Crystal Street, Corning, New York

Corning means research in Glass

Shown at right: Stylon Pacesetter I Pattern on Spandrel of Palm Beach Towers, Palm Beach, Florida. Architect: John Hans Graham, AIA. Tile Design: Arthur J. Ambuter, Stylon Director of Design.

exciting effects
in spandrels...
and other interiorexterior surfaces
with Stylon
unglazed
ceramic tile

In his plan for the spandrel design of this resort apartment-hotel, Architect John Hans Graham sought distinctive beauty in keeping with the richness of the surroundings. His choice of Stylon unglazed ceramic mosaics helps make the building one of the most outstanding in Palm Beach.

When you want unusual effects for any surface, Stylon unglazed ceramics will suggest unlimited design variations, ways to achieve distinction yet blend faultlessly with any interior or exterior. Choose from no less than 40 colors and textures, countless patterns. The two new patterns and three new blends shown demonstrate the versatility of Stylon. Harmonizing colors in matt- and bright-glazed wall tile are also available — give you even more variety to choose from. Why not let Stylon's Design Service help you prepare custom designs or plan unusual installations?

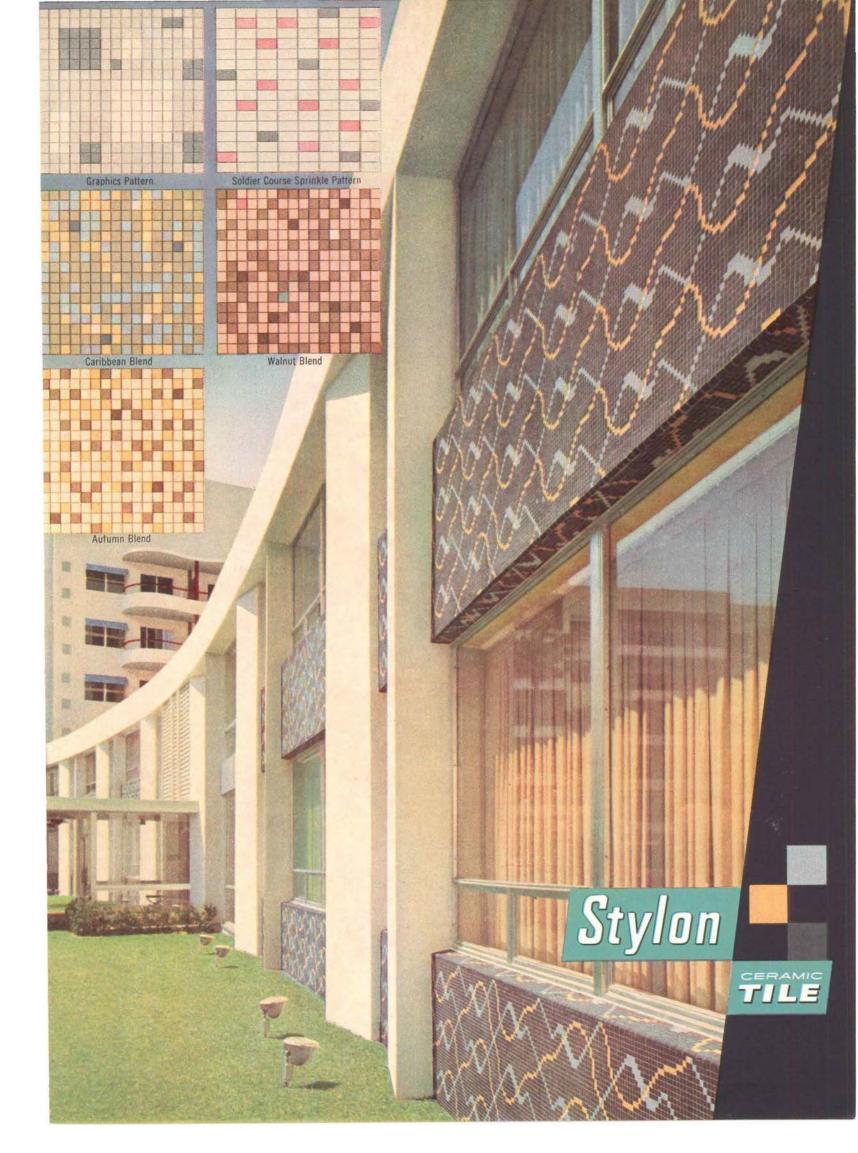
You'll find Stylon unglazed ceramic tile available in all sizes in conventional paper-faced sheets, or with the new "Sure-set" backing, a perforated polyethylene sheeting that allows patterns to be set face up. With "Sure-set" backing, paper doesn't have to be stripped from the face of the tile sheet; patterns can be seen while being laid, and errors are avoided.

Chances are a Stylon distributor is right around the corner. Consult your Yellow Pages or use the coupon below. And, of course, you'll find our catalog in Sweet's.

Stylon Corporation • Plants in Milford, Massachusetts, and Florence, Alabama Member: Tile Council of America, Inc. • The Producers' Council, Inc.



| Please send: | ☐ Full-color catalog of Stylon Ceramic Tile, including colors, sizes, shapes, and new features. | Information on Design Service. |
|--------------|--|--|
| | ☐ Information on the new frostproof wall and floor tiles in sizes up to 12" x 16". | Catalog of new ideas in tile floor patterns |



A Washington Report by Ernest Mickel

BOOMING CONSTRUCTION SPECIFICATIONS INSTITUTE PUTS A NEW SPOTLIGHT ON SPECS

The phenomenal membership growth experienced by the Construction Specifications Institute in recent years can be laid to renewed interest in its pronounced objectives—better specifications—and a lot of hard work on the part of devoted members preaching the cause.

This organization had an unspectacular beginning a decade ago when a group of less than 30 men, mainly Federal government career employes, decided that better specifications would result and the writers' lot would be immeasurably improved if they could band together in their common interest.

The objectives as set out in the by-laws of 1948 were lengthy and comprehensive in the effort to include all desirable goals but they can be summed up in this excerpt, "To promote improved specification practices in the construction and allied industries; to gather, compile and analyze statistics and information relating to or useful in the conduct of such activities."

The early years of C.S.I. held little hope of the successes that materialized later. Directors traveled to Washington quarterly for brief evening meetings, there was no paid help and the organization ran mainly on the spirit of its small membership.

Early in 1956 there were seven chapters spread throughout the country and a roster of 825 members. As of April 30, 1958, the Institute had 2647 members in 25 chapters with four units organizing. The membership explosion in the intervening years resulted from a recognition of the benefits that could come from specifiers getting together to exchange experiences and the proselytizing of such men as Willard H. Barrows, New York, head of chapter development activities; J. Stewart Stein, A.I.A. Chicago, vice president and probable president succeeding the incumbent, Norman Hunter, A.I.A., Los Angeles; and Harry Plummer, C.S.I.'s secretary-treasurer.

In the opinion of Carl Ebert, Washington, D. C., one of the three founders of the Institute, the popularity which has produced an average of 100 applications for membership per month for the past six months stems from the work of these men and those similarly devoted to improvement in the quality of specifications.

The present membership is divided almost evenly between those with "active" and those with "associate" status. Active members, specification writers and architects, numbered 1310 on April 30; associate members, largely manufacturers' representatives, numbered 1324. There were 13 students. It is estimated that 70 per cent of those belonging to C.S.I. also are affiliated with the A.I.A.

A fourth classification is proposed and is being voted on by mail ballot at the present time. This is a "junior" category, taking in those specification writers in architectural offices who have worked less than two years, the experience required to qualify a man for active C.S.I. status. Under the proposed by-law change, junior status in C.S.I. could be held for only three years. At the end of that period, the member would have to transfer to active or associate status, or withdraw.

Dues are nominal: \$12 annually for both active and associate members, \$2 for students; a \$6 assessment would be levied for the new junior members.

A major program of the C.S.I. for at least the next two years involves work on a number of programs assigned chapter by chapter. The subjects are cleared through the Institute's national technical committee and will result in publications looking toward more uniform specifications and a better literature for construction specification writers.

Following are some of the early chapter assignments:

Boston, structural steel; Central Arizona, masonry; Chicago, painting; Dallas, marble work; D. C. Metropolitan, bibliography, library of specification reference works, codes, etc. (part of the technical program); Detroit, laboratory tests, inspection, etc. (part of technical program); St. Louis, asphalt paying.

New York, nomenclature, preferred construction terms (part of technical program); Northern California, roofing; San Francisco, ceramic tile; Southern California, metal windows; San Diego, specifications section, and Wisconsin, earthwork.

Only the study on roofing has been completed at this time. The Institute last July published the special report on built-up roofings prepared by the Northern California chapter. Sections of the report on metal windows also have been published, although Part V of this, covering applicable provisions, shop drawings and scope of the work, are yet to come.

The material is published in the official magazine of the C.S.I., *The Construction Specifier*. This is a quar-

terly devoted to telling the story of the Institute and recording its accomplishments.

From the chapter efforts in carrying out their respective project assignments comes material helpful to the specifier. One of the purposes spelled out in the by-laws is "to engage in research and study of any and all problems and aspects of specification writing; to establish and maintain the Institute as a clearing-house of unbiased technical information on specifications for the fabrication and installation of construction materials and equipment."

Mr. Plummer voiced a broader purpose when he said, "We must upgrade the competence of specification writers. We must provide them with up-to-the-minute information on construction methods and building materials suitable for their use."

Then he added, "This is not a cocktail organization. There is intense interest in well-planned programs."

C.S.I. held its first formal convention last year in connection with the centennial celebration of the American Institute of Architects in Washington, D. C. Its second annual session will be held in Cleveland, Ohio, this year just ahead of the A.I.A.'s 90th convention. It is being programmed for the general membership of C.S.I. on Saturday and Monday, July 5 and 7, with Sunday reserved for the Board of Directors meeting. Headquarters for the C.S.I. will be at the Carter Hotel.

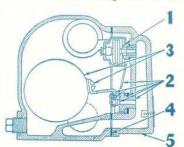
The Board of Directors of the Construction Specifications Institute approved in February a new code of ethics developed by its ethics and rules committee. Here is that code:

- 1. Each member shall discharge his duties and responsibilities to his clients or employers in such a manner as to inspire respect and confidence.
- 2. Each member shall cooperate in extending the effectiveness of the profession and the Institute by the interchange of information and experience with his fellow members as the opportunity presents itself.
- 3. Each member shall endeavor to write specifications that are thorough, clear and concise, and refrain from the use of loose, ambiguous or unenforceable, unfair requirements.
- 5. Each member shall specify materials, equipment, services and construction methods only on merit, without consideration for, or expectation of, personal gain or favors other than from his employer or his client.

 continued on page 282

HOFFMAN STRAPS GUARD AGAINST STEAM WASTE 50 SERIES F & T TRAP

Featuring LOW MAINTENANCE COST



Float and Thermostatic Traps are so designed that all working parts of the trap are a part of the re-movable cover. Once installed there is no necessity for the breaking of any pipe connection for cleaning and repairing.

Compact Thermostat Assembly
 Durable, accurately machined
 Valve Lever and Seat Assembly
 Copper Float Ball Assembly

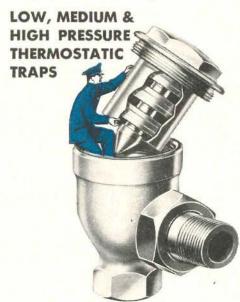
4. Graphite Impregnated Asbestos Gasket 5. Heavy Duty Cast Iron Cover

600 SERIES INVERTED BUCKET TRAP 1. Cover assembly with plug, valve seat, valve seat holder. Bucket assembly with lever, valve stem, bucket pin, lock nut and bucket. 3. Body assembly with gasket and bottom drain plug. HIGHLY EFFICIENT AND EASILY ACCESSIBLE INTERIOR DESIGN

Hoffman Bucket Traps operate intermittently and are ideal for draining condensate and air from steam lines or equipment where large quantities of air and condensate must be discharged. They are easily inspected, cleaned and serviced by merely removing the cover assembly.

Hoffman Traps provide improved design to function more effectively and economically in removing condensate from steam lines and equipment.

Hoffman engineers have anticipated steam requirements that demand less maintenance time and operating costs. Typical of Hoffman's complete line are the Traps illustrated, each with removable cover, pin and seat for quick inspection and cleaning.



RENEWABLE THERMOSTATS and VALVE SEATS

A complete line of Low, Medium and High Pressure Thermostatic Traps for service with radiation, dryers, sterilizers, mangles, cookers and similar uses. Renewable thermostats and seats are important constructional features contributing to long life, low cost service. Medium and High Pressure Traps have stainless steel pins and renewable seats.

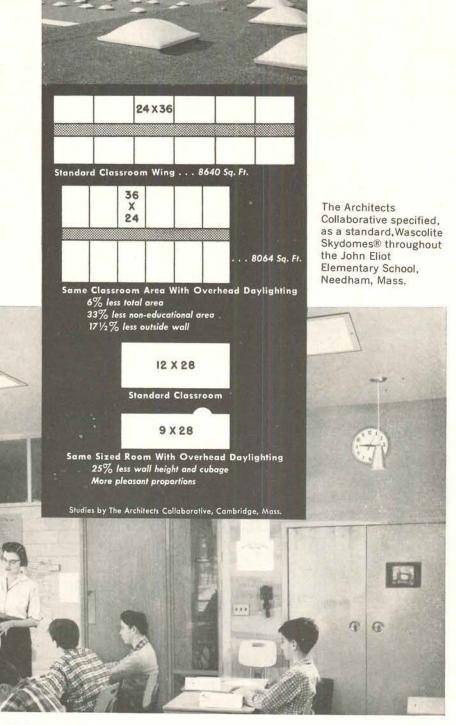
For full particulars, write for catalogs on Bucket Traps, Float and Thermostatic Traps or Thermostatic Traps

Overhead daylighting can throw new light on your design

Whether you're planning a school, home, industrial or commercial building you can apply the same space-saving principals used by The Architects Collaborative to bring healthful reading-level daylight to work and play areas.

When you specify Wascolite Skydomes® you're specifying years of trouble-free service. Wasco's exclusive Acrylite® dome and patented curb design with integral weepage and condensation gutters have made them first choice with architects everywhere. Today, more Wascolite Skydomes are in use than all other makes combined.

There's a Wascolite Skydome to fit your building and design need. Write for full details on the complete Skydome line or see Sweets 20a/Wa.



WASCO

WASCO PRODUCTS, INC.

Bay State Road, Cambridge, Mass. 14753 Aetna Street, Van Nuys, Calif. Wasco Chemical (Canada) Ltd., 19 Hafis Road, Toronto 15, Ont.

WASCOLITE SKYDOMES®



New Linen Weave offers you a remarkably realistic linen-like finish with all of the beauty, durability and easy maintenance of B. F. Goodrich Koroseal fabric-backed vinyl wall coverings. Created to cover large wall areas, Linen Weave comes in 20 pastel and accent shades.

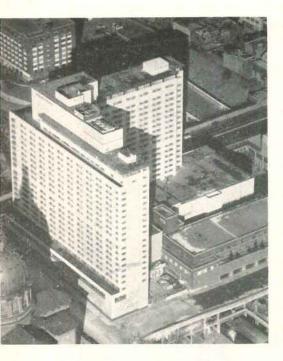
Everest is a new Koroseal wall covering with that rich leather-like look in 13 popular institutional colors. A clear vinyl laminate over Everest's grained texture gives it a unique dimensional appearance, as well as greatly improved resistance to scuffing and abrasion. This makes Everest ideal for use in high-traffic areas.

For details and color swatches, write Dept. AR-6, B. F. Goodrich Industrial Products Company, Marietta, Ohio.



B.F.Goodrich KOROSEAL SUPPORTED VINYL FABRICS

News from Canada by John Caulfield Smith





BRITISH COMMONWEALTH'S LARGEST HOTEL OPENS IN MONTREAL

The 1216-room, 21-story Queen Elizabeth Hotel in Montreal, fifth year-round hotel to be built by Canadian National Railways and seventh to be operated as part of the Hilton Hotels International group, was opened in April with all the gay pomp and circumstance which have come to be associated with Hilton openings.

The hotel, which cost \$24 million to build and furnish, was deliberately designed and equipped to handle large conventions and it is expected to bring some \$10 million in convention money to Montreal annually; already booked, to 1967, are more than 200 conventions involving 135,000 delegates.

Its convention facilities are said to be capable of accommodating 85 per cent of the big conventions held in Canada and the United States. One entire floor, immediately above the main floor lobby, is devoted to banquet halls, private dining rooms and display galleries to cater to conventions. A broad staircase,

moving stairs and a bank of eight elevators service the convention floor from the main lobby.

Rooms range from the standard double bedroom through studio bedsitting rooms to a Royal Suite complete with maid's room; there are also family suites equipped with double-decker bunks for children (no charge for children under 14). The rooms incorporate two firsts in Canadian hotel service—dial telephone service and individual temperature control. The building is completely air conditioned.

For motoring guests, a lower-level registration area is provided—the guest can proceed directly to his room by elevator without going to the main floor lobby.

The hotel, which is part of a longrange development scheme of C.N.R. for a commercial center around Central Station, extends 350 ft along Dorchester Boulevard from Mansfield Street, and 300 ft south on Mansfield.





Top: "Le Café," the coffee shop off the main lobby. Above, "Le Panorama," the 21ststory lounge





Far left: the main lobby, with a 60-ft illuminated stained glass mural along one wall. Left: a typical bed-sitting room, with convertible sofas

ARCADIA'S NEWEST DESIGN...SERIES 102

PROBLEM:

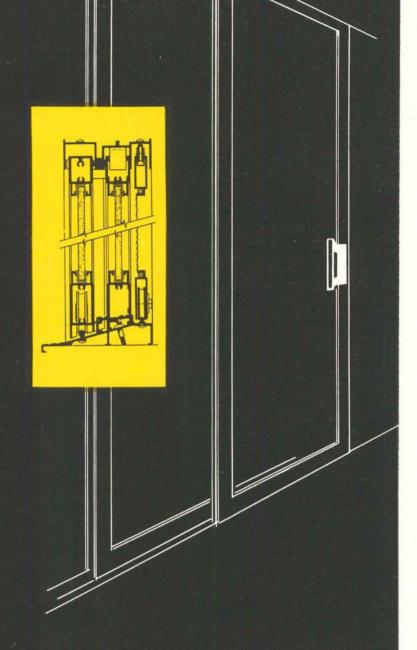
WEATHER

SOLUTION:

ARCADIA'S WATER-TIGHT DOOR

For the first time, a sliding glass door is **completely weatherproof**.

Interior and exterior pressure problems are eliminated. The secrets are Arcadia's unique sill design and outside slider. From high-style functional hardware to nylon-on-nylon wheel and track, Arcadia's Series 102 door is completely new in concept, best ever in performance.





Write for your 36-page Arcadia catalogue

metal products 801 SO. ACACIA AVE., FULLERTON, CALIF.

HELP BUILD A BETTER AMERICA ... SEE AN ARCHITECT



Accuracy assures tile uniformity never before possible

Moultile uses peacetime atomic energy to revolutionize tile production and to bring you a product that nuclear science makes better than ever. AccuRay, by providing automatic density control, maintains thickness within a tolerance of plus or minus 1%. Such remarkable uniformity has never before been achieved in resilient tile.

In addition to continuous control of tile gauge, AccuRay also provides a tighter surface and improved dimensional stability for a uniformity of shrinkage which prevents off-square tiles. AccuRay serves to improve continually the quality of the tile and acts as a barometer of progress.

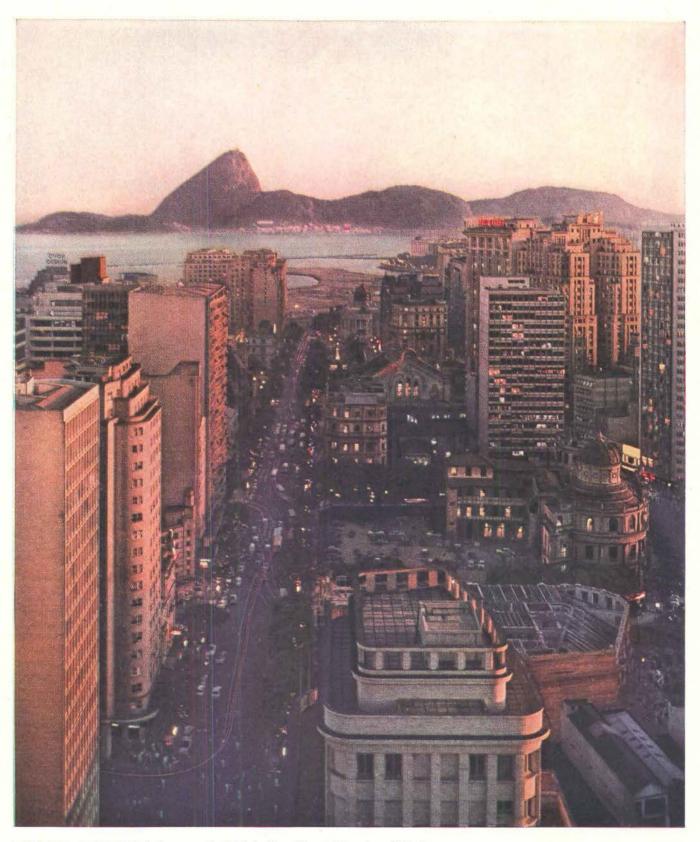
Another example of how Moultile's modern production techniques give you an ever-better product.

AccuRay T.M. REG. BY INDUSTRIAL NUCLEONICS CONFURATION, COLUMBUS, OHIO

MOULTILE, INC. Houston, Tex. · Joliet, III. · Long Beach, Calif. · Newburgh, N. Y.

Asphalt Tile . Moulflex . Jubilee . Moulcork





RIO DE JANEIRO is known as the "Cidade Maravilhosa" (Marvelous City). It has enhanced its natural beauty with a distinguished Brazilian style of modern architecture that has aroused world-wide admiration. It is interesting to observe how Brazil judges the quality of a building. The proud slogan "Aqui ha Otis" (Otis is here) displayed on a building is accepted as meaning that everything else in the building is also of the highest standard. This tribute to our local company ELEVADORES OTIS S. A. and our modern plant at Santo André proclaims once again that OTIS is the world's word for elevator quality.



AUTOTRONIC[®] OR ATTENDANT-OPERATED PASSENGER ELEVATORS • ESCALATORS • TRAV-O-LATORS • FREIGHT ELEVATORS • DUMBWAITERS ELEVATOR MODERNIZATION & MAINTENANCE • MILITARY ELECTRONIC SYSTEMS • GAS & ELECTRIC TRUCKS BY BAKER INDUSTRIAL TRUCK DIVISION



Public Relations Stressed as Concern of Architects

The architectural profession, in the opinion of Gerard Venne of Quebec City, president of the P.Q.A.A., should encourage better public relations and thereby underline the necessity for its professional services.

Three aspects of the situation must be considered, he says. First, there is the architect's performance of his professional services. Then comes his interest in his association



Great-West Life Assurance Company has a new building in Winnipeg; architects, Marani & Morris-associated architects, Moody & Moore. Estimated cost: \$7 million

WHEN YOU SPECIFY dumbwaiters



Roto-Waiter (for two stops). Push-button call and dispatch from both levels.



Traction-type (for three or more stops). Push-button con-trols and signals at all levels.



Correspondence and Parcel Lift. For light loads and limited space



Under-Counter Roto-Waiter. Drive" prevents overtravel.

48

Sedgwick manufactures a complete line of dumbwaiter equipment for all types of service, including - schools and institutions, hospitals and hotels, restaurants and offices, libraries, clubs and stores.

There are nine distinct types of Sedgwick dumbwaiters, each individually engineered and designed for capacities of 5, 25, 50, 100, 150, 200, 250, 300 or 500 pounds.

When you use Sedgwick engineering (based on experience since 1893) and specify Sedgwick equipment, your clients will be assured of dumbwaiters that exactly fit the needs and will give many years of safe, dependable and trouble-free service.

Other Sedgwick Products

- * SIDEWALK ELEVATORS
- * FREIGHT WAITERS
- * RESIDENCE ELEVATORS
- * "STAIR-TRAVELORS"

See standard specifications and layouts in SWEETS 33a/Se.

| Sedgw | CK MACHINE WORKS |
|---------------|----------------------------|
| 142 West 15th | Street, New York 11, N. Y. |
| Please send g | general information |
| Please send | specific recommendation |
| on: | |
| NAME | |
| ADDRESS | |
| CITY | CTATE |

and finally his collaboration with other civic and service organizations.

No architect should refuse a particular job because he does not find it important enough, Mr. Venne believes. "If we want the proper value of the profession to be appreciated," he says, "it is important that each and every one of its members accept all jobs, regardless of their size, and also that we work as hard towards a proper solution of the smallest project as we would for a bigger job."

On the subject of the architect's relationship to his professional organization, the Quebec president declares that not only does the association look after the administration and interests of its members, but it also supervises the dignity and honor of the profession. Members should take interest and pride in association activities and accept with pleasure tasks that may be assigned to them at certain periods.

He adds, "If the proportion of members interested in association affairs could be doubled, we would be assured of complete success."

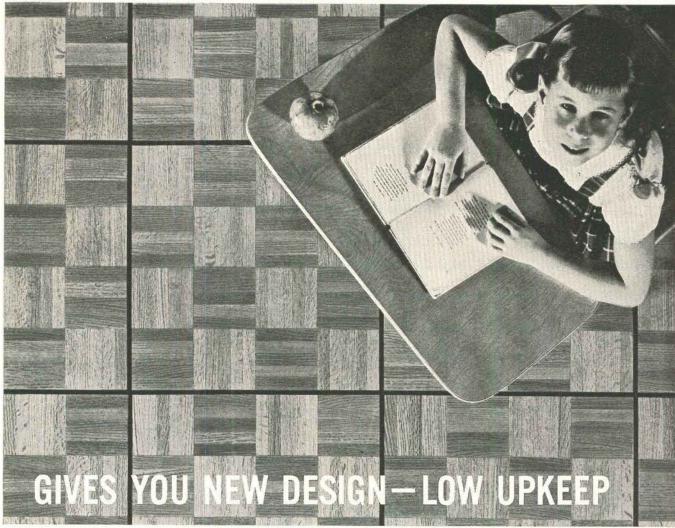
Mr. Venne feels that, due to his position in society, the architect must be active in civic affairs and service organizations. "He is a man whose professional relations and general knowledge should at all times be at the disposal of the public. Architecture is an art so closely interwoven with the community that the architect must help each time the occasion arises whether it be on civic, provincial or even national level.

If the profession would observe and enhance these points, Mr. Venne is confident that the resulting benefits would be immense.

Of Obsolescing Architecture: Chermayeff in Montreal

Today "even dog kennels are being built like monuments," declared Prof. Serge Chermayeff, observing in a recent speech that North America is

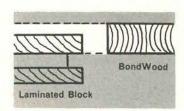
REVOLUTIONARY NEW HARDWOOD PARQUET



Illustrated: Harris Eagle Red Oak BondWood with Walnut divider strips

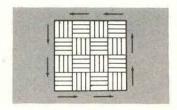
FOR INSTALLATION OVER CONCRETE OR WOOD

Compare HARRIS BondWood critically with any other parquet available today — where else can you get so many advantages? BondWood is thicker...grain direction changes every $4\frac{3}{4}$ "... slats are individually replaceable with square unbeveled edges...exclusive adhesive makes for more stability. Available in Oak, Maple, Cherry and Walnut. Now being installed in outstanding structures—commercial, industrial, institutional and residential across America! Why not include HARRIS BondWood in your plans? It's revolutionary! See our catalog in Sweets'.



81.8% THICKER

Can be refinished countless times. A full 5/16'' of wearing surface — 81.8% thicker than $\frac{1}{2}''$ Laminated Block — BondWood is solid hardwood, no tongue or groove.



DIFFERENT PATTERN

Grain direction changes every 4%"!
The most beautiful parquet you will ever specify. Unique construction plus exclusive adhesive makes for more stability.

HARRIS Quality Flooring since 1898 BondWood



City

Harris Manufacturing Co., Dept. AR-68, Johnson City, Tenn. Please send us your free color brochure and actual photograph of Harris BondWood.

Address____

Zone__State

Swiss in origin. Exclusively manufactured in U.S. by Harris Manufacturing Company, Johnson City, Tennessee

58-6

only Clay Pipe has All the Features

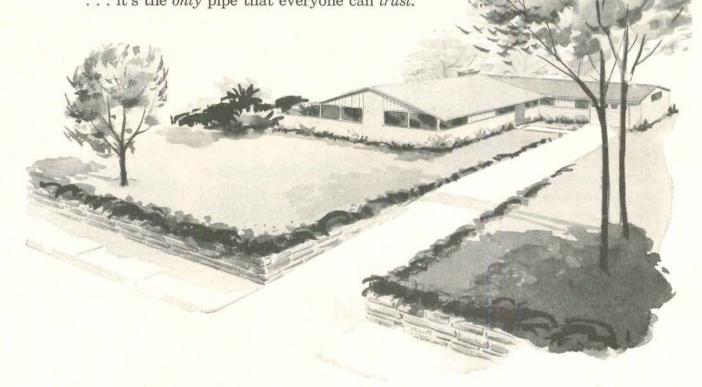
you can trust

There are some substitutes for Clay Pipe . . . and each substitute has some of Clay Pipe's features. But only Clay Pipe has all the features you can trust. Chemically inert, it can't rust, rot, corrode, or disintegrate. Its smooth, hard vitrified surface insures a faster flow of waste and sewage . . . eliminates clogging. And now, new longer Clay Pipe with factory-made joints provides tighter connections

. . . faster, easier installation. A long-term written guarantee assures the public against corrosion.

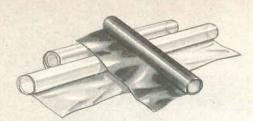
Clay Pipe never wears out

. . . it's the *only* pipe that everyone can *trust*.



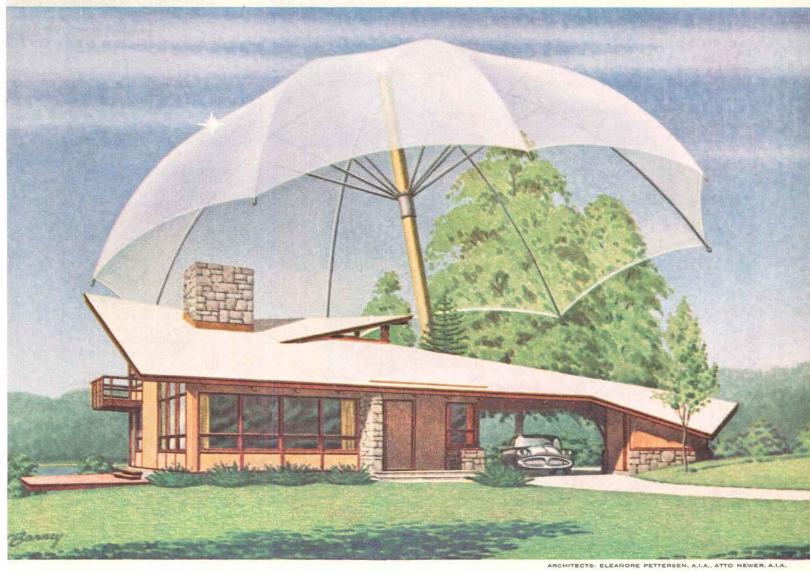
Vitrified GLAY PIPE Never Wears Out

NATIONAL CLAY PIPE MANUFACTURERS, INC. 1820 N Street, N. W., Washington 6, D. C. 311 High Long Bldg., 5 E. Long St., Columbus 15, Ohio • 703 Ninth & Hill Bldg., Los Angeles 15, California • Box 172, Barrington, Illinois • 206 Mark Bldg., Atlanta 3, Georgia



LOW-COST MOISTURE-VAPOR CONTROL

that umbrellas the home from the foundation up



SPECIFY

Ger-Pak® Virgin Polyethylene

BARRIER FILM

Name your need from attic to below grade. Dampproofing under concrete slabs? Dust-sealing over sub-flooring? Lining crawl spaces? Flashing? For over-all protection!

GER-PAK virgin polyethylene film fills the bill right the first

Only GER-PAK comes in every working size from 10 in. for flashing up to 40 ft. wide. Choice of BLACK, NATURAL, and OPAQUE white. And it's tough, lightweight, easy to handle and, yes,-inexpensive.

Specify versatility unlimited . . . specify GER-PAK film. At your dealer's. FREE samples and informative brochure . CAMILO. yours for the writing.

DESIGNED TO MEET FHA REQUIREMENTS



Under Concrete Slabs



Over Studding



Lining Crawl



Concealed Flashing



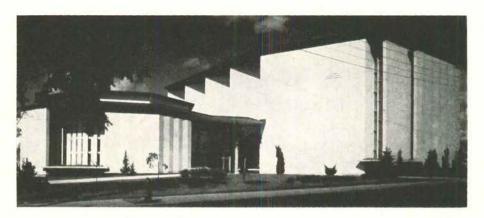
Material Protection

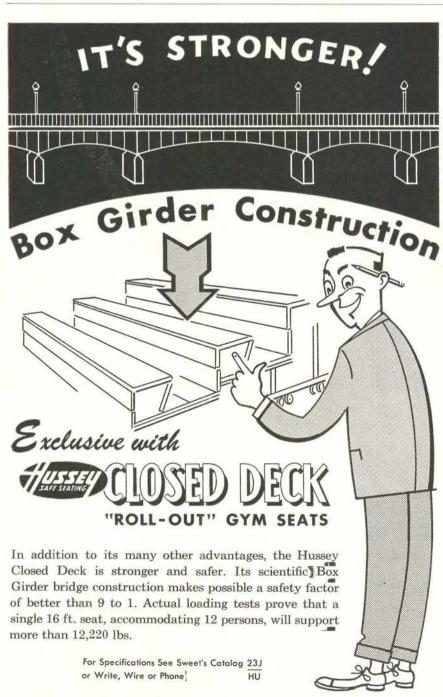


Virgin Polyethylene Film Gering Products, Inc., Kenilworth, New Jersey erecting too many buildings that will become obsolete in a few years.

Professor Chermayeff, a member of the staff of Harvard's Graduate School of Design, was speaking to a meeting of the Museum of Fine Arts, Montreal. He said today's architecture is being outmoded by a new period of high tensile metals and concrete technology which produces many startling shapes.

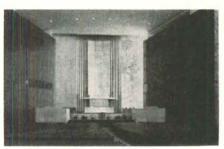
Cure for present tendencies, he added, is for architects to analyze needs and to pursue a course that takes advantage of new develop-





HUSSEY MFG. CO., INC.

587 R.R. Avenue • North Berwick, Maine



Beth Tzedec Synagogue, Toronto, has seating capacity of 3000, serves also as educational center; cost, \$2,500,000. Harry B. Kohl and Isador Markus were associated architects; Page & Steele, consulting architects and supervisors on job

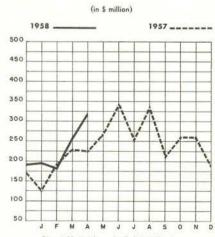
ments and does not perpetuate

America is not particularly inventive, he said, but offers great opportunity for performance—the execution of other people's ideas.

Professor Chermayeff believes that suburban development is gradually being slowed by the desire of many people to "get back to the city where all the life is."

He said that people are getting tired of living in the country and with the necessity of commuting. "It is an interesting change from seemingly endless suburbanization," he concluded.

Contracts Awarded: Comparative Figures'



*Compiled by the Editor and staff of The Building Reporter from information collected by Maclean Building Reports

again!

... goes every INDUSTRIAL LIGHTING UNIT SPECIFICATION in the



NEW specifications for Special Service fluorescent un

NEW specifications for units utilizing ma. fluorescent lamps!

NEW incompescent reference sizes!

NEW hting curves and lata for every RLM Specification!

NEW SPECIAL SERV-ICE UNITS feature one-piece, all-porce-lain enamel, housin to withstand me dusty atmosphere

NEW 86 ms on ISS NEW INCANDESCENT NEW MOUNTING SPECS for industrial SPECSforfluorescent, units include an increase in number of available sizes; additional applications.

RLM SPECIFICATION BOOK FREE! Send for your copy of this new, upward-revised edition! Page by page, "spec" by "spec," it's your most valuable reference book on industrial lighting!

Please send me a copy of the new upward-revised RLM Specifications Book-I understand there is no cost or obligation on my part.

Zone

RLM Standards Institute, Suite 8276, 326 W. Madison St., Chicago, III.

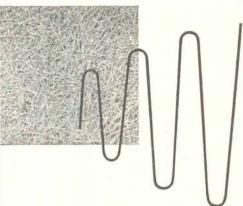


This label identifies the RLM-certified lighting equipment of 26 leading manufacturers

R-234

Textured Tectum gives a new approach to suspended, acoustical office ceilings





Building: Shell Oil Company, Tulsa, Oklahoma Architect: McCune & McCune

For a new, fresh, natural wood appearance for office ceilings-for functional, good looks with excellent acoustical ratings-for low cost installation-have a look at this recent installation of Tectum suspended, acoustical ceiling panels at Shell Oil's new office building in Tulsa, Oklahoma. Rectangular 2' x 4' panels are quickly erected. The effect is both unusual and complementary to other materials in the room. Tectum is noncombustible and is available with or without a felt backing membrane. For new, smart appearance-for the efficient control of office din and confusion-for maintenance free satisfaction that is long-lived-see your Tectum representative at once. Tectum is now available in greater quantities than ever before. Ask for a complete file on Tectum for roof decks, sidewall and acoustical suspended ceiling usage, or see Sweets Architectural and Industrial Files.



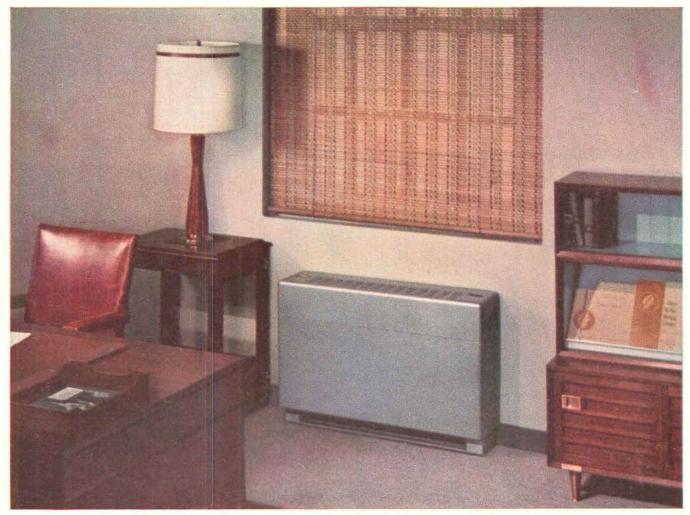


Tectum CORPORATION Newark, Ohio

Branch Offices in Philadelphia, Columbus, Atlanta, Dallas, Chicago, Beverly Hills, Seattle and Toronto, with distributors in all leading areas. Factories in Newark, Ohio, and Arkadelphia, Arkansas.



PUT THE WARREN WEBSTER MAN IN YOUR PLANS



The beautiful Riviera is practical, too . . .

Here, in the beautiful Webster Riviera, you get modern HYDRONICS at its peak of comfort and practicality. Same distribution piping, winter or summer . . . heats *and* cools with water . . . no ductwork, ever . . . individual room control . . . and handsome cabinets that harmonize with decor in any hotel, motel, apartment, hospital, clinic, office, or home.

Now, with the Webster Riviera, you can combine year-long comfort in a central system . . . easily converted for winter or summer operation. Wide choice of vertical, horizontal, or concealed-type cabinets in five capacities from $\frac{1}{3}$ to more than $\frac{1}{2}$ ton cooling capacity.

For luxury comfort at an economy level, get the Riviera facts from your Warren Webster Man. Call him today . . . or write for Bulletin B-2001. Warren Webster & Company, Camden 5, New Jersey. Since 1888. Offices in principal U.S. Cities and Canada.

WEBSTER'S
FINEST
PRODUCT

the Warren Webster Man

WARREN WEBSTER

HEATING ... COOLING

FHA Plans Major Survey on Performance of Housing

The Federal Housing Administration has announced its forthcoming survey of FHA home owners aimed at determining faults and failures in FHA-insured housing.

This will be the only study of its exact type ever undertaken. From its data can come a changed philosophy for the consideration of minimum property standard changes. The agency wants to test its present methods for judging correct areas

for imposing these standards requirements and feels that a fair sample of home owner opinion, based on years of experience in a home, can aid it significantly in deciding on the proper problems for consideration.

FHA is going into the data collection program on the recommendation of the FHA advisory committee of the Building Research Advisory Board. According to FHA Commissioner Norman P. Mason, the survey will be conducted "to test our system of inspections and requirements

so we can make adjustments as needed." To make the homes of the future more livable and marketable, he explained, the improvements suggested by the study will be incorporated into the minimum property standards.

"After all, the marketable house is the house that people want," Commissioner Mason asserted. "It is the result of good planning, good materials and good workmanship. We want long-lasting value and livability built into every home financed under the FHA plan and at the same time we want to find ways to reduce costs. Against any additional cost the new standards might impose, we must weigh the benefits carefully."

Results of the new survey cannot be expected to show up immediately in FHA's standards. The longawaited publication of the revised requirements is expected at mid-year although its effective date will come some months later.

The survey of home owner experience is an entirely new technique and will require time for execution. The questionnaire was being prepared with extreme care, officials realizing that success or failure could depend upon its wording. At this writing those responsible for the project were considering investigations in the areas of structure and mechanical performance, not in architecture.

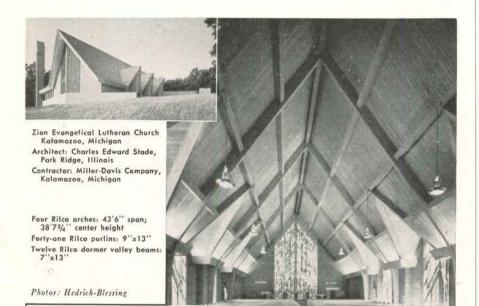
FHA and BRAB are parties to a contract which provides that the board assists the Federal agency in the evaluation of its problems and in programming the studies it undertakes. Ever since FHA has been in business, some 25 years, it has been turning up questions which need technical research before sound answers can be found.

Commissioner Mason explained the BRAB role this way: "BRAB provides the coordinating function so badly needed to be sure we do not undertake studies already carried out or unnecessarily duplicate similar efforts. Through its wealth of experience, BRAB can also tell us the full background of supporting work which can help us in our approach."

The Technical Studies Programming Advisory Committee, considered the key to these good relationships between FHA's technical studies staff and the Board, is now one year old. It has more than proved its worth.

PHS Puts U.S. Hospital Needs at \$10 Billion in Next Decade

The U.S. Public Health Service now has estimated that an expenditure of more than \$10 billion for hospital continued on page 282



"HAPPY WITH COST ERECTION APPEARANCE"

"... we were completely happy with the cost, the erection, the appearance and the grade of the Rilco laminated members in this church," writes the architect. The Rilco arches, purlins and dormer valley beams contributed greatly to the church's functional and aesthetic appeals, for the warmth and symbolism of

wood helps raise man's thoughts from himself upward.

And there are other reasons why wood is especially suitable for churches: Laminated wood allows virtually complete design freedom—blends with any church style, any church concept—offers warmth, friendliness, reverence—plus economy and all-important fire-safety.

Before you build your church, discover how Rilco laminated members can help you build a larger more attractive structure—yet stay within the budget. For complete information contact your nearest Rilco office.

works wonders with wood

RILCO LAMINATED PRODUCTS, INC. W818 1st National Bank Building, St. Paul 1, Minn. District Offices: Newark, N. J., Fort Wayne, Ind. Tacoma, Wash.

56







CARMEL HALL Home for the Aging Detroit, Michigan

Owner:
The Carmelite Sisters
Architect:
Leo M. Bauer & Associates
General Contractor:
George W. Auch Company
Painting Contractor:
Industrial Painting Co.
P&L Products Used:
New Lyt-all Flowing Flat,
Cellu-tone Satin, Vitralite
Enamel Eggshell, "38" Pale
Trim Varnish.

CRAFTSMANSHIP IN THE PACKAGE

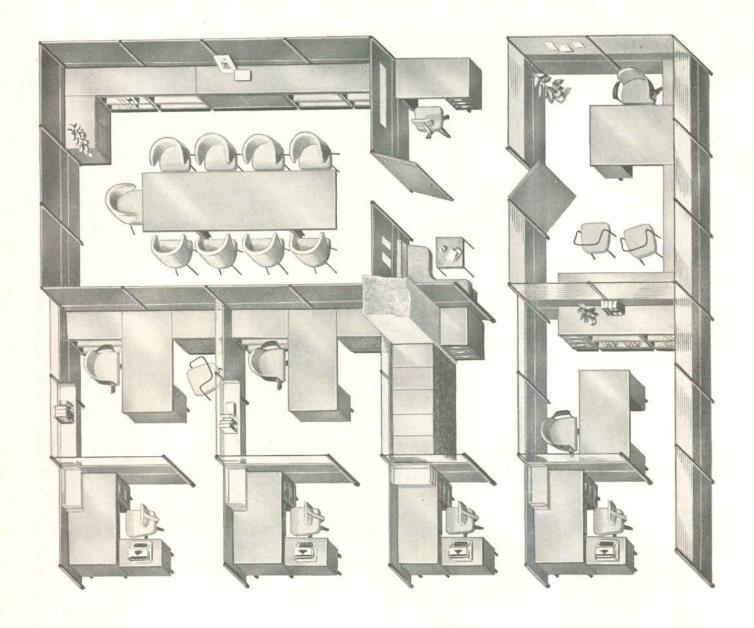


Service to Architects...the way you like it!

You are invited to make full use of Pratt & Lambert Architectural Service...the way you like it...without obligation.

For painting information that is reliable, specifications that are authoritative, and color counsel that is sound, please write to your nearest Pratt & Lambert Architectural Service Department: 3301 38th Avenue, Long Island City 1, New York; 326 West 26th Street, Chicago 16, Ill.; 75 Tonawanda Street, Buffalo 7, New York. In Canada: 254 Courtwright Street, Fort Erie, Ontario.





All this in 800 sq ft — with sheet steel

Here, efficiently fitted into a 31 ft by 26 ft space, are individual quarters for an executive and secretary, three supervisors, three stenographers, a file clerk and file room, plus a reception area and spacious conference room! And the whole set-up can be easily and quickly shifted around to meet the changing needs of the tenant.

Such compact and comfortable use of space is possible through the amazing versatility of free-standing sheet-steel partitioning, along with sheet-steel desks and furniture components. And the idea is catching fire: at least one new building has been built as one big interior, partitioned according to the needs of each individual tenant.

Bethlehem does not manufacture the finished furniture or partitions mentioned above. We do supply the finest of steel sheets to a number of fabricator-customers. We shall be happy to put you in touch with them.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.
On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast
Steel Corporation. Export Distributor: Bethlehem Steel Export Corporation

BETHLEHEM STEEL



Color accents creative expression

when you specify Ceramic Veneer

Polychrome panels, plain surfaces or sculpture . . . you need never curb creative expression when you specify Ceramic Veneer. Select any color under the sun, choose any desired texture, shape or form to define character or function. Whatever your choice for interiors or exteriors, your specifications are faithfully reproduced in Ceramic Veneer by Federal Seaboard. In addition to versatility, this time-proved material assures you of lasting appearance and quality. It enables you to keep initial costs in line and maintenance at an absolute minimum. For complete facts write today. Without charge we will gladly furnish construction detail, data, color samples, and advice on preliminary sketches involving use of Ceramic Veneer.

OLD WORLD PAVILLION GROUP GLASS HOUSE POINT

JAMESTOWN, VIRGINIA

Ballou and Justice—Architects

Bas-relief cartouche and panel were custom-made in polychrome Ceramic Veneer by Federal Seaboard craftsmen.



PUBLIC SCHOOL No. 38

MIDLAND BEACH, STATEN ISLAND, N. Y. Michael L. Radoslovich—Architect
Carrannante and Illiano Constr. Co.

-Masonry Contractor

Mars Construction Co.—Gen. Contractors
Spandrels, column facing at entrance, kindergarten
and playroom are Ceramic Veneer units 24" x 36".



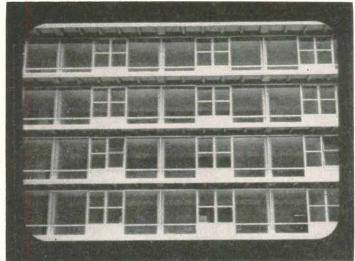


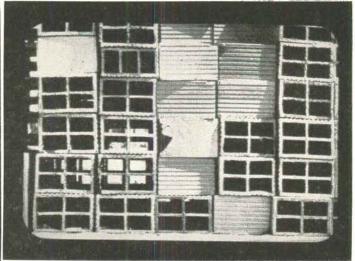
FEDERAL SEABOARD TERRA COTTA CORPORATION



10 East 40th Street, New York 16, N. Y. • Plant at Perth Amboy, New Jersey

Required Reading





"What do we really see when we look at the world?"

THE SHAPES OF OUR TIME

By Charles W. Moore

Problems of Design. By George Nelson. Whitney Publications (18 East 50th Street, New York 22), 1957. 205 pp., illus. \$10.00.

Readers who have enjoyed the witty, engagingly written, and sometimes important articles of George Nelson in Interiors, Holiday, Architectural Forum, and a number of other magazines will be delighted to discover that twenty-six of them have been gathered into a new volume. Thus arranged, they are as pleasant to read as ever, and in places as provocative. The book is divided, loosely, into six sections: "Problems of Design," which includes observations on education, obsolescence, vision, and the intramural difficulties of the industrial designer; "Art"; "Architecture," including skillful appreciations of Le Corbusier's Villa Savoye and Wright's two Taliesins; "Houses," with refreshing approaches to housekeeping, prefabrication, and va-cations; "Planning," observations about Main Streets, so much to the point a decade ago, when they were written, that they are architects' common currency by now; and "Interiors," where the light touch is applied. Some of the articles discuss matters of central importance to anyone with eyes and a mind in the twentieth century; in others, the eyes and the mind romp off into pleasant conceits. The articles are well illustrated with pictures of practically everything from high tension wires to "September Morn," with one surprising omission: Mr. Nelson has modestly avoided more than a very occasional illustration of his own elegant work. This is a great pity.

Something else, of even more importance, is missing. In Nelson's words, "The insights of today's great-continued on page 64

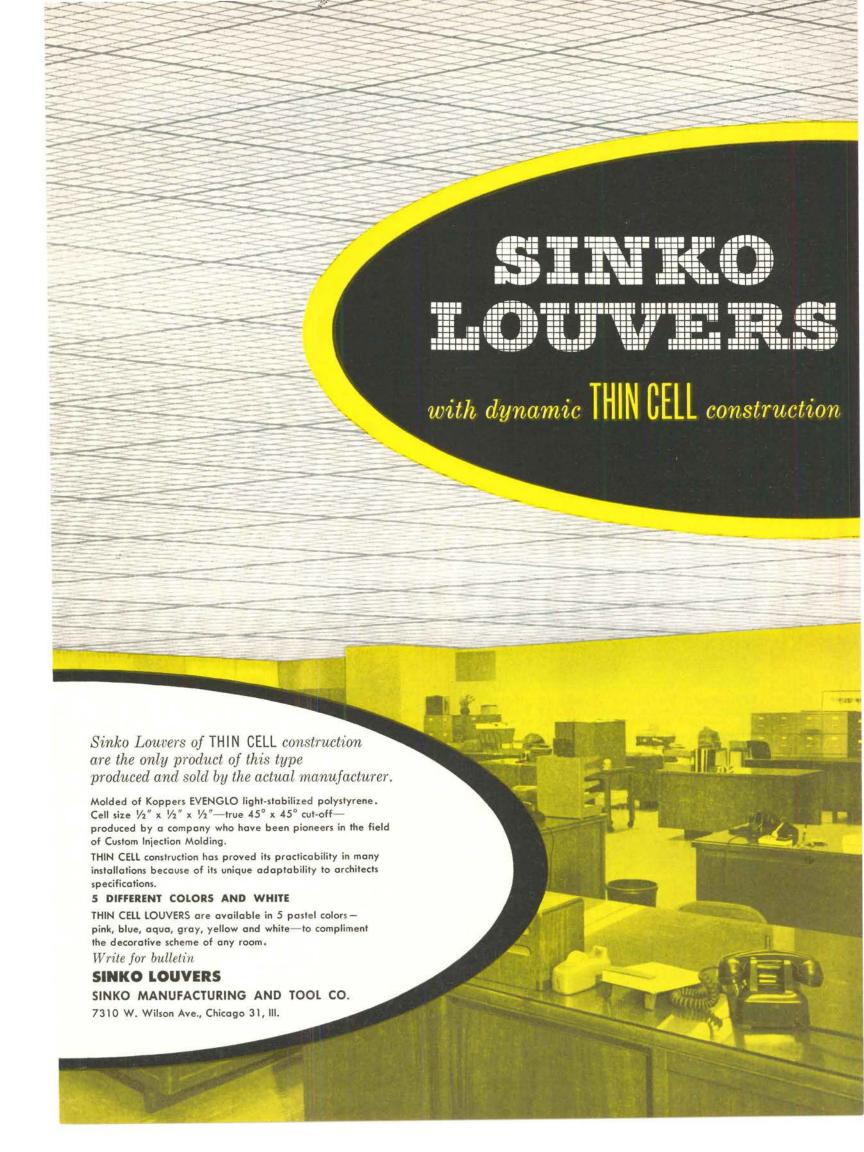
BACKGROUND FOR CITY PLANNING

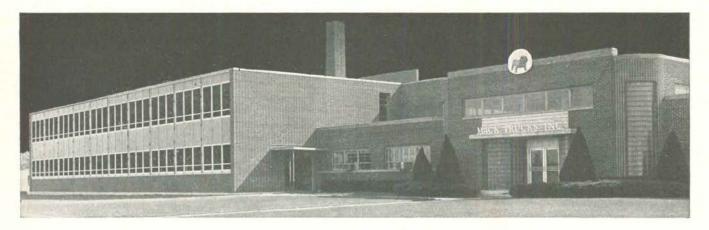
Urban planning is, fortunately, with us to stay, and architects are finding themselves increasingly involved with it. A book such as this, therefore, might be invaluable to an architect or engineer because it is a survey of public policies with which urban planning is concerned.

Mr. Webster, who is director of the Bureau of Governmental Research and Services at the University of Washington, deals with the subject from the point of view of the political scientist and the lawyer. Zoning regulations, building codes, and architectural control ordinances are, of course, discussed thoroughly. The author also explores the implications behind the assumption that changing conditions may force a blurring of the now commonly accepted zoning divisions of land use.

Among the many other topics Mr. Webster explains in detail are: the legal basis of planning, physical planning and community development, plan implementation, and urban redevelopment and renewal. The footnote references are numerous and form in themselves an extensive bibliography for further reading on all subjects covered.

One or two of Mr. Webster's concontinued on page 348 Urban Planning and Municipal Public Policy. By Donald H. Webster, Harper & Brothers (New York), 1958. 572 pp. \$8.00.





164,500 square foot addition to Mack Truck plant



Steel Erection — V-LOK is an exclusive Macomber interlocking framing system that requires no on-the-job bolting, riveting or welding.



Under Roof — V-LOK steel framing provides the ideal support for Macomber steel deck roofing. Workers were able to proceed with interior construction without delay.



Completed Building — Macomber V-LOK construction with V-LOK Girders and Purlins, provides large unobstructed bays for final truck assembly department.

V-LOK

CONSTRUCTION

The addition to the Mack Truck building in Sidney, Ohio, is another example of sound construction where Macomber V-LOK framing meant substantial savings in cost and time.

V-LOK framing was used exclusively on the new two-story engineering building with curtain wall construction and on other plant additions, totaling 164,500 square feet.

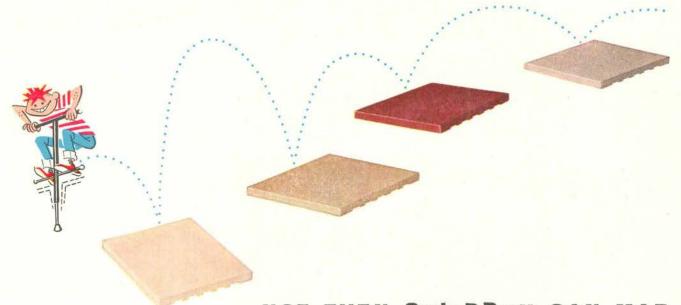
Contact your nearest Macomber representative or write us direct.



V-LOK Design Manual is available.

MACOMBER

CANTON 1, OHIO

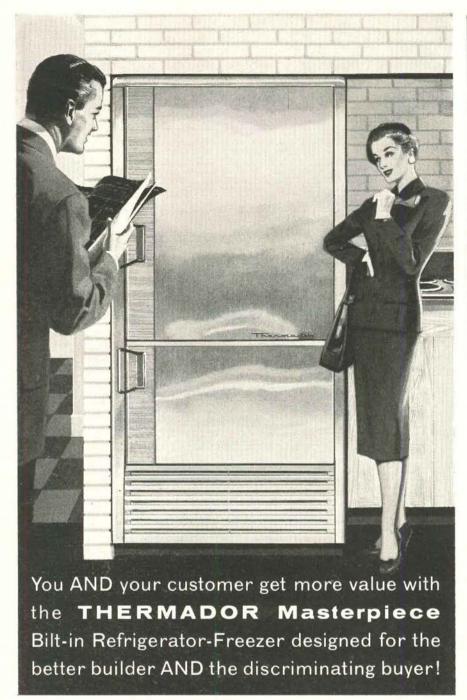


CHILDREN CAN Summitville Tiles

There is no "equal" to floors of Summitville Genuine Ceramic Quarry Tile. They are fire-proof, water-proof, acid-proof and the beautiful natural colors will never fade. Floors of Summitville Quarry Tile require neither waxing nor expensive maintenance. Constant abuse by generations of active children will not mar or change the beauty of Summitville Quarry Tile.

> If you want the complete story of Summitville's 6 beautiful Quarry Tile; Glazed Frost-proof Quarry Tile in 18 decorator colors; and the sensational 12-veneer large unit Ceramic Tile . . . consult





FOR YOU (the builder):

- · universal consumer acceptance
- easy installation, no extra bracings; self-contained; no vent, flues or grilles required
- dimensions overall: 70½" high x 35½" wide x 25¾" deep. Opening required: 69¾" high x 33" wide x 24" deep
- · wide distribution; national advertising
- · highest quality construction
- helps you sell your homes faster and for more money

FOR HER (your customer):

- matchless modern design
- 14.2 cu. ft. (10.2 cu. ft. automatic defrost refrigerator and separate 4.0 cu. ft. freezer below)
- · in lifetime stainless steel or 5 decorator colors
- · least service problems
- easiest to keep clean
- · every most wanted feature
- optional left or right hand door
- satisfaction from reliability and lifetime pride of ownership

THERMADOR - Originator of the Bilt-In Range!

THERMADOR ELECTRICAL MANUFACTURING CO.





Required Reading

continued from page 60

est painters and sculptors cannot be other than profoundly disturbing." It would seem that the insights of one of today's best writer-philosopher-designers should be disturbing, too. And it is disappointing to realize, part way through Problems of Design, that somehow they are not. "It has been my own experience," Nelson writes, "that to begin to approach an awareness of the shapes of our time requires an extraordinary intellectual and emotional effort. Enlargement of his vision is one of the most difficult assignments an individual can assume. . . ." If he assumes the assignment, he can expect to arrive at a series of vantage points, some of them with frightening views. There is the vantage point, for instance, from which is evident the nightmare of endless suburban sprawl enveloping our countryside, or the adjacent vantage point from which William H. Whyte, for instance, in The Organization Man, notes the dissolution of individual initiative in the inhabitants of these new suburban stretches. "The destructive aspects of this change," Nelson notes, "might indicate reason for profound pessimism, were it not for the fact that destruction and creation-here we have another example of the contradiction in action-are only two sides of the same coin. One therefore has the free choice of identifying himself with either the decaying or the new and growing elements in the process and then basing his personal philosophy and actions on this choice." This sounds rather like the free choice which used to be available on ballots supplied by Adolf Hitler, with a big square marked "Ja" and a very small square marked "Nein." This is not supposed to disturb our modern man, however. "He accepts his role as a member of a synchronized, cooperative group and one of these days he will arrive at a new comprehension of the many possible constructive relationships between the individual and the group. He is, in other words, a prototype of the non-competitive man about whom the religious teachers have been talking since 2500 B.C. He is one of the meek who will inherit the earth." Come to think of it, this is disturbing.

Everything in an age does seem to share in the spirit of the age. Even the columns of text self-consciously arranged on these square pages avoid the exposure of the outer edges, where they would easily meet

continued on page 348



There's as much difference in the quality, engineering, workmanship and installation among backstops as there is in any other school or gym equipment. That's why critical comparison of every basic factor invariably leads to the selection of Medart... probably more of them are in service than any other make.

The "PLUS-VALUE" of Medart Backstops is not only in their superior construction, but in the re-

REMOTE-CONTROLLED POWER OPERATION

Key-operated switch on gym wall or other convenient location lowers or <u>raises backstops</u> <u>smoothly, quietly, safely, quickly</u>. Eliminates hand-operated winch. Can also be installed on most Medart suspended backstops already in use.

Medart also makes the finest telescopic gym seats...basketball scoreboards...physical fitness apparatus...physical therapy equipment. sponsibility Medart assumes at the planning and specification stage to guarantee a true "Tailored-To-The-Job" installation—rugged, durable and rigid. Medart analyzes structural conditions, helps choose the exactly-RIGHT backstop, then follows through to assure faultless erection and completely satisfactory operation.

Before planning <u>any</u> backstop installation, consult Medart—The Nation's Most Experienced Authority.

Write for Medart's new catalog



SPECIFY the best, then INSIST on it!



FRED MEDART PRODUCTS INC. . 3540 DE KALB STREET . ST. LOUIS 18, MISSOURI

Construction Cost Indexes

Presented by Clyde Shute, Director of Statistical Policy, Construction News Div., F. W. Dodge Corp., from data compiled by E. H. Boeckh & Assoc. Inc.

Labor and Materials: U.S. average 1926-1929=100

| | NEW YOR | RK | | | | ATLANTA | | | | |
|--------------|-----------|--|--|----------------|-----------------|---|-----------|--|----------------------------|--------------|
| RESIDENTIAL | | ENTIAL | APTS., HOTELS, OFFICE BLDGS. Brick Brick Brick Brick Brick Brick Brick | | BLDGS. Brick | RESIDENTIAL | | APTS., HOTELS, OFFICE BLDGS. Brick | FACTORY BLDGS. Brick Brick | |
| PERIOD | Brick | Frame | Concrete | Concrete | and Steel | Brick | Frame | and Concrete | and Concrete | and Steel |
| 1930 | 127.0 | 126.7 | 124.1 | 128.0 | 123.6 | 82.1 | 80.9 | 84.5 | 86.1 | 83.6 |
| 1935 | 93.8 | 91.3 | 104.7 | 108.5 | 105.5 | 72.3 | 67.9 | 84.0 | 87.1 | 85.1 |
| 1939 | 123.5 | 122.4 | 130.7 | 133.4 | 130.1 | 86.3 | 83.1 | 95.1 | 97.4 | 94.7 |
| 1946 | 181.8 | 182.4 | 177.2 | 179.0 | 174.8 | 148.1 | 149.2 | 136.8 | 136.4 | 135.1 |
| 1947 | 219.3 | 222.0 | 207.6 | 207.5 | 203.8 | 180.4 | 184.0 | 158.1 | 157.1 | 158.0 |
| 1948 | 250.1 | 251.6 | 239.4 | 242.2 | 235.6 | 100000000000000000000000000000000000000 | 202.5 | 178.8 | 178.8 | 178.8 |
| 5000000 | 243.7 | 240.8 | 242.8 | 246.6 | 240.0 | 199.2 | 111000000 | 180.6 | 180.8 | 177.5 |
| 1949 | | 254.5 | 249.5 | 251.5 | 248.0 | 189.3 | 189.9 | | 183.7 | 185.0 |
| 1950 | 256.2 | CONTRACTOR AND ADDRESS OF THE PARTY OF THE P | | 1941/2004-0197 | no example | 194.3 | 196.2 | 185.4 | 20000000 | TOTAL STATE |
| 1951 | 273.2 | 271.3 | 263.7 | 265.2 | 262.2 | 212.8 | 214.6 | 204.2 | 202.8 | 205.0 |
| 1952 | 278.2 | 274.8 | 271.9 | 274.9 | 271.8 | 218.8 | 221.0 | 212.8 | 210.1 | 214.3 |
| 1953 | 281.3 | 277.2 | 281.0 | 286.0 | 282.0 | 223.0 | 224.6 | 221.3 | 221.8 | 223.0 |
| 1954 | 285.0 | 278.2 | 293.0 | 300.6 | 295.4 | 219.6 | 219.1 | 233.5 | 225.2 | 225.4 |
| 1955 | 293.1 | 286.0 | 300.0 | 308.3 | 302.4 | 225.3 | 225.1 | 229.0 | 231.5 | 231.8 |
| 1956 | 310.8 | 302.2 | 320.1 | 328.6 | 324.5 | 237.2 | 235.7 | 241.7 | 244.4 | 246.4 |
| 1957 | 318.5 | 308.3 | 333.1 | 345.2 | 339.8 | 241.2 | 239.0 | 248.7 | 252.1 | 254. |
| Jan. 1958 | 321.5 | 310.1 | 339.2 | 352.9 | 347.8 | 244.0 | 240.7 | 254.1 | 259.4 | 260. |
| Feb. 1958 | 320.9 | 309.3 | 339.4 | 353.3 | 348.1 | 242.6 | 238.9 | 253.8 | 259.2 | 260.0 |
| Mar. 1958 | 320.1 | 308.5 | 338.4 | 352.5 | 347.3 | 241.6 | 237.9 | 252.5 | 258.2 | 259.0 |
| TAN-1 DOZE | | | % increase over 193 | | **** | | | increase over 1939 | | |
| Mar. 1958 | 159.2 | 152.0 | 158.9 | 164.2 | 166.9 | 180.0 | 186.3 | 165.5 | 165.1 | 173.5 |
| | ST. LOUIS | 5 | | | 535 4 | SAN FRAI | | | | |
| 1930 | 108.9 | 108.3 | 112.4 | 115.3 | 111.3 | 90.8 | 86.8 | 100.6 | 104.9 | 100. |
| 1935 | 95.1 | 90.1 | 104.1 | 108.3 | 105.4 | 89.5 | 84.5 | 96.4 | 103.7 | 99. |
| 1939 | 110.2 | 107.0 | 118.7 | 119.8 | 119.0 | 105.6 | 99.3 | 117.4 | 121.9 | 116. |
| 1946 | 167.1 | 167.4 | 159.1 | 161.1 | 158.1 | 159.7 | 157.5 | 157.9 | 159.3 | 160. |
| 1947 | 202.4 | 203.8 | 183.9 | 184.2 | 184.0 | 193.1 | 191.6 | 183.7 | 186.8 | 186. |
| 1948 | 227.9 | 231.2 | 207.7 | 210.0 | 208.1 | 218.9 | 216.6 | 208.3 | 214.7 | 211. |
| 1949 | 221.4 | 220.7 | 212.8 | 215.7 | 213.6 | 213.0 | 207.1 | 214.0 | 219.8 | 216. |
| 1950 | 232.8 | 230.7 | 221.9 | 225.3 | 222.8 | 227.0 | 223.1 | 222.4 | 224.5 | 222.0 |
| 1951 | 252.0 | 248.3 | 238.5 | 240.9 | 239.0 | 245.2 | 240.4 | 239.6 | 243.1 | 243. |
| 1952 | 259.1 | 253.2 | 249.7 | 255.0 | 249.6 | 250.2 | 245.0 | 245.6 | 248.7 | 249. |
| 1953 | 263.4 | 256.4 | 259.0 | 267.0 | 259.2 | 255.2 | 257.2 | 256.6 | 261.0 | 259. |
| 1954 | 266.6 | 260.2 | 263.7 | 273.3 | 266.2 | 257.4 | 249.2 | 264.1 | 272.5 | 267. |
| 1955 | 273.3 | 266.5 | 272.2 | 281.3 | 276.5 | 268.0 | 259.0 | 275.0 | 284.4 | 279. |
| 1956 | 288.7 | 280.3 | 287.9 | 299.2 | 293.3 | 279.0 | 270.0 | 288.9 | 298.6 | 295. |
| 1957 | 292.0 | 283.4 | 295.2 | 307.1 | 302.9 | 286.3 | 274.4 | 302.9 | 315.2 | 310. |
| Jan. 1958 | 295.1 | 286.1 | 301.2 | 313.3 | 309.6 | 288.2 | 274.4 | 307.8 | 321.9 | 316. |
| Feb. 1958 | 293.7 | 285.0 | 300.5 | 312.8 | 309.0 | 287.3 | 272.8 | 308.0 | 322.1 | 316.8 |
| VOR NOSCISIO | 293.3 | 284.4 | 300.3 | 313.8 | 308.8 | 286.3 | 271.8 | 306.7 | 321.1 | 315.8 |
| Mar. 1958 | 275.5 | | % increase over 193 | | LI ANTONIO TO L | | | increase over 193 | | 010.0 |
| Mar. 1958 | 166.2 | 165.8 | 153.0 | 161.9 | 159.5 | 171.1 | 173.7 | 161.2 | 163.4 | 171.1 |

Cost comparisons, as percentage differences for any particular type of construction, are possible between localities, or periods of time within the same city, by dividing the difference between the two index numbers by one of them; i.e.:

 $\begin{array}{c} \text{index for city } A = 110 \\ \text{index for city } B = 95 \\ \text{(both indexes must be for the same type of construction).} \end{array}$

Then: costs in A are approximately 16 per cent higher than in B.

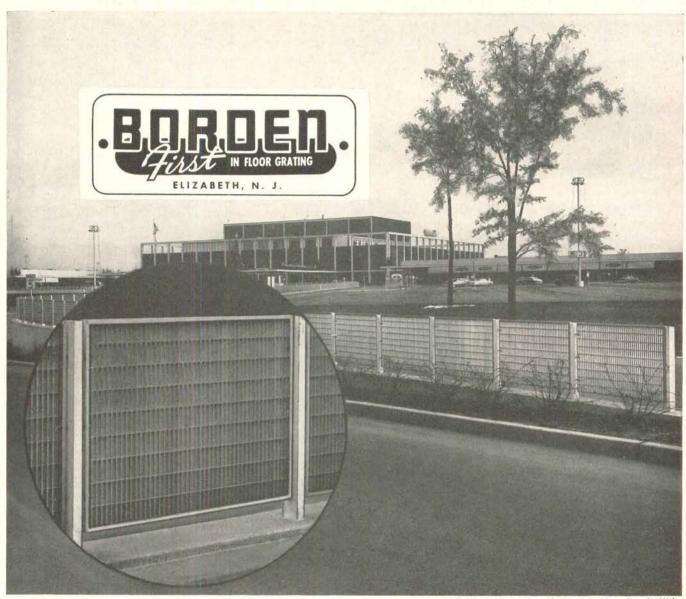
$$\frac{110 - 95}{95} = 0.158$$

Conversely: costs in B are approximately 14 per cent lower than in A.

$$\frac{110 - 95}{110} = 0.136$$

Cost comparisons cannot be made between different types of construction because the index numbers for each type relate to a different U. S. average for 1926-29.

Material prices and wage rates used in the current indexes make no allowance for payments in excess of published list prices, thus indexes reflect minimum costs and not necessarily actual costs.



*Architect: Victor Gruen & Associates, Inc., Detroit, Mich.

NEW IDEA FOR FENCES - MAINTENANCE-FREE ALUMINUM GRATING

As shown above, Borden's pressure-locked Aluminum Grating has been used as fencing for the new J. L. Hudson Northland Shopping Center in Detroit, Mich.

The light weight aluminum grating forms a child-proof and maintenance-free fence. The alloys used were selected for their corrosive resistance and high strength.

Thus in the utilization above, Borden has helped open the way for another new field for grating where only standards of quality equal to Borden's will do.

Write for complete
information on BORDEN
All/Weld, Pressure Locked, and Riveted Floor
Gratings in this FREE 16-page catalog

BORDEN METAL PRODUCTS CO.

822 GREEN LANE ELizabeth 2-6410 ELIZABETH, N. J. SOUTHERN PLANT-LEEDS, ALA.—MAIN PLANT-UNION, N. J.

| BORDEN METAL PRODUCTS CO. |
|-------------------------------|
| Gentlemen: |
| Please send me BORDEN Catalog |
| NAME |
| TITLE |
| COMPANY NAME |
| ST. AND NO |
| CITY AND STATE |

GLIDE-ALL Sliding Doors ...

Are Specified for Spacious Living...

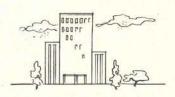
in Dormitories...

Multi-Apartment Buildings...

Housing Projects...



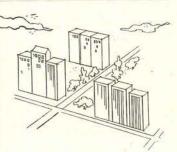
Here GLIDE-ALL Sliding Doors provide decorative panels for the generous storage areas in the bed-rooms and halls of this apartment—one of hundreds in the Lake Meadows Multi-apartment project in Chicago. Arichitects: Skidmore Owings & Merrill. Contractors: Turner Construction Co.







A compact wardrobe unit, one of hundreds in Butterfield Hall on the campus of Michigan State University. This is a typical example of GLIDE-ALL Door installations in many University dormitories across the country. Architect: Ralph R. Calder, Detroit, Michigan.





REASONS WHY:

Provide More Storage Space

Where floor space is at a premium floor-to-ceiling GLIDE-ALL Sliding Doors provide the most accessible, easy-to-use storage facilities.

Quality in Appearance . . . Operation and Service

Modern design, durable construction and smooth operation are features of GLIDE-ALL Doors that appeal to architects and builders from coast-to-coast.

Greater Economy

The simple installation of GLIDE-ALL Sliding Doors saves construction time and materials—and the efficient production methods used in making them assures the lowest unit cost. On the job adjustment, for perfect, smooth, operation, is quick and simple and positive—an important factor where multiple installations must be efficient and trouble free.

Whether your building plans require two or two thousand units of storage space, in any type rooms, you too will profit by specifying GLIDE-ALL Sliding Doors—in 8' floor-to-ceiling or standard 6'8" heights, from 36" to wall-to-wall widths.



Wherever maximum closet space in a confined area is desireable, GLIDE-ALL Doors make it practical and economical—like in this example of a remodelled guest room in the Sheraton-Lincoln Hotel, Indianapolis, Indiana.

Get the complete details . . . see Sweets Files or write Plant nearest you.

GLIDE-ALL DOORS ARE A PRODUCT OF

WOODALL | NDUSTRIES | NC.

DETROIT 34, MICHIGAN

CHICAGO, 3500 Oakton St., Skokie, III. EL MONTE, Calif., 801 West Valley Blvd. LAUREL, Miss., P. O. Box 673 SANTA CLARA, Calif., 1020 Bayshore Blvd.

INDIVIDUAL ROOM COMFORT ALL YEAR 'ROUND WITH

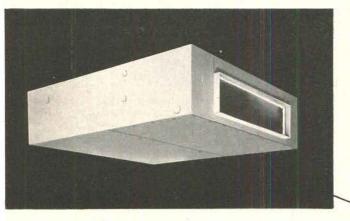
Juay SEASONMAKERS

These McQuay Seasonmakers will furnish individual room comfort at any desired temperature level—heated, filtered air in the winter; cooled, dehumidified and filtered air in the summer—when used with a hot or chilled central water supply.

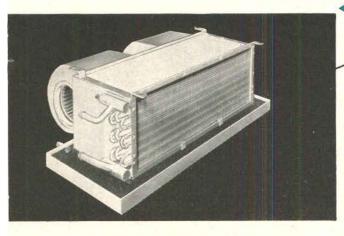
McQuay Seasonmakers are particularly designed for multi-room buildings, such as hotels, apartments, motels, hospitals, schools, offices and residences. All have the famous McQuay Ripple-Fin coils and are exceptionally quiet, handsome and built to last, with life lubricated fan motors having inherent overload protection with automatic reset. There are four types in a wide variety of sizes and capacities, each with 3 speed motor control switch.

Large size Ceiling and Hideaway Seasonmakers having nominal capacities of 2, 3 and 5 tons are also now available for commercial or residential applications where a duct air distribution system is necessary. Units available for Freon applications.

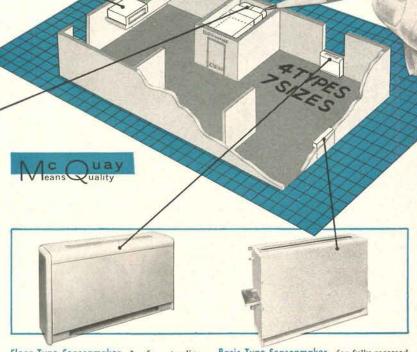
Whatever your requirements may be, you'll find McQuay Season-makers will meet them—and do the finest possible job. For complete information and specifications, call in the McQuay representative in or near your city. McQuay, Inc., 1605 Broadway St. N. E., Minneapolis 13, Minnesota.



Ceiling Type Seasonmaker—for suspended mounting. 7 sizes, 200 to 2,000 c.f.m., ½ to 5-ton nominal cooling capacity. Thermally and acoustically insulated.



Hideaway Type Seasonmaker — for concealed, suspended mounting in closets, attics, or furred spaces. 7 sizes, 200 to 2,000 c.f.m., ½ to 5-ton nominal cooling capacity. Insulated drain pan.

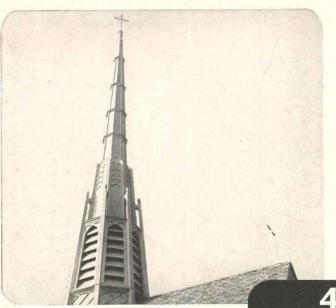


Floor Type Seasonmaker—for free standing floor mounting. 4 sizes, 200 to 600 c.f.m., ½ to 2-ton nominal cooling capacity. Thermally and acoustically insulated. Choice of 3 air discharge grilles.

Basic Type Seasonmaker—for fully recessed built-in wall installations. 4 sizes, 200 to 600 c.f.m., ½ to 2-ton nominal cooling capacity. Thermally and acoustically insulated.



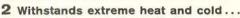




1 Widens design latitude . . .

Here, you see how readily Monel Roofing Sheet is formed into intricate shapes. This 621/2-ft. steeple atop the Holy Name of Mary Church, Valley Stream, L. I., is sheathed entirely in 25-gauge Monel* nickel-copper alloy sheet. Quickly cut. Easily soldered.

reasons why use MONEL Roofing Sheet

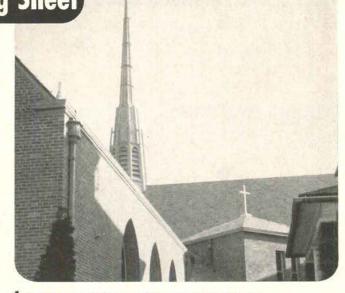


Strong, tough and rigid, Monel alloy expands and contracts about like masonry and steel. Hence, coping, flashing, standing seam roofing, in-wall accessories work well together, are guarded against cracking and buckling from large temperature changes.



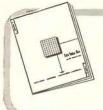
3 Keeps facades free of streaking . . .

Notice excellent condition of masonry and bricks next to Monel alloy coping, gutters, trim and downspout. Thanks to the corrosion resistance of Monel alloy, facades stay free of unsightly streaks despite years of exposure to the elements.



4 Looks good for the life of the building ...

Here, you see how Monel sheet enhances the integrated design of steeple, roofing and accessories, highlights rest of church. Architect: Beatty & Berlenbach, Brooklyn, N. Y. Contractor: John Schneider Roofing Contractors, Inc., Brooklyn, N. Y.



INFORMATIVE BOOKLET ON MONEL ROOFING SHEET FOR ARCHITECTS

To find out how you can take advantage of Monel Roofing Sheet for hotels, schools, factories and office buildings, write to Inco for "Basic Application Data-Monel Roofing Sheet". Booklet lists suggested gauges, properties and gives helpful data on how to specify.

THE INTERNATIONAL NICKEL COMPANY, INC. 67 Wall Street New York 5, N. Y. INCO

*Registered trademark

MONEL ROOFING FOR THE LIFE OF THE BUILDING



CONCRETE MASONRY WALLS

...add beauty...reduce costs

• You get an amazingly wide range of beautiful colors, textures, patterns and sizes with high-quality block produced on the world-famous Besser Vibrapac machine. Architects, builders and homeowners enjoy working with Vibrapac Block because of their accurate dimensions and their many artistic design opportunities. Designers, contractors and occupants, alike, can profit from using this versatile building material.

Exposed masonry walls, built with Vibrapac Block are permanently beautiful ... and permanently economical, as well. They effect appreciable savings in construction time and labor. And they give the structure itself greater stability, fire-safety and storm-safety with less depreciation and higher re-sale value for the homeowner.

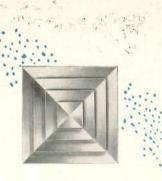
Get all the facts. Write for literature, including chart showing 50 block wall patterns available. No obligation. Merely send us your name and address on your own letterhead.

BESSER Company

Dept. 173, Alpena, Mich., U. S. A.

First in Concrete Block Machines

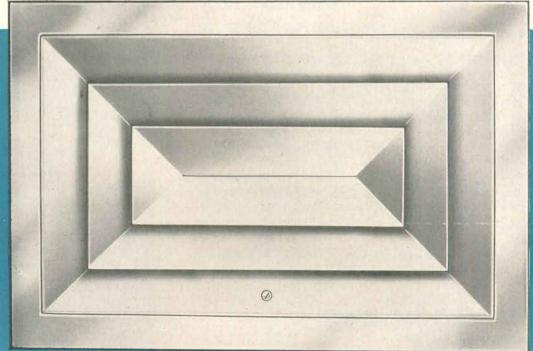




again...TITUS
sets the "Pattern
for Progress" in
air conditioning
with another
tremendous
new line...









series TMD square and rectangular air diffusers

designed by



Here's today's most beautiful new line of diffusers . . . for today's most beautiful ceilings. Their distinctive styling brings a crisp freshness of design to any interior . . . yet blends diffusers unobtrusively into any decor.

AND THERE'S PERFORMANCE TO MATCH THIS BEAUTY! New, ingenious, built-in vane and louver arrangements provide a level of air diffusion efficiency seldom equalled. ACTUALLY GIVE ARCHITECTS AND ENGINEERS NEW DESIGN FREEDOM because diffusers can be placed in nearly any ceiling location . . . without the use of baffles and blank-offs.

Series TMD diffusers are available in types, sizes, patterns to fit every conceivable ceiling installation . . . any shape or size space.

Furnished in 1-2-3 or 4-way air discharge patterns . . . in an unlimited variety of core styles. One-piece units and removable-core-units. Four distinct types of attractive mounting frames to fit any ceiling application.

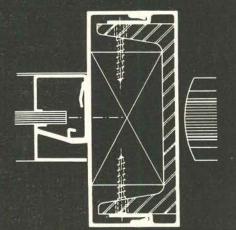
Series TMD diffusers are supplied in a beautiful baked metalescent finish. WRITE TODAY . . . learn how this amazing new Titus line can offer you new stimulating design opportunities.

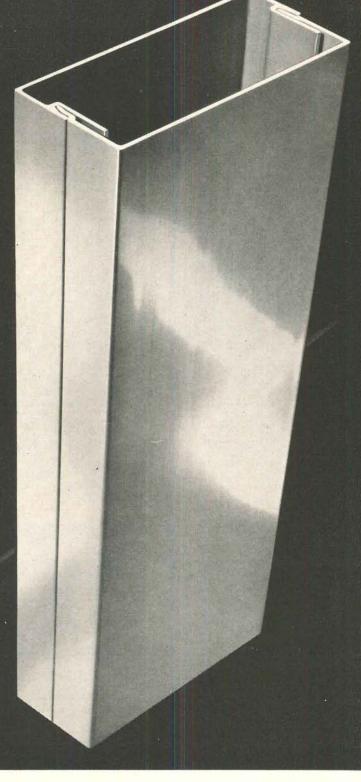
| MAIL | COUPON | FOR | NEW | FREE | 20-P | AGE | CATA | LOG |
|------|--------|-----|-----|-------|------|-----|------|-----|
| | | | | 1 1 1 | | 700 | 0717 | |

TITUS MFG. CORP., WATERLOO, IOWA Rush me FREE ILLUSTRATED CATALOG that gives full information (including engineering data) on your exciting, completely new line of Series TMD diffusers. Name Company address State City

PITTCO° DOOR FRAME MOULDING

Here is grace, strength and beauty—combined with care to add genuine quality to your store front design. Every metal product in the PITTCO line is a distinctive form with an effective function. For details, see your PITTCO Store Front Representative, or refer to Sweet's Architectural File—Section 21.







SYMBOL OF SERVICE FOR SEVENTY-FIVE YEARS

PITTSBURGH PLATE GLASS COMPANY

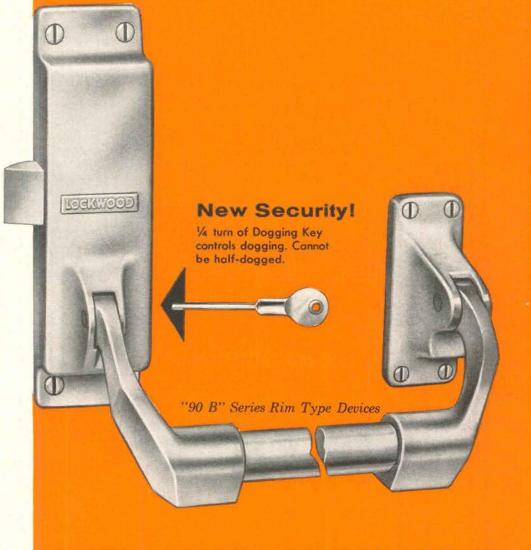
IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

FIRST JAMB-PROOF devices

with FULL SECURITY

New
Safety!
LOCKWOOD
LOCK
'N ROLL
LATCH
actually floats"

with any light touch on crossbar



Safe exit . . . full security assured by

LOCKWOOD

Lockwood offers complete, new line of Rim, Mortise, Vertical and Concealed Devices, featuring . . .

- Over 20 different functions
- Neat, smooth case design: uniform dimensions and design
- Drop-forged arms for extra strength
- Crossbar adjusts to variations in door width no rivets, no drilling
- New, streamlined outside trim
- Simplified installation
- Roller strikes, hold-back features available

While door is closed, projection of the new LOCK 'N ROLL LATCH is rigidly retained when crossbar is in its normal, fully raised position. Any light touch on crossbar immediately withdraws all support and the multi-pivoted latch rolls freely into the case.

From outside, when door is closed, the latch is deadlocked and inaccessible to end pressure.

Write for brochure illustrating in detail the many exclusive features of Lockwood panic devices.

LOCKWOOD HARDWARE MFG. CO., Fitchburg, Mass.



grace and permanency

through extensive use of Penmetal products

One of the most imposing buildings on Havana's famed Malecon, the new Havana Riviera Hotel retains an air of elegance yet symbolizes a new and growing city.

new and growing city.

This unusual "Y" shaped structure has excellence of construction in keeping with its luxury. Interior partitions are built of Penmetal studs, track, base and Studlock clips for attachment of gypsum lath. Ceilings, which incorporate many sculp-

tured forms, used metal lath . . . the strongest, safest plaster base possible.

To protect against corrosion, galvanized metal lath and cornerite were chosen. What's more, all corner bead is made of zinc of a special Penmetal analysis.

Havana Riviera is typical of many fine buildings, the world over, in specifying "Penmetal throughout." Why not do the same? For further details, send for a copy of new 28-page catalog 624-L.

Photos of interior illustrate how ceilings of Penmetal lath readily take any attractive form.

PENN METAL COMPANY, INC.

General Sales Office: 40 Central Street, Boston 9, Mass.

Plant: Parkersburg, W. Va.

District Sales Offices: Boston, New York, Philadelphia, Pittsburgh, Chicago, Detroit, St. Louis, Dallas, Little Rock, Seattle, San Francisco, Los Angeles, Parkersburg

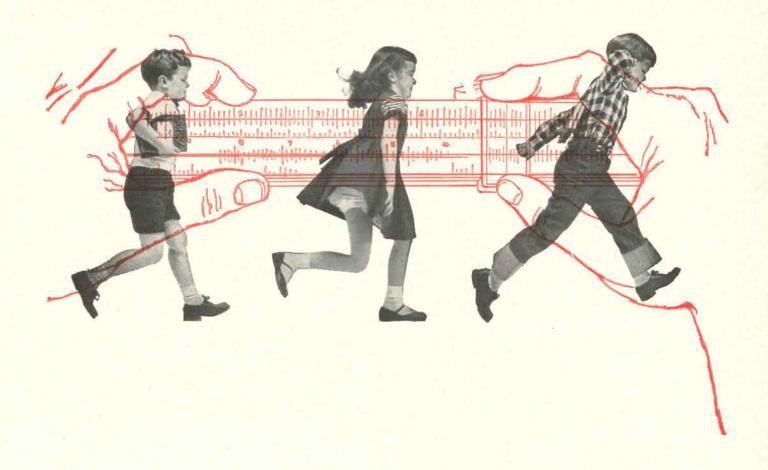


a name to remember

HAVANA RIVIERA:

Architects, Polevitsky, Johnson & Associates, Miami, Florida General Contractors, Feldman Building Corporation, Miami Beach, Florida PM-176





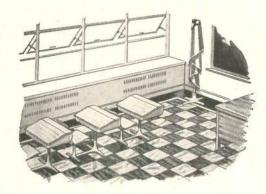
what's the R. P. M. of a schoolboy?

A child is a whirlwind on two feet moving in a manner that's incalculable...and constant. It takes flooring with stamina...colors with staying power... to measure up to his activities. MATICO qualifies on every count... stands up to heaviest traffic year after year. MATICO colors are styled to camouflage soil, to stay bright and fresh, to clean easily and resist signs of wear. Hindsight proves your foresight, when you specify economical MATICO for important installations.

MASTIC TILE CORPORATION OF AMERICA

Houston, Tex. * Joliet, Ill. * Long Beach, Calif. * Newburgh, N. Y.

Aristoflex • Confetti • Parquetry • Maticork • Asphalt Tile Rubber Tile • Vinyl Tile • Cork Tile • Plastic Wall Tile





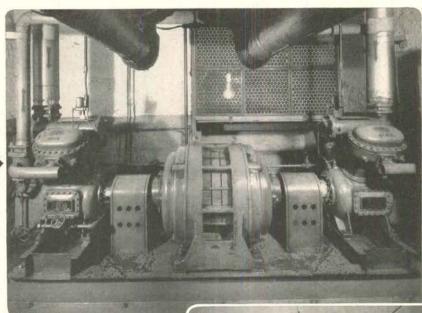


MAIL COUPON TODAY MASTIC TILE CORP. OF AMERICA, Dept. 8-6, P. O. Box 128, Vails Gate, New York

Please send me free samples and full details about MATICO Tile Flooring.

Name Address City Zone State







"ECLIPSE" COMPRESSORS AIR CONDITION TVA OFFICES

TENNESSEE VALLEY AUTHORITY
KNOXVILLE, TENNESSEE

Frick Company Waynesboro Pennsylvania

Gentlemen:

We have a Frick central air-conditioning system in our Old Post Office Building which was installed by your engineers in 1940. It consists of four compressors and two evaporative condensers.

As this equipment has been in continuous use throughout each year for seventeen years, we feel that it is time for a thorough check, and repairing or replacing of necessary parts.

To get a complete and competent check, and proper recommendations, we would like to have one of your staff engineers or field representatives examine our equipment and advise on necessary corrections; also to furnish any cost estimates.

If any of your factory personnel is planning on being in this area in the near future, we would appreciate their stopping here and making the inspection. In the event they do, would you advise us as to the date.

Very truly yours,

a. L. Buy &

A. L. Boyd Eastern District Manager Office Service Branch



TVA OFFICES AT KNOXVILLE, TENN.

Frick equipment is world renowned for being better-built, more economical, and giving a lifetime of dependable service.

What are your COOLING needs? If you want cool air, cold water, ice, extremely low temperatures, or refrigeration for quick freezing and processing—in any commercial or industrial sizes—call in a Frick representative at the planning stage for recommendations and estimates. They have the specialized knowledge and equipment to solve your cooling problems.

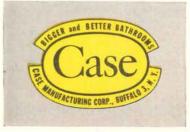




THIS WATER CLOSET does not disturb your peace of mind

The famous Case "kitten quiet" time tested Non-Overflow One-Piece* water closet with the whispering flush ... PRODUCED IN 48 DECORATOR COLORS AND SPARKLING BLACK AND WHITE. Case manufactures colored fixtures which correspond in color to the colored fixtures produced by leading complete-line manufacturers.

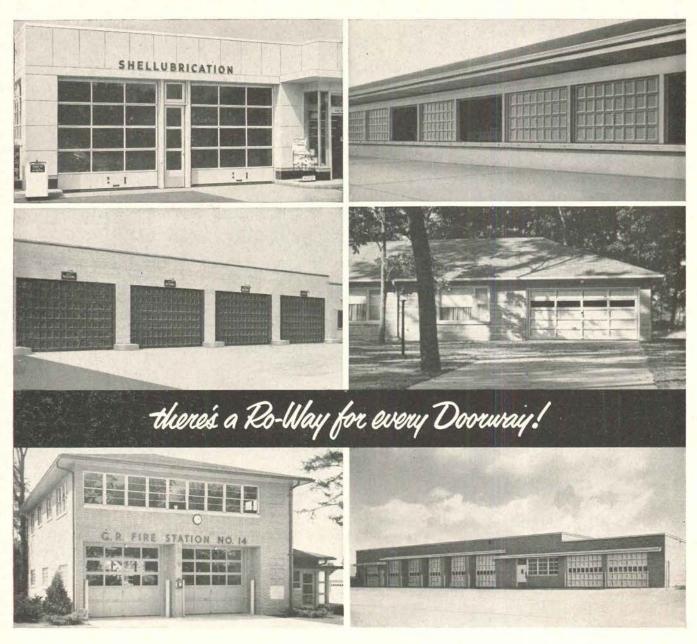
*PATENTED



Ask your Case wholesaler or write:

CASE MANUFACTURING CORPORATION

33 MAIN STREET, BUFFALO 3, NEW YORK



Warehouse, service station, firehouse, factory, residential garage—you name the building and you'll find a handsome, rugged Ro-Way overhead type door to fit it.

Ro-Way doors are a leading choice of style-conscious, utility-minded architects. And no wonder. They're designed for smooth, easy, trouble-free operation, yet with an eye for attractive appearance as well . . . they're engineer-built of top quality materials . . . they're available in a wide range of styles and sizes.

And years of service are built into every Ro-Way door. Seasoned west coast woods. Masonite® Dorlux®

panels. Taper-Tite track and Seal-A-Matic hinges for snug closure and instant opening. Ball bearing rollers for quiet operation. Big, Power-Metered springs tensioned to the weight of each door. Heavy duty hardware both Parkerized and painted, or galvanized, to prevent rust and corrosion. Rugged electric operators for fast, efficient dependable service.

So doesn't it make sense to specify Ro-Way overhead type doors for all your commercial, industrial and residential buildings? They're available in standard and special sizes to meet any design problem.

COMMERCIAL · INDUSTRIAL · RESIDENTIAL

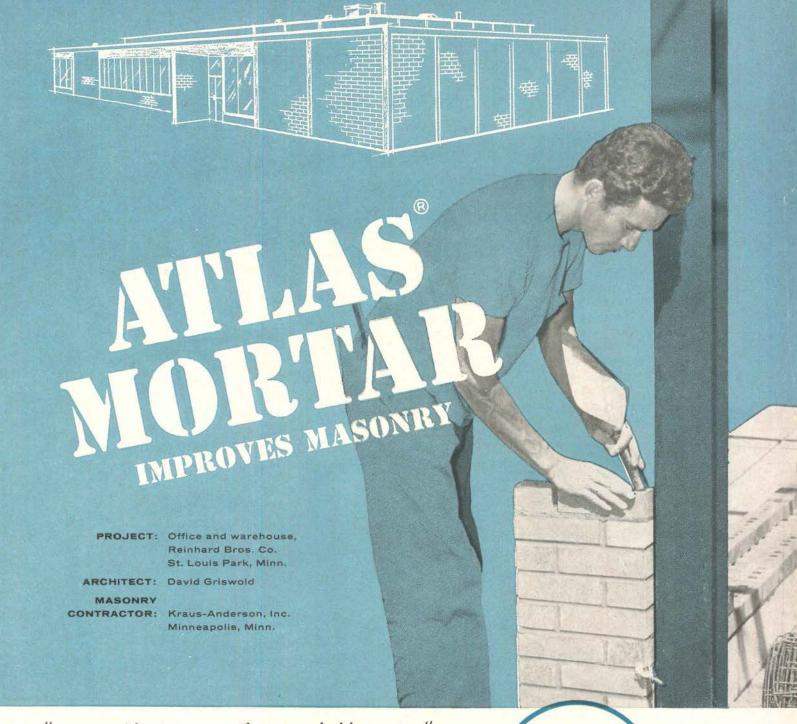






ROWE MANUFACTURING COMPANY

1298 Holton Street · Galesburg, Illinois



"... provides a more uniform, workable mortar,"

says R. J. Randolph, Mason Foreman Kraus-Anderson, Inc. Minneapolis, Minn.

- To produce serviceable, watertight masonry walls, the mortar mix must be plastic—and have adequate "board life."
- Masons on the job consistently confirm that ATLAS MORTAR cement does retain its workability—and gives higher yields.
- Quality-controlled manufacture of ATLAS MORTAR cement maintains high product standards, assuring uniform performance and appearance on every project.

(Complies with ASTM and Federal Specifications.)

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

Universal Atlas Cement Company

Subsidiary of United States Steel

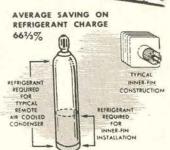


OFFICES: Albany · Birmingham · Boston · Chicago · Dayton · Kansas City · Milwaukee · Minneapolis · New York · Philadelphia · Pittsburgh · St. Louis · Waco

What's NEW in Remote Air Cooled Condensers?



A REMOTE AIR COOLED CONDENSER THAT REQUIRES ONLY 1/3 OF THE REFRIGERANT CHARGE USED BY COMPETITIVE MODELS



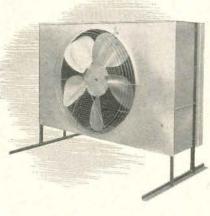
A RECENT 300 TON JOB SHOWED SAVINGS OF 1800 LBS. OF REFRIGERANT THROUGH USE OF THESE UNITS.

Yes, the Dunham-Bush 'BC' Remote Air Cooled Condensers with famous Inner-Fin construction mean savings of 67% in refrigerant charge. Additionally, they mean smaller receivers and minimum loss if the system charge is lost. In these expertly planned units, the exclusive InnerFin construction diminishes the internal volume of the coil while increasing the heat transfer coefficient. And higher heat transfer factors permit design of more compact units, saving valuable space in installation.

AS MUCH AS 53.5 TON CAPACITY IN ONE UNIT



The Dunham-Bush line of 'BC' Remote Air Cooled Condensers includes models in 13 sizes with capacities ranging from 2.2 tons to 53.5 tons, making possible use of a single unit for practically any job!



FOR ALL 'ROUND PROTECTION



Plastic vinyl paint is applied to all ferrous parts of unit casing and structure in three stages: PRIMER—a polyvinyl plastic combined with zinc chromate.

INTERMEDIATE—a vinyl resin with high lead content.

FINISH-hard grey, all weather resistant plastic vinyl.

All interior surfaces of the unit casing are given an extra finish coat of plastic vinyl.

AND FOR MAINTAINING SATISFACTORY HEAD PRESSURES



at all ambients, Dunham-Bush engineers offer the 'PS' Pressure Stabilizer.

'PS' units can be mounted indoors near the compressor, facilitating the making of necessary adjustments. They are thoroughly factory tested and assembled, and require connection only to the refrigerant liquid and discharge lines. No extra piping or special loops required. Regulating valve gives smooth pressure control and eliminates wide pressure fluctuations inherent in other head control systems.

The name Dunham-Bush is synonymous with efficient, satisfactory service for all types of pressure and temperature conditions. For technical assistance, our engineering staff is at your service. For more information, contact us.

Dunham-Bush, Inc.

WEST HARTFORD 10 . CONNECTICUT . U. S. A.

WEST HARTFORD, CONNECTICUT . MICHIGAN CITY, INDIANA

SUBSIDIARIES DUNHAM-BUSH (CANADA), LTD.

MARSHALLTOWN, IOWA . RIVERSIDE, CALIFORNIA . UTICA, NEW YORK DUNHAM-BUSH, LTD. BRUNNER CORPORATION (CANADA) LTD.



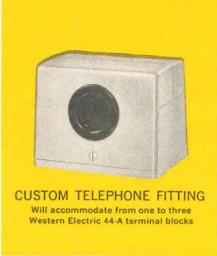
HEAT-X, INC. BREWSTER, N.Y.

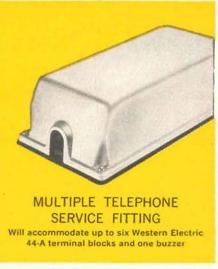


THE BRUNNER CO. BRUNNER GAINESVILLE, GA. TORONTO, CANADA

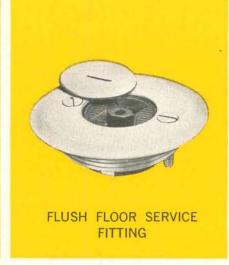
LONDON, ENGLAND













THE BEST YOU CAN BUY! SPANG SERVICE FITTINGS

NEWEST DESIGNS

All fittings are of engineered design to incorporate latest styling and easyworking features.

FAST INSTALLATION EASY ADJUSTMENT

Easy to wire. Extra-roomy design provides ample working area and space for excess wiring. Fittings adjust quickly into place.

COMPLETE LINE

There's a SPANG Service Fitting for every type outlet. Your choice of high-lustre brass or brushed aluminum.

INTERCHANGEABLE

SPANG Fittings are easily adapted to other underfloor duct systems. Exclusive SPANG Adapter assures fast installations.

LONG SERVICE LIFE

Once installed, SPANG Fittings can't

twist or turn. Exclusive neoprene gasket seal makes fittings watertight.

MAKE SPANG YOUR FIRST CHOICE!

Spang Standard Underfloor Duct and Spang Industrial Duct for use with conventional slab construction, and Spang Headerduct for use in cellular floor construction offer many time-saving advantages. Available through Spang Distributors all across the country. Write for complete information.

SPANG-CHALFANT

DIVISION OF THE NATIONAL SUPPLY COMPANY

General Sales Office: 2 Gateway Center, Pittsburgh 30, Pa.
District Offices and Sales Representatives in Principal Cities

Combine pleasing interiors with practical construction



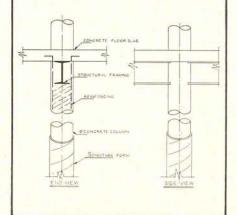
design round concrete columns into your buildings!

And when you specify Sonoco Sonotube Fibre Forms as formwork for the columns you are inviting lower bids from contractors.

Sonoco Sonotube Fibre Forms save time, money and labor...specify them for your next job.

Available in sizes from 2" to 48" I.D. in any length which can be shipped. Can be supplied in specified lengths or sawed to requirements on the job. Sonoco's "A" coated Sonotube is for finished columns.

See our catalog in Sweet's

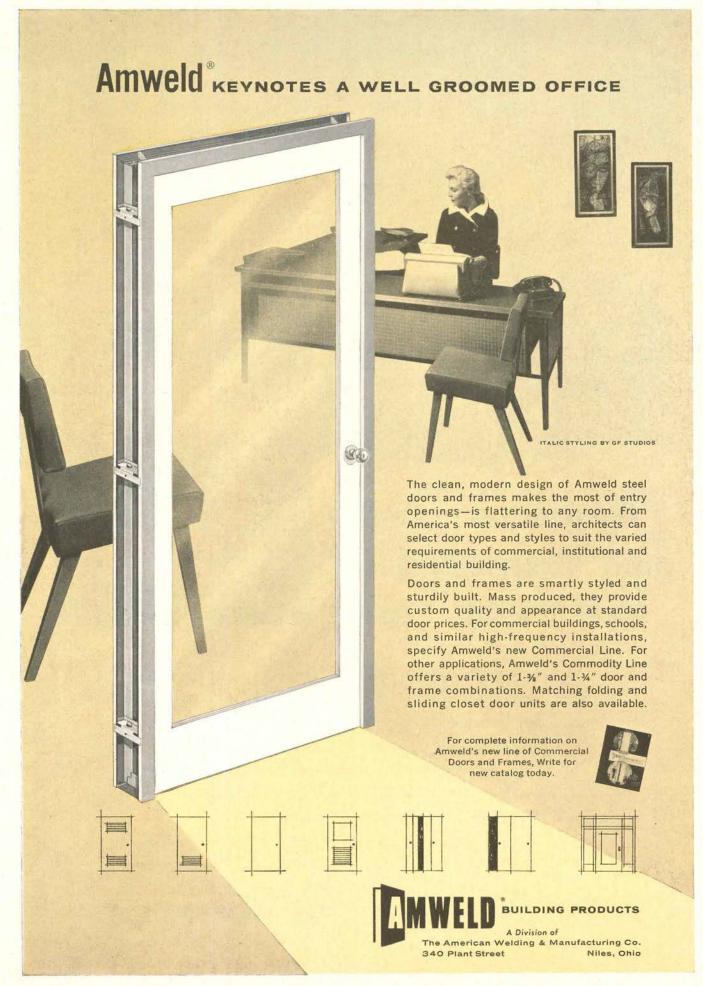


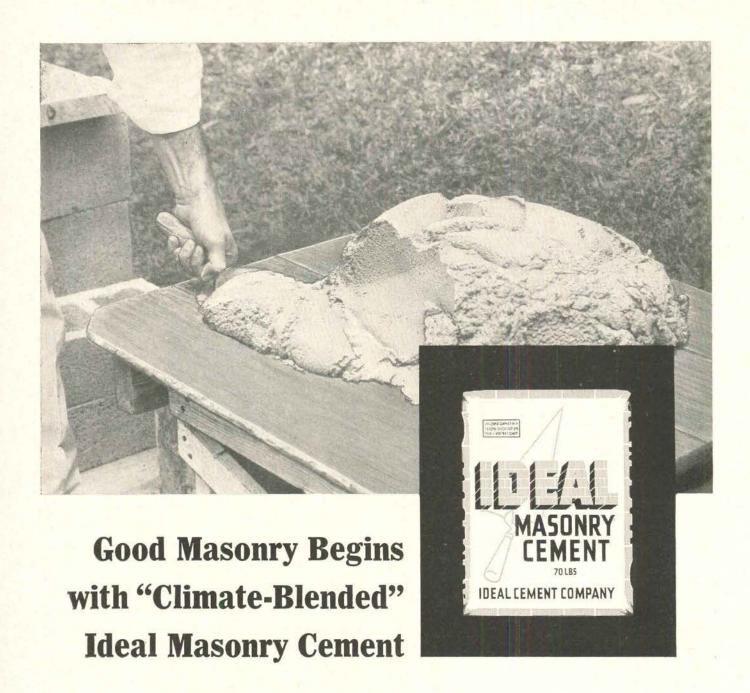
- · HARTSVILLE, S. C. · LA PUENTE, CALIF.
- · MONTCLAIR, N. J.
- AKRON, INDIANA
 LONGVIEW, TEXAS
- ATLANTA, GA.
- BRANTFORD, ONT.
- · MEXICO, D.F.

2847

Construction Products

SONOCO PRODUCTS COMPANY





You can be assured, whether it is hot and dry or cool and moist, that "Climate-Blended" Ideal Masonry Cement will perform beautifully for every masonry job.

"Climate-Blended" Ideal Masonry Cement is manufactured by an Ideal plant right in the area where it will be used—is blended to provide maximum plasticity, strength, water repellence, and yield regardless of climate or weather conditions.

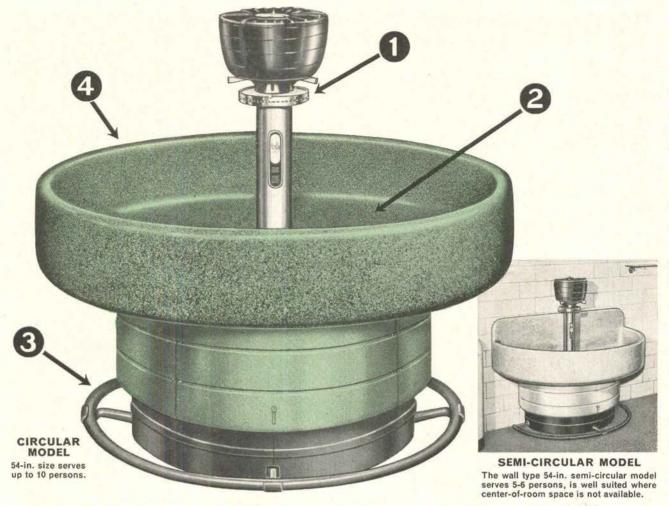
Always specify "Climate-Blended" Ideal Masonry Cement for masonry jobs—it is the cement that makes good masonry BETTER.



IDEAL CEMENT COMPANY

DENVER, COLORADO

15 Plants and 4 Terminals Serving Some of the Most Rapidly Growing Areas of the Nation.



BRADLEY WASHFOUNTAINS HAVE all these advantages

- CENTRAL SPRAYHEAD. Placed below soap tray or dispenser, running water is supplied to all-no faucets to touch or maintain.
- SELF-FLUSHING BOWL. Used water is flushed away, keeping bowl clean and sanitary looking.
- FOOT-CONTROL. Eliminates infectious faucet contacts-cuts supply of tempered water immediately as the foot is removed from ring . . . no wasted water.
- BIG BOWL. Right height and size to thoroughly wash hands and arms. Lip of bowl to floor: Standard installation, 31"; Juvenile height, 27".

PRECAST STONE, VITREOUS ENAMEL, STAINLESS STEEL

You can select the material you want-precast stone in tints to harmonize with modern walls and floors; stainless steel; and vitreous enamel in six colors-white, citron yellow, mint green, sun tan, sky blue, and forest green. Colors encourage washroom cleanliness.

Bradley Washfountains provide the most sanitary facilities, serve more in less space and at lower installation costs-for new as well as in your present buildings. For complete details on all

models, write for our latest Catalog 5601 ... BRADLEY WASHFOUNTAIN CO., 2227 W. Michigan St., Milwaukee 1, Wis.



Cat. 5601





54-in, diam, full-circular precast stone Washfountains serve 8-10 simultaneously.

54-in, full-circular stainless steel Washfountains are preferred by

-also made in 36-in. diameter size.

54-in, semi-circular wall type model. Duo-Washfountains have footcontrol and a sprayhead in place of faucets.



Square D Field Engineers throughout the country are proving the superior performance of the QO breaker, using the demonstration kit shown above. It gives dramatic proof of positive protection against "flash" shorts. Mail the coupon on opposite page for the complete QO story. If you're of the "I'm from Missouri" clan—

MAKE A "DEMONSTRATION" DATE WITH YOUR SQUARE D FIELD ENGINEER!

Conventional overcurrent protectors provide protection for branch wiring for both overload and short circuits, but do not open fast enough to protect the smaller extensions beyond the branch wiring from repeated arcing or "flash" shorts. Such shorts consist of relatively low values of current and often produce spectacular flashes.

Square D's **QO** breaker now gives you positive protection against "flash" shorts, in addition to its many other advantages. This added protection costs no more—why settle for less?

EC&M HEAVY INDUSTRY ELECTRICAL EQUIPMENT...NOW A PART OF THE SQUARE D LINE



SQUARE D COMPANY

BREAKER EVER BUILT BETTER...and Here's Why —



ACCIDENTAL "FLASH" SHORT

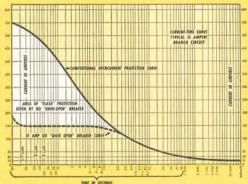
Accidental "flash" shorts occur by a slip—a screwdriver on a terminal, a fork in a toaster, a screw falling on a bus, a loose wire. The circuit should open instantly. With **QO** "Qwik-Open" breaker, the circuit opens instantly with the first flash, making the circuit safe.



FRAYED CORD

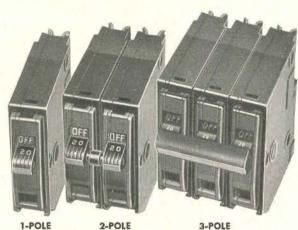
Stranded flexible cord "flashes" result principally from frayed cords. A few strands touch—the high resistance circuit gives off enough heat to burn through several strands. Further movement usually causes more strands to touch—another flash. With QO "Qwik-Open" breaker, the circuit opens instantly on the first flash. No known protection is faster.

TIME-CURRENT CURVE SHOWS QO PERFORMANCE



In the above chart, the **QO** curve illustrates the time-delay characteristic which eliminates nuisance tripping on momentary overloads and motor starts plus the extra protection over conventional protective devices which **QO** Qwik-Open breaker gives on the arcing "flash" shorts.

QO Gives Positive Protection Against Both Kinds of "Flash" Shorts!



1-POLE 15-50 Amps

2-POLE 15-70 Amps

3-POLE 15-50 Amps

And—You Don't Need a "Road Map" To Use Square D's QO Breakers!

NO GUESSWORK! There's just ONE ARRANGEMENT. 2-pole breakers go anywhere on the bus assembly. You don't need a wiring diagram to tell you where to put them. No limit on number of 2-pole breakers you can use. The same applies on 3-pole breakers for 3-phase jobs.

ONE FULL-SIZE BREAKER! Each pole in its own case and all poles are the same size. Double-pole breakers take only two single-pole spaces—3-pole breakers only three. No more.

LESS MONEY TIED UP IN STOCK! Only one kind of breaker for all load centers—no duplicate stocks. The same breaker for panelboards—no duplicate stocks.

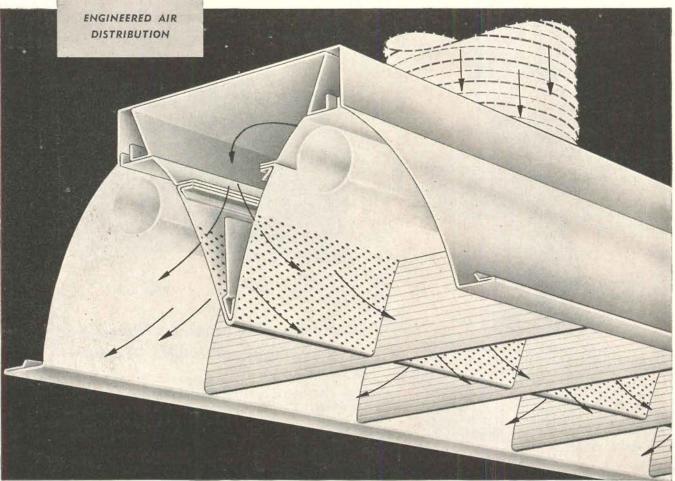
HOT OFF THE PRESS! MAIL COUPON FOR 16-PAGE BULLETIN ...GET THE COMPLETE STORY

Square D Company, Dept. SA-14
6060 Rivard Street, Detroit 11, Michigan
Please send me a copy of the new QO Bulletin
Name
Company
Address
City
Zone
State



For <u>engineered</u> air distribution combined with high-comfort lighting PARAFLO

by Day-Brite and Barber-Colman



If your plans call for a combination light and air distribution fixture, specify the new Paraflo. It's the one troffer combining precision-engineered air diffusion and high-comfort illumination in a single attractive unit. Developed jointly by Day-Brite Lighting, Inc., and Barber-Colman Company air distribution engineers, the Paraflo provides properly diffused air throughout the length of its exclusive center "V" louver. Controlled lateral deflection of the quiet, diffused air stream eliminates "waterfall" effect without ceiling smudge. The Barber-Colman air volume control is adjustable from below after installation for simplified system balancing. For more details on this newest and most efficient combination fixture, call your nearby Barber-Colman field office or write to . . .

BARBER-COLMAN COMPANY

Dept. F, 1104 Rock Street, Rockford, Illinois

One source...one responsibility for both air distribution and automatic controls



"STRONG. FIRE-RESISTANT. CORROSION-RESISTANT. THAT'S WHY WE USE WEIRZIN" IN OUR STUD SYSTEMS!"

says G. A. Stevenson, vice president of Penn Metal Company, Inc., Parkersburg, W. Va., maker of PERMALOCK nailable metal stud systems.

"Broadly speaking, our choice of Weirzin electrolytically zinc-coated steel is based on two factors: performance in our products and performance in our production lines.

"With Weirzin, of course, our stud systems have the strength, rigidity and high degree of fire resistance inherent in steel. And because Weirzin's zinc coating is completely integrated with the steel, we have the added assurance of a corrosion-free life for our systems.

"In our production lines, Weirzin goes smoothly through every operation—no flaking or peeling regardless of the severity of the fabrication stresses.

"Briefly, we feel that Weirzin has helped us to produce a quality product that gives our customers solid value at low cost."

Strong! Highly resistant to fire! Highly resistant to corrosion! Easy to fabricate! That's Weirzin electrolytically zinc-coated steel. For more information on Weirzin send for free booklet. Write Weirton Steel Company, Dept. 0-17, Weirton, West Virginia.



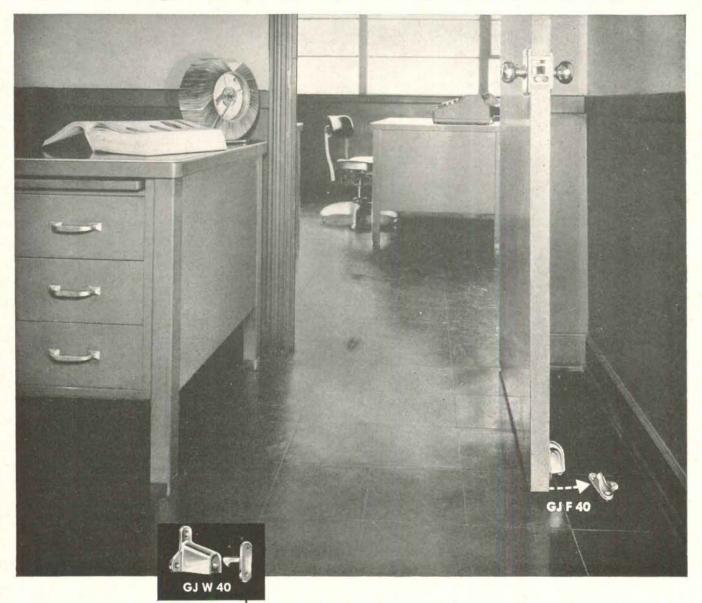
WEIRTON STEEL COMPANY

WEIRTON, WEST VIRGINIA

a division of



an ideal specification for efficient OFFICE DOOR CONTROL



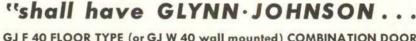
This ideal GJ specification for office doors is used in such outstanding office buildings as:

Socony Mobil Building, New York City Harrison and Abramovitz and John B. Peterkin — associated architects

State Mutual Life Assurance Company of America, Worcester, Massachusetts. Hoyle, Doran and Berry, Boston, Mass. - architects

A & E and Research Buildings, Whiting, Ind. Holabird & Root & Burgee, Chicago, Illinois -

Also GJ shock absorbing overhead arm type door holders for entrance and other heavy duty



GJ F 40 FLOOR TYPE (or GJ W 40 wall mounted) COMBINATION DOOR STOP AND HOLDER." (This simple, fool-proof device engages silently and automatically to hold the door open. Releases with a firm pull. Especially recommended for doors opening more than 110°, or to meet budget limitations. All working parts are enclosed in a streamlined case for maximum durability.)

"THREE GJ 64 for metal frame (or GJ 65 for wood frame) RUBBER SILENCERS." (Form pneumatic air pockets to absorb shock or noise of closing and create constant latch tension . . . no door rattling.)



write for complete information and details

GLYNN · JOHNSON CORPORATION

4422 no. ravenswood ave. . chicago 40, illinois

35 ASS Speed-Low Cost

TUBE-ICE WAY!



The compact arrangement of the Vogt automatic Tube-Ice machine renders obsolete the large, costly equipment formerly required. This results in substantial savings in first cost and maintenance.

A 2,000-Pound Capacity Package Unit occupies only 14½ sq. ft. of space...a 30-ton custom built unit only 64 sq. ft. Save valuable space with a Tube-Ice machine.

Only 13 minutes is needed to freeze, thaw and discharge "crushed" Tube-Ice and only 40 minutes for "cylinder" Tube-Ice.

The Tube-Ice process utilizes direct application of the refrigerant to the freezing surfaces thereby eliminating all power costs incidental to the now-obsolete brine system.

VOGT TUBE-ICE MACHINES

available in Package Unit and Custom Built Units, are ideally suited for:

POULTRY PACKERS — FISHERIES — DAIRIES —

MEAT PACKERS — HOTELS, CLUBS, RESTAURANTS & HOSPITALS —

VEGETABLE AND FRUIT PACKERS — COMMERCIAL ICE PLANTS

HENRY VOGT MACHINE CO., Box 1918, Louisville 1, Ky.

\$ALES OFFICES: New York, Chicago, Cleveland, Dallas, Camden, N. J. St. Louis, Charleston, W. Va., Cincinnati



AUTOMATIC

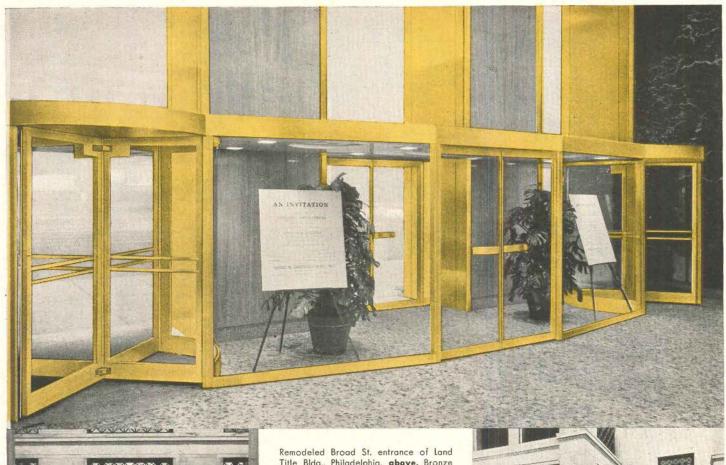
Write for Bulletins. Dept. 24A-RTAR

Tube-Ice Machine

The Finest Ice-Making Unit Ever Made

OTHER VOGT PRODUCTS

Drop Forged Steel Valves, Fittings, Flanges, and Unions Petroleum Refinery and Chemical Plant Equipment Steam Generators Heat Exchangers Refrigerating Equipment



Remodeled Broad St. entrance of land Title Bldg., Philadelphia, **above**. Bronze sheet and strip frame vestibules and door openings with warm, golden color to complement tans and browns of floor and marble veneer. Dark, closed-in original entrance, **left**.

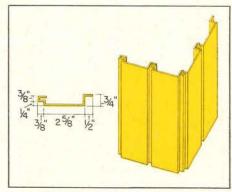
Below: Interlocking bronze extrusions with 3" exposed surfaces form smart, trim panels from floor to ceiling in the main lobby. See diagram below, left. Right: The same area as it looked before modernization.

Architects: Thalheimer & Weitz, Philadelphia.

Metal Fabricator: John G, leise Metal Works, Philadelphia.

Elevator Entrances: W. S. Tyler Company, Cleveland.

Exterior Doors: Revolving Door and Entrance Division of International Steel Company, Evansville, Indiana.



Section and isometric of bronze extrusions used in wall at right. A metal sub-frame made possible perfect alignment of the shapes. All fastenings are concealed. This special shape was designed and detailed by the architects and the architectural metal fabricator.



MODERNIZATION
THAT GIVES
CHARACTER TO
A BUILDING
REQUIRES GOOD
DESIGN AND THE
BEST MATERIAL
• VERSATILE
ARCHITECTURAL
BRONZE



A highly favorable reception to the modernized entry is reported by Albert M. Greenfield & Co., rental agents, who write: "We are most pleased with the results achieved in architectural beauty, durability, and low material cost. All of this without impairing the exterior architecture of this long-famous landmark in the heart of Philadelphia." For information on Anaconda Architectural Metals address: Architectural Service, The American Brass Company, Waterbury 20, Conn.

ANACONDA®

ARCHITECTURAL METALS

made by

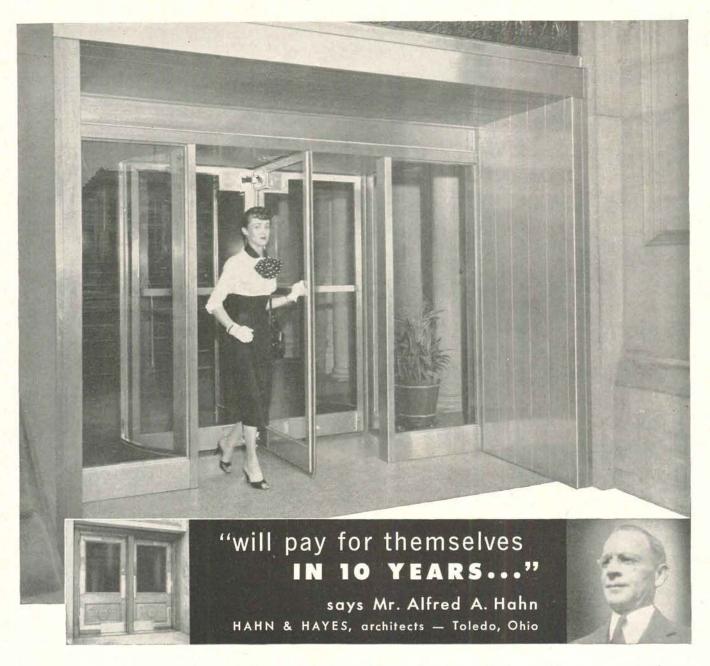
THE AMERICAN BRASS COMPANY



Facade at Broad Street entrance, **above**, was opened and simplified. Bronze sheets surround new door openings, offering an interesting contrast in color and texture with granite masonry. **Left:** The original facade.

Below: In the elevator lobby, ceiling was lowered, details simplified. Wall paneling of interlocking bronze extrusions matches in color the bronze elevator doors. Right: Original lobby as it appeared just before modernization work started.





about the International Revolving Doors at the LUCAS COUNTY COURTHOUSE in Toledo, Ohio

"Even on an initial cost and installation basis, these doors represent a savings of 10 to 15% over comparable doors . . . and on a long-term basis, we estimate that they will save Lucas County about \$6,000 yearly on heating costs alone.

"From the standpoint of design . . . always of interest to architects . . . the clean, modern lines of International Revolving Doors blend harmoniously with the building, and do not conflict with its historical expression.

"This installation has generated a great deal of comment among other architects and engineers in this area. And we at Hahn & Hayes regard this installation as a tribute to a highly modernization-minded County Commission, composed of members who possessed a great deal of discretion in making their selections."

Find out how "always open — always closed" International Revolving Doors can fit into modernization or new building plans you may have. Write for further information.

Send for a copy of International's "Modern Entrance Maintenance" manual . . . free on request sent on your letterhead.

Revolving Door Entrance Division

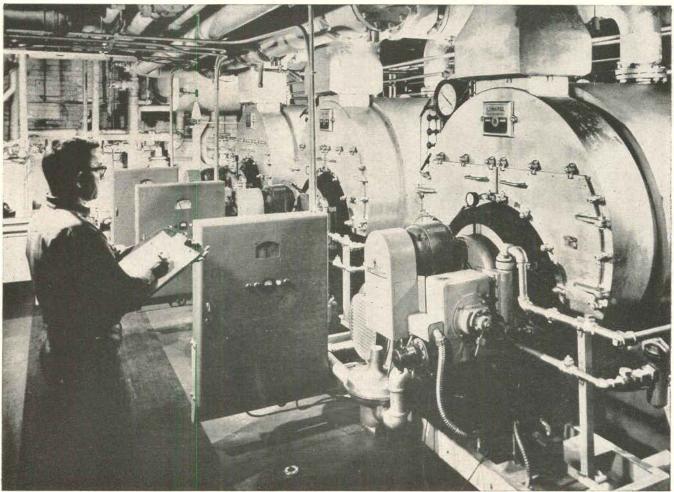
INTERNATIONAL STEEL COMPANY

1451 Edgar Street • Evansville 7, Indiana



The smart way to modernize

... specify your heating plant in one package



This remodeled boiler room serves the two buildings of the Columbus Dispatch newspaper plant, Columbus, Ohio. Fuels can be quickly changed in these three Iron Fireman-Kewanee gas-oil boiler-burner

units. Consulting Engineers, John Paul Jones, Cary & Millar, Cleveland; Architect, Dan A. Carmichael, Columbus; Heating Contractor, Limbach Co., Columbus.

Iron Fireman burner with boiler — engineered as a single unit

These famous boiler-burner units are the products of two great specialists—each in its own field. They are engineered for each other. Included in one catalog, they can be ordered by a single model number from one set of specifications.

Plenty of reserve power

You can feel safe in specifying Iron Fireman equipment. These thoroughly engineered units are conservatively rated. The normal firing rate is a comfortable cruising speed—less strain, low maintenance, quiet operation, higher efficiency

—and that big extra capacity is always standing by to pick up extra loads.

Compact and complete

These complete steam or hot water generating units require little more than service connections. Automatic controls, air and fuel systems are built in. No special boiler settings; low headroom; no high stack.

Please mail coupon for catalog and specifications.

IRON FIREMAN®

AUTOMATIC FIRING EQUIPMENT FOR OIL, GAS, COAL

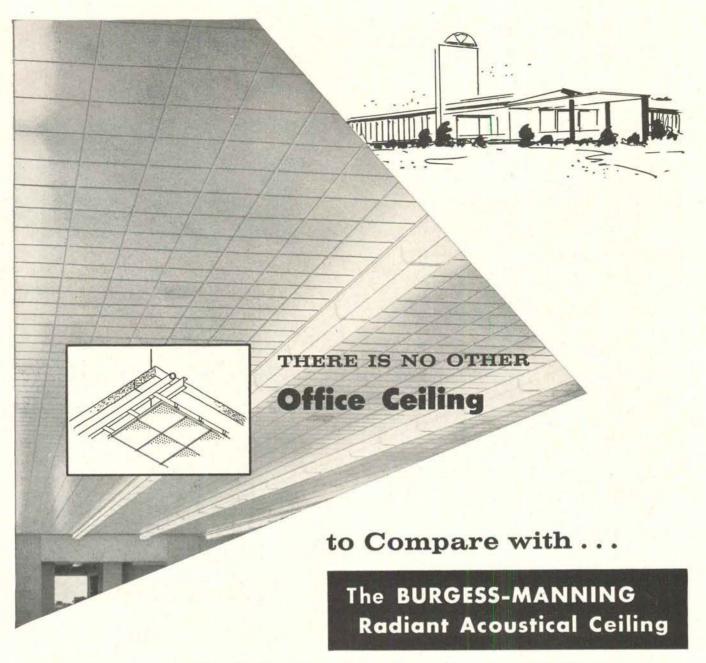


| IRON FIREMAN MANUFACTURING CO. | |
|---|---|
| 3054 West 106th Street, Cleveland 11, Ohio | |
| (In Canada, 80 Ward Street, Toronto, Ontario) | |
| Please send catalog and specifications on | ¢ |

Please send catalog and specifications on followin equipment:

☐ Complete boiler-burner units ☐ Forced draft firing unit only

| Name | |
|---------|-------|
| Firm | |
| Address | |
| City | State |



The only completely integrated Radiant Acoustical Ceiling

It is the most modern concept in comfort conditioning. It is years past the experimental stage. Its performance has been proved by use in many types of buildings.

The Burgess-Manning Radiant Acoustical Ceiling is the ideal ceiling for any building where human comfort is a first consideration.

Combining thermal comfort conditioning and acoustical control in the same unit, this ceiling performs both functions with equal efficiency. It heats or cools by radiant energy, independent of air movement and does not produce drafts. Room temperatures are always practically uniform from floor to ceiling. With Burgess-Manning Radiant Heating and Cooling human comfort can be maintained with lower than average room temperatures. Where many people are working in the same room, its extreme uniformity of

heating and cooling eliminates the hot and cold spots that cause dissatisfaction and complaints.

As economical as it is efficient, the Burgess-Manning Radiant Acoustical Ceiling introduces a new standard of comfort conditioning for commercial buildings.

Remember

Your Building is Better Your Building Budget No Bigger

Write for Descriptive Catalog No. 138-2L



BURGESS-MANNING COMPANY

Architectural Products Division 5970 Northwest Highway, Chicago 31, III.



Building's system was designed to a static pressure of 8" water. SOFTITE Cop-R-Loy used ranged from 16-gage for ducts over 18" in diameter to 22-gage for 8" or less.

Because sections were made up in Alpine's shop with short lead time on an "as needed" basis, Wheeling's dependable delivery was a big advantage.



ARCHITECT
OWNER
GEN. CONTRACTOR
FABRICATOR

Skidmore, Owings & Merrill Port of New York Authority Cauldwell-Wingate Co. Alpine Sheet Metal & Ventilating Co.

5 miles of high-velocity trunk lines made of Wheeling SOFTITE COP-R-LOY Sheets

Although it's only three stories tall, Idlewild Airport's new 3,200′-long International Arrival Building has the high-velocity air-distribution system normally associated with skyscrapers. It was selected to minimize the space requirements of trunk lines and ducts in the extremely long structure . . . and to assure the best possible year-round air-conditioning in every part of it.

Using almost 250 tons of Wheeling sofTite Cop-R-Loy Galvanized Sheets, the lines were fabricated by Alpine Sheet Metal & Ventilating Company, Long Island City. The company's president, Mr. Marty Langberg, says, "We knew this was going to be a tough job, so we worked extremely carefully and used sofTite Cop-R-Loy wherever possible to assure extra-long, trouble-free service from the system."

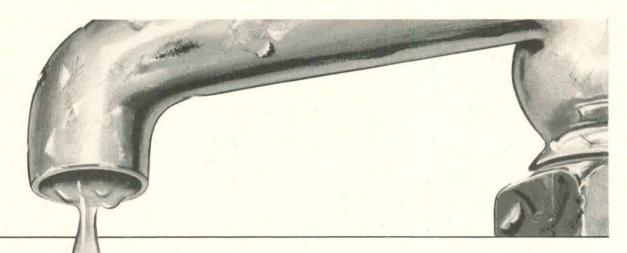
For full details on SOFTITE Cop-R-Loy's extra-long life, contact your nearby Wheeling warehouse or sales office. Wheeling Corrugating Company, Wheeling, West Virginia.

WHEELING CORRUGATING COMPANY-IT'S WHEELING STEEL

IMMEDIATE DELIVERY ON ALL STOCKED ITEMS FROM THESE WAREHOUSES: Boston, Buffalo, Chicago, Columbus, Detroit, Kansas City, Louisville, Minneapolis, New Orleans, New York, Philadelphia, Richmond, St. Louis Sales Offices: Atlanta, Houston

W

Wheeling



How much of your client's operating budget will drip down the drain?

More than you might think—unless you specify Crane Dial-ese controls, designed to cut down water loss and water heating bills

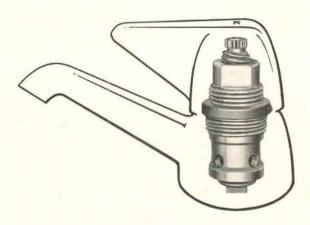
A drop of water a second, hour after hour, adds up to 2,300 gallons a year.

Multiply that by the number of faucets in your client's building, and you can see the incredible water waste that dripping can, and *does*, cause. And when it's *hot* water, there's big fuel waste, too!

Crane Dial-ese controls are designed to stop this constant waste. For one thing, a Dial-ese control shuts off easier and all the way because it closes with the water pressure—not against it. The water pressure helps instead of hindering the closing.

Dial-ese is designed to last longer, too. Stem threads are permanently lubricated at the factory—and sealed *inside* where water can't touch them. All working parts are in a single, simple cartridge that screws into the faucet. Replacement is quick and easy—just take out the old, put in the new.

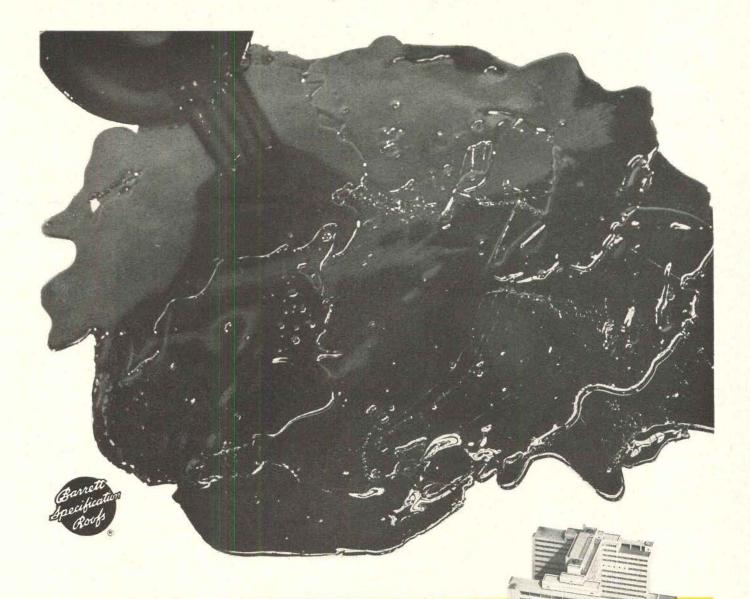
All Crane fixtures (and *only* Crane fixtures) feature Dial-ese controls. Why not ask your Crane Branch or Crane Wholesaler for more details?



CRANE DIAL-ESE PERMITS STANDARDIZATION. The same renewable unit fits all Dial-ese controls... lavatories, bathtubs, showers, sinks and laundry tubs.



CRANE CO. 836 S. Michigan Ave., Chicago 5 · VALVES · FITTINGS · PIPE · PLUMBING · KITCHENS · HEATING · AIR CONDITIONING



new Grady Memorial Hospital: guarded by the vital oils of pitch

Now the new Grady Memorial Hospital in Atlanta, Georgia, adds its name to the imposing list of great American hospitals that are Barrett-roofed.

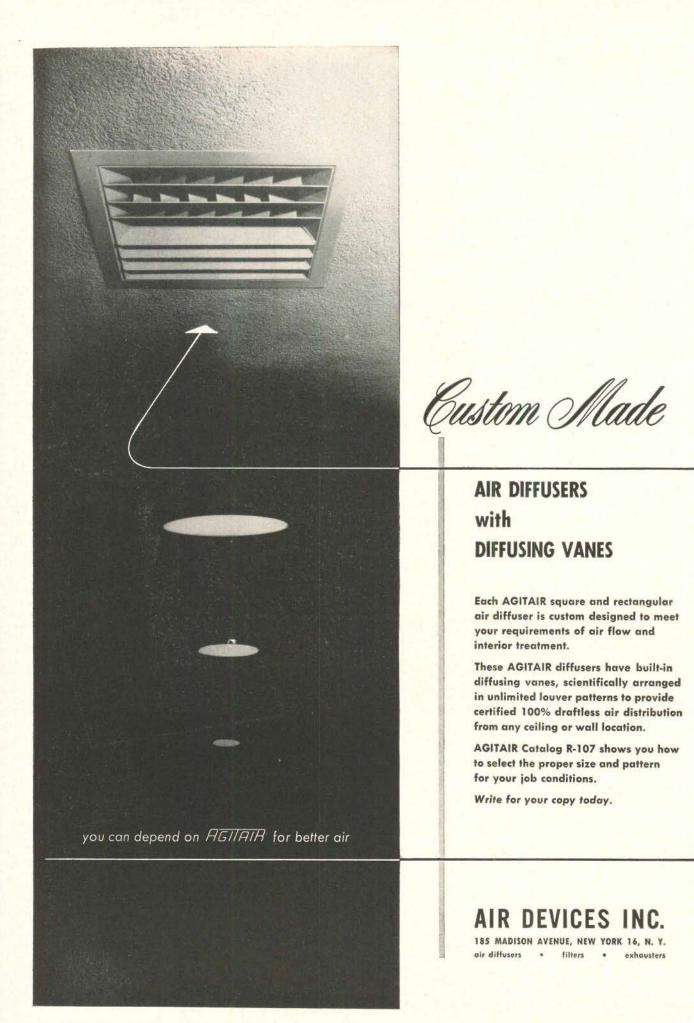
Again, a new building which employs all the most modern construction techniques and materials relies on built-up roofing based on a long-established weatherproofing substance—coal-tar pitch. Pitch, with its vital oils, lasts for decades and is actually preserved by moisture—the destructive enemy of other bitumens. Laboratory tests show that other bitumens absorb from 2 to 17 times more water than pitch.

And pitch has long-lasting flexibility which allows small cracks to "heal" themselves and assures tight, uniform adherence to the face of the roof deck. Layers of pitch and roofing felt, armored with a slag or gravel surface, comprise the famous Barrett SPECIFICATION® Roof—the critical standard in built-up roofing for over 50 years. BARRETT DIVISION, Allied Chemical & Dye Corporation, 40 Rector Street, New York 6, N.Y. In Canada: The Barrett Co. Ltd., 5551 St. Hubert St., Montreal, P. Q.

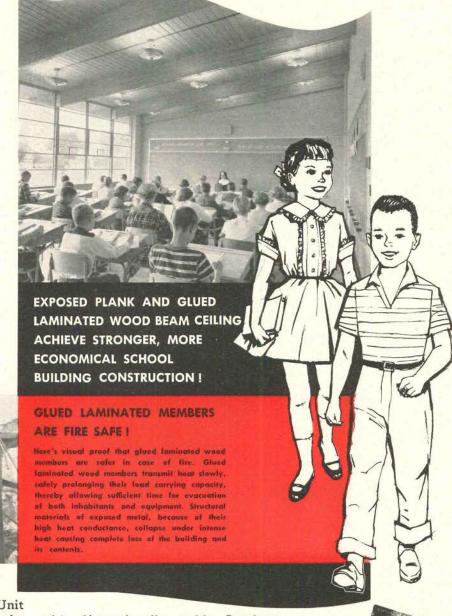
BARRETT ROOFS... they outlive the bond

Architect: Robert & Company Associates, Allanta. General Contractor: Robert E. McKee General Contractors, Inc., Dallas, Texas. Barrett Roofer: G. G. Ray & Co., Charlotte, N. Carolina.





UNIT leads trend setting pace LOWER SCHOOL COSTS!





For the past quarter century, Unit Structures, Inc., has pioneered in the continuing development of functional, fire resistive schools through the use of soundly engineered, permanent glued laminated wood members.

Unit laminated construction leads the field in creating true school building economy . . . effectively reducing costs through simplified detailing, adaptability to modular dimensioning, faster erection. As a result, more and more architects are designing schools

with dimensionally stable Southern Pine laminated structural members -and specifying UNIT for dependable fabrication, expert finishing, speedy shipment.

Take advantage of the many cost saving ideas possible only with modern glued laminated construction -- the ideal method to frame classrooms, gymnasiums, assembly halls. Let our experienced planning staff assist you on your next school building project.

WRITE TODAY!

For your free copies of Unitecture, a periodic bulletin, containing simplified details of arch and beam connections, photographs of unusual and outstand-ing architecture and helpful design data on glued laminated construction.

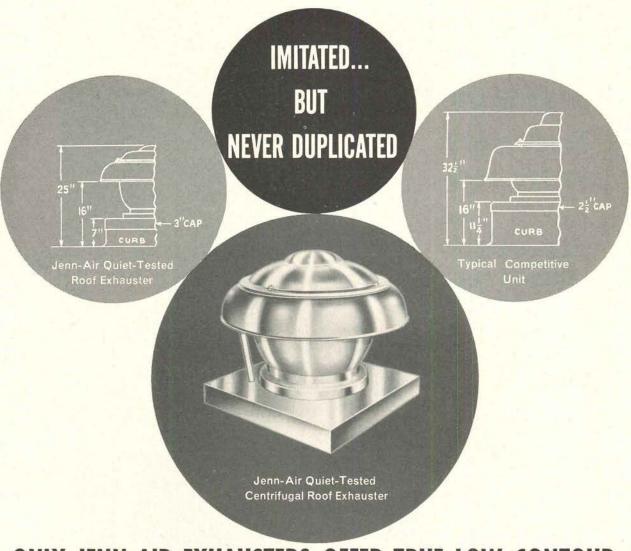




STRUCTURES, Inc.

GENERAL OFFICES: Peshtigo, Wisconsin PLANTS - Peshtigo, Wisconsin and Magnolia, Arkansas Offices and Representatives in all Principal Cities





ONLY JENN-AIR EXHAUSTERS OFFER TRUE LOW CONTOUR

The Big Difference is in the Installed Height

To conform with modern construction, low contour in exhausters is the accepted design among architects, engineers and building owners. And Jenn-Air, first to develop low contour spun aluminum exhausters, still engineers the lowest contour of all. Only true measurement of exhauster height is the distance from the roof level to the top of the exhauster. Jenn-Air Quiet-Tested units, when installed, stand 25 to 50% lower than others-yet meet specifications for a discharge height at least 16" above roof level. This is achieved by Jenn-Air's exclusive method of nesting the motor below the discharge of the exhauster. Thus, the base of the exhauster itself supplies the additional height. In competitive models, with a discharge height of only 91/2", the curb base must be extended higher to attain the 16" position. Result: overall, installed height of competitive socalled "low contour" exhausters runs 8" to 10" more than that of Jenn-Air. Have a Jenn-Air representative show you the "yard-stick test" . . . proof positive that only Jenn-Air Quiet-Tested exhausters offer true low contour.





STANDARD BEARER TO THE HINGE INDUSTRY!

Since 1954, when Hager first introduced *Permanized LUMA-SHEEN* Finish—the *original* and *first true aluminum colored finish*—it's become the most widely acclaimed finish of the door hardware industry!

Other manufacturers have tried desperately to duplicate and imitate the superb excellence of LUMA-SHEEN. When they compromised quality . . . they failed!

TRUE TO ITS PURPOSE... LUMA-SHEEN Finish-first of the industry-today is still first *in* the industry, after four long years! Specifiers, Consultants and Builders recognize that *permanized* LUMA-SHEEN has a can't-be-copied Hager craftsmanship that *out-performs* and *out-matches* them all!

PROOF OF INTEGRITY AND ENDURANCE!

1954—The Industry's first and finest! LUMA-SHEEN Finish—the only electrolytically-coated True Aluminum Color that matched other aluminum door hardware and trim.

1958—Proved by installation in practically every conceivable situation! LUMA-SHEEN remains the only finish that retains original soft lustrous beauty...resists and withstands corrosion.

When you want it to stand up to the test of time-specify Hager LUMA-SHEEN (symbol LS) on that next job.

C. HAGER & SONS HINGE MFG. CO., ST. LOUIS 4, MO.



©1958

BY HAGER

More architects are learning that you can

ELIMINATE NEEDLESS COSTS and IMPROVE EQUIPMENT QUALITY

In 1958, the farsighted, value-minded school boards are walking off with the real "bargains" in classroom heating and ventilating comfort.

To learn more about how you can get the most advanced hot water system within your present budget read below:



ECONOMY

Compared with the installed cost of some other systems, the Nesbitt Series Hot Water Wind-o-line system saves as much as 20% on construction, equipment and installation costs. Each classroom has its own Nesbitt Syncretizer for heating, ventilating and natural air cooling. And Nesbitt Wind-o-line fintube radiation extends along the sill to protect students sitting near windows against cold walls and window downdraft. Each student enjoys the full measure of thermal environment most conducive to optimum learning . . . whether he sits near the window or at the other side of the room.

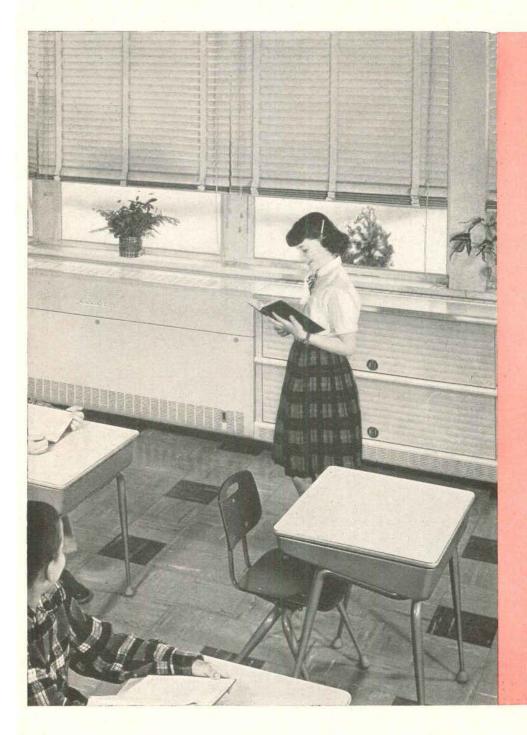
PERFORMANCE

No other unit ventilator provides controlled heating, ventilating and natural cooling as effectively as the Nesbitt Syncretizer. Add to this the advantages of Wind-o-line radiation and you have two-way Nesbitt protection against (1) excessive radiant loss of body heat and (2) chilling downdraft.

This unique double protection is your assurance of healthful, productive comfort—free of physical distraction—for every child in the room, wherever his seat is located. Only the comfortable student can maintain maximum learning efficiency.

QUALITY and VERSATILE DESIGN

The copper tubing of the Nesbitt Wind-o-line radiation does double duty by serving as the supply and return mains for the Nesbitt Syncretizer in each classroom. And that means double savings for you on pipes and coverings, and the elimination of expensive pipe trenches, mains and runouts. Because less hot water circulates, smaller and less costly pipes and pumps are needed. Piping within the Syncretizer units is factory-assembled, labor on the job is reduced. Gravity heating maintains overnight temperature, saving money on controls. Sum total of these economies: the best in controlled heating and



THESE SCHOOLS CUT COSTS...and

improved quality

Heating and ventilating costs for 3 more Nesbitt equipped schools

In New York \$1.57 Sq. ft.

Myron Avenue Elementary School, Tonawanda, N.Y.

Architect: Fenno, Reynolds & McNeil, Tonawanda, N.Y.

Engineer: Jacobus & Babinski, Buffalo, N.Y.

Gross Area: 15,100 sq. ft. Total Contract: \$256,119.00

Heating & Ventilating: \$23,681.00

Nesbitt Series Hot Water Wind-o-line System with Wind-o-line Radiation concealed by storage cabinets as shown at left

In Colorado \$1.48 sq. ft.

Machebeuf High School, Denver, Colorado Architect: John Connell, Deceased

R. James Noone, Denver, Colorado Engineer: Marwi S. Wilson, Denver, Colorado

Capacity: 550 pupils Gross Area: 48,390 sq. ft. Total Contract: \$523,200.00

Heating & Ventilating: \$71,833.00

Nesbitt Series Hot Water Wind-o-line Radiation

In Maryland \$1.57 sq. ft.

Stephen Knolls Elementary School, Montgomery Co., Maryland

Architect: Bailey & Patton, Rockville, Maryland Engineer: Redmile, Corab & Wood, Washington,

Capacity: 450 pupils Gross Area: 28,037 sq. ft. Total Contract: \$303,851.00 Heating Contract: \$44,025.00

Nesbitt Series Hot Water Wind-o-line System eliminated pipe trenches—put all piping above floor for maintenance accessibility

ventilation for your school at a cost that's way down . . . with quality that's way up for every classroom.

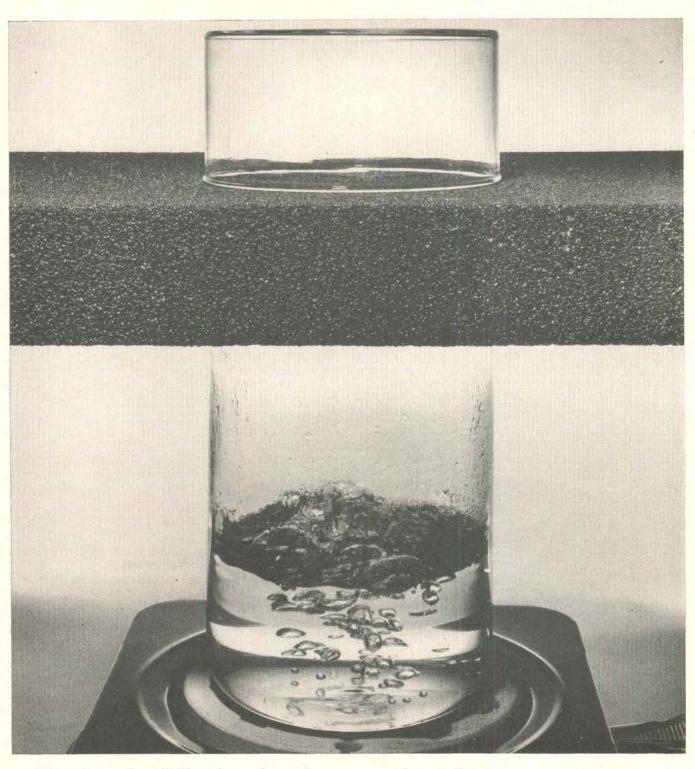
SCHOOLS IN MODERATE CLIMATES

In parts of the country where daytime winter temperatures rarely fall below 20°F., Wind-o-line Radiation may not be necessary because outside window walls do not create special comfort problems. In such areas, Nesbitt offers the Mainline System. It offers the economies of the series piping arrangement without sacrificing quality.

Send for the big book, packed full of information on the value of controlled classroom ventilation, More Learning per School Dollar.



Made and sold by John J. Nesbitt, Inc., Philadelphia 36, Pa.
Sold also by American Blower Corporation and by American Standard Products (Canada) Ltd.



... always an insulation investment; never an insulating expense

FOAMGLAS® IS VAPOR-PROOF

Water vapor is the biggest threat to any insulation's thermal performance. It is present in nearly every situation requiring thermal insulation. Most insulations absorb vapor. When they do, the vapor can condense within the material... and turn the insulation into a conductor of heat. Eliminate this threat. Use Pittsburgh Corning FOAMGLAS. Its sealed glass cells can never absorb or transmit vapor (see above)... thus guaranteeing long lasting insulating value that never fades from its original high level. There's still more to this insulation investment story. FOAMGLAS is dimensionally stable... can't burn... unusually strong... acid-proof... vermin-proof... easy, economical to handle and install. Write for our latest literature. PC Glass Blocks are another outstanding building product of Pittsburgh Corning Corporation.

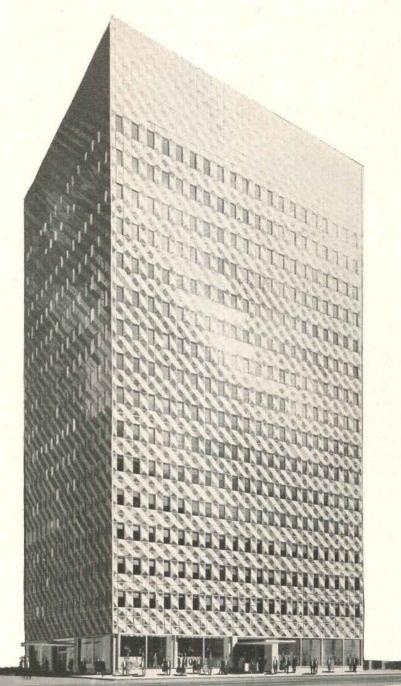
PITTSBURGH CORNING CORPORATION

Dept. B-68, One Gateway Center, Pittsburgh 22, Pa. • In Canada: 57 Bloor Street West, Toronto, Ontario

THE PORTER BUILDING...ANOTHER PITTSBURGH LANDMARK WITH

CURTAIN WALLS

by GENERAL BRONZE



Here's another example of a modern office building with metal curtain wall by General Bronze. Located almost within the shadows of Pittsburgh's famous Alcoa Building (with its aluminum curtain wall fabricated and erected by General Bronze), this new Porter Building makes use of 1026 dark gray alumilited curtain wall panels. Its 864 vertically pivoted fully reversible windows are in natural color aluminum finish to provide a pleasing color contrast.

If you're thinking of curtain walls for new buildings (either skin or grid and panel system) in aluminum, bronze or stainless steel, we can be of great service to you. Our extensive experience in designing, engineering, fabricating and erecting curtain wall systems can help you avoid costly pitfalls in this highly specialized field.

For additional information on General Bronze products—curtain wall systems, windows, revolving doors, architectural metalwork—call in the General Bronze representative. He is ready and anxious to serve you. Our catalogs are filed in Sweet's.

The Porter Building — Pittsburgh, Pa. Architects: Harrison & Abramovitz Contractor: George A. Fuller Co.



GENERAL BRONZE

SALES OFFICE: 100 PARK AVE., NEW YORK, N.Y.

PERMATITE DIVISION—Custom-built Windows, Curtain Walls, Architectural Metal Work and Revolving Doors. ALWINTITE DIVISION—Stock-size Aluminum Windows and Doors. BRACH MFG. CO. DIVISION—Radio, Television and Electronic Equipment. STEEL WELDMENTS, INC. DIVISION—Custom fabrication in Steel and Iron.



From The World's Largest Manufacturer of Fountain and Counter Food-Service Equipment





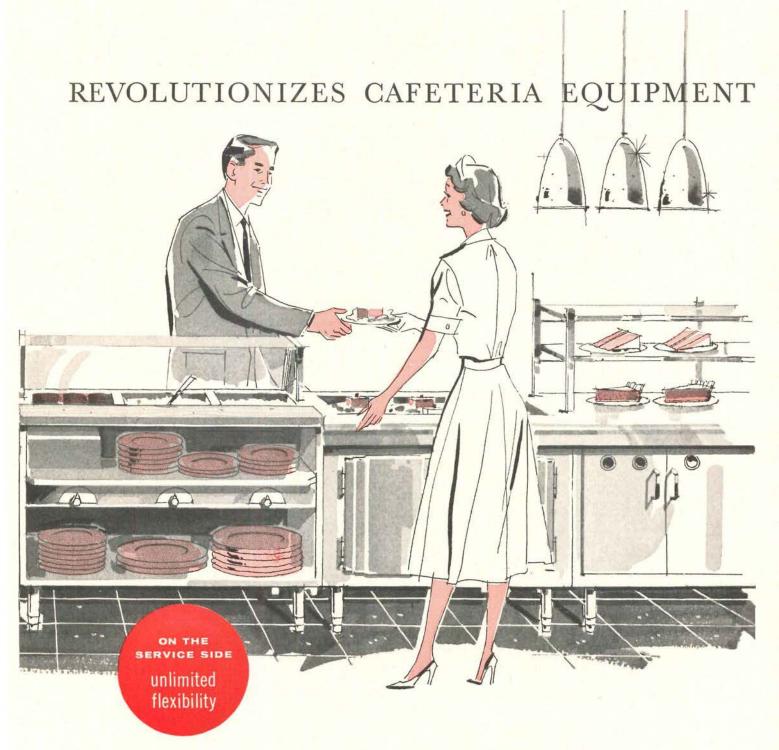
Cold Pan Units

Hot Food Units

Lowerator Dispenser Stands

Urn Stands

Display Shelving



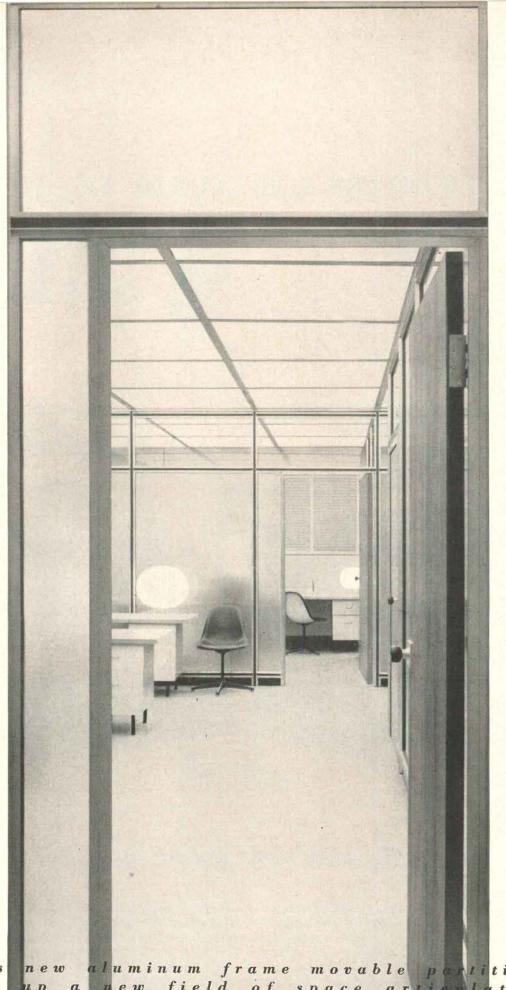
incomparable quality with mass-production economy

Now, Bastian-Blessing's ingenious Custom-Modular design principle means that you can have a cafeteria line incorporating every type of food-service unit you want . . . arranged in any sequence . . . to fit any size or shape area . . . with seamless, continuous, tailor-made 14 ga. stainless-steel top construction — and with your choice of any Formica, plastic

send for new catalog no. C-400 . . .

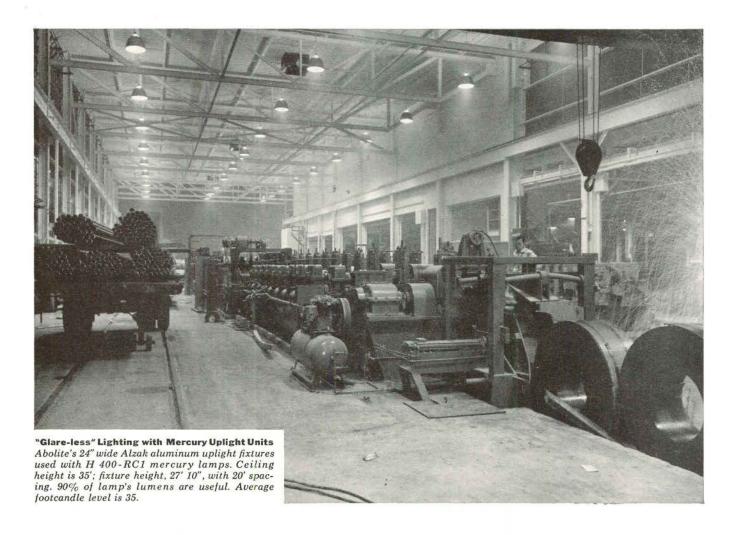
... showing revolutionary new Custom-Modular cafeteria foodservice equipment, Write on your letterhead: The Bastian-Blessing Co., 4205 West Peterson Avenue, Chicago 46, Illinois, Dept. 4-F. laminate, or popular metal front—at a far lower cost than you'd expect. Materials, construction and easy-maintenance throughout these installations reflect Bastian-Blessing's 50 years of setting the highest standards for the food-fountain service industry. It is truly custom quality . . . without "custom" price penalty or time-consuming "custom" delays!

BASTIAN-BLESSING



mills new aluminum frame movable partitions open up a new field of space articulation

THE MILLS COMPANY 987 WAYSIDE ROAD CLEVELAND 10, OHIO



Now Abolite brings "office type" eye comfort to...

INDUSTRIAL HIGH BAY LIGHTING

Abolite open-top units direct only a small amount of light (18%) upward, but it makes a big difference in eye comfort. Dark ceiling shadows are washed away—there's no sharp contrast of bright light against black background. And glare is reduced still more by 35° lamp shielding. As a result, eye fatigue is reduced—workers are more efficient.

Abolite's modern air-swept design also reduces maintenance costs because air circulating through the fixture sweeps it clean of dulling dust.

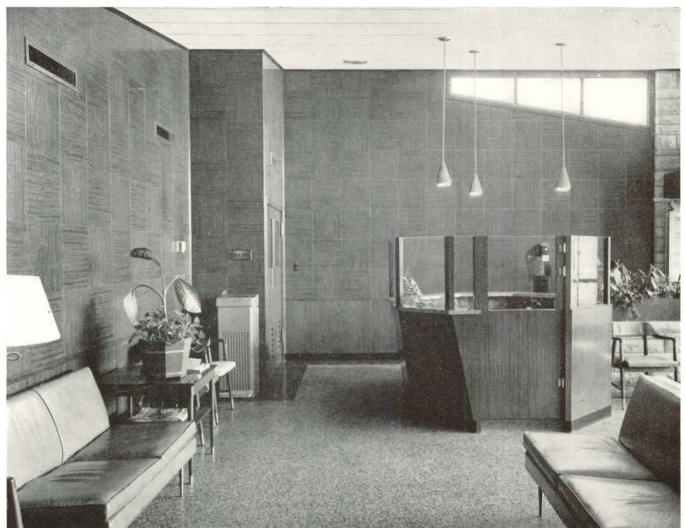
There are three Abolite uplight units for high bay lighting: 18" and 24" diameter Alzak aluminum fixtures for use with 400 and 1000 watt mercury lamps and 18" Alzak aluminum fixtures for 500 watt incandescent lamps (ideal for gymnasium lighting). For full information on these units, see Sweet's Industrial Construction File, 12i/AB.





THE JONES METAL PRODUCTS COMPANY

West Lafayette, Ohio



New Medicenter Building reception walls and desk feature striped mahogany Marlite Plank and Block

"Marlite provides a smooth, easily-maintained surface in attractive colors and patterns"

says architect Juliet Peddle

"The new Medicenter Building, Terre Haute, Indiana, has five self-sufficient suites that include an office, waiting room, examination and consultation rooms. All interior walls are Marlite plastic-finished paneling. Six colors, three marble patterns, and six wood grains were used. The result is both attractive and efficient, and requires only a minimum of maintenance."

More and more architects are planning imaginative interiors with Marlite. This versatile paneling —dimensioned for standard modular sizes—fits right, looks right, goes up fast with minimum cost in place. And Marlite's baked melamine plastic finish resists heat, moisture, grime and stains. It wipes clean with a damp cloth; stays like new for years.

Get complete details from your building materials dealer, refer to Sweet's File, or write Marlite Division of Masonite Corporation, Dept. 605, Dover, Ohio.

that's the beauty of Marlite

plastic-finished paneling



MARLITE IS ANOTHER QUALITY PRODUCT OF MASONITE® RESEARCH

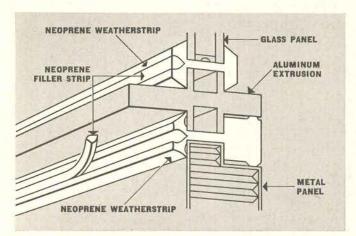
Marlite branch offices and warehouses: 204 Permalume Place, N.W., Atlanta 18, Georgia • 18 Moulton Street, Cambridge 38, Mass. 1925 No. Harlem Ave., Chicago 35, Illinois • 8908 Chancellor Row, Dallas 35, Texas • 1577 Rio Vista Ave., Los Angeles 23, Calif. • 2440 Sixth Avenue So., Seattle 4, Washington • Branch office: 101 Park Avenue, New York 17, N. Y.

FIRST FIVE YEARS PROVE CURTAIN WALLS SEALED WITH NEOPRENE STAY WEATHERPROOF... TROUBLE-FREE

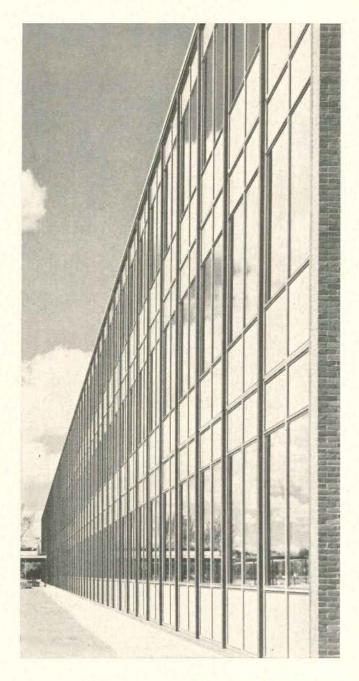
In 1953, more than 150,000 feet of neoprene stripping was used to seal many of the glass and metal curtainwall panels in the General Motors Technical Center. Today, 5 years later, this neoprene weatherstripping is still air and water tight. What's more, these same sealing strips are expected to do their job for many years to come.

All over the country, seals of neoprene synthetic rubber are going hand-in-hand with good curtain-wall construction. Neoprene sealing strips won't crack or dry out, get hard, soft, or lose their sealing pressure... even after years of exposure to the elements. They can absorb vibration and dimensional changes of the panels over long periods of time without "setting" and losing their resilience. In addition, neoprene strips can be preformed to make installation of the metal and glass panels easier, quicker and neater.

Sealing strips of Du Pont neoprene can bring long-term dependability and economy to your curtain-wall projects. Send the coupon for a list of suppliers. You'll also receive a free copy of *The Du Pont Elastomers*, a booklet that reviews the properties of both neoprene and Hypalon®, Du Pont's newest synthetic rubber.



Neoprene strips are pre-shaped to fit the metal framing as well as the glass and metal panels. When inserted, a filler strip compresses the weatherstrip against sealing surfaces. Weatherstripping sustains 30 lb./in. pressure and also permits panels to be installed from inside or outside of building. Panels can be easily removed simply by "unzipping" the filler strip.





NEOPRENE

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

| Elastomer Chemica Wilmington 98, D | |
|---------------------------------------|--|
| Please send a list of THE DU PONT | of neoprene gasketing suppliers and a co LASTOMERS. |
| | |
| Name | Title |
| Name | Title |
| | Title |

NATION ENDORSES

Pittsburgh Firm Announces New mily retu Metal Discovery

r. Shee

re he wa

new ma

thout end it

inch of iber is a

new.

increase

D. Sheers

Coast D

Francis

Pittsbur

preview

le says

diately a

in price

of dollars

of the orous, cor

-refined

ly distributed section of the constant and

rusting b

I) with sta number of

corresion

They hav

and mech

Kirkwood eer for Joh

essily

PITTSBURGH P - A M Byen Co put on the market today a new ught Iron kind of wrought iron described as at no in the most significant development in save mithe history of the metal.

This description was given at a news conference yesterday by B. M. news conference yesterns,
Byers, president of the Pittsburgh asing the lirm It is the world's largest maker asing its net wrought iron products.

The improved product, known as te. Wrouga-D ment ma cent with iron than Wrould-D wrought iron, is at least 25 per

Firm Producing Corrosion-Proof Wrought Iron

A new 4-D wrought iron has been announced by the A. M. Fyers Co., Pittsburgh, according to E. G. Sullivan, field serve ice engineer here for the firm Byers, largest producer of

wrought iron, claims the ne iron has greatly superior resis ance against many kinds of cor. rosive forces, inche

New Wrought Iron Produced

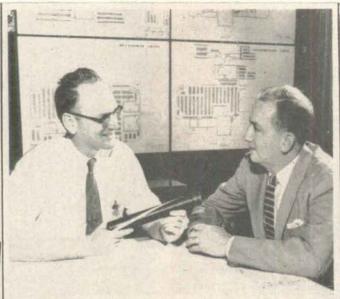
new 1D wrought from th 25 per cent increased oight out of the laboratory the production by the M Byers Co. William F. Co. William F. Concret of Seattle, Byers field or the engineer said Sunday. Weber \$414.4D wrought ton is immediately available.

A. M. Byers Co Develops New Wrought Iron

Dow-Jones Service PHISBURGH, PA. Feb. 13 A M Byers Company, produc of wreight iron products, mounced its metallurgists ha proved version of stands ome up with a new and

Called 4 D wrought iron, sim a marketing term used to dis mush it from the standard pr uct, it is expected to aid s
stant ally in reducing los
so moing from material failu mmenting:
hat they hiers, president, stated.
A. S. Chalfant, vice president le archited

sion resist vales, said the new product at from 1 go on the market immediated in second the added that the new processory will sell for the same prices



4-D PIPE - R. R. Kirkwood (left), Chief Mechanical Engineer for John Graham & Company, Seattle, checks piece of 4-D Wrought Iron Pipe now being produced by A. M. Byers Co. Looking on is Byers' Seattle Field Service Engineer, W. E. Weber.

A. M. Byers Claims. Improved Wrought Ire Less Likely to Corrode

By a Wall Street Journal Staff Reporter PITTSBURGH-A. M. Byers Co., a produ of wrought iron products, announced its me lurgists have come up with a new and proved version of standard wrought iron.

Called 4-D wrought fron, simply a market term used to distinguish it from the stand-product, it is expected to "aid substantial in reducing losses stemming from mater failures caused by corrosion, B. M. Mye president, stated.

He said that standard wrought iron is ready "a bulwark in the fight against cor sion:" Wrought iron pipe, for instance, is us in water, waste and drainage lines, locomot and diesel engine piping and underground a plane fueling lines, while flat rolled produ go into coal chutes, bridge decking, pier p tection plates, structural members and proce materials tanks.

A. S. Chalfant, vice president-sales, said t new product will go on the market imme ately. He added that the new product will a for the same prices as those for standa

M. Byers Announces Results Of Tests On New 4-D Wrought Iron Its Wrought Iron

PITTSBURGH, Mar. 18. - Results of three tests new 4-D wrought iron have been announced by the etallurgical department of A. M. Byers Company ttsburgh. The test data documents the announceent made by A. S. Chalfant, vice president of sales

a press conference in* ttsburgh in February gion is characterized by agi at new 4-D wrought iron at least 25', more cor

Test Conditions

Byers Improves

PITTSBURGH, Feb. 13 .-- A. M. Byers Co., producers of ounced today its meta wrought iron products, an ave come up with a refound a new and improved rought iron. version of standard wrought

a marketing term used to dis-tandard product, it is e tinguish it from the standard o "aid substantially" in product, it is expected to "aid ig losses stemming fr

Develop New Wrought Iron

PITTSBURGH, Feb. M. Byers Co., a proc rought iron product

Called 4-D wrough mply a marketing ter Called 4-D wrought fron, as b distinguish it fro

Developed By Byers

New Wrought Iron 25 Per Cent More Corrosion Resistar

250,000 Non-Rusting Fibers Per Square Inch In Product

By W. L. RUSSELL, Press Business Edito Out of the laboratory and into production Byers Co. has come a new type of wrought in is credited with increasing corrosion resist much as 25 per cent.

The new 4-D is a result of 17 years of res In addition to superior resistance to corre new iron has greater uniformity and improved ph

mechanical properties. This is attained by substantially increasing the tion of the base metal, stepping u phorous content and using a me





Civil Engineer C. E. Drummond (left), examines 4-D Wrought Iron sponge ball with J. A. Cain, A. M. Byers Company southeastern division manager. Laboratory test results have shown the new metal to be much more corrosion resistant than standard wrought iron.

4-D WROUGHT IRON

M. Byers Co. Markets w Kind of Wrought Iron

URGH &-A. M. Byers wrought iron, developed after 17 on the market today a years of research, has greater of wrought iron de-uniformity and better physical is the most significant and mechanical properties. ent in the history of the

The key to manufacture of 4-D wrought iron is removal of more erence yesterday by B. highly splined item to more

PITTSBURGH, Feb. 13-(DJ A. M. Byers, Co., a producer of wrought iron products, announced its metallurgists have come up with a new and improved version

of standard wrought iron. Called 4-D wrought iron, simply a marketing term used to dis-tinguish it from the standard product, it is expected to "air substantially" in reducing losse stemming from material failur

reside 4-D Wrought Iron **Cuts Corrosion**

Out of the laborat

A. M. BYERS DEVELOP Corrosion Resistance NEW WROUGHT IRO Raised in Wrought Iron

PITTSBURGH, Feb. 15 (A) The A. M. Byers Company has announced development of an improved type of wrought iron highly resistant to cor-

the product is the re-seventeen years of re-the company said.

refined ironpurer state keting term

'New' Wrought Iron Developed

Production by A. M. Byers Company, Pittsburgh, Pa of a new "4D wrought iron with 25 per cent increased

Known as 4-D wrong A. M. BYERS DEVELOPS NEW WROUGHT IRON

A. M. Byers Co., a producer of B. M. Byers, preside wrought iron products, announced the new wrought iron its metallurgists have come up a from the base of standard of standard wrought iron. Called 4-D wrought iron, simple

ted





Rykoskey, General Superintendent of Motive Baltimore & Ohio Railroad, gets a first hand rom R. G. Angell (left), A. M. Byers Co. Railroad Ianager, on the increased corrosion resistance 4-D Wrought Iron. Byers recently announced a nprovement in wrought iron which makes the at least 25% more corrosion resistant than d wrought iron. Railroads are among the world's users of corrosion resistant wrought iron.

ost significant development | condensates. history of wrought iron y - new 4-D wrought has just been announced Byers Company,

ess conference Tuesday in 1. B. M. Byers, president rm which is the world's roducer of wrought iron

According to E. P. Best. Byers chief metallurgist, the improved 4-D wrought iron was achieved by substantially increasing the deoxidation of the base metal; increasing the phosphorous content in relation to the other material com-

ponents; and using fiberous material.

Byers Develops New Wrought Iron

Placed

A. B. Chalfan

is simply a m

to distinguish th

from standard w

be placed on the

ately and would

fiber throug iron products, states its me able-at no increase in price-

TRUGHT IRON **IMPROVEMENT** IS REPORTED sales; stated tha

production has come "new 4-D ited with increasing corrosion Wrought Iron" with 25% increased corrosion resistance, A. D. Sheere, A. M. Byers Co. Pacific Coast Byers Improves

Mr. Sheere, of San France recently returned from Pittsb where he was given a previe the new material. He says Wrought Iron is immediately

New Wrought Iron Is 25 Per Cent More Corrosion Resistant

A new type of wrought iron. developed in the laboratories of A. N. Byers Co., Pittsburgh, is Out of the laboratory and into now in production. It is credresistance as much as 25 per cent. The new metal, known as '4-D" is the result of 17 years

Wrought Iron

Special to the Herald Tribune tained PITTSBURGH, Feb. 12.-A. M. Byers Co. announced today that it had developed a new

Also becaute its metal is and improved version of stand the metal is standard with mechanical 4-D wrought iron, the standard place it is expected to aid substandard p

yers Co ng to E. ce engine Byers. rought

D.

von has to ance agai

Here is news. It's about one of the most significant metallurgical advances of modern times: the increased corrosion resistance of new 4-D Wrought Iron. This improved metal provides longer service life at lower cost per year. You can get further details from the Byers representative or by writing direct: A. M. Byers Company, Clark Building, Pittsburgh 22, Penna.

> Mr. She search. tests, com wrought in metals, ha uct has s апсе." Wroght I hreaded, est field echanical am & Co. gineers.

new

v and

chan

metal.

andard int of ne ucing

Byers' c

en conten

tablished

ght iron w much , the A. rgh. acco

ought Iron More Resistant

rought iron whose corrosion reis increased 25% over standard t iron is available. Marketed the name 4-D Wrought Iron, oduct is the result of 17 years arch, laboratory and in-service

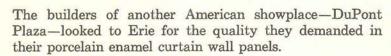
improved wrought iron is made easing the extent of deoxidation base metal-iron, slightly increas-

PITTSBURGH, Feb. 13. - A. uniform d Byers Co., a producer of wrou



again ... it's Erie-quality

Porcelain Enamel Curtain Wall Panels



The Reasons

Construction—Pre-engineered panels of full 16 ga. steel, all-welded flange corners, and assembly with mechanical fasteners.

Durability—Protected on all face panel surfaces with "AA" rated weather-proof porcelain enamel. Internally insulated with age-proof material.

Color—Jewel-tones of permanent, fade-proof colors in lifetime porcelain enamel.

Economy—Fast erecting; maintenance-free finish; actual sq. ft. cost unmatched by less desirable materials.

Erie-quality merits its place in the finest projects, improves the most economical ones.

See us in Sweet's $\frac{3c}{Fr}$

Erie

ENAMELING COMPANY

Erie, Pennsylvania Chicago • Philadelphia Representatives in Principal Cities

COMPLETELY



SEAL AND HARDEN NEW

CONCRETE FLOORS BETTER THAN

EVER BEFORE . . .



REPLACES
CHEMICAL HARDENERS
— at lower cost!

Tremseal-20 is a radically new, amazingly superior seal for new concrete floors. A "synthetic elastomer," Tremseal-20 is markedly better than conventional magnesium fluorosilicate hardeners and oleo-resinous seals. It is the modern way to seal and harden concrete floors — and at lower cost applied.

WEARS TWICE AS
LONG AS CONVENTIONAL
OLEO-RESINOUS SEALS!

An outstanding advantage of Tremseal-20 is enormously increased resistance to abrasion—it wears twice as long as older type seals (see chart). One coat of Tremseal-20 protects the floor during building construction—mortar, plaster and other debris is easily removed after other trades have finished work.

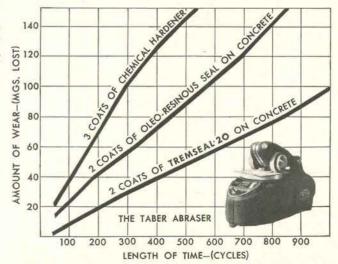
APPLY TO 7 DAY OLD CONCRETE — DRIES IN 3 HOURS!

Tremseal-20 can be applied to new floors only 7 days old, providing the immediate surface is thoroughly dry. It dries in 3 hours to a flint-like hardness. Tremseal-20 possesses remarkable adhesion even to smooth, hard-trowelled concrete. Ask your Tremco Man for a sample or write The Tremco Manufacturing Co., 8701 Kinsman Road, Cleveland 4, Ohio, or The Tremco Manufacturing Co. (Canada) Ltd., Leaside, Toronto.

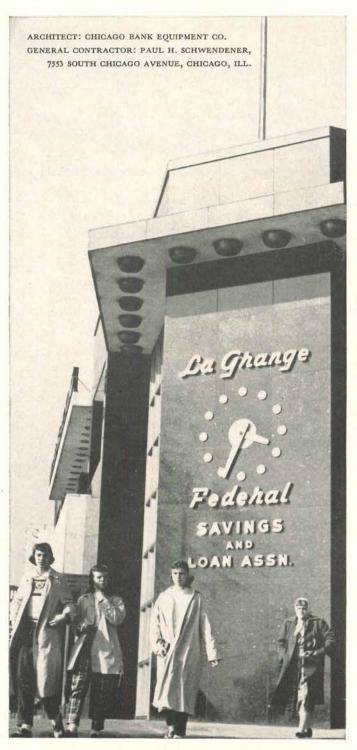
This test was conducted in the presence of, and certified by Cosma Testing Laboratories, a leading independent laboratory. The Taber Abraser (lower right) was used on test panels treated with (1) chemical hardener (2) oleo-resinous seal and (3) Tremseal-20. Note Tremseal-20's obvious superiority in abrasion resistance.

TREMCO

PRODUCTS AND METHODS FOR BUILDING
MAINTENANCE & CONSTRUCTION



...now we're cooling



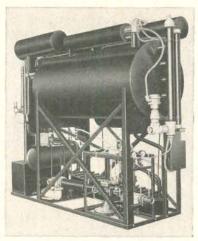


Specify Arkla-Servel Gas Air

With their new Arkla-Servel Gas Absorptive Cooler, the La Grange Federal Savings and Loan Association keeps customers cool in summer with the same compact system that keeps them warm in winter.

Before installing Gas, a complete study was made of available air conditioning systems. The Arkla-Servel unit—the only 25-ton absorptive cooler—was chosen because it is compact, easy to install, and costs are low for installation, operation and maintenance. No specially trained operating or maintenance personnel are required.

with GAS





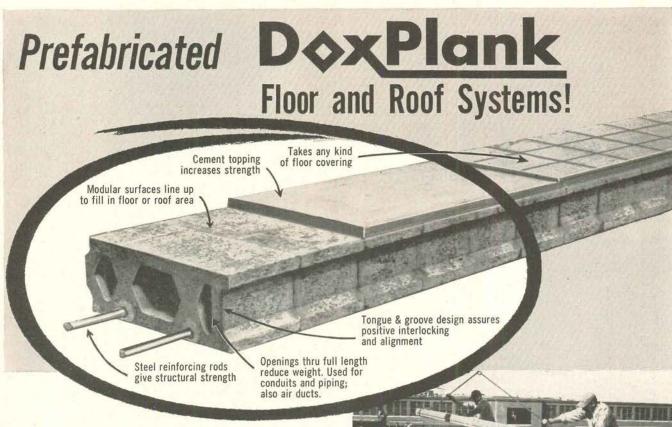
Conditioning and you specify years of trouble-free comfort

Only Gas gives these important advantages:

- high efficiency at all times—even during the light loads
- temperature control is constant
- modular adjustment of capacity (instant automatic adjustment to match actual cooling requirements)
- · dependability of fuel service at all times

Gas absorptive cooling can put your commercial and industrial clients' heating plant on a year around paying basis. It utilizes low pressure steam to cool water, has no moving parts to wear out, and provides quiet, economical operation. What's more, it's vibration-free.

Take advantage of the consulting services provided by your Gas company. They have trained specialists who have been working with architects and engineers for years. They belong to your associations or affiliations and are familiar with your problems. Check the facts about Gas and you'll see modern Gas air conditioning out-performs all other fuels. American Gas Association.



High Speed "Time-Table" Construction is KEYED to LOWER BUILDING COSTS!

DovPlank crane-hoisted to Time-Table scheduled nosition — laid in

DoxPlank crane-hoisted to Time-Table scheduled position — laid in proper alignment in record time. Provides immediate working deck for following trades.

The tremendous increase in DOXPLANK installations is due to a new and practical simplification keyed to lowering building costs through saving TIME, LABOR and FIELD SUPERVISION.

These reinforced concrete planks are prefabricated to exact dimensions — delivered to jobsite on "TIME-TABLE" schedules and laid to meet "TIME-TABLE" planning to provide an immediate working deck for following trades.

Unlike poured concrete, DOXPLANK floor and roof construction is rarely hindered by weather—summer or winter. No delays due to mixing, pouring, setting or building and removing forms. Due to simplified high-speed installation costly field supervision is reduced to a minimum.

DOXPLANK installations conform to approved building practices — also army, navy and FHA requirements.

Consult with these members of The DoxPlank Manufacturing Association

Baltimore Concrete Plank Corp.
Pulaski Highway & Race Road
Baltimore 21, Md., MUrdock 6-2100
Baltimore Concrete Plank Corp.
1214 Commercial Trust Building
Philadelphia 2, Pa., LOcust 8-2390
Cleveland Precast Floor & Roof Div.
The Cleveland Builders Supply Co.
Reeves and Beyerle Road
Cleveland 5, Ohio, Phone VU 3-5456
Dox-Block System
106 Broadway Street
St. Paul Park, Minnesota

Doxplank of Illinois, Inc. 135 South LaSalle St. Chicago 3, Ill., RAndolph 6-2780

Dox System of Pennsylvania Box 427 Portage, Pa., Portage 8503

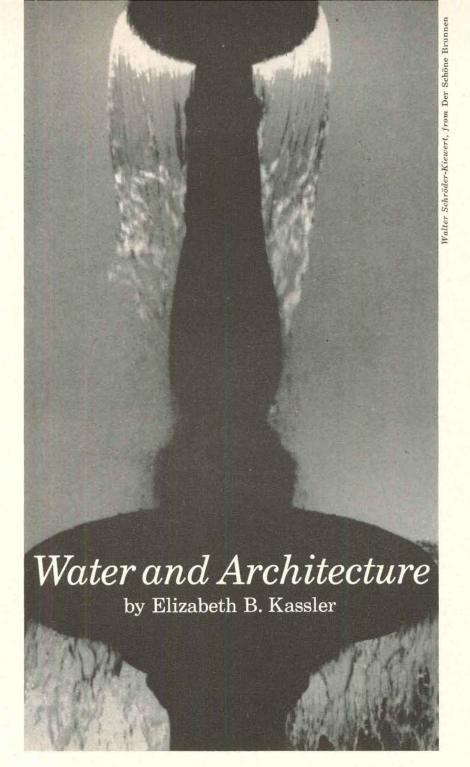
Knox Concrete Products, Inc. 4918 Kingston Pike, N.W. Knoxville, Tennessee

Maule Industries, Inc. 5220 Biscayne Boulevard Miami, Fla., PLaza 1-6631 Mid-State Concrete Plank, Inc. Hamilton, N. Y., Phone 420 & 799

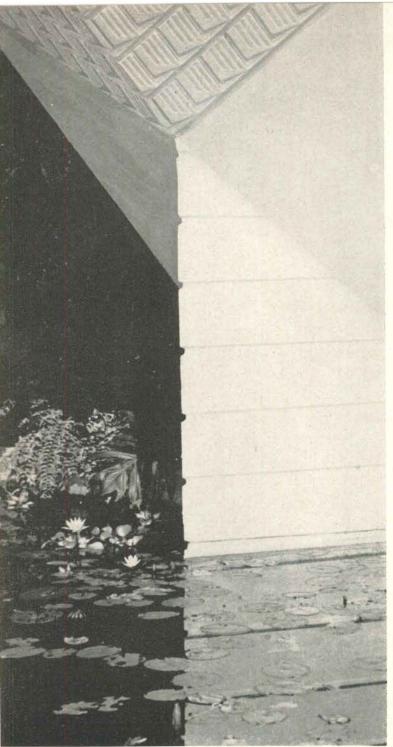
Wm. Moors Concrete Prod., Inc. Fraser, Mich., Prescott 5-7000

Multiplex Concrete Co., Inc. 64 Glenwood Place East Orange, N. J., ORange 2-1300

Nabco Plank Company Terra Cotta Washington 11, D. C., TU 2-1700 Neville Concrete Pipe Co.
Neville Island
Pittsburgh 25, Pa., FEderal 1-5848
Plasticrete Corporation
Floor & Roof Div., 45 Skiff St.
Hamden 14, Conn., ATwater 8-1641
Schaefer Bros. Builders
Supply Co., Inc.
1025 Chili Avenue
Rochester 11, N. Y., GEnesee 8-3460
Vander Heyden, Inc.
6633 West National Avenue
Milwaukee 14, Wisc.



We seem to have lost—in our preoccupation with technology—the visual, sensual delights that water has historically added to architecture. Lying in a still pool, coursing rapidly in a stream, cascading in a fall or bursting skyward in a jet, water is part of the environment of building. Whether it is the art we have lost, or the notion, today when water is used as an architectural element it is usually done tentatively, even apologetically. But architecture seems trending toward more enrichment, also toward more interest in site development. Perhaps with some encouragement,—such as this beginning series—water may again add pleasure to our contemporary architecture.



As reflected reeds look twice their height, so water-based piers assume strange new dimensions. Frank Lloyd Wright: Florida Southern College



Japanese garden basin embracing two leaves and a disc of sky. If placed just under a roof overhang, such a basin would cast a circle of shifting, shimmering light upon the ceiling above

Below: fractured reflections in a trio of basins designed by the sculptor Noguchi. Fed by underwater nozzles, they are kept full to the brim or made to overflow into the shallow blue-tiled pool beneath. Basins are of reinforced concrete, lined with black waterproof paint and rimmed with ½" sheet bronze. Skidmore, Owings & Merrill architects and engineers: Connecticut General Life Insurance Company, Bloomfield, Conn.



© Ezra Stoller



The cantilevered slabs which conceal the walls of this courtyard pool serve to free the water from all visible confinement. Eckbo, Royston & Williams, Landscape Architects. Bassetti & Morse architects: Benton County Public Utility Administration Building, Kennewich, Wash.

Right: Courtyard of the Madraseh, the Moslem theological seminary built around 1700 in Isfahan, Persia. The side-stepped canal emerges from under the great arched western porch to disappear under the porch at the east side, a distance of 200 feet

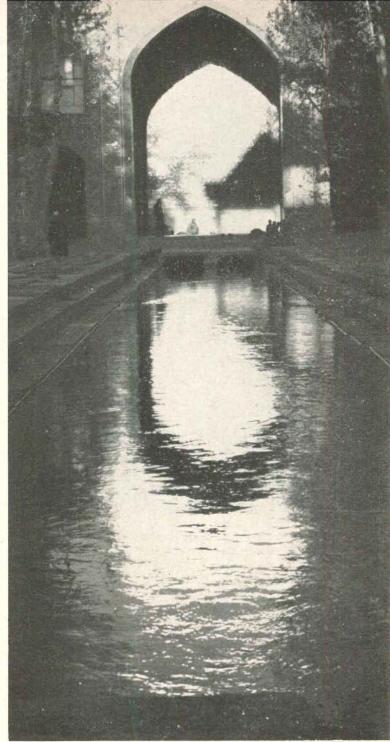
Still Waters

A reflecting pool is most persuasive when illusion seems one with actuality. Unless a mirror pond is filled to the very brim, even to overflowing, the strong horizontals of the coping will destroy the dream. Or the object can be set directly into the water like a reed, with no separate base to interrupt the continuity of verticals. . . . Design must take into account both the angles of reflection and the validity of the reflected scene, for mirrored images may otherwise come as an unpleasant surprise. A quiet pool in a small or deep interior court can multiply busy façades into dizziness and prove far less peaceful in practice than the live water of a fountain or runnel.

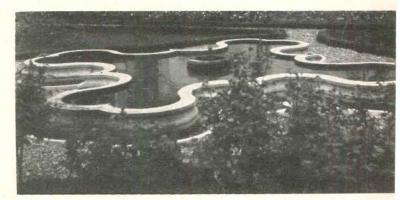
Water itself has neither beginning nor end, but precisely stated boundaries will make it seem finite. The Chinese tradition has been to curve a pond in such manner that its total shape and size remain elusive. No matter where one stands, some portion of the shore will be obscured by a promontory, another concealed by an island. Eighteenth century English romantics found this a sympathetic approach and happily converted the self-contained geometry of their fathers' pools and canals into approximations of nature's irregular ponds and meandering streams. . . . A certain pleasant ambiguity of dimension is possible even within the formal language of geometry, however, for overhanging floor slabs can serve to hide a pool's confining walls.

Sometimes it is the *flatness* of still water that will be its dominant trait, and its flat plane will join on equal footing with other planes of masonry or glass to become the basic formal element of an architectural composition.

Still waters double the known into the unknown and the unknowable. When mysterious depths bear the image of fact, the sheen of certainty, familiar worlds crack open to let Alice through the looking glass. As reflections fall away in the down view, clear water may show sand or pebbles, blue tile or shadowy caverns. Ruffled by a casual breeze, the surface again dominates, but changed now to a textured, glinting shimmer. And the night offers its own delights, when the moon "washes its soul" in the garden pond.



Catherine Bauer Wurster



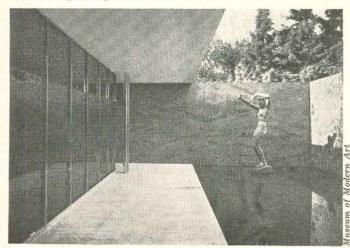
Understanding that mirror pools are best when full to overflowing, the Persians often surrounded them with a drip gutter, as in the Khalili gardens at Shiraz. Many of the great old gardens, in Persia as in India, have today little or no water, but pictures of brimful pools are in Donald Wilber's article on Persian gardens in the Feb. '57 ARCHITECTURAL RECORD

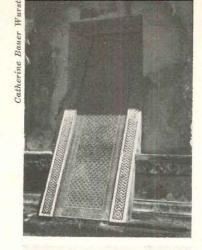


Sirén

Chinese architects knew how to use the flatness of water as a positive statement. Looking over Nan Hai, Pekin's "Southern Sea," from the Pavilion for the Welcoming of Perfumes, this view, says Professor Osvald Sirén in his *Gardens of China*, "opens over mirroring gray waters into the silent spaces of the world of dreams."

In his great Barcelona Pavilion of 1929, Mies van der Rohe used sheets of water in the same way that he used sheets of marble or glass. This pool, lined with black glass, became a flat, precisely rectangular plane similar in architectural character to the horizontal plane of the roof and the free, sharply differentiated wall-planes of travertine and green marble, onyx and green glass







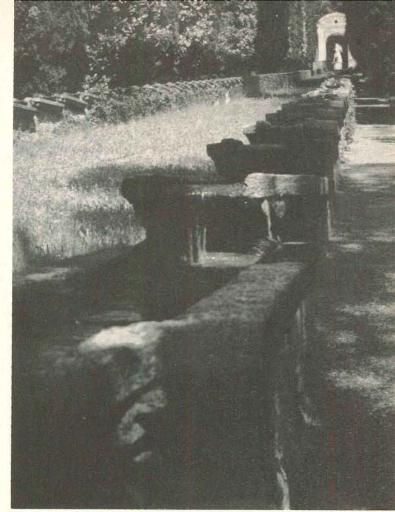
Top: a stream originally emerged from the wall-slot to flow down the marble chute, carved to make the water churn and froth. Aurangabad, India. Above: typical Persian garden pavilion with water spurting from a fountain to slide down a carved chute and emerge as a narrow canal

Stream and Fall

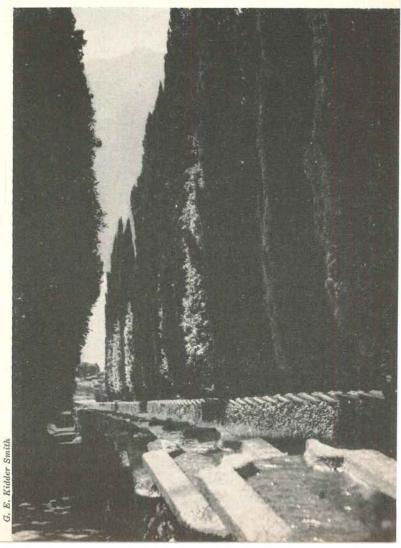
Water can pursue its natural law of gravity to add sound and movement to the three conventional dimensions of architecture. This is surely the living water, the water of life, ancient symbol of divine knowledge and immortality.

Moslem streams are ordered into straight and narrow channels, often run through the center of pleasure pavilions, erupting as fountains or tumbling down carved ramps as white water. Lined with white marble or blue tile, the channel becomes a strip of heaven on earth. . . . Such devices would, of course, be anathema to the Japanese, whose garden art is an attempt to capture the very essence of nature: also an ordering, but antithetical to the geometric approach. Though their waterfalls look like natural accidents, they are concocted according to rigid rules. Whether it be a Nuno-ochi, which falls like a white cloth sheet, an Ito-ochi, resembling a screen of white threads, or a Sayu-ochi, which falls to right and left, each follows tradition in the shape and arrangement of its stones.

Europeans developed their own way with falling water: the frankly artificial, multi-level cascade. In the relatively modest 16th-century Italian masterpieces, slightly stepped channels, raised about kneehigh, bisect ramped walkways to provide a strangely personal experience of fast flowing water. Baroque architects elaborated lustily upon this theme.

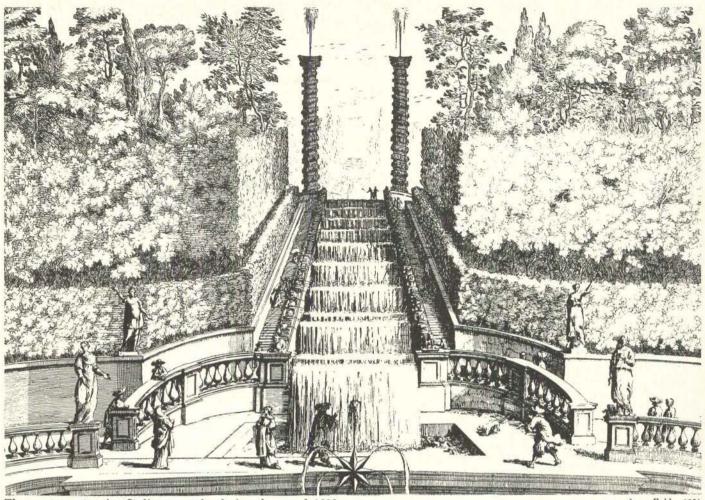


Whether one walks up or down, relationship with the little cascade is so close that the experience is disproportionately intense. Designed in 1568 by Pellegrino Pellegrini for the Villa d'Este at Cernobbio, Lake of Como



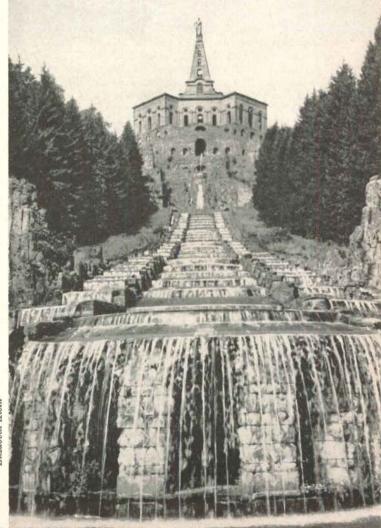


Country Life



The most spectacular Italian cascade, designed around 1600, is at the Villa Aldobrandini, Frascati. Water spurts up from two giant columns, runs down around their shafts in open spiral grooves, then spills down balustrades at either side of the main falls, which are broad, beautifully proportioned

from Falda, 1684



Right: late Baroque bravado designed by Guernieri around 1700 for the castle of Wilhelmshöhe at Kassel, Germany. The great cascade, only the top third of what was projected, is 35 feet wide and almost 800 feet long

Washoth Wloin



Cascade and naiads at the Caserta Palace near Naples, designed for Charles III by Vanvitelli in 1752. A semi-naturalistic cascade with marble ladies spied in the act of disrobing for the bath. The taste in sculpture is debatable, but its free placing is pleasant to the modern eye

G. E. Kidder Smith

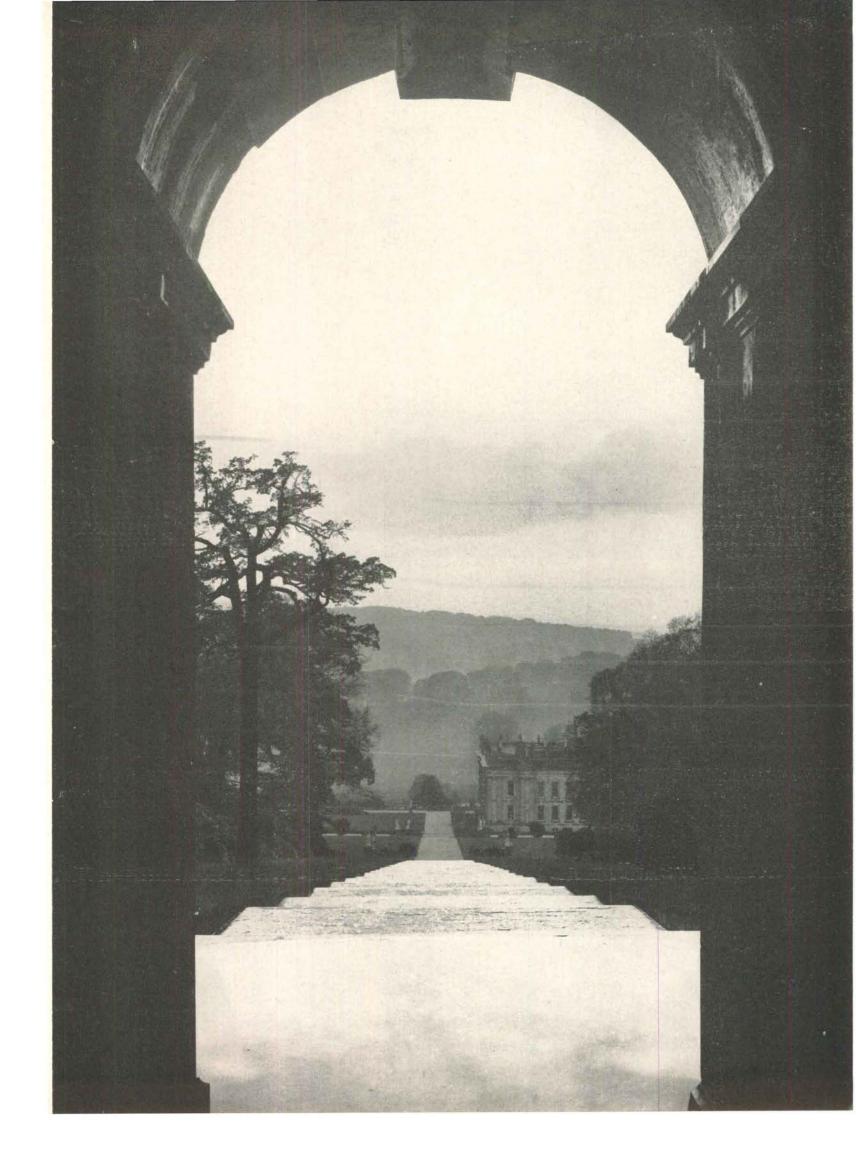


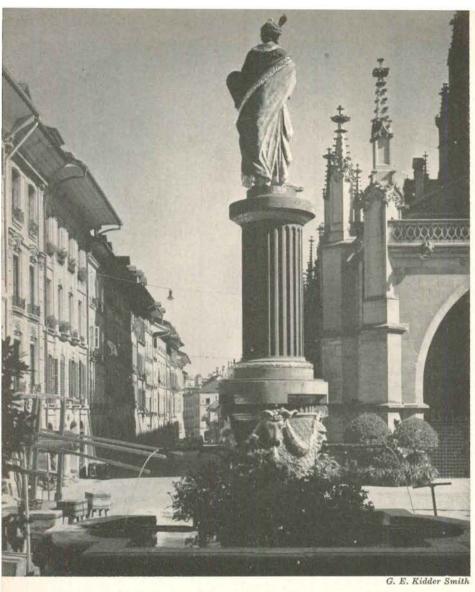
Queen of the Fountains, Villa d'Este, Tivoli. Mid-16th century. Its curious, unnerving scale is characteristic of Mannerism

The 18th century chastened the cascade with its more classic taste, then discarded it completely as an artifice quite out of place in the new order of the landscape garden.

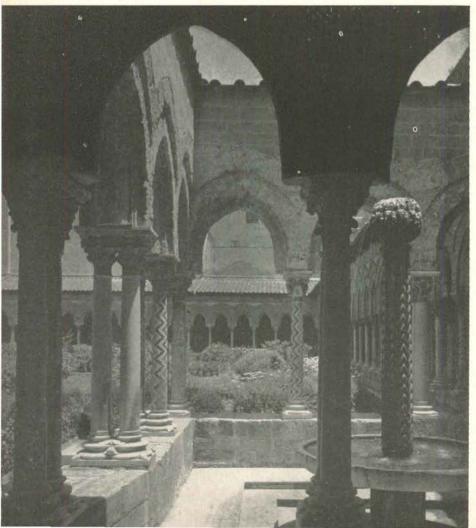
Falling water need not be a luxury, for the rainfed gargoyle or roof-spout offers opportunities that have been neglected for centuries. The water channel, too, can play a practical, nonetheless romantic role as means of transportation. Launch a boat and be wafted effortlessly and at appropriate speeds through a Tunnel of Love-or a World's Fair.

Opposite page: delightful anachronism, this pleated ribbon of water set into the lawns of a relaxed "landscape garden." Built around 1700 at Chatsworth, the Derbyshire estate of the first Duke of Devonshire, it was originally part of a formal scheme, but allowed to remain when the grounds were "modernized" by Capability Brown in the mid-18th century

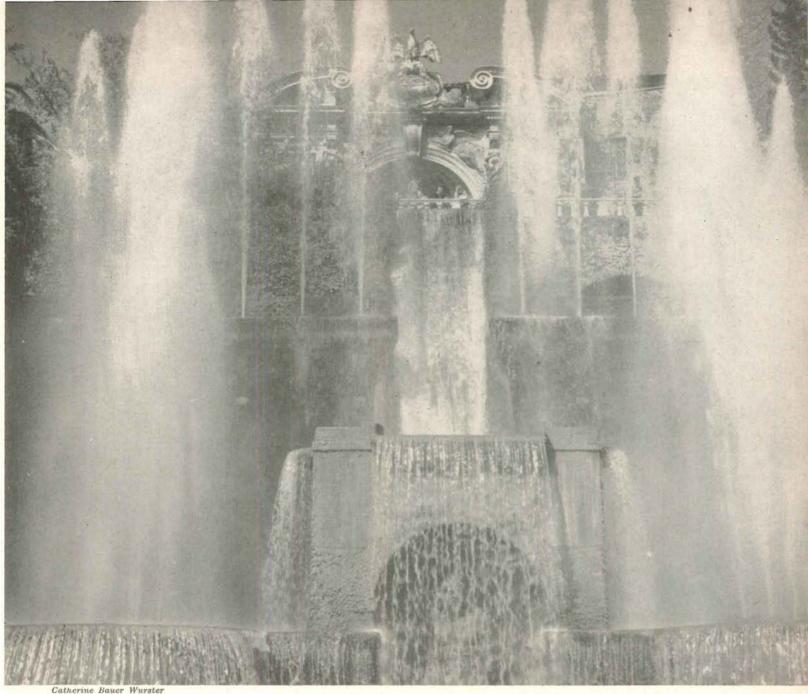




Sixteenth century street fountain in Berne, Switzerland. Bright with paint and flowers. Under each water-pipe is an iron frame for the support of pails and pitchers



A wreath of tiny heads caps a chevroned column to spew thin streams into the basin of the 12th century Benedictine cloisters at Monreale Cathedral, Palermo, Sicily. On the fountain's stepped surround the monks enjoyed a taste of Paradise. Moslem influence, obvious in the design of the arcades, is also evident in the love which has known to use so small an amount of water to so great an end

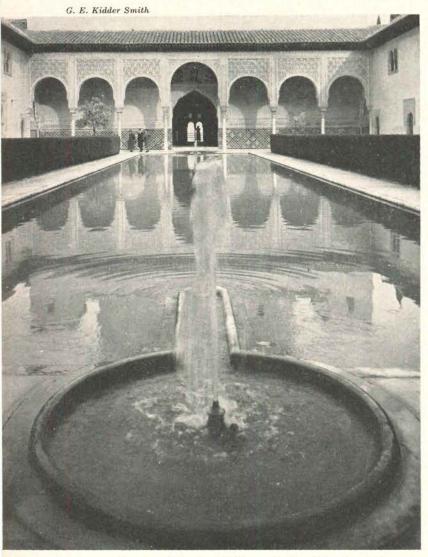


The Jet

And last is the jet, defiant of gravity, lancing the sky to merge with light until it falls back with a splash and a splatter, exhausted. Not for the Chinese or the Japanese, this forcing of nature, but for the rest of us, an artifice venerable and delightful.

The medieval fountain was rarely adorned with jets, for the water was simply piped up to a level from which it could drop comfortably into pitchers or basin. As the normal source of household water in yesterday's Europe, the public fountain or well was the natural neighborhood gathering place-a civic role which the fountain still performs, for people like to linger by running water even when their business is elsewhere.

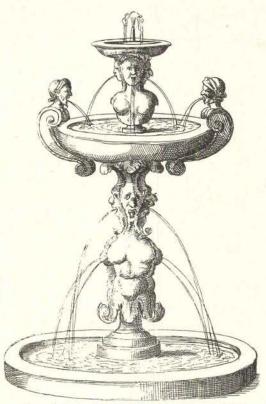
Fountain of the Organ in the great gardens of the Villa d'Este at Tivoli, near Rome. Mid-16th century. A fountain is inconceivable without the fall of water, whether as the positive medium of waterplay or merely as the collapse of an upward jet. Here lean sky-born jets are set in dynamic counter-pattern to broad cascading sheets, falling thick and white at the first, then thinning to a veil as they spread out at either side. Barely visible at the top is the facade of the Water Organ itself. Montaigne, after a visit in 1580, reported that water fell violently into a cave, forcing air out through pipes, while other water pushed a wheel with teeth arranged to play a tune on the organ keys. He was impressed by the mechanics, but complained of the one-tune repertory



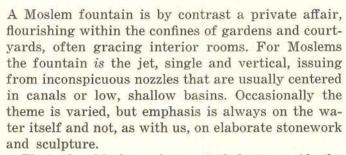
Court of Myrtles, Palace of the Alhambra, Granada, Spain, 14th century. This was the court of ablutions for an adjacent private mosque. Water bubbles up from marble fountains at either end to slide down little chutes into the pool. What little representation there was in Moslem fountains usually derives from the lotus, and the little Moorish basin, at its best when set down into the pavement, was often carved into an outsize flower. Spigots were frequently shaped as floating lotus buds



Just above the Alhambra is the Generalife, built in the second half of the 13th century as the well-watered pleasure house of the Sultan of Granada. This main patio is bisected by a 3-foot marble channel with a shallow, low-jetted fountain basin at each end. Pairs of diagonal jets play against each other from either side of the canal to form a rain-bowed water-vault



Fountain design by Giovanni Maggi, 1618



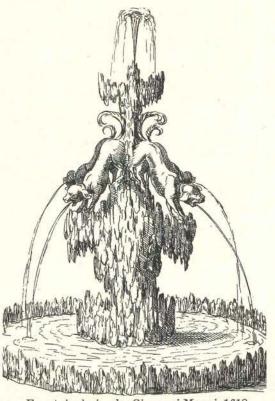
That the Moslems have tended to avoid the western whimsy of the spewing mouth may be due less to their greater sense of propriety than to a religious scruple against representational art of any kind, for Mohammed had transmitted the Mosaic injunction against "any graven image, or any likeness of any thing that is in heaven above, or that is in the earth beneath, or that is in the water under the earth." Persians and Indians were relatively relaxed in their interpretation of the commandment, but even they were for the most part well content with the abstract sculpture that was their garden architecture.

The issue of water from a sculptured mouth is a torturous conceit at best; yet it is probably the ancient Greeks with their lion-head roof spouts who started the whole thing and must therefore assume some responsibility—not only for the medieval gargoyle, but for all the spewing dogs, gargling dolphins, nursing mermothers and piddling putti that have adorned the fountains of the Renaissance, the post-Renaissance and the neo-Renaissance.

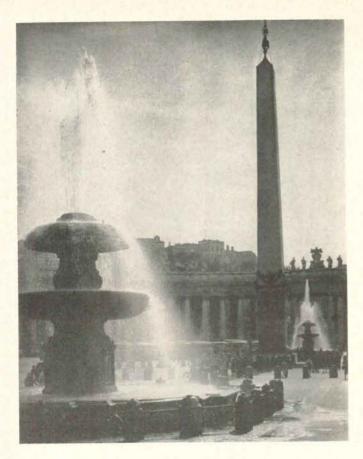


Above and below: Details of waterworks at the Villa d'Este, Tivoli, mid 16th century



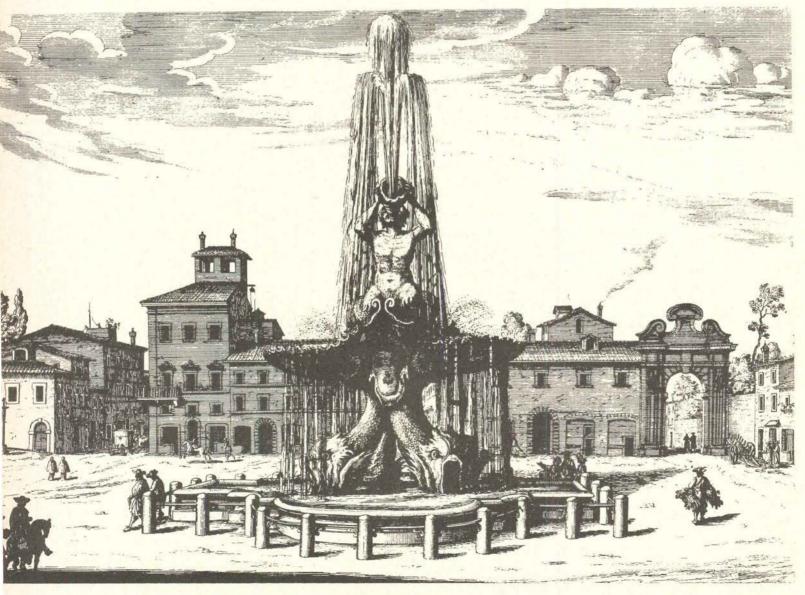


Fountain design by Giovanni Maggi, 1618



Gianlorenzo Bernini's curved colonnades embrace his twin triumphant fountains and their complementary obelisk. Piazza di San Pietro, Rome. After 1656

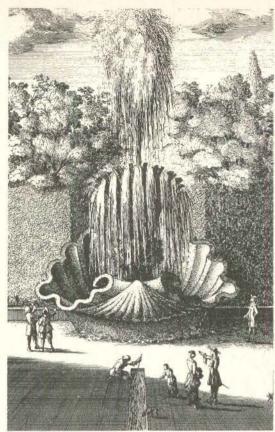
Bernini's great Triton Fountain in Rome. About 1640. Photographs do it less justice than this engraving from G. B. Falda's Le Fontane di Roma, published around 1684. Here it is shown in its contemporary setting and with its contemporary quota of water—far more than what is allowed it today. Rome is, of course, the classic example of the fountain-focused city. In her rarely perceptive book, Rome and a Villa, Eleanor Clark writes that the old quarters of the city "do not constitute an outside in our sense, but a great rich withinness, an interior, and running water is its open fire. Even a tourist can tell in a Roman street that he is in something and not outside of something as he would be in most cities. In Rome to go out is to go home."



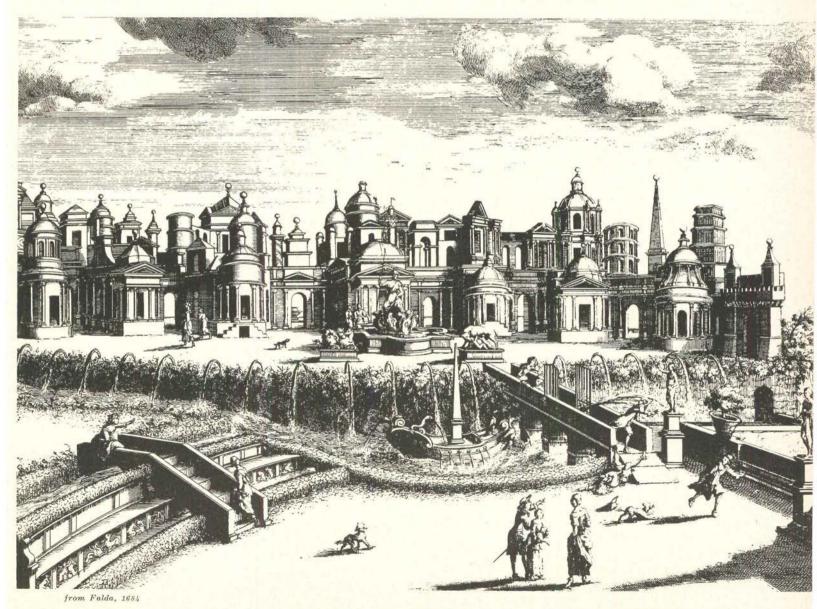
In Europe it was the Italians who were first and last masters of the art of the fountain, particularly in the 17th century, when Baroque architects met the challenge with characteristic vigor. Water was a sympathetic medium for the Baroque spirit, the natural embodiment of effects which they sought in painting and sculpture and architecture: dynamic movement, subtly shifting response to light, indefinable dimensions. So they married their sculpture to water, with the great Bernini officiating as high priest, and all agreed that it was a happy union of compatibles. . . . Versailles boasted larger, more elaborate waterworks than anything in Italy, but there the sculpture seems lifeless, irrelevant to the water, and the water itself somehow out of scale, too huge to grasp yet lost in the vast parterres.

Right: fountain of the Bicchierone, Villa d'Este, Tivoli

Ancient Rome as reconstructed in miniature at the Villa d'Este, Tivoli, mid-16th century. Note the surprise jets on the footbridge and the stone, obelisk-laden boat



from Falda, 1684



ARCHITECTURAL RECORD June 1958

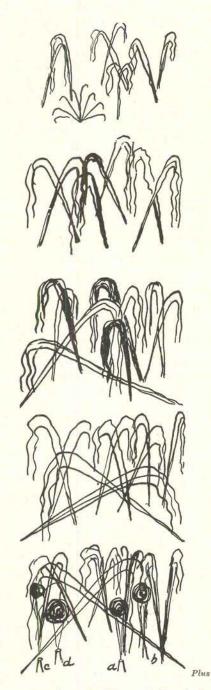


Water tricks. Fountain of Venus, Villa d'Este, Tivoli, mid-16th century

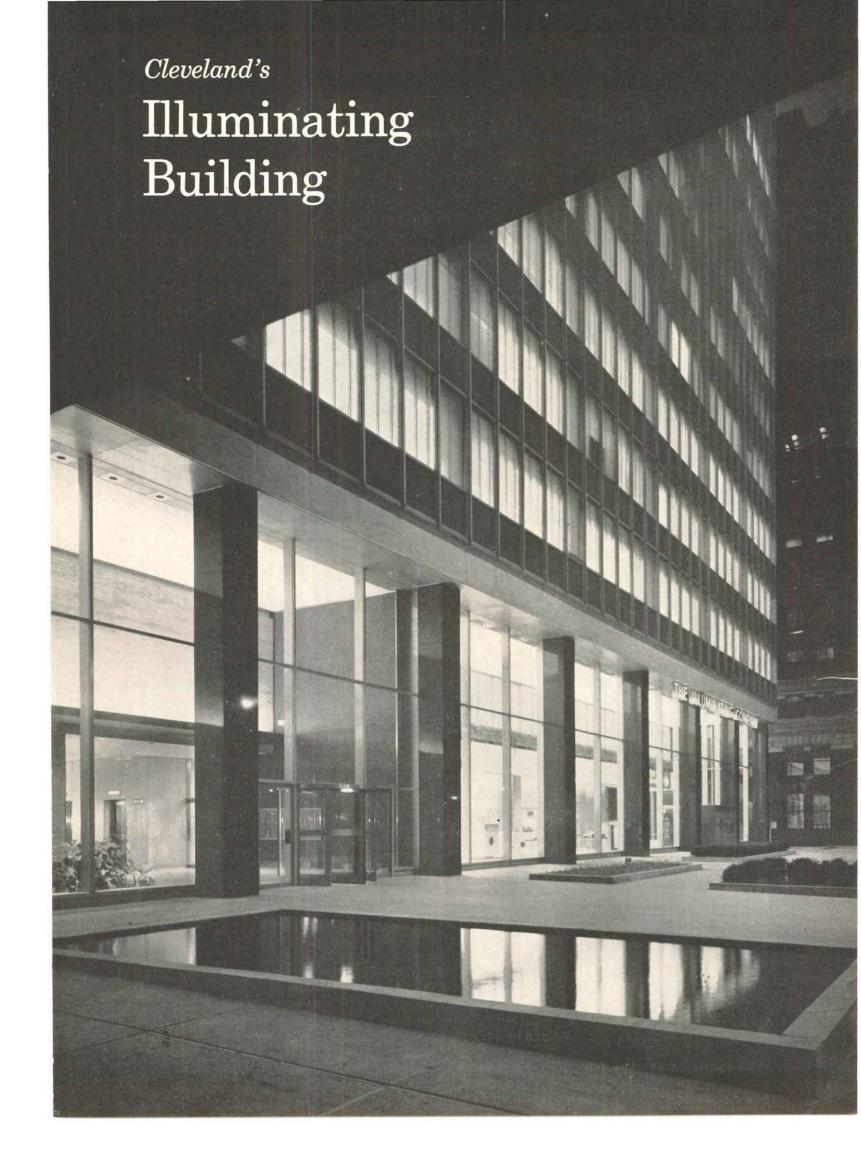
No one seems to know who first realized that groups of water-jets could be controlled in pressure and direction to make an ever-changing, potentially dramatic spectacle, or who first thought of synchronizing such waterplay with fireworks and music. But elaborate festivals of this kind did become a commonplace at the great courts of Renaissance Europe, and nowhere more extravagantly than at Versailles under Louis XIV. The art has not been lost. The Seine itself came alive for the 1937 Paris Exposition, while two years later Jean Labatut produced a series of splendid shows for the New York World's Fair. On a more modest scale but still within the tradition are Calder's dancing jets and the watery whirl of oddly jetted automata concocted for the California '52 State Fair.

The fun-lover compelled to apply thumb to nozzle would have enjoyed the broader opportunities of the Renaissance. Montaigne, reporting on his travels of 1580, was specially charmed by the elaborate water-tricks in the great new Italian gardens, and admired a garden at Augsburg where ladies innocently looking into a fishpond were surprised from beneath by strong jets which "remplissent les cotillons des dames et leurs cuisses de cette fraîcheur."

Soon no self-respecting garden was without its wet surprises. "Never," said the Duke of Würtemberg, "need a man ask for water if he sits on a bench. He will get it quickly enough." . . . It is said that the Soviet government today maintains two guards in the old gardens of the Peterhof whose sole job is to direct hidden jets at unwary visitors. . . . One world it is, the world of water.



Cartoons for a scene from the Water Ballet devised by Alexander Calder for the pool of the Consolidated Edison Building at the 1939 New York World's Fair. The fourteen nozzles were controlled by timing devices. A similar Calder mobile now enlivens the lake at the General Motors Research Center



Cleveland's
Illuminating
Building



All photos by Bill Engdahl, Hedrich-Blessing



The Public Square

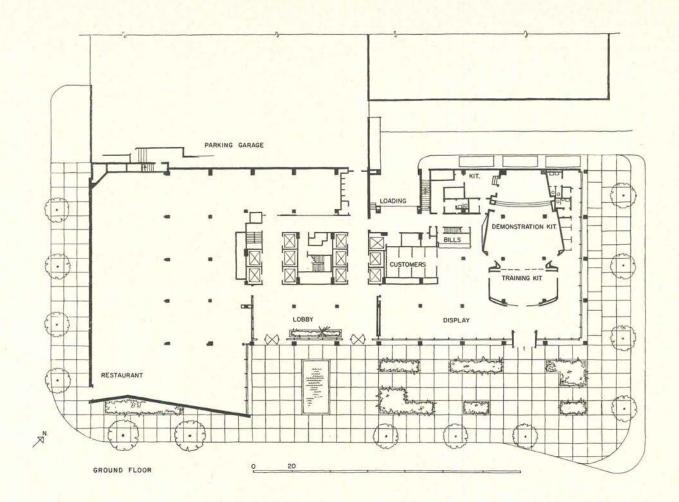
Carson & Lundin—Architects; McGeorge, Hargett & Associates—Mechanical, Electrical & Structural Engineers; Jaros, Baum & Bolles—Consulting Engineers; Charles Mayer—Consulting Structural Engineer; George A. Fuller Co.—Builder

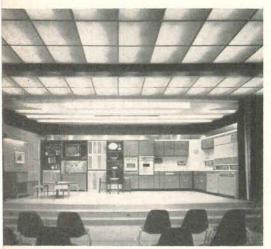
Cleveland—AIA Convention city for 1958—has a shiny new office building to show its visitors when they gather in July; the first such to be erected downtown in that city since the Terminal Group was completed in 1930. Located adjacent to, and facing partly on the Public Square, the 298 ft. Illuminating Building tower is only a short walk from convention headquarters.

The structure's clean lines, delicate aluminum gridwork and glass façades offer striking contrast to the stolid, traditional masonry all about, and may serve to stimulate further building of a contemporary character in the area.

Given a large plot, the architects were able to design the entire building around a typical floor plan that seemed to offer most in efficiency, amenity, rentability, etc. This plan—of 18,000 sq ft—was then stacked up for 22 stories to provide the 400,000 sq ft recommended by the real estate survey; all within a neat, uncluttered package. Parking for 450 cars is furnished by the owner's building at the rear; the city benefits from widened sidewalks and a 65 by 300 ft landscaped plaza.







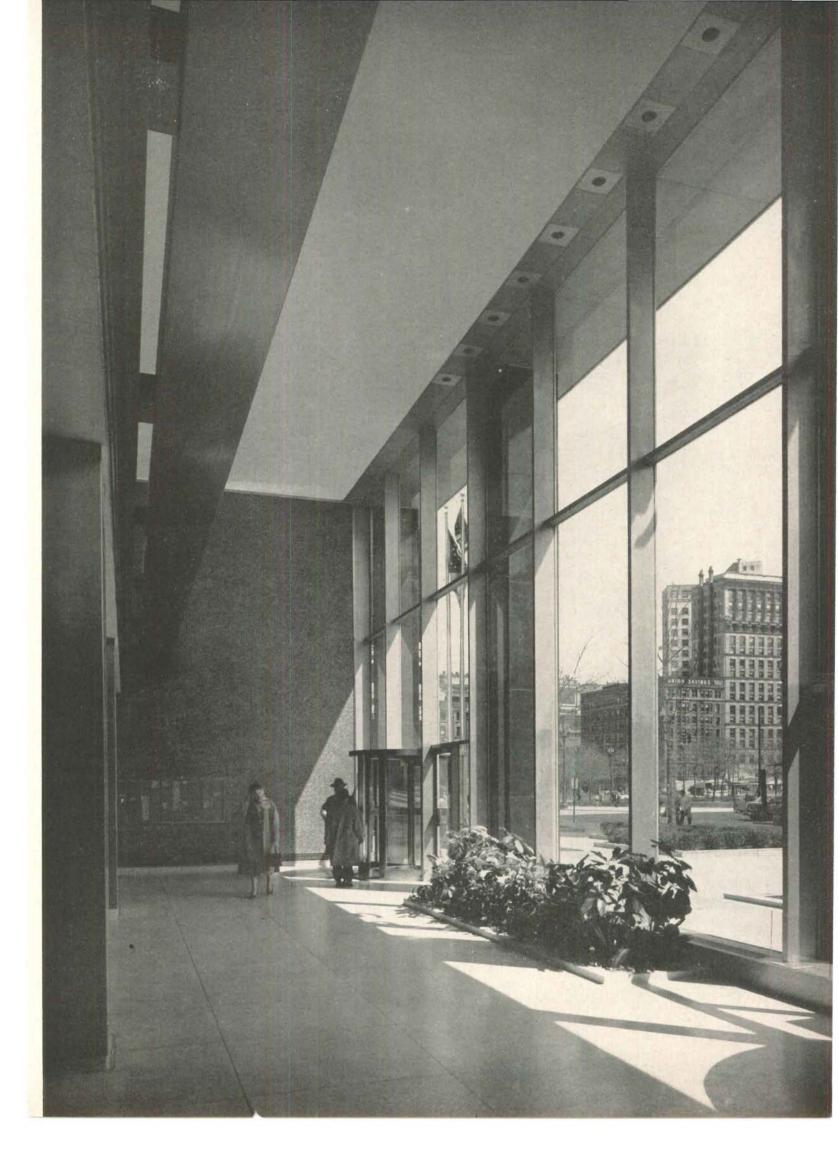
The demonstration kitchen

As the ground floor plan shows, it was possible to bring the tower down back of the building line, widen sidewalks at both east and south, and provide a landscaped plaza as a base.

Since the new building replaced a parking lot, the owner built a garage at the rear (reached by ramp from the side street) which provides more parking than was displaced. The second building at the rear—housing additional Illuminating Co. offices—was connected to the new structure by a third-floor footbridge.

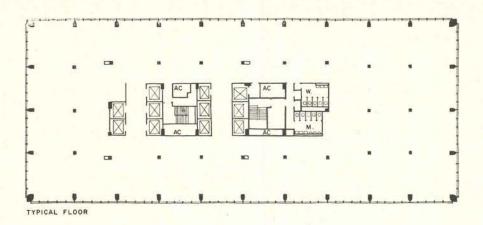
The ground floor area comprises three main elements: restaurant, lobby, and owner's area for display and demonstration. The lobby, right page, has walls of unpolished travertine except that the two side walls are Venetian mosaic in shades of blue. The floor is light beige terrazzo; the ceiling is smooth plaster.

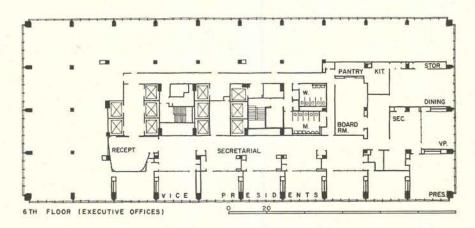
The demonstration kitchen, left, features a revolving stage for effective presentations, and can be opened into or shut off from the adjacent training kitchen. The lighting for both areas is unusual. Above the ceiling of 24 in. honeycomb squares are 90 fixture boxes, each with 4 fluorescent tubes in 4 colors, controlled from two stations (front and rear) to provide 8 different lightings. There are also 170 incandescent floods—in pink, white and blue—dispersed over the ceiling area. Rheostats have been installed so that both incandescent and fluorescent lights can be dimmed separately or together, as required.



Cleveland's

Illuminating Building







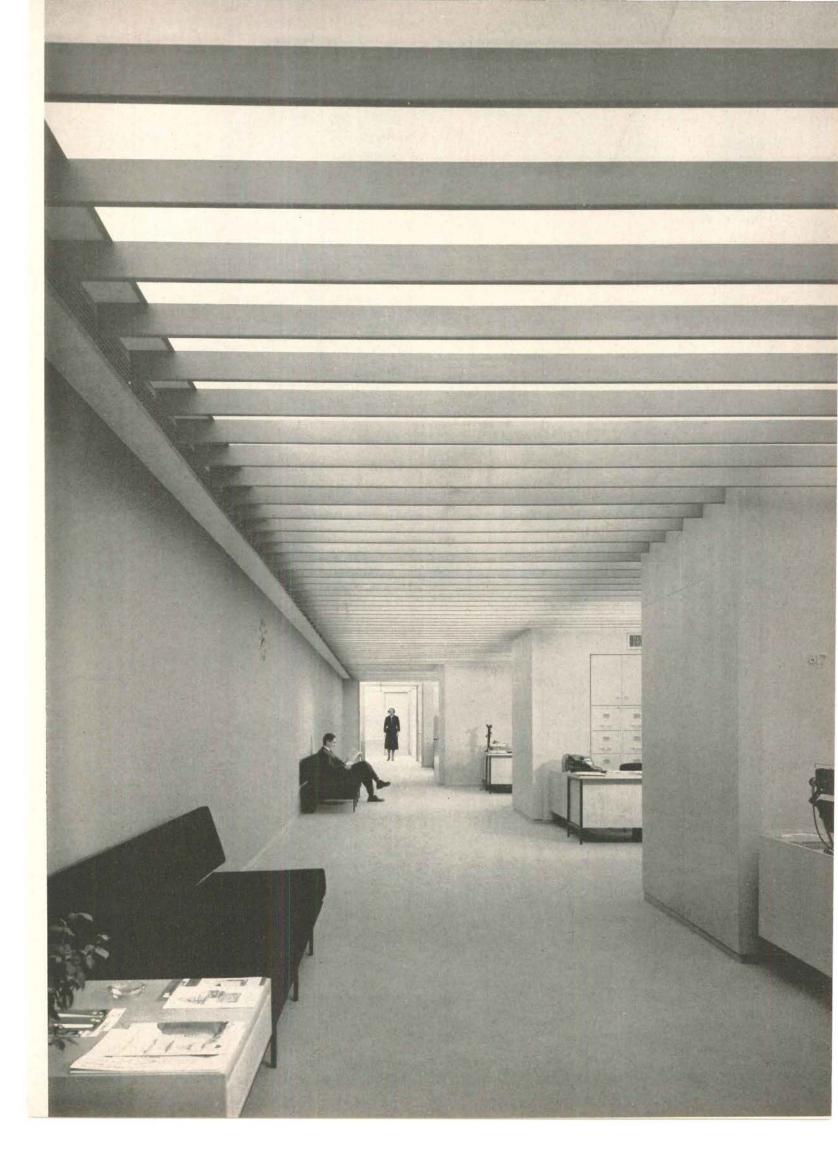
Typical general office

The typical floor plan is based in one direction on a 4 ft $4\frac{3}{4}$ in. module (5 of which make a bay) and in the other on a dimension from glass to core that will provide outer- plus inner-office plus corridor; or the foregoing plus an inner-corridor, if need be. Large open areas—often demanded—are provided at the ends of the plan. The rough column face is set back 2 ft, with the tapered enclosure ahead of it housing ducts and pipes.

The high velocity air-conditioning system is split between perimeter and core; the outer zone serving a 16 ft wide band.

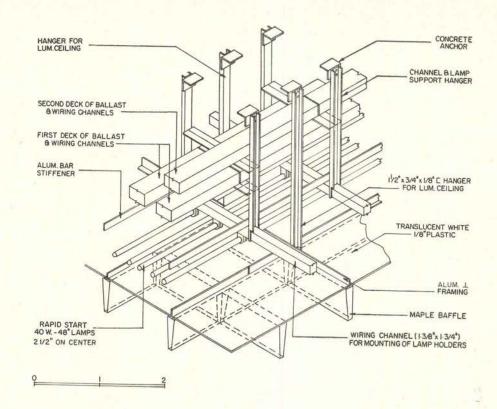
The original design for the frame—of structural steel—was changed to concrete due to a steel shortage at construction time. For slenderness, columns for the first eight floors are composite, with concrete above. Lightweight concrete was made with an expanded Haydite aggregate; the mix developed a compressive strength of 3750 lbs per sq in. and a weight under 100 lbs per cu ft. The floors are concrete beam and slab, made of 3000 lb foamcrete weighing 75 lb per cu ft and containing embedded metal underfloor electric runways in the 4 in. topfill.

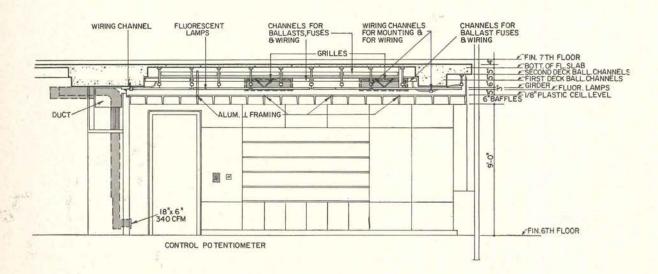
The foundation soil is water-soaked, clayey sand with bedrock 206 ft down—too deep for piles. Thus, the building was floated on a reinforced concrete mat placed 18 ft below the street. The mat is 54 in. thick and extends 4 ft beyond the building's perimeter. Settlement has been nominal as expected.



Cleveland's

Illuminating Building

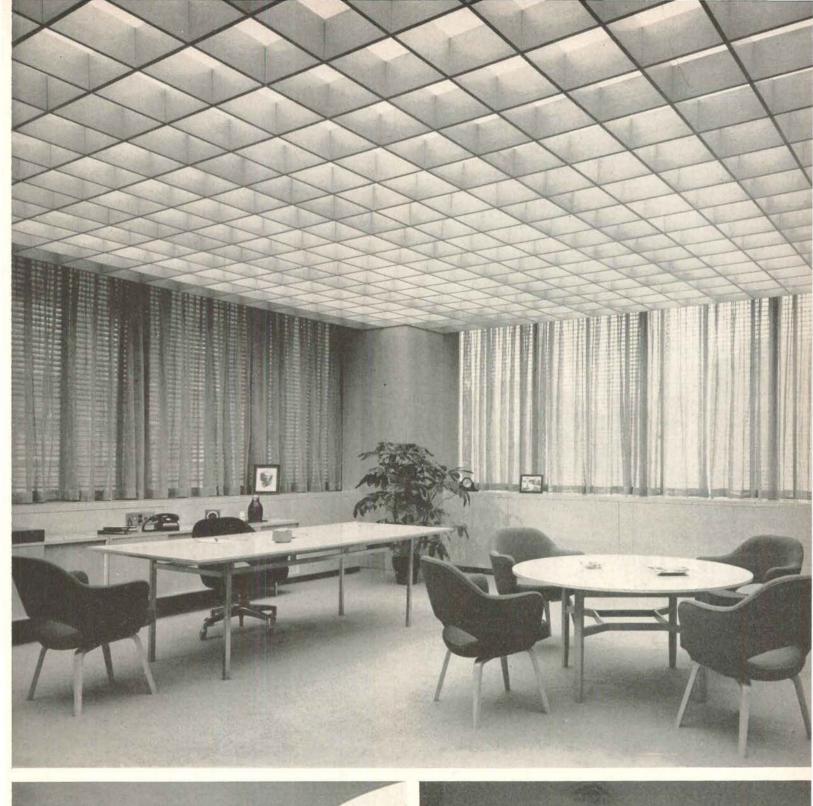




The sixth, or owner's executive floor, features both an unusual lighting installation and attractive interiors, designed by the architect. In the president's office (right page, top) 6 in. deep baffles of natural birch form 12 in. squares below the luminous plane of milky white plastic. Fluorescent tubes at $2\frac{1}{2}$ in. o.c. provide—with the variable control—any intensity from 0 to 450 ft candles, as desired. The high intensity creates a heat load of 45 watts per sq ft, yet the baffles quite efficiently shield one's eyes from the overhead glare.

In the corridor and secretarial areas (picture on page 159) tubes placed 12 in. o.c. provides 100 ft candles and a heat load of 8 watts per sq ft, with birch baffles again providing effective cutoff and an interesting ceiling pattern.

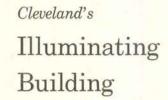
The two pictures at bottom right show the sixth floor reception area. Note the sequence of lighting; from moderate to bright to intense—as one walks from reception area to private office.

















Note the variety of ceiling patterns and lighting installations characteristic of the sixth floor. Top, a typical vice president's office, in which light intensity can be adjusted to 100, 150, or 200 ft candles, as desired. Here, the tubes are spaced 6 in. o.c.

In the board room, center, shallow plastic domes 4 ft in diameter are backlighted for principal source, with a supplementary peripheral strip.

Enameled metal panels in orange-red, turquoise, and lemon yellow add a cheerful note of color in the dining room, bottom. The grid here is aluminum.



Architecture at Brussels:

FESTIVAL OF STRUCTURE



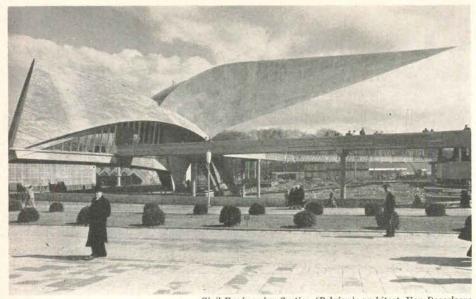




For a quick course in the state of contemporary architecture, there's absolutely no substitute for the Brussels Universal and International Exposition of 1958. This is not to say the busy professional must look to Brussels to know the score (though a few millions of his clients may well discover it there); but knowing the possibilities of structure and the tendencies of current architecture is one thing and seeing them exemplified in the free and festive context of the Belgians' "Expo 58" is quite another.

The freedom is an important point: for although the Belgians, under the leadership of M. van Goethem as chief architect of the Fair, controlled the overall site plan and rather closely regulated the development of the buildings within the Belgian section, architects of the 43 nations represented in the foreign section were subject to no design restrictions except those imposed by their own national clients.

Out of freedom, diversity; and this may be the most significant architectural news of the Fair. No international style to be jeered or cheered unites the architects of the world at Brussels, though of course there are many buildings which owe much to the International Style (and one—appropriately enough, the pavilion of West Germany—which is a later-day gem of that genre). Even the architecture of Communism, at Brussels, is various. The pavilions of the Soviet Union, Czechoslovakia, Hungary and Yugoslavia show no common architectural bond with "social realism" or any other artistic tenet of "proletarianism." They have all reached, but in different ways, for the mainstream of modern architectural thinking; coming late to this effort, they are a little downstream, almost quaintly modern; but they are no longer in a world of their own.

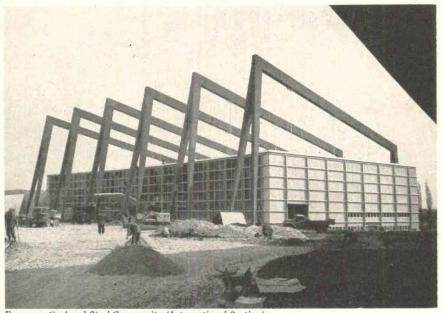


Civil Engineering Section (Belgian); architect, Van Dooselaere

FESTIVAL OF STRUCTURE

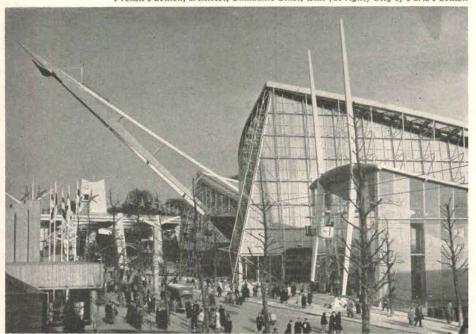


Main Reception Hall



European Coal and Steel Community (International Section); architects, E. Delatte and R. Muquestieaux





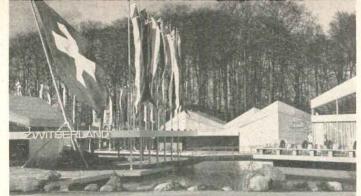
One of the most intriguing shapes at the Fair is the "arrow" of the Belgians' Civil Engineering Section. It is the 240-ft-long reinforced concrete mainstay calculated as a constant stress spar from which is suspended a 193-ft-long walkway between the main hall and a smaller suspended hall roofed with a reinforced concrete cupola. The structure makes possible an uninterrupted view of an enormous construction map of Belgium below the walkway. . . . The French Pavilion, far from finished when the Fair opened April 17, is one of the most daring structurally: the effort, foiled by soil problems which developed during construction, was to support the entire structure by the cantilever of the slanting mast.



United Nations (International Section); architect, Hugo van Kuyck



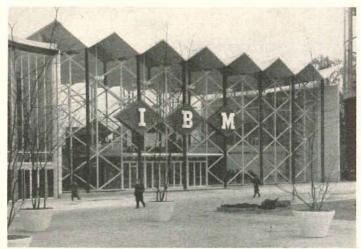
Town and Country Planning (Belgian); architects, Vanden Berghe and Goffaux



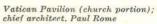
Swiss Pavilion; architects, P. Calame-Rosset; Werner Ganpenbein



Finnish pavilion; architect, Heima Pietila



IBM Pavilion (Belgian Section); architect, Eliot Noyes





Phillips Pavilion; architect, Le Corbusier

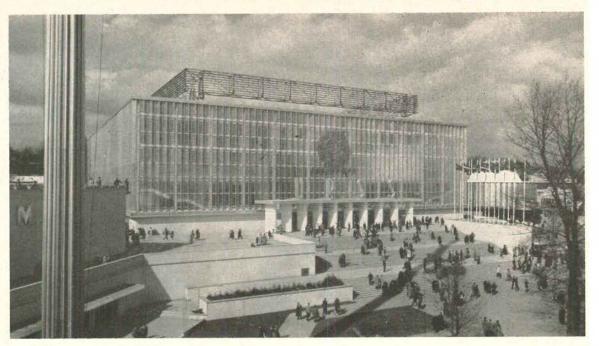


British Government Pavilion; architects, Howard V. Lobb and Partners





Soviet Pavilion; architects and engineers, V. Doubov, A. Boretski, Y. Ratskevitch, K. Vasilieva and Y. Abramov



FESTIVAL OF STRUCTURE



Arab States Pavilion



Thailand Pavilion; architects, M. R. Mitraroon, Kasemsri, Binich Sampatisir, Lucien Coppe



Eternit spiral, 160 ft high; architect, Victor Bourgeois

What does unite the architects of Brussels is their common fascination with structural pyrotechnics: structure as architecture. This is not news; but as you look down on the scene from one of the speeding little cars of the telelift it seems entirely possible that this will be remembered as "the fair of the roofs." If the laurels were to the most spectacular roof, they would surely go to the French for their gallant (if slow of fulfillment) adventure in hyperbolic paraboloids. If they were to the most numerous category of structural type, the suspended roof would have it. If they were to a rectangular, absolutely flat roof with no addenda of any kind, there would hardly be a candidate. This is a Fair to look up at, and wherever you look there seem to be gyrations against the sky.

What does Brussels mean to contemporary architecture? Will it affect the future as some earlier fairs have done?

Stylistically it seems unlikely. The kind of impact which came from Chicago in 1893 emanated from a unity of direction and common motivation quite unlike the situation at Brussels, where the freedom in which the architects have worked has produced the widest variety of architectural expressions. Except for the familiar spectacle of structural exhibitionism, no single trend emerges; and of the diverse directions to be observed none could be unfamiliar to an architect who keeps reasonably abreast of developments. The architecture at the fair is stylistically a summary of what is, and everybody has seen it before. It ought to be added that this is not necessarily true of the general public, and it is likely that there will be some impact in that quarter, if only to introduce some ideas not heretofore familiar.



Hungarian Pavilion



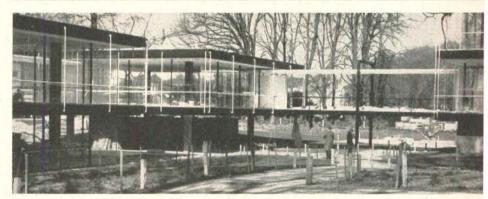
Czechoslovakian Pavilion; architect, Frantisek Cubr



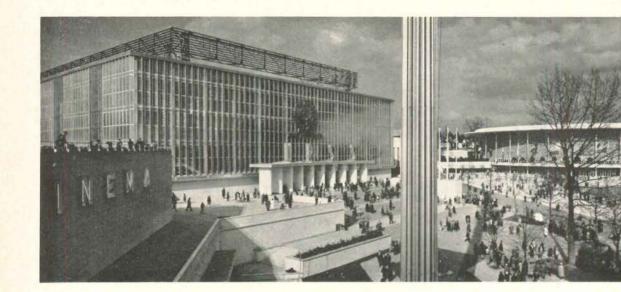
The Soviet Pavilion, prefabricated in Moscow and shipped to the site in sections, manages nonetheless to look monolithic: a great frosted glass rectangle which swallows up its site and seems unrelated to people on any scale less than that of the 40-ft statues which greet the visitor just inside the entrance lobby. But the most notable fact about the architecture of the chief Communist pavilions is its independence: it leaves polemics to the exhibits. . . . Three foreign pavilions in a familiar tradition: the West German one a series of stunningly detailed units of varying sizes and heights, an efficient and effective response to a hilly site.

Below, Portugese Pavilion—architect Pedro Cid; center, West German Pavilion—architect, Egon Eiermann; bottom, Canadian Pavilion—architect, Charles Greenberg









FESTIVAL OF STRUCTURE





Houses of "Belgium 1900"



Italian Pavilion; architects, Belgioioso, Peresutti, Rogers, Gardella, Lucciehenti, Monaco, Perugini, Quaroni, Fourmanoit

Nor does the area of site development seem to have produced any positive results this time. Although this was a matter in which the initial objectives were quite lofty, what officials have described as "the pressing necessity of making the most of all the space available without neglecting even the tiniest corner" has resulted in a site which seems generally crowded in spite of its park and garden areas. And the architects developing the individual sites seem to have proceeded on the whole as though they would have no neighbors. Again an exposition of what is rather than of what ought to be.

In the U. S. Pavilion architect Edward D. Stone has made up for a lot of everybody else's sins of omission and commission. Here is architecture and by far the handsomest building at the Fair. Its great plaza is not only a gift to its neighbors but, in this crowded setting, an invitation and welcome; and the building itself has an elegance and repose, an openness, which invite still further. By day and by night (and this is a building designed for both) it is—and proclaims, in contrast to the great closed-in Soviet rectangle across the way—an architecture of light, strength and freedom.

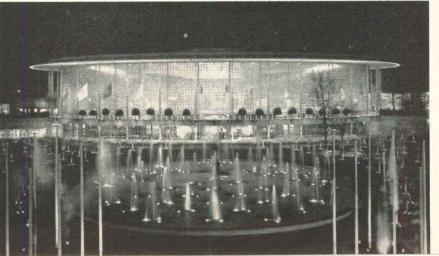
PHOTO CREDITS: page 163, Sergysels & Dietens, Wide World; page 164, Sergysels & Dietens, Magnum—Kryn Taconis, Sado; page 165, Black Star—Edo Koenig, Black Star—David Cairius, Sado; page 166, Wide World, Sergysels & Dietens, Magnum—Kryn Taconis; page 167, Pierre Baguet, R. Kayaert, Magnum—Kryn Taconis, Sergysels & Dietens; page 168, Raymond Badjou, Magnum—Kryn Taconis, Sergysels & Dietens, Pierre Baguet; page 169, Raymond Badjou; page 170, Ira Ignatius



The U. S. Pavilion itself may well be the most impressive exhibit at the Fair. With its setting of plaza, pool and fountains, its transparent walls of vinyl plastic laced with gold-painted steel supports and its great sheltering roof, it is serenely splendid and gracious.



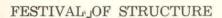






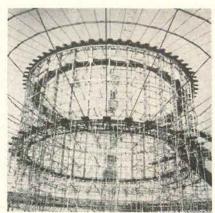


The roof of the U. S. Pavilion utilizes a bicycle-hub principle to achieve a clear span of 350 ft, making it the largest circular building in the world without interior columns. The hub is open to the sky above a central pool 133 ft in diameter; exhibition space surrounds the pool on two levels. Eleven willow trees found on the site have been preserved within the pavilion.





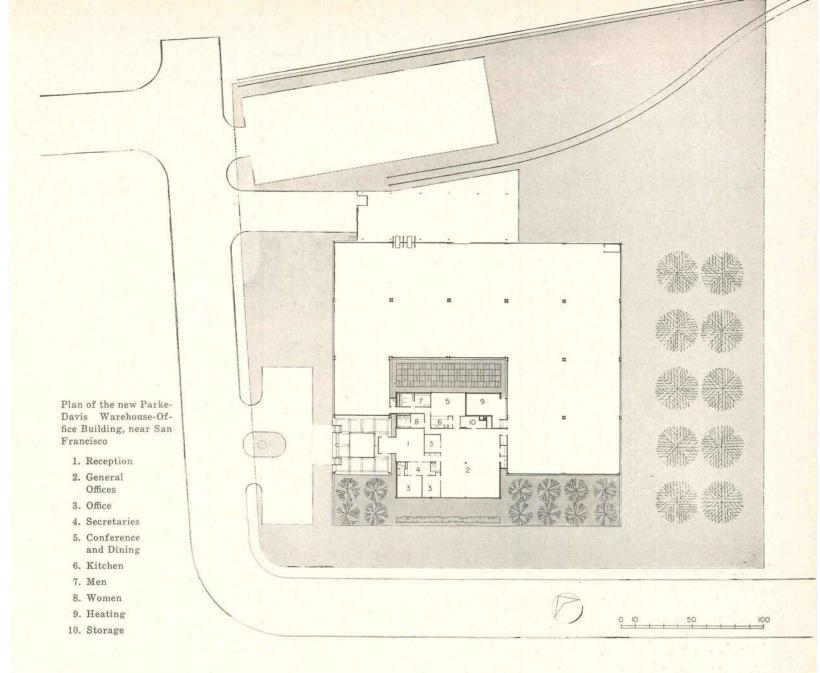








Exhibits strive to suggest that Americans love life and their country for many things besides riches and power, and on the whole this effort appears successful. But the design of the exhibits ignores the building as though it didn't exist: and indeed the dropped ceiling and partitions of the exhibit at the main entrance banish the great interior completely. Two major additions by the exhibit designer constitute architectural intrusions of his own-the ramp leading from the mezzanine to the pool (its use for the fashion shows was an afterthought) and the very ugly wall enclosing a small section of the central pool for sculpture displays. The building was designed before there was even a theme for the exhibits: this may be backwards; but it was the exhibit designer who knew what he had to work with.



An Assembled Concrete Building

Architect Yamasaki Demonstrates
How To Support and Enclose
An Entire Building By Putting
Together Only 4 Basic Pieces

Assembling a set of precast pieces to make a building is reminiscent of playing with a construction toy on the living room floor, except for the scale and odds. With construction becoming more industrialized such a process makes sense, for it reduces on-the-job building time and exploits to the full the triple advantages of precasting: close quality control; freedom of shape; and the reduction of formwork and centering. In this particular case, no centering will be required in the field.

Several examples in this building technique have appeared recently, both here and abroad. Concrete maestro Nervi's Olympic dome was so constructed, to name but one. There is every reason to suspect a trend toward the assembled concrete building. Yamasaki says, "Having gone through the casting of the



An Assembled Concrete Building (continued):

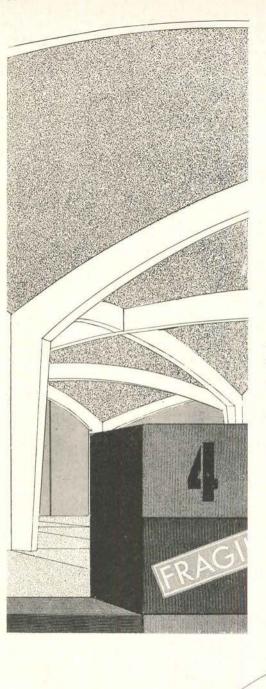
ACI building, and then seeing this job being produced, we are more confident than ever that this form of technology has unlimited future possibilities."

For the Parke-Davis project, the architect designed this combination of components for three reasons: to create an interesting silhouette against the sky; to provide an economical, fire-resisting structure to roof the required 40 ft square bays; and to achieve a "clean interior look" appropriate to the pharmaceutical products handled.

In assembling the building, only 4 basic components will be used: the L-shaped column and roof-support bent; the spherical-triangular roof shell; and wall panels of 2 sizes. The foundation and floor slab will be poured in place while the other elements are being precast. The rigid bent pieces—which are

flat and thus easy to stack and handle—will be locked together diagonally to form the pattern of 40 ft square bays. The roof shell components—40 ft by 20 ft and $3\frac{1}{2}$ in. thick—are being cast at the rate of two a day, and will be cut in half (parallel to the 40 ft dimension) to facilitate handling, storage and shipping.

In setting up the program, Parke-Davis requested a building that would have advertising value and provide a pleasant environment for the workers. To avoid the box-like appearance so common to warehouses, the architect gave this warehouse an interesting roof profile and wrapped it about the central office element, expressively bringing it forward toward the highway. The total result should appear strikingly different from its industrial neighbors.



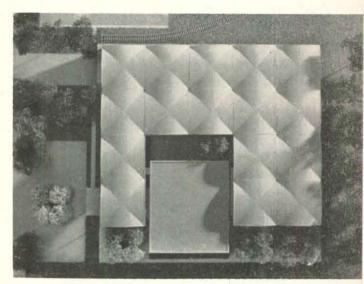
Parke-Davis' Warehouse and Office Building Menlo Park, California

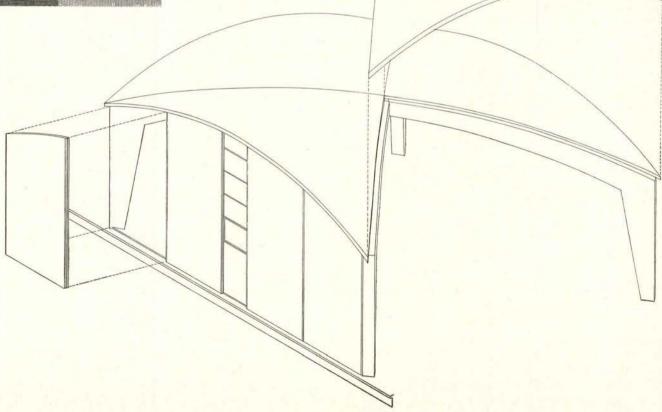
Yamasaki, Leinweber and Associates, Architects

Ammann & Whitney, Structural Engineers

Knorr-Elliott Associates, Associated Architects

Williams & Burrows, Inc. General Contractors



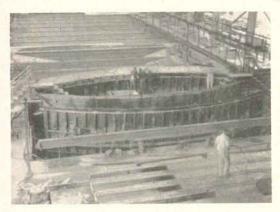


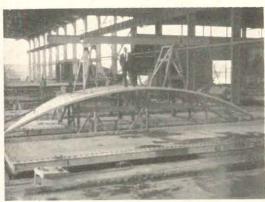
An Assembled Concrete Building: Parke-Davis, San Francisco

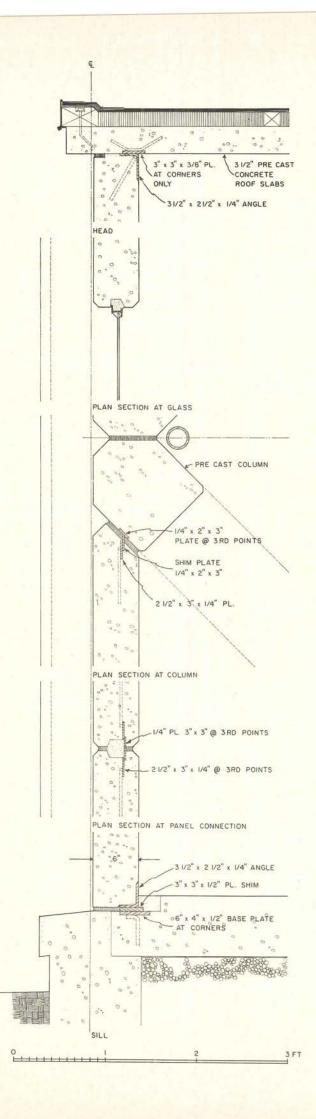


At right: detailed sections through a typical bay to show junctures at roof, wall, columns, floor

Below: top picture shows the two sets of forms open, with men setting reinforcement, inserts, etc. Forms are stripped in the morning, prepared through the day, and filled in the late afternoon. Bottom picture shows a roof panel on a tilt table rigged to simulate truck moving racks to test the location of lifting eyes and also the lifting rigging. The tilt table makes it possible to turn the casting from vertical to horizontal without strain.





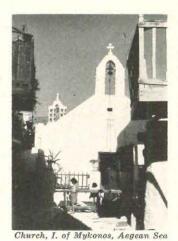




Church at Fiesole, Italy, Victor A. Lundy photo

RELIGIOUS BUILDINGS

More people, more communities, more religious buildings: the unprecedented challenge to to-day's architect is that so many of these new religious buildings will be built in new communities for new groups of people who want a contemporary expression of their faith which will stand not only as a symbol of community of faith—the ancient role of the church building—but, in new and wider significance, as a symbol to the community at large of that faith. Four of the seven buildings presented here are in rural and suburban areas; two are additions to existing plants, one on a spacious site, the other on a crowded city plot; and one is at the cross-roads of life and death—a city hospital. Within its particular environment, each is a symbol—not by the pitch of its roof, the color of its glass or the materials which give it substance, but by the appeal it makes to the spirit in the quality of its outward form and inner space.



A Place For Worship

by Victor A. Lundy

Victor A. Lundy photos



The design of the place of worship is a crystallization, a concentration in one ultimate statement, of the forces at work in the creation of any great work of art. But it is, perhaps more than any other branch of the arts, the great equalizer—the full demonstration that art is not and cannot be an exclusive thing. The designer of a church building cannot design for himself alone or for an elite group who think as he does. He must reach out to people in the realization that the building he designs is the means of conveying a message to people—not his message but God's.

People differ greatly in what they require and in what they want in a place of worship. Some need tradition or certain elements of it. The designer of the church building cannot turn his back on the past, for history and the church and people are not separable: the past is the heritage of faith, and a people's desire to see this expressed is right. A truly great church building must meet this desire, must in itself be a part of the ministry of the faith, must somehow express these things that are age-old and age-less. We need symbols in architecture; we need them especially in church architecture. A church should *look* like a church, inside and out, and when it does, it becomes such a symbol. It must look and be what it is without further explanation.

The place of worship is the one architectural problem to which all human beings react, about which all have some feeling, however vague, however strong. At some time every one of us has come face to face with death, has thought something about survival, has wondered about our place in the scheme of things. From this there is no escape in cynicism and snobbery. Nor does agnosticism, or even total ignorance, rule out some feeling about the place of worship.

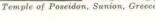
Because the place of worship is a place for people, its qualities, however expressed, must be fundamental, continuing, enduring—imparting not only a sense of kinship with the present but a perception of the past and a vision of the future; and always pervaded with the relationship of God and man. How well the architect understands this, how fully he interprets it, will reveal what he himself really is. He cannot disguise himself in his work: if the place of worship is a sham or sheer theatrical perpetration, or if it is shallow or swaggering, its designer's nature is there for all to see.

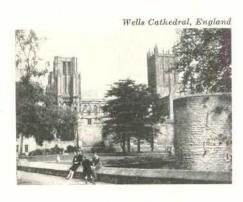
Each commission presents a different set of circumstances and for each one there is a close-to-best answer that is possible within the context of the determining conditions. For me the measure of the greatness of a building is how high the man who designed it has reached under the conditions which molded the building's program, how nearly he gives the best answer.



Mosque, Island of Djerba, Tunisia







Chapel, Abo, Finland, Eric Bryggman, architect



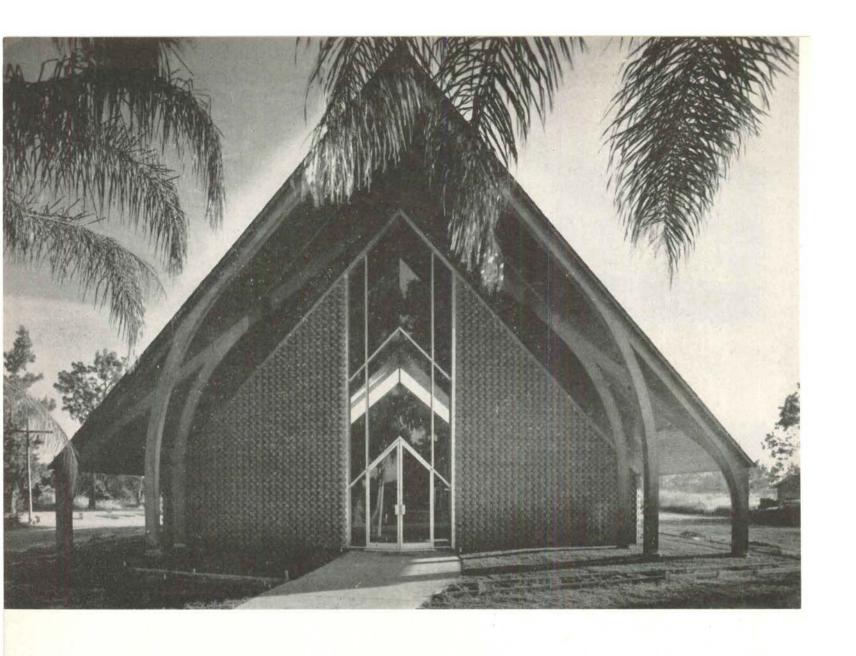
But how high he aspires, how high he reaches, will be affected by the degree to which he has developed his own philosophy, his conviction of life and of architecture from which his creative contribution will spring. If a man lacks a philosophy, he is lost, especially since he will be without that inner strength that can, for instance, sustain him, even protect him, from being crushed—however unintentionally on either part—by the very greatness of the giants of architecture. These great men can, and do, inspire and teach; but the force of their personalities and of their philosophies can also stifle those who are still learning or who have not yet worked out their own convictions.

For in the last analysis, it is only from within one's own self that one can create anything. Creation is a great adventure, and any suggestion of fear or cynicism or subservience is against this spirit of adventure and negates its very process.

The inescapable truth is that great architecture is creative architecture and that it results only when the creative source is free and unfettered, certain and directed; when the passionate experience that is creation, with its paradox of pain and joy, is not held back from its complete expression. Great art—and architecture—is involved inextricably with truth, with love, with the full passion of being. In the moment of revelation which is the essence of creation, the creator is crystallized into the reality of himself and he thinks and feels and creates with the "whole of his being".

Except for the architect who is in himself a "total" artist, it may take a team of creative artists today to produce the great work of architecture. But this can only happen when each individual on the team—in the church project this must include the man of religion as well as the architect and the engineers and the artists of various kinds—is free to give without restraint the very best of which he is capable. Great art and great architecture do not derive from negative ideas and actions, any more than they do from neutral ones. If we are to reach pinnacles of greatness in architecture there will always have to be an opening for the infinite individual genius that man can bring to his work and that can come from anywhere—that knows no one place, no one temperament, no one approach to design.

Great works of architecture, especially religious buildings, have this in common: they are born of conviction and their makers are men who are "believers" in the largest sense of the word—who know their own minds; who are optimists about the survival of man; in short, men who have faith, by whatever name they may call it, whatever form it may take; and who, because of their faith, move inevitably in a positive direction.

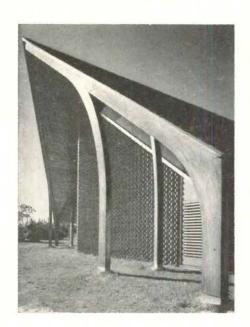


Bee Ridge Presbyterian Church, Sarasota, Florida

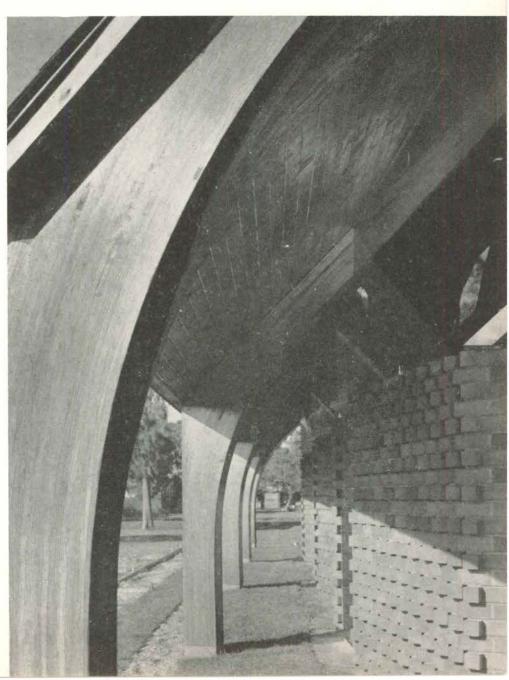
Victor A. Lundy, Architect

J. W. Harvey & Son, Contractor

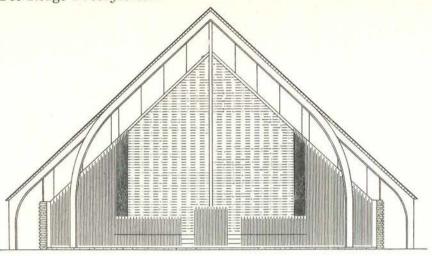
The laminated arches that frame this small country church do so in a free interpretation of the Gothic ribbed vault-and an even freer adaptation of the buttress—producing a space within that is richly evocative of the sense of worship and a form without that in simplicity and sheer beauty of line communicates the building's purpose to all who pass by. While these arches, in their criss-cross arrangement, are peculiarly responsive to the religious purpose, they are a practical solution to a number of problems: the church had to be built in stages, as money was available, and it may be expanded in the future, so the 18-ft bays were an easy way of building by increment; the criss-cross system provided inherent windbracing and made possible arch members of lighter section than with a parallel system; the wood decking laid across them serves as finished ceiling and as base for the roof shingles—an important economy with a total budget of only \$50,000. The walls, of concrete corner block, locally made, are stacked criss-cross, for greater strength and to recall the pattern of the arches. Light and shadow continually alternate on the broken surface thus formed.

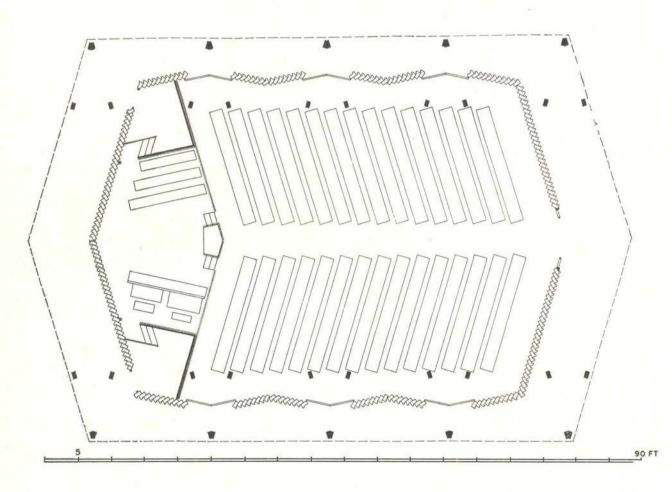


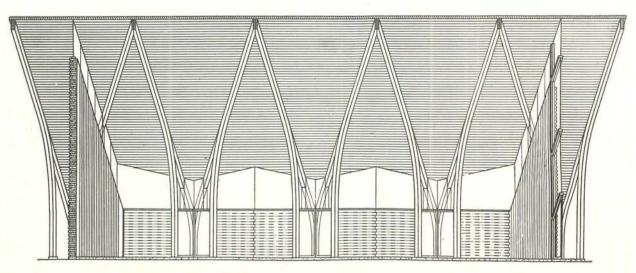


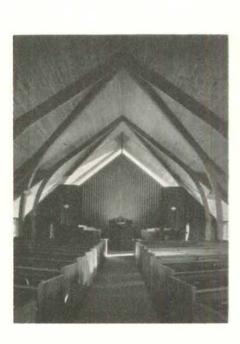


Religious Buildings: Bee Ridge Presbyterian

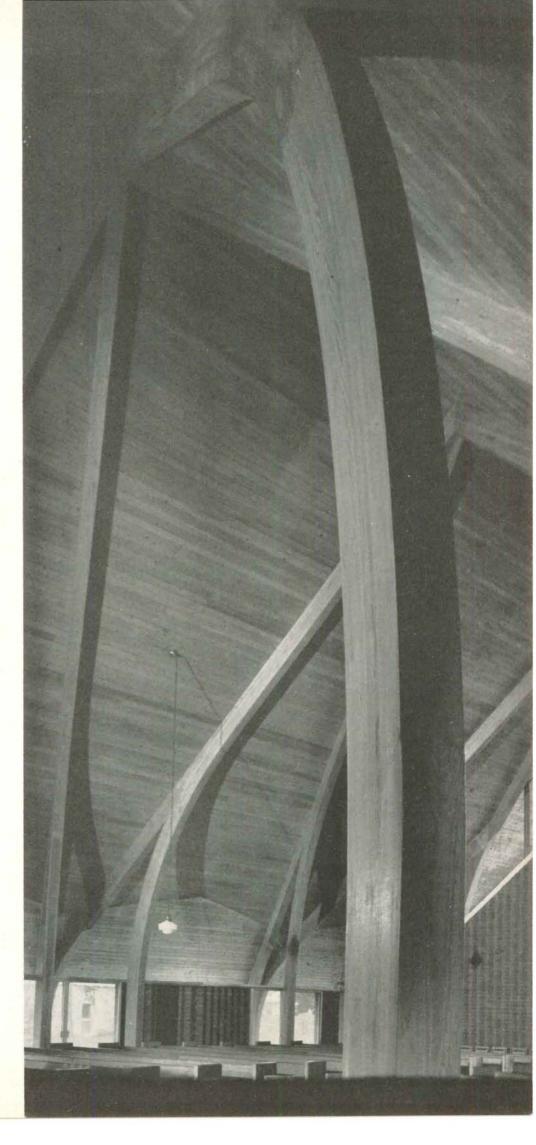


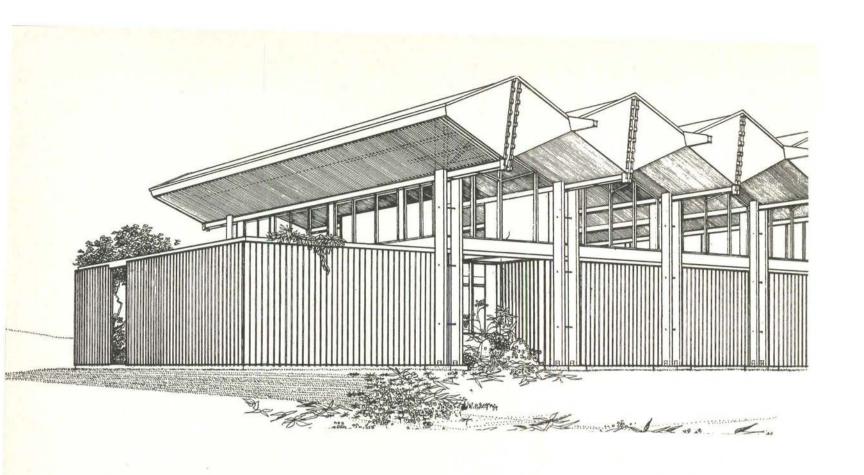






To emphasize the complete independence of structure and walls, the walls stop below the ceiling line and a band of clear glass, through which the buttresses pass, fills the space between. The nave seats 250 to 300 people. The floor is cork tile; the ceiling is white fir. Heating and cooling are by forced air in an underfloor perimeter system.





Faith Lutheran Church, Frayser, Tennessee

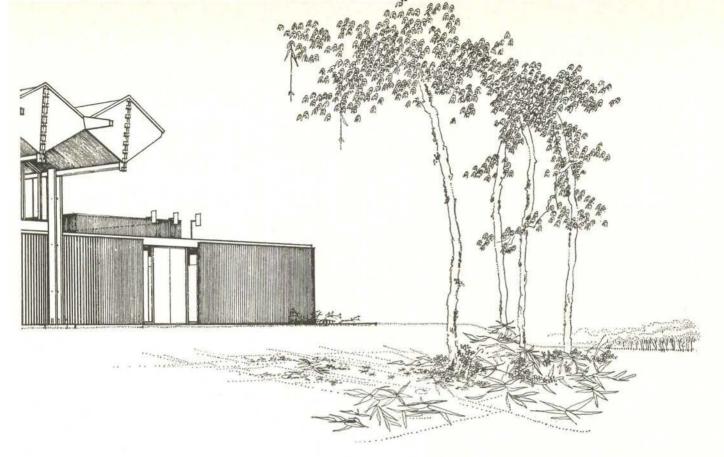
Robert Thomas Martin, Architect: Francis Mah, William H. Gaskill, Thomas B. Boaz, office associates

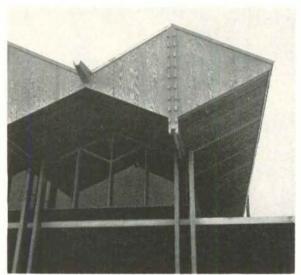
J. T. Kendrick, Contractor

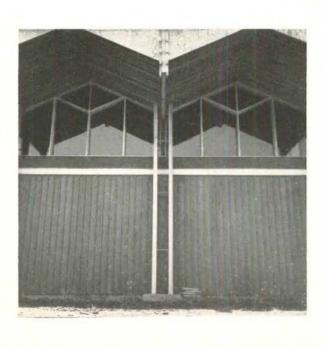
This small mission chapel for the American Lutheran Church at Frayser, Tenn., near Memphis, makes plain that even an exceedingly stringent budget-in this case, \$30,000-need not preclude a building design which not only meets the congregation's needs but does so in a creative way. The simple wood structure of the nave is based on a conventional truss stiffened with diagonal bracing which carries the asphalt shingle roof on its exterior surface and an open wood grille on the interior which forms the ceiling. At the ends of the trusses the diamonds formed by the bracing are boxed with plywood; a simple dentillated strip covers the joint. The lightness of the structural system is emphasized by the slender wood columns which carry the boxed trusses and by the high clear glass windows, running to the line of the sinuate ceiling, above which the roof seems to hover. The materials of which the chapel is built-natural red cedar inside and out, burlap on the panels at each side of the altar-are simple and add warmth to its dignity.

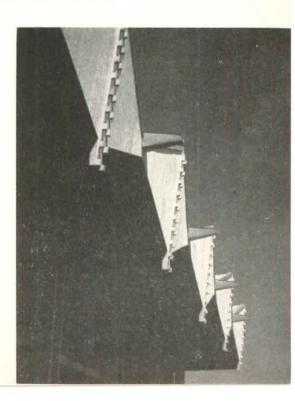


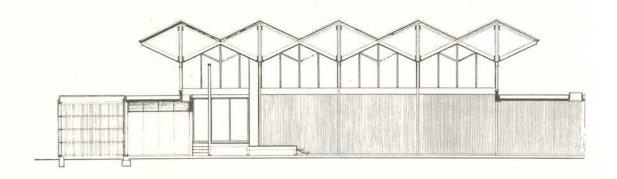
Associated Architectural Photographers

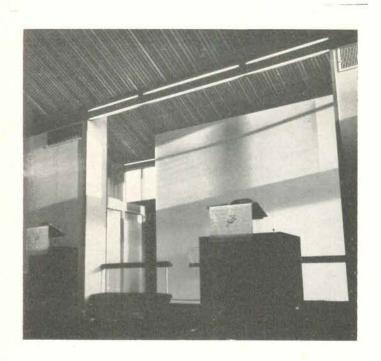


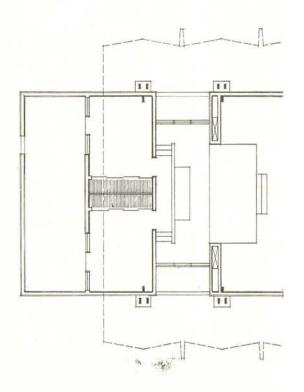


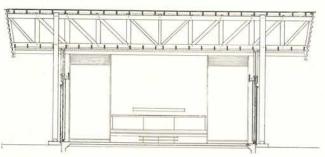


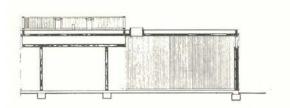


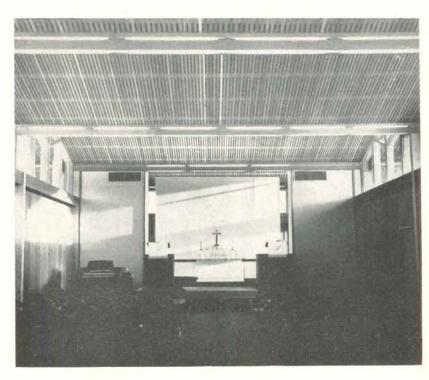


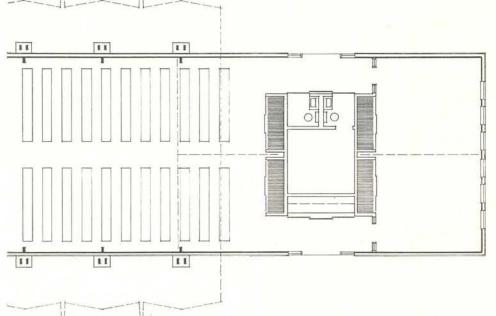




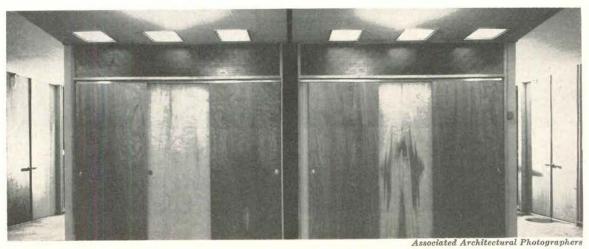


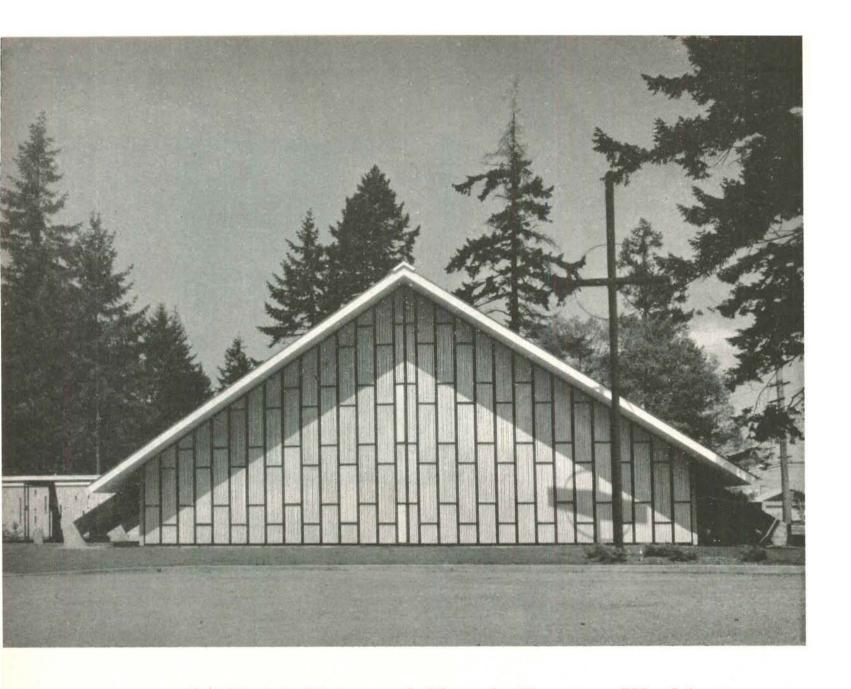






Nave daylighting, from clear glass windows protected by roof overhang, is less intense than at altar where light is strong and clear; night lighting is from a continuous fluorescent strip set along the length of the trusses. This first unit (church and educational buildings will be added later) provides chapel seating 250, overflow space which can be used for classrooms, dining room also usable for classes, and a sacristy and study which open onto a courtyard. Mechanical core, with light wells above, contains kitchenette, closets and heating and air conditioning equipment.



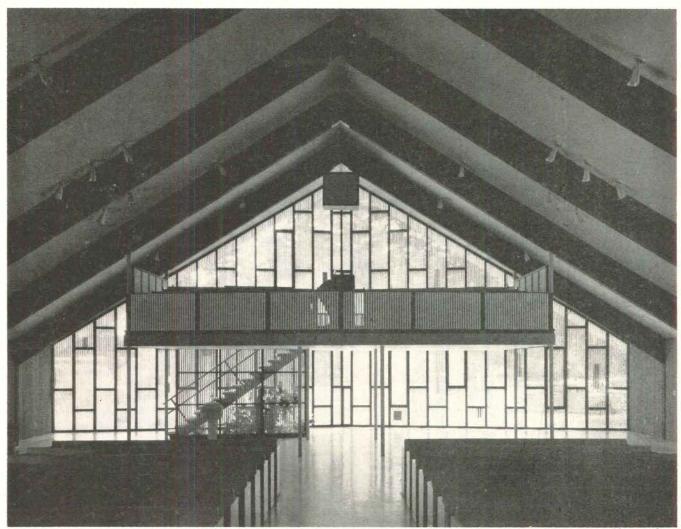


St. Mary's Episcopal Church, Tacoma, Washington

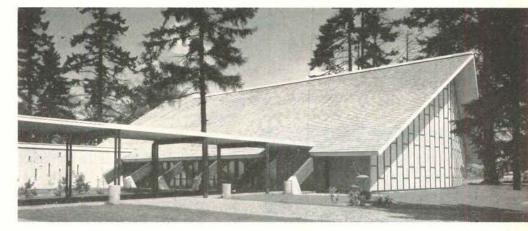
Robert Billsbrough Price, Architect

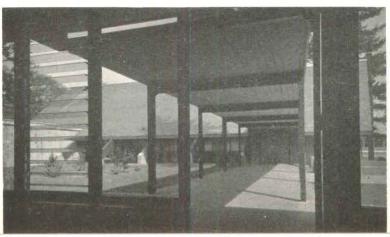
Worthen & Wing, Electrical and Mechanical Engineers Korsmo Brothers, General Contractors altar, which is the central point in the worship service, should be central also in the church itself. The "church in the round", often suggested, offers many problems more difficult to resolve psychologically, perhaps, than architecturally. The original concept of St. Mary's was round, with a centrally placed altar; but the final rectangular plan, which avoids facing one section of the congregation with another, solves the problem of making the altar the dominant point in the church and of bringing the congregation closer to the altar itself. It does the first by raising the altar on a free, open platform, and the second by making the church unusually wide (56 ft) for its length (88 ft). The choir is in the rear of the church, a satisfactory solution both musically and liturgically, since it leaves the altar unchallenged for attention at the chancel end. The nave seats 400; the narthex provides for 125 more. The structural frame of laminated wood beams and columns makes possible a form and a space which, together with the materials used (principally resawn cedar, left natural), the soft blue color of the carpet and the natural daylight admitted through the two triangular skylights over the altar, produce the "atmosphere of reverence" so much sought and so seldom achieved in today's churches.

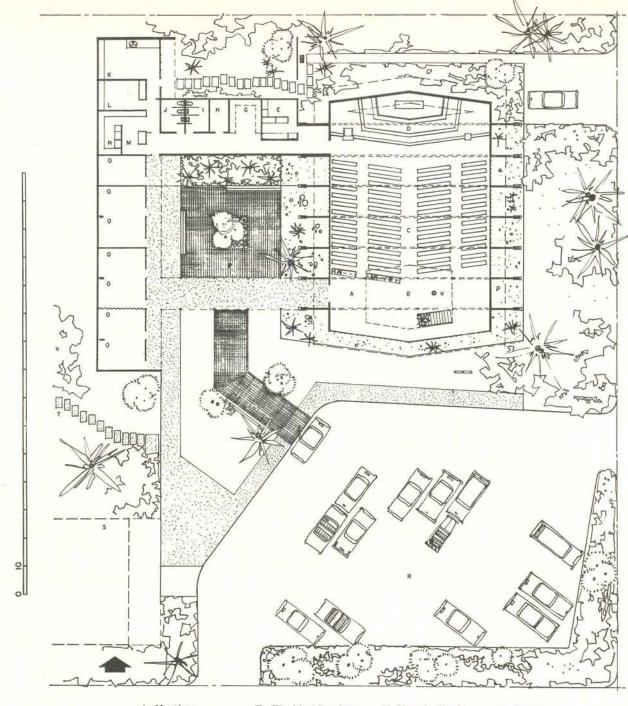
A special concern in many Episcopal churches today is that the



Dearborn-Massar photos







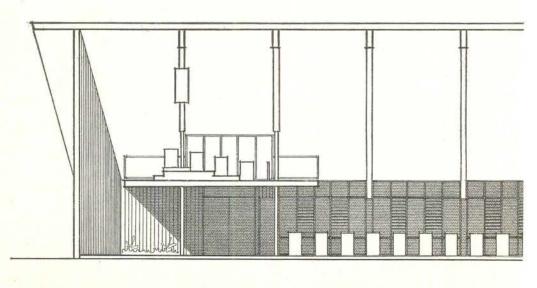


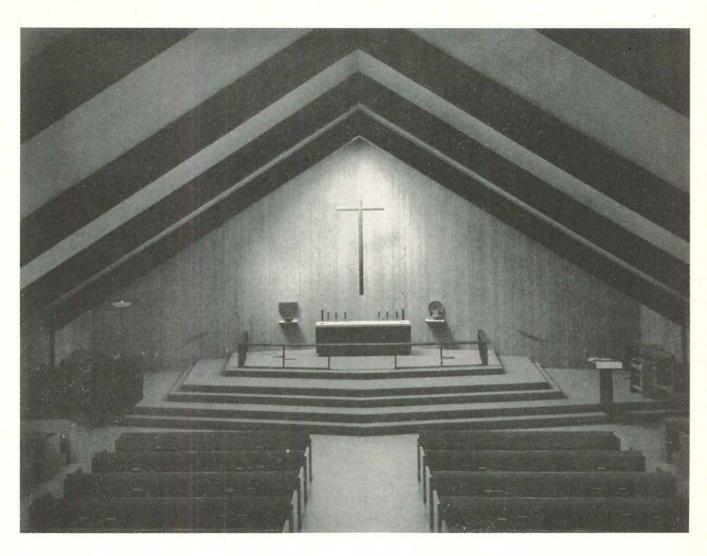
- A Narthex B Choir above
- C Nave D Chancel
- E Clergy Sacristy
- F Working Sacristy G Robing H Heat

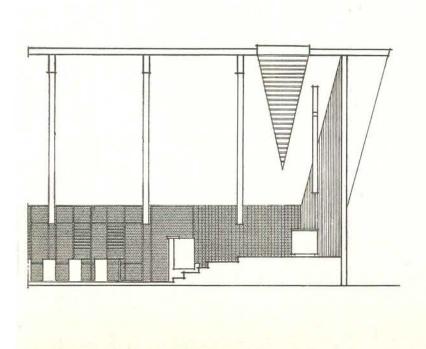
- I Men J Women
- K Vicar's Study
- L Curate M Office
- N Work O Classroom

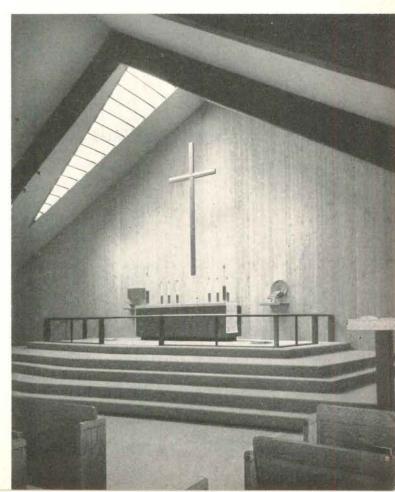
- P Court
 R Parking
 S Parish Hall
 T To other Classrooms
 U Baptismal Font

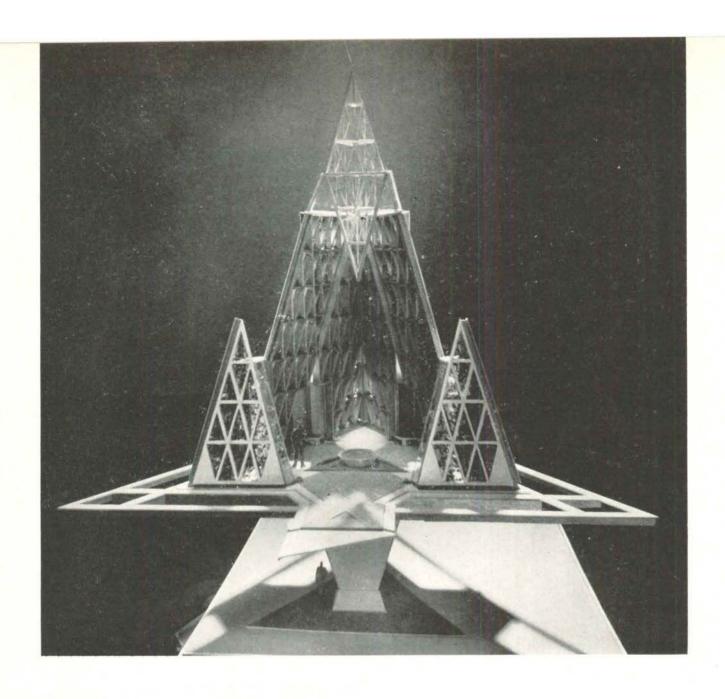










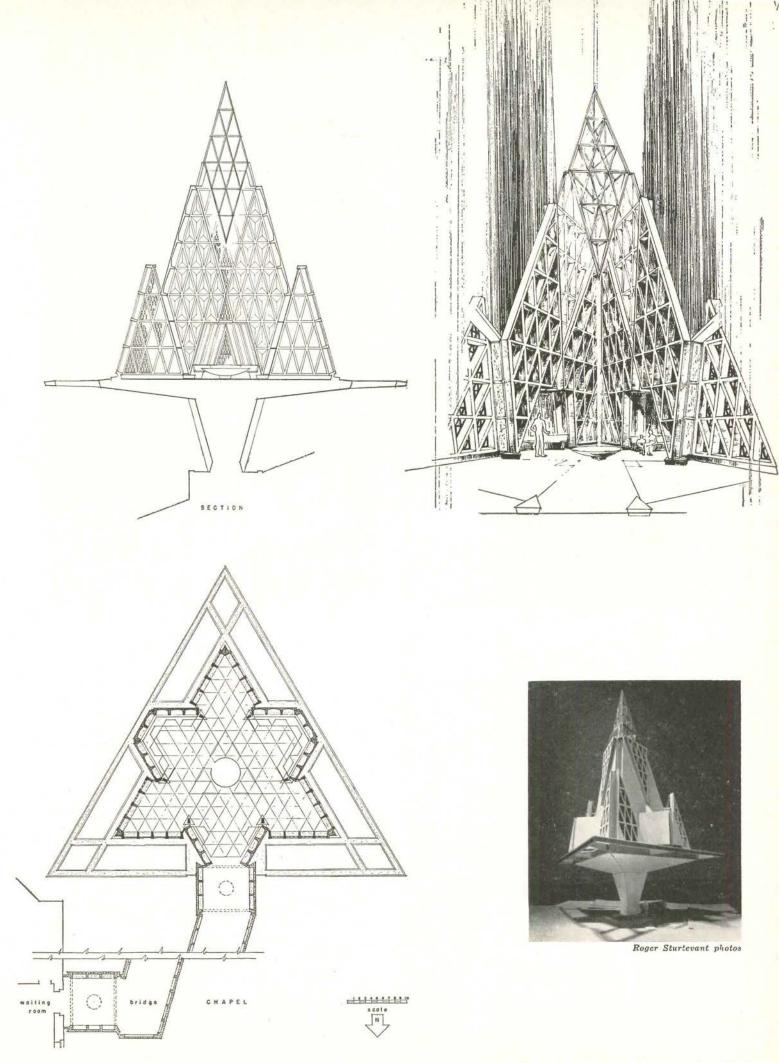


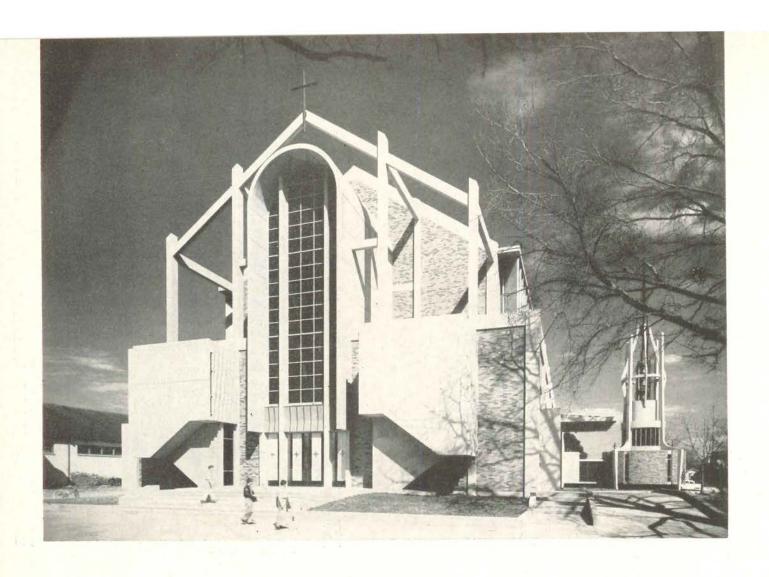
Non-Sectarian Chapel for a Mid-Western Hospital

Henry Hill, Architect

Isadore Thompson, Structural Engineer

The design for this gem-like chapel suggests a rich experience in form and light through the equipollence of structure, materials and color. To be completed later this year, the chapel is the gift of a resident of a midwestern city to the municipal hospital as a place for meditation, prayer and thanksgiving. A single phrase-"as a watch in the night"-from Psalm 90, which the donor had stipulated as the underlying concept for the design, suggested that the chapel express, and answer in the quality of space it would create, the human need for help, security and protection in time of crisis. Since the chapel is non-sectarian and no worship services will be conducted in it, there were no particular requirements of liturgy, no traditions, no symbols to regulate its solution, but it had to have a special and positive meaning for people of all beliefs and for those of no specific creed. Set on a pedestal 22 ft above grade, the chapel is on the same level as the entrance to the hospital so that it is easily accessible from the waiting room. The entire structure is based on triangles of integrally colored precast concrete elements in which are embedded panels of copper-colored glass one and oneeighth inches thick. The 30-ft glass, plastic and bronze lantern, whose top is 54 ft above floor level, is suspended from steel clamps.





St. Catherine of Siena R. C. Church, New Orleans, Louisiana

Burk, LeBreton & Lamantia, Architects & Engineers

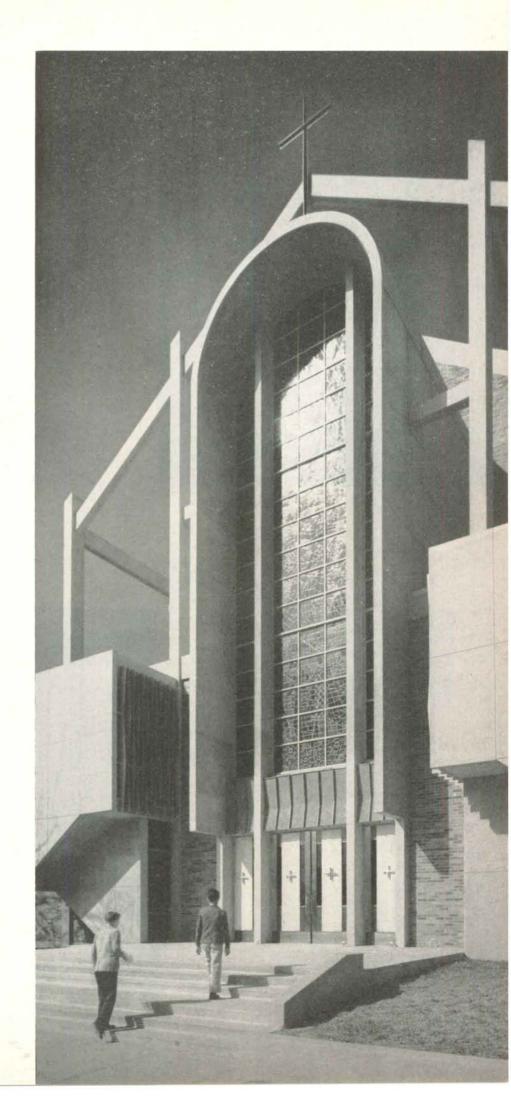
> Lionel F. Favret Company, Inc., General Contractor

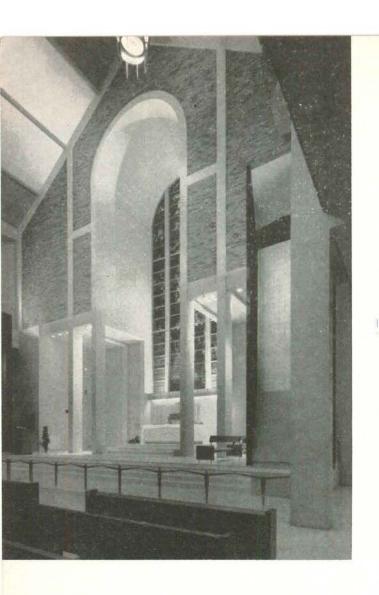
The strong architectural expression given to the exterior of this parish church in a suburb of New Orleans is in the direct tradition of the Catholic church whose buildings stand, more clearly, perhaps, than those of other religious groups, as symbols of the faith to the neighborhoods they serve. In St. Catherine's the architects wanted to disclose on the exterior the spatial feeling of the nave and at the same time express the way in which, by placing the choir stairs on the outside of the building and by minimizing the height of narthex and choir space, they had been able to solve the usual problem of wasted cubage at the end of the typical church. Hence the skeleton web of columns and beams on the west and east facades; hence, too, the masses-functional and decorative-of the choir stairs at either side of the doorway. The stained glass windows, derived as features of this church at the request of the parish pastor who had admired similar window location in a Romanesque Revival church in Chicago, are here given entirely individual treatment by recessing them in deep vaults at either end of the church. The church seats 1000, and is air conditioned. Its frame is reinforced concrete; exterior walls are of brick on the lower portion; along the sides precast concrete louvers alternate with stained glass. Laminated wood arches form the roof structure. Budgeted cost for church and baptistery was \$500,000.

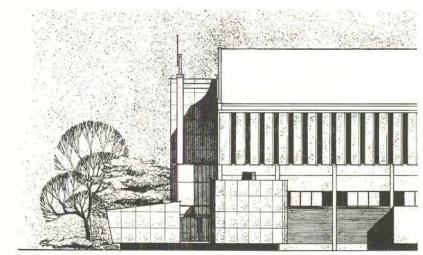




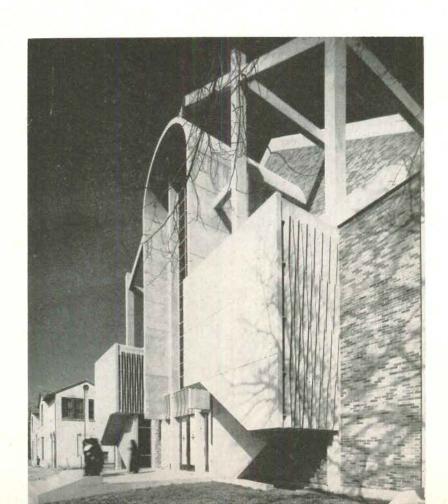
Frank Lotz Miller photos

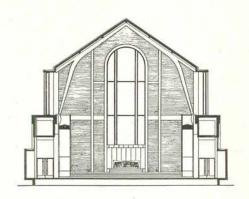


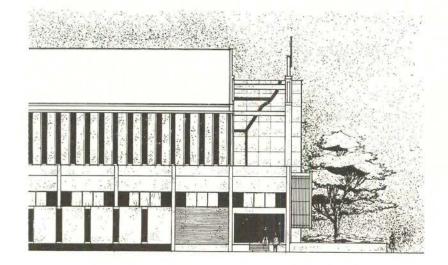


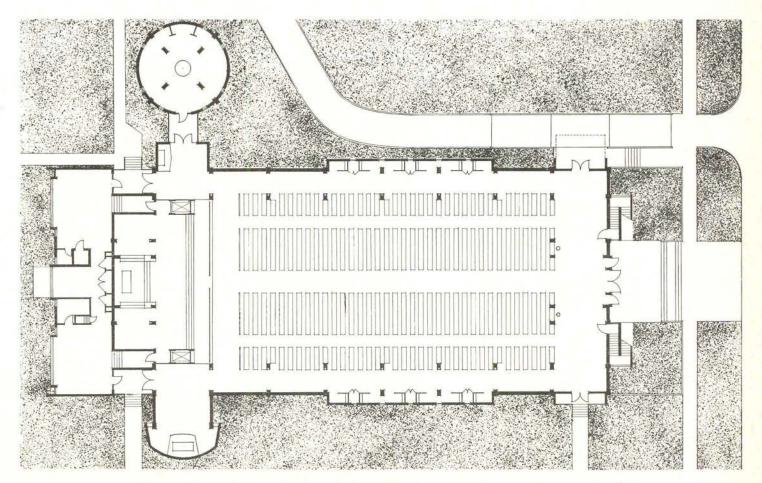


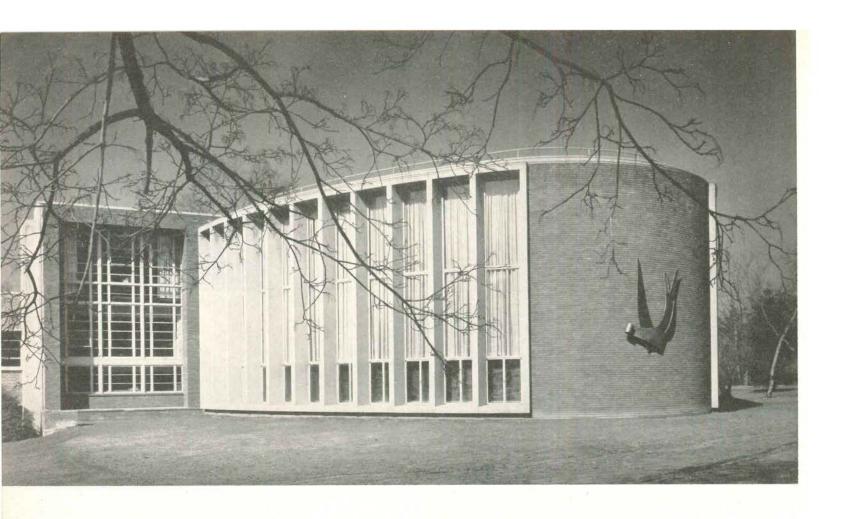
Altars (main and in chapel at side), rail, sedilia, tabernacle, baptismal font, stained glass (other than pictorial), and confessionals were all designed by the architects; Lin Emery designed tabernacle sculpture. Baptistery is in round building at side of church, visible from important artery. Of similar materials, it recalls skeletal web on façades.











Jewish Community Center, White Plains, New York

Fritz Nathan, Architect

Jacob Stern, Structural Engineer

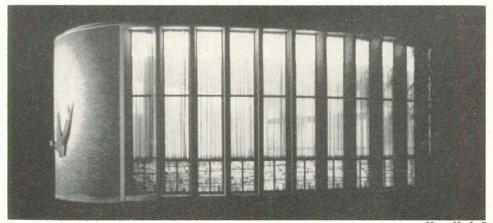
Herman Scherr, Mechanical Engineer

Walter Buschinsky, Lewis S. Goodfriend & Assoc., Acoustical Consultants

Rothman & Foerst, Kitchen Consultants

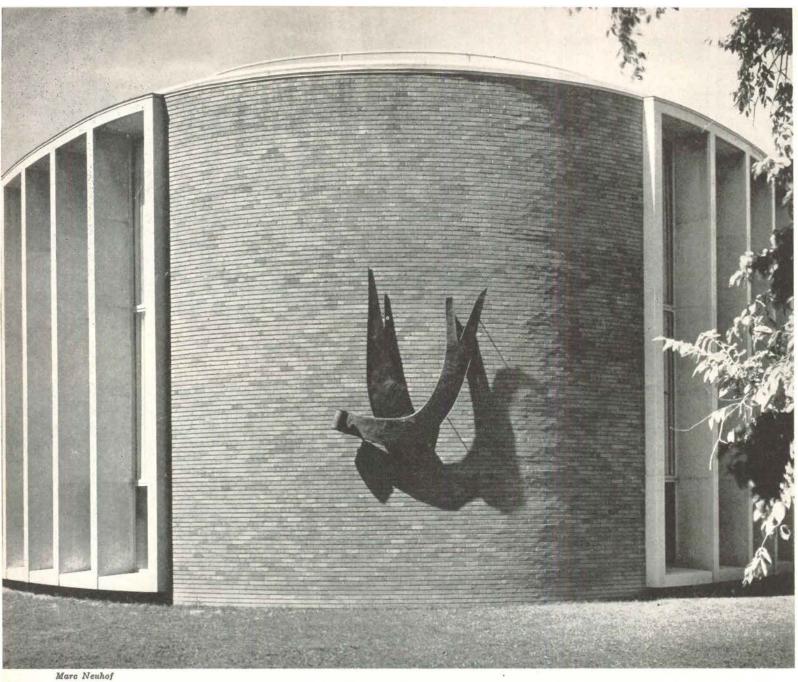
Plato Construction Company, General Contractors

A characteristic of the religious building project is that its overall plan can seldom be developed in one stage, and that additions to the first units—main worship building to educational plant or chapel, or vice versa-are made years later as population changes make enlargement necessary and feasible. Budget, locality, sentiment and symbolism make even more challenging the always difficult problem of the addition to existing buildings. The Jewish Community Center represents several stages of a building program (from 1927 to 1957) in which this problem has been handsomely solved. The new buildings—synagogue, social halls, offices and more classrooms—make up by far the larger part of the Center. The synagogue, itself, though small in comparison with the other units, is by its dignity, restraint and well-proportioned design the dominant element in the group. Its 300 seats, adequate except for high holy day services, can be augmented by sliding the partitions into the attic and basement which normally close off the adjoining social halls. The windows along the curved walls of the synagogue admit clear light above a band of stained glass by Robert Sowers; by night, lighting is indirect, so that the clear space of the room is undisturbed. Steel framing makes possible a clear span and therefore an uninterrupted view-from the farthest seat, even at the largest services—of the Ark and the pulpit which are raised to improve the sight line and to emphasize their spiritual significance in the service. The two traditional columns on either side of the Ark, Boaz and Jachin, are both symbolic and practical since they are load-bearing structural elements.



Marc Neuhoff

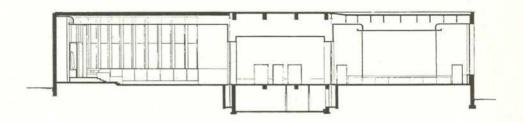




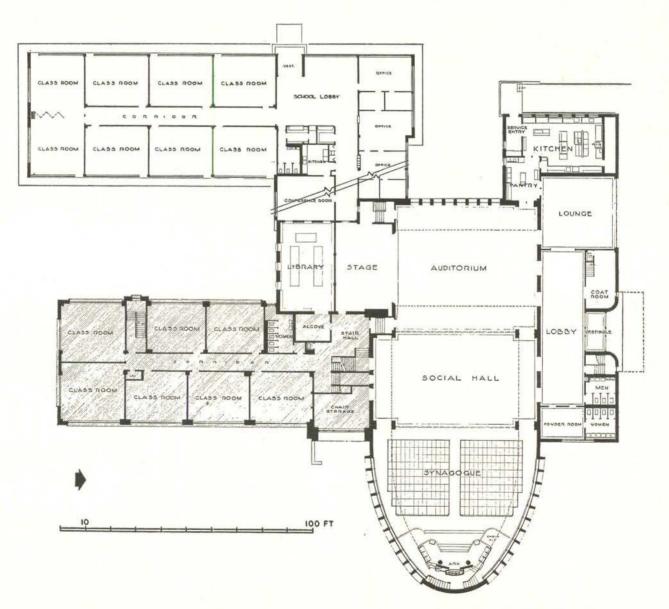


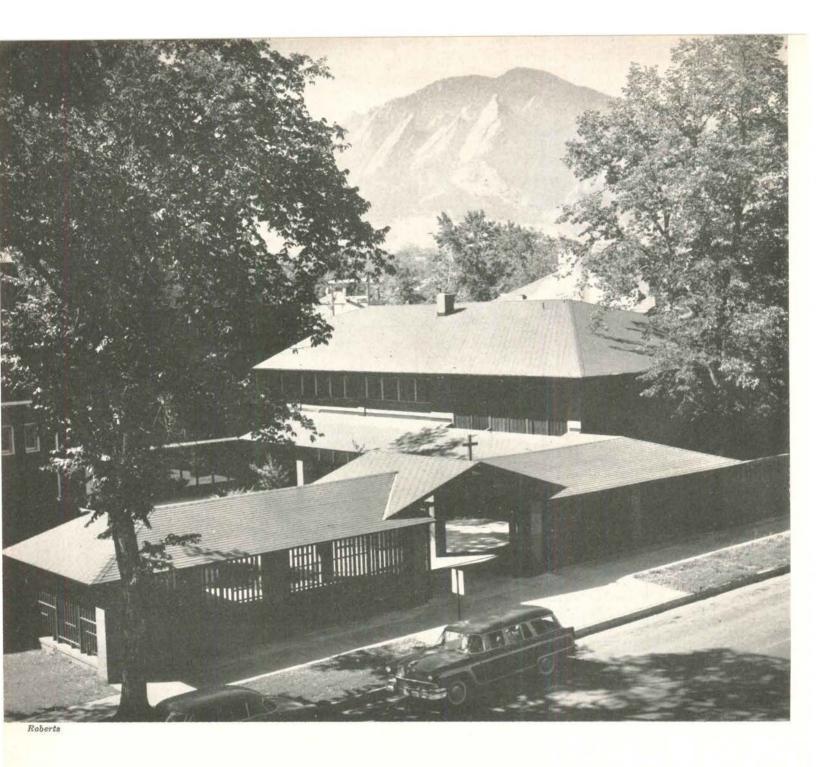






Specially commissioned works of art enrich the Temple: the Eternal Light before the Ark is by Helen Beling; the Ark curtain was designed by William and Gertrude Wiesner; the Menorahs and lettering beside the Ark are by Ludwig Wolpert; sculpture is by Jose de Creeft (abstract on synagogue exterior) and Erna Weill.





First Presbyterian Church, Boulder, Colorado

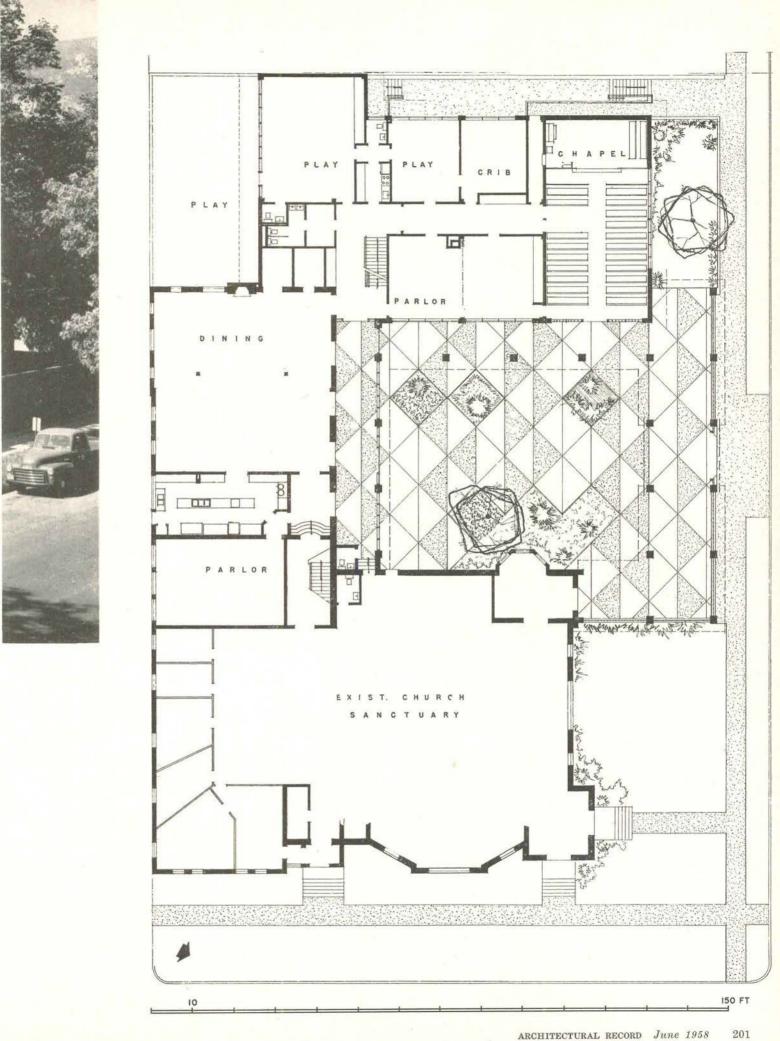
Hobart D. Wagener, Architect

Ketchum & Konkel, Structural Engineers
Stark & Konkel, Mechanical Engineers
Swanson-Rink & Assoc.,
Electrical Engineers

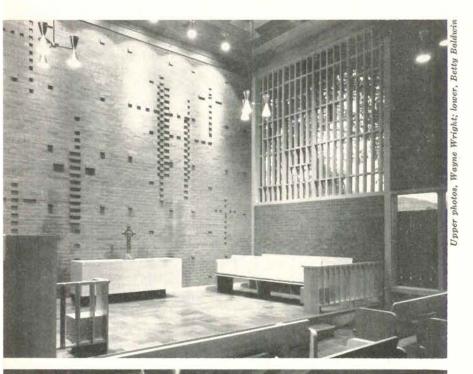
Wilkins Company, Inc., General Contractors

The problem here was to add a chapel and new educational facilities to an old church building of the red-brick-and-stone-trim period of 1870 and a somewhat more recent classroom unit rather than to move to a new site since the present location was a desirable one. The old church building, adequate for the present, will probably have to be replaced within the next 10 years, so the problem was further complicated by the need to design the new units with future expansion in mind as well as to tie them in with the existing structures. The arcade and the courtyard, an ecclesiastically traditional tie between parts of a religious compound, are the sensitively handled means used to relate the old and the new. The arcade with its open redwood screen serves as separation between the busy street and the quiet of the court, to which its gateway invites. The court, besides preserving several old trees on the property, makes a pleasant entrance to the chapel which is incorporated into the new educational building.

200



Religious Buildings: First Presbyterian Church







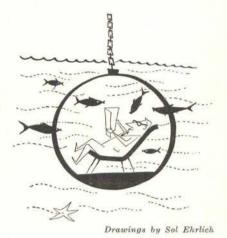
The chapel, seating 120, is in daily and frequent use. The back wall of the chancel is of brick laid with a relief pattern of crosses. Cathedral glass in warm colors on the east wall of chapel throws golden light over red brick walls; glass over choir area is in nearly transparent shades of yellow, wine and blue. Full-length windows on the north open onto a landscaped court. The architect designed all chancel furniture.

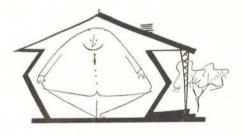












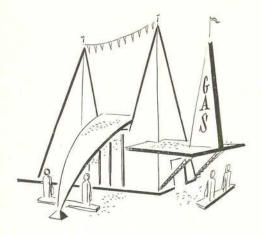
TECHNOLOGY MISAPPLIED

by Robert E. Fischer

There is little exaggeration in the statement that the engineer can produce almost any kind of physical environment that he may be asked to, whether it be enclosure of space, control of temperature and air quality, intensity of illumination, or exclusion of noise and enhancement of desired sounds. Conceivably, without too much stretch of the imagination, a roof could be built to cover a whole city. Comfortable temperatures could be provided in an enclosure of only membrane thickness which would keep out rain, snow,

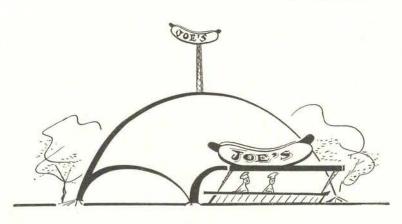
From a talk given at a recent conference sponsored by Armour Research Foundation, "Creative Trends in Structural Design." wind and dust. Right now, if you wanted to, you could read your favorite book under 1000 foot-candles of light. And for devotees of classical music, there are new concert halls that deliver music to your ears with almost unworldly clarity. For those who dislike walking as a mild form of exercise, there are moving sidewalks and stairways, and operatorless elevators, which, combined with other transportation could practically eliminate foot traffic.

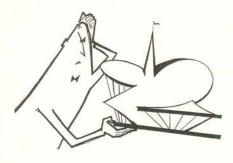
We have actually arrived, then—not in some futuristic tomorrow of the Sunday supplement—but now in an era when building technology literally makes almost anything theoretically possible. Provided it is wanted and the cost doesn't matter.



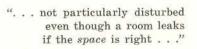
Thin shells for gasoline stations

. . . and hot dog stands





". . . picking some arbitrary shape and dropping it in the lap of the engineer to make sure it will stand up . . ."





One cannot fail to be conscious that creative architects working with creative engineers have used technology to achieve some memorable accomplishments. But how often -how very often-are architecture and engineering the joint victims of those familiar extremes in the misuse of technology and variations thereof. Either technology is picked up and overglorified as an architectural theme, or it is almost completely rejected-and there is a whole range of imperfect comprehension in between. A few examples will demonstrate:

The first type of technology misuse is found frequently in the selection of a structural envelope. A pure form, whether it be a warped surface, a catenary cable—or its reverse the parabolic arch—is used as the dominant visual element in a building without consideration of its appropriateness to the main function of the building. We are now seeing such abberations as hyperbolic paraboloids for houses, gasoline stations, and hot dog stands.

Then there is the other approach of picking a pure geometrical form, or perhaps some arbitrary shape, taking a piece of it that will serve as enclosure and then dropping it in the lap of the engineer to make sure that it will stand up and meet the building code.

Now moving a little away from what might be considered as intellectual approaches, there are those architects and engineers who don't want to be out of the swim, and so ostensibly their building designs are guided by the latest techniques; columns are shaped like moment diagrams; high velocity air conditioning is put in even though a lower velocity system might serve just as well; lighting systems using luminous ceilings which give absolutely uniform illumination are sometimes put in where it might be very desirable to have highlights and shad-

A slightly different and unhappier version of this approach occurs when the designer reads a little literature and hears a few lectures on a new technical procedure, decides it is not too difficult, and then takes liberties to suit his own version. This has happened in flat slab design, for example—and failures have resulted.

In a different technical area, acoustical control, some people still think that sound can be broken up by stringing wires in every direction across the ceiling, which is nothing less than absurd. Careful attention to room shapes and choice of mate-

rials is absolutely necessary. In this same field, there is the problem of stopping noise transmission from one room to another. Here there is still considerable misunderstanding that fuzzy insulation, and the other porous materials such as tiles will do the trick. Well, they won't work in this case, but instead are effective in providing proper reverberation for control—that is, making a room less boomy—and in taking the sharp edge off noises such as the clacking of typewriters and the clacking of stenographers.

Now we come close to the opposite end of the technology misuse spectrum: complete disinterest in engineering techniques. Designers in this category are not particularly disturbed even though a room leaks when it rains, if the feeling of the space is right. Nor are they bothered if temperature of the room fluctuates rather widely. Nor if sunlight streams through a window to bake us awhile and then all of a sudden disappears. Undoubtedly there are variations on the above, but these are the principal types.

There are other problems in building design that have been brought on by technology, particularly in the realm of mechanization. Our economy is based on turning out large numbers of things in repetitive operations. This has been less true of building than other industries. But because of higher and higher costs, more and more standard components—not standard buildings mind you—must be produced to go into more and more individualized buildings.

This is what has happened to prestressed concrete in the United States. Economic pressures are directing prestressing into factorytype operations, with structural units poured in forms in long lines around pretensioned cables which are then cut apart like strips of taffy.

Unfortunately, there hasn't been careful enough guidance in this activity to encourage full exploitation of the inherent advantages of prestressing principles and the nature of concrete-although this is beginning to happen. Prestressed components, for the most part, look like and are put together like conventional steel framing. There's no reason why greater advantage shouldn't be taken of continuity, or why such a few types of structural units are turned out in a casting yard. A similar situation exists in regard to tilt-up concrete wall panels. Here is a bit of mechanization that has saved time and money. But most buildings of this type have been far from attractivethis method so far has merely served as inexpensive means of very durable construction. Somehow talented designers have to work out details to make them better looking.

It has been said that metals and glass reflect our times, and so these materials have been expressed abundantly. Such buildings bring a breath of fresh air to our cities. But what is more than upsetting, though, is that in some cases the mechanical engineer must go through all sorts of contortions to get in his ducts and pipes. This in itself is likely to make the system tough to control, but then in addition we also have to put up with idiosyncrasies of the weather, with the sun being alternately hid and then free from clouds. Air conditioning systems apparently have not been forced into such tight space yet that it hasn't been possible to rationalize the greater costs when a system is required to be designed this way. Somehow the added rentable area and additional stories gained always seem to amount to more than the extra cost for the air conditioning. The engineer must share the blame in this matter along with the architect. Many times he has not evaluated the newly developed systems sufficiently to explain to the architect and the client what taking away a foot here and there will mean to costs and operation.

Recently the architect has seemed to be a little more sympathetic to those aspects of engineering which have visual implications. Thus in the last ten years, acoustical design has become more widely appreciated-especially in those areas which have some connection with form. We have seen pretty wide acceptance of acoustical principles which call for shapes that best direct and diffuse sound. Given his "head," the acoustical consultant could start out from scratch and pick the shapes and the materials that meet certain criteria for good sound. In a school auditorium this might be simple, in a concert auditorium it would be a good deal more complex: who is absolutely sure at present what sort of sound is most desirable for music? It is doubtful that the acoustical consultant wants to determine exactly what an auditorium will look like. He has a wide variety of valid techniques, and as long as he isn't called upon to perform gymnastics to correct a basically bad shape—a hemisphere for example—he no doubt is more than pleased to have the architect set the pace. The hemisphere can be corrected acoustically, but then visually it's no longer a hemisphere.

Another visual element in design is light, and somehow one would have thought that this would have become a very important part of the architect's vocabulary. Apparently there are instances in the past where the architect was rather expert at utilizing daylight to enhance the appearance of his buildings.

But now that we have almost unlimited sources of light, their use in buildings is not much above the level of trying to improve the fixture design. Even if the engineer were able to give the architect electroluminescence cheaply, so that whole surfaces could be bathed in light, one wonders whether at the present time there would be much improvement in lighting effects. Somehow with all our motivation research, "brain storming" and operational creativity which seem to be flourishing in commercial circles, we don't know yet what kind of light to provide to meet the many moods and activities of man. And even granting that there is a glimmer of knowledge in this direction, it seems almost impossible not only to get lighting installations to see what you want to see, but to provide a further positive effect of creating an atmosphere that corresponds to the activity, whether it be working on a drawing boardwhere you need some visual relief once in a while-or listening to Beethoven, on records or in the concert hall.

It would not be overstating the case to say that a good many architects simply assume, during the decisive stages of planning, that a space will be lighted to some accepted level of illumination. Then with a "magic" omnipresent source of light, the architect expects that surfaces and edges will automatically assume certain values of lightness and darkness, with everything turning out according to "plan." The lighting engineer, on the other hand, seldom has an understanding of the implications of modern architectural concepts. Frequently he is absorbed in techniques and physical phenomena, such as brightness contrast, just for their own sake.

Recently, ARCHITECTURAL REC-ORD sponsored an informal discussion among a dozen architects and lighting engineers. After it was over I asked one of the engineers for his comments on the affair. His thoughts are included here, because with only slight modification, they could apply to almost any type of engineering in the building field. This is what he said:

"The matter of communication between professions is one of the big



"... who is absolutely sure what sort of sound is most desirable for music . . "



"The hemisphere can be corrected acoustically, but then visually it's no longer a hemisphere."

problems. The words used to describe an environment or effect didn't mean the same thing to me as they did to those who practice architecture. On the other hand, I felt that we in the lighting profession were also guilty of not getting our ideas across to architects. I sensed that some of the architects were using our jargon, but when they began to elaborate on the language and materials we use in lighting, it was evident that they didn't have a thorough understanding of the subject.

"Each group had difficulty in rationalizing why they had chosen to use certain materials, designs and fixtures in a given case. When the next job comes along, I doubt very much whether those ideas would be very helpful in solving problems. We need more examples of good design, with an understanding of why they are good from both points of view.

"Lighting equipment is frequently hidden because it is difficult for the architect to find fixtures that fill his needs. I certainly would like to see more architects design lighting equipment or build it in properly, so that it really becomes a part of the environment.

"Fixture designs are a real problem in our mass production era. It is difficult for the lighting engineer to design equipment to fit in the many situations faced by architects. Both groups can help by showing techniques where the lighting results can be provided without the machinery being a prominent part of the design."

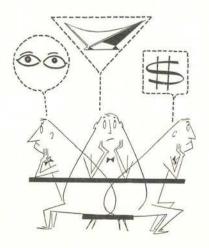
Another engineer, this time Felix Samuely* of London, has a philosophy well worth considering in the relationship of engineering to architecture:

"Long span bridges are the only type of construction where other considerations are so subordinated to the structure that it is almost correct to say that what is structurally best is best for the whole bridge. This

*Excerpts from, "The Structural Engineer and Architecture," AR, June 1957.

is what should distinguish the bridge engineer from the one who deals with other structures. The bridge engineer can start with an absolute picture of loads and deduce both shape and construction from it: the building engineer should look around all the time and make sure that what he produces is right in other respects. This is probably one of the greatest failings of a number of structural engineers—that they behave like bridge builders even when dealing with multistory buildings; that they consider their structure to be absolute; that they tend to recommend the cheapest structure although this may lead to a more expensive building, or, even if this is not the case, make the building as such uneconomical or unsightly.

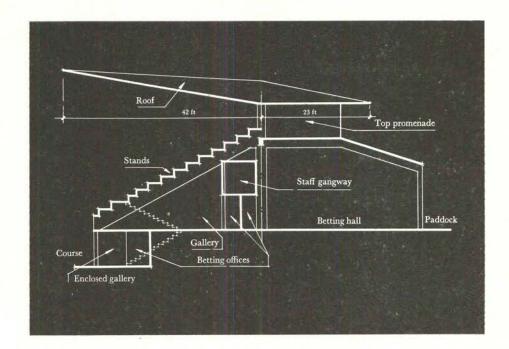
"Now a few words about the esthetic value of a structure in general, and the degree of functional expression possible in structure. Where structures are easy, even in relatively harassed times like the early Middle Ages, structure did not find its expression in the elevation of the building. Such simple houses as are left to us from the 12th Century do not base either elevation or inside treatment on the structure, and the fact that many more churches than houses remain to us from this period often misleads us into thinking that all medieval building was

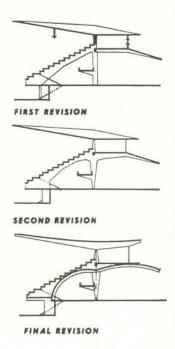


functional. Building a church of any magnitude was a structural feat, and to do anything but pure Gothic arches would have overtaxed the builders of that time or have made it impossible to carry out their intentions. We can learn from them for our own time that it is more likely that a structure becomes eminent in architectural treatment if it is in itself an extraordinary problem, while if other than structural considerations are more important it is likely that the structure would not be completely visible, or it may even disappear altogether. If a substantial bridge has anything but structural expression we should consider it universally ugly, but we do not often think of giving structural expression to a one or two-story house.

"Where an architect chooses to base the appearance of a building mainly or entirely on structure, the engineer's position and the possibilities for his contribution are fairly clear. He will have to show the architect several possibilities, and in designing these he will be well advised to relax and forget any mathematics, although it is quite likely that later one or the other of the suggestions will have to be dropped for reasons of practicability. Personally, I have often found that a completely visual approach often leads more quickly to the right shape than any amount of analysis. The more types of construction that can be put forward the better, and if there is a difference in cost this should be pointed out."

Responsibility for how engineering techniques are going to be used belongs to the architect—we all hope to create better buildings in all respects. But this demands then that the engineer not only be familiar with all of the new developments so that he can assimilate them into his practice, but that he be armed with the sort of knowledge that will help the architect select the appropriate system from standpoints of appearance, function, sound construction and economy.





Madrid Racecourse: Eduardo Torroja

Seldom do our great engineers trace in retrospect the creative process which produces their finest work. Here Torroja offers just such an insight into the thought sequence by which the famed Zarzuela Hippodrome evolved from initial concept to final form—and a rare opportunity to view the building in all its aspects, from the construction and testing of the model to the soaring drama of the completed structure

Excerpts from The Structures of Eduardo Torroja: An Autobiography of Engineering Accomplishment by Eduardo Torroja, with a foreword by Mario Salvadori. Copyright 1958, F. W. Dodge Corporation, New York

The functional requirements of the Zarzuela Hippodrome may be ascertained from the large cross section above: but, quite obviously, the first pattern was not very satisfactory. It is clear that the weight of the cantilevered roof over the stands will be greater than that of the counterweight over the top promenade. As the rear support will consequently be

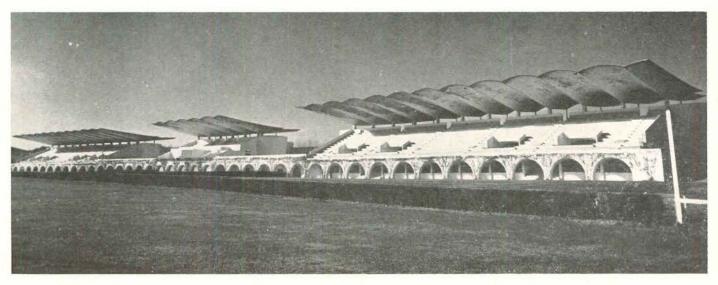
in tension it has to be a tie rather than a strut. The other support, which has to take the whole weight of the roof plus the load applied by the tie member, must thus serve as the main one. Because this support must be massive, there will be no difficulty in supporting the gangway on a structure cantilevered from it.

The weight of the roof over the betting hall will be largely offset by the tie member, and the load on its supporting columns will be slight. Therefore these columns can be omitted. On the race track side, supports are also

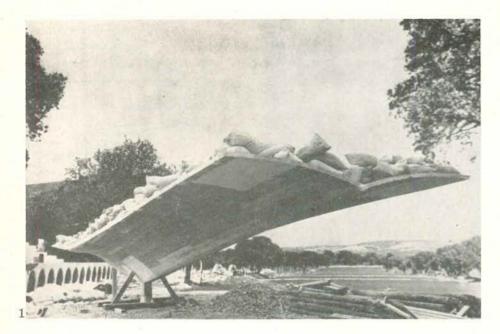
unnecessary because the height between the track and the underside of the stands will accommodate a cantilevered beam.

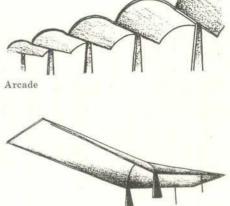
Thus the initial plan developed into the first revision. On close inspection it becomes clear that a rigid attachment of the roof at the main support is not very useful because the roof has good stability under the vertical forces provided by the main support and the tie. On the other hand it is essential that the main support be rigidly fixed at the promenade level.

The cantilever roof of the betting



Technical Roundup





Madrid Racecourse

hall must be flat over the central portion to provide a floor for the promenade. Also its depth has to increase toward the main support where bending moments are highest.

The main support, in turn, must resist these moments. Its full section could be extended to and fixed rigidly in the foundation in order to resist wind forces. However in such a structure the existence of two very rigid supports (the main one plus the bottom part of the stands) could restrain too severely the thermal expansion or shrinkage of the portal frame. Hence it seemed advisable to reduce the over-all rigidity of the main support without impairing its capacity to transmit horizontal shear to the promenade level. The provision of a flexible joint at the bottom of the support consequently seemed a natural, if not an essential, step.

Finally the scant height between the staff gangway and the structure supporting the stands made it necessary to reduce the depth of the latter as much as possible.

At this point the design (see second revision) was allowed to rest for a while. In the end, it was given a certain curvature of outline, which seemed so straightforward and suitable to the purpose that the imagination resisted any attempt at further improvements.

After having adopted curved outlines for the lower part of the structure, it seemed reasonable to give a curved form to the roof also. More was involved, however, than the mere running of an arch or vault from one support to the next as shown above. The main structural function of such vaults is that of arched cantilevers. And to meet the strength requirements, it is necessary that the heightspan ratio of the vaults be greatest over the main supports and decrease towards the free edges. The resulting surface could well have been a conoid but for the objection that the conoid is not very attractive. It seemed preferable to choose some other form of curvature. Among the better known ones, none seemed more adaptable than the hyperboloid; hence the cantilevered vaults have the shape of hyperboloidal sectors.

And now the question arises: Is the invention of an especially adapted form to solve a specific problem strictly an imaginative process, or is it the result of logical reasoning based on technical training? I do not think it is either of the two, but rather both together. To me it seems clear that the imagination can operate successfully only in conjunction with the basic principles that a long experience of technical creative work leaves in our personality so that these may later subconsciously condition our intuitive thought. But basic principles are not enough in themselves to create, critically and deductively, a new form. For this to emerge, a spark of imagination is required.



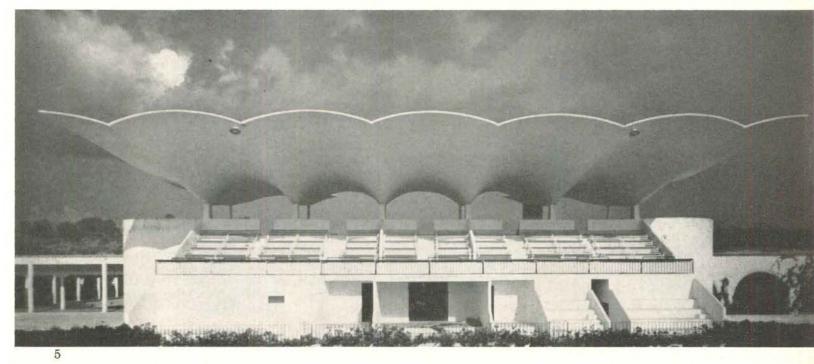


Conoid



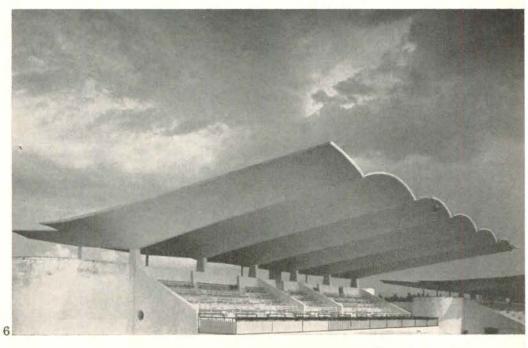








(1) A full-scale model built to test structural properties and construction procedures for the cantilevered vaults proved to be three times stronger than was necessary to meet predicted loads. (2) Reinforced echoes lines of stress in curved shell. To avoid danger of water seepage, joints occur along crown of lobes. (3) and (4) Interior views of gallery show main supports, stairs leading to stands. (5) and (6) Shells vary in thickness from 2 in. at the free edge to 5½ in. at the crown of the vaults over the main supports. Lower vaults are 2 in. thick throughout. Arcade which now appears to support lower part of stands (photo page 207) is false, was later added to the basic structure shown in these photos



ARCHITECTURAL RECORD June 1958

'Weatherstripping' for Metal Walls

At a recent conference, the spotlight that has been placed lately on curtain wall construction was narrowed to focus on a particuluar problem—sealing; and a particular solution to that problem—preformed resilient gaskets. The following report summarizes key points made in a discussion which covered topics ranging from the design and manufacture of preformed sealants to their application in the field

In spite of their relatively recent arrival on the building scene, preformed resilient gaskets have been making a strong bid for acceptance as one of the answers to the problem of sealing joints in metal walls. Several important curtain wall projects have been "weatherstripped" with resilient extrusions; several metal window manufacturers are using them in newly adopted "dry glazing" systems.

In an attempt to meet the resulting demand for information on preformed sealers, the Pawling Rubber Corporation recently sponsored a forum, moderated by Wayne Koppes, R.A., at which they were discussed in all their aspects—from design considerations to materials and manufacture to application at the site.

Sealing the Curtain Wall

Of all the problems in designing curtain walls, none is more acute than

glazing. The non-working joint occurs when two materials are sealed together without allowance for any relative movement between them. They are usually fastened mechanically, and because resiliency is not important, may be sealed with a nondrying caulking material.

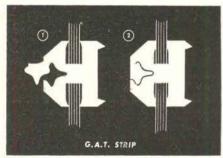
The working joint, on the other hand, provides for relative movement, as in the horizontal and vertical joints between individual frames. The metal work for such joints may vary, but in all cases it is essential that they keep out upward-blown and gravity water during all stages of expansion and contraction.

The *glazing detail* is the most complex of the three, since the glass in panels must be held in a continuous resilient setting which will cushion the glass against wind pressure and movement of the frame, and will withstand the heat and movement normal in a panel curtain wall.

the edges of the panel or glass light. This assembly is then placed into the frame, and the seal effected by creating pressure between the panel or glass light and the extruded channel.

One of the earliest seals of this type was developed by architect Eero Saarinen and the Inland Division of General Motors for the wall of the G. M. Technical Center. An adaptation of an automotive strip, the *Inlock* strip was a continuous gasket dimensioned to fit full into the rabbet. It was installed with a special tool which lifted the lip of the gasket over the edge of the glass, and the pressure seal was developed by squeezing a rubber filler strip into a slot in the gasket.

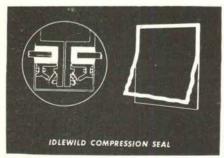
The General American Transportation Company (G. A. T.) strip, a 70 durometer neoprene extrusion produced by Industrial Rubber and Dryden Rubber Co., operates in a similar



Preformed channel developes pressure seal by positioning of integral locking wedge

that of sealing the various materials into a weathertight skin. Because the thin metals used are highly susceptible to temperature variations, a curtain wall facing west may go through, in a single day, a wider temperature range than is encountered by a masonry wall during a yearly cycle. Unless the resulting expansion and contraction is handled without restraint, the panels may oilcan, the frame may warp, the glass may break-and the wall will certainly leak. The problem is to engineer a wall which will allow the various components to come and go freely, but will still keep the weather out.

Weatherproofing a wall made up of panels and frames involves three sealing details: the non-working joint, the working joint and the

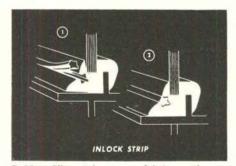


Movable pressure stop adjusts to compress glass between "legs' of neoprene U channel

Sealing Methods Developed to Date

In the past few years, several successful sealing methods have been developed which use preformed materials. Essentially these fall into two broad categories: the multiple method in which the preformed material is used simply to position the panel while the actual sealing is accomplished through the use of auxiliary materials; and the simple or compression method in which the preformed material is used both to position the panel and to effect the seal. Because of its economies of fabrication and installation, the latter method will be discussed in greater detail here.

Although many variations are possible, the simplest principle of the compression seal involves an extruded U channel which is slipped over



Rubber filler strip squeezed into continuous gasket develops desired compression seal

manner, except that the locking wedge is an integral part of the basic strip itself.

Still another basic type depends on an external pressure stop to effect a seal. For the Arrivals Building at New York International Airport, Skidmore, Owings & Merrill developed a continuous channel that was made slightly smaller than the glass, and snapped on as the lights were unpacked. The aluminum extrusions were designed so that a pressure stop could be taken up to a point at which the glass light would be compressed between two 1/8 in. layers of neoprene. Serrated surfaces were provided on both the pressure stop and the rabbet to give a series of high pressure lines across the face of the

Another example, the Pawling Rubber Corporation's "wet" seal channel, supplements the pressure seal with a two-sided adhesive seal by carrying within itself a reservoir of mastic sealing compound that is forced out during application.

In general, other than arranging for the application of pressure, design considerations for extruded preformed channels differ little from those for other sealing methods. Sealing space need not exceed 1/4 in. at the sill and 3/16 in. at jamb and head; and normal cross section dimensions for 1/4 in. glass or panels are 1/8 or 3/16 in. leg thickness with 1/8 in. connecting web. The height of the channel leg is usually 11/2 to 2 times the thickness of the glass or panel, but this dimension may be increased if trim area is desired or if it is necessary to accommodate movement of different materials in very large panels. Extreme wind load conditions may necessitate

In the field, non-working joints are not usually critical because their tolerances are affected by shop-fabrication and not by field variations. However at working joints, which are normally expansion joints either horizontally or vertically, allowance must be made not only for shop fabrication tolerances and field variations, but also for expansion and contraction. The amount needed for expansion and contraction will, of course, vary with the size of the unit and the type of material. For vertical and horizontal variations, at least 1/4 in. should be allowed; while an allowance of $\frac{1}{8}$ in. ($\pm\frac{1}{16}$ in.) should be made for shop fabrication variations.

In the case of glazing joints, since glass is normally installed in a shop-assembled unit, the primary concern is with shop fabrication errors, for which the allowance should be $\pm \frac{1}{16}$ in. In addition, variation in the cutting of the glass will be at least $\pm \frac{1}{16}$

the quite and design in. chan low-lose heat ons. No ince there appears that the twenty and the two sould be the two sould be the two sould be two so

which the ultimate product shape depends on both the shape of the die and the expansion and contraction characteristics of the compound itself. Today, two basic materials, polyvinyl chloride and neoprene, are commonly used in extruding preformed sealing strips and channels. Polyvinyl chloride, a thermoplas-

Polyvinyl chloride, a thermoplastic material, begins to cool and "set" immediately after being extruded, thus permitting the retention of quite complex detail in cross section design. Because there is no chemical change during this process, a reheating will effect its simple but efficient heat sealing characteristics.

Neoprene, on the other hand, is a thermo-setting material which requires vulcanization to effect a cure. As a result of the chemical change that takes place during this process, very complex cross section design and heat sealing are sacrificed, but good permanent elasticity is ob-

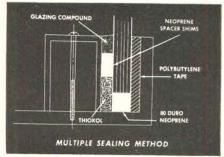


"Wet" seal combines pressure seal with twosided adhesive seal. A reservoir of mastic

AREA OF MASTIC SEAL

PAWLING RUBBER WET SEAL

sealing compound is carried within the channel, forced out when pressure is applied



Preformed sections position panel; seal is obtained through auxiliary materials

increasing the channel leg thickness to provide more resiliency.

The Site vs The Drawing Board

One of the potential drawbacks to the use of preformed sealants is the relatively limited range of joint dimensions over which they will function properly. A channel designed to develop an effective compression seal for a joint of a particular dimension may lose that effectiveness if the joint, as often happens, is actually larger or smaller. On a blueprint, a line or dimension indicating the location of an item on a building is fixed. On the job, the line may be a rough surface as much as several inches away from the location shown —and the variation must be absorbed in the joints between sections.

in. and possibly as much as ¼ in. The effects of dirt and debris which may enter the joint, and of slight twists or distortions of the frame members, must also be considered.

It is evident that if preformed sealants are to perform effectively, they must be designed to allow for these field variations, and the joints must be detailed in such a way that the gaskets can be properly compressed.

The Materials and Their Manufacture

Extrusion is the process of forcing a plastic material through a forming die to obtain a product of the desired shape—for example, toothpaste is extruded from a tube. Unlike molding, it is a "free forming" process in

tained instead.

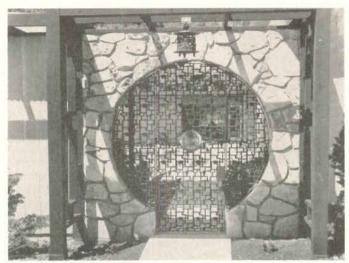
In certain types of glazing, where compression is not a factor, vinyl is very satisfactory. But in working joints or compression seal panel assembly and glazing, where pressure is the very essence of the seal, the vinyl compounds lack adequate compression set qualities and only neoprene has the necessary resiliency.

Most tolerances and construction variations can be accommodated by extruded neoprene channels through a combination of good cross section design and proper selection of hardness of stock. As a rule, harder compounds permit greater design flexibility but less desired initial deformation, while with softer compounds the reverse is true.

continued on page 240



Screen in "Casual" separates bank's reception and office areas



Moon gate in "De Stijl" lends privacy to an entrance court

A New Approach to Ornamental Metal

The growing trend towards dividing space by means more subtle than the solid wall has led, in many parts of the country, to an increased demand for wrought metal grilles and screens in patterns that will blend with and enhance the cleaner lines of contemporary architecture. One of the more noteworthy attempts to meet this demand is being made by a Fort Worth metal fabricator whose efforts to maintain high standards of design and workmanship in his ornamental iron products are backed up by a control program aimed at preventing duplication of designs in the same locale.

Designs in McKinley's contemporary series range from very open ones—such as the "Hourglass" pattern

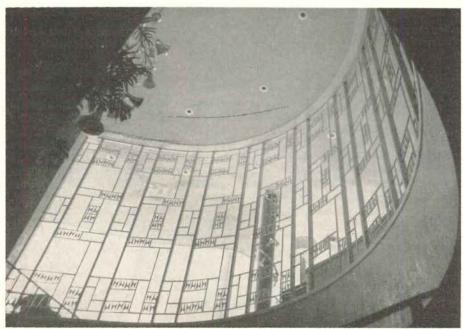
in which solid elements in a stylized hourglass shape are strung on slender metal rods—to the more tightly patterned "DeStijl" (above right). Most of them consist of relatively small units that lend themselves easily to combination in larger elements of widely varying sizes and shapes. Thus the same pattern may be used as a grille for wall or window openings, as a space divider, or even as an accent on an otherwise unrelieved wall.

Arrangement of the elements in a particular installation is, of course, subject to the architect's specifications, as is the metal and finish used. Iron and steel, prime coated with zinc chromate, are standard for all designs, but patterns can also be

executed in satin finished or polished aluminum, bronze or brass.

The control program mentioned previously is handled by maintaining a running file on all installations. McKinley Designs are offered for use only through registered architects and decorators, and orders for a given area are filled only if the design requested has not previously been used in that area. As company president DeWitt McKinley puts it, "It is our thinking that an architect using our 'Symmetry' design in an auditorium would not like to go around the corner and see the same design on a hamburger stand." McKinley Designs, Div. of McKinley Iron Works, P.O. Box 790, Fort Worth, Texas

more products on page 248



Open, random-patterned "Butterfly" screen divides upper and lower lobbies in Miami hotel



"Sophistication" keynotes a wedding chapel



"Butterfly" highlights a school entrance

Now ANEMOSTAT®

presents

Standardized
Constant Volume

The Anemostat Constant Volume
Turbulator is a standardized high capacity
dual duct unit handling from 800 to
7000 CFM. It provides an economical
solution to many air distribution problems
in which a large volume of air at controlled
volume or pressure, and temperature, is
involved.

With the Anemostat system, all thermal functions—heating—cooling—ventilating—are accomplished with air. Coils and resultant coil lag are eliminated together with required piping. Pressure losses are low and so are noise levels. Quality-built Anemostat Turbulators function automatically. They are easy to install, simple to maintain.

TURBULATORS

Anemostat Constant Volume Turbulators provide zoning up to 7000 CFM with one set of controls—save money by replacing coil reheat zone-control with all-air system.



New Bulletin gives important engineering data on Anemostat Constant Volume Turbulators. Write for your copy today.

ANEMOSTAT®

DRAFTLESS Aspirating AIR DIFFUSERS

ANEMOSTAT CORPORATION OF AMERICA

10 EAST 39th STREET, NEW YORK 16, N. Y.

REPRESENTATIVES IN PRINCIPAL CITIES

AC1363



Precast Floors and Roof on Precast Frame

The new Seahorse Hotel in Galveston, Texas is unusual because it is all precast concrete. The frame is formed of 51 concrete bents cast on the site and erected as shown in the photo below, left.

The second floor and roof are 6" x 16" precast

Flexicore units, which clear span an average of 13 feet between bents. The Flexicore slabs were left exposed for guest room and sun deck ceilings, and were cantilevered to provide covered walkways. Flexicore units are hollow-cast concrete slabs that can be designed for clear spans up to 26 feet for floors and 30 feet for roofs.

The Seahorse Hotel is owned by the Beach Corporation of Galveston. Thomas M. Price was the architect and R. L. Reid the structural engineer.

A six-page descriptive folder on this project showing plans, sections, and details is available to architects, engineers and contractors. Write or phone any of the manufacturers below or The Flexicore Co., Inc., Dayton, Ohio. Ask for Flexicore Facts No. 77.







Left: Erection of precast bent. Center: Flexicore slabs used for second floor and roof. Right: Flexicore exposed for guest room ceiling.

ALABAMA, Birmingham 1 The Alabama Cement Tile Co. FLORIDA, Tampa, PO 2189 American-Marietta Company ILLINOIS, Chicago, Franklin Pk. American-Marietta Company INDIANA, E. Chicago, PO 539 Calumet Flexicore Corporation MICHIGAN, Livonia, PO 2006 Price Brothers Company MINNESOTA, St. Paul E-4 Molin Concrete Products Co. MISSOURI, E. St. Louis, III. St. Louis Flexicore Inc.

flexicore

NEW JERSEY, Camden NORTH CAROLINA, Lilesville OHIO, Dayton 1, PO 825 Flexicore Div. of Camden Lime W. R. Bonsal Company, Inc. Price Brothers Company

NEW YORK, Buffalo 6 OHIO, Akron-Cleveland Anchor Concrete Products, Inc. Lake Erie Flex., Kent, Ohio

NEW YORK, New York 17 Flexicore Precast Inc.

OHIO, Columbus 22 Arrowcrete Corporation

PENNSYLVANIA, Monongahela Pittsburgh Flexicore Company

RHODE ISLAND, Lincoln **Durastone Flexicore Corporation**

TEXAS, Deer Park, LaPorte Rd. Flexicore of Texas, Inc. WEST VIRGINIA, Wheeling American-Marietta Company WISCONSIN, Beloit, PO 809 Mid-States Concrete Products Co. CANADA—Richvale, Ontario Murray Associates, Limited CANADA—Montreal, Quebec Creaghan & Archibald Ltd. CANADA, Woodstock, Ontario Schell Industries Ltd. CANADA, Supercrete Ltd. St. Boniface, Man.; Regina, Sask. PUERTO RICO, Hato Rey Flexicore Co. of Puerto Rico.

USEFUL CURVES AND CURVED SURFACES: 31-Hyperbolic Paraboloid

By SEYMOUR HOWARD, Architect, Associate Professor, Pratt Institute

The hyperbolic paraboloid, a quadric surface, is shown here in isometric and orthogonal projection. It is a doubly curved surface and therefore not developable. However, since it is ruled surface, it can easily be formed or molded in a framework of straight members. It can be generated in two ways:

A generating parabola (AOA in diagrams) is moved along another directrix parabola (BOB) in such a way that the successive positions of the plane of AOA are always parallel and the successive positions of the line AA are always parallel.

2. As a ruled surface: Given two straight lines (here 5'5' and 5 5) lying in a horizontal plane, two vertical planes containing these straight lines. Move one of these lines, say 5'5', called the generator, along the other (5 5), called the directrix, in such a way that its successive positions are always skew but always parallel to its initial position. Thus no plane can contain any two positions of the line 5'5'. These successive positions are the straight lines of one family, sometimes called a regulus. The other family is found by sliding the other straight line 5 5 along the line 5'5'.

The equation, with axes as shown.

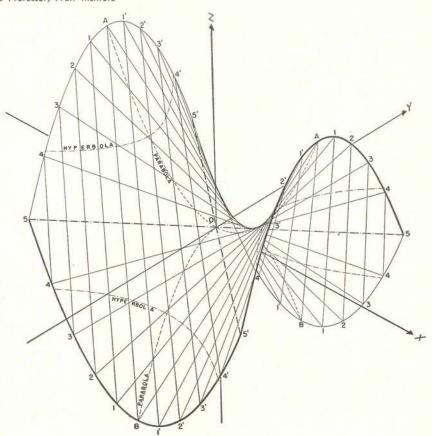
$$\frac{x^2}{a^2} - \frac{y^2}{b^2} = \frac{z}{c}$$

(See below for the equations referred to the asymptotes as axes.)

All sections containing the z axis are parabolas. As such a section is rotated about the z axis, from one principal plane (the xz) to the other (the yz), the parabolas become wider and wider, but all with their centers of curvature above the xy plane, until at the sections containing 5 5 or 5'5', the parabola becomes a straight line; as rotation continues, the parabolas have their centers of curvature below the xy plane, and become narrower until the section plane reaches the yz plane. All sections parallel to any given plane containing the z axis are identical parabolas (or a straight line).

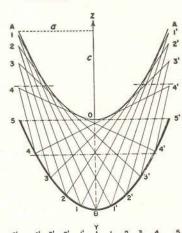
Every section parallel to the xy plane is a hyperbola. The lines 5'5' and 5 5 are the asymptotes of all of these hyperbolas. Every section above the xy plane will be a hyperbola with its axis parallel to the x axis; every section below the xy plane has its axis parallel to the y axis. The hyperbolas at the same distance above and below the xy plane (i.e. when z = +d or -d) are conjugate. On the xy plane the hyperbola becomes the pair of straight lines 5'5' and 5 5.

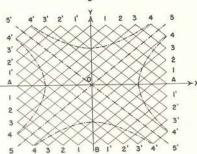
Every section which is not parallel to a plane containing the z axis is also a hyperbola (or a straight line). There are no elliptical or circular sections.



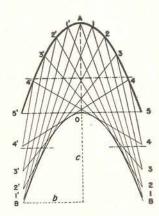
Isometric Projection







Plan



Y Z-Plane



USEFUL CURVES AND CURVED SURFACES: 32-Hyperbolic Paraboloid

By SEYMOUR HOWARD, Architect, Associate Professor, Pratt Institute

(Continued from Sheet 31)

Every contour or visible edge in axonometric or orthogonal projection is a parabola.

A plane can be passed through any two straight lines of different families or reguli; no plane can be passed through two straight lines of the same family. Through any point on the surface pass only two straight lines, one from each family. The tangent plane at that point is defined by these two straight lines.

Note that the plan projection consists of two families of parallel lines, forming a network of identical rhombuses. When a = b, the rhombus becomes a square. Note also that, although the angle between two straight lines of different families is constant in plan, it varies on the surface. (Therefore the hyperbolic paraboloid cannot be a minimal surface, since two such straight lines are the asymptotic lines at the point. On a minimal surface asymptotic lines must meet everywhere at right angles.) The lines of curvature bisect the angles between the straight lines on the surface.

TO DRAW: Given the rectangular plan with the parabolas 5'A5, 5A5', 5'B5 and 5B5' as the sides, divide each side into the same number of spaces (here 10) and draw the diagonal straight lines connecting corresponding points. These are the plan projections of the straight line generators of the surface. See Sheet 31.

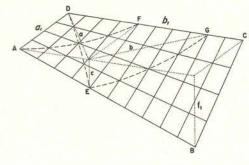
The numbered points can be used to construct the parabolas, in elevation, in isometric or other projection, fo!lowing the method of Sheet 31. These points are equidistant from the xz or yz planes; they are not equidistant along the true length of the parabolas.

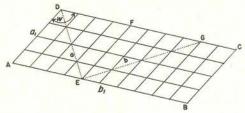
Draw the elevations (projections on the xz and yz planes) by establishing the height c of A above the xy plane and the equal height c of B below the xy plane. Join the corresponding points on the parabolas with straight lines. With the numbering system shown, for example, each point such as 2 is joined by two straight lines to the two nearest points also numbered 2, the point such as 2' is joined to the nearest points numbered 2'. These straight lines will generate the surface.

In elevation the straight lines are tangents to the contour parabola AOA; this parabola is identical to the parabola 5B5'. In axonometric projection (here an isometric) the contour is also always a parabola, which can be drawn from the straight line tangents.

Warped Parallelogram

Axonometric projection





Plan

The hyperboloic paraboloid as a warped parc!lelogram. A surface which is a parallelogram in plan can be set so that three corners (here A, C and D) are all in one plane (here horizontal), and the fourth corner (B) is not in the plane (here lowered). Divide the sides into equal spaces and join the pairs of opposite sides by straight lines. The surface will be a portion of a hyperbolic paraboloid.¹

Note 1. It is essential that the plan be a parallelogram. If this procedure is followed with a quadrilaterial with two pairs of adjacent sides of the same length, but with opposite sides not parallel (kite shaped), a portion of a hyperboloid of one sheet is generated. See later Time-Saver Standards for description.

Comparing this with the diagrams on Sheet 31, the lines AD and DC correspond to the lines 05 and 05'. The parabola DE corresponds to the parabola OB. The parabolas AF and EG correspond to the parabola AOA as it slides down OB; and their tangents are horizontal at the intersections with DE.

In writing the equation, the edges AD (length a_1) and DC (length b_1) are usually taken as axes, with the angle w between them. The equation is.

$$k \; x_1 \; y_1 \; \text{sin} \; w = z \; \; \text{Where} \; k = \frac{f}{\sigma_1 b_1 \; \text{sin} \; \; w}$$

Note that, since
$$c=\frac{\alpha_1}{b_1}f_1,\,k=\frac{c}{\alpha_1^2\sin\,w}$$

This therefore corresponds to the equation $x_1y_1=\alpha_1^2\frac{z}{c}$ (see below). The area of the plan projection of the parallelogram is α_1b_1 sin w.

When the edges of the parallelogram, corresponding to the principal asymptotes of the hyperbolic paraboloid, are taken as the axes, care must be used to compare the constants used in the two types of equation. The difference is basically the same as that between the equation of a hyperbola referred to its center line and that referred to its asymptotes. (When z=c, the section of the hyperbolic paraboloid is the hyperbola whose parameters are a and b.)



Raynor Doors are available in a wide range of sizes and styles, with unlimited mechanical adaptations. Shown here, Cities Service Oil Company's warehouse, Cicero, Illinois, where Raynor Model VL22 doors were installed. This Raynor vertical lift door is designed for use on commercial and industrial openings where ceiling is high and depth is limited. The vertical lift is also used where horizontal tracks would form an obstruction to traveling cranes, fork trucks and where additional height for storage is required. Galvanized hardware, 3-way stress construction in sections, "Lifetime Guarantee" Masonite panels are but a few of the Raynor features. The Raynor Engineering Department is available at all times to advise on any unusual door or installation. Shop drawings furnished free upon request.

When you specify . . .
write specifications that keep out failure . . .
RAYNOR OVERHEAD TYPE DOORS!

CITIES SERVICE OIL COMPANY 3737 South Cicero Ave., Cicero, Illinois

Designed By:

Raynor Distributor

4900 Main St., Skokie, Illinois



RAYNOR MFG. COMPANY

DIXON, ILLINOIS

Builders of a Complete Line of Overhead Type Doors



Find Your Raynor Distributor in the Yellow Pages

See Our Catalog in Sweets



USEFUL CURVES AND CURVED SURFACES: 33-Hyperbolic Paraboloid

By SEYMOUR HOWARD, Architect, Associate Professor, Pratt Institute

For the hyperbola, the two cases are:

1. The equilateral hyperbola (corresponding to rectangular hyperbolic paraboloid). In standard form, referred to x and y axes:

$$x^2 - y^2 = a^2 \text{ or } \frac{x^2}{a^2} - \frac{y^2}{a^2} = 1$$

Axes rotated through 45° to x_1 and y_1 :

$$x_1 y_1 = a_1^2$$
,

where

$$a_1 = \frac{a}{\sqrt{2}}$$

2. The general hyperbola. In standard form, referred to x and y axes:

$$\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$$

Axes changed from rectangular to oblique and rotated to \mathbf{x}_1 and \mathbf{y}_1

$$x_1 \ y_1 = \alpha^2_1$$

where

$$a_1 = \sqrt{a^2 + b^2}$$

Or, if $w = angle between x_1 and y_1$,

$$x_1 y_1 \sin w = \frac{ab}{2}$$

All equations referred to the asymptotes as axes can be checked by the fact that the area of the parallelogram made by the x_1 and y_1 , coordinates of any point on a hyperbola is constant. This is shown shaded on the diagrams.

The values of the functions of the angle w are:

$$\tan \frac{w}{2} = \frac{b}{a}$$

$$\tan w = \frac{2 \text{ ab}}{a^2 - b^2}$$

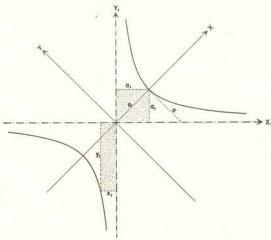
$$\label{eq:sinw} \sin\frac{w}{2} = \frac{b}{\sqrt{\alpha^2 + b^2}} \quad \text{sin } w = \, \frac{2 \, \alpha b}{\alpha^2 + b^2}$$

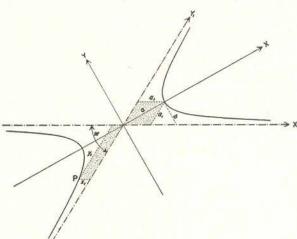
$$\cos\frac{w}{2} = \frac{\alpha}{\sqrt{\alpha^2 + b^2}} \quad \cos w = \frac{\alpha^2 - b^2}{\alpha^2 + b^2}$$

The drawing of hyperbolas may be simplified by using one of these two methods instead of those shown on Sheet 6.

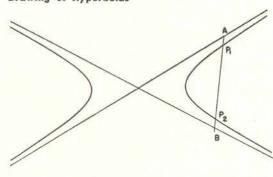
- 1. Secant or chord method. Given the two asymptotes as shown and any point P_1 (which may be the apex). Draw any secant line through P_1 , cutting the asymptotes at A and B. Measure BP_2 equal to AP_1 . P_2 is a point on the hyperbola. This process can be continued, using more lines through P_1 or through P_2 .
- 2. Parallelogram method. Given the apex A_1 and the apex A_2 and one point P. Draw the axis through A_1 A_2 . Draw PN perpendicular to the axis. Draw PB parallel to the axes and of length A_2N . Divide PB into any number of equal spaces (here four); divide PN into the same number of equal spaces. From A_1 , draw lines to the points on PN; from A_2 , draw lines to the points on PB. The intersections of corresponding lines are points on the hyperbola. (This is basically the same method as that shown on Sheet 3 for drawing the parabola.)

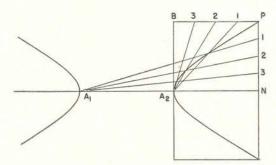
Two Cases For Hyperbola



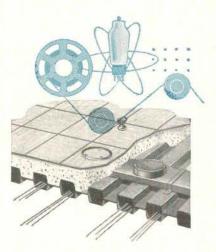


Drawing of Hyperbolas









Anticipating tomorrow's electrical load in New York's newest skyscraper

52-story Union Carbide Building will STAY modern with Milcor Celluflor — 900,000 square feet of it!

Today, offices use three times as much electricity as they did only 10 years ago. With the growing trend toward electronic office equipment, they're bound to use even more in the years ahead. That's why architects of the Union Carbide Building specified Milcor Celluffor.

It provides for complete electrification of floor areas. Cells spaced six inches o.c. serve as raceways to handle complex cable systems for power and communications. Outlets can be installed anywhere on the floor. They can be relocated or new ones added—or circuits can be changed—without costly alterations.

Electrical flexibility is just one advantage of Celluflor. Others include savings of steel, footings, construction time, and overhead. See Sweet's, section 2a/In — or write for catalog 270.

MILCOR® Celluflor

It pays . . . in many ways . . . to specify Milcor Steel Building Products

MILCOR ROOF DECK Sweet's, section 2f/InL MILCOR RIBFORM Sweet's, section 2h/In MILCOR WALL PANELS Sweet's, section 3b/In MILCOR CONVECTOR ENCLOSURE WALL UNITS Sweet's, section 30h/In MILCOR METAL TRIM Sweet's, section 12b/In

INLAND STEEL PRODUCTS COMPANY Member of the MAND Steel Family
DEPT. E, 4033 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.

221

Technical Roundup

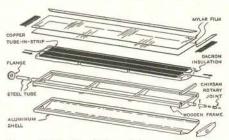
continued from page 211

Solar House Uses Heat Pumps for Summer Cooling, Auxiliary Heating The Solar House opened recently near Phoenix, Arizona, features a unique collection system, and an even more unique method of providing for summer cooling and auxiliary heating. Designed by Peter R. Lee, an undergraduate student at the University of Minnesota, the double-cored house was the winning entry in an international competition sponsored by the AFASE.

Its energy collection system consists of louvers mounted in parallel rows between the steel roof beams over the patios and central court. Two rows are used to heat domestic hot water; the remaining rows collect heat for the house and swimming pool.

The collectors themselves are aluminum shells stretched over wooden frames and insulated with Dacron batting. Blackened copper tubes set in blackened copper sheet are placed over the batting and double-glazed with transparent film. Solar heat absorbed by the copper collection surface is transferred to water circulating through the tubes. During the heating season, the collectors rotate to follow the sun; in the summer, they are turned aluminum side up to act as sunshades.

continued on page 230



Expanded Section Through Louver-Collector

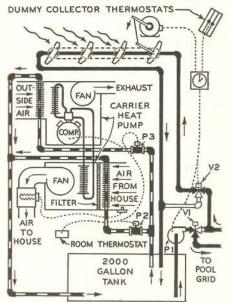
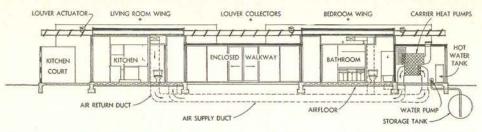
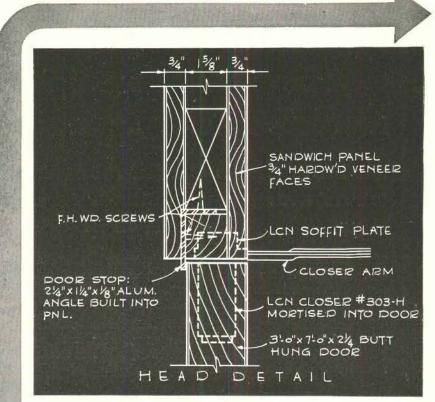


Diagram of Heating-Cooling System







CONSTRUCTION DETAILS

for LCN Closer Concealed-in-Door Shown on Opposite Page The LCN Series 302-303 Closer's Main Points:

- 1. An ideal closer for many interior doors
- Mechanism concealed within door; flat arm not prominent, and provides high closing power
- 3. Door is hung on regular butts
- 4. Closer is simple to install and to adjust
- 5. Hydraulic back-check protects walls, etc. on opening
- 6. Practically concealed control at little more than exposed closer cost

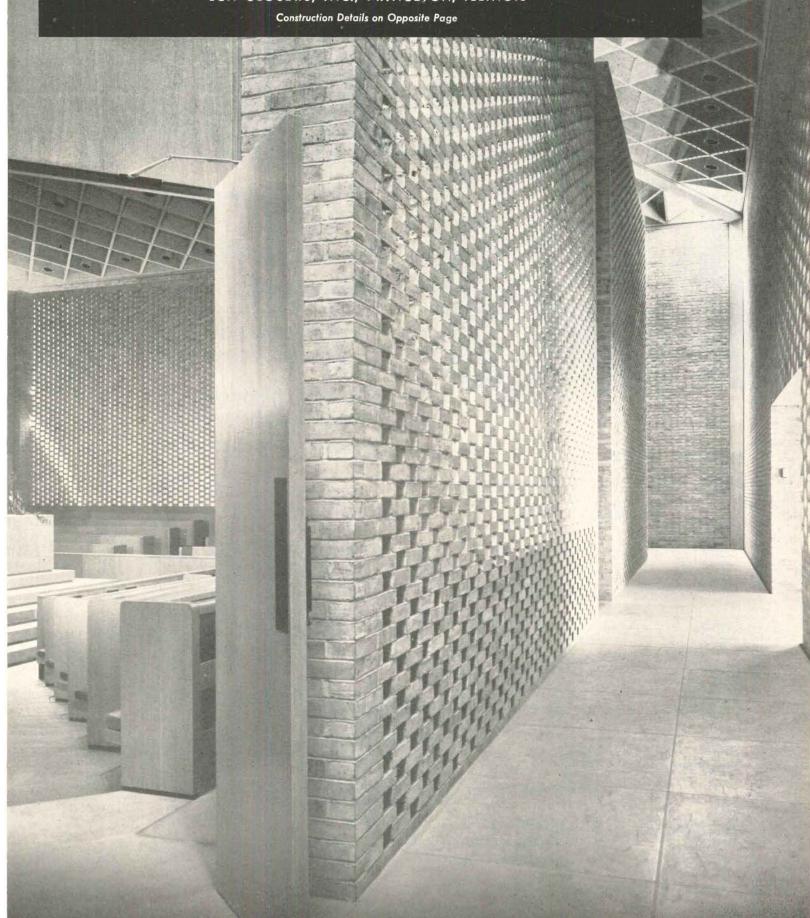
Complete Catalog on Request—No Obligation or See Sweet's 1958, Sec. 18e/La

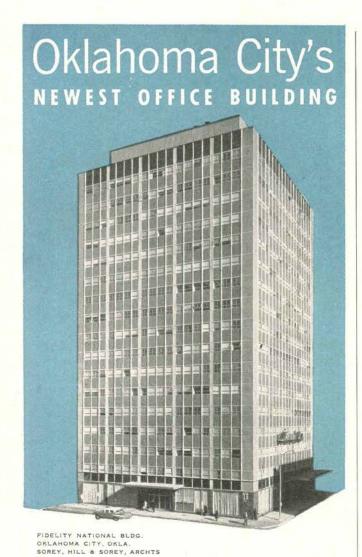
LCN CLOSERS, INC., PRINCETON, ILLINOIS

Canada: Lift Lock Hardware Industries, Ltd., Peterborough, Ontario



STEPHENS COLLEGE CHAPEL, COLUMBIA, MISSOURI LCN CLOSERS, INC., PRINCETON, ILLINOIS





includes the newest in vertical transportation systems montgomery®

Measured-Demand

OPERATORLESS

PASSENGER ELEVATORS

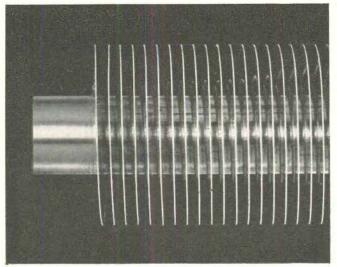
This modern installation includes the most advanced design Door, Load and Traffic Control, Signal and Communication systems that assure smooth, economical and safe operation at maximum efficiency.

Consult the yellow pages of your phone directory for name of your nearest Montgomery Representative or Branch.



montgomery elevator company
Moline, Illinois

Exclusive Manufacturers of Passenger and Freight Elevators Since 1892



AERDFIN Smooth-Fin Coils offer you

Greater Heat Transfer per sq. ft. of face area

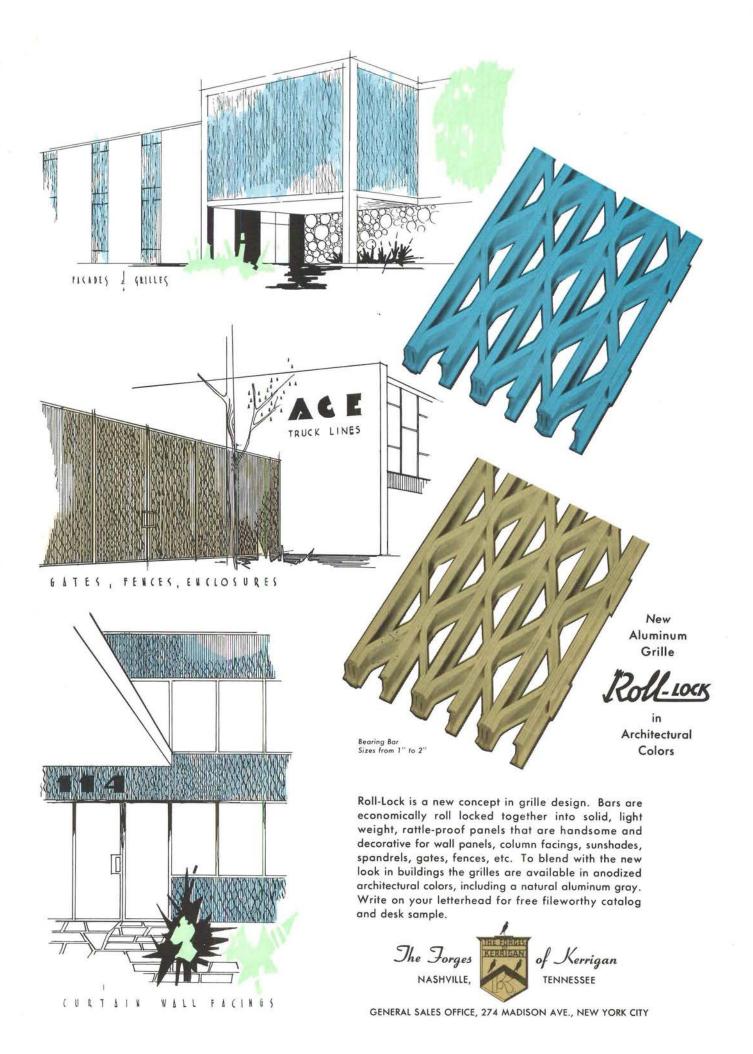
Lower Airway Resistance

-less power per c.f.m.

Aerofin smooth fins can be spaced as closely as 14 per inch with low air friction. Consequently, the heat-exchange capacity per square foot of face area is extremely high, and the use of high air velocities entirely practical. Tapered fin construction provides ample tube-contact surface so that the entire fin becomes effective transfer surface. Standardized encased units arranged for simple, quick, economical installation.



Aerofin is sold only by manufacturers of fan system apparatus. List on request.





Refectory of St. Clair's Novitiate, Rochester, Minnesota • Architects: Maguolo & Quick, AIA, St. Louis, Missouri

Terrazzo Crosses this Floor

Handsomely, Permanently

Durable enough for an institutional refectory—beautiful enough
to underscore the religious atmosphere—that's Terrazzo, the contemporary
classic. An ageless material at work in modern times, Terrazzo keeps
its original good looks for the life of the building it graces.

Initial cost is more than offset by the near absence of repair or replacement
Terrazzo's smooth jointless surface cleans readily, is hard to stain,
requires no refinishing, no painting, no waxing. Terrazzo is marble hard and
concrete durable, yet it's easy to walk on, less slippery than waxed floors.

Specify any design or color imaginable for walls, stairs and wainscots.
Terrazzo comes through beautifully. For detailed information write the
Association in Washington, D. C. AIA Kit sent upon request.

Catalogued in Sweet's.

Member Producers' Council

THE NATIONAL TERRAZZO AND MOSAIC ASSOCIATION • 404 Sheraton Building, 711 14th St., N.W., Washington 5, D. C.

OW. CHOOSE FROM A RAINBOW

OF COLOR IN LIGHTING!

A wide choice of colors, diffusing media and shapes available in one ceiling system for complete aesthetic freedom in lighting design

View of test ceiling at our plant.

Electro Silv-A-King LUMENAREA ceiling system

The simplest, most versatile installation system ever developed!

Here is the world's first large area lighting system that gives you practically unlimited variety of form, as well as color and diffusing media. Now you can design lighting layouts, from the conventional to the abstract, curved or straight in any combination of louver, molded forms, glass and accent lighting . . . in soft pastel pink, blue, green and white . . . in a ceiling completely free of any visible screws, bolts or mechanical devices.

And with all that, the new Electro Silv-A-King LumenArea System, incorporates Slide Adjustment and Adjusto-Lok hanging devices which adjust for spacing and depth without tools!

Design of our Overlap Polycube® Louver (1/2" cube), on 2-ft. wide modules eliminates the necessity for crossbars, regardless of how long the run . . . also provides 45° x 45° shielding for optimum seeing comfort.





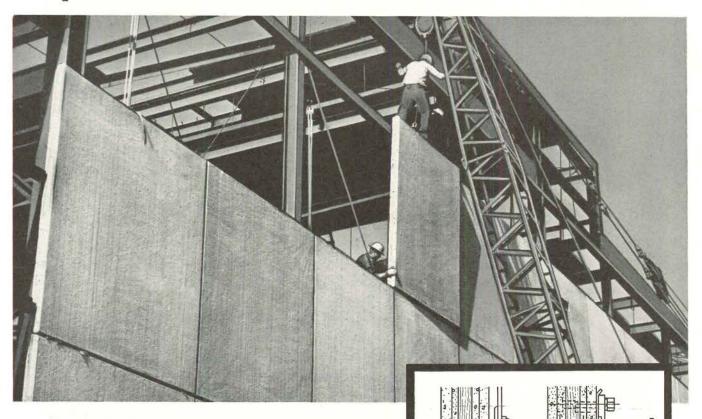


Dished plexiglas ceiling with perimeter of green "Polycube" Louvers helps give this office a distinctive appearance.

For your Free Specification and Data Bulletin, write to:

Electro Silv-A-King Corporation, 1535 SO. PAULINA ST., CHICAGO 8, ILL. . SPRUCE & WATER STS., READING, PA.

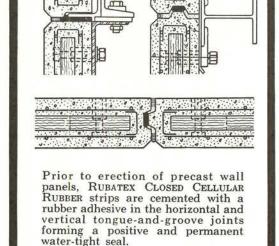
Rubatex insures water-tightness in precast Marietta sandwich wall



Marietta Concrete Corporation, Marietta, Ohio (one of the country's largest producers of concrete wall panels) has found Rubatex to be the ideal weather-barrier seal for their precast concrete wall panel construction in many industrial and commercial structures...including the \$3,000,000 Goodyear Research and Development Center; Sears Roebuck Shopping Center, Nashville, Tenn.; and the National Security Administration Building, Fort Meade, Md.—the world's largest building of concrete panel construction.

Rubatex's unique closed cellular structure with inert nitrogen retained within the cells under pressure provides . . . high compressive strength and resiliency even at low temperatures . . . excellent insulation properties . . . zero moisture absorption . . . plus resistance to oxidation.

RUBATEX is soft, flexible, easy to work with and strips can be economically cut from sheet stock.



RUBATEX DIVISION, Dept. AR-11
GREAT AMERICAN INDUSTRIES, INC.
Bedford, Virginia



For full details and sample of Rubatex Closed Cellular Rubber — print your name in space below, attach to your company letterhead and mail to us.

Name

Send for Free Sample and Data Sheets

RUBATEX

CLOSED CELLULAR RUBBER



Seamloc 15 AT

SHREVE, CRUMP & LOW'S

The interior beauty of Shreve, Crump & Low Company, one of America's finest jewelers, is enhanced by the luxurious Seamloc carpeting.

The soft blue of the carpet and the indirect lighting of the displays combine to give an overall effect quite in keeping with the quality for which Shreve's is famous.

Decorators and designers throughout the country specify Seamloc carpet for installations of all types because:

SEAMLOC's thirty-three beautiful decorator colors meet the demands of almost any color scheme.

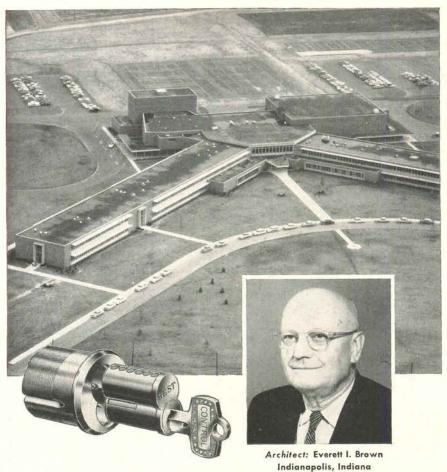
SEAMLOC carpet can be inlaid with slogans, trade marks or emblems without custom weaving.

SEAMLOC can be cut to any shape, recut or renewed at heavy traffic areas easily, economically. Seamloc's edges cannot ravel . . . need no binding.

SEAMLOC is economical too. The standard four and one-half foot width joins together to make any size carpet with almost no waste.

For your next floor covering job specify SEAMLOC, the best in carpet.

For further details and color samples see your nearest Seamloc dealer or write



SPECIFIED

In Indiana's New North Central High School— BEST Locks with the *interchangeable core**

Handsome, new North Central High School, in Washington Township near Indianapolis, harmoniously blends design beauty with functional service. In planning the school's locking system, attention was focused not only on physical security and appearance, but also upon future maintenance ease and economy.

An all-Best locking system was decided upon because it minimizes cost and time required for lock changes . . . also provides one simplified masterkey system throughout the school and entire Township school system. Future buildings can easily be added to this single masterkey system. The Best system reduces total number of keys needed, allows instant, economical lock changes and assures maximum physical security.

*The interchangeable core is a patented, key-removable pintumbler lock which can be locked or unlocked with a regular operating key. This core may be removed with a special "Control Key" (used only to remove and replace cores), effecting instant change of locks. For complete details, see Sweet's Architectural File 18e or write



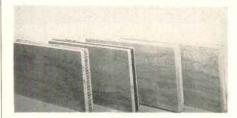
Dept. A-3

Best Universal Lock Co., Inc. 10 N. Senate Ave., Indianapolis 4, Indiana

Technical Roundup

As shown in the heating-cooling system diagram below, water from an underground storage tank is pumped to the collectors via a grid embedded beneath the swimming pool, heated, and returned to the tank. When heat is called for, hot water from the tank is delivered to a coil in the intake side of the heat pump's indoor unit, and used to warm air which is then circulated through the house. If auxiliary heating is required, heated refrigerant replaces the hot water in the coil. For greater efficiency, a pre-heater coil on the pump's outdoor (compressor) unit uses water from the storage tank-too cool to heat the house, but still warmer than the outside air—to heat the refrigerant.

In summer, the heat pump is reversed, and cold refrigerant is supplied to the indoor unit to cool air entering the house. To reduce the compressor's power load, water from the storage tank, cooled by aeration in the swimming pool, is used to precool the air around the heat pump's external coil.



Research to Test Properties and Potential of Thin Marble Veneers In an attempt to adapt thin ($\frac{7}{8}$ to 2 in.) marble veneers to present-day construction techniques, the National Association of Marble Producers is currently sponsoring a program of product research and development at the Armour Research Foundation.

The original objective of the program was to gather data on properties and uses of marble for compilation in an architectural handbook. The data on physical properties has now been nearly completed for all major marble producing areas, and work is well under way on the use of marble for curtain walls. The studies on both structural and non-structural panels cover (1) core materials for laminated sandwich panels, (2) suitable adhesives and (3) metal and fire resistant board interior facings, with supplementary investigations of sealants and panel framing

The remainder of the study will be devoted to work on surface treatments and exterior veneers.

more roundup on page 234



Setting New High
Standards of
Lighting Efficiency
and Visual Comfort

NO. 6010 NO. 6011

*(R)

• One Piece— 4-Foot Length...

- Prismatic Acrylic
 Plastic...
 - Unique Concave Shape...
 - For 1-Foot-Wide Fluorescent Luminaires



Write today for engineering data and list of franchised lens distributors

This new 4-foot Holophane CONTROLENS offers advantages that are years ahead—that set it apart from ordinary diffusing elements... Made of crystal-clear acrylic plastic... light in weight ... free from discoloration... retains its shape... Its prismatic construction and concave contour assure exceptional lighting performance — directing maximum illumination to desired areas, minimizing brightness and glare... Modern and streamlined in design, it enhances the distinction of offices, banks, stores, showrooms — wherever the finest fluorescent lighting is indicated... Holophane lens distributors provide luminaires carrying these CONTROLENS. Specify 6010 for plaster and concealed T-Bar ceilings; 6011 for inverted grid ceilings.

HOLOPHANE COMPANY, INC.

Lighting Authorities Since 1898 • 342 MADISON AVENUE • NEW YORK 17, N. Y.
THE HOLOPHANE CO., LTD., 418 KIPLING AVE. SO., TORONTO 14, ONTARIO

Only Redwood

from the forever living forests

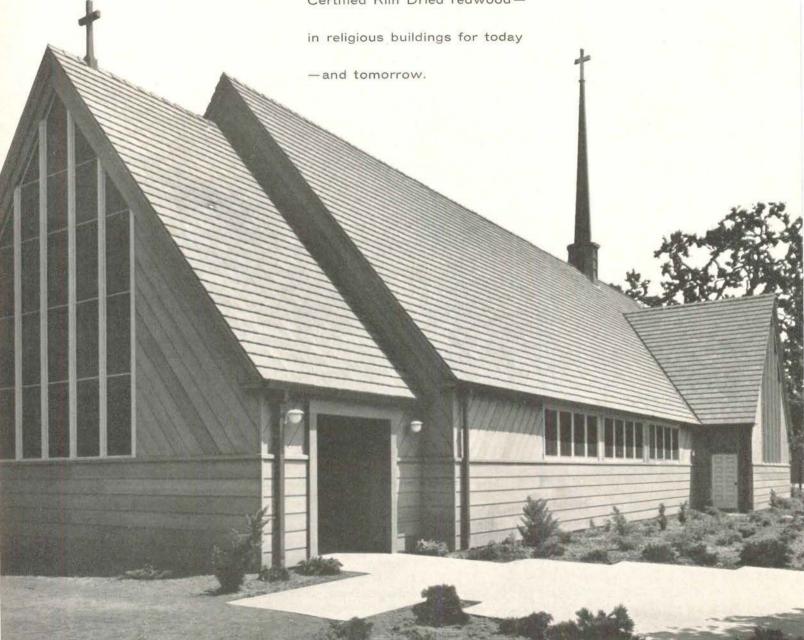
of California is so appropriate to

religious buildings. Specify both

siding and paneling of handsome,

durable, versatile California redwood—

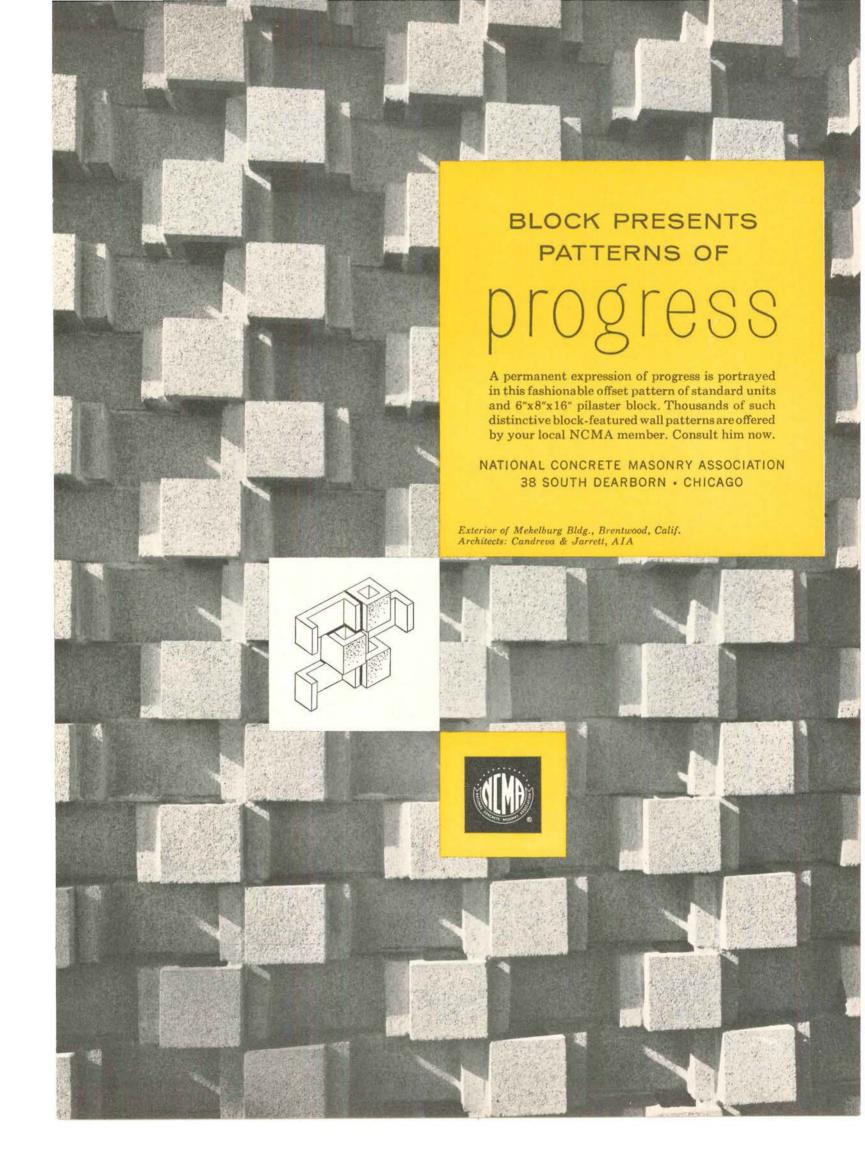
Certified Kiln Dried redwood—

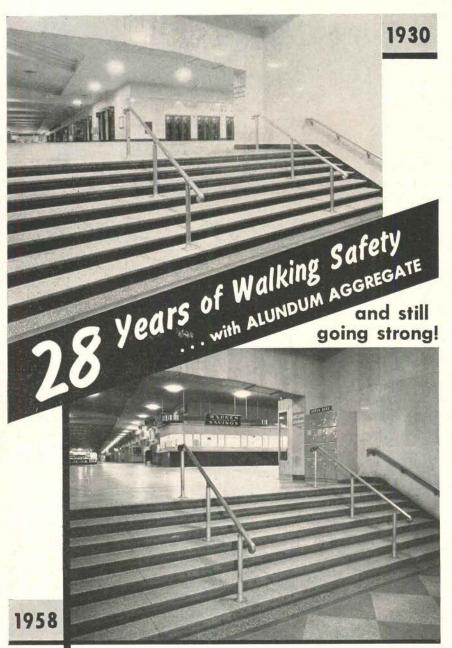


Kingsford Jones, Architect • William Starell, Associate Designer

Photo: Lionel T. Berryhi







Atlantic Avenue Entrance South Station, Boston, Mass.

South Station, Boston is one of the country's busiest railroad terminals. Countless thousands upon thousands of travelers and commuters have gone in and out of this Atlantic Avenue entrance since these precast ALUNDUM Aggregate treads were made and installed 28 years ago by the DePaoli Mosaic Company. Their surface has not lost one iota of its non-slip effectiveness and wear has been insignificant as you can see by this unretouched photograph taken in April

The walking safety provided by these ALUNDUM terrazzo treads is just as positive in stormy weather when water and snow are tracked in from the street. And there are no grooves nor corrugations to cause tripping.

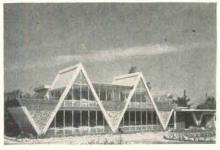
> Catalog 1935R gives complete details about ALUNDUM Aggregate for terrazzo and cement also in SWEETS.



NORTON COMPANY WORCESTER 6, MASS.

ALUNDUM AGGREGATE for Terrazzo and Cement . ALUNDUM STAIR and FLOOR TILE

Technical Roundup



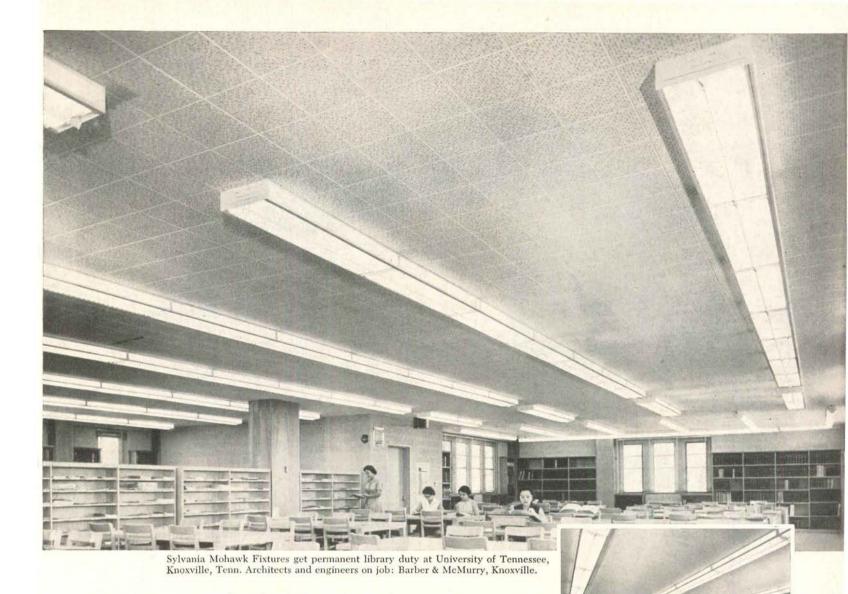
Prestressed Concrete Triangles Give Column-Free Restaurant Space

To meet the clients' request for a structure "out of this world in appearance, but in this world in cost," Architect John Edwin May, A.I.A., designed a highway restaurant framed by a series of concrete triangles. Prestressed concrete bents were leaned together and the resulting triangles tied by a second floor running through the center. The prestressed concrete beams supporting the second floor slab were welded to plates in the triangular bents, thus eliminating the need for columns below. The 5500 sq ft building rests on concrete pads and bearing plates at six points. The walls, all non-loadbearing, are filled in with Kalwall, glass, and rough coral rock.



Stressed-Skin Aluminum Dome to House 'Theater in the Round'

Since its introduction early last year, Kaiser Aluminum's stressed-skin dome has been used for projects ranging from auditoriums to banks to factories. Its latest use is as the core of a \$500,000 "Casa Manana" project designed by A. George King & Associates for the Fort Worth Opera Association. The dome itself will be the key unit in a complex that will also include wings housing dressing rooms, offices, a property shop, and wardrobe and rehearsal areas. The circular stage, 32 ft in diameter, and an adjacent orchestra pit will be located in the center of the dome to allow an uninterrupted view from every seat. The stage will be removable and the pit can be covered to adapt the space to activities other than "theater in the round."



Sylvania Mohawk Fixtures . . .

the modern approach to surface-mounted lighting

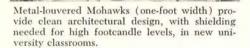
No matter how low the ceiling—you can always find room for quality lighting with Sylvania's 3¾"-deep Mohawk. In long, lean rectangles or shallow square designs, these new fixtures have a clean and classic look about them that *is* tomorrow in good lighting.

In providing more than two dozen different lighting design combinations, with only a few standardized components, the Mohawk Series is one of the most complete fixture lines of its type today. It gives you a

custom approach to lighting . . . choice of 2 standard widths, 2-, 4-, or 8-foot lengths, and 5 different types of shielding.

Ask your local Sylvania Fixture Specialist for his demonstration of the Mohawk's many short- and long-term cost-saving features. And write direct for Free booklet V-100 with complete specification data.

SYLVANIA ELECTRIC PRODUCTS INC.
Dept. F20. Lighting Division – Fixtures
One 48th Street, Wheeling, W. Va.



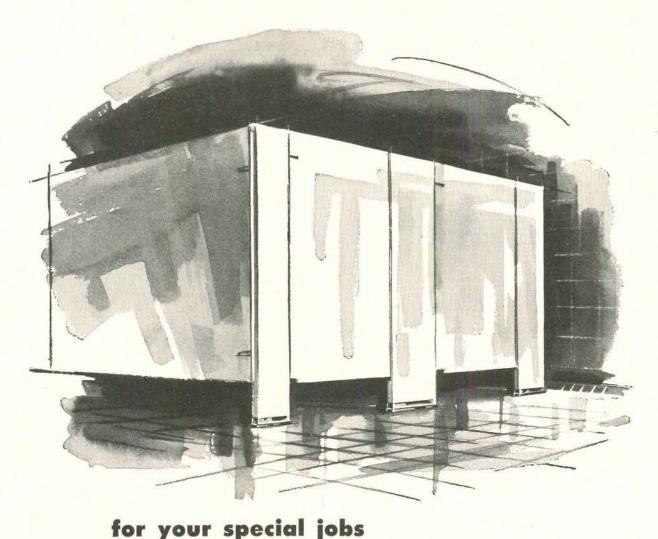


Dished contour plastic shielding on Mohawk provides attractive lighting design for corridors, Installation by Broadway Electric Company,

SYLVANIA

Fluorescent Lighting Fixtures and Systems

Best fixture value in every price range



... lustrous, lasting stainless steel toilet compartments by Nicholson

Construction features:

- panels and doors are 1" thick ... 2 sheets of 22 gauge stainless steel 18-8 type 302 with #4 satin finish.
- pilasters are 2 sheets of 18 gauge stainless steel 18-8 type 302 with #4 satin finish.
- formed edges are sealed with 20 gauge stainless steel continuous locking strips that are Heli-Arc welded.

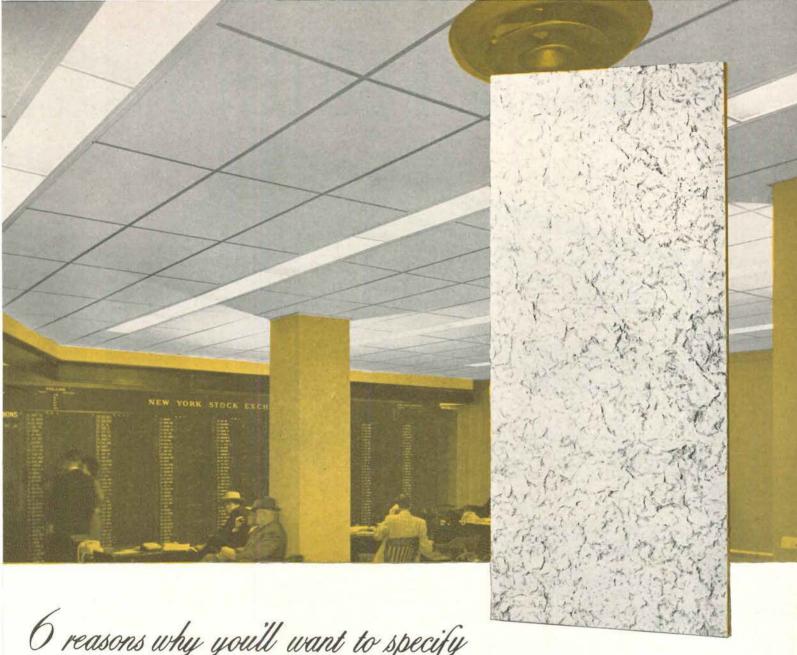


Specify the best for the toilet compartments in your "special" jobs—specify stainless steel. It has the undeniable quality and appearance that belong with the job that's specified "best throughout".

Nicholson stainless steel toilet compartments do cost more than conventional ones . . . but they're better looking . . . last a lifetime . . . and are actually more economical over the long haul.

You can count on low installation costs when you use any Nicholson Toilet Compartment. They are designed and constructed for easy adjustment to location contours and for fast assembly.

Specify Nicholson . . . W. H. Nicholson and Company, 12 Oregon St., Wilkes-Barre, Pa. Sales and Engineering offices in 98 principal cities.



6 reasons why you'll want to specify

New Ultracoustic Ceiling Board



- 1. NEW BEAUTY—the only glass fiber ceiling board with beautiful travertine texture!
- 2. INCOMBUSTIBILITY-rated Class A according to Federal Specification SS-A-118b.
- 3. SOUND ABSORPTION-.85 NRC.
- 4. K FACTOR-.23 Btu at 75° mean temperature.
- 5. LIGHT REFLECTION-85% average.
- 6. RESILIENT TOUGHNESS-dimensionally stable, yet bends without breaking. Easy to install. Easy to remove and replace for access to area above ceiling.

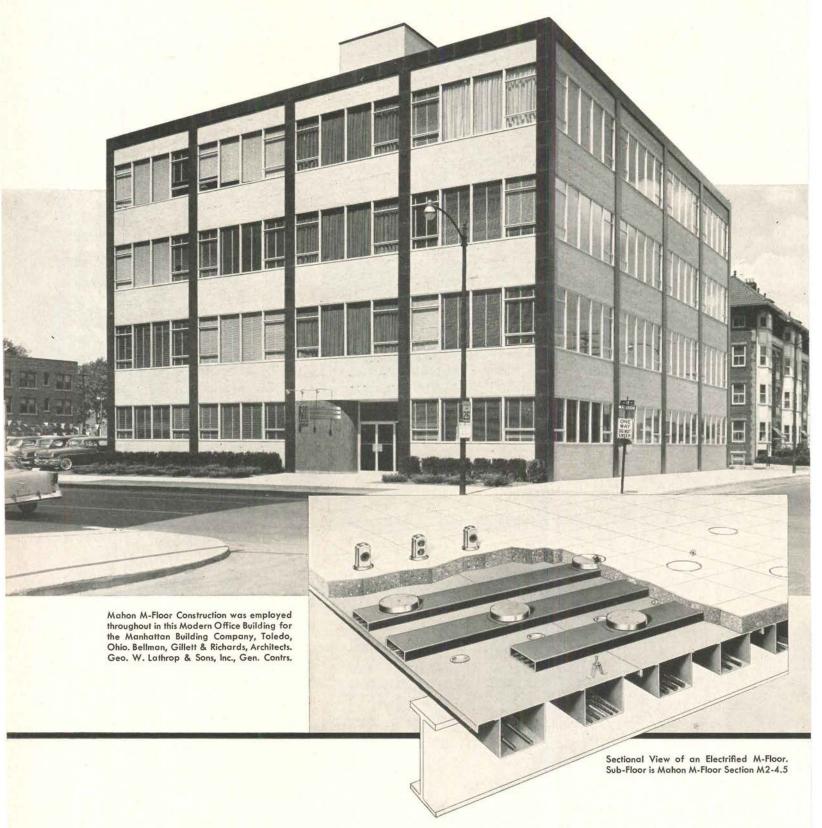
For complete data, see Sweet's File 11a/Gu, or write for 4-color AIA brochure today.

Manufacturing Company



Thermal and acoustical glass fiber insulation . Pipe couplings and fittings . Molded glass fiber pipe insulation

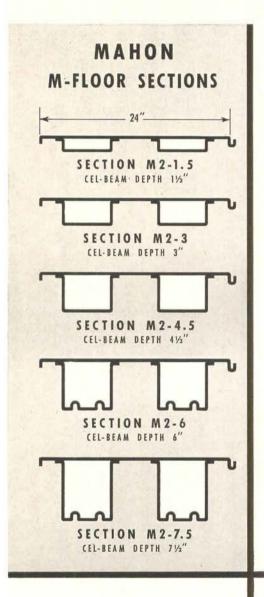
Mahon M-FLOORS Give You



Serving the Construction Industry Through Fabrication of Structural Steel, Steel Plate Components, and Building Products

Electrical Raceways Under Every Sq. Ft. of Floor Surface—Provide Greater Raceway Capacity!

Deep M-Floor Sections on Longer Spans Save Structural Steel...Reduce the Over-all Weight of a Building



☆ OTHER MAHON BUILDING PRODUCTS and SERVICES:

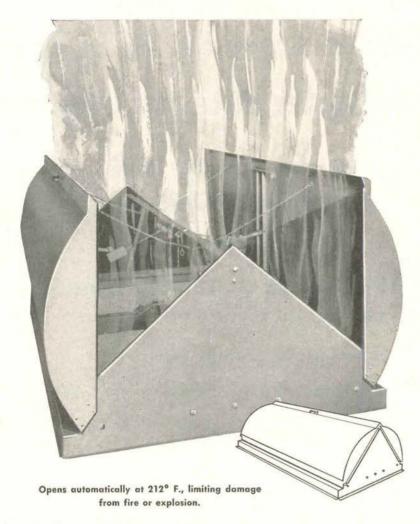
- Insulated Metal Curtain Walls
- Underwriters' Rated Metalclad Fire Walls
- Rolling Steel Doors (Standard or Underwriters' Labeled)
- Steel Roof Deck
- Long Span M-Decks (Cellular or Open Beam)
- Permanent Concrete Floor Forms
- Acoustical and Troffer Forms
- Acoustical Metal Walls and Partitions
- Acoustical Metal Ceilings
- Structural Steel—Fabrication and Erection
- Steel Plate Components—Riveted or Welded

☆ For INFORMATION See SWEET'S FILES or Write for Catalogues

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

of Steel and Aluminum

MAHON



It's cheaper to burn up the sky than a plant!

When fire or explosion strikes a plant, Swartwout Pyrojectors open automatically . . . eject heat, flames, smoke through the roof instead of spreading them across the building. Pyrojector protection gives extra time for fire fighting equipment to arrive.

Pyrojectors are installed and operate entirely above roof level, yet extend only 28" above curb. Fusible link mechanism opens 28 square foot vent when temperature reaches 212° F. Can also be opened instantaneously with release chain or from roof. Well insulated and weather tight, Pyrojectors can be opened for extra ventilation in summer.

Find how you can design extra protection into every plant with Swartwout Pyrojectors. Write for complete information today.



Technical Roundup

'Weatherstripping'

continued from page 211

Specifying the Compression Seal While rubber in compression would seem to have the best chance of meeting all the requirements for a permanently resilient glazing set and joint seal in modern curtain wall construction, all rubbers are not completely suitable. Some are effected by sunlight and weather; others are subject to cold flow or permanent deformation under load.

Neoprene, which has come to be almost synonymous with "preformed resilient gaskets," is similar to natural rubber in its high strength, abrasion resistance, flexibility and resilience, as well as its compression set characteristics. It differs from natural rubber in its outstanding weather resistance and its proven ability to give long term service in a variety of severe exposure conditions.

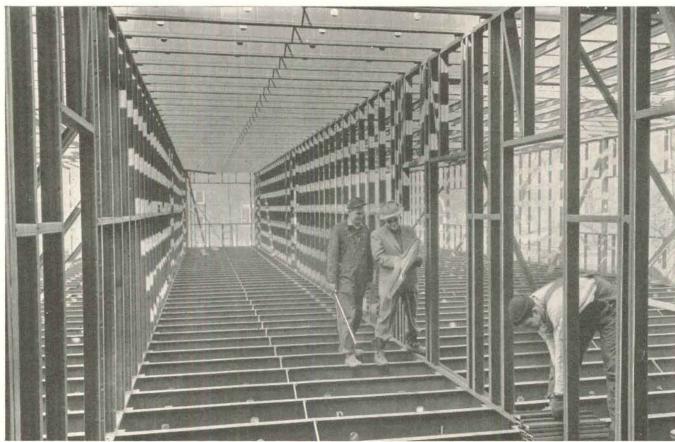
Like many other construction materials, it is available in a number of qualities, and should be purchased to specification. Standard ASTM testing methods for rubber products cover the following criteria for measuring the quality of preformed neoprene strips:

Hardness: A guide to the load deflection characteristics, usually measured on a durometer scale. (Low durometer materials are soft; high durometer materials, hard.) Tensile strength: Generally (though not always) a guide to the quality of the compound. High tensile strength implies high quality.

Accelerated aging tests: Indicate how the original physical properties are retained after long-term aging. Compression set: Permanent retention of sealing pressure is directly associated with stress relaxation. Low temperature flexibility: Standard tests methods are available.

Weather resistance: The test for exposure to ozone of an elastomer under stress is widely accepted.

Guest moderator Wayne Koppes, R. A., refereed the preceding exchange between an audience composed primarily of architects and builders, and a panel of speakers which included: A. P. DeVito, R. A., Skidmore, Owings & Merrill; Herbert F. Kleinhans, Manager Product Development, Pawling Rubber Corp.; R. H. Barton, Technical Advisor, Elastomers Div., E. I. du Pont de Nemours Co.; Norman S. Collyer, President, F. H. Sparks, Co.; and O. F. Wenzler, Manager Sales Technical Service, Libbey-Owens-Ford Glass Co.



Much of the framing for Friedens Lutheran School, Kenosha, Wisconsin, was shop fabricated ready to be set into place.

With Stran-Steel framing— KENOSHA SCHOOL GOES UP FAST TO SAVE COSTS

In less than 1,600 man-hours, the 8-room addition to Friedens Lutheran School, Kenosha, Wisconsin, was closed in, ready for interior finishing, according to architect Walter Trapp, A.I.A.

"We selected Stran-Steel nailable joists, studs and wide flange beams partly because of flexibility, but principally because of speed of erection," Mr. Trapp states, "for fast erection means savings many ways. For instance, we can fasten channel runners directly to the joists. Then acoustical ceiling panels just snap into place. It's really easy and saves a lot. And by using the Stran-Steel lightweight framing system we were able to reduce foundation material and labor costs at least 20 percent."

With a Stran-Steel building system you can stay ahead of construction crews by shop fabricating sections and delivering them to the site as needed. At the Friedens School

Stran-Satin curtain walls helped speed erection of this 8-room addition to Friedens School.

all the non-bearing walls were pre-fabricated and dropped into place as the floors were completed. Plumbing and electrical work is simplified, too, because joists and studs are punched to receive piping and wiring.

Save your clients money by saving construction time. Allsteel Stran-Steel components are easy to handle, easy to use. Structures go up fast. And the job you build with a Stran-Steel framing system is durable, fire-safe and flexible in design. Send the coupon for more facts.

Stran-Steel Architectural Products Mean Construction Savings For You



101212 308 210D2 REAMS

Dept. 23-51
STRAN-STEEL CORPORATION



| Stran-Steel Corpo | ration, Dept. 23-51 | |
|--------------------|------------------------------------|--|
| Detroit 29, Michig | gan | |
| Please send you | r Architectural Products Catalogs. | |
| Name | | |
| | Phone | |
| Title | rnone | |
| 277550 | r.none | |
| Firm | | |

241

Another "first" from Roddis

NOW...a flush veneered C-LABEL fire door!

Now architects can get all the beauty of a flush veneered wood door . . . 3/4 hour Underwriters approved . . . with Light Openings as large as 30"x40". Every door guaranteed for the life of the installation.

From the advanced door research program of Roddis comes another development of importance to America's architects—

Roddis now makes available, for the first time in the industry, an all-wood, flush veneered, ¾ hour fire door. It's the new Golden Dowel C-label Fire Door!

For use in interior walls of corridors, or for room partitions, this C-label door gives you all the richness and beauty of a wood veneered door . . . plus excellent fire protection . . . at a considerable savings over the more costly B-label door.

The core of this amazing new door is made by a patented Roddis process. Special, fire-proofed wood

particles are bonded with a waterproof, thermo-setting resin under heat and pressure. Then each side is faced with two-ply veneer panels. This exclusive construction has earned the C-label classification from the Underwriters' Laboratories.

What's more, you can have larger light openings with the Golden Dowel C-label door than are possible with a B-label door. Vision openings up to 1,200 square inches have been approved by Underwriters for this new door. And Roddis will cut them and supply the complete panel assembly for you. (Standard sizes, 30"x40", 30"x36", 24"x36", 18"x30", 8"x12", 10"x10".)

You enhance your designs, assure protection and lower costs for your clients when you specify the new Roddis flush veneered, C-label Fire Door. And remember . . . the Golden Dowel means "guaranteed for the life of the installation".

For complete details and specifications send coupon below.

COMPLETE CUSTOM PRE-FINISHING! from the prime-and-seal coat to the final finish coat

For maximum factory-to-installation protection, finer end results, you can specify your Roddis Doors *primed and sealed* at our factory before shipment. Roddis' new, automated production line applies a special synthetic resin sealer to the double-sanded, dust-free doors. After drying, the doors are sanded again to emerge with a tough, smooth undercoat that assures a perfect on-the-job finish application.

Completely pre-finished doors are also available. You can specify doors finished in color tones to match any of the 9 woods in the Roddis Craftwall paneling line . . . or to match your own color sample.

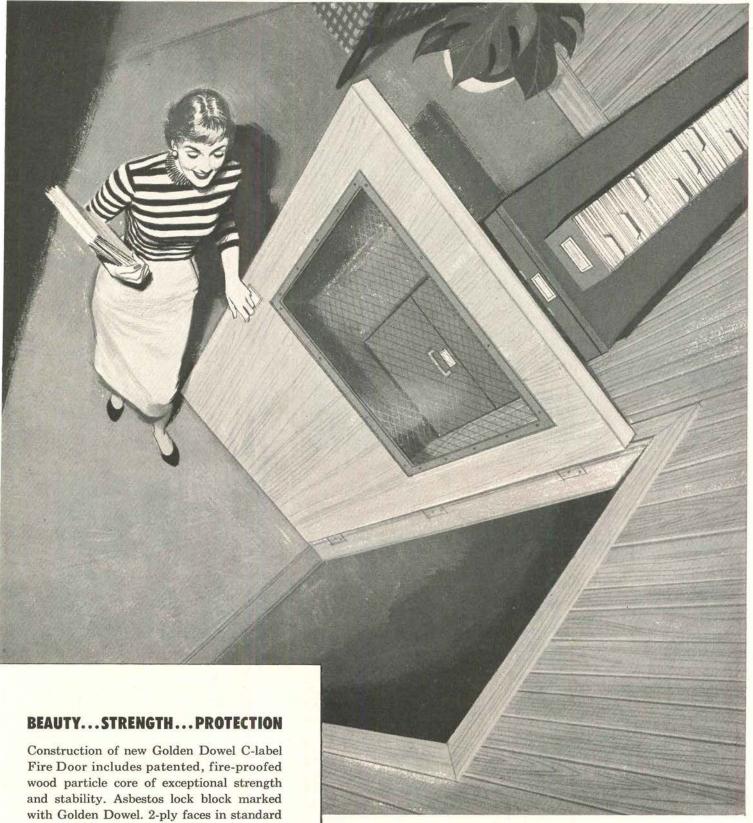
ONE SOURCE FOR ALL YOUR WOOD DOOR NEEDS

High standards of workmanship and beauty over the years have established famous Roddis Doors as first choice among architects and builders. Choose from the most complete line of wood doors in the field . . .

HOLLOW CORE

B and C-LABEL FIRE DOORS SOLID CORE X-RAY INSTITUTIONAL





thickness face veneers. Wide choice of first grade woods. Light openings up to 30"x40". 34 -hour protection approved by Underwriters' Laboratories.

RODDIS **PLYWOOD** CORP.

Marshfield, Wis. Dept. AR-658

Please send complete information on new Roddis Golden Dowel C-label Fire Door.

NAME. FIRM_ ADDRESS. CITY_ _STATE_

Big Gymnasiums and Halls Become 2 or More Rooms



SIDE COILING PARTITIONS

Cookson Partitions solve gymnasium, auditorium and other big room division problems in the most practical way. Extremely durable and attractive, they are designed with complete flexibility to meet the need for frequent and easy changes in group and room area requirements.

Cookson Partitions give the feeling of permanent structural walls. They may be finished to accent or blend with any decorative plan, yet they roll quickly out of sight for full use of combined room areas. Many exclusive Cookson design and engineering features make this utility partition the most advanced of its type on the market today. Custom built for single openings up to 100' wide, or double openings 200' wide, 23' high. Request Bulletin No. 603 for details.

THE COOKSON COMPANY

1539 Cortland Ave., San Francisco, Calif.

"Alumilited" Counter Doors
Rolling Service Doors, "Servire" Fire Doors, and Grilles
Side Coiling Wood Partitions - Specialty Doors

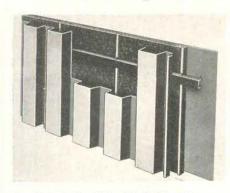
COUNT ON

COOKSON

Coil at one side only Coil equally on each side OF TRACK MOUNTING Under or within lintel Within ceiling Beside lintel or beam OF COIL BOX MOUNTING _ Inside wall Outside of wall OF OPERATION Electric, remote push-button Free-rolling push-pull Removable crank OF FINISH Natural Stain Wax or varnish OOKSON SEE SWEET'S DOORS . . . "The Best Way to Close an Opening"

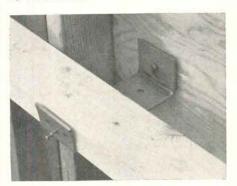
your Choice

Product Reports



Insulated Curtain Wall Panel

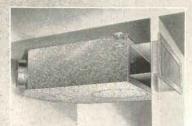
This wall panel is designed to be the basic unit of a quickly assembled, non-load bearing outside curtain wall for commercial or industrial buildings. Panels are made up of an interior steel panel, fiber insulation, and a steel or aluminum outer panel and the assembly is claimed equal to 25 in, of masonry wall construction in insulating value. The interior panels are of 18 or 20 gauge steel in 2 ft widths, ribbed 12 in. on center. The exterior panels are fluted and are of galvanized steel or leather grained aluminum. Inland Steel Products Company, P.O. Box 393, Milwaukee 1, Wisconsin.



One-Piece Concrete Form Fastener

A new fastening device for plywood concrete forms holds both form tie and waler in place and is reported to save 20 to 40 per cent of the time used in placing conventional forms. The Ply-Tie holder is a channel shape with a tear-drop slot in one arm for the head of a special form-tie, and the other arm designed to hold the waler. Tie holes are pre-drilled to a standard pattern, and studs tacked to the plywood with one of the 2 by 4's backing the joint. The Ply-Tie holder secures the form tie and holds the waler in place. Holders can be used for light, medium, or heavy construction by varying the spacing and thickness of studs and walers. Trueforms, Inc., 414 Times Square Building, Seattle 1, Washington.

more products on page 248



GRILLE MODEL in six sizes 80-1500 cfm air delivery

CONNOR

in three sizes 80-450 cfm air delivery





UNDER-WINDOW MODEL in three sizes 80-450 cfm air delivery

DIFFUSER MODEL

Kno-draft®
HIGH VELOCITY
VALVE
ATTENUATORS



REMOVABLE UNDER-WINDOW MODEL in three sizes 80-450 cfm air delivery





OPEN END MODEL
in six sizes
80-1500 cfm air delivery
Rectangular and Multiple
Round Outlets



ALL SIX MODELS offer greatest design flexibility for single and dual duct systems

All six high performance, space-saving, cost-saving models are available with Constant Volume Control... with either flat plate or sinuous baffle... with static pressure taps for quick accurate air delivery measurement... and with the patented helical spring damper that assures complete close-off.

Wherever your plans call for a high velocity air conditioning system—whether you're designing a new structure or remodeling an old one—choose Connor high velocity valve attenuators . . . there's a model that meets every design and performance test.

Request new 24 page Bulletin K33-A, which includes selection data on Connor equipment and special information for the design of any High Velocity system.

CONNOR... for Constant Comfort Conditions

CONNOR ENGINEERING CORPORATION Kno-draft® high velocity air diffusers

CONNOR ENGINEERING CORPORATION
82 SHELTER ROCK ROAD

DANBURY

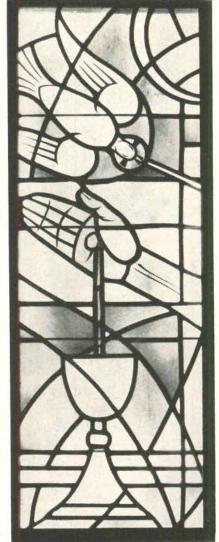
CONNECTICUT

MAIL TODAY

| | MAIL TUDAT |
|----|---|
| | CONNOR ENGINEERING CORPORATION 82 SHELTER ROCK ROAD, DANBURY, CONNECTICUT |
| | Please send me New 24 page Bulletin K33-A: |
| | NAME |
| | COMPANY |
| | ADDRESS |
| J. | CITYZONESTATE |

247

STAINED GLASS by JACOBY



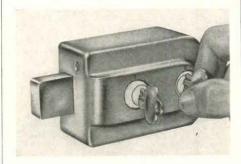
Crucifixion Window Saint Patrick's Church, East St. Louis, Illinois Architect: Paul Saunders, A. I. A.

IMAGINATIVE DESIGN
ACTIVE COLOR
CONTROLLED LIGHT
INTEGRATION OF EXTERIOR
Contemporary and Traditional
Dalles in Cement

JACOBY STUDIOS 820 Wilmington St. Louis II, Mo.

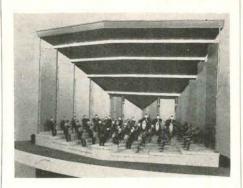
Product Reports

continued from page 212



Night Locking System

The Sequel Lock system uses a rimtype deadlock mechanism with two keys, one of which is used to throw the bolt, and at the same time release the other key which is then used to lock the next door in the sequence. This system thus insures that all doors in a building have been locked before the final exit door can be secured. It also enforces the complete unlocking sequence when opening up the building. If time records are required, the final lock in the series may be connected with a time recording lock. The lock is designed to be used with many types of doors and windows. Safety Lock Corp., 236 North Franklin Street, Hempstead, New



Aluminum Band Shell

This band shell made up of aluminum panels redirects and diffuses the sound of a band or orchestra so that the full musical tones reach all members of the audience and a minimum of amplifying equipment need be used. The roof is cantilever-supported from the rear and the side panels, made of 2 in. of plastic core covered by aluminum sheets, are supported on thin columns. Shell sizes are available to accommodate 40 to 120 musicians. A variety of lighting installations may be specified and side wings or other features may be added. Overly Manufacturing Company, Greensburg, Pa.

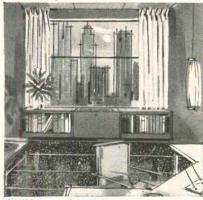
more products on page 254

Handsome, compact room units like these complete the air-conditioning picture

York quality equipment in the utility area of your building—like the new packaged water chiller—calls for room units of equal quality, efficiency and economy. Here are just a few of a wide variety of York fan coil units that fill the bill perfectly.



Free-standing or furred-in floor units add functional good looks and interest to your room designs.



Wall-hung units eliminate many installation difficulties . . . are available with handsome wall-to-wall enclosures.



Ceiling-hung units occupy no rentable or productive space.

. . . York is the first manufacturer to offer all three units.





- York offers the broadest range of capacities in the industry — 18 to 246 tons!
- Completely integrated design saves productive floor space, permits installation anywhere in the building!
- Exclusive mechanical features drastically cut costs of installation, operation and maintenance!

York makes news again — with a series of packaged water chillers designed to solve problems for the architect while effecting significant savings for building management. Look at the extras engineered into these advanced units:

SAVINGS IN PRODUCTIVE FLOOR SPACE! The compact arrangement of integrated components — including all interconnected piping, and styled automatic control center — results in big space savings. And the unit's quiet, vibration-free operation means it can be located anywhere in your building. No special foundations or space-consuming structural supports are necessary.

SAVINGS IN OPERATING COSTS! Low-cost, trouble-free performance is assured with the York packaged water chiller. Exclusive Flooded Coolers and positive refrigerant feed control mean top efficiency over the entire range of load conditions. Automatic capacity controls save power by continuously adjusting output to prevailing load conditions

 without supervision. York's wider selection of capacities means you can choose a unit to meet your needs precisely
 without compromise.

SAVINGS IN MAINTENANCE COSTS! Another exclusive — capillary oil return, direct from chiller to compressor — eliminates a common hazard in packaged water chillers: unit failure due to interrupted oil flow under light loads. All key parts are exceptionally rugged; will resist corrosion and wear many years longer.

The new packaged water chiller is another product of York's tradition of designing with the *real cost* of airconditioning in mind. The features listed above are just a few of the many that consultants and building owners will want explained in detail. Check your classified directory for the name and address of your local York sales representative . . . or write for Bulletin I-213. York Corporation, York, Pennsylvania.



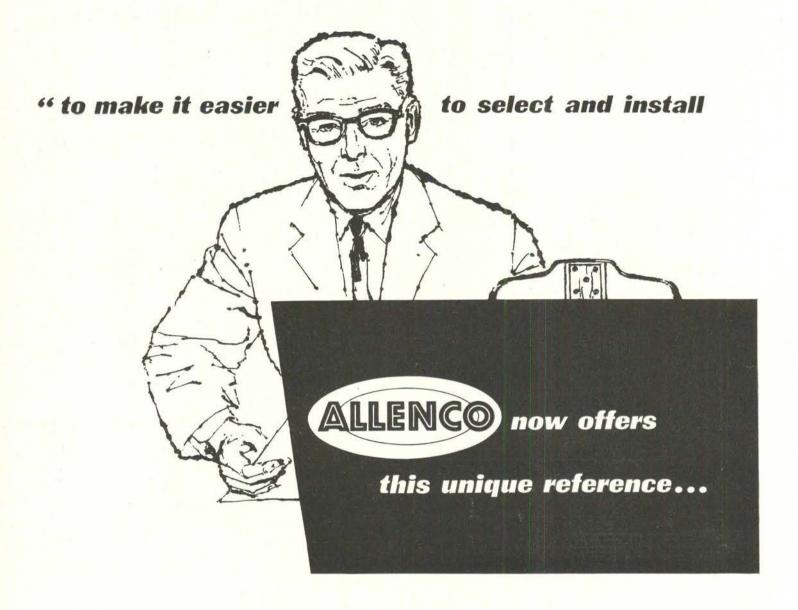
SUBSIDIARY OF BORG-WARNER CORPORATION

IN CANADA: CANADIAN ICE MACHINE COMPANY LTD., TORONTO

Millions

Live Better

with York



Checkbook has been prepared in response to many inquiries. It is a concise "pattern" or "key" for relating the wide range of fire protection factors. It is *not* a catalog.* For men who are not directly working on this part of construction, it helps maintain supervisory know-how.



Checkbook helps interpret and implement authorities' requirements... select and place equipment...avoid waste of space, time, cost...best serve designed appearance, occupant's use and safety.

*see Sweet's or Domestic Engineering catalog directory, Allenco catalog 150 (A.I.A. file 29e2) or new products data



(Allenco) or Class.

Fire Protection equipment..."



CHECKBOOK

for Specifying
Non Sprinkler
Fire Protection

Digest of Pertinent Sections of National Fire Codes (N.F.P.A.) with Drawings and Examples

11,0 FIRE GOTTING LINERS AND CASINGTY

Checkbook reports and shows basic requirements for:—Standpipe Systems; Hose Stations; Extinguishers; Exterior Centers. It includes "coupon specifications" forms for major items, which may simply be removed and filled-in for easier spec-writing. It also lists references for details digested here.

Checkbook is unique, practical, valuable. Your copy will be sent on request. Write or phone your Allenco Fieldman (listed in Yellow Pages) or direct to home office.



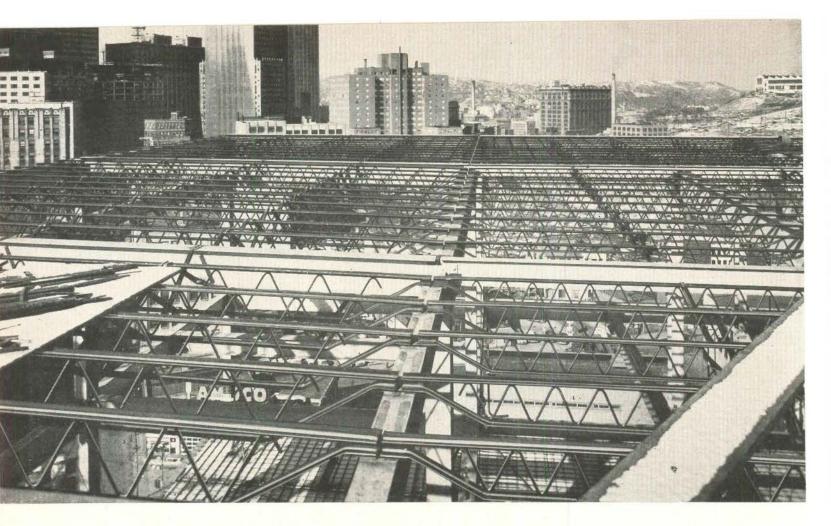
W. D. ALLEN Manufacturing Co.

Room 500

Allenco Bldg.

566 W. Lake St.

Chicago 6



10 stories up at 8 below



Erection of (USS) AmBridge Steel Joists continued through

Pittsburgh's coldest winter

This picture was made on one of the coldest days in Pittsburgh last winter. It shows steel joists that will support the roof of Duquesne University's new 10-story steel-frame Hall of Law and Business building overlooking downtown Pittsburgh.

While most outside construction work in the Pittsburgh area came to a dead stop during the cold snap, the placing of steel joists went on as usual.

USS*AmBridge Steel Joists-standard and long-span-provide rigid, economical and lightweight construction suitable for any type of roof, ceiling and floor. The under-slung and openweb design provides for maximum head room and allows passage of pipes, ducts and conduits in any direction. Their ease and simplicity of erection cuts installation time, enabling you to get your structure under cover sooner. Once they have been erected and properly bridged, they immediately furnish a safe working platform for other trades.

In addition to their use in the 10story classroom building, AmBridge* Steel Joists were also used to support the roof and stage floor of the Auditorium Annex. American Bridge also fabricated the steel frame for these structures. In all, 1,131 tons of steelwork was supplied for this job.

If you would like to know more about the time- and money-saving advantages of USS AmBridge Steel Joists, ask for a free copy of our 36-page catalog.

Duquesne University Law and Business Building, Pittsburgh, Pa. Designed by William York Cocken, Architect, Pittsburgh, Pa.

American Bridge Division of



United States Steel

Teachers and Students.... Administrators



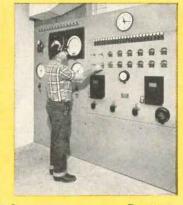




Engineers and Toxpayers



Powers DAY-NIGHT Thermostats are adjustable for normal temperature during occupancy and lower economical temperature during unoccupied periods.

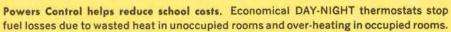




All benefit.. from the comfort, fuel economy, and low cost maintenance of



Quality System of Temperature Control



Thermal Comfort for every school activity helps keep teachers happy, protects health of students and keeps them alert.

In your new school make sure taxpayers get the biggest return on their investment in accurate temperature control. Ask your architect or engineer to include a timeproven Powers Quality System of Control.



Powers PACKLESS Control Valves prevent water leakage, banish packing maintenance and give better control due to reduced valve stem friction.



THE POWERS REGULATOR COMPANY

SKOKIE, ILLINOIS Offices in chief cities in U.S.A. and Canada

65 years of Automatic Temperature and Humidity Control



Fleetlite windows offer unequaled economy and ease of maintenance. Self-storing double sash is safely cleaned from inside — provides added insulation to reduce heating and cooling .costs.: Windows are factory assembled and shipped ready for immediate installation.

Durability, Dependability and ease of operation make Fleetlite the preferred window for dormitories, hospitals and institutional buildings as well as the finest residences.



Picture Window Beauty Plus Sliding Window Convenience!

Combined Fleetlite picture and sliding windows make an attractive and practical unit, provide maximum light plus the benefits of controlled ventilation and double sash protection.



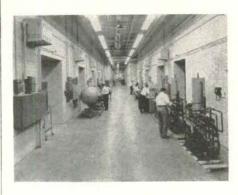
Please send complete information on Fleetlite:

- Double Horizontal Sliding Windows
- Double, Double Hung Windows
- Sliding Doors and Picture Walls
- ☐ Jalousie Windows and Doors

FLEET OF AMERICA, INC.

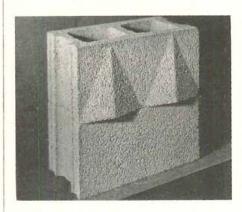
Dept. AR-68 2015 Walden Avenue, Buffalo 25, N.Y.

Product Reports



Movable Radiation Barrier

Weld-O-Bond No. 3111, a radiationresistant adhesive, is used with solid concrete blocks to form a low-cost, effective radiation barrier that can be taken down and re-assembled elsewhere with no waste. This special adhesive is designed to be resistant to the deteriorating effects of radioactivity, to have good compressive and shear strength but not appreciable tensile strength, to permit the wall to be disassembled when the need arises without damaging the blocks. An additional requirement is that the adhesive be readily visible to aid in inspection of joints for possibly dangerous gaps in coverage. The material is said to fulfill these requirements satisfactorily after a year of use in a high-voltage accellorator factory test building. California Stucco Products of New England, Inc., 169 Waverly St. Cambridge, Mass.



Pattern Concrete Block

Hi-Lite block is based on the conventional 8 in. by 8 in. by 16 in. masonry unit and has single or double raised pyramid facing designs. This simple design unit is said to enable architects and builders to create many dramatic architectural effects and patterns. It can add texture and pattern to large unrelieved wall areas. Besser Company, Alpena, Michigan, more products on page 260

A really NEW drawing material...

Ozalid DURATRACE
superior to cloth for pencil, other drafting
—at far less cost

| Total | State | Sta

Extremely durable, practically ageless—that's new Ozalid Duratrace drawing film. Duratrace can speed your drafting operations, insure greater accuracy and finer prints. It can be used under all climatic conditions and it will still maintain its exceptionally high-dimensional stability.

And Duratrace saves you money! Not only will it outperform the highest quality, moisture proof pencil tracing cloths in every respect—it actually costs 15% to 20% less!

HERE ARE A FEW OF ITS OUTSTANDING ADVANTAGES:

- Makes drafting easier, improves accuracy
 Duratrace has an exclusive new fiber-free matte surface that takes pencil better than any cloth available.
 It lets you use hard pencils for greater accuracy, cleaner drawings. It erases easily and quickly without smudging. And Duratrace lies flat, won't curl—even after being rolled for long periods.
- Gives you better prints, faster
 The very high translucency of Duratrace means faster copying in your whiteprint or blueprint machine—



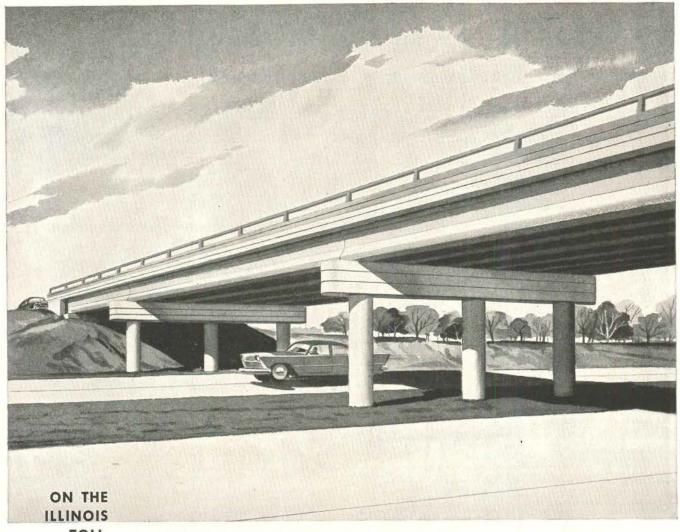
A Division of General Aniline & Film Corporation In Canada: Hughes Owens Company, Ltd., Montreal

- copies with maximum contrast. Duratrace won't stretch, melt or peel in your copying machine. Distortion of drawings is ended.
- Stands up to roughest usage—indefinitely Easy to handle and file, Duratrace resists wear and tear—is almost ageless! Its fold and tear strengths far exceed those of cloth, most other films. Duratrace can't fray, become "dog-eared," crack, chip, or turn brittle. It's nonyellowing . . . really waterproof; can be filed indefinitely, without deterioration!

Why not test this advanced new drawing material and discover for yourself its many advantages and applications? Just mail the coupon and you will receive free sample and price information.

| Dept. B-6 Johnson City, New | v York |
|-----------------------------|-------------------------------------|
| 50 | ree test sample of Ozalid DURATRACE |
| Name | (PLEASE FRINT) |
| | |
| Company | |
| Position | |
| | |

WHEN AMERICA BUILDS FOR ECONOMY...IT BUILDS WITH CONCRETE



highways... precast, prestressed concrete for bridges will reduce costs \$4,000,000

A full-scale test bridge showed engineers new ways to cut costs. 218 more prestressed bridges will follow...at savings that make every fifth bridge free!

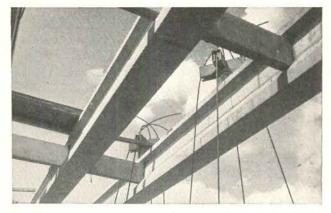
Engineers found big economy when they checked prestressed concrete for bridges on Illinois Toll Highways. They're cutting approximately \$4,000,000 from original estimated costs—with no sacrifice of strength or durability.

This is a mass production job, the biggest yet of its kind. Designs are standardized. Prestressed stringers are being produced in casting yards to achieve top economy and uniformly high quality. All this enables contractors to meet road opening schedules with resultant financing economies.

Whether the job calls for hundreds of bridges or just a few, savings really add up with prestressed concrete. And savings are just starting! Maintenance costs will be the lowest known on any major bridge system. That's why you'll be seeing more such modern bridges as Interstate System construction moves ahead.

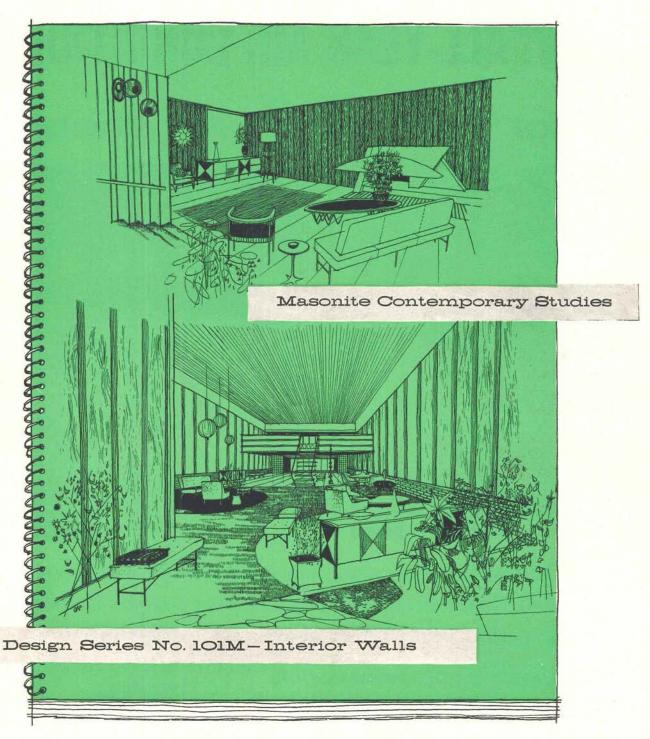
PORTLAND CEMENT ASSOCIATION

A national organization to improve and extend the uses of concrete



FOR STRUCTURES...
MODERN
CONCrete

Beverly Road test bridge. Tests proved value of prestressed concrete for economical highway bridges.



The creative imagination will find in Masonite interior panels a combination of decorative appeal and long-time usefulness.

For example, in the residence above, Masonite® Seadrift® presents a texture of well-weathered driftwood. Interest is heightened by the planked effect of random-spaced vertical grooves. Paint it to blend

with the over-all color scheme.

The showroom design in the lower sketch presents Misty Walnut, a Masonite hard-board panel with a wood-grain finish. Its effect is one of well-mannered luxury.

For current product information, consult Sweet's Architectural File, see a Masonite representative, or send the coupon.

| G, | * | | 8 | | | 15 | 0 | 2 | * | | | 搀 | 2 | ď. | | 绝 | 6 | | | * | * | 20 | *) | 2 | | 13 | * | 8 | | | * | | * | 89 | 8 | | 1 | 40 | * | 10. | | ij |
|-----|----|---|---|----|----|----|----|---|----|-----|----|----|-----|----|----|---|---|----|----|----|-----|-----|----|----|-----|-----|-----|----|---|----|----|----|----|----|----|---|----|----|----|-----|------|----|
| g; | ٠ | ٠ | * | | 19 | | 28 | | | * | × | | -31 | | * | 1 | | * | * | | | 8 | * | | 90 | | | * | | | | × | * | | * | | * | * | | * | (60) | ġ |
| 63 | ĸ | | 9 | | × | | | 9 | | * | | * | 8 | 9 | * | * | - | | | | | * | * | | | . 9 | | | * | | * | | * | ٧, | 2 | * | * | | | * | × | |
| 0 | ĸ. | × | * | 9 | | | | | | F | 7 | ٦ | 1 | | 10 | 1 | ٣ | | 1 | | 33 | 1 | 3 | 79 | | 1 | | ¥ | | | Ŧ | - | | 10 | X. | * | 50 | × | | | * | |
| | | × | | | 4 | | * | | | | | -1 | 1 | 6 | | 1 | U | * | ₹ | | 6 | , e | V. | | | п | | ŀ | - | | ď, | | - | ti | | | | | | | ¥. | |
| | | × | 7 | | | | * | 1 | ٠, | ici | 1 | -1 | 1 | 6 | 30 | 1 | | ۲, | 1 | ķ. | V | 1 | R. | 16 | | 1 | | п | | ı | | | - | v | | | | | | * | 1 | |
| | | 5 | ٠ | × | * | | | 2 | | - | ¢. | _ | _ | - | - | _ | - | - | 1 | 12 | - | 1 | 1 | 4 | - | 40 | _ | ð. | | _ | g | _ | _ | 1 | | | 2 | | | | | |
| ii) | į. | | 4 | | * | | | | N | 4 | 1 | 9 | 10 | | n | ú | 0 | 1 | | | # | | | p | 1 | o | | 1 | | 21 | 1 | ŧ. | 8 | | 8 | | 4 | | | | | |
| | į. | | | | | | | | | | ŕ | | 7 | V | | 4 | Ţ | | | | æ. | ė. | 20 | 6 | | | 7 | 2 | | | v | | | | 8 | | | v. | 4 | | | |
| S | è | | | | | 2 | | | | 4 | | | | | | * | | | 12 | a | (B) | n | | 9 | 0. | | | | 0 | | | | | | ় | | | | | | | |
| | | ÷ | | 83 | | V | | | | ij. | | 13 | | | - | | | | 셒 | Si | .19 | la | ar | | 16. | 35 | 1/2 | 9 | 9 | | | (e | 0 | | Ç. | 8 | ğ. | | | 1 | 2 | |
| | Ŀ | ŝ | 9 | 2 | ٥ | | ٥ | ٥ | ٥ | œ | 6 | ٠ | | ß | ٥ | 9 | С | 12 | S. | - | - | | | S | × | - | 6 | 2 | 8 | 6 | 9 | Ġ. | ুঃ | ũ | ō. | 2 | Œ. | 8 | 81 | 6 | è | |
| 9 | Β | 3 | 6 | S | ũ | | 9 | ε | | 0 | â | ò | C | | 6 | 4 | 1 | ä | 0 | 31 | | | | 3 | 30 | 80 | | 0 | 0 | - | 3 | 0 | | | 0 | 5 | 0 | 0 | ē | ä | 8 | |
| | ú | ú | ÷ | ė | ÷ | ñ | ŵ | ÷ | - | - | ÷ | ÷ | ŵ | ń | ÷ | ÷ | - | ü | - | - | - | - | - | - | _ | | - | - | - | - | - | - | a | ÷ | ٠ | ú | - | - | ú | - | - | ä |

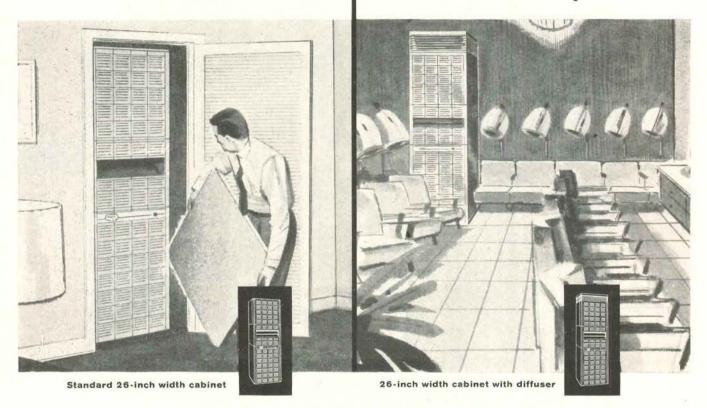
Masonite Corporation—manufacturer of quality panel products.

| • | |
|---|---|
| | Masonite Corporation Dept. AR-6, Box 777, Chicago 90, Illinois In Canada: Masonite Corporation, Gatineau, Quebec |
| | Please send me more information about Seadrift, Misty Walnut and other Masonite hardboard panels. |
| | Name |
| | Firm |
| | Address |
| | CityState |
| | ZoneCounty |

NOW! ALL-YEAR AIR CONDITIONING

...for homes

...for shops



The LANDMARK—Separate "blocks of comfort" for cooling, heating, air handling! Selected and combined by your Lennox Comfort Craftsman for perfect, super-quiet, all-year air conditioning for any job!

FAST ASSEMBLY OF LANDMARK UNITS

saves hours of installation time. Your Lennox Comfort Craftsman is factorytrained, factory-backed to handle your entire job.

COOLING UNIT

is designed for unhampered air flow; capacities of two to 10 tons per section.

HEATING UNIT

offers oil, gas or electric heating; capacities of 68,000 to 170,000 Btuh (gas, input) per section.

AIR HANDLING UNIT

includes two-speed blower, cushioned on live rubber in a sound-conditioned cabinet; oversize Hammock Filter that cleans air of practically all dust and pollen. (Efficient Landmark Heat Pump systems are also available for perfect winter and summer comfort.)



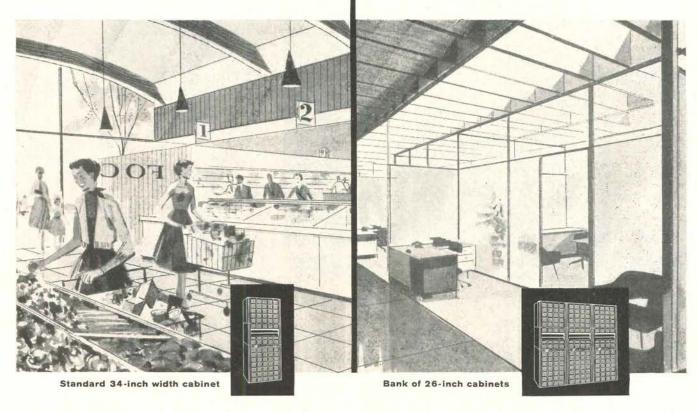


There are more than 5600 factory-trained Lennox Comfort Craftsmen, who work directly with Lennox to serve you better!

PRECISELY MADE-TO-MEASURE

...for stores

...for offices



Now, for the first time, you can specify heating and cooling that meets exact comfort requirements + - with the Landmark by Lennox! Simply tell your Lennox Comfort Craftsman what your needs are, and he will select the one right cooling unit, the one right heating unit, the one right air handling unit to do the job. Expertly assembled, these units form the Landmark-the only system that offers comfort made-to-measure; the finest comfort system you can choose.

Separate units, each designed to make the most of time-tested principles, go together to form forced warm air furnaces, air conditioners, or combination heating and air conditioning systems. Each of four cabinet widths can house cooling, heating and air handling equipment of different capacities. In addition to individual Landmark assemblies, banks of Landmarks may be assembled together, coordinated by "multiple interlock" controls, to provide greater capacities required to serve larger

Operating costs are lower. Exclusive heat exchanger design wrings maximum heat out of fuel. Air travels in a straight line, in "slow motion," to pick up all the cooling it can hold - or all the heat in winter. Dangerous drafts are eliminated. Disturbing noises, too - never has a comfort system been so quiet. SEE OUR CATALOG

To learn more about the Landmark, see your local Lennox Comfort Craftsman; Sweet's; or write Lennox, Dept. AR-86, Marshalltown, Iowa.

IN SWEET'S ARCHITECTURAL FILE-File No. 30b/Le

†Calculated heat loss, calculated heat gain, and CFM ventilation requirements.



LENNOX

© 1958 Lennox Industries Inc., Heating and Air Conditioning, founded 1895; Marshalltown and Des Moines, Ia.; Syracuse, N. Y.; Columbus, O.; Decatur, Ga.; Ft. Worth; Los Angeles; Sait Lake City. In Canada: Toronto, Montreal, Calgary, Vancouver, Winnipeg.



THE OUTSTANDING LOUVER FOR ANY LIGHTING DESIGN.

American Plastic Louvers offer the maximum in conformability for any lighting plan, whether it be industrial, institutional, commercial or retail. In application they may be employed in individual fixtures, full ceiling installations or any modular pattern. Strong, light weight louvers eliminate the need for costly heavy ceiling construction.

Color-Stable.

(1)

Ш

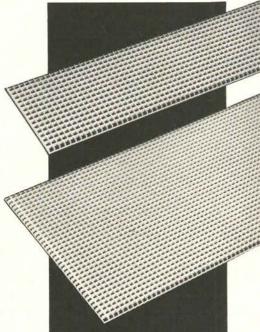
BE

- Restful shielding regardless of the light intensity involved.
- Light Weight—Specific gravity of only 1.05.
- Low Cost Maintenance Easy to clean.
- Available in combination of sizes.

Only the exclusive process of the American Louver Company is covered by these patents:

USA Pat. No. 2,566,817 USA Pat. No. 2,607,455 Canadian No. 484,346 Canadian No. 497,047

The next time you order, specify the ultimate in modern plastic louvers get AMERICAN!

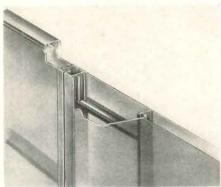


Write for additional details

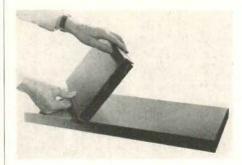
american louver company

4240 N. SAYRE AVENUE . CHICAGO 34, ILLINOIS

Product Reports



Aluminum-Fiberglass Plastic Panel Sanpan wall panels are made up of an extruded aluminum grid, nominally 12 in. by 18 in., with a skin of fiberglass-reinforced polyester resin sheet plastic. Panels are 11/2 in. or 3 in. thick and come in three types; type "A" in which the skin completely covers the panel, type "B" which has a protective lip around the edges, and type "C" which is similar to type "B" with the addition of a special interlocking joint for connection to the adjoining panel. Panel dimensions are either standard at 4 ft by 8, 10, 12, or 20 ft, or variable within the extremes given. Panel Structures Inc., 45 Greenwood Ave., East Orange, N.J.



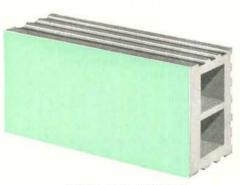
Porcelain-Aluminum Wall Panels

A new panel sandwich with a "leather grain finish" and 15% in. of total thickness has been used in school construction recently. The panel has an outside surface of grain finish aluminum finished in porcelain enamel; a 3/8 in. air space maintained by stainless-steel clips; a 1 in. fiber glass core of 6 lb density with an asphalt coating; and a 16 gauge galvanized steel back pan. The whole assembly is fastened together as a rigid unit with the two surface pans separated at the flanges by a perimeter gasket. Condensation can escape through weep holes provided, the U value is said to be 66 in. Ingram-Richardson Manufacturing Company, Beaver Falls, Pennsylvania



The "8W" Series is shown above in modern stretcher stack-bond construction. These units as well as the sizes listed below can also be laid in conventional center bond for attractive interior layouts.

Completely functional, ocular green walls of Natco Ceramic Glaze Vitritile



SIZES AND SHAPES

| Series | Shape Catalogs | Tile Face Size | Nominal Thickness | | | | | |
|--------|-------------------|-------------------|----------------------|--|--|--|--|--|
| "8W" | 8W-257 | 7¾" × 15¾" | 2", 4" | | | | | |
| "6T" | 6T-657 | 51/6" x 113/4" | 2", 4", 6", 8" | | | | | |
| "4D" | 4D-1255 | 51/6" × 73/4" | 2", 4", 6", 8" | | | | | |

Now you can combine the ultimate in cleanliness with a range of smooth colorful surfaces that establish the precise brightness ratio most suitable for long hours of demanding visual work.

Natco Vitritile also allows you to achieve significant economies. Simple washing is all that's required for maximum cleanliness and sanitation. In addition, Natco Vitritile provides a sound fireproof structural unit with an attractive interior finish in one operation . . . at one cost.

Natco Ceramic Glaze Vitritile is available in a complete range of functional and decorative colors and in three face sizes to give you the most complete design and aesthetic freedom.

Write for General Catalog S-58 and the Facing Tile Institute Specifications Handbook for information on new dirt-resistant mortars.

NATCO

CORPORATION

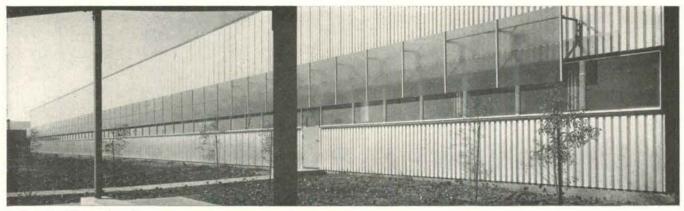
GENERAL OFFICES: 327 Fifth Avenue, Pittsburgh 22, Pa.

BRANCH SALES OFFICES: Boston * Chicago * Detroit * New York Philadelphia * Pittsburgh * Syracuse * Birmingham, Alabama Brazil, Indiana

IN CANADA: Natco Clay Products Ltd., Toronto



LIGHT DIFFUSING GLASS MAKES...

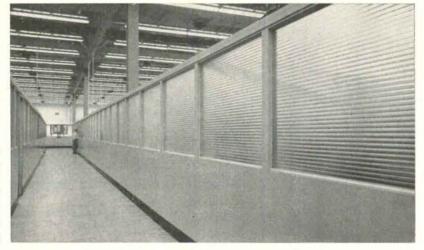


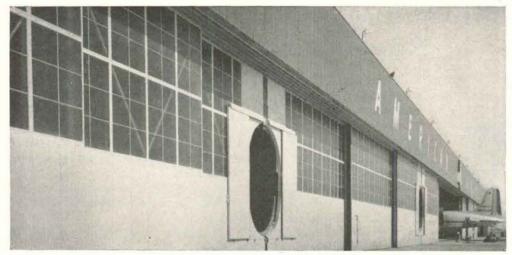
Architects: Marcel Breuer and Associates Supervision: Craig Ellwood

A point of special architectural interest in the new Torrington Manufacturing Co. plant at Van Nuys, California is the sunshade of Coolite heat absorbing wire glass that spans the Western elevation.

Complementing the spectacular new IBM offices in San Jose, California are these Hauserman partitions, glazed with lustrous Mississippi Broadlite glass.

Architect: John S. Bolles, San Franciso, Calif.
Partitions by: E. F. Hauserman Co.,
Cleveland, Ohio





1260 lights of ¼" Coolite Wire Glass provide better daylight with protection, while absorbing excess solar heat in expansive American Airlines Hangar at Los Angeles International Airport.

Architect: Quinton Engineers Ltd., Los Angeles, California Glazing by: W. P. Fuller and Company, Los Angeles, California



MISSISSIPPI

NEW YORK . CHICAGO . FULLERTON, CALIF.

WORLD'S LARGEST MANUFACTURER OF

Daylighting and Dollars GO FARTHER

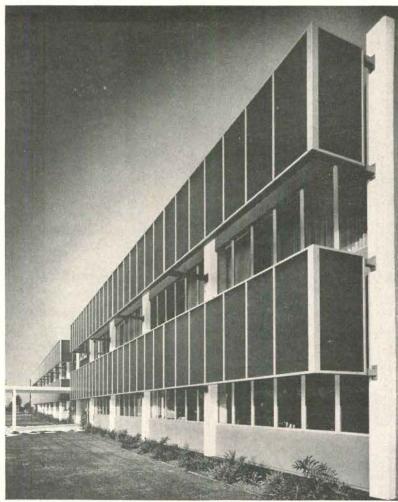
To make the most of daylight, use translucent, light diffusing glass by Mississippi. For utility, beauty and economy, unmatched by any other glazing medium, specify Mississippi Glass. Available in a wide variety of patterns, wired and unwired, at better distributors everywhere.

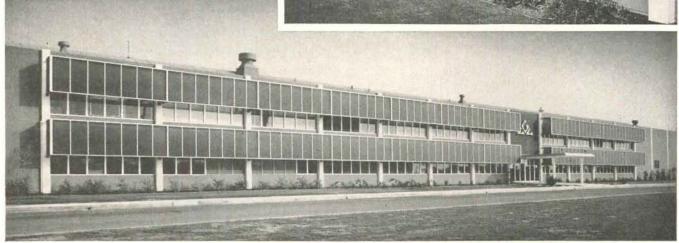
Write for new 1958 Catalog. Address Department 7.



A place in the sun is especially desirable when heat absorbing blue-green Coolite Glass is there to help employees see better, feel better, work more comfortably. A brand new concept in "extended screen" glazing technique that combines beauty and utility.

Growers Container Corporation, Fullerton, Calif. Architect: Falk and Booth, San Francisco, Calif.





G L A S S C O M P A N Y



263

88 Angelica St. • St. Louis 7. Mo.

ROLLED, FIGURED AND WIRED GLASS

ARCHITECTS and ENGINEERS of

adopted AD. protection for 69 plants and warehouses

CANICO

Broadening and decentralizing its operations to put Canco products "at the front door of its customers," American Can Company has established plants and warehouses from coast to coast. Modern in every respect, these buildings are designed for maximum economy and efficiency.

Watchmen signal the ADT Central Station while on patrol. Automatic sprinkler systems and heating plants are under constant ADT supervision. Waterflow alarm and Automatic Fire Alarm Systems automatically summon the fire department in case of fire.

For complete Automatic protection, certain Canco plants are guarded by a combination of ADT Burglar Alarm, Automatic Fire Protection and Heating Supervisory Services, providing a high degree of protection for property, profits and employees' jobs, at lower cost.

Whether your project is large or small, sprinklered or unsprinklered, there is an ADT Protection Service to meet your requirements. Phone our local sales office if we are listed in your directory; or write to our Executive Office.

Below: Canco plant at Blue Ash, Ohio, opened on October 31, 1957. Area 240,000 sq. ft. Capacity 200 million metal containers a year. Protected automatically by ADT Burglar Alarm, Sprinkler Supervisory, Waterflow Alarm and Heating Supervisory Services.

Controlled Companies of

AMERICAN DISTRICT TELEGRAPH CO.

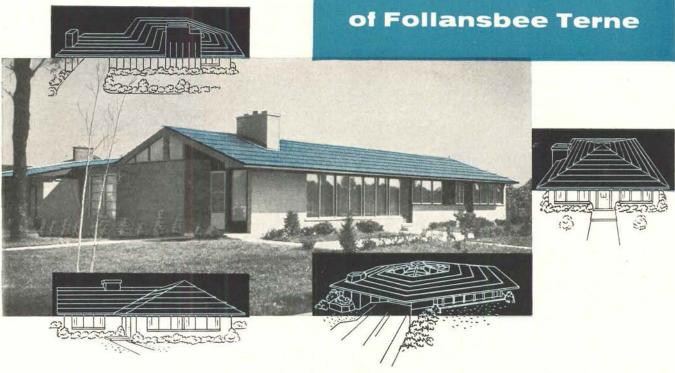
A NATION WIDE ORGANIZATION Executive Office: 155 Sixth Avenue, New York 13, N. Y.



For the roof ...

The Horizontal Shadow Line

A Bermuda Roof
of Follansbee Terne



What is Follansbee TERNE?

As a word, terne means three. As a metal, Follansbee TERNE is the combination of three metals—steel, lead and tin. More properly, it is copperbearing cold-rolled strip steel with a lead-tin coating. The coating is an alloy of 4 parts lead to one part tin. This makes TERNE's surface perfect for painting and soldering. Since TERNE is basically steel, its coefficient of expansion is lower than any other roofing metal; it is durable, fire-proof and can be painted any color, any time.

Now it's possible to achieve both a visual and physical horizontal shadow line on the roof—with a Bermuda Roof of Follansbee TERNE.

The distance between the shadow line can be varied to create the desired effect . . . and the effect will change as the sun moves and the width of the shadow line changes.

The striking design of the Bermuda Roof can be adapted to all types of ranch designs and is finding widespread use in circular, triangular and hexagonal roofs.

In addition to being a lifetime material, (there are many installations of Terne in service for more than 100 years) Follansbee TERNE can and should be painted—a distinctive advantage for color-conscious home owners. It allows a complete change of the exterior color scheme at any time.



Follansbee Terne is carried in stock by Leading Sheet Metal Distributors Everywhere

FOLLANSBEE

STEEL CORPORATION

FOLLANSBEE, WEST VIRGINIA

Cold Rolled Strip • Terne Roll Roofing • Polished Blue Sheets and Coils

Sales Offices in Principal Cities

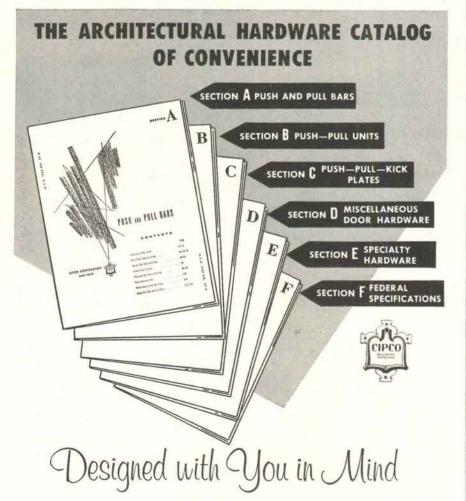
Protection of Cultural Property

Treats in exhaustive detail methods recommended for protection of all types of cultural material from all known hazards. Methods of resisting the onslaught of blast, corrosive atmosphere, looters, insects and mold are discussed in relation to such memorabilia as paintings, cathedrals, and insect collections. A section is also devoted to the enabling resolutions and other documents pertaining to setting up this really complete study. UNESCO, Museums And Monuments

VIII, as translated into English. Author, A. Noblecourt, 346 pp, 124 Figs., 137 plates, \$7.50. UNESCO Publications Center, 801 3rd Ave., New York 22, N. Y.

A Special Report

... on Built-Up Roofings Discusses most of the common types of built-up roofs with their special features and uses with special emphasis given to the requirements of roofings in southern California. C.S.I. 12-B 57, 16 pp, \$0.30. Rolf T. Retz, 1429 Potrero Way, Sacramento 22, Calif.



Available now! Completely new, revised Cipco Architectural Hardware Catalog. Contains illustrated detail data you need—answers most questions that arise in specifying. Sectionalized and color indexed for quick reference. Arranged for convenience—here is a catalog designed to help you keep pace with todays demands.





CECO Aluminum and Steel

. . . Curtain Walls (A.I.A. 17-A) Describes latest features of this company's curtain wall systems. Many installation details are given for typical panel arrangements, ventilation areas and fixed windows in single and multi-story construction using concrete, masonry or steel construction. Brochure #1069B, 24 pp. Ceco Steel Products Corporation, 5601 West 26th St., Chicago 50, Illinois*

Thermal Resistance of Airspaces

. . . and Fibrous Insulations Bounded by Reflective Surfaces shows test methods and details results with tables and charts of experiments with many types of fibrous and reflective insulation materials. BMS 151, 22 pp, 20 cents. Superintendant of Documents U. S. Government Printing Office, Washington 25, D. C.

Bio-Climatic Science (A.I.A. 17-A) Illustrates sunshading problems and the automatic louvers used to solve them. 14 pp. *Universal Corporation*, 6701 Denton Drive, Dallas, Texas.

The Architects Estimator

Is a loose-leaf reference volume covering current building costs, including markups and contractor's profit and overhead. Tables and factors are included for material quantity calculations. Revised sheets keep the book up to date. A companion volume, The Professional Construction Estimator, is a labor and material time-andmoney calculator. Professional Publishing Company of Pasadena, P. O. Box 5205, Pasadena, California

*Additional product information in Sweet's Architectural File, 1958 more literature on page 272

Where You Need Durability Plus Strength at Low Cost

Specify Armco ALUMINIZED STEEL Type 2





Cambria Clay Products Co., Jackson, Ohio

Davis Firebrick Co., Oak Hill, Ohio

Two plants with roofing, siding and flashing of Armco ALUMINIZED STEEL Type 2 illustrate the architectural advantages of this hot-dip aluminum-coated steel. It was specified for both structures because its combination of atmospheric corrosion resistance and strength assures lasting service at least cost.

For applications like these and for panels, roof decking, rolling doors, ventilators and other building components exposed to atmospheric corrosion, Aluminized Steel Type 2 offers economical durability.

PROVED DURABILITY

Exposure tests started 19 years ago show that in an industrial atmosphere the aluminum coating lasts at least 3 times as long as the coating on unpainted commercial galvanized sheets. The aluminum coating is still protecting the base steel.

ADDED ADVANTAGES

Besides its economical corrosion resistance, Aluminized Steel Type 2 offers other important advantages in building design:

The structural strength and high elastic modulus of steel.

Reflects about 80% of radiant heat; simplifies heating and air conditioning.

Resists fire and mechanical damage better than aluminum.

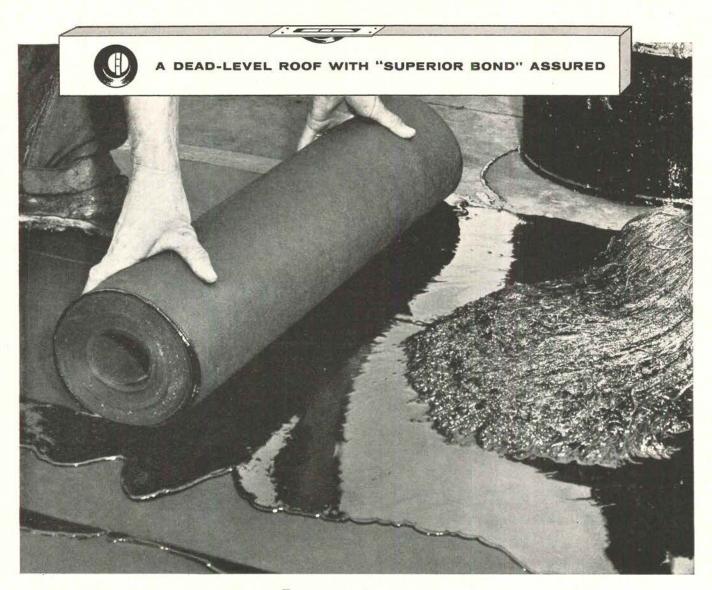
Let us send you complete information on Armco Aluminized Steel Type 2. Just fill out and mail the coupon or write to Armco Steel Corporation, 2198 Curtis Street, Middletown, Ohio.

| | Send me data on Armco ALUMINIZED STEEL Type 2. | |
|-----------|---|-----|
| New | me where I can obtain the following products ma | ade |
| steels ar | e a recommittee steet. | |
| born at | NAME | - |
| Armco | FIRM | - |
| | REET | _ |
| ST | | |

ARMCO STEEL



Armco Division • Sheffield Division • The National Supply Company • Armco Drainage & Metal Products, Inc. • The Armco International Corporation • Union Wire Rope Corporation • Southwest Steel Products



Johns-Manville Aquadam Built-Up Roofs pay off in longer roof life and maximum protection

Aquadam roofs take their name from a superior cementing agent developed by Johns-Manville. This unique bitumen, Aquadam, possesses the best features of coal tar pitch and of asphalt without their weaknesses. It is the best bitumen on the market for roofs with inclines from dead-level to ½ inch per foot. It is used for both smooth-surfaced asbestos roofs and gravel- or slag-surfaced roofs.

The picture above shows how Aqua-

dam spreads, wets and saturates the roofing felts uniformly. And, as the felts are mopped and broomed-in, the exceptional adhesiveness of Aquadam assures a thorough bonding together of the plies.

Besides this "superior bond," an Aquadam roof provides these other advantages: excellent self-healing properties; exceptional ability to expand and contract with normal deck movement; ability to withstand water

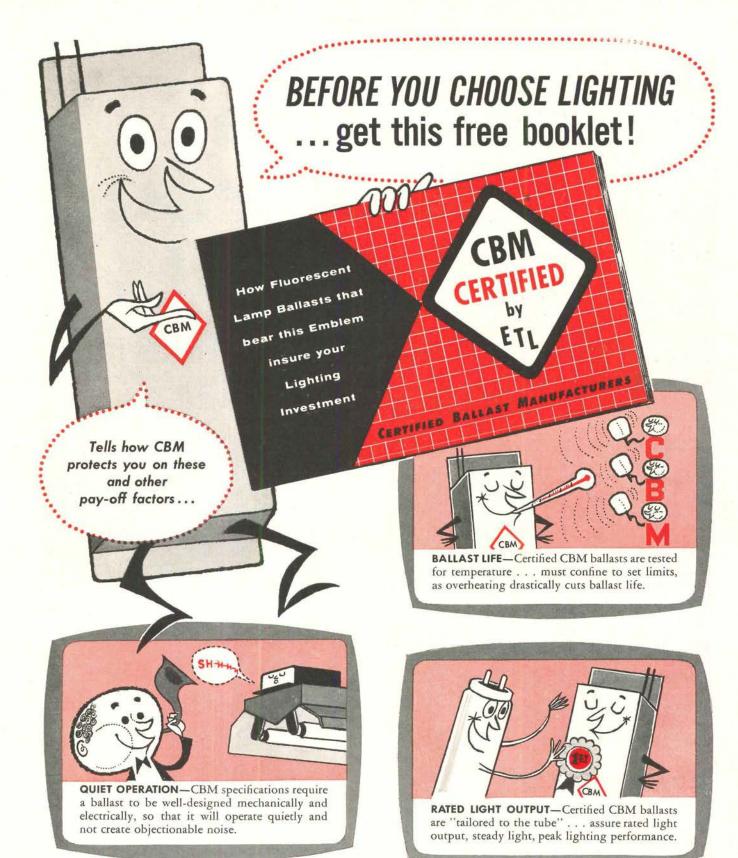
when a downpour floods the roof; and proven weather resistance under wide-ranging climatic conditions.

To give your clients the best roof protection, specify Johns-Manville Aquadam Built-Up Roofs—and be sure. For a copy of booklet "J-M Aquadam Built-Up Roofs" write to: Johns-Manville, Box 158, New York 16, New York. In Canada, write 568 Lakeshore Road East, Port Credit, Ontario.



JOHNS-MANVILLE







Send for this free booklet and learn how these factors and
11 others help insure your lighting investment when
you buy fixtures equipped with Certified CBM ballasts.

Eight leading manufacturers now make up the association of

CERTIFIED BALLAST MANUFACTURERS

2116 KEITH BUILDING

CLEVELAND 15, OHIO

Participation in CBM is open to any manufacturer who wishes to qualify

CBM-6-U

New! The Andersen Strutwall...

TRADEMARK OF ANDERSEN CORPORATION

a modular component that joins window and wall!

Factory assembly gives tighter, trouble-free fit; saves labor; simplifies and speeds construction!

Here's a great advance in fenestration. A new building component that makes a quality window an integral part of the house frame. Offers tremendous advantages to architects everywhere.

Precision factory assembly of load-bearing side struts, nailers and lower jack studs gives the new Andersen Strutwall unusual resistance to racking. Provides the tightest possible joining of window and wall. Cuts framing and installation two-thirds—from around 22 steps to 7.

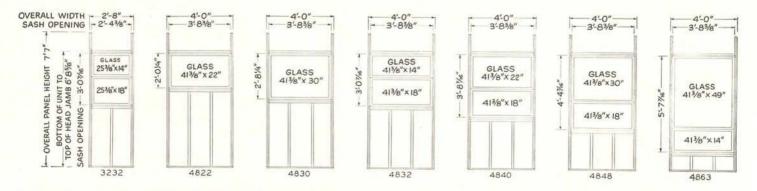
To install the new Strutwall, the two load-bearing

struts are cut to fit the header construction used. The component is nailed to adjacent studs, tilted up with the wall. Such simplicity practically eliminates the chance of carpentry errors—and callbacks.

There are even bigger advantages in mullions and larger openings. New Strutwalls are simply butted against each other. Because there's structural support at 4-foot intervals, nothing heavier than two 2 x 6 headers are needed in single story construction.

The new Andersen Strutwall fits any type of frame construction—including panel systems. It's been perfected and proved by field tests all over the country.

The Strutwall is sold throughout the United States and Canada. For more information or specification data, write Andersen Corporation, Bayport, Minnesota.



Available in 7 sizes, 2 styles! Andersen makes seven sizes of the new Strutwalls, two sizes of Strutwall door frames. Window components include both famous Beauty-Line* and Flexivent® styles. *Patent pending.



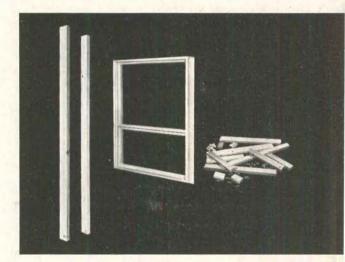
Andersen Windowalls

ANDERSEN CORPORATION . BAYPORT, MINN. AW

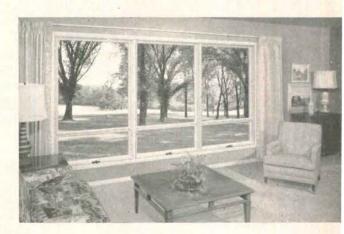




Simple, error-proof construction! Just cut two load-bearing struts to fit header construction. Nail Strutwall to adjacent studs, tilt up with the wall. This cuts installation steps twothirds. Practically eliminates chance of carpentry errors and callbacks.



Saves materials, costs less installed! New Andersen Strutwall eliminates the two long cripples on the left, requires two 2x6's instead of heavier headers in multiple openings. Builders report a good saving in total installed costs-even when figured against inferior conventional windows.



Fits tighter, looks better! Because all parts of the Strutwall are nailed and glued at the factory, you get unusual resistance to racking -the tightest possible joining of window and wall. Famous Beauty-Line and Flexivent styles add beauty and sales appeal to your homes.

HIGH, wide & handsome...



new 7-foot high units for secondary grades



Adaptability and style hit a new high in Educators 7-foot storage units. Full length beautifully finished Birch End Panels and Fronts are topped off with matching Birch or colorful Pegboard Doors and new smoothly contoured Tops.

Seven different models with interior arrangements functionally designed for secondary grades, make these units useful as they are attractive.

Write today for information and specifications.



Educators MANUFACTURING COMPANY P. O. BOX 1261, TACOMA, WASHINGTON

Office Literature

Von Duprin 66 Exit Devices

(A.I.A. 27-C) Catalogs the styles, accessories and critical dimensions of this line of panic-bar devices, together with drawings of important details. Bulletin 581, 8 pp. Vonnegut Hardware Co., Von Duprin Division, Indianapolis 9, Indiana*

Kesko RDH Aluminum Windows

. . . and Keswall Two leaflets show details of, respectively, reversable double-hung monumental series windows, and aluminum framing and finish sections for curtain wall construction. Kesko Products Division of Tusco Corp., Bristol, Indiana.

Lupton Catalog

Gives complete technical data and specifications for the full line of metal windows and doors including reference sketches and scale drawings of installation details. 40 pp, catalog 580, Michael Flynn Manufacturing Co., 700 East Godfrey Ave., Philadelphia 24, Pa.*

Performance of Small-Pipe Warm-Air

. . . Perimeter Heating Systems describes experiments with this type of heating in a single-story house with full basement, comparing heated and unseated basements. 35 pp, \$1.00. Engineering Experiment Station Bulletin No. 445, Engineering Publications Office, 114 Civil Engineering Hall, University of Illinois, Urbana,

Sportslighting for Night Football

Shows lighting layouts based on I.E.S. recommendations for football fields. Bulletin 2701, 7 pp. Crouse-Hinds Co., Syracuse 1, N. Y.

Four Silicone Booklets

CDS-129, Lists the major silicone products and some of their uses. CDS-118, Aids in specifying silicone masonry water repellants. CDS-120, Discusses masonry water repellants. C-14, Lists suppliers of these repellants. Silicone Products Dept., General Electric Co., Waterford, New York*

Larsen Bonding Agents

Discusses the uses, application methods and advantages of bonding agents for use in applying new concrete or plaster to older concrete, brick or other like material. 7 pp. Larson Products Corporation, Box 5756, Bethesda 14, Maryland

* Additional product information in Sweet's Architectural File, 1958 more literature on page 278

Test Results Prove that DUR-O-WAL is your Most Economical and **Effective Steel** Masonry Reinforcement 168% TEST WALL Mortar - Class Al 113% ASTM Standard C-270-52T. WALL 8 x 8 x 16 — Haydite Block Av. Comp. Str. 1275 psi TEST 92% Z OF INCREASE OF 71% Dur-O-waL with patented trussed design out-performs other reinforcings two to one . . . reduces lineal foot requirements by half . . . cuts building costs. Every pound of high tensile steel in Dur-O-waL works twice as hard because the exclusive trussed design and superior bonding characteristics make every inch work together as a unit. Test results prove why building experts insist on Dur-O-waL . . . the steel masonry reinforcement that exceeds ASTM specifications. ment that exceeds ASTM specifications . . . by far your best and most economical buy. Research findings available on request.

Tests Conducted by Toledo University Research Foundation

DUR-O; WAL

Rigid Backbone of Steel For Every Masonry Wall

Dur-O-wal Div., Cedar Rapids Block Co., CEDAR RAPIDS, IA. Dur-O-wal Prod., Inc., Box 628, SYRACUSE, N. Y. Dur-O-wal Div., Frontier Mfg. Co., Box 49, PHOENIX, ARIZ. Dur-O-wal Prod., Inc., 4500 E. Lombard St., BALTIMORE, MD. Dur-O-wal of Ill., 119 N. River St., AURORA, ILL. Dur-O-wal Prod. of Ala., Inc., Box 5446, BIRMINGHAM, ALA. Dur-O-wal of Colorado, 29th and Court St., PUEBLO, COLORADO Dur-O-wal Inc., 165 Utah Street, TOLEDO, ONIO

273

Make sure you get all these features... specify GENERAL ELECTRIC WATER COOLERS



gallons per hour. Call your local G-E Water

Bloomfield, N. J.

Progress Is Our Most Important Product



ASK ABOUT Hot and Cold Combinations, pres-sure and bottle types—also refrigerated compartment models.



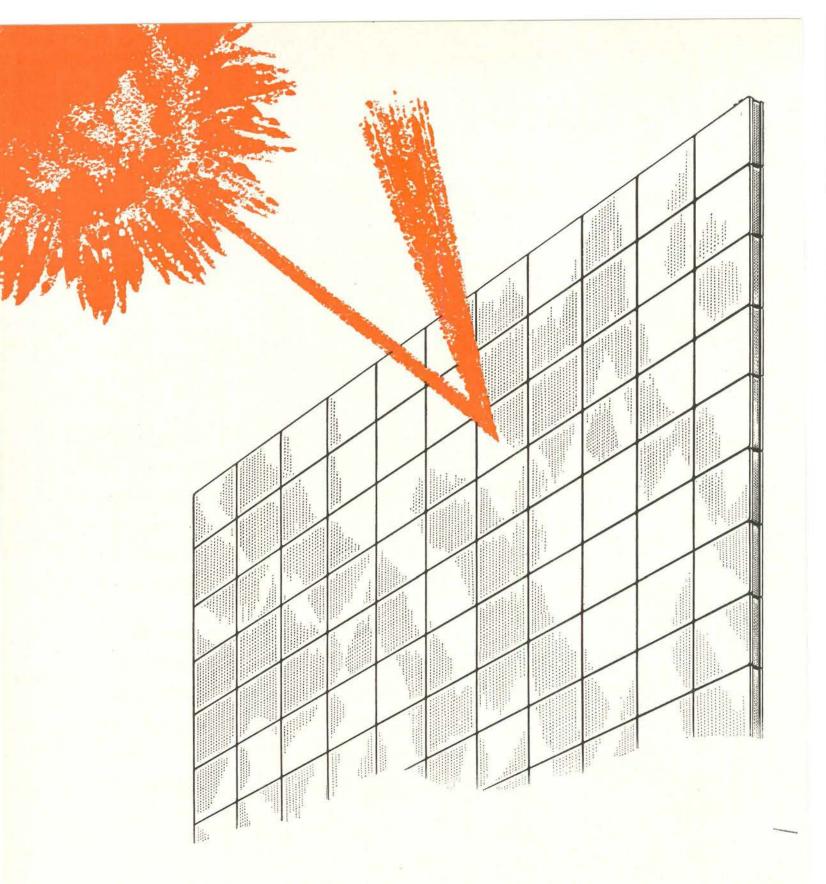
Potomac Iron produced and installed 92 flights of stairs in this 15-story Maryland State Office Building and the adjacent six story Maryland State Roads building in Baltimore. Potomac Iron manufactures over 5,000 prefabricated stair units yearly for residential, apartment and commercial construction.

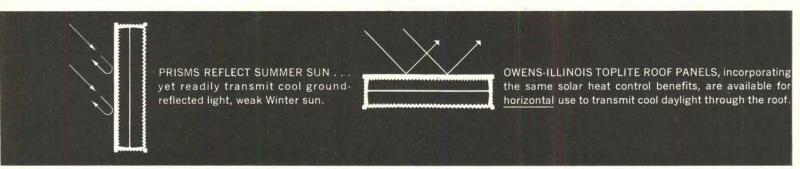
"Junior Channels are stronger

Write today for design data on Junior Channels, available in three sizes: 10"-6.5%; 10"-8.4%; and 12"-10.6% per foot. Write to Jones & Laughlin Steel Corporation, 3 Gateway Center, Pittsburgh 30, Pennsylvania.

Jones & Laughlin Steel Corporation

PITTSBURGH, PENNSYLVANIA





NEW . . . at last, a glass that reflects the hot sun

This is new Owens-Illinois 80-F Glass Block.

Its specially designed prisms reflect hot sunlight, transmit cool light rays. 80-F is the new way to keep classroom temperatures at comfortable levels... to assure maximum student attentiveness, minimum teacher fatigue.

Planning to build a new school? Remodel an old one? Before you start, be sure to investigate the unique benefits offered by Owens-Illinois 80-F Glass Block. For full information, write Kimble Glass Company, subsidiary of Owens-Illinois, Dept. AR-6, Toledo 1, Ohio.



GLASS BLOCK AND TOPLITE PANELS
TWO (1) PRODUCTS

OWENS-ILLINOIS



Burt Free Exhaust Fan
Ventilators Rout Heat
and Fumes Fast in
TRUE TEMPER'S
New Saybrook Forge Plant

Designed and built by The Austin Company, Cleveland, Ohio, True Temper's multi-million-dollar Saybrook Forge Plant uses eighteen 54" and eighteen 42" Burt Free Exhaust Fan ventilators to provide a two-minute air change dependably and economically . . . The entire discharge in Burt Free Exhaust Fan ventilators is vertically upward, with no internal baffles to impede the full flow of air. This highly efficient design provides power capacities of 41,700 cfm for each 54" ventilator and 24,000 cfm for each 42" unit . . . Fresh air at low cost is available for your plants, too, from Burt's complete line. There's a type and size for every ventilating need.



Send for FREE Data Book!

Write for Burt Data Book SPV-101G. It supplies quick data on Burt's complete line of modern Roof Ventilators.

FAN & GRAVITY

LOUVERS

SHEET METAL SPECIALTIES

The **Buri** Manufacturing Company



Akron 11, Ohio



Office Literature

Corrugated Asbestos Transite

(A.I.A. 12-F-2) Describes varying applications and details methods of fastening, sealing and flashing this material. 31 pp. Johns-Manville, 22 East 40th St., New York 16, New York *

Alkyd-Latex Paint Color Book

Illustrates 100 paint colors on 3 in. by 434 in. chips, indexed, tabbed, and printed with color name, number, and formula. RTU Book, Luminall Paints, Chicago 9. Illinois

Monarch Wall Veneer Panels

Describes a porcelain enamel-Masonite-metal sheet sandwich together with details of joints and suggested specifications. 2 pp. Davidson Enamel Products, Inc., 1125 East Kibby Street, Lima, Ohio *

Bleachers

Describes construction features, capacities and dimensions of a large selection of folding bleachers, backstops, grandstands and chair stands. 12 pp. Bleacher Division, Berlin Chapman Co., Berlin, Wisconsin*

Calcore Catalog (A.I.A. 17-A)

Illustrates a variety of porcelainfaced curtain wall panels in several combinations of honeycomb, Fiberglas or Foamglas insulation and galvanized or porcelain back. 7 pp. Architectural Porcelain Div., Caloric Appliance Corp., Topton, Pennsylvania *

Specifications for Post-Tensioned

... Prestressed Concrete is a complete specification for design stress, design detail and construction. 3 pp. 35 cents. Publication Office, Prestressed Concrete Institute, 3132 N.E. Ninth St., Fort Lauderdale, Florida

Insulated Concrete Data File (A.I.A. No. 4-E-13 and 37-B-2)

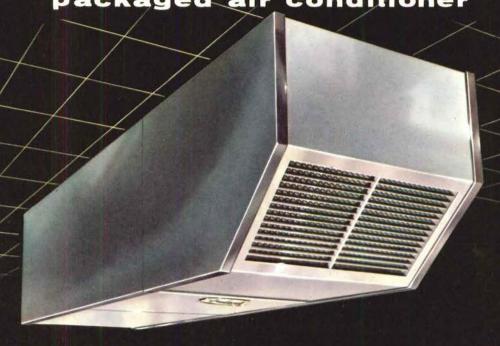
Is a specification file made up of individual sheets showing how insulating concrete is applied to various types of roof decks or used in roof construction. Zonolite Company, 135 S. LaSalle St., Chicago 3, Ill.*

Zurn Thinline System

(A.I.A. 29-H-8) Describes a group of fittings supporting wall-type fixtures and taking as little as 8 in. inside the wall. Manual 60, 24 pp. Zurn Industries Inc., Plumbing Products Division, Erie, Penna.

* Additional product information in Sweet's Architectural File, 1958 the quality tells...the quality sells

Packaged air conditioner





Flexible and compact—fastens to ceiling stands upright on floor...
adaptable for duct system.







Easy solution to a wide range of residential and commercial

cooling problems . . .

new JANITROL COMPACK

"packaged" waterless cooling conditioner

This versatile new cooling conditioner lends itself to an exciting variety of cooling applications . . . meets your need for maximum cooling efficiency in little or no floor space at all!

It is designed for free air discharge or use with a duct system . . . may be suspended overhead or positioned on the floor. *Waterless* operation assures quieter, thriftier operation—establishes a new concept of cooling performance. The complete re-

performance. The complete refrigeration assembly is housed in a remote air-cooled unit that's engineered for comfort-cooling with outside air temperatures to 125° F.

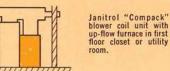
For your next residential or commercial job, provide controlled, high-efficiency cooling free from objectionable noise and drafts with the Janitrol Compack . . . one of Janitrol's complete line of conditioners for cooling and heating-cooling applications. Ask your Janitrol representative for full details.







In basements with low headroom, "Compack" saves space—may be suspended from joists and utilize existing warm air ducts through a by-pass system.





"Compack" installed overhead in an office. Whisper-quiet, it never intrudes to disturb busy people.



Janitrol "Compack" in attic—cools entire house through small ducts feeding diffusers near ceiling of rooms below.



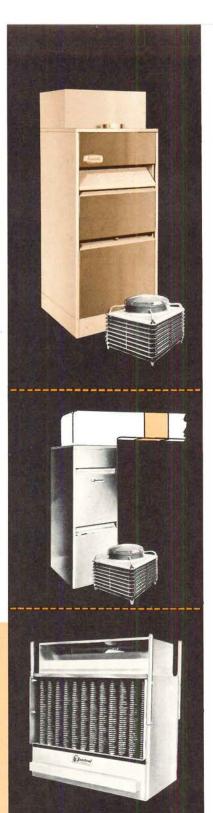
"Compack" feeding a duct system in modern store. Several "Compack" units can be combined to meet a variety of cooling needs—provide zone control where desired.



"Compack" installed upright on the floor in restaurant. Draftless, free-air discharge.

ARCHITECTS, ENGINEERS AND CONTRACTORS INFORMATION SERVICE

Write today for complete specifications on Janitrol cooling and heating in buildings of every type. There's no obligation.



WIN-SUM-MATIC

Year 'round conditioner

Combines thrifty gas heating, waterless cooling in little as 3-3/5 sq. ft. of floor space. Famous 20 year warranted Dura-Tube heat exchangers. Unique bypass gives correct air flow for heating and cooling without seasonal adjustments. Air cooled Pride O' Yard unit is low, sleek, efficient . . ADD-ON cooling option—install for heating only, add cooling later. Upflow and downflow models, 80,000 to 200,000 btu./hr. (to 120,000 on down flow) heating, 22,000 to 76,000 btu./hr. cooling capacities*.

SRA add-on cooling

Adapts most any warm air furnace for thrifty, efficient central cooling. Cooling coil mounts in duct, beautiful air cooled Pride O' Yard unit goes outside. Powerful, quiet performance with outside temperatures to 125° F. Easy to install. Waterless operation eliminates plumbing, sewage, water supply problems. 22,000 to 76,000 btu./hr. Capacities*.

Gas-fired Duct furnaces

Designed for installation in a duct where the air is circulated by a separate blower. Especially adaptable for industrial heating applications in combination with cooling. DUCT Series 55 in five sizes from 85,000 to 225,000 btu./hr. Series 75 in sizes 200,000 and 300,000 btu./hr. may be combined to provide unlimited capacity range.



CAPACITIES*



SRA-7—22,000 btu. SRA-9—35,000 btu. A-401 and 403—47,500 btu. SRA-11—58,500 btu. A-603—76,000 btu. *95° F. Dry Bulb air entering condenser, 80° F. Dry Bulb, 67° F. Wet Bulb air entering evaporator, approximately 400 CFM per 12,000 btu.

ARITROL

HEATING AND AIR CONDITIONING DIVISION

Surface Combustion Corporation * Columbus 16, Ohio

In Canada: / Moffat Heating & Air Conditioning Division Moffats Ltd., Toronto 15

Also Makers of Surface Industrial Furnaces, Kathabar Humidity Conditioning, Janitrol Residential Heating and Cooling Equipment



Curtain Walls

By the World's Largest Manufacturer of Aluminum Windows

Stately and clean of line, this studio-office building was "prefabricated."

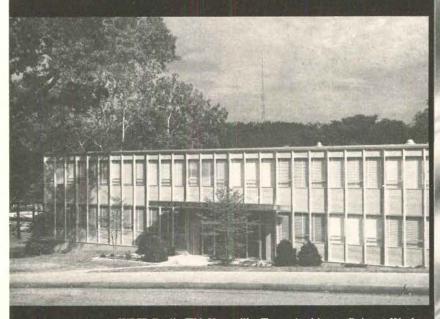
Factory prepared, two-story Ualco Curtain Wall units were erected quickly, economically.

Tall, covered mullions, big hopper-vented windows, and pink-marble panels add up to dignified beauty, easy to maintain.

Specify Ualco Curtain Wall — four series, with awning or intermediate projected windows.

Southern Sash

Sales & Supply Co., Inc. Sheffield, Ala.



WBIR Radio-TV, Knoxville, Tenn. Architects, Painter, Weeks & McCarty, Knoxville. Contractor, Emory and Richards





For Beauty specify FOLDOOR because ...

. . . the exclusive design of the new Multi-X Foldor incorporates a hidden safeguard for the lasting beauty of your room divider or folding door.

You can forget about unsightly wrinkles or sagging folds in the fabric of your Multi-X FOLDOOR. The fabric is fastened to the frame in the valley of the fold, by a special free-floating self-aligning clip or hook, positioned by the frame hinge pin. That way, the fabric is always stretched taut over the frame, whether flexed open or closed—insuring straight, graceful volutes at all times.

This free-floating, self-aligning fabric-fastener is one of many hidden advantages of Foldoor-the only complete line of fabric-covered folding partitions and doors. It will pay you to investigate these advantages. Call your nearest Foldoor distributor-listed under "Doors" in the yellow pages-or write us direct.

HOLCOMB & HOKE MFG. CO., INC.



1545 Van Buren Street Indianapolis 7, Indiana

In Canada: FOLDOOR OF CANADA, LTD. Montreal 26

INSTALLING DISTRIBUTORS IN ALL PRINCIPAL CITIES



Washington Topics

continued from page 56

and other health facilities will be required in the next 10 years. This sizeable outlay is needed because of population increases, modernization needs, and the replacement of obsolete structures. PHS said that half the amount will be required just to replace those hospital patient care units that have been operating for 50 years or longer.

This estimated dollar requirement anticipates a rate more than three times the expenditures during the first decade of the Hill-Burton hospital construction program.

Recognizing that this goal could be quite difficult of attainment, Health, Education, and Welfare Department spokesmen have been stressing increasingly the desirability of taking a new approach to the use of present facilities and the design of future hospitals.

What Kind of Hospitals?

Aims C. McGuinness, special assistant to the HEW Secretary for health and medical affairs, expressed this view when he said that he could not stress too strongly "the need we have for increasing our efforts to keep people out of hospital beds; the need we have for making the most intelligent use of the plants we now have; and for our future hospitals, the need for determined and imaginative approach to the design and operation of accommodations best suited to the patients to be served."

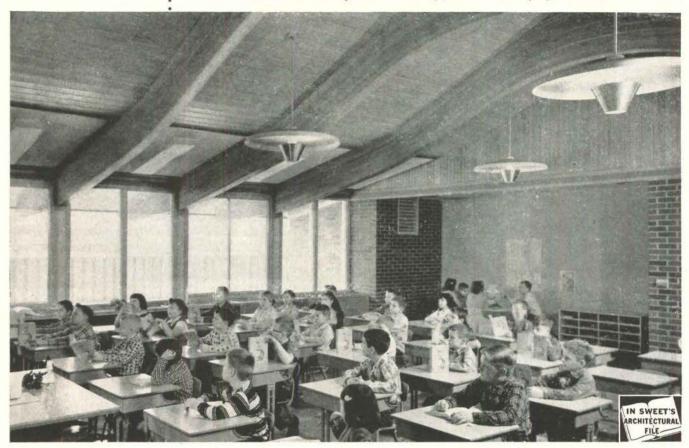
PHS has based several of its research projects on these apparent needs. These are concerned with what it calls graduated or selective care

C.S.I. Boom continued from page 40

- 6. Each member shall refrain from disclosing the interest or business affairs of any client or employer without his knowledge and consent.
- 7. Each member shall uphold the principle of appropriate and adequate compensation to those engaged in specification writing and refuse knowingly to compete on basis of compensation.
- 8. Associate members shall pledge themselves never to misrepresent their products in any manner, either as to composition, quality or use, and to assist their fellow members in maintaining the high standards of service set forth in this Code of

Lennox Research School, Des Moines, Iowa, is a development and research project of Lennox Industries, Inc. Outside dimensions of the split level two-room unit are 46'x 71'-10". JOB DATA: Space provided: Two classrooms each 28'x30', 10'x71' corridor, three toilet areas. Exterior walls: brick, glass and wood. Interior walls: brick and wood paneling. Heating and ventilation: Lennox Comfort Curtain system featuring forced air with automatically controlled dampers to mix fresh and recirculated air, Lighting: Low voltage fluorescent lighting balanced with incandescent fixtures. Floors: quarry tile in entry, asphalt tile in classrooms. Roof surface: asphalt shingles over 2"x6" tongue-and-groove sheathing. Ceiling: acoustical tile in corridors; exposed timber sheathing in classrooms, Cost per square foot: \$15.00

Architects: Perkins and Will, Chicago. Contractor: Lovejoy Construction Company, Des Moines



Advanced School Architecture



Cantilevered glulam beams extend the roof to form a canopy which protects the window areas from the sun. Classrooms receive natural light from three sides.





...with glulam beams by Timber Structures, Inc.

Natural beauty...pleasant atmosphere ...complete safety...easy maintenance ...and economical construction all are combined in this practical research laboratory of modern school design.

Along with advanced heating and lighting, the school features clear span interiors, with the roof supported by handsome double curved glulam beams. These were chosen to obtain a soft flow of sweeping space from wall to wall. Spaced at six feet, they provide interiors that are warm and light in feeling, with desired center height and ground-hugging eave lines. Cantilevering six feet beyond the sidewalls, they support a canopy which shields the large windows from direct exposure to the sun.

Other applications of glulam timber members by Timber Structures, Inc. include girders, arches and trusses for classrooms, gymnasiums, libraries, auditoriums, field houses and vocational shops. Outstanding examples of these applications are contained in the illustrated brochure, "Timber Framing for Modern Schools". Get your copy from your Timber Structures representative, or write us for it.

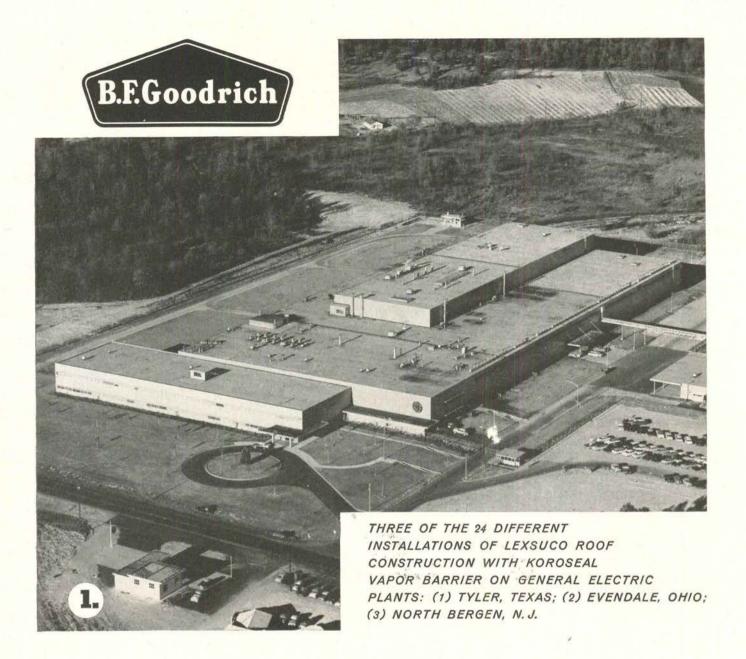
TIMBER STRUCTURES, INC.

P. O. BOX 3782-A, PORTLAND 8, OREGON

Offices in Ramsey, N. J.; New York City; Boston; Philadelphia; West Hartford; Cleveland; Charlotte; Chicago; Centerline, Mich.; Kansas City; St. Louis; Minneapolis; Des Moines; Wichita; Memphis; Dallas; Houston; Birmingham; Beverly Hills, California; Seattle; Spokane; Denver.

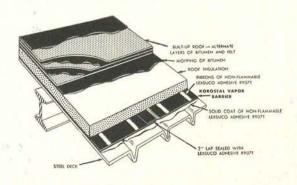
Local Representatives throughout the United States and Canada

TIMBER STRUCTURES, INC. OF CALIFORNIA
Richmond • Sacramento



This customer has used more than

Lexsuco roof construction with

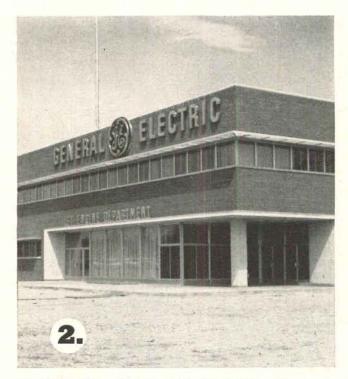


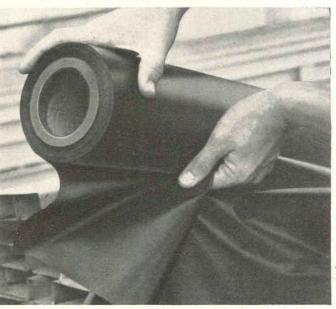
Typical Lexsuco roof construction with Koroseal vapor barrier

MORE and more of America's leading companies are making wide-spread use of Lexsuco roof constructions with fire-retardant Koroseal vapor barrier and non-flammable Lexsuco adhesive R907T. This construction assures these major benefits: (1) a fire retardant construction with Factory Mutual Class 1 rating; (2) maximum vapor barrier protection; (3) dependable securement; and (4) fast, economical installation.

Unlike ordinary roofing materials, Lexsuco Roof Constructions with Koroseal Vapor Barrier can't feed a fire. There's no asphalt between roof deck and insulation to give off flammable gases. Conventional asphaltic materials are replaced by the fire-retardant Lexsuco system.

Koroseal has proved itself as a vapor barrier. It eliminates





B.F.Goodrich Koroseal Vapor Barrier is a specially compounded fire retardant vinyl material.



2 million square feet of

Koroseal® vapor barrier

moisture migration from within the building, stops pitch drippage and helps retain maximum insulation value.

This remarkable fire-resistant construction is quick and easy to install. No matter what size roofing job you have, here's the way to cut installation costs and protect your building from fire. Koroseal Vapor Barrier is a specially compounded fire retardant material made by B.F.Goodrich Industrial Products Company, Marietta, Ohio.

Mail this coupon for detailed information:

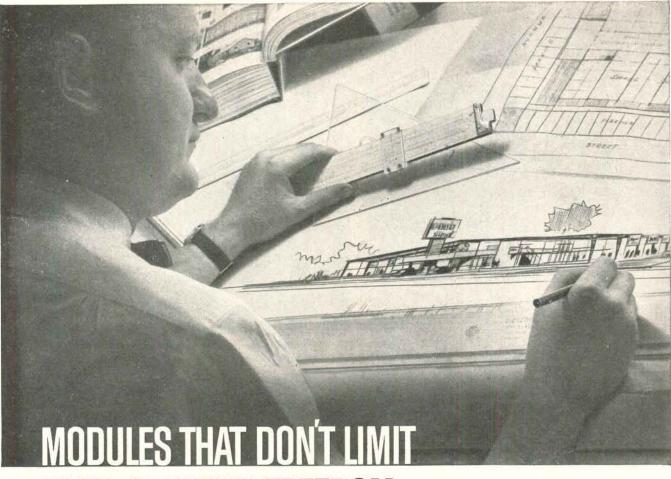
LEXSUCO INC Dept. AR-6 Box 326, Solon, Ohio

Please send me informative folder on the Lexsuco system of roof construction.

Name______Company_____

City_____State____

B.F.Goodrich Koroseal flexible material



YOUR CREATIVE FREEDOM

Here is a refreshing new approach to modular construction. It is a system of building that gives you, the architect, control over both the structural form of the building and the finished appearance. It is the Butler Building System.

In the Butler Building System, the module is a unit of space—a building bay. This bay is comprised of pre-engineered, mass-produced, load-bearing structural components, and die-formed, tight-fitting metal roof panels. It is available in a wide variety of heights, widths, lengths and roof slopes. Use of the Butler bay module reduces drafting room time, and brings to the construction site the economical control of quality attainable only on the production line.

Your design initiative is given free rein. By manipulating the structural members . . . by specifying double pitch or butterfly shapes, complete rigid frames or cantilevered construction, canopies or lean-tos . . . by combining various sizes and roof pitches, building lengthwise or laterally—you can dictate the structural form of the building.

But more than that, with the Butler modular system of construction, you also dictate the finished appearance. Since walls are non-load bearing, you have unrestricted freedom in your choice of wall material. Emphasis can be on design and protective characteristics.

No other modular system opens so wide the door to creative imagination. In no other modular system is the end product so clearly your trademark ... so decidedly a tribute to your individuality.

Why don't you get the whole story from your Butler Builder? He's listed in the Yellow Pages of your phone book under "Buildings" or "Steel Buildings." Ask to see the color film, "Architectural Opportunities with the Butler Building System."





or write for copy

Butler buildings meet minimum requirements of the AISI and AISC, and are designed to conform to uniform, state and municipal building codes.



BUTLER MANUFACTURING COMPANY

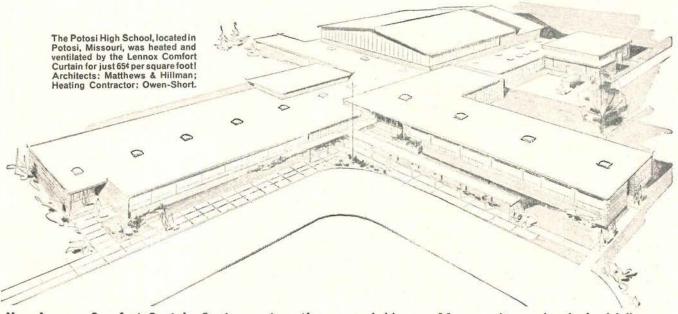
7427 East 13th Street, Kansas City 26, Missouri

Manufacturers of Buildings • Oil Equipment • Farm Equipment • Dry Cleaners Equipment • Outdoor Advertising Equipment • Custom Fabrication

Sales offices in Los Angeles and Richmond, Calif. • Houston, Texas • Birmingham, Ala. • Atlanta, Ga. • Kansas City, Mo. • Minneapolis, Minn. • Chicago, Ill.

Detroit, Mich. • Cleveland, Ohio • New York City and Syracuse, N.Y. • Washington, D.C. • Burlington, Ontorio, Canada

Potosi school gets the finest in fresh air heating and ventilating—installed complete with automatic controls—for just 65¢ per square foot!



New Lennox Comfort Curtain System automatically draws in fresh air from outside . . . warms, cleans and circulates air quietly and evenly throughout the classroom!

Hard to believe, isn't it?—that after all these years a new and better fresh air heating and ventilating system can be installed for a fraction of the cost of systems used previously. Yet it's true! 65% per square foot was the complete cost of the Lennox Comfort Curtain System in the Potosi, Missouri High School. Including fully automatic controls, ductwork, labor—everything!

Of course, 65% per square foot is unusually low, even for the Comfort Curtain. But costs of \$1.03 in Indiana, \$1.15 in Montana, and \$1.12 in South Dakota are usual and typical of the amazing savings offered by the Lennox Comfort Curtain.

How is this possible? The Lennox Comfort Curtain System applies to schools the sound, tested principles of warm air heating. It eliminates expensive pipes, boilers

F E A -C

Lennox Air Processing Unit introduces fresh air in adjustable volumes (A); transmits warm air (B) from adjacent or remote heating unit; continuously recirculates indoor air (C); filters air clean (D). Lennox' exclusive floating blower (E) and acoustical lining (F) assure a degree of quietness never before achieved.

and chimneys. Moreover, it saves hundreds of dollars per classroom per year every year it is in use. Fuel is consumed only when heat is required, maintenance is amazingly simple and low-cost. Yet—and this is important—the Lennox Comfort Curtain System does a far better job than costlier systems used previously.

It provides a full, even flow of air throughout the entire length of the exposed classroom wall. It is amazingly quiet. And it holds room temperatures to a variance of six-tenths of one degree, circulates air continuously for perfect distribution, introduces a continuous supply of fresh air into the daytime heating cycle, and provides tons of needed fresh air cooling without the cost of refrigeration!

Get full information on this new low-cost system of classroom heating and ventilating. Send coupon below for free booklet, today!



© 1958 Lennox Industries Inc., Heating and Air Conditioning, founded 1895; Des Moines and Marshalltown, Ia.; Syracuse, N. Y.; Columbus, O.; Decatur, Ga.; Ft. Worth; Los Angeles; Salt Lake City. In Canada: Toronto, Montreal, Calgary, Vancouver, Winnipeg.

| Lennox Industries | Inc., Dept. AR-83 |
|----------------------|--|
| 1701 E. Euclid Ave | ., Des Moines 5, Iowa |
| Gentlemen: Please | send me your free booklet on the Comfort |
| Curtain eyetem of c | assroom heating and ventilating. |
| Curtain system of Ci | assioon neating and ventualing. |
| | assisting and ventuality. |
| NAMEADDRESS | assisting and ventuality. |

287



NEW BENDIX "WEATHERMAN"...

functional flair for your building designs

Bendix' new "Weatherman"*, for accurate and instant reporting of just how the weather is outside, is a natural eye catcher. It's adaptable to a variety of buildings such as airports, banks, schools, TV stations, and many others where this public service can be a "built-in" feature. It is also adaptable to existing structures. Weather conditions are indicated on large and colorful dials, showing outdoor temperature, relative humidity, rainfall, atmospheric pressure, wind speed, and wind direction.

With the exception of the barometric pressure unit, each indicator is actuated by a remote (rooftop) transmitter and is connected to the transmitter by electric cable. "Weatherman" indicators and transmitters can also be obtained as individual units.

The "Weatherman" is made by Bendix Friez, makers of weatherdata instruments for more than eighty years. For further information and installation data, write to Bendix Friez, 1320 Taylor Avenue, Baltimore 4, Maryland.

*REG. U.S. PAT. OFF

Friez Instrument Division



Washington Topics

tailored to the immediate needs of the individual patient.

It is obvious that PHS is thinking more and more in terms of hospitals designed on a zoned basis; with special areas for special services. Five types of care demanding their own special facilities have been described as intensive care, intermediate care, self-care, long-term care, and a homecare program.

Few hospitals are organized this way. HEW is trying to get a more accurate count of those plants embracing graduate care programs. Some 7000 hospitals are involved in a current agency survey to determine the extent to which they may have such programs, or if they have instituted a selective care program at

Deep Underground Shelters Studied With Manhattan as Prototype

Engineering studies which indicated excavation in solid rock 800 ft below Manhattan Island could produce enough shelter space to house the entire daytime population of Manhattan for 90 days were described last month in testimony before the House Government Operations subcommittee. Cost of such a project was estimated at between \$2.5 and \$2.8 billion, or \$680 per person to be housed.

The studies, intended as a prototype investigation of the feasibility of constructing underground shelters deep below major American cities, were conducted for the Federal Civil Defense Administration by Guy B. Panero, Engineers, of New York, continuing a survey begun earlier by the Rand Corporation.

FCDA engineers in the Battle Creek, Mich., headquarters had just received the Panero report early last month and would not comment until they had had time for thorough study.

As described before the subcommittee by Benjamin Taylor, FCDA's director of engineering and research development, the study indicated that multiple entrances strategically placed would make it possible to reach shelter from anywhere in Manhattan in a maximum of 25 minutes after warning.

A method of excavation involving a new concept in major earth work is proposed by the Panero report for the project, according to Mr. Taylor. Only pilot bores would be made directly from the surface, these to

WHY STEEL JOISTS ARE RIGHT FOR SCHOOLS

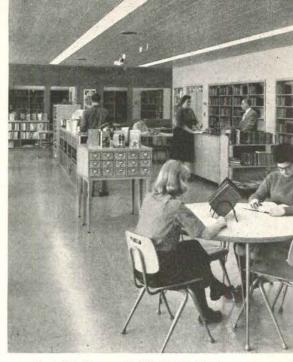
All three of these new Michigan schools have Bethlehem steel joists in their construction. Here's why:

Fast, economical construction—Bethlehem joists arrive at the job site fully fabricated and tagged, ready for immediate placing. No delays to construction schedules; no costly labor in placing them—two men can easily handle smaller sizes; a simple derrick lifts the larger joists.

Fire-resistance—Steel joists in combination with floor slab and plaster ceiling form a barrier with up to four hours' fire-resistance.

Low maintenance—Steel joists won't warp, sag or shrink, which helps hold maintenance costs down. Sagging floors and cracked ceilings are eliminated.

Our catalog gives full details of these and other advantages gained from joist construction, as well as complete engineering information. Details are also listed in Sweet's catalog of building products.



Royal Oak Clarence M. Kimball High School. Architect: O'Dell, Hewlett & Luckenbach; general contractor: O. W. Burke Co.; steel fabricator: DeCroupet Iron Works.



Dearborn High School. Architect: Eberle M. Smith Associates, Inc.; general contractor: A. W. Kutsche & Co.; steel fabricator: Copco Steel & Engr. Co.



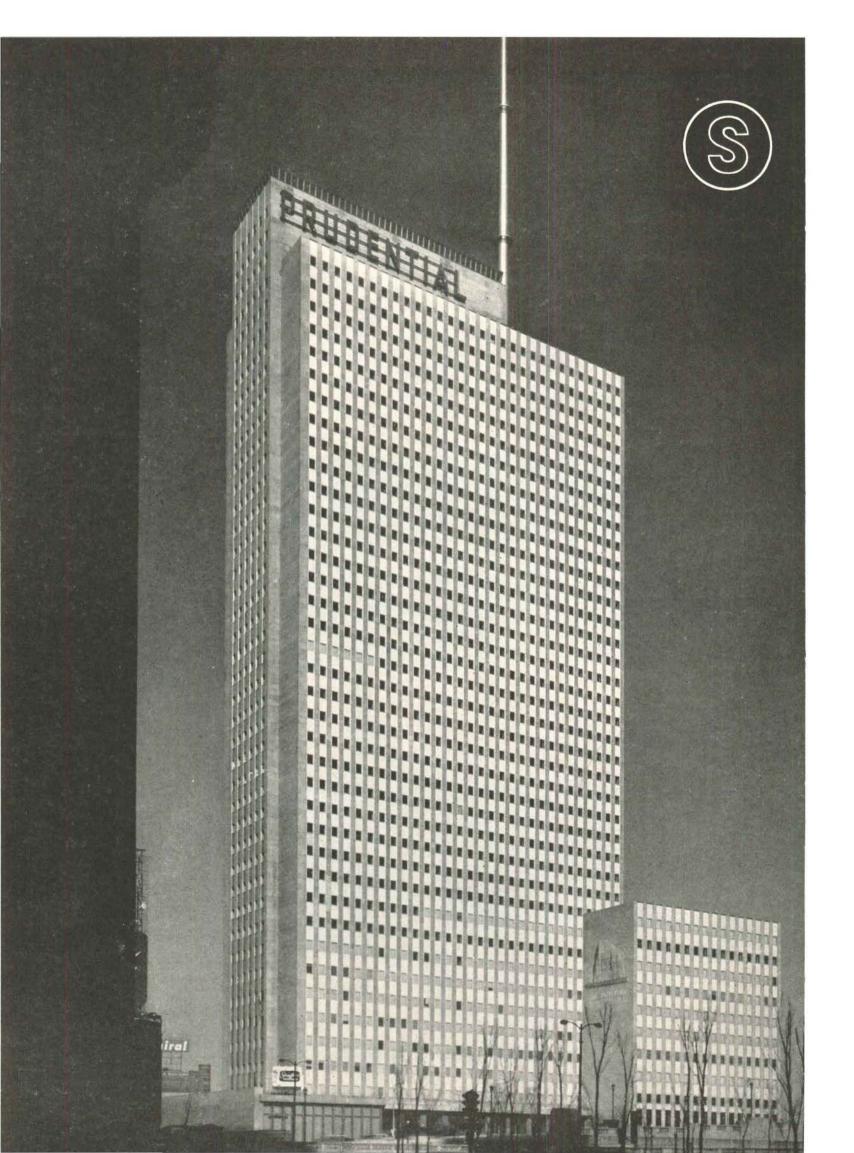
East Lansing Senior High School. Architect: Warren Holmes Co.; general contractor: Ward W. Ross, Inc.; steel fabricator: Copco Steel & Engineering Co.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA. On the Pacific Coast Bethlehem products are sold by

Bethlehem Pacific Coast Steel Corporation. Expart Distributor: Bethlehem Steel Expart Corporation.

BETHLEHEM STEEL





CHICAGO'S FABULOUS PRUDENTIAL PLAZA

... SERVED BY

ARCHITECTS: NAESS AND MURPHY

CONTRACTOR: GEORGE A. FULLER COMPANY OWNED BY: PRUDENTIAL INSURANCE CO.

The magnificent new Prudential Plaza was created to provide business firms in Chicago a better, more convenient location . . . offering the finest of today's service features.

Naturally, The "Overhead Door" was selected for installation on the Prudential Plaza truck loading entrance. These aluminum doors seal out the powerful winds off Lake Michigan . . . yet each door glides swiftly up, over and out of sight at the touch of a button.

Installation of The "OVERHEAD DOOR" in the Prudential Plaza is another example of the confidence architects have in America's finest upward-acting sectional door. For three and a half decades, The "OVERHEAD DOOR" has met the exacting standards of quality, installation and service demanded by architects everywhere.

Today the Overhead Door Corporation produces The "Overhead Door" in sizes to fit all standard door openings . . . and is pleased to cooperate on doors of unusual sizes and special problems. Architects and contractors need only call on us for our special services.

Available in wood, aluminum and steel, there is a type of The "Overhead Door" to serve every need. As America's pioneer and leader in upward-acting sectional doors, the Overhead Door Corporation offers a complete line of doors—residential, commercial and industrial—with or without electric and Ultronic door operators.

OVERHEAD DOOR CORPORATION. General offices: Hartford City, Indiana • Mfg. Dist.: Cortland, N.Y.; Hillside, N.J.; Lewistown, Pa.; Marion, Ohio; Nashua, N.H. • Mfg. Div.: Dallas, Texas and Portland, Ore. • In Canada: Oakville, Ontario.



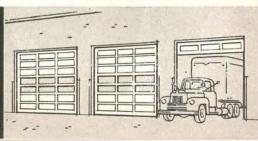
RESIDENTIAL

COMMERCIAL

INDUSTRIAL









Alberene Stone Provides "Low Absorbency" on dealer, said in Protection Against Weather and Chemicals

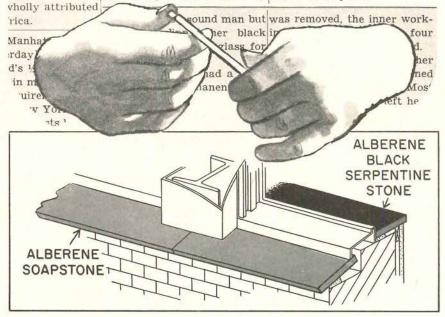
offered no details absence of stratification pre-lustre when wiped dry. vent window sills from spalllast year turned ing and splitting in freezing range from silvery gray to) ounces of gold, weather.

),000. This is 58.1 Alberene Black Serpentine jet black. Also economical slab e total produced Stone window stools are chem- thicknesses of 1/8" to 11/4". ically resistant. Their all-silial, excluding the cate mineral components pre-technical assistance address: as about 29,300,- vent discoloration by metallic Alberene Stone Corporation, s, an increase of rust or window sash conden- 386 Fourth Avenue, New York es over 1956. The sate. They're not stained by 16, N. Y., Dept. R.

ut Soviet produc- Alberene Stone's low absorb-|salt, grease, oil, fruit juice or s South Africa's ency rate, its fine grain and alcohol - which simply add

> Architects are offered a color dark gray; green to black; and

> For full information and



provides LOW ABSORBENCY protection

Washington Topics

permit the lowering of machinery and equipment. The digging would then progress from the inside out, with the rock removed on conveyor systems through long tunnels reaching to the surrounding rivers, where the material would be loaded on barges and taken out to sea for disposal.

Pressed for an estimate of construction time, Mr. Taylor said he thought two or three years could see completion if enough effort were put on the project. He also noted that thought had been given to excavating under the other New York boroughs and eventually connecting the whole system of shelters for commuting.

The subcommittee was not enthusiastic. Mr. Taylor had said FCDA is not advocating the project but Rep. Chet Holifield (D-Calif.), subcommittee chairman, and some of his colleagues, thought publication of the Panero study would hold the entire civil defense program up to ridicule. "Why engage in such a fantastic study when we must approach the best solution for the greatest

number of people?" he asked.

In defense, Mr. Taylor explained that FCDA feels it has gotten "a wealth of information" on geological formations "under our big cit-Again stressing that the Federal government is not advocating such a program at this time, Mr. Taylor said he felt the geological knowledge gained had justified the expense (he testified FCDA had paid the Panero firm \$18,000). He believes the data accumulated for New York would be applicable to many large American cities.

Mr. Taylor's testimony was the most spectacular development at the hearings, which had been called to secure information for Congress on results of the "Plumb Bob" test series at Frenchman's Flats, Nov., last year. A great deal of the technical data resulting from these investigations was placed in the subcommittee's voluminous and growing record in civil defense matters. But many other facets of the general shelter problem, such as administration and financing, found their way into the May discussions.

Spokesmen told of the agency's national civil defense program being based on a new aiming area concept. Emphasis is placed on planning of shelters to withstand 30 psi and to concentrate on fall-out protection for total populations in the target areas.

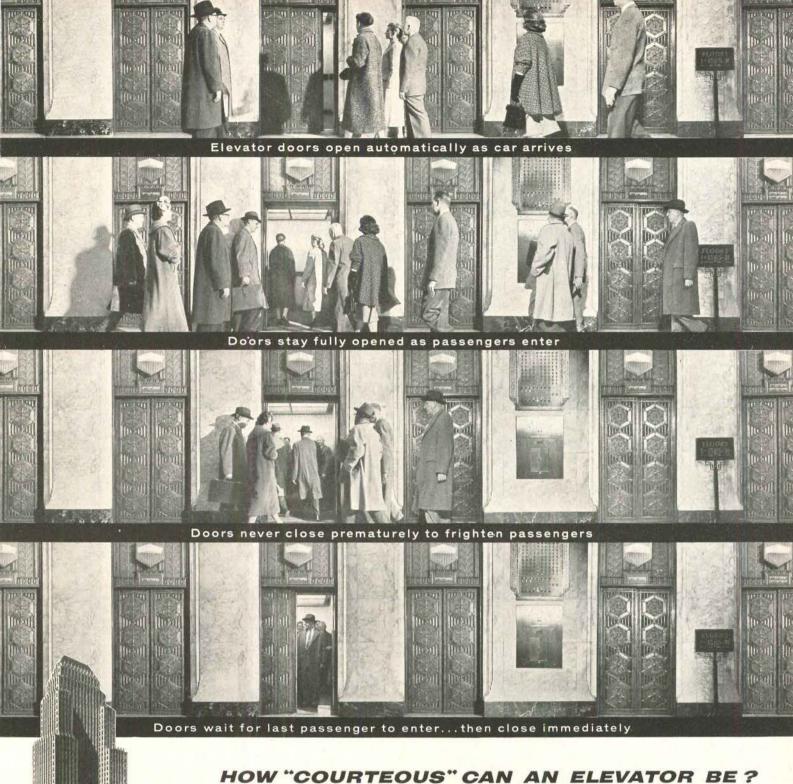
Jay.

ntagu & Co., top

view that "latest

ting evidence.

side Russia.



WESTINGHOUSE OPERATORLESS ELEVATORS WITH TRAFFIC SENTINEL® CONTROLLED DOORS PROVIDE AN AMAZING ANSWER

When Koppers Company, Inc. decided to modernize its Westinghouse elevator system to cope with increasing building traffic demands, they again selected Westinghouse equipment for their 12 elevators. The moderniza-tion provided for the newest Westinghouse Selectomatic operatorless elevators, as well as electronically controlled Traffic Sentinel doors.

THE KOPPERS BUILDING

modernized its elevators which were in-

stalled in 1929 with Selectomatic oper-

atorless elevators and Traffic Sentinel controlled doors. When in Pittsburgh,

test ride these remarkably smooth West-

inghouse elevators-and observe Traffic

Sentinel in action.

IN PITTSBURGH, PENNA.

Why operatorless elevators?—because operating costs are cut as much as \$7,000 per car per year.

Why Traffic Sentinel Doors?—because these are the

most courteous elevator doors in the world. They work for passengers, not against them. They never "snap" at or frighten people. Door opening and closing is controlled entirely by passenger movement. Doors remain

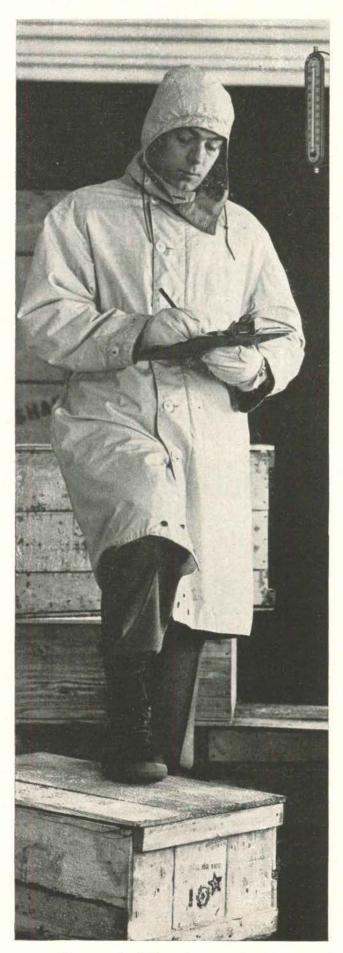
open only as long as necessary—and close only when threshold is free and clear. It's all done electronically with Traffic Sentinel's "seeing eye."

If you're planning to modernize your present elevator system to meet today's heavier passenger traffic demands, the people to talk to are in your nearest Westinghouse Elevator Division office. They'll help you with any elevatoring problem relating to modernization or new building installations.

YOU CAN BE SURE ... IF IT'S

Westinghouse

J-98760AA

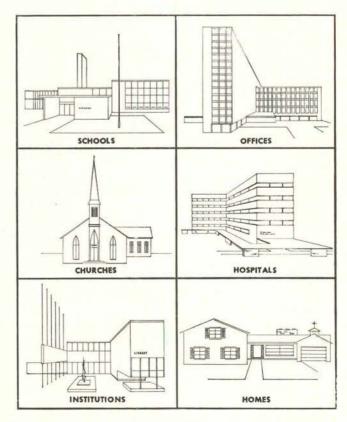


In just ten years, Styrofoam has set new high insulating standards in the cold storage rooms of leading U.S. companies . . .

No wonder Styrofoam®

Ten years ago, a newcomer in the field . . . today, the most copied insulation on the market. That's the performance record established by Styrofoam* in the low-temperature rooms of leading companies throughout the United States and Canada. And now . . . architects and builders are taking advantage of Styrofoam in "comfort" applications, too.

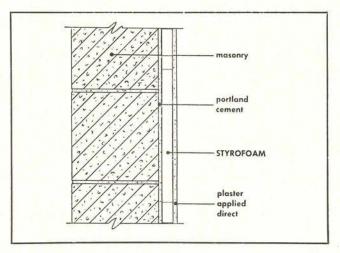
A close look at its unmatched combination of properties tells you why Styrofoam is a lastingly efficient, maintenance-free insulation. It has a permanent low "K" factor that stays low because Styrofoam is waterproof. It has thousands of noninterconnecting air cells that water can't penetrate. It doesn't rot, mold or deteriorate . . .



Styrofoam holds the right temperature in freezer room or front office

is proving superior as "comfort" insulation!

doesn't attract insects, vermin and rodents. In addition, Styrofoam is lightweight, clean and easy to handle. This remarkable combination of properties makes Styrofoam a superior insulation for churches, schools, offices and homes as well as for cold storage rooms.

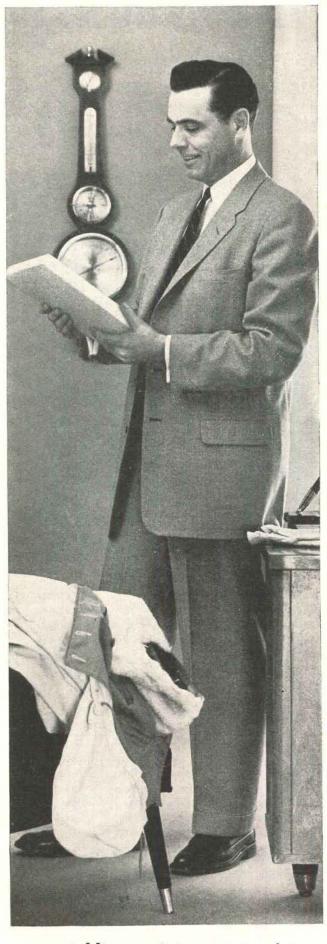


New construction method substantially cuts costs in masonry construction by eliminating furring and lathing—assures a warm, dry interior. Styrofoam is adhered to brick or concrete block wall with Portland cement mortar. Plaster keys directly to Styrofoam. For more information, write to THE DOW CHEMICAL COMPANY, Midland, Michigan, Plastic Sales Department 1919G.

*Styrofoam is a registered trademark of The Dow Chemical Company

YOU CAN DEPEND ON

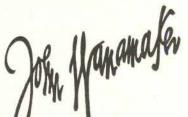


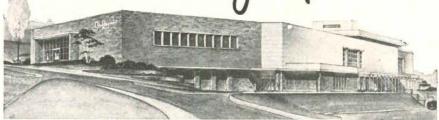


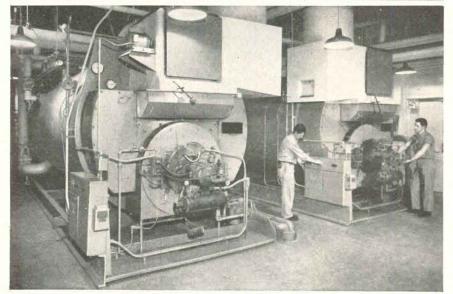
because it has lifetime insulating efficiency, unyielding resistance to moisture

FITZGIBBONS BOILERS

SETVING
JOHN WANAMAKER
JENKINTOWN, PA.







Two Fitzgibbons Packaged Boiler-Burner Units were selected to provide heat and hot water service to John Wanamaker's new, modern, suburban retail store.

Installed on the roof to reduce construction costs, the design of these two boilers permits even greater economies in efficient operation and low maintenance because of their completely water jacketed combustion chambers, automatic operation, ease of service and quality construction.

Architect:
Messina & DuPont,
Wilmington, Del.
Consulting Engineer:
Stewart A. Jellett Co.,
Philadelphia
Mechanical Contractor:
W. M. Anderson Company,
Philadelphia

These two oil-fired Fitzgibbons steel boilers, rated at 398 horsepower, use Fitzgibbons Tanksavers® to provide economical service hot water.

For more information on this and other Fitzgibbons Steel Boilers, write the company.

Fitzgibbons

Boiler Company, Inc.

New York Sales and Executive Office: 101 Park Avenue, New York 17, N.Y.
Field Sales Office and Plant: Oswego, New York

Branches and Representatives in Principal Cities

Dept. 10

FB131

Washington Topics

Special emphasis is being placed on improved fall-out shelters which could be so built that they could be converted quickly and at less cost to blast type shelters.

Explained were temporary basement fall-out shelters constructed simply from bags and boxes filled with sand with an adequate earth cover placed on a tarpaulin on the floor of the room above; combination shelter and storage areas under garden houses and garages away from the house; underground group shelters for up to 250 persons serving dual purposes (instruction, cafeteria, library, etc., and shelter) in connection with schools, and the vast underground garages which could shelter thousands of persons and many cars. It has even been suggested that shelters be incorporated in large fills necessary for the Interstate Highway System construction. Officials said they think the big highway program and shelter efforts can blend to a limited extent.

FCDA is contracting for design of a multi-story underground type for schools. One prototype has been completed through the planning stage in this field and several other types will be designed.

The record shows clearly that the administrative agencies feel they are capable of giving sufficient technical assistance for an immediate start on a vast shelter construction program. Gerald Gallagher, assistant administrator of FCDA, said: "We are ready to provide guidance in the design and in the construction of shelters throughout the country to give a high level of protection to the people. We can design and build effective shelters at this time."

This agency first proposed a nationwide effort in a report to the White House in December of 1956. This has been under study since and "a definite program will emerge in due time," Mr. Gallagher told the subcommittee.

The subject could be vitally affected by the President's plan to combine the responsibilities of the FCDA with those of the Office of Defense Mobilization. He has sent a reorganization plan to Capitol Hill which would accomplish this effective July 1 if it is not disapproved meanwhile by either the Senate or the House. This Plan No. 1 of 1958 would create a new office of Defense and Civilian Mobilization in the place of the present ODM and FCDA.



got his steel doors & frames in 48 hours the man says!

Robert H. Waters of the Robert H. Waters Company, Inc., general contractors, 120 Wall Street, New York, N.Y., reports as follows:

On a recent job we completed for British Overseas Airways Corporation (BOAC) in the Seamen's Bank Building, 5th Avenue and 45th Street, New York, we ordered AETNAPAK doors and frames on February 5, 1958. The order was shipped February 6, 1958.

Delivery on custom-quality doors and frames has always been a problem, requiring, as a rule, anywhere from three weeks to three months. Being able to get 48-hour delivery on a custom-quality line that offers a variety of type-and-size combinations and a choice of hardware is certainly a great help in meeting our completion schedules.

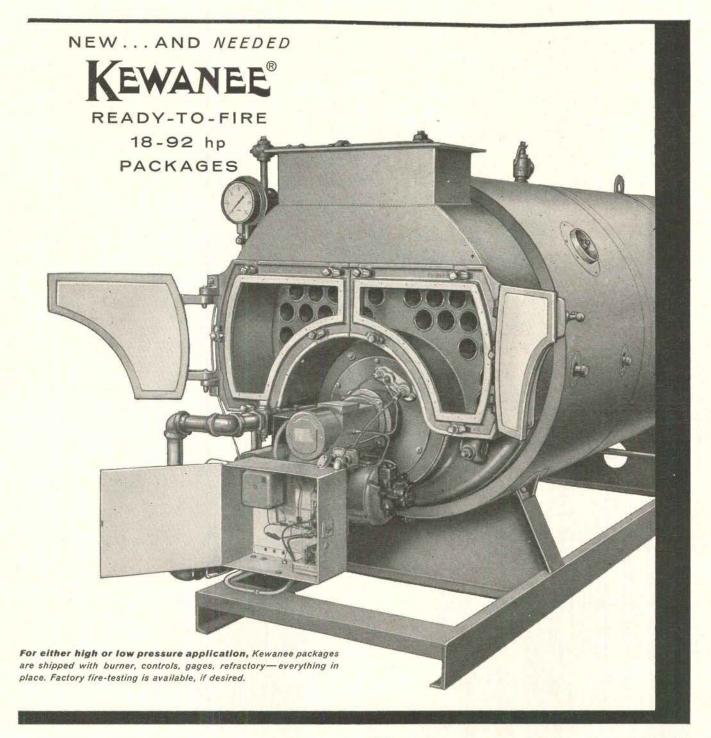
send for free

 $catalog \\ today!$

AETNAPAK Inventoried,

City.....State.....

custom-quality
Steel Doors,
Frames, Hardware
at stock prices.
Shipment within
48 hours.

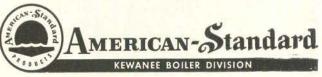


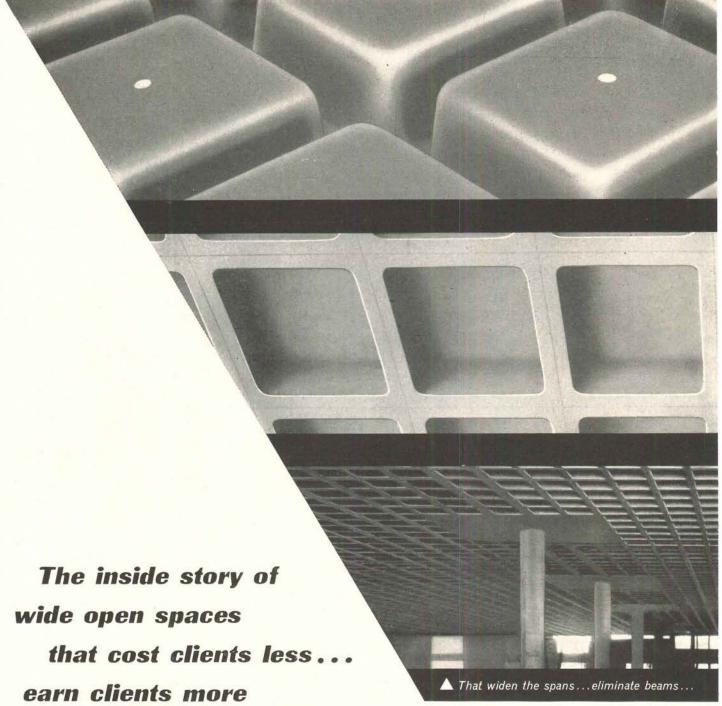
Put Kewanee quality and the package principle together on your next "under 100 hp" project. If it's a high pressure job, choose from 8 packages ranging from 18 to 92 hp. For low pressure applications, Kewanee packages start at 606,000 Btuh and end, eight sizes later, at 3,091,000 Btuh.

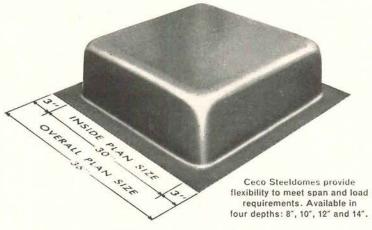
These are famous Kewanee Scottie Jr. Boilers factory-teamed with Kewanee Burners for oil, gas or combination oil-gas firing. They arrive on the job ready to fire as soon as they are connected to fuel, water, steam, power and vent. Fuel changeover, in combination firing, is fast and can even be handled by automatic controls. Forced-draft firing eliminates a stack. No unit is higher than an 8-foot standard ceiling.

New literature has recently come off the press on these new Kewanee packages. If you haven't seen it, send the coupon at right to: AMERICAN-STANDARD, KEWANEE BOILER DIVISION, 105 Franklin Street, Kewanee, Illinois.

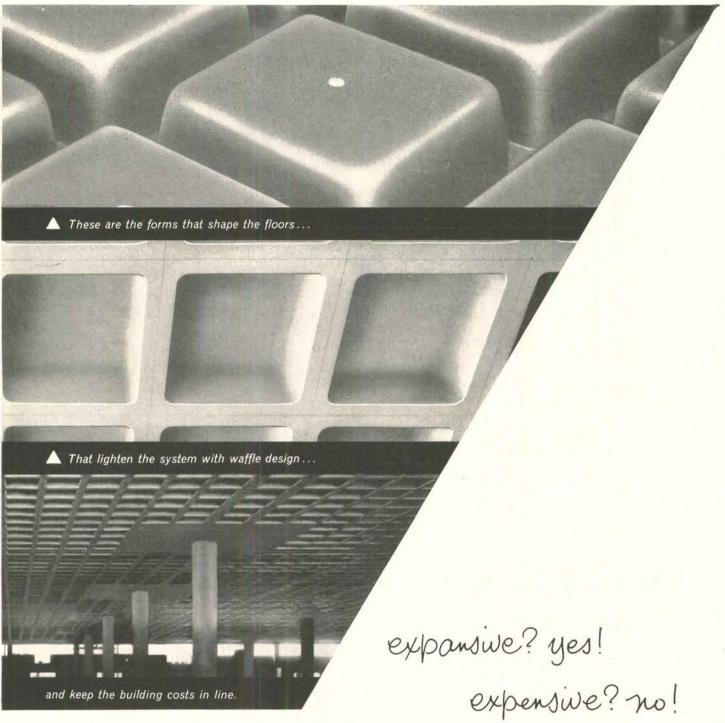
| American-Standard | KEWANEE 7 |
|---|------------------------|
| 105 Franklin Street - Kewanee, Illinois | 1868 Wyear |
| Please supply literature on the following K | |
| ☐ high pressure 18 to 92 hp, 125-150 l | lb wp |
| ☐ low pressure 606 to 3091 MBtuh, 15 | Ib steam - 30 Ib water |
| | |
| Name | |
| Name | |
| | |







CECO'S ONE-PIECE STEELDOMES TELL THE TALE . . . Architects and engineers are always seeking ways to span wider areas at lower costs . . . to design buildings that offer the highest return to the client. Ceco offers a solution: Two-way dome construction, using one-piece Steeldomes. Result: Fewer columns...uniform ceiling heights ... no flared heads... no drop panels... more unobstructed areas for owners to use. The spans are expansive—but not expensive.



Savings in material and time are assured by the two-way design. And there is no higher quality concrete finish than provided by Ceco Steeldomes removed by compressed air. Ceco Steel Products Corporation. Sales offices, warehouses and fabricating plants in principal cities. General offices: 5601 West 26th Street, Chicago 50, Illinois.

IN CONSTRUCTION PRODUCTS CECO ENGINEERING MAKES THE BIG DIFFERENCE... Steelforms / Concrete Reinforcing Steel Joists / Metal Roof Deck / Windows, Screens, Doors / Cecoframe Buildings / Metal Lath

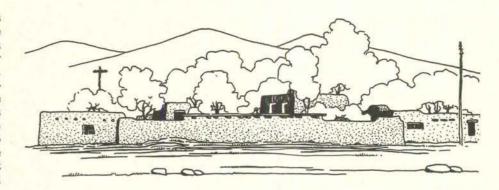
WRITE TODAY-WRITE NOW!

| | CECO STEEL PRODUCTS CORPORATION 5601 West 26th Street, Chicago 50, Illinois Please send catalog No. 4007 covering Ceco Steel- dome construction. |
|----------|---|
| name | |
| position | - |
| firm | <u> </u> |
| | <u>, </u> |
| address | |

The Record Reports

continued from page 20

false fronts and are bad imitations in other respects. Some stores have added simply false viga-ends to plain brick buildings, then plastered over the front and painted it a mud color. The F. W. Woolworth Company conformed by erecting the only 10ϕ -store in its chain without a red sign across the façade, but its large plate-glass windows are out of focus with Pueblo tradition. On the other hand, the First National Bank Building, put up diagonally across from the old palace since World War II, harmonizes almost completely and is one of



FULTON NATIONAL BANK

Atlanta, Georgia

ARCHITECT: Wyatt C. Hedrick

Ellison doors

4 Balanced Doors in the entrances to Fulton National Bank.



The Door that lets

TRAFFIC through QUICKLY

5 Mison representati

ELLISON BRONZE CO.

Jamestown, New York

representatives in 77 principal cities in the United States, Canada and Puerto Rico

the BALANCED DOOR

the best examples of Pueblo-style architecture put to functional use.

It is this "happenstance" sort of development that the City Council hopes to correct by the new architectural controls ordinance. Early in 1956 a City Planning Commission set up a "Committee to Preserve the Character of Santa Fe." It consisted of Oliver La Farge, well-known novelist and authority on American Indian problems, and Irene von Horvath, an architect who has worked in the New York area. Both Mr. La Farge and Miss von Horvath have chosen Santa Fe as a place to live primarily because of its unusual architecture and historic character. Their first report to the Planning Commission, largely the work of Mr. La Farge, stated the problem succinctly. The following are excerpts from this report:

'The work of this committee explicitly deals with historical, associational, and distinctive values, but if the program developed is sound, and is put into effect, its end result should be highly practical. . . . Mere preservation is not enough. Santa Fe's character developed out of authenticity. Its people built in a certain way. Without consciously aiming at an effect, they gave its streets certain qualities, including architectural unity, an appearance quite unlike that of the streets of any other American town-qualities of color, design, and composition that drew artists from far and near, charm, peace and relaxation. Much of this original, unselfconscious, authentic quality has been destroyed, to be replaced by synthetic imitations that do not imitate; hustle; noise; congestion; and the less desirable aspects of small-



5/5 Lexington Avenue

6500 tons of structural steel joined with high-strength bolts



Owner and Builder: Sam Minskoff & Sons, Inc.; Architects: Sylvan Bien & Robert L. Bien; Structural Engineers: Weinberger, Frieman, Leichtman & Quinn.

This stunning new office building at Lexington Avenue and East 51st Street is New York's first multi-storied structure clad in gold-anodized metal curtain walls. The 6500-ton steel framework for its 34 stories was erected in comparative quiet, with thousands of Bethlehem High-Strength Bolts used in joining its structural members.

Bolting is Fast

Bethlehem High-Strength Bolts make possible a saving in erection time because they can be installed in a jiffy. With the bolt head grasped by a holding wrench, the nut is drawn up with a pneumatic impact wrench. This provides a sound joint in a matter of seconds. The bolts can also be tightened by means of hand spanners.

Bolting is Quiet

Bethlehem High-Strength Bolts provide a much quieter form of construction than riveting, making them particularly desirable for school and hospital zones. The bolts are installed cold, eliminating the danger from fire or injury from tossed rivets.

Bethlehem High-Strength Bolts are made of a good grade of carbon steel in all popular sizes. They are quenched and tempered to meet the requirements of ASTM Specification A-325. They are fully described in our 24-page illustrated booklet, "High-Strength Bolting for Structural Joints." Ask the

nearest Bethlehem sales office to send you a copy.

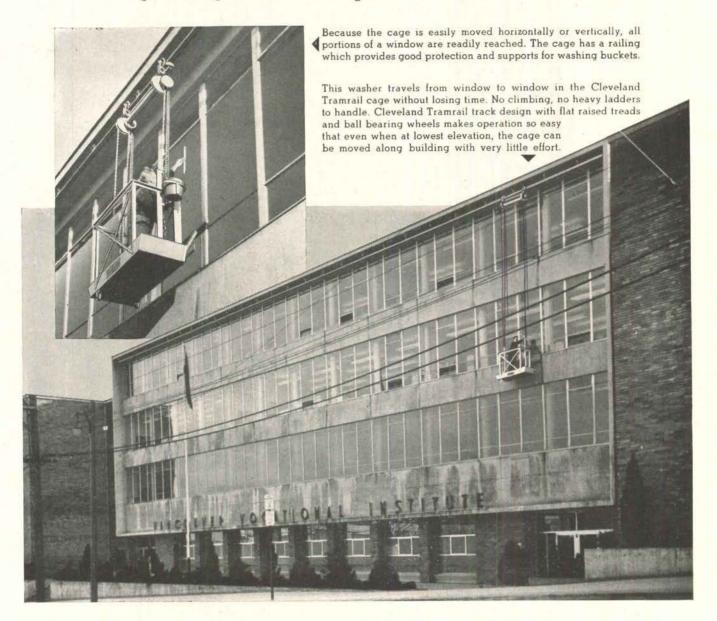
High-Strength Bolt is used with two hardened washers, placed under head and nut.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA. On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. Export Distributor: Bethlehem Steel Export Corporation

BETHLEHEM STEEL



An Easy Way to Keep Windows Clean



ARGE window walls have important advantages that make them very much worthwhile, but one thing is certain: they must be washed periodically.

Cleveland Tramrail equipment speeds window washing, because it enables a man to reach any window quickly and provides him with a safe, convenient place from which to work.

The equipment consists of an overhead track mounted near the roof of a building, a carrier which operates on the track, a hoist and the

washer's cage attached to the latter. The cage can be moved along the track, raised or lowered by the washer while in the cage.

Windows can be washed in one-half or less the time normally required. Even windows designed for washing from the inside are cleaned more quickly with Cleveland Tramrail. The washer need not walk from office to office, carry buckets and materials, move desks, chairs and overcome other obstacles. Instead, he propels himself from window to window with no hurdles in the way.

Whether you are concerned with window washing in an existing building or for a new one being planned, get the facts on hand-propelled and electrically driven Cleveland Tramrail window washing equipment. Ask for free copy of booklet No. 2022-A





Call the man from Fenestra for

Dormitory doors at the lowest installed cost!

A door has to be hardy to take dormitory living. Concealed within the sleek seamless beauty of this new Fenestra® Hollow Metal Flush Door is a rigid, rugged, welded structure that gives the door the strength to withstand years of abuse. It's Fenestra's exclusive multi-rib reinforcement!

With Fenestra Hollow Metal Doors you get the lowest installed cost because:

1. You buy a *complete package*—door, frame, hardware, completely machined at the factory to climinate on-the-job cutting and fitting.

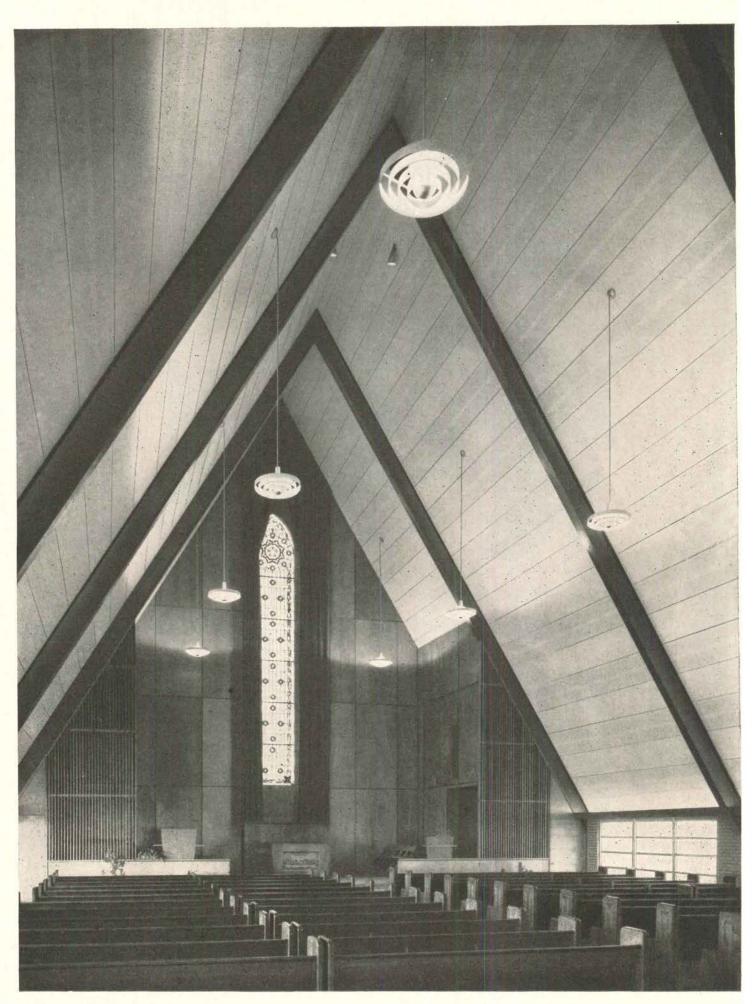
- 2. Erection is fast—one man with only a screw driver can install a door in minutes.
- 3. You have a complete selection of door types (1% " and 1¾ ") of distinctive designs and features—all mass produced. Custom quality at stock door prices!

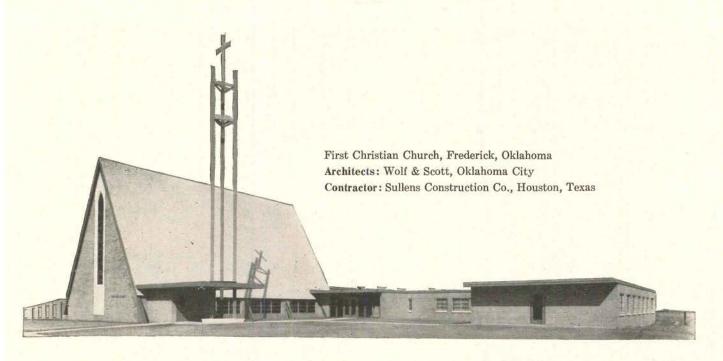
Ask your Fenestra representative (listed in the Yellow Pages) to help you in your selection and specification of doors, frames and hardware. Or, write to Fenestra Incorporated, Dept. AR-6, 2252 East Grand Blvd., Detroit 11, Michigan.



from Fenestra be your "door man"







CEILING DOES DOUBLE-DUTY TO STRETCH BUILDING DOLLARS

it's a structural roof . . . it's an acoustical ceiling!

Need aesthetic beauty and muted devotional atmosphere be sacrificed to a dollar sign? Must structural and enduring qualities be compromised for economical construction?

Not when you use Fenestra* Acoustical "D" Building Panels to combine structural roof and finished interior ceiling in *one* compact, easy-to-handle package. They replace *five* different materials . . . are erected in *one* operation, by *one* trade.

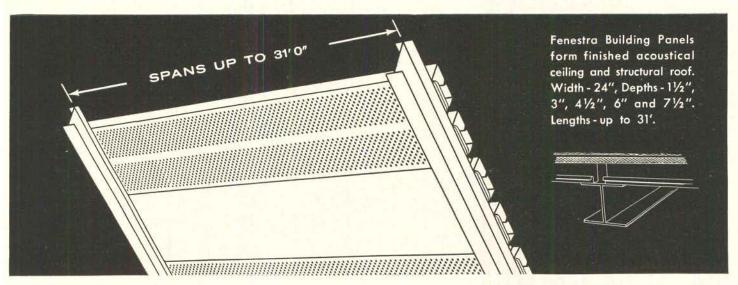
Under normal roof loads, these lightweight, high-strength, 24" wide steel panels span up to 31'. Inside the panels, just above the perforations, is a pre-formed, arched, sound-absorbing batt† which effects noise reduction coefficients up to 80%. The ceiling can be washed or painted without affecting acoustical qualities.

Get complete details. Write for FREE Fenestra Building Panel Catalog, or call your Fenestra representative. Fenestra Inc., Department AR-6, 2252 East Grand Blvd., Detroit 11, Michigan.

Fenestra

YOUR SINGLE SOURCE OF SUPPLY FOR BUILDING PANELS - CURTAIN WALLS DOORS - WINDOWS

*Trademark †Patent Pending

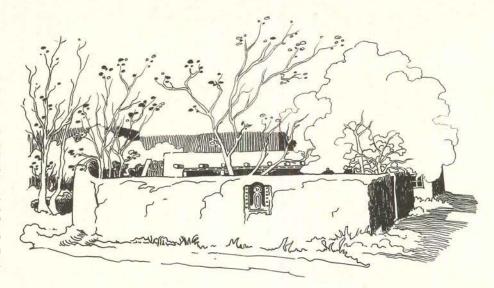


The Record Reports

town growth such as masses of overhead wires, jarring signs and billboards, and repulsive commercial constructions."

The other committee member, Miss von Horvath, saw the problem as chiefly one of esthetics. During the course of the debate over the ordinance, she said:

"In this country, where a person may choose his religion, his profession, his politics, his very way of life, it does not seem unreasonable to make it possible for him to choose the character of his environment and



5 key points in laundry planning

size equipment arrangement

operating cost supply services

The American Laundry Machinery Company's Survey Engineering and Planning Service concentrates simultaneously on these 5 major points. Interrelating problems are solved on the spot, and planning for the entire laundry project can be completed in minimum time.

We will furnish you detailed drawings, floor plan layout, equipment recommendations, estimate of operating personnel, and complete specifications including water, sewer, electrical, steam and/or gas services—everything you need to design an efficient, space-saving laundry department.

This service is available to architects without obligation. Call your nearby American representative, or write.

Willarmette View Manor, Portland, Oregon. Architect: Walter E. Kelley, Portland, Oregon. Laundry Equipment: The American Laundry Machinery Company.



The American Laundry Machinery Company, Cincinnati 12, Ohio

You get more from



have it remain as he chose it. Zoning is a step in that direction, but zoning does not usually concern itself with quality and harmony within an area. 'You cannot legislate good taste' is a remark frequently quoted by some; others fear monotony; still others insist that an owner must be allowed to do with his property as he wishes, that any restrictions would be undemocratic.

"With adjustment for the unforeseen, there is no doubt that adequate legislation for harmony is possible. The belief that the exteriors of buildings are private rather than public is bound to vanish as density of population increases. As for monotony, one may as well express concern over monotony in nature. . . .

"There is then the possibility of taking certain qualities in architectural expression and adopting them for one's surroundings without fear of monotony. There are materials and colors and certain basic principles which have shown an amazing recurrence and compatibility with the human race throughout the world over thousands of years, particularly in arid countries. We are fortunate indeed that they happen to exist in Santa Fe and give it a character as distinctive as its history."

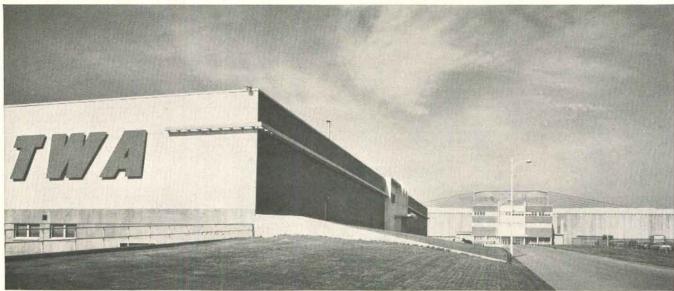
The "private rather than public" angle is attacked also by Mrs. Ina Sizer Cassidy, a writer and long-time Santa Fe resident who led the two-year fight for the style ordinance. She deplores the fact that if no restrictive law had been passed, a stainless steel skyscraper could have been built right across the street from the old palace. "In architecture," says Mrs. Cassidy, "there is a third party involved—the public, who are faced permanently with the sight of the building conceived. This public has the right to be heard."

For purposes of clarity, "Pueblo style" is generic for all adobe and simulated adobe construction, whether it be modeled after the true pueblo, the early mission, the "Territorial" building, or other reasonable varia-



A continuing series of outstanding schools, churches, office buildings, hospitals and industrial structures using NORTON DOOR CLOSERS

NEW BUILDINGS IN KANSAS CITY WITH NORTON DOOR CLOSERS



BURNS & McDONNELL ENGINEERING CO., ARCHITECTS AND ENGINEERS . AMMANN & WHITNEY, CONSULTING STRUCTURAL ENGINEERS



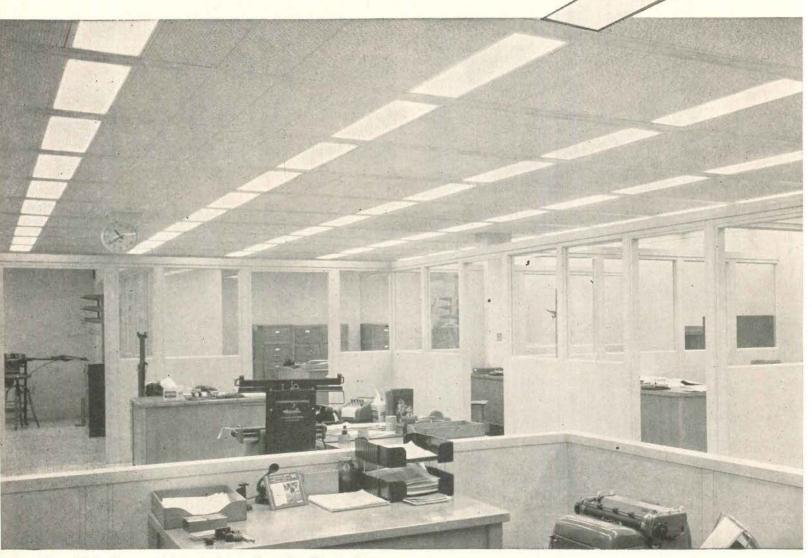
An engine for an airliner or a door closer for the plant which overhauls that engine, both must have one quality in common—dependability—to be acceptable to Trans World Airlines. With that thought in mind, the engineers specified *Norton Surface-Mounted Door Closers* for buildings at Trans World Airlines' new \$18,750,000 overhaul base on Kansas City's Mid-Continent International Airport.

The door closers used here by TWA are the modern counterparts of Norton Door Closers still in daily use after serving continuously 20 to 30 years and longer. Other Norton models are available as shown at the left, to serve virtually every door closer need with equal dependability. See the new Norton catalog #57 for full descriptions of the complete line, including important new models. Write for it today.

NORTON DOOR CLOSERS

Dept. AR-68 • Berrien Springs, Michigan

Selected over 12



These lighting fixtures can be moved as easily as the office partitions.

Day-Brite Recessed Troffers are interchangeable with acoustical ceiling tiles, permit complete flexibility.

PROOF! No "or equal" can match Day-Brite!

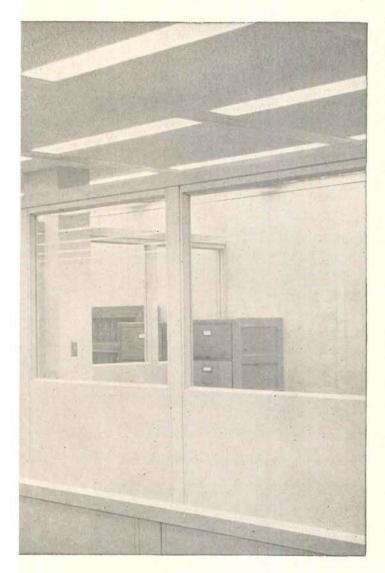
Twelve different competitive fixtures were installed on a test basis in the new home of the South Carolina Electric and Gas Co. The architect and client each compared the fixtures *independently*, and both chose Day-Brite Troffers for the entire job.

Make your own comparison. Call your Day-Brite representative, listed in the Yellow Pages, for a demonstration. Compare Day-Brite fixtures side-by-side with any other fixtures at any price. Check features and value. Prove to your own satisfaction that Day-Brite fixtures have no "or equals."

Additional light where it is needed! Extra row of Day-Brite Troffers above business machines (next to wall) provide 85 footcandles at work level.



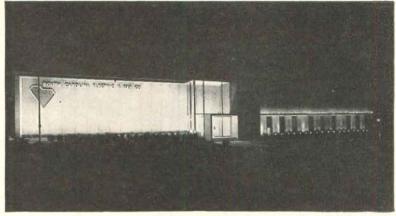
competitive fixtures!





Day-Brite Lighting, Inc. 6252 N. Broadway, St. Louis 15, Missouri Day-Brite Lighting, Inc., of California 530 Martin Ave., Santa Clara, California





South Carolina Electric and Gas Co., Columbia, South Carolina. HEYWARD S. SINGLEY, F.A.I.A., Architect-Engineer; DUNN ELECTRIC CO., Electrical Contractor.

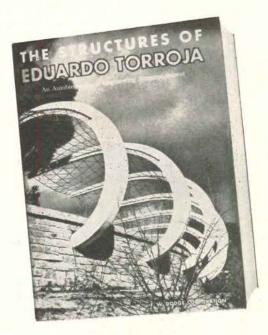
How Modular
Lighting by
Day-Brite
helps Architects
LOWER
CONSTRUCTION
COSTS

In keeping with contemporary architectural trends, Day-Brite recessed fixtures are shallower and lighter, yet stronger. They take less space, can be mounted end-to-end or side-by-side, offer greater freedom of design.

Interchangeable with acoustical ceiling panels, they enable you to take full advantage of all the economies made possible by modular construction.

For more information on how Day-Brite equipment can help you coordinate lighting with ceilings in appearance, function and assembly, write for your copy of free booklet: "Modular Lighting for Modular Measure."

Z-250



just published . . .

THE STRUCTURES OF EDUARDO TORROJA

an autobiography of engineering accomplishment

For the first time, Eduardo Torroja describes and explains the major accomplishments of his career, and reveals with candor his unusual building philosophy. From his hundreds of works he has selected 30 of the most significant. Torroja explains this:

"I feel that these exemplify best what I was searching for, and what I finally achieved."

The 30 structures shown are of many types — bridges, viaducts, dams, hangars, sports arenas, factories, churches. Many of them are of reinforced concrete — for Torroja's most unusual engineering feats are in prestressed and post-tensioned concrete — but wood,

brick, and steel are used as well. All of them bear the strong mark of Torroja's brilliant design, sound engineering, and delicate sense of beauty.

ABOUT THIS BOOK

Written by Torroja himself, it follows his reasoning during the design of each of the 30 structures. Engineering details are given. In some cases, alternate designs which were later discarded are shown. The excellent photographs show models, projects under construction, details, and completed projects. The book contains a total of 275 illustrations.

209 pages, 7 x 93/4", clothbound, only \$8.50

EDUARDO TORROJA was a pioneer in 1933, and he is a leader in design today. He is an architect, an engineer, and a teacher of structural engineering. He created, and directs, the Technical Institute of Construction and Cement at Costillares, Spain.

Inevitably, Torroja's works are compared with those of Pier Luigi Nervi. Like Nervi, Torroja is mathematically oriented, and steeped in theory of structures. Both know when to resort to experiment and model analysis. Torroja is also very much a humanist, with a flair for beautiful forms and lines, as the structures in this book will reveal to you.

Mail this coupon today

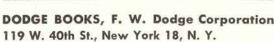


956



FIVE LARGE SECTIONS

- 1. Large Shells
- 2. Viaducts and Aqueducts
- 3. Special Structures
- 4. Steel and Composite Structures
- 5. Churches and Chapels



Send me....copies of THE STRUCTURES OF EDUARDO TORROJA @ \$8.50. After ten days examination, I will either remit payment, or return the book(s) without cost or obligation.

| NAME | | | | | | *. * . |
|---------|------|------|------|------|------|------------|
| ADDRESS | | | | | | |

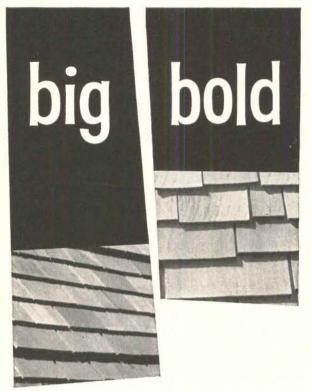
CITY.....STATE.....

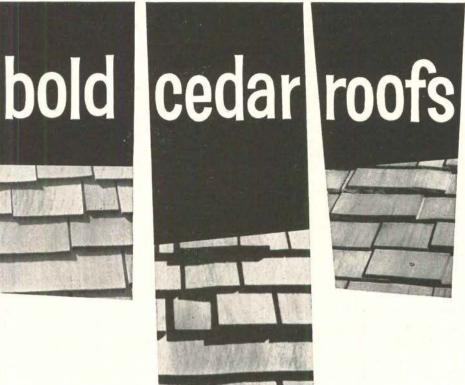
Check enclosed. Same return privilege, Dodge pays postage.

Send free catalog.









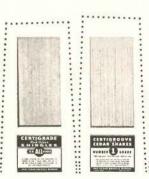
The qualities of cedar shingle roofing transcend passing fancy. Custom home designs—of any period—are characterized by expansive roof areas, distinctive roof textures, important roof pitches. The versatility and integrity of natural materials—notably cedar shingles for exteriors—afford the designer limitless scope, infinite expression.

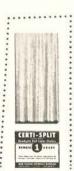
Shingles of Western Red Cedar have that vital third dimension... the thick butt-lines that catch the sun and create shadow accents of dramatic depth. Only cedar shingles offer the natural graining and rich texture of the genuine. Because only cedar is the genuine.

When you think of roof design...think big...think bold...and you will think of cedar!

RED CEDAR SHINGLE BUREAU

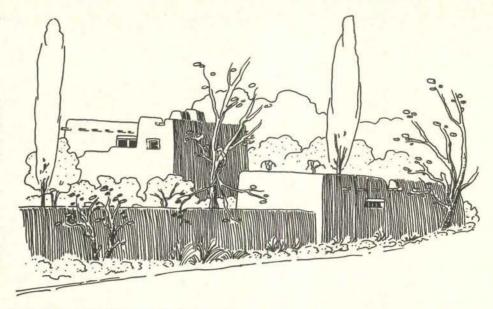
5510 White Building, Seattle 1, Washington 550 Burrard Street, Vancouver 1, B.C.





The Record Reports

tions. The ordinance affects new buildings and the remodeling of old ones in areas of Santa Fe which have historic significance. These include the plaza with its old palace; and the Barrio Analco, a district which contains the old church and many fine residences which are all of 200 years old. New structures or those repaired in such areas must conform to Pueblo style, in outward appearance at least. Complete freedom of expression is allowed so long as the exterior fronts of the building meet the terms of the law.





THE BUILDING STONE THAT MADE THE FACE OF AMERICA

INDIANA LIMESTONE lends its beauty and permanence to buildings throughout America.

Every architectural style has its outstanding examples of the use of Indiana Limestone. The Pentagon, Empire State Building and Prudential's Mid-America Building serve to illustrate the ever-new versatility of this material so highly valued for its distinctive appearance and almost complete freedom from maintenance.



INDIANA LIMESTONE INSTITUTE

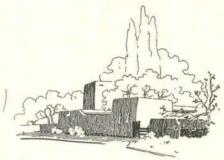
BEDFORD, INDIANA

Founded 1932 as a service organization for the architect and contractor

Of home owners in the historic zone who express themselves at all, the majority favor the ordinance. There is well-thought-out opposition, however. Virginia Gray, a ceramist who has recently designed her own non-conforming house in a region now restricted, says that matters of taste can't be legislated. Miss Gray continues:

"I feel that an ordinance regulating the architectural style of buildings in the city is contrary to the democratic principles of this country. Individuals should be free to do with their own property what is pleasing or attractive to them. No one has the right to dictate by law what is essentially a matter of personal taste.

"It's as if it were decided that only one kind of tree would be allowed to grow—poplars, for instance. But many kinds of trees flourish and there is much enjoyment in their variety. Who is to judge whether a poplar or a willow is a better tree?"



Aurora Lucero-White Lea lives in the historic zone within a few blocks of Miss Gray, and disagrees. Mrs. Lea, author of several books and articles on New Mexico folklore, says:

"In the creation of a pattern for building for an area the situation is the first consideration. The architect should utilize all the advantages and build around them. In the Southwest, especially in Santa Fe, we are blessed with scenic splendor. The pattern for building then should be one that emphasizes this factor. The sprawling adobe with all of its possible varia-

World's Fastest Paint!

(VINYL-ODORLESS)

assures

SAME-DAY OCCUPANCY

for all public rooms

With this new paint it is easy to finish any room within a few hours. Painters and maintenance men are of one mind—Devoe Wonder-Tones is truly the paint that has everything!

Here's why:

- · extremely wide choice of modern colors
- superior vinyl paint film . . . can be thoroughly scrubbed when dry
- · completely odorless
- · no lap marks, "boundary lines" or touch-ups
- · dries in twenty minutes
- · self-priming
- gives up to 500 square feet of coverage per gallon
- remarkable one-coat hiding efficiency...on plaster walls, woodwork, wallpaper and interior masonry

Devoe Vinyl Wonder-Tones is rated No. 1 for all-round quality by a leading consumer testing organization.*

*Name furnished on request.

GUARANTEE:

If Devoe Vinyl Wonder-Tones fails to do everything we say it will do, the purchase price will be gladly refunded.

DEVOE & RAYNOLDS COMPANY, INC.

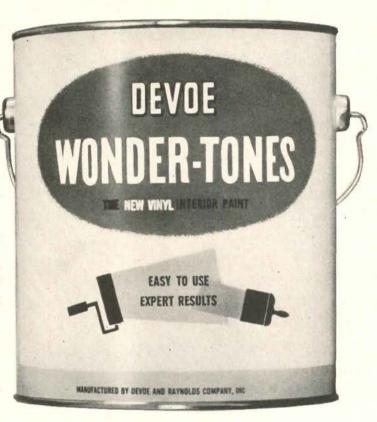
New York . Philadelphia

Atlanta · Boston · Chicago · Cincinnati
Dallas · Denver · Los Angeles · Louisville

DEVOE



204 years of paint leadership



V FAST applying
V FAST drying
V FASTER clean-up

Special color guides have been prepared and are available upon request. Write for yours today.

Address



for schools

Devoe & Raynolds Company, Inc., Dept. WT-AR6 Box 1863, Louisville, Kentucky

Gentlemen: Send me your FREE Color guide booklets.

Name_____Title_____

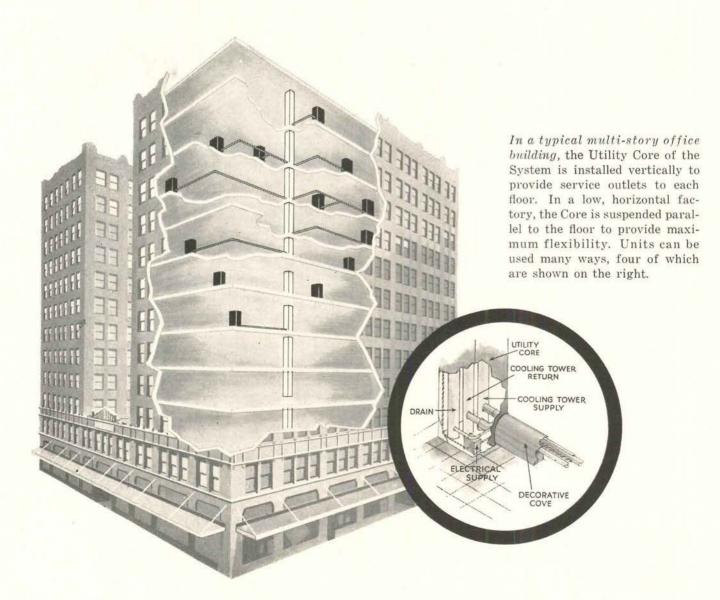
City_____State____

The Carrier Multi-Weathermaker System...

A NEW LOW-COST WAY TO

The Carrier Multi-Weathermaker* System is a unique, new concept of air conditioning so flexible it can be adapted to any commercial or industrial building. Three main factors contribute to its flexibility—a Master Plan, Utility Core and self-contained Weathermaker units. Where funds are limited, the System can be installed in critical areas first, then expanded to include

other areas later. Or the entire System can be installed at one time. Either way, there's no disruption of normal routine. The questions and answers here describe the System's advantages in some detail. For complete details, call your Carrier dealer, listed in the Classified Directory. Or write for the booklet, "Carrier Multi-Weathermaker System." Carrier Corporation, Syracuse, New York.



AIR CONDITION A BUILDING!



For individual offices, the Carrier Multi-Weather-maker System can economically air condition each office. Individual Weathermaker units, connected to inexpensive ducts, do the job. Units can be recessed in a wall or storage area.

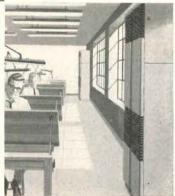


For a whole floor of a building, a Carrier Multi-Weathermaker System can air condition the entire space with a number of units. Each individual Weathermaker has all the components necessary to cool, dehumidify, filter and circulate the air.

For an open production area of a plant, a high-capacity Carrier Commercial Weathermaker using special ductwork can spot-cool an assembly line. In the System, you can air condition other plant areas with smaller air or water cooled Weathermakers.



For an engineering-drafting room, quiet Carrier Weathermakers can discharge draft-free air without any ductwork. The Multi-Weathermaker System permits air conditioning in one area while the System is shut off elsewhere.



Q. What makes this System new and unique?

A. The Master Plan, which co-ordinates installation of individual Weathermaker units in one integrated System—not a hodgepodge of unrelated "packaged installations."

Q. How is the Master Plan applied to an average office building?

A. First, a survey determines the cooling capacity required to air condition the building. Then, zone by zone, the Plan pinpoints the location of individual Weathermaker units required to handle the load. In addition, to simplify the installation of utilities from cooling tower to Weathermakers, the Plan provides a unique central Utility Core that houses the cooling tower supply and return piping, drain piping and electrical service. These utilities are sized to service all of the Weathermakers that will ultimately become part of the Multi-Weathermaker System.

Q. How many Utility Cores are required in a building?

A. In an average building, usually one. In larger buildings, several are required.

Q. How does the System's flexibility apply to installation and financing?

A. If financing is available, the System can be installed all at once. Otherwise, it can be installed in predetermined

sections step-by-step — an area, a floor or several offices at a time. In this way, financing can be conveniently spread over a period of years.

Q. Does "low-cost" apply both to installation and operation?

A. Yes. Here's why: Weathermaker units are relatively low in cost and inexpensive to install. They operate only when needed, so operating costs are strictly controlled. They're as easy to turn on and off as an electric light, so the expense of hiring an operating engineer is usually eliminated. Because of Carrier quality, service expense is minimum. And the System offers substantial tax advantages.

Q. How quickly can a System be installed?

A. That depends on the building. And whether you want to install it all at once or step by step. In general, it's fast. All work can be done during regular hours without interrupting routine. And once the Utility Core is installed, individual units may be moved about and connected wherever they are needed to meet a temporarily increased heat load.

Q. What does a Weathermaker unit look like?

A. We've shown four here in commercial and industrial installations. More are shown in the 24-page booklet on the System. We'll be glad to send you this on request. We think you'll find it interesting and helpful.



AIR CONDITIONING - REFRIGERATION - INDUSTRIAL HEATING

*Reg. U. S. Pat. Off.

WHAT ARCHITECTS SHOULD KNOW ABOUT

West Coast Hemlock

 In the forests of the Pacific Northwest, Hemlock grows under almost ideal conditions. Temperatures are even, moisture is plentiful.

The result—West Coast Hemlock, a superior species of Hemlock that produces a high quality,

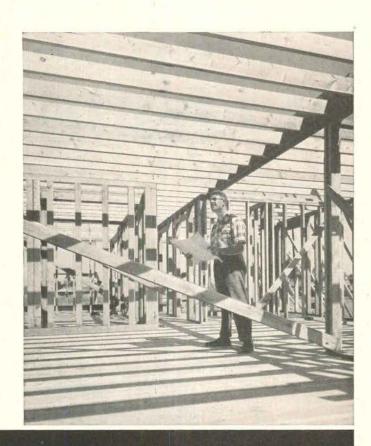
multi-purpose lumber product.

Architects like West Coast Hemlock because it combines exceptional building values with outstanding beauty. It is stiff and strong, easy to work, and holds nails securely. It has a beautiful light color which takes paint and natural finishes well.

Weyerhaeuser 4-Square West Coast Hemlock is produced in a wide range of items for framing, sheathing, flooring, moulding, trim, paneling, and

in a variety of siding patterns.

When you investigate all the qualities of this "ability" wood, you'll find that West Coast Hemlock Lumber represents one of the top building values you can give your clients today. Ask your Weyerhaeuser 4-Square Lumber Dealer for full details, or write for literature.

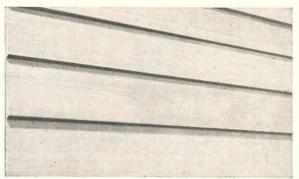


Weyerhaeuser 4-5QUARE®

LUMBER AND BUILDING PRODUCTS



BOARDS—Seasoned before surfacing to size. Available in grades and sizes for many uses.



SIDING—Durable 4-Square Hemlock is available in a variety of patterns and grades.

Basically better because ...

IT'S KILN-DRIED

You can rely on Weyerhaeuser 4-Square trademarked West Coast Hemlock because it has been properly seasoned by scientifically controlled drying methods.

Also, West Coast Hemlock has earned the name "ability" wood because of its wide usability, wearability, and workability. Here are just a few of the popular specialty uses for this versatile product: shelving, furniture, cabinets, ironing boards, paneling, food containers, cold storage plants, kitchen work surfaces. Since West Coast Hemlock actually toughens with age, it is excellent for flooring; and, of course, it is ideal for all framing needs.

Make it a point to ask your Weyerhaeuser 4-Square Lumber Dealer for complete information on West Coast Hemlock. You will find that it will perform well for a wide variety of your construction needs.

Weyerhaeuser Sales Company

FIRST NATIONAL BANK BUILDING . ST. PAUL 1, MINNESOTA



Earl Henderson, Assistant Cashier and Superintendent of Buildings for The Philadelphia National Bank, and John Kennedy, Main Office Building Supervisor, check the comfortable new officers' lounge. Says Mr. Henderson: "This room is part of extensive bank remodelling aimed at giving the public modern, efficient facilities and employees cheerful, comfortable working conditions."



Send for this Free Booklet!
...tells how to improve washroom efficiency, appearance with the help of Scott's Washroom Advisory Service

Facts, illustrations, diagrams, ideas! Everything you want to know about modern facilities and cheerful, efficient washrooms. It's all in this free booklet on Scott's Washroom Advisory Service. Send for it today. No charge or obliga-

For "quick changes" and ideas on how to improve washrooms NOW, see Scott's 14-minute film on washroom planning! Just mail the coupon.

tion, of course.



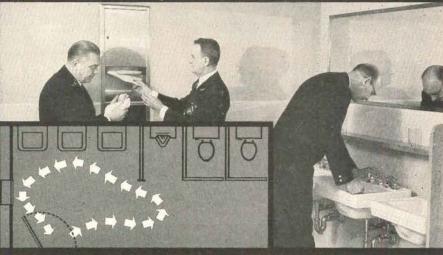
About 225 employees use the cheerful, efficient washroom-lounge facilities, part of which are shown here in the ladies' lounge. "The entire bank was re-done," says Mr. Henderson, "and of course the washrooms had to be as modern and well-planned as the rest of the project. That's why Scott's suggestions were welcomed. Scott Washroom Advisory Service worked with the architect. Results: excellent!"



Scott UHA Towels Scott Singlefold Towels

Scott Multifold Towels
ScotTissue

For information on Scott recessed cabinets write: D. J. Alexander Corporation, 2944 East Venango Street, Philadelphia 34, Pa.



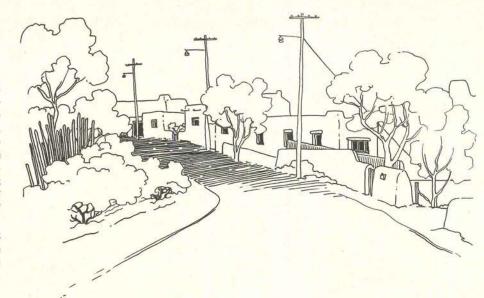
Guards' washroom: recessed cabinets, off-the-floor equipment, tile walls and floor, modern lighting, scientifically planned soap supply, smooth traffic flow to washbowls, towels, disposal, exit. In short, this room—and 16 other washrooms serving 8 floors—embodies a great many of the principles of Scott's Washroom Advisory Service. (There is no charge or obligation for anyone calling on this service.)

| SCOTT PAPER COMPANY Department AR-86 Chester, Pennsylvania | |
|--|---|
| ☐ Please send me the free b☐ Please let me see the Sco | ooklet on Scott's Washroom Advisory Service. tt Washroom Film. |
| Name | |
| Title | |
| Company | <u> </u> |
| Address | |
| City | State |
| | |

The Record Reports

tions seems to fill the bill, with its patios and portales for outdoor living, its creamy thick white walls to serve as backgrounds for gaily hued serapes and lovely paintings, its fireplaces for beauty and comfort. There is a feeling of warmth and spaciousness in an adobe house that cannot be achieved in any other medium of architecture; there is a feeling of friendliness and charm."

Some Santa Fe architects don't like the measure, and a few believe that it strikes at the roots of the building profession as a creative art.



FOUR DISTINCTIVE HAWS FOUNTAINS SMARTLY STYLED IN VITREOUS CHINA

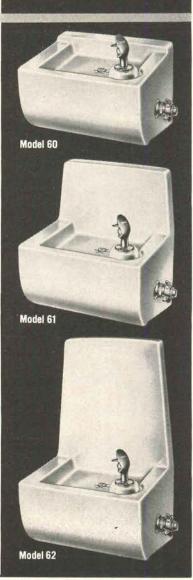


"The Series 60"...refreshing new styling with the durable beauty of gleaming vitreous china, permanently in good taste. All are wall-hung models, based on the same appealing design. Choose the model that best fits your plans...or choose several to complement each other in varied locations. Sanitation? Only HAWS has the exclusive M fountain head...raised, shielded, anti-squirt angle stream. Automatic flow control, too. Get detailed specs from HAWS. Write today.



Model 62-GF: HAWS glass filler faucet installed on back of Model 62, for double-duty convenience.

Ask for your free copy
of the new HAWS Catalog.



DRINKING FAUCET COMPANY

1441 FOURTH STREET (Since 1909) BERKELEY 10, CALIFORNIA

John Conron, who heads the Southwest Design Council, issued a formal statement just before the final vote was taken. It presents the opposition point of view rather thoroughly, and excerpts follow:

"To say that a city which has taken 300 years to develop should develop no further is certainly presumptuous. The long history from the first Spanish intrusion upon the peaceful (and sometimes not so peaceful) Indian Pueblos, through the invasion by the United States, and later a short-lived Confederate invasion, down to the present-day invasion by tourists shows in its buildings, in its street patterns, in its whole 'city-



scape.' Its many ages show through not only these outward signs but also through the way of life of its citizens.

"The attempt to preserve charm and character by legal restriction of the outward appearance of the buildings, in the form of a 'style ordinance,' has, I feel, the damaging effect of reducing the city to eclectic mediocrity. The large group of supporters of the ordinance seem unaware of the true meaning of architecture as an art form, or of the history of architectural 'style' development. They fear that modern architects are unable to develop an architecture using modern materials, in conjunction with still existing older materials, which will be able to house functionally the needs of a client in a manner compatible with Santa Fe. They fear that Santa Fe is unable to grow and to change gracefully. But like it or not, change it must, just as it did when the 'Anglos' arrived in



for new hospitals or old-

The illustration:

M. S. Kaplan Pavilion, Michael Reese Hospital,
Chicago; Architects: Loebl, Schlossman & Bennett;
Consultants: The Architects Collaborative;
Photographer: Hube Henry, Hedrich-Blessing

The Executive Director of Michael Reese Hospital has been a subscriber to The Modern Hospital since 1948. Eleven members of his administrative and executive staff are also subscribers.

The Modern Hospital provides to those who influence product selection over 42% more product information than any other hospital magazine. During 1957 The Modern Hospital carried an average of 157 pages of advertising per issue—more than twice as much as the average of any comparable magazine—to keep hospital administrators informed on building equipment, furnishings, clinical and scientific equipment, housekeeping and maintenance equipment, food service equipment, and the hundreds of daily use items for both the professional and service departments. And 150 suppliers of important hospital products advertised in The Modern Hospital exclusively in the hospital field. More advertising, month after month, makes The Modern Hospital the best source of information to help hospitals compare and select wisely.

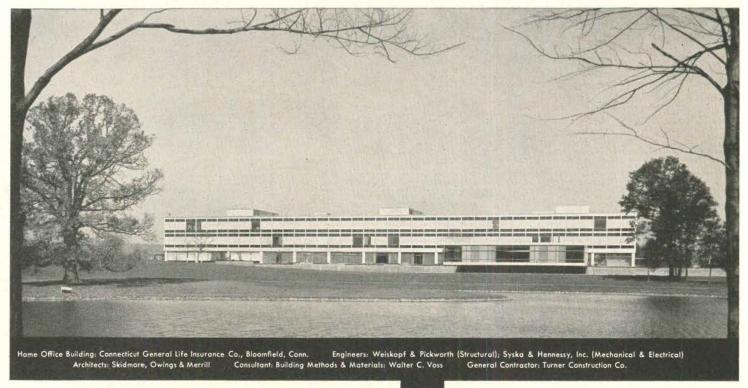


The Modern Hospital Publishing Co., Inc.

919 NORTH MICHIGAN AVENUE - CHICAGO 11, ILLINOIS

The Modern Hospital

WHY CONNECTICUT GENERAL CHOSE STAINLESS STEEL TO INSURE LIFE LONG BEAUTY AND DURABILITY



When the Connecticut General Life Insurance Company planned their ultra-modern office building in suburban Hartford, they carefully projected their needs into the future.

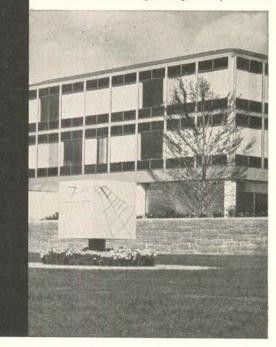
They wanted the nearest thing to "no maintenance" costs for 50 and preferably 75 years. Where initial investment in materials could cut down the yearly costs of cleaning, painting, and repairs they would make the investment.

That's why, throughout the building—both on the exterior and the interior—Republic's ENDURO Stainless Steel is used generously to protect, beautify, and reduce maintenance costs.

The main building—which contains some 400,000 square feet of floor space unbroken by a structural column—is penetrated by four garden courts, 72 feet square, making it possible for nearly all employees to be within 35 feet of a window. The cafeteria juts out from one end of the main building, cantilevered 15 feet over a pool. At the other end of the building, across a glass bridge, is a special department wing.

Once inside the metal and glass walls the stylish gleam of gracious architecture comes alive,

STAINLESS STEEL WINDOW FRAMES on all levels provide permanent beauty and low maintenance. ENDURO Stainless Steel was selected for the frames because of its high resistance to corrosion. It will not discolor with age. Will never need painting. The building's large window walls admit the outdoors and command scenic views of wide lawns, pools, and trees. Complete details and specifications on Republic ENDURO Stainless Steel for architectural applications are contained in Sweet's File, or can be obtained by sending the coupon below.



STAINLESS STEEL ADDS STYLE AND CHEER to the 800-seat dining room. Table and chair supports, column covers, and food-handling equipment of stainless steel assure attractive clean surroundings. All food-preparation and food-service equipment in the kitchen and counter pick-up areas are fabricated of stainless steel for peak sanitation and attractiveness. Dishwashing facilities are stainless steel, too. to resist corrosion and abrasion.

DOORS FRAMED IN STAINLESS STEEL open onto one of the four garden courts that penetrate the main build-ing. Although receiving heavy use, the doors resist scuff, scratches, and dents—thanks to the metal's strength and toughness. Like all the entrance doors, the first level and upper level fixed glass windows are framed in stainless steel to resist corrosion and weathering.



STAINLESS STEEL FOOD-SERV-ING COUNTER accommodates some 2,000 employees each day. The cafeteria is completely equipped with stainless steel from refrigerator doors and back walls to steam tables, display cases, and working areas up forward. In the working areas, cleanliness is easy to maintain since everything with which food and dishes come in contact is made of easy-to-clean and keep-clean stainless steel. Republic offers architects competent metal-lurgical and engineering help in obtaining the best possible results with ENDURO Stainless Steel.



REPUBLIC STEEL

World's Widest Range of Standard Steels

and Steel Products



There or a different and the send of the s

Address Lone Cid'



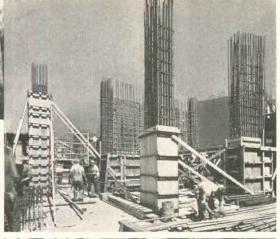
Meet Your

BUILDING PARTNERS

For 34 years, members of the Concrete Reinforcing Steel Institute have been your "building partners" working together with you, the architect, structural engineer, and contractor, to promote the use of reinforced concrete as an economical and flexible building medium. Through all these years, the Institute has carried on research to determine the proper and safe use of reinforced concrete, and the collection and dissemination of this technical data. Your increasing acceptance of this construction medium has made this an advantageous partnership—one that we hope will continue to grow to an even greater degree through all the years to come.



Concrete Reinforcing Steel Institute 38 S. Dearborn St., Chicago 3, Ill.







furnished die-cut to specifications and coated with pressure

sensitive adhesive for use between sill and coping stones, brick and stone wall panels, and other places where

expansion, contraction and freezing action will destroy masonry construction. See Sweet's, or write for information.

WILLIAMS EQUIPMENT and SUPPLY COMPANY

6001 E. McNichols Rd., Detroit 12, Michigan





a book of rare quality and beauty

JAPANESE TEMPLES AND TEA-HOUSES

by Werner Blaser

A magnificently illustrated study of classic Japanese architecture. Its thoughtful text and brilliant photographs give a meaningful insight into the cultural, religious, and social forces which produced these buildings.

Depicts 30 separate structures, ranging from 9th century temples clearly showing the Buddhist style, to the Katsura Palace at Kyoto, a magnificent example of 17th century Shinto architecture. Blaser emphasizes the integration of exterior and interior in Japanese buildings, as well as their unity of purpose, structural form, and material.

Structural details are shown and discussed, for the author feels that these buildings contain valuable lessons for Western architects. Over 90 photographs (8 in full color), excellent typography, finest coated stock, and a beautiful full-color jacket.

156 pages, large 91/4 x 121/2" size, \$12.75

Order on approval from

DODGE BOOKS

F. W. DODGE CORPORATION 119 West 40 St., N. Y. 18, N. Y.

ONE-A gives you TWENTY-ONE

Save Up to 42% or more

Aquasil Concentrate—A new revolutionary silicone development. Mix one pint into 20 pints (2½ gals.) of water—yes, water!—and save up to 42% in cost in getting a highly water repellant silicone coating.

MAY BE APPLIED ON DAMP SURFACES!

Once dehydration has been completed the silicone becomes insoluble to water. Sold in pint plastic bottles only.

Send for literature and prices. Dealers wanted.

CERESIT

Specializing in making the finest iron for metallic hardening and in the highest quality surface and integral cement additives coatings, colorants, hardeners and sealers, cement repair materials, waterproofing compounds and grouting materials.



G CORP.

CERES

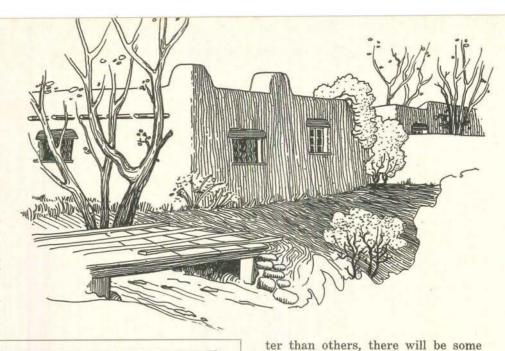
CERESIT WATERPROOFING CORP.
3227 S. Shields Ave., Chicago 16, Illinois

The Record Reports

the mid 1800's, built Fort Marcy and developed the now well-accepted 'Territorial style.'

"A correct building solution is not the application of a few typical 'style details' to the exterior of conventional house plans; it is a solution based upon the clients' needs and desires, the actual site and orientation, with a full appreciation of the local climate. The solution then could take on a form dictated by all these conditions as interpreted by the skill of the architect.

"Some of the buildings will be bet-





ARCHITECTS . MUELLER, HAIR AND HETTERICH

inevitable, as witnessed by any architectural period in history, but the end results will be a progression based upon a continuing tradition rather than a stagnant copy of one or two isolated historical periods." Robert E. Plettenberg, another

successes and some failures. This is

Robert E. Plettenberg, another Santa Fe architect who opposed the measure, was, like Miss von Horvath, chiefly concerned with esthetics. He also placed his views on record before the City Council voted. He said:

"Architecture is an art, born in man's mind, composed to provide shelter for the physical being and an environment for the spiritual self. The architect's palette now, as in the past, is made up of available materials, techniques, craftsmanship and climatic and sociological factors. Building for contemporary man must constantly keep in balance the economic factors of building on one side and man's desire for the ultimate in esthetic achievement on the other.

"Considerations affecting New Mexico building today are the same as in the past in general but differ in the specific. It is these specific differences that must be recognized. To imitate the simple buildings of the past results in unsatisfactory shelter for the complicated life we experience today; to imitate in a watered-down type of solution results in sham, unflattering to the people of the past as well as the society of today.

day.
"We certainly must recognize and revere the fine architectural examples of the past; preserve them where

large or small · Van kitchens make better use of space

- Every pastor, school official or architect with a kitchen equipment problem will be interested in how St. Peter in Chains Church and School, their architects and Van turned an auditorium into kitchen, refectory and snack room that serves 225 school lunches daily and creates an active social center.
- The illustrations show the gleaming all-stainless cafeteria counter and equipment so easy to keep clean, so efficient and so positioned that labor cost is kept at a minimum.
- New kitchen or modernization, use Van's century of experience.



Branches in Principal Cities

429 CULVERT STREET

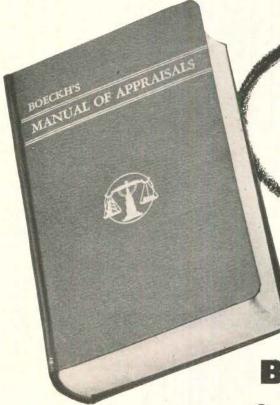
CINCINNATI 2, OHIO

VEGETABLE PREPARATION AND DISH-WASHING

ST. PETER IN CHAINS CHURCH AND SCHOOL

HAMILTON,





FIFTH EDITION—Just Published

BOECKH'S MANUAL OF APPRAISALS

If advance cost planning is a part of your architectural problem, then this book and its supplement service "Building Costs" should be part of your "Kit of Tools." Here is a service program that has been helping architects and builders develop costs of proposed projects for more than a quarter of a century.

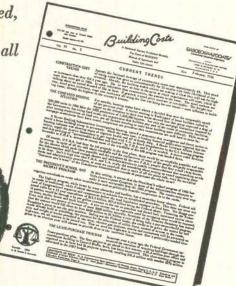
YOU CAN FIGURE
BUILDING COSTS

Quickly and Accurately

For laymen or experts, the most comprehensive and quick method yet published, over 100,000 individual unit costs, more than 300 buildings with hundreds of variations, all easily convertible to local conditions through "Building Costs!"

BUILDING COSTS

A comprehensive monthly supplementary service giving you up to the minute news and analysis of market conditions, plus the latest cost indexes for the major metropolitan areas of America and Canada to convert the estimating Manual to local cost conditions.



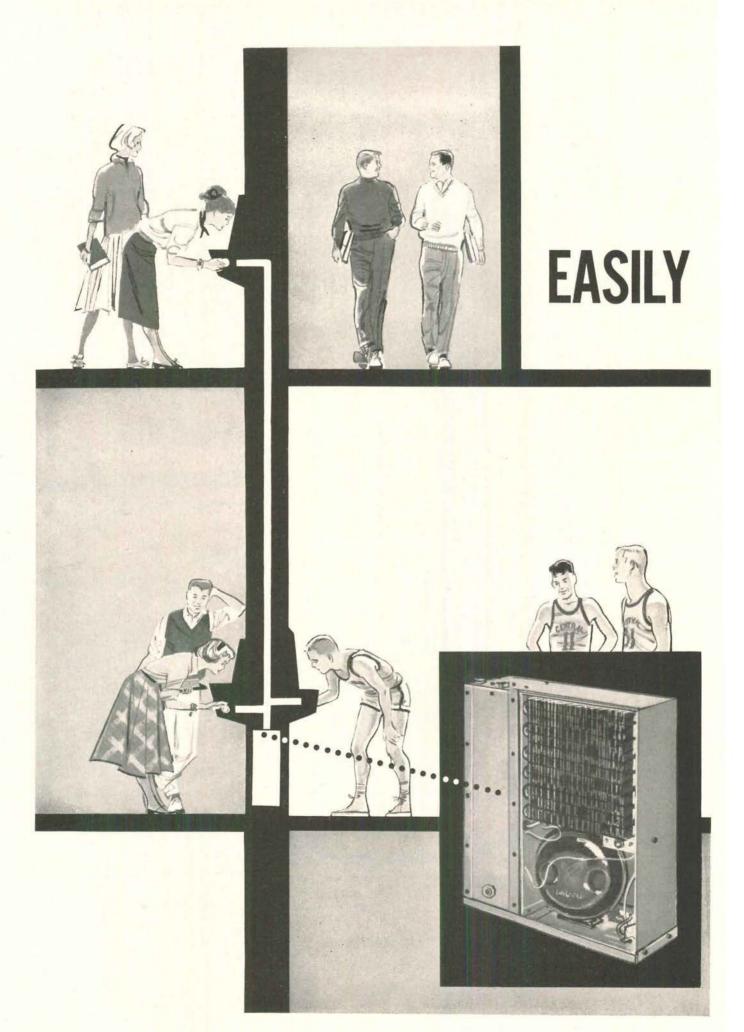
SEND TODAY FOR BROCHURE TO

E. H. BOECKH & ASSOCIATES Consulting Valuation Engineers 1406 M Street, N. W. Washington 5, D. C.

| Please | send | me | full | descriptive | literature | ОП | your | estimating | and | cost | planning | services. |
|--------|------|----|------|-------------|------------|----|------|------------|-----|------|----------|-----------|
| | | | | | | | | | | | | |

NAME______

STREET____



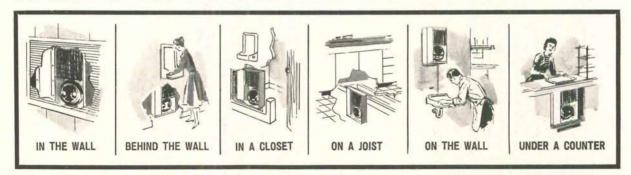
NEW WESTINGHOUSE "BILT-IN" WATER COOLER INSTALLS IN WALL—SERVES SEVERAL LOCATIONS!

Westinghouse presents the most compact cooler made! Just 65%" slim, you can build it into a wall, conceal it in a closet or under a counter. And, not only does the "Bilt-In" keep your buildings looking clean and functional, but it saves important money too! One 10-gallon size furnishes 200 six-ounce drinks of cool 50° water per hour. It actually serves several fountains on the same floor or other floors, yet costs no more than one ordinary water cooler! Ideal for offices, factories, institutions. Get the full exciting story. Write for specifications and architectural drawings now!

• Just 6 5/8" slim, 183/4" wide, 223/8" high.

- Use with new or existing fountains in schools, offices, factories, restaurants, institutions.
- Choice of sizes—5-gallon size serves up to 60 people; 10-gallon size serves up to 120 people.
- Completely interchangeable—both 5 and 10-gallon sizes fit same space, may be interchanged as needs change—without building alterations!
- Easily accessible adjustable thermostat—lets you select desired water temperature.
- 5-Year Protection Plan on sealed-in refrigeration system.

SO COMPACT YOU CAN "BUILD IT IN"-ANYWHERE!



YOU CAN BE SURE ... IF IT'S

Westinghouse

MAIL COUPON NOW!

Westinghouse Electric Corp., Water Cooler Dept., Springfield 2, Mass.

Please send me full information on your new Westinghouse "Bilt-In" Water Coolers.

HERE, for the first time, are two significant new volumes, concerning two great living architects-Marcel Breuer and LeCorbusier-and two of their great contemporary religious building projects.



THE CHAPEL AT RONCHAMP

by LeCorbusier

The chapel of Notre Dame du Haut is one of the truly revolutionary religious buildings of our time. This book is LeCorbusier's own account and explanation of it.

The building is presented in its three facets: First as a sacred place of worship. Second, it is shown as a work of art, with variegated and surprising perspectives, and the subtle beauty of its wall structures made brilliantly clear. Third, it is shown as a practical exercise in architecture and construction.

In this book LeCorbusier presents his own sketches, his notes, and over 100 photographs, most of them never before published. The notations and computations are in his own handwriting, and the sketches are reproduced directly from the originals. The narrative is also LeCorbusier's.

However, text is kept to a minimum. The excellent photographs and drawings are allowed to speak for themselves. They show the site, the ruins of the previous chapel, construction, and the completed chapel, interior and exterior. The architect guides you to understand the construction details and the practical matters of the project. But, in the final analysis, you must appraise this revolutionary chapel yourself. From the photographs, plans, notes, and comments, you must judge, and decide; as LeCorbusier states:

"Let Ronchamp bear me witness: five years work, all isolated on the hill . . ."



136 pages, 73/4 x 81/8" over 140 photographs and drawings book and jacket design by LeCorbusier \$5.50



DODGE BOOKS, F. W. Dodge Corporation 119 West 40th St., New York 18, N. Y.

Send me the books checked below. Within ten days after receipt, I shall remit the price, plus postage, or return the book(s) without obligation.

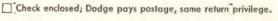
| Adventure | in | Architecture |
|-----------|----|--------------|
| | | |

\$8.50

☐ The Chapel at Ronchamp

\$5.50

| Name | |
|--|------|
| Address | |
| CityZState | |
| Chack enclosed, Dadge nave nectors come value and the children | OF |





ADVENTURE IN ARCHITECTURE

by Whitney S. Stoddard

The story of the rebuilding and expansion of the extraordinary St. John's monastery in Minnesota. The client

is the Benedictine order of monks, dating from the 6th century A.D. The architect is Marcel Breuer.

In 1951, 100-year-old St. John's decided that it should have a logical master plan for its next hundred years. It also had pressing immediate building problems. In this exciting book you will read how the monks and their architect solved these problems.

The most important thing was that Marcel Breuer was selected as the architect. For he and the building committee established a rapport which almost guaranteed a superior and truly ingenious result. Theirs was a model of architect-client relations. The master plan they drew is comprehensive, long-

reaching, and yet flexible.

ADVENTURE IN ARCHITECTURE tells you the story of the new plan, from its inception through completion of the living quarters, right up until construction of the new church starts. In reading this book you will feel the interplay between the building committee and Breuer, and discover how he expressed in contemporary architecture the unique and traditional building requirements of a Benedictine monastery.

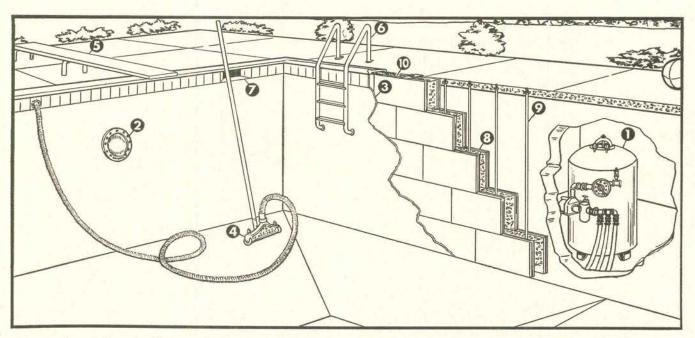
The photographs are noteworthy. They show the existing St. John's, other Benedictine monasteries, the new living quarters, and models of the projected church, bell banner, and chapter house. In addition, drawings and plans are shown of the present installation and each consecutive stage of the master plan.

Whitney S. Stoddard, Professor of the History of Art at Williams College, received his Ph.D. from Harvard in 1941. He has held a Carnegie grant, the Harvard-Sachs fellowship, and an advanced research Fulbright.

128 pages, 8½ x 11" 91 photographs and drawings \$8.50



USE COUPON TO ORDER EITHER OR **BOTH OF THESE FINE BOOKS**



Here's how the products of the NATIONAL POOL EQUIPMENT COMPANY add up to the finest swimming pool in the world! All these and many other

- 1. Dial Valve Filter System
- 2. Underwater Light
- 3. Marblelite Wall Finish
- 4. Vacuum Cleaner
- 5. Diving Board and Stand
- 6. Ladder
- 7. Automatic Surface Skimmer
- 8. Pre-cast Concrete Units
- 9. Steel Pre-Stressing Rods
- 10. Triple Wall Construction

We Cooperate with Local Architects and Engineers

All these and many other quality swimming pool products, each the finest of its kind on the market, are available from the NATIONAL POOL EQUIPMENT COMPANY. Write today for our free catalog.



POOL EQUIPMENT CO.

Lee Highway, Florence, Ala. Western Division El Monte, California

Manufacturers of quality swimming pools and equipment for HOMES . MOTELS . COMMUNITIES . COUNTRY CLUBS . UNIVERSITIES



PURE POLYETHYLENE SHEETING IN

3 THICKNESSES—WIDTHS FROM 3' to 40'
— 100 LIN, FT. PER ROLL —

Moisture-Proof
CLEAR or BLACK

Warp's COVERALL is made in 3 thicknesses and many widths to meet any requirement in building or remodeling. CLEAR COVERALL is a tough polyethylene plastic sheeting that has hundreds of applications (meets FHA specifications).

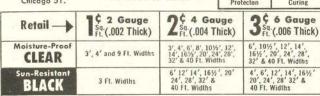
BLACK COVERALL, a tough, sunlight-resistant polyethylene plastic film is recommended for use where material is exposed to direct sun.

Warp's COVERALL is the Best Polyethylene Plastic Sheeting Money Can Buy

For current prices, samples, and product information on Warp's COVERALL, ask your Jobber or write to Warp Bros., Chicago 51.

- . WATER-TIGHT
- ACID-PROOF
 ROT-PROOF
- . STAYS FLEXIBLE AT
- 60 BELOW ZERO





Warp's Coverall also Available in Pre-Cut Packages from 12' x 12' to 20' x 20'

CARRIED BY RELIABLE JOBBERS EVERYWHERE
WARP BROS. PIONEERS IN PLASTICS CHICAGO 51, ILL.

Your MATERIALS HANDLING SYSTEM is COMPLETE with.



48 HI-LO Automatic Dockboards at Ford Motor Co. Pool Car Terminal, Detroit, Michigan.

FULLY AUTOMATIC DOCKBOARDS

COMPLETELY AUTOMATIC

DOCKBOARDS

HI-L

The truck supplies the power . . . no dock attendant needed, no buttons, valves, or controls.

FIRST COST IS LAST COST

Simple counterweight system . . . no air, electric, or hydraulic power . . . built to outlive the dock. RECESSED AND PACKAGED MODELS

In lengths to solve all loading problems . . . for new or existing docks.

Send for Bulletins and Factual Information TODAY!

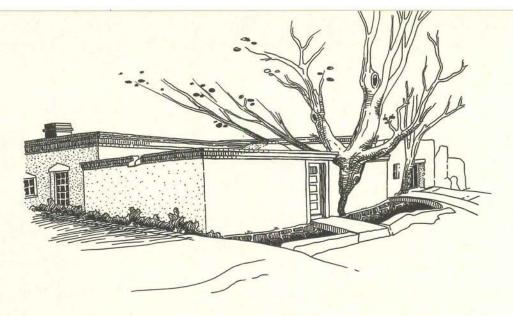
KELLEY COMPANY, INC.

2123 W. Mill Road • Milw

The Record Reports

possible, restore them if necessary, but build proudly today for today. If we are sensitive enough to the true quality of the historical architecture and continue this integrity in our building of today the result will be not unlike those ancient buildings, and yet will be able to stand among them free of deceit and false imitation."

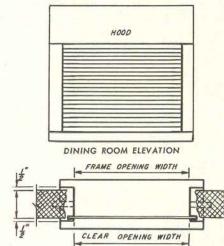
Perhaps the whole effort was summed up best by John Gaw Meem, also a Santa Fe architect and chairman of the Old Santa Fe Association, which backed the measure. Mr. Meem



PEELLE ANNOUNCES...



Featuring an integral Stainless Steel Frame



- · Hood of shutter in head of frame.
- Combination shutter guide and frame.
- Reduced field installation cost (Frame and shutter installed as a unit, eliminating cost of shutter installation).
- Simplify specification writing
 -specify Peelle rolling aluminum pass window unit.
- Quality extruded alumilited aluminum flatslats.

Write for complete details.



THE PEELLE COMPANY 47 Stewart Avenue, Brooklyn 37, N.Y.

has worked in Pueblo-style architecture with both feeling and success for a full generation, and he endorsed the proposal at a forum sponsored by the Southwest Design Council. Mr. Meem cited instances in history where styles of architecture have been restricted for purposes of "spiritual intent," and said:

"The ordinance is basically a conservation measure. . . . Much of our city is possessed of extraordinary charm and individuality. Some are permanent like our incomparable sunshine, gracious landscapes, and historical legacy of the mixing of three civilizations. Others are fragile . . . and could be lost: our folkways, our seventeenth-century street patterns, and above all our traditional . . . architecture. The latter is especially vulnerable in spite of the tenacity with which it has held its own through the centuries and adapted itself to three very different cultures -beginning over a thousand years ago when the Pueblo Indians established the basic forms.

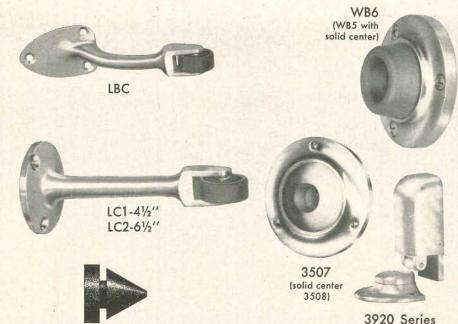
"But can it survive? Modern architecture, by so much of which one is thrilled, is tremendously influenced by prefabricated machine products, whose use inevitably leads to same-

ness and monotony.
"This is seen throughout the world. What it is doing to the ancient cities of Europe is described by Lewis Mumford, eminent architectural critic, in the September 28th issue of The New Yorker. If London and Rome are having trouble with this dominating sameness, how long do you think little Santa Fe can retain its unique and delightful character? Perhaps if design were left entirely in the hands of sensitive people it could be done, but we know from experience how improbable this would be, given present-day economic pressures. Without restrictions we would soon be overwhelmed, to our loss and that of countless visitors who enjoy our architectural differentness and on whom depends so much of our prosperity.'

PLAN OF ROLLING SHUTTER AND FRAME UNIT



DOOR STOPS & BUMPERS



Quiet LINE

Slamming and bumping doors are easily quieted with Sargent & Greenleaf door control hardware. A few of the fine institutional products made by S. & G. in its second century are shown here. Ask your architectural hardware consultant for our complete catalog.

No. LBC-LC1-LC2. Rubber rollers prevent damage to interfering doors hung in adjacent walls.

No. WB6-WB5-3507-3508. Wall bumpers (with or without recessed rubber centers) used when wall conditions cause knobs to strike walls.

No. DM35. Three rubber mutes on each pressed steel buck deadens the sound of slamming doors.

No. 3920 Series. Turret head of strike may be set as a rubber cushioned stop or as a holder. Nylon roller bolt has adjustable tension and projection.

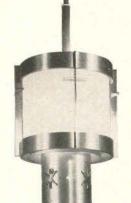


SARGENT & GREENLEAF, INC. ROCHESTER 21, N. Y.





DM3S



- ★ standard matched sets in 2 color catalogs mailed on request
- ★ traditional and contemporary designs
- ★ special service to coordinate with plans
- * local distribution

R.A.
MANNING
COMPANY
INC.
P. O. BOX 643

SHEBOYGAN, WIS

CHURCH AND PUBLIC BUILDING LIGHTING



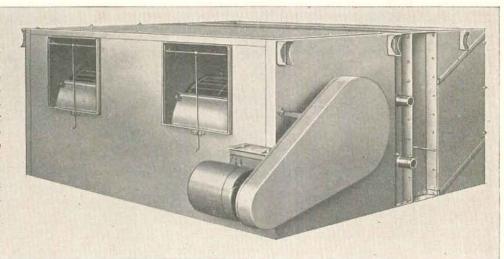
For your file on ceramic tile

"The Talents of Tile"—12 color pages of Romany Spartan school and college installations. "Color Harmony Guide"—8 pages illustrating Romany Spartan's complete tile line, with helpful chart showing harmonious combinations. For either or both, write United States Ceramic Tile Company, Dept. R-19, Canton 2, Ohio.

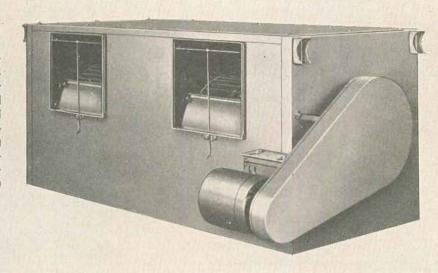


NOW! AMERICAN BLOWER

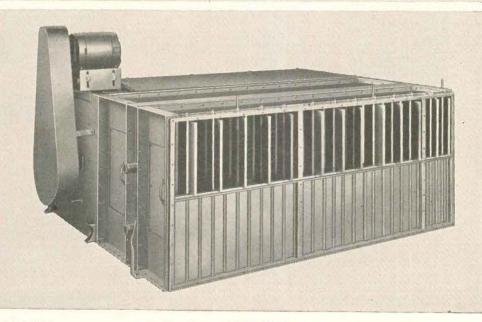
Heating and Ventilating Unit - Type V gives complete coverage of centralstation heating and ventilating requirements. Steam or hot-water heating; largevolume, extra-quiet Sirocco Fans, for adequate heating and for ventilation. Ideal for offices, auditoriums, factory areas, gymnasiums, laboratories, schools and stores. Bulletin 8927.



Lineflow Ventilating Unit - Type L is a quiet, compact air handling unit for commercial and industrial uses. Designed for filtered air supply; fume and foulair exhaust; air-conditioning zone distribution; and nonfouling kitchen and laboratory hood exhaust. Bulletin 8927.



Multi-Zone H & V Unit - Type VB provides individual zone control of temperature from a single central unit. Utilizes a "blowthru" arrangement with individual zone dampers at the discharge end. Typical applications: schools, laboratories, offices and stores. Bulletin 8927.



DESIGNS NEW FLEXIBILITY INTO ...

Heating and ventilating systems tailor-made with standard units

Sectional construction of basic components provides the required capacity, at savings in time, money and space!

Want the efficiency and operating economy of a "tailor-made" heating or ventilating system? Need the lower initial installed cost of pre-engineered, "ready-made" components? Build around one of these three new H & V Units by American Blower!

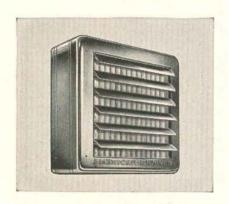
American Blower Heating and Ventilating Units offer broad capacity coverage, with eleven sizes to handle from 600 to 66,000 cfm. New flexible design and sectional construction give a bigger selection of efficient combinations and spacesaving arrangements to fit your requirements.

Units, coils and accessories assemble into a custom system at a packaged price. For example, there are eight unit arrangements based on fan rotation and discharge; four types of heating coils in a variety of arrangements with either top or bottom by-pass; and accessories such as filter

boxes, face and by-pass dampers, damper-mixing boxes, and floor-base combinations.

Every American Blower H & V component is precision-made for fast mounting and low-cost installation. Units are easy and economical to maintain and service because motors, drives and bearings are externally mounted, easily accessible. For full details, send for Bulletin 8927.

Remember: When you specify American Blower, you get equipment that's designed, engineered and manufactured to work together . . . plus one-source responsibility for its performance. Branch offices in 73 cities offer local product help or nationwide sales-service coordination. American-Standard,* American Blower Division, Detroit 32, Michigan. In Canada: Canadian Sirocco products, Windsor, Ontario.



Venturafin® Unit Heaters—for steam or hot water. Quiet; adjustable louvers. Horizontal or vertical. Bulletin 9017.



Cabinet Heaters – attractive, quiet. Models for all applications. Steam, hot water; to 1860 cfm. Bulletin 9617.



Industrial Unit Heaters—high-capacity, quiet. Universal cowls. Steam, hot water; 7 sizes, 4 arrangements. Bulletin 7727.

*American-Standard and Standard @ are trademarks of American Radiator & Standard Sanitary Corporation.





ALTEC LANSING sound systems are specified for more fine commercial and public buildings, stadiums, and schools than any other sound equipment.

ALTEC has gained leadership in commercial sound installations by offering the most complete flexibility—over 100 sound products all made to serve a particular purpose; reliability—ALTEC practices the most stringent quality control to produce sound products for long, trouble-free service; simplicity—ALTEC sound products are famous for their straightforward, simple design to insure ease of installation and service plus purity of sound; convenience—there is a trained ALTEC Engineering Sound Contractor near you.

Call him for help with your next sound problem or write for free information to

ALTEC LANSING CORPORATION, Dept. 6R 1515 S. Manchester Avenue, Anaheim, Calif. 161 Sixth Avenue, New York 13, N.Y.



• microphones • preamplifiers • amplifiers • loudspeakers • loudspeaker systems

The Record Reports

On the Calendar

June

- 4 20th Century Design; the first exhibition in this country of an extensive selection of objects from the Museum's design collection—Museum of Modern Art, 11 West 53rd Street, New York City
- 6-22 Seventh Annual Boston Arts Festival—Public Garden, Boston
- 9-12 National Conference on Materials Handling, the first to be sponsored by the American Society of Mechanical Engineers since 1949—Public Auditorium, Cleveland
- 9-12 Eighth National Materials Handling Exposition—Public Auditorium, Cleveland
- 10-14 51st Annual Assembly, Royal Architectural Institute of Canada—Queen Elizabeth Hotel, Montreal
- 11-14 Annual Meeting, National Society of Professional Engineers—Chase and Park Plaza Hotels, St. Louis
- 22-27 12th Annual Meeting, Forest Products Research Society— Madison, Wis.
- 22-27 Annual Meeting, American Society for Testing Materials —Hotel Statler, Boston
- 22-28 International Design Conference in Aspen—Aspen, Colo.
- 22-28 National Convention (second of three in 1958), American Society of Civil Engineers— Portland, Ore.
- 23-25 "Social Gerontology and Its Applications;" 11th Annual Conference on Aging—University of Michigan, Ann Arbor, Mich.
- 23-25 Joint Meeting of the American Society of Heating and Air-Conditioning Engineers and the American Society of Refrigerating Engineers—Hotel Leamington, Minneapolis
 - 23ff The Dwelling House: An Emerging Technology; Special Summer Program presented jointly by the Department of Architecture and the Course in Building Engineering and Construction of the Department of Civil and Sanitary Engineering; through July 2—Massachusetts Institute of Technology, Cambridge, Mass.
- 27ff Exhibition of contemporary Danish architecture—The Octagon, Washington, D. C.

Uniform appearance in COOK belt and direct drive models



All-aluminum construction

Belt drive
CENTRIFUGAL
COOK
Model
CB
Capacities
to
13,939 cfm



Direct drive
CENTRIFUGAL
COOK
Model
CD
Capacities
to
10,263 cfm



Direct drive
PROPELLER
COOK
Model
FD
Capacities
to
4,020 cfm



Direct drive
WALL
VENTILATOR
COOK
Model W
Capacities
to
2,580 cfm

Pressure relief VENTILATOR



COOK Model

Throat areas from .1964 to 5.157 sq. ft.

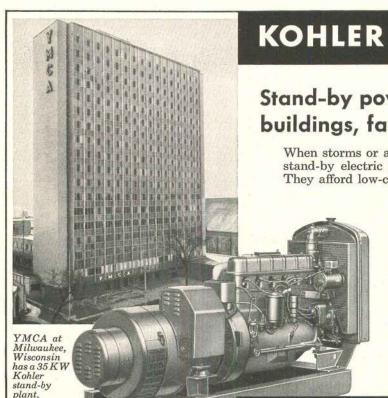


Ratings in accordance with standard test code by Texas Engineering Experiment Station, an approved AMCA test lab.

Write for catalog, or see our condensed catalog $\frac{20c}{c0}$ in Sweet's Architectural File.

LOREN COOK COMPANY Berea, Ohio

In Canada, H.F. Clarke, Ltd., 421 W. Broadway, Vancouver, B.C. Ventilators CB, CD & W are CSA Approved



KOHLER ELECTRIC PLANTS

Stand-by power...safeguard for public buildings, factories, institutions

When storms or accidents cut off central station power, Kohler stand-by electric plants take over critical loads automatically. They afford low-cost insurance against hazard or loss.

In club or school swimming pools, Kohler stand-by plants prevent sudden darkness that may cause panic and disaster-also in stores, theatres, auditoriums. Hospitals need them for lighting and equipment essential to patients' treatment and care. They prevent costly interruptions for hatcheries; greenhouses; factories; industrial automation; office buildings; railroads; airports.

Complete manual, including suggested specifications, will be sent on request. Sizes from 500 watts to 100 KW, gasoline . . . 10 KW to 100 KW, diesel. Write Dept. A-12.

KOHLER Co. Established 1873 KOHLER, WIS.

KOHLER OF KO

Enameled Iron and Vitreous China Plumbing Fixtures • Brass Fittings Electric Plants . Air-cooled Engines . **Precision Controls**



Model 35R81, 35 KW, 120/208

volt AC. Remote starting.

Save paint, wood, metal with MIDGET LOUVERS

Controls moisture vapor, eliminates rot corrosion, excessive heat...just drill hole, press into place, no nails, screws, special tools. Available in aluminum anodized aluminum, chrome, copper . . all screened. Regular (rain shielded) and L.D. Series, sizes 1" thru 6". Install in wood, metal, concrete.

Write for home preservation information-

MIDGET LOUVER COMPANY

NORWALK, CONN. 6 WALL STREET



 The architect is naturally concerned with preserving the beauty of his own creations. He realizes, too, that building owners lose millions yearly from corrosive damage caused by bird excreta. Costs are sky-highed by rubbish-clogged drains and gutters, lice and litter. Architects choose Nixalite for bird-free stain-free buildings. Inconspicuous Nixalite functions as an integral design component blend-

ing naturally with structural features - permanently effective, yet easily removed. Nixalite's needlesharp stainless steel points (10 per inch) keep 'em flying. Lasts a lifetime, yet pays its way in just one year.

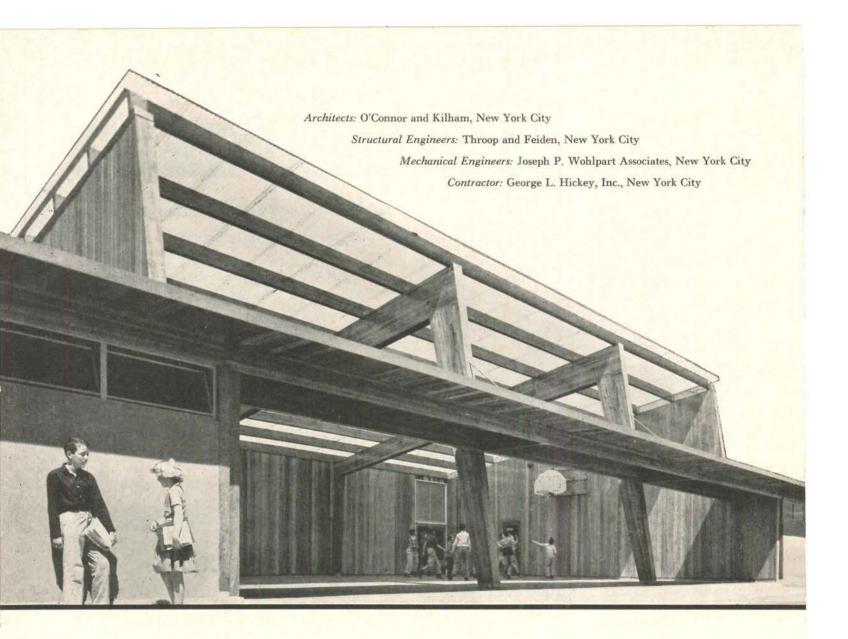


introductory folder

pages in Sweet's Architectural, Light Construction, and Industrial Con-struction Files, and in Building Specialties Manual are devoted to Nixalite.



NIXALITE COMPANY OF AMERICA 115-119 W. 3rd Street Davenport, Iowa, U.S.A.



BEAUTY BY THE ROOM ...

AND 31% LESS COST PER PUPIL

at Tokeneke Elementary School, Darien, Connecticut

With a growing crop of young America clamoring for learning and taxpayers demanding the greatest value from their outlays, this school is worthy of serious study.

It is a typical case history in engineered timber construction in which the natural beauty of the glulam timber structural framing adds obvious charm to each room. Less apparent but equally important is the economy of construction which resulted in a per-pupil cost 31% less than the state average. This saving was made without sacrifice of permanence, mechanical equipment or facilities for teaching.

Glulam beams were spaced at 7'-9" over classroom sections, and covered with heavy timber decking which is exposed in natural finish as ceilings. The Common Room, which serves as auditorium and cafeteria, and the play area are framed with glulam beam-and-column bents spaced at 21 feet.

All timber members were produced under rigid quality controls, precision fabricated to full size pattern, and

delivered ready for fast assembly and erection.

Average cost per square foot is \$14.40. Per-pupil cost is \$760, compared to a state average of \$1105.

A new brochure, "Timber Framing for Modern Schools", illustrates outstanding school applications of engineered timbers and gives preliminary design data. Get your copy from the nearest Timber Structures representative, or write us directly.

TIMBER STRUCTURES, INC.

P. O. BOX 3782-A, PORTLAND 8, OREGON

Offices in Ramsey, N. J.; New York City; Boston; Philadelphia; West Hartford; Cleveland; Charlotte; Chicago; Centerline, Mich.; Kansas City; St. Louis; Minneapolis; Des Maines; Wichita; Memphis; Dallas; Houston; Birmingham; Seattle; Spokane; Denver.





Local Representatives throughout the United States and Canada

TIMBER STRUCTURES, INC. OF CALIFORNIA
Richmond • Beverly Hills • Sacramento



Left: Play area shelters students while waiting to board buses.

Above: Typical classroom of 938 square feet, Each classroom has its own outside entrance, Right: School is built around a paved courtyard, with U-shaped covered walkways joining the two wings, Kindergarten has its own separate wing at the top.

Below: Common Room serves as both auditorium and cafeteria. Kitchen is adjoining at the far end.

JOB DATA

Exterior Walls: Brick, with concrete block in service area, cypress siding for playroom.

Interior Walls: Plastic coated coverings in classrooms, Common Room and halls.

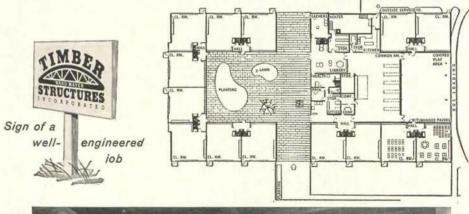
Heating: Hot water radiant panel system, zoned and thermostatically controlled.

Ventilation: Exhaust fans in classrooms, toilet rooms and kitchen. Tempered air supply units in Common Room.

Lighting: Semi-indirect fluorescent fixtures.

Floors: Vinyl asbestos tiles on concrete slab over insulated concrete fill and moisture barrier.

Roof Surface: Translucent corrugated panels over playroom and covered walks. Built-up tar and felt with white graveled surface over remainder of building.







The SHAPE of THINGS to COME is HERE . . . with the extra-load producing profile of the new Shlagro Moment Contour Beam and Girder! This versatile new structural shape, with depths from 36" to 72", effectively meets the ever-changing requirements for higher carrying capacities - with the same weight of steel. Beam and Girder may be curved, tapered, shaped to solve many structural problems economically, especially in bridges and structures that need greater column-free area. Write today for Catalog #800.



The Record Reports

29ff "Landscape Architecture in the Modern World"; Joint Meeting of the American Society of Landscape Architects and the International Federation of Landscape Architects; through July 4-Hotel Shoreham, Washington, D. C.

30ff Annual Convention, tional Education Association; through July 4-Cleveland

July 5-7 National Convention, struction Specifications Institute-Carter Hotel, Cleveland

Annual Convention, American Institute of Architects-Cleveland Hotel, Cleveland

20-28 Fifth Congress, International Union of Architects; theme, "Construction and Reconstruction of Towns, 1945-57-Moscow

Office Notes

Firm Changes

Richard M. Adler has resigned from his position as Airport Architect for The Port of New York Authority to enter private practice in partnership with Peter S. Hopf, A.I.A. Mr. Adler was assigned to the Terminal City project at New York International Airport. Mr. Hopf is a former member of the Port Authority staff who designed two of the individual airline terminal facilities at the airport. The newly-formed firm will be called Hopf & Adler, Architects, with offices at 118-20 Queens Blvd., Forest Hills, New York City, N. Y.

W. Stanly Gordon and H. Lamar Drake announce the formation of a partnership for the practice of architecture under the name of Gordon and Drake, Architects, A.I.A., with offices at 1531 Alford Place, Jacksonville, Fla.

Eugene L. Freerks and Robert H. Sperl have been named vice presidents of Hammel and Green, Inc. The Minnesota architectural firm has offices at 19321/2 University Ave., St. Paul.

Kelly & Gruzen, Architects and Engineers, has appointed P. L. Griffith as an associate in the firm. Mr. Griffith is an engineer and management consultant. Kelly & Gruzen has offices in New York, Newark, and





Power outages can do no harm in this hospital

Onan Electric Plant supplies emergency power for lighting and all vital electrical equipment

An Onan Emergency Power System protects patients and personnel. Supplies current for lighting corridors, operating rooms, delivery rooms, stairways; provides power for heating system, ventilators, elevators, X-Ray

machines, and other vital equipment.
Your hospital is assured of electric
power at all times with Onan Emergency Electricity. Operation is com-pletely automatic. When highline power is interrupted, the plant starts auto-matically; stops when power is restored. Models for any size hospital—1,000

to 150,000 watts A.C.

Complete standby systems at lower cost



Onan Vacu-Flo cooling permits using aircooled models in many installations at a considerable saving. Check Onan before you specify.

Catalog in



Write for engineering

D. W. ONAN & SONS INC.

2650 A University Avenue S. E. Minneapolis 14, Minnesota

UNITRO



ONE CARRIER - and ONLY ONE CARRIER—is used for all types or makes of closet bowls whether blow-out or syphon jet or women's urinals.

The carrier is independent of the closet fitting thereby enabling the carrier to be placed at any distance from the bowl without reinforcement. More-over, the entire assembly can be installed in less pipe chase width than other types, thus

turning waste space into usable, rentable area.

Reversible face plate on the closet fitting, the reversible carrier leg and a specially designed closet connection assembly, provide complete horizontal and vertical adjustability without additional fittings.

Architects and engineers will find UNITRON Closet Carriers enable them to meet all requirements with a minimum number of units, thereby reducing costs. Write for Catalog F.

JOSAM UNITRON FITTINGS FOR WALL HUNG FIXTURES

Horizontal and Vertical Closet Fittings, and carriers for closets, urinals, lavatories, sinks, slabs and hospital fixtures.



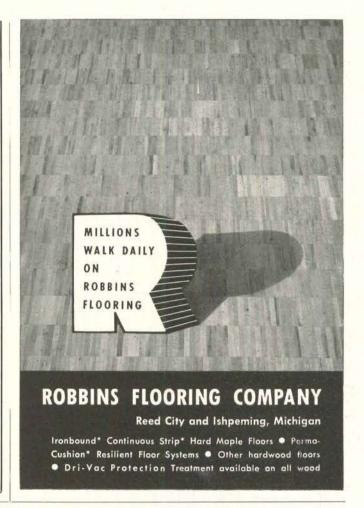
JOSAM MANUFACTURING COMPANY

Dept. AR-6

Michigan City, Indiana

Representatives in all principal cities

Josam products are sold through plumbing supply wholesalers.



The estimating handbook that cannot go out of date

CONTENTS -

PREFACE

- 1. INTRODUCTION
- 2. EARTHWORK

Excavation • Compaction • Earthmoving

3. REINFORCED CONCRETE WORK

Form fabrication • Form erection • Placing reinforcing steel · Placing concrete · Concrete finishing

4. STRUCTURAL STEEL WORK

Steel erection with welded, bolted, and riveted connections. Types: Commercial buildings, Mill type buildings, Multi-storied buildings

5. MASONRY WORK

Brick · Clay tile · Glazed tile · Concrete blocks · Stone veneer · Ledgestone · Flagstone · Terra cotta

6. CARPENTRY

Rough carpentry • Finish carpentry

APPENDIX

Estimate form sheets for each type of operation

COMPLETE INDEX

ESTIMATING GENERAL CONSTRUCTION COSTS

by Louis Dallavia

Here is a book that has only one purpose: to enable the architect, engineer, and contractor to estimate realistically, and thus narrow the gap between all estimates and final costs. It provides an accurate, foolproof method of estimating all direct production costs in earthmoving, concrete, masonry, steel, and timber construction.

SIMPLE • ACCURATE • QUICK

Presents an index set of unit costs for shift crews, against which you compare your own crews, obtaining a productivity percentage. For each operation, you check that figure against 3 special tables, arriving at unit cost for the operation. There are over 160 tables and checklists in all.

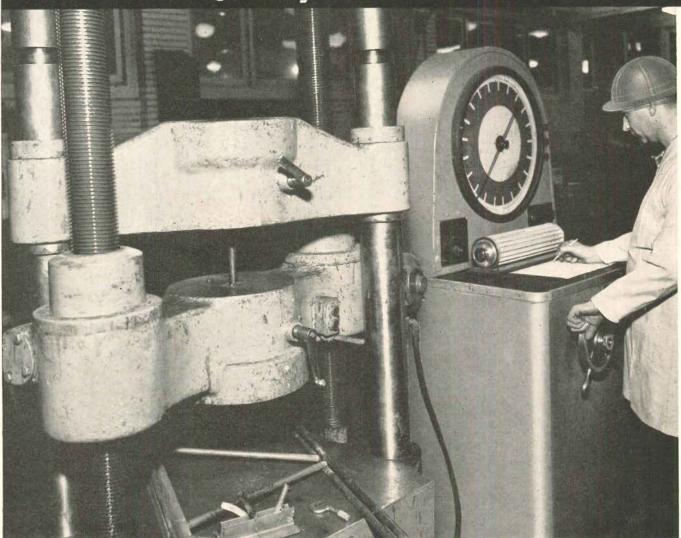
205 pages, 6 x 9", only \$8.50

Order your copy from -

119 West 40th Street

New York 18, N. Y.

SJI Quality Control Here...



He's Pulling a Steel Joist Apart

To prove quality of the "S" Series open web steel joists produced in its member company plants, the Steel Joist Institute demands punishing tests not only on the entire joists but on its component parts as well.

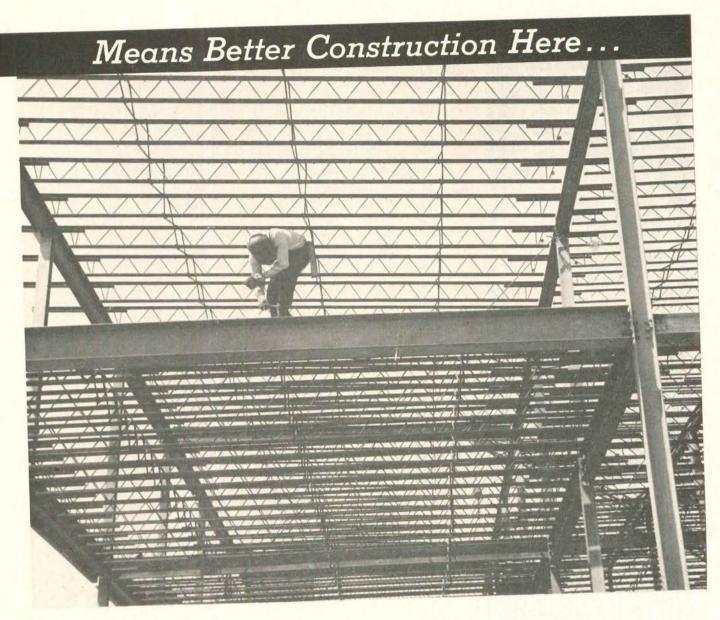
Here we see an inspector from an independent testing laboratory testing the tensile strength of a web section cut from a standard "S" Series steel joist selected at random from the production line. There are 15 other separate tests and inspections which the joist must undergo and pass successfully, before the manufacturer's joists can be granted the Institute's seal of approval.

STEEL JOIST INSTITUTE

1346 CONNECTICUT AVE., N. W. . WASHINGTON 6, D. C.

Steel joists of the designations adopted by the Steel Joist Institute and manufactured by the following companies have been investigated and approved by the Steel Joist Institute: AMERICAN BRIDGE DIVISION
United States Steel Corporation
ARBUTUS STEEL COMPANY
BETHLEHEM STEEL COMPANY
BUILDERS STRUCTURAL STEEL CORP.
CECO STEEL PRODUCTS CORP.
COLORADO BUILDERS SUPPLY CO.
CONCRETE STEEL COMPANY
JOHN HANCOCK, JR., INCORPORATED

LACLEDE STEEL COMPANY
MACOMBER INCORPORATED
SHEFFIELD DIVISION
Armco Steel Corporation
SOUTHWEST STEEL PRODUCTS
TRUSCON STEEL DIVISION
Republic Steel Corporation
VIRGINIA STEEL COMPANY



To Put a Stronger Building Together

SJI-approved "S" Series joists, having demonstrated their strength and durability under the SJI QVP* program, are made available to architects, engineers, contractors and others who specify construction materials. These joists impart added strength to the structures in which they are used.

Strength, however, is only one of many advantages offered by SJI-approved open web steel joists. Other outstanding features include light weight, easy handling and placement, fire and vermin resistance, versatility and adaptability to different architectural designs.

*Quality Verification Program.



FREE Write for technical bulletins

See our insert
in Sweet's
Architectural File

| - | | 274 |
|-----|--|-----|
| | STEEL JOIST INSTITUTE Du Pont Circle Building Washington 6, D. C. Please send technical bulletin(s) checked below: 18R-BRIDGING 19VP-QUALITY VERIFICATION PROGRAM | * |
| 100 | Name | _ |
| | Company | |
| | AddressState | |
| | CityStateState_ | |
| | | |





cast aluminum quality

mc Philben's 45 line edge-lit directionals are designed to blend with the finest contemporary decor in hotel lobbies, auditoriums, office buildings, schools and other public locations.

Gleaming satin finish . . . solid cast aluminum construction . . wall, ceiling or surface mountings . . incandescent and fluorescent models . . . invisibly hinged access doors . . . flush fasteners . . acrylic Plexiglass inscription panels illuminating full length of letter . . these are some of the features making mc Philben's 45 line edge-lit directionals the architect's first choice for use in the nation's finest buildings.

The 45 line series is available with either "exit" or special wording inscriptions. 4½", 6" or 8" lettering with red, green and white color combinations conform with all local regulations.

Contact your mc Philben representative today for full details. See our insert in Sweet's file be or write for data sheet E/1.

mc Philben

LIGHTING COMPANY

1329 Willoughby Avenue Brooklyn 37, New York

The Record Reports

Ernest J. Kump has formed a partnership with Stanley M. Smith, A.I.A., and Arthur B. Sweetser. The new firm will continue to practice architecture under the name of The Office of Ernest J. Kump, with offices in Palo Alto, Calif. The firm's temporary address is P.O. Box 467, pending the completion this summer of its new office building at 321 Lytton Ave.

Donald H. Lutes, A.I.A., and John M. Amundson have announced the formation of a partnership for the practice of architecture and community planning. Offices will be in the United States National Bank Bldg., Springfield, Ore.

Carter H. Manny, Jr., Thomas J. Mulig, A.I.A., Charles F. Murphy, Jr., A.I.A., and Charles G. Rummel have been named partners in the architectural-engineering firm of Naess and Murphy, 80 E. Jackson Blvd., Chicago, Ill.

The architectural firm of O'Leary and Terasawa, formerly known as Absmeier, O'Leary and Terasawa, will continue in general practice in its offices at 1898 Crenshaw Blvd., Los Angeles, Calif.

Perkins & Will, architects-engineers with offices in Chicago and White Plains, New York, has named Charles W. Brubaker, A.I.A., and George A. Hutchinson, Jr., A.I.A., partners in the office at 309 West Jackson Blvd., Chicago 6, Ill.

Williams D. Bailey, engineer, has been admitted to partnership in the firm of Seelye Stevenson Value & Knecht, Consulting Engineers. Mr. Bailey, formerly an associate of the firm, will continue to act as Manager of the Highway Engineering Division. The firm is located at 101 Park Ave., New York 17, N. Y.

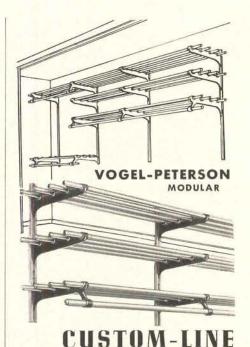
Emerson C. Smith & Associates, communications engineers, has announced its affiliation with Law & Wilson, Architects and Engineers, Honolulu, Hawaii.

New Addresses

Koslen & Ross—Architects, 16828 Kinsman Rd., Shaker Heights 20, Ohio.

Beck, Simon & Mantel, Structural Engineers, 921 Bergen Ave., Jersey City 6, N. J.

Skidmore, Owings & Merrill (Chicago office), Inland Steel Bldg., 30 W. Monroe St., Chicago, Ill.



Aluminum HAT and COAT RACKS

Tailored to fit any given wall area. Die cast aluminum brackets adjustable to exact centers . . . also adjustable as to height without removing from wall.

3 BASIC SHELVES



RIGID OR ADJUSTABLE MOUNTING

Brackets mount with standard fasteners directly on wall or in extruded slide mountings that permit easy change of heights.

Cast aluminum coat hooks can be staggered along the bottom shelf to give great capacity in small space.

MODERN ANODIZED FINISHES

Tubing comes in clear, or gold color, deep etched anodized finishes . . . with closed ends. Cast aluminum brackets and hooks come in black, silver luster or brass hammertone finishes. All combinations available.

FLOOR LAYOUT SERVICE

Let our cloakroom and checkroom specialists suggest equipment requirements and efficient layout. Just send outline of available space, capacity desired and nature of load. No obligations, of course.

Write for Catalog CL52

113

VOGEL-PETERSON CO.
1121 W. 37th St. • Chicago 9, Ill.

ALL TYPES...ALL SIZES

SPECIAL LOUVRE DESIGNS Let our engineering department assist you. No obligation, of course.

SEND FOR LOUVRED CEILING CATALOG No. 544

NEO-RAY PRODUCTS, INC. 315 EAST 22 ST. • NEW YORK, N. Y.

Bonded "Electro-Sheet" Copper in CONCEALED FLASHING **Gives Enduring Protection**

"Electro-Sheet" is pure thin copper produced by electro-deposition in long, wide rolls-in weights of from 1 to 7 ounces per sq. ft.

Durable and Economical -When bonded to other materials, for flexibility and easy handling, it provides a lasting product for concealed flashing and dampproofing uses at relatively low cost.

In a Variety of Forms - "Electro-Sheet" is furnished to manufacturers who bond it to high-grade building papers and fabrics, or coat it with asphaltic compounds. The finished products are available in long lengths, and widths to 60". For names of manufacturers, write: The American Brass Co., Waterbury 20, Conn. In Canada: Anaconda American Brass Ltd., New Toronto, Ont.

ANACONDA "Electro-Sheet"



New Onondaga County Bldg., Syracuse, N.Y. • Arch: H. A. & F. C. King, Syracuse • Gen. Contr.: W. E. O'Neill Const. Co., Syracuse and Chicago • Plast. Contr.: Henderson-Johnson Co., Syracuse and Youngstown, Ohio.

- Cuts Days Off Construction Time
- Cuts Material Costs, Reduces Dead Weight

Zonolite's revolutionary new technique of direct-tosteel plastic fireproofing was used throughout the new Onondaga County Building-cut days off construction time-provided sound-conditioning-afforded highest fire ratings—and saved ceiling height, thus reducing dead weight and material costs.



Quick work, lowest cost, with extension pipe applicator. At Onondaga County Bldg., undersides of steel floor were fireproofed throughout with Zonolite direct-to-steel fireproofing.

Perfect For Modern Schools, Hospitals, Office Buildings

Answering today's problems of lightweight, firesafe construction-and with more than usual regard for cost-Zonolite makes the most of modern design. Mail the coupon and have complete Zonolite data handy for your next project.

| A - | MAIL FOR FREE BOOKLET |
|-----|---|
| | ZONOLITE COMPANY |
| | 135 S. La Salle St., Chicago 3, Ill., Dept. AR-68 |
| | Send me booklet PA-41 on Zonolite plaster, acoustical and fireproofing systems. |
| | Name |
| | Firm |
| 1 | Address |
| | City Zone State |

Are your sales keeping pace

Now is a good time to sell architects and engineers whose plans and specifications control 92% of the strongest religious building market in history. And again in 1958 Architectural Record is your right magazine medium.

For six straight years architects and engineers have planned an increased volume of religious building construction.

In 1957 religious projects reached a record \$700 millions, over 6% of all nonresidential building.

For 1958 F. W. Dodge Corporation has estimated further gains in church building—and long-term prospects are among the brightest in the building field.

Reasons include population increase, population movement, and steep growth in church income—but most basic is the upsurge in U. S. church-mindedness.

In 1940 there were 64 million church members constituting 49% of the U. S. population. By 1956 church membership had soared to 103 million, or 62% of the population!

Current estimates point to 22 million more church members (and potential income contributors) over the next ten years—an increase that should spur the construction of over 70,000 new churches, synagogues and related facilities at a cost of no less than \$7 billion by 1965.

Why Architectural Record is your right magazine medium in the church building market.

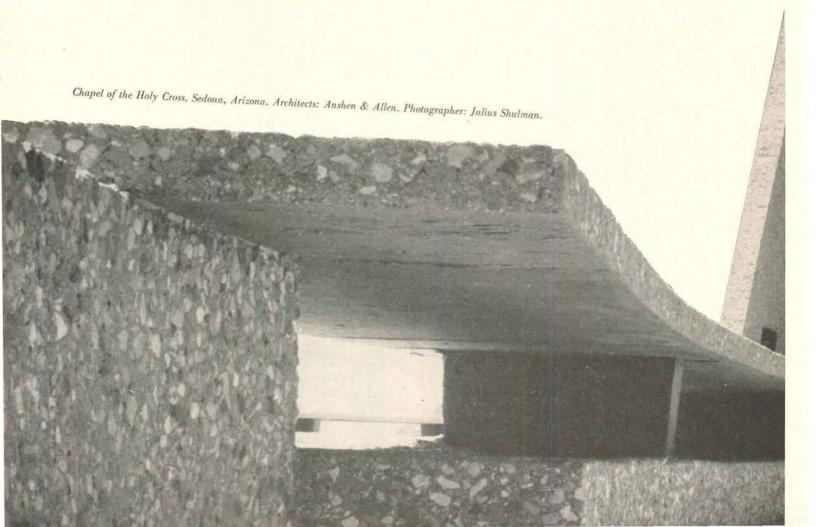
In the past five years Architectural Record has published 75% more editorial pages on religious building design than any other architectural magazine.

This reflects Architectural Record's close editorial attention both to building planning trends as revealed by *Dodge*

Architectural Record

119 West 40th Street, New York 18, N. Y., OXford 5-3000





with church building?

Reports and to the continually researched interest* of its readers in religious buildings.

More than any other magazine in its field Architectural Record has focused on the expanding functions of the church as a community educational, recreational and social center—on new uses of mechanical and other types of equipment needed for this expanded activity... and, most important, on the bold experimentation of architects and engineers seeking better ways to express traditional values of worship in architectural terms meaningful for our day.

As a result Architectural Record's unequaled architect and engineer audience today includes those architects and engineers *verifiably* responsible for planning 88% of all architect-planned religious building.

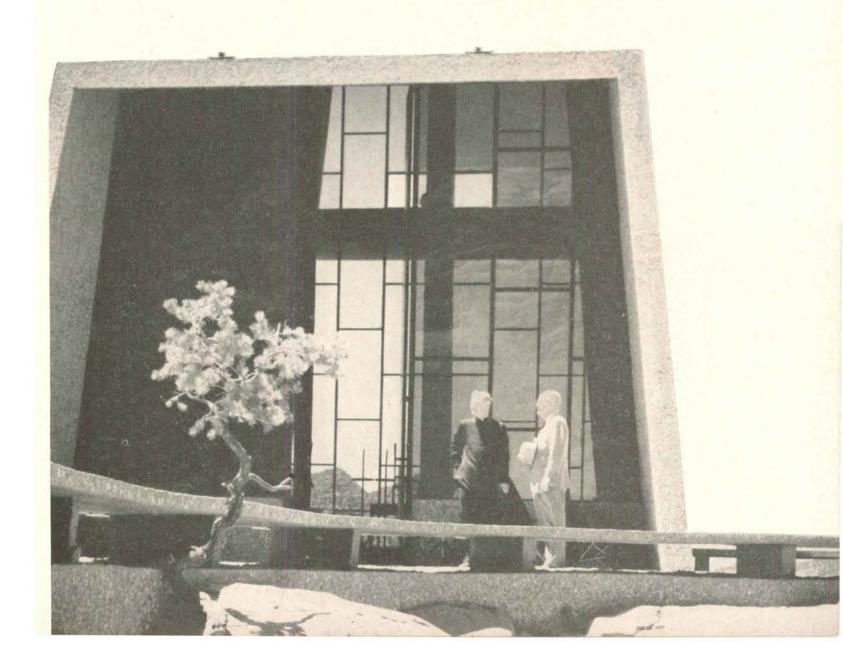
Ask now for full information on Architectural Record's advertising values—in time to take advantage of Architec-

tural Record's top coverage of the men whose specifications mean sales in 1958's church building market.

Five Exclusive Values for Building Product Advertisers in Architectural Record.

- 1 Verifiable coverage of 88% of all architect-planned building, nonresidential and residential, small and large.
- 2 Largest architect—and engineer—circulation.
- 3 Lowest cost per page per 1,000 architects and engineers.
- 4 Architect and engineer preference as revealed in 111 out of 121 studies SPONSORED BY BUILDING PRODUCT MANUFACTURERS AND ADVERTISING AGENCIES.
- 5 Advertising leadership—by a margin of 72% more advertising pages than the second magazine in the field (3 months, 1958).

*In recent years Architectural Record's Continuing Readership Research has shown that religious buildings rank close to schools and houses in the interest of its readers





"...more Architects specify Cabot's



stains than all others combined"

"We applaud their specifications because of past experience of owner satisfaction and troublefree years of beauty."

> J. Jerold Norman Norman Builders, Portland, Oregon



House in Portland, Oregon, Builder: J. Jerold Norman, Architect: Richard Marlitt, Portland. Caba's Creosote Stain on exterior siding. Photograph: Courtesy West Coast Lumberman's Association.

Cabot's RANCH HOUSE HUES®

- need no thinning, priming, sanding or scraping
- · won't crack, peel or blister
- · permit moisture to escape
- can be restained in another color
- ideal for wood siding, shingles and trim
- · cost only 1/2 as much as paint

Choose from 18 decorator colors — many exclusive with Cabot including Highland Rose, Mariposa Redwood, Turquoise, Spruce Blue.

A quality product from Cabot Laboratories
...manufacturing chemists since 1877

Samuel babot

SAMUEL CABOT INC.

629 Oliver Building, Boston 9, Mass.

Please send color card on Cabot's Ranch House Hues.

-

Required Reading

continued from page 64

the reader's eye, and seek the security of the bindings. Instead of seeking such security ourselves, we might stand ready to act on whatever our individual consciences demand, once we see what our enlarged vision enables us to see. We have still the right to do more than glide quietly with the spirit of the times. Mr. Nelson will not seem to encourage us to exercise this right, but he is pleasant stimulation while we prepare ourselves.

continued from page 60

clusions may make an architect raise his eyebrows. For instance, he praises New York City buildings resulting from the 1916 ordinance because "their upper stories taper off, providing greater opportunities for ornamentation."

On the whole, however, he shows a healthy awareness of the necessities of contemporary architecture. Thus, in speaking of building codes, he says, "It should be the aim of both policy and administration to provide needed protection without penalizing good design, without restricting advances in methods of construction, and without prejudicing the use of new materials."

Also, in connection with a particularly controversial aspect of zoning, Mr. Webster remarks, "The arguments that esthetic values can best be promoted by education and cooperation rather than by legislation have been quite persuasive." An architect himself is often the best "educator," and this book would give him useful background for the task.—P. C. F.

Urban Renewal

This 96-page, beautifully illustrated book is a report of a study of a 20-block area in New York City. A detailed analysis of present conditions is followed by plans for rehabilitation and renewal. The study was financed in part by the federal Housing and Home Finance Agency. New York City Planning Commission, 2 Lafayette St., New York 7, N. Y.

Directory Of International

. . . Scholarships in the Arts is a 120-page booklet that lists awards for study abroad offered by government and private organizations throughout the world in architecture, creative writing, dance, design, music, painting and sculpture, and theater arts. There is a detailed index to fields and countries. Institute of International Education, 1 East 67th St., New York 21, N. Y.

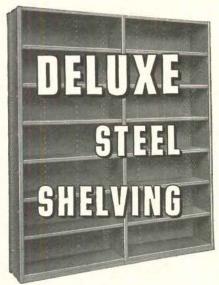
faster TO ERECT

faster

TO RE-ARRANGE

faster

TO PAY FOR ITSELF



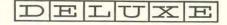
faster because... the exclusive Deluxe patented boltless shelf bracket replaces 90% of time-consuming nuts and bolts, providing quick installation and quick, easy shelf adjustment.

Proof of this has been demonstrated again and again at trade shows where two men erected a complete section of Deluxe Shelving in less than 5 minutes.

For any shelving storage problem, use Deluxe—the finest-designed and sturdiest shelving made. Call your local Deluxe dealer for quick, efficient layout service. Or write for the new Deluxe Shelving Catalog #30.

DELUXE METAL FURNITURE CO. Warren 11, Pa.

A division of the Royal Metal Mfg. Co.

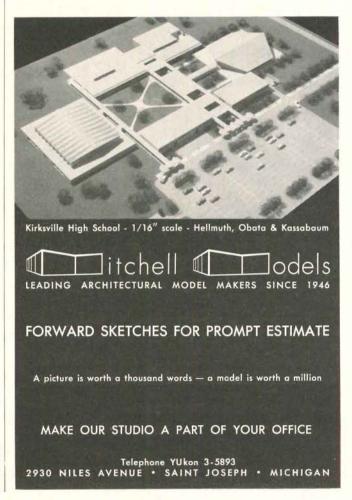


$a\ V.I.P.$'s $decor\dots$ rates a Bigelow on the floor

Delight your client and his entire entourage by crowning your design achievement with carpets by Bigelow! Choose from Bigelow's unlimited variety of patterns, colors, textures . . . and prices. To insure the right carpet for the job, top value for every dollar invested, see your Bigelow dealer. He brings you the services of his experienced staff plus Bigelow Carpet Counsel, a group of commercial carpet specialists unmatched in the industry. Bigelow Rugs and Carpets, 140 Madison Avenue, New York 16, N.Y. The new ideas in carpet begin with BIGELOW.







A New

CORNER Stainless Steel ... GUARD*

NO MARRING ON THE FINISHED FACE

- · For use on tile, concrete block, or plastered walls
- No visible screws or spot weld marks
- Lower installation costs
- Lower initial costs

*Patent Pending



literature

A patented adjustable anchor makes Wilkinson Standard Stainless Steel Corner Guards superior to others.

These anchors, inserted into the corner guard as the workman builds the wall, eliminate all weld marks or screw heads from the surface of the corner guard.

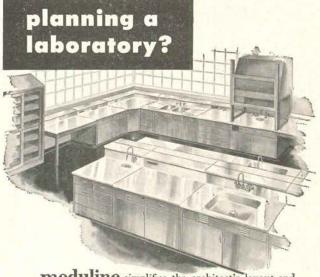
They're money savers too-lower in initial cost, and less expensive to install.

Standard Models are available for tile, concrete block or plastered walls.

WILKINSON CHUTES, INC.

619 East Tallmadge Ave., Akron 10, Ohio





moduline simplifies the architect's layout and installation of cabinets and casework for laboratories and hospitals. Consists of sectional steel units of architecturally approved widths and depths; easy to adapt to any building layout. Fabricated of quality materials; stainless steel tops, or choice of wood, stone, Formica, etc.



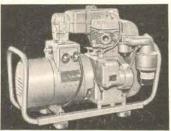
A. S. Aloe Company AND SUBSIDIARIES 1831 Olive St., St. Louis 3, Mo.

Send your brochure: Moduline Unitized Labora-

| Name | | | |
|-------|--|--|--|
| City | | | |
| State | | | |

ON GUARD AGAINST POWER FAILURE





For Positive Protection in Schools, Hotels, Hospitals, Theaters; Specify a Reliable, Low Cost Fairbanks-Morse Generator

When emergency standby equipment is called for in the event of power failure, it makes sense to specify a Fairbanks-Morse generator. Like the powerful, portable Model 25P-36 shown above, each F-M standby unit is designed for dependability and trouble free operation. Moreover, the Fairbanks-Morse name guarantees low cost as well as quality.

Available in capacities ranging from 600 watts to $125~\rm{kv.},~\rm{F-M}$ standby generators have at least $10\,\%$ reserve capacity for peak loads. They are built in accordance with latest NEMA and AIEE standards. For full facts, write Fairbanks, Morse & Co., 600 South Michigan Avenue, Chicago 5, Illinois.



FAIRBANKS-MORSE

a name worth remembering when you want the BEST

GENERATING SETS . WATER SYSTEMS . MAGNETOS . PUMPS MOTORS . SCALES . DIESEL LOCOMOTIVES AND ENGINES

Your Choice for Convenience in PITTSBURGH

HOTEL PITTSBURGHER

TET WHILE ACTIVE



rooms with TV, telephone, combination tile baths. Excellent dining room. Facilities for group parties 15 to 500.

Route 30 Irwin, Pa. 1 mile West of Irwin Interchange





Right in the heart of the

Golden Triangle 400 outside rooms with TV and every comfort of modern hotel



HOTEL PITTSBURGHER MOTEL

Opposite Greater Pittsburgh Opposite Greater Pittsburgh Airport on beautiful Airport Parkway West. 56 luxurious, air-conditioned rooms with tile bath, TV, private phone. Courtesy car to and from airport. AMherst 4-5152

Joseph F. Duddy,

* Teletype Service. For immediate confirmation of reservations at no charge . . . telephone any Knott Hotel—or teletype PG-29.



MODERN OUTSIDE | MODERN INSIDE

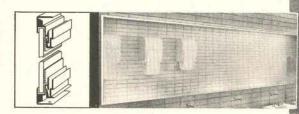
Architects — SKIDMORE, OWINGS AND MERRILL, Chicago Glass and Glazing -HOFFER GLASS, Minneapolis

General Mills uses modern STYLMARK glass hardware in new home office

STYLMARK helps architects express the contemporary "metal-and-glass" exterior motif in interiors, too! Offers utmost design flexibility because there are no size limitations. Gives versatility of custom installation at less than cost of standard-size frames. Installs quickly, easily right on the job - without unsightly brazed corners. Made of extruded aluminum to rigidly controlled tolerances - comes in choice of five anodized colors for maximum beauty. Provides positive theft protection.

STYLMARK'S trim mirror hardware

enhances modern, functional decor in office lounges. Die cast corner brackets insure permanent clean-cut fit of mitred corners. Design features make installation possible in minutes. No backing required.

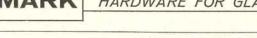


Visit us at Booth 65. A.I.A. Convention Cleveland

For free catalog and detail sheets, write DESIGNWARE INDUSTRIES, INC., 50th and France Ave. No., Minneapolis 22, Minn. or call KEllogg 7-3603.

MARK

HARDWARE FOR GLASS



CONNOR

forest products since 1872

"LAYTITE" birch FLOORING

has been first choice for gyms, playrooms and classrooms

"CONTINUOUS STRIP", Blocks, Regular Strips and Slats

School and Gym Floors our specialty MFMA grades and trade marked See Sweet's file specs # 13J

CONNOR LUMBER & LAND CO.

P. O. BOX 810-G, WAUSAU, WIS. Phone No. 2-2091

THE DECORATIVE

possibilities of exposed Waylite Masonry extend through a wide range of patterns, colors and textures. These are obtained easily and economically. Write for new Shadowal Portfolio.

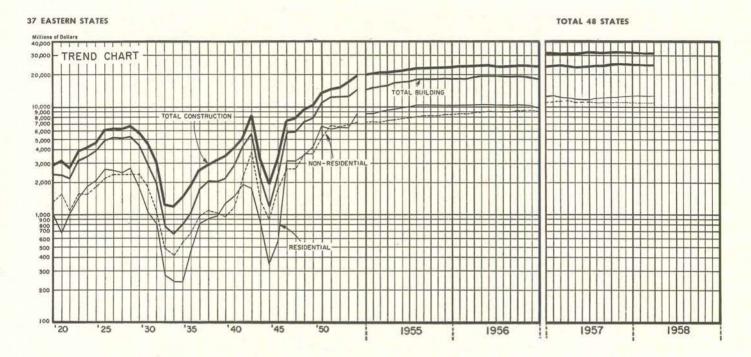


WAYLITE MASONRY UNITS give (1) an insulative wall (2) with an attractively decorated interior that (3) needs no acoustical treatment -(4) all at one low cost.

20 N. WACKER DRIVE, CHICAGO 6 . BOX 30, BETHLEHEM, PA.

Current Trends in Construction

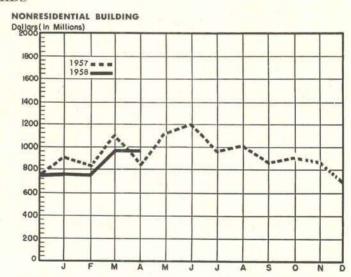
As Reflected in Contracts for Future Construction in the U.S. Reported and Tabulated by F. W. Dodge Corporation

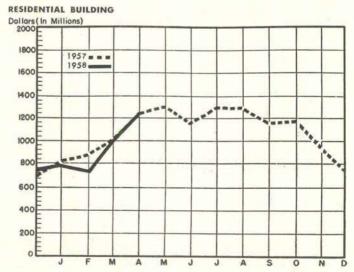


FIRST UPTURN SEEN IN APRIL CONTRACT AWARDS

The first signs of a shift in the construction trend appeared in early figures released by F. W. Dodge Corporation on the totals of construction contracts reported for April. These figures, for 37 states east of the Rockies only, showed an increase of 18 per cent in non-residential contracts compared with April of last year. (The accompanying charts show 48-state totals.) Other encouraging features of the first April figures cited by Dr. George Cline Smith, Dodge vice president and economist, were an 18 per cent increase in school building contracts, a 13 per cent increase in contracts for apartments and other large residential buildings, an 18 per cent increase in commercial buildings and a 16 per cent increase in street and highway contracts in the 37-state area. Dodge has not released 37state figures since its statistics went on a national basis in January 1957 but did so last month in view of "signs of a sharp trend reversal at a time when every shift in the economic winds is being observed with intense interest." Best April increase of all in the 37-state figures was shown by public works, up 33 per cent.

| RELIGIOUS BUILDING | 5* | | | |
|--|---------------------------|---------------------------|-----------------------------|-----------------------------|
| Construction Contracts | -Regional Co | omparison | | |
| Valuation (in thousand | ds of dollars) | | | |
| REGION | MARCH 1957 | MARCH 1958 | 3 MOS. 1957 | 3 MOS. 1958 |
| New England NY, NJ, E. Pa., Md., | 5,612 | 2,957 | 8,976 | 5,852 |
| Del., D.C., Va. South Atlantic | 12,355 8,098 | 13,342 7,137 | 34,313 20,429 | 29,333 14,860 |
| Ohio, W. Pa., Ky., W. Va. N.D., S.D., Minn., | 8,026 | 6,000 | 18,835 | 14,281 |
| Ia., Wis., Mich., III., Ind. | 14,404 | 15,376 | 30,410 | 33,214 |
| E. Mo., Ark., La., Miss., E. Tenn. Neb., Kas., W. Mo., | 4,360 | 4,476 | 11,203 | 10,620 |
| Okla., Tex. 11 Western States U.S. Summary | 9,421 12,636 74,912 | 10,963 6,906 67,157 | 17,669 23,284 165,119 | 18,503 19,441 146,104 |







SHERRON ACOUSTIC STEEL BOOTHS

IN RECESSED, MULTIPLE GROUPINGS ARE IDEAL FOR LOBBY LOCATIONS WHERE TRAFFIC IS HEAVIEST . . .

COMMUNICATIVE
PEOPLE
DESERVE THE
CONVENIENCE
OF ACCESSIBLE
TELEPHONE
BOOTHS



Few locations for telephone booths are better suited to public service than the lobby of the public building . . . directly across from or near the elevators. Traffic in this area is continuous, and the need for nearby telephone service is constant. Sherron steel booths so situated reflect foresighted planning for public convenience. They are easily recessed to form a continuous, multiple installation. In addition, their all-metal construction and

acoustic panels keep telephone conversations private, while blocking out outside noises. Sherron booths are regularly available in stainless steel, or zinc coated steel with baked enamel finish. Can also be specially provided in bronze or copper. Naturally, they are fireproof . . . and they won't rust, rot or decay. Consult your Sherron distributor . . . or write us for technical data.

THERE'S A SHERRON BOOTH FOR EVERY LOCATION, INDOORS AND OUTDOORS, IN EITHER STAINLESS STEEL OR IN ZINC-COATED STEEL



SHERRON METALLIC CORP., 1201 FLUSHING AVE., BROOKLYN 37, N.Y.

IN CANADA: W. S. GERRIE & ASSOCIATES, LTD., 66 RACINE ROAD, REXDALE (TORONTO)

ARCHITECTURAL RECORD

Published by F. W. Dodge Corporation.

119 West 40th Street, New York 19.

Copyright 1958.

All rights reserved

SEMI-ANNUAL INDEX

VOLUME 123 JAN.-JUNE 1958

ABBREVIATIONS: BTS—Building Types Study; AE—Architectural Engineering; TSS—Time-Saver Standards

Acoustics. "Noise Control Techniques for Motels," by William J. Cavanaugh and Norman Doelling—April 1958, AE, pp. 231-234

Ack Associates, archts.; Howard H. Callaway House, Harris County, Ga.—Mid-May 1958, pp. 104-109
Aging. Baptist Nursing Home, D. C.; Noakes and Neubauer, archts.—March 1958, BTS, pp. 216-217. Carmel Hall, Detroit; Leo M. Bauer and Assocs., archts.—March 1958, BTS, pp. 218-222
Agree, Allan G., assoc. archt.; Louis G. Redstone, archt.; Architects' Offices, Detroit—March 1958, p. 189
Air Conditioning. "Motel Air Conditioning," by F. J. Walsh—April 1958, AE, pp. 235-238
Air Force Academy. Technical Roundup:

230-238
Air Force Academy. Technical Roundup:
"Approach Bridges: United States Air
Force Academy," Skidmore, Owings &
Merrill, archts.—April 1958, AE, pp. 239-

240
Allied Arts. Arts, Artists and Architecture:
"Appel: Dutch Muralist," by Suzanne
Burrey—Jan. 1958, pp. 147-150
Alpha Gamma Rho Fraternity House, University of Arkansas, Fayetteville; Edward D. Stone, archt.—Feb. 1958, pp. 184-185

ward D. Stone, archt.—Feb. 1958, pp. 184-185
American Society of Metals, Headquarters, Cleveland; Kelly & Kress, archts.; R. Buckminster Fuller, designer of dome—April 1958, pp. 197-198
Amman & Whitney, engs., Pan-American World Airways Hangar, New York International Airport, Chester L. Churchill, archt.; Trans World Airlines Hangar, New York International Airport; National Airlines Hangar, Miami International Airport, Weed, Russell & Johnson, archts.—March 1958, AE, pp. 223-227
Amphitheaters. Chamber Music Amphitheater, Westport, Conn.; Davis, Brody & Wisniewski, archts.—April 1958, pp. 195-196. Portfolio—May 1958, pp. 207-212
Appel, Karel. Art, Artists and Architecture: "Appel: Dutch Muralist," by Suzanne Burrey—Jan. 1958, pp. 147-150
Architects Collaborative, archts.; standard units, Elementary School, West Bridgewater, Mass.—Feb. 1958, BTS, pp. 220-224
Architects' Offices. Offices of Louis G. Red-

Architects' Offices. Offices of Louis G. Red-

Architects' Offices. Offices of Louis G. Redstone, archt., and Allan G. Agree, assoc. archt., Detroit—March 1958, p. 189. Office of Harold Spitznagel & Assocs., Sioux Falls, S. Dak.—March 1958, pp. 190-191. Offices of Toombs, Amisano & Wells, archts., Atlanta, Ga.—March 1958, p. 194 Architectural Education. "A New Kind of Architectural Education for Teachers of Architecture," report on Aspen Teachers Conference by Harold Bush-Brown—Feb. 1958, News, pp. 28, 304, 308
Architectural Engineering. Elementary School, West Bridgewater, Mass.; The Architects Collaborative, archts.—Feb. 1958, BTS, p. 224. "Floor Slab Problems in Factories and Warehouses," by J. L. Staunton—Jan. 1958, pp. 179-182. "Folded Plates Roof New Hangars," Pan-American World Airways Hangar, New York International Airport, Chester L. Churchill, archt., Amman & Whitney, engs.; Trans World Airlines Hangar, New York International Airport, Amman & Whitney, engs.; National Airlines Hangar,

Miami International Airport, Weed, Russell & Johnson, archts., Amman & Whitney, engs.—March 1958, pp. 223-227. "Industrial Floor Slabs: Design and Construction," by Jack L. Staunton—May 1958, pp. 245-249. Joints for Curtain Walls—Feb. 1958, pp. 225-228, 296, 300. "Motel Air Conditioning," by F. J. Walsh—April 1958, pp. 235-238. "Noise Control Techniques for Motels," by William J. Cavanaugh and Norman Doelling—April 1958, pp. 231-234. "Technology Misapplied," by Robert E. Fischer—June 1958, pp. 203-206. UNESCO Headquarters, Paris, France; Marcel Breuer, Bernard Zehrfuss, archts.; Pier Luigi Nervi, eng.; critique by Mario Salvadori—Feb. 1958, pp. 165-169
Architectural History. "Revived Survey Project Resumes Recording of American Architectural History," National Park Service, American Institute of Architects, Library of Congress—March 1958, News, p. 28 Miami International Airport, Weed, Rus-

p. 28 Arkansas,

Architectural history, National Park Service, American Institute of Architects, Library of Congress—March 1958, News, p. 28
Arkansas, University of, Alpha Gamma Rho Fraternity House, Fayetteville; Edward D. Stone, archt.—Feb. 1958, pp. 184-185. Fine Arts Center, Fayetteville; Edward D. Stone, archt.—Feb. 1958, p. 196. Married students' apartments, Fayetteville; Edward D. Stone, archt.—Feb. 1958, pp. 182-183
"Art in Swedish Schools," by Gunnar Hellman—Feb. 1958, BTS, pp. 198-199
Articles. "The Highway and the City," by Lewis Mumford—April 1958, pp. 179-186.
"A Pilgrimage: Ronchamp, Raincy, Vezelay," by John Ely Burchard—March 1958, pp. 171-178. "A Place for Worship," by Victor A. Lundy—June 1958, BTS, pp. 176-177. "The Range of Gaudi," by Henry-Russell Hitchcock—March 1958, pp. 183-188. "Water and Architecture," Part I, by Elizabeth B. Kassler—June 1958, pp. 137-152
Art, Artists and Architecture. "Appel: Dutch Muralist," by Suzanne Burrey—Jan. 1958, pp. 147-150
Ashley, Warren archt.; Fletcher Judson Elementary School, Watertown, Conn.—Feb. 1958, BTS, pp. 200-203
Ashwood Elementary School, Bellevue, Wash.; Naramore, Bain, Brady & Johnson, archts.; Worthington & Skilling and Bouillon & Griffith, assoc. archts.—Feb. 1958, BTS, pp. 210-213
Avon Products, Inc., Morton Grove, Ill.; Skidmore, Owings & Merrill, archts.—Jan. 1958, BTS, pp. 168-172
Awards. 1958 Honor Awards Program, American Institute of Architects—June 1958, News, pp. 12-13. "Five Buildings Win Awards in Pennsylvania Society's First Architectural Exhibit"—April 1958, News, pp. 12-13. "Five Buildings Win Awards in Pennsylvania Society's First Architectural Exhibit"—April 1958, News, pp. 12. "Hawaii Awards First Pan-Pacific Architectural Citation"—April 1958, News, p. 16. "Florida Architects Bestow One Honor Award, Seven Merits"—May 1958, News, p. 12. "Hawaii Awards First Pan-Pacific Architectural Citation"—April 1958, News, pp. 12. "Hawaii Awards First Pan-Pacific Architectural Citation"—Feb. 1958, News, pp. 12, 314

Banks. State Bank of Clearing, Chicago; Harry Weese & Assocs., archts.—Feb. 1958, pp. 173-176 Baptist Nursing Home, D. C.; Noakes and Neubauer, archts.—March 1958, BTS, pp. Baringer, Richard E., archt.; Stanford R.

Gamm House, Highland Park, Ill.—Mid-May 1958, pp. 178-181 Bauer, Leo M., and Assocs., archts.; Carmel Hall, Detroit—March 1958, BTS, pp. 218-

Beattie House, Rye, N. Y.; Ulrich Franzen, archt.—Mid-May 1958, pp. 98-103
Becket, Welton, & Assocs., archts.; Memorial Sports Arena, Los Angeles—May 1958, p. 212
Beckhard, Herbert, assoc.; Marcel Breuer, archt.; Robert J. Starkey House, Duluth, Minn.—Mid-May 1958, pp. 188-193
Bee Ridge Presbyterian Church, Sarasota, Fla.; Victor A. Lundy, archt.—June 1958, BTS, pp. 178-181
Bergh, Rolf, archt.; Church of St. Botvid, Oxelosund, Sweden—May 1958, News, p. 18

18
Beth Sholom Synagogue, Elkins Park, Pa.;
Frank Lloyd Wright, archt.—May 1958,
pp. 178-181
Bice & Baird, assoc. archts.; Edward D.
Stone, arch.; Mohawk Valley Technical
Institute, Utica, N. Y.—Feb. 1958, pp.
178-181 178-181

Biggs, Weir & Chandler, archts.; Mississippi Hospital School for Cerebral Palsy, Jackson, Miss.—March 1958, BTS, pp. 204-207

Bogalusa High School, Bogalusa, La.; Burk, Lebreton & Lamantia, archts.—May 1958, BTS, pp. 242-244 Bolton and Barnstone, archts.; Marc De-

moustier House, Houston-April 1958, pp. 199-202

Bouillon & Griffith and Worthington & Skilling, assoc. archts.; Naramore, Bain, Brady & Johnson, archts.; Ashwood Elementary School, Bellevue, Wash.—Feb. 1958, BTS, pp. 210-213

Bradford Woods, Pa., Elementary School; Mitchell & Ritchey, archts.; Louis Shulman, assoc. archt.—Feb. 1958, BTS, pp. 207-209

man, assoc. archt.—Feb. 1958, BTS, pp. 207-209

Breuer, Marcel, archt.; Robert Gatje, assoc.; Housing, Institute for Advanced Study, Princeton, N. J.—March 1958, pp. 157-164. With Herbert Beckhard, assoc.; Robert J. Starkey House, Duluth, Minn.—Mid-May 1958, pp. 188-193. Torrington Manufacturing Co., Van Nuys, Cal.—Jan. 1958, BTS, pp. 163-167. With Bernard Zehrfuss, archts.; Pier Luigi Nervi, eng.; UNESCO Headquarters, Paris, France—Feb. 1958, AE, pp. 165-169

Browne, Robert B., archt.; Kenneth McClave House, Key Biscayne, Miami, Fla.—Mid-May 1958, pp. 128-133

Brush, Hutchinson & Gwinn, archts.; Bill Wilkerson Hearing and Speech Center, Nashville, Tenn.—March 1958, BTS, pp. 208-209

208-209

Nashvine, Tenn.—March 1958, B1S, pp. 208-209

Brussels World's Fair. "Festival of Structure," a report on the opening of the fair —June 1958, pp. 163-170. "First Report on Buildings at Brussels World's Fair 1958".—March 1958, News, pp. 10-12

Burchard, Charles, archt.; Municipal Pool, St. Bernard, Ohio—May 1958, pp. 194-195

Burchard, John Ely, "A Pilgrimage: Ronchamp, Raincy, Vezelay".—March 1958, pp. 171-178

Burk, Lebreton & Lamantia, archts.; Bogalusa High School, Bogalusa, La.—May 1958, BTS, pp. 242-244. Samuel E. Hale House, Lake Charles, La.—Mid-May 1958, pp. 182-187. St. Catherine of Siena Roman Catholic Church, New Orleans—June 1958, BTS, pp. 192-195

Burrey, Suzanne, Art, Artists and Archi-

Burrey, Suzanne, Art, Artists and Architecture: "Appel: Dutch Muralist"—Jan. 1958, pp. 147-150

Button and McLean, with Mitchell & Rit-

chey, archts.; John J. Kane Hospital, Pittsburgh-May 1958, pp. 199-206

C

Callaway House, Harris County, Ga.; Aeck Assocs., archts.—Mid-May 1958, pp. 104-

Campbell & Wong, archts.; Dinah's Motor Hotel, Palo Alto, Cal.—April 1958, BTS, pp. 216-219

Carmel Hall, Detroit; Leo M. Bauer and Assocs., archts.—March 1958, BTS, pp. 218-222

Carpenter House, Medford, Ore.; George T. Rockrise, archt.—Mid-May 1958, pp. 92-97
Carson & Lundin, archts.; Illuminating Building, Cleveland—June 1958, pp.

Catalina High School, Tucson; Scholer, Sa-kellar & Fuller, archts.—May 1958, BTS, pp. 230-233

Charterhouse Motor Hotels, Prototype, Hotel Corporation of America; Victor Gruen Assocs., archts.—April 1958, BTS, pp. 212-215

Christian Science Church, Bolinas, Cal.; Frank Lloyd Wright, archt.—May 1958, pp. 176-177

Church of the New Jerusalem, Elementary School, Bryn Athyn, Pa.; Vincent G. Kling, archt.; Engelhardt, Engelhardt & Leggett, educational consultants—Feb. 1958, BTS, pp. 204-206

Kling, archt.; Engelhardt, Engelhardt & Leggett, educational consultants—Feb. 1958, BTS, pp. 204-206
City and Regional Planning. Monona Terrace Project, Madison, Wis.; Frank Lloyd Wright, archt.—May 1958, pp. 170-171
Clinics. Building Types Study No. 256, Medical Buildings, March 1958, pp. 195-222
Colbert & Lowery & Assocs., archts.; Hotel de Ville, Kansas City, Mo.—April 1958, BTS, pp. 228-230
College Buildings. University of Arkansas, Alpha Gamma Rho Fraternity House, Fayetteville; Edward D. Stone, archt.—Feb. 1958, pp. 184-185. University of Arkansas, Fine Arts Center, Fayetteville; Edward D. Stone, archt.—Feb. 1958, pp. 196. University of Arkansas, Married Students' Apartments, Fayetteville; Edward D. Stone, archt.—Feb. 1958, pp. 182-183. Florida Southern College, Music Building, Lakeland, Fla.; Frank Lloyd Wright, archt.—May 1958, pp. 172-173. University of Illinois, Assembly Hall, Champaign; Harrison & Abramovitz, archts.—May 1958, pp. 210-211. Mohawk Valley Technical Institute, Utica, N. Y.; Edward D. Stone, archt.; Bice & Baird, assoc. archts.—Feb. 1958, pp. 178-181. University of South Carolina, Dormitories, Columbia; G. Thomas Harmon, archt.; Edward D. Stone, assoc. archt.—Feb. 1958, pp. 178-181. University of South Carolina, Dormitories, Columbia; G. Thomas Harmon, archt.; Edward D. Stone, assoc. archt.—Feb. 1958, pp. 190-191
Concrete, "Folded Plates Roof New Hangars"—March 1958, AE, pp. 223-227
Concrete, Precast. Parke-Davis Warehouse and Office Building, Menlo Park, Cal.; Yamasaki, Leinweber & Assocs., archts., Yamasaki, Leinweber & Assocs., archts.

Concrete, Precast. Parke-Davis Warehouse and Office Building, Menlo Park, Cal.; Yamasaki, Leinweber & Assocs., archts.; Knorr-Elliott Assocs., assoc. archts.— June 1958, pp. 171-174. Technical Roundup: "Students Test Corrugated Precast Beams"—Feb. 1958, AE, p. 229 Cope, T. J., Inc., Offices, Collegeville, Pa.; Jules Gregory, archt.—March 1958, pp. 192-193

192-193

Cranbrook House, Detroit; Louis G. Red-stone, archt.—April 1958, BTS, pp. 224-

Curtain Walls. Joints for Curtain Walls-Feb. 1958, AE, pp. 225-228, 296, 300. Joint Seals for Curtain Walls. Parts 1, 2, 3—Feb. 1958, TSS, pp. 235, 237, 239. Technical Roundup: Preformed Resilient Gaskets—June 1958, AE, pp. 210-211
Curtis & Davis, archts.; Pan-American Motor Hotel, New Orleans—April 1958, BTS, p. 292

p. 223 Curves. "Useful Curves and Curved Surfaces," Parts 28, 29, 30, by Seymour Howard—April 1958, TSS, pp. 245, 247, 249. Parts 31, 32, 33—June 1958, TSS, pp. 215, 217, 219

Dallas Theater Center, Dallas, Tex.; Frank Lloyd Wright, archt.—May 1958, pp. 168-169

Davis, Brody & Wisniewski, archts.; Chamber Music Amphitheater, Westport, Conn.
—April 1958, pp. 195-196
Demoustier House, Houston; Bolton & Barnstone, archts.—April 1958, pp. 199-

202

ental Arts Building, Gainesville, Fla.; David Reaves, archt.—March 1958, BTS,

David Reaves, archt.—March 1958, BTS, pp. 198-199
Dinah's Motor Hotel, Palo Alto, Cal.; Campbell & Wong, archts.—April 1958, BTS, pp. 216-219
Domes. "Giant Balloons Hoist Aluminum Stressed-Skin Dome"—Jan. 1958, AE, p.

Douglas, Lathrop, archt.; Edificio Esso, for Columbiana, S. A., Bogotá, Colombia—March 1958, pp. 165-170
Drawing Methods. "Useful Curves and Curved Surfaces." Parts 28, 29, 30, by Seymour Howard—April 1958, TSS, pp. 245, 247, 249. Parts 31, 32, 33—June 1958, pp. 215, 217, 219
Duct Systems. Technical Roundup: "In-Floor Duct System Saves Space, Cuts Cost"—March 1958, AE, pp. 228-230
Duke Laboratories, Inc., South Norwalk, Conn.; Harrison & Abramovitz, archts.—Jan. 1958, BTS, pp. 159-162

"Economic Facts of Life about Hotel Design," by William B. Tabler—April 1958, BTS, p. 204
Edificio Esso, for Columbiana, S. A., Bogotá, Colombia; Lathrop Douglass, archt.—March 1958, pp. 165-170
Erskine, Ralph, archt.; Villa Tesdorpf, Skovde, Sweden—March 1958, pp. 179-182
Exhibits. "Art and Architecture Exhibit: The Patron Church"—March 1958, News, p. 18

Faith Lutheran Church, Frayser, Tenn.; Robert Thomas Martin, archt.—June 1958, BTS, pp. 182-185 Falk & Booth, archts.; Lodi Union High School, Lodi, Cal.—May 1958, BTS, pp. 218-221

218-221
First Presbyterian Church, Boulder, Colo.;
Hobart D. Wagener, archt.—June 1958,
BTS, pp. 200-202
Fletcher Judson Elementary School, Watertown, Conn.; Warren Ashley, archt.—
Feb. 1958. BTS, pp. 200-203
Fletcher, William L., archt.; Architect's
House, Portland, Ore.—Mid-May 1958, pp.
164-169

Floors, Technical Roundup: "In-Floor Duct

Floors. Technical Roundup: "In-Floor Duct System Saves Space, Cuts Cost"—March 1958, AE, pp. 228-230

Floor Slabs. "Floor Slab Problems in Factories and Warehouses," by J. L. Staunton—Jan. 1958, AE, pp. 179-182. "Industrial Floor Slabs: Design and Construction," by Jack L. Staunton—May 1958, AE, pp. 245-249. Industrial Floor Slabs, Parts 1, 2, 3, by Jack L. Staunton—May 1958, TSS, pp. 257, 259, 261

Florida Southern College, Music Building, Lakeland, Fla.; Frank Lloyd Wright, archt.—May 1958, pp. 172-173

Foreign Architecture. Brussels World's Fair, "Festival of Structure," a report on the opening of the fair—June 1958, pp. 163-170. Church of St. Botvid, Oxelosund, Sweden; Rolf Bergh, archt.—May 1958, News, p. 18. Edificio Esso, for Columbiana, S. A., Bogotá, Colombia; Lathrop Douglass, archt.—March 1958, pp. 165-170. "First Report on Buildings at Brussels World's Fair 1958"—March 1958, News, pp. 10-12. Qaide Azam Ali Jinnah Mausoleum, Karachi, Pakistan; Raglan Squire & Partners, archts. (winners in international competition)—June 1958, News, pp. 32, 36. "Milan's 11th Triennale: The Mood (Mode?) Interna-Ragian Squire & Partners, archts. (winners in international competition)—June 1958, News, pp. 32, 36. "Milan's 11th Triennale: The Mood (Mode?) International"—Feb. 1958, News, pp. 16, 320, 326, 332. Olympic Arena, Rome, Italy; Annibale Vitellozzi, archt.; Pier Luigi

Nervi, eng.—May 1958, pp. 207-209. Presidential Palace, Havana, Cuba; Jose Luis Sert, archt.—Jan. 1958, pp. 134-137. "Soviet Architecture; Does It Have A New Look?" by Gerald Gruman—March 1958, News, pp. 16, 322. Studio for Joan Miro, Mallorca, Spain; Jose Luis Sert, archt.—Jan. 1958, pp. 138-140. UNESCO Headquarters, Paris, France; Marcel Breuer, Bernard Zehrfuss, archts.; Pier Luigi Nervi, eng.; critique by Mario Salvadori—Feb. 1958, AE, pp. 165-169. U. S. Embassy, Baghdad, Iraq; Jose Luis Sert, archt.—Jan. 1958, pp. 126-133. "Van de Velde: A Founder of the Modern Movement"—May 1958, News, p. 16. Villa Tesdorpf, Skovde, Sweden; Ralph Erskine, archt.—March 1958, pp. 179-182
Foreign Building Operations, U. S. Department of State. U. S. Consulate General Headquarters, Kobe, Japan; Minoru Yamasaki, archt.—Feb. 1958, pp. 157-164. U. S. Embassy, Baghdad, Iraq; Jose Luis Sert, archt.—Jan. 1958, pp. 126-133
Foster House, Huntingdon County, Pa.; John Pekruhn, archt.—Mid-May 1958, pp. 80-85
Franzen, Ulrich, archt.; Richard Beattie

80-85

ranzen, Ulrich, archt.; Richard Beattie House, Rye, N. Y.—Mid-May 1958, pp. 98-103

98-103
Freedman House, New Orleans; Lawrence, Saunders and Calongne, archts.—Mid-May 1958, pp. 116-121
Fuller, R. Buckminster, designer of dome; Kelly & Kress, archts.; Headquarters, American Society of Metals, Cleveland—April 1958, pp. 197-198

Gamm House, Highland Park, Ill.; Richard

E. Baringer, archt.—Mid-May 1958, pp. 178-181
Gatje, Robert, assoc.; Marcel Breuer, archt.; Housing, Institute for Advanced Studies, Princeton, N. J.—March 1958, pp. 157-164

studies, Princeton, N. J.—March 1958, pp. 157-164
Gaudi, Antonio. "The Range of Gaudi," by Henry-Russell Hitchcock—March 1958, pp. 183-188

pp. 183-188
Goodwin, E. J., assoc. archt.; George Pierce
and Abel B. Pierce, archts.; Webster
Elementary School, Webster, Tex.—Feb
1958, BTS, pp. 214-216
Gray House, Olympia Fields, Ill.; George
Fred Keck and William Keck, archts.—
Mid-May 1958, pp. 122-127
Greek Orthodox Church, Milwaukee; Frank
Lloyd Wright, archt.—May 1958, pp. 176177

Greenfield Elementary School, Birming-ham, Mich.; Eberle M. Smith Assocs., archts.—Feb. 1958, BTS, pp. 217-219 Gregory, Jules, archt.; T. J. Cope, Inc., Offices, Collegeville, Pa.—March 1958, pp.

Gruen, Victor, Assocs., archts.; Prototype Charterhouse Motor Hotel, Hotel Corporation of America—April 1958, BTS, pp. 212-215. Woodley Medical Center, Los Angeles—March 1958, BTS, pp. 200-201 Gruman, Gerald, "Soviet Architecture: Does It Have a New Look?"—March 1958, News, p. 12 Guggenheim, Solomon R., Memorial Museum, New York City; Frank Lloyd Wright, archt.—May 1958, pp. 182-190 192-193

Haarstick, Lundgren and Assocs., archts.; Group Health Office and Clinic Building, St. Paul, Minn.—March 1958, BTS, pp. 214-215

214-215
Haas, Lester, G., archt.; La Sands Western Hills Hotel, Shreveport, La.—April 1958, BTS, pp. 226-227
Hale House, Lake Charles, La.; Burk, Lebreton & Lamantia, archts.—Mid-May 1958, pp. 182-187
Hangars. "Folded Plates Roof New Hangars"—March 1958, AE, pp. 223-227
Harbor Hills Pool and Bath House, North Hempstead, L. I., N. Y.; George Nemeny, archt.—May 1958, pp. 192-193
Harmon, G. Thomas, archt.; Edward D. Stone, assoc. archt.; University of South Carolina, Dormitories, Columbia—Feb. 1958, pp. 186-189 Carolina, Dormi 1958, pp. 186-189

Harrison & Abramovitz, archts.; Duke Laboratories, Inc., South Norwalk, Conn.—Jan. 1958, BTS, pp. 159-162. Assembly Hall, University of Illinois, Champaign—May 1958, pp. 210-211
Hellman, Gunnar, "Art in Swedish Schools"—Feb. 1958, BTS, pp. 198-199
Herron House, Sarasota, Fla.; Victor Lundy, archt.—Mid-May 1958, pp. 86-91
"Highway and the City, The," by Lewis Mumford—April 1958, pp. 179-186
Hill, Henry, archt.; Non-Sectarian Chapel for a Midwestern Hospital—June 1958, BTS, pp. 190-191
Hilmer House, Atherton, Cal.; Knorr-Elliott Assocs., archts.—Mid-May 1958, pp. 110-115

Hiss, Philip H., designer; Designer's House, Sarasota, Fia.—Mid-May 1958, pp. 74-79 Hitchcock, Henry-Russell, "The Range of Gaudi"—March 1958, pp. 183-188 Hospitals. Building Types Study No. 256, Medical Buildings—March 1958, pp. 195-222. John J. Kane Hospital, Pittsburgh; Button and McLean, Mitchell and Ritchey, archts.—May 1958, pp. 199-206 Hotels. Buildings Types Study No. 257; see Motels—April 1958, pp. 203-230 Hotel Corporation of America, Prototype, Charterhouse Motor Hotel; Veitor Gruen Assocs., archts.—April 1958, BTS, pp. 212-215 Hotel de Ville, Kansas City, Mo.; Colbert & Lowery & Assocs., archts.—April 1958, BTS, pp. 228-230 Houses. Richard Beattie House, Rye, N. Y.; Ulrich Franzen, archt.—Mid-May 1958, pp. 98-103. Howard H. Callaway House, Harris County, Ga.; Aeck Assocs., archts.—Mid-May 1958, pp. 104-109. Dunbar Carpenter House, Medford, Ore.; George T. Rockrise, archt.—Mid-May 1958, pp. 92-97. Marc Demoustier House, Houston; Bolton and Barnstone, archts.—April 1958, pp. 199-292. Architect's House, Portland, Ore.; William L. Fletcher, archt.—Mid-May 1958, pp. 198-202. Architect's House, Portland, Ore.; William L. Fletcher, archt.—Mid-May 1958, pp. 164-169. H. George Foster House, Huntington County, Pa.; John Pekruhn, archt.—Mid-May 1958, pp. 116-121. Stanford R. Gamm House, Highland Park, Ill.; Richard E. Baringer, archts.—Mid-May 1958, pp. 116-121. Stanford R. Gamm House, Highland Park, Ill.; Richard E. Baringer, archt.—Mid-May 1958, pp. 116-121. Stanford R. Gamm House, Highland Park, Ill.; Richard E. Baringer, archts.—Mid-May 1958, pp. 110-115. Samuel H. Herron Jr. House, Samuel E. Hale House, Lake Charles, La.; Burk, Lebreton and Lamantia, archts.—Mid-May 1958, pp. 182-187. Robert Hilmer House, Atherton, Cal.; Knorr-Elliott Assocs., archts.—Mid-May 1958, pp. 122-127. Samuel E. Hale House, Lake Charles, La.; Burk, Lebreton and Lamantia, archts.—Mid-May 1958, pp. 184-191. Hiss, designer—Mid-May 1958, pp. 184-191. Hiss, designer—Mid-May 1958, pp. 170-172. Robert J. Sarkey House, Duluth, Minn.; Mar

Housing. The Institute for Advanced Study, Princeton, N. J.; Marcel Breuer, archt.; Robert Gatje, assoc.—March 1958, pp. 157-164

356

Hoyt Street Clinic, Portland, Ore.; Skid-more, Owings & Merrill, archts.—March 1958, BTS, pp. 196-197

Illinois, University of, Assembly Hall, Champaign; Harrison & Abramovitz, archts.—May 1958, pp. 210-211 Illuminating Building, Cleveland; Carson & Lundin, archts.—June 1958, pp. 153-

& Lundin, archts.—June 1958, pp. 153-162
Industrial Buildings. Building Types Study No. 254—Jan. 1958, pp. 151-178. Avon Products, Inc., Morton Grove, Ill.; Skidmore, Owings & Merrill, archts.—Jan. 1958, BTS, pp. 168-172. Duke Laboratories, Inc., South Norwalk, Conn.; Harrison & Abramovitz, archts.—Jan. 1958, BTS, pp. 159-162. Johnson & Johnson Surgical Dressings Plants, New Brunswick, N. J.; Walter Kidde Constructors, Inc., designers and builders—Jan. 1958, BTS, pp. 152-158. Rockwell Manufacturing Co., Porterville. Cal.; Walter Wagner & Partners, archts.—Jan. 1958, BTS, pp. 173-176. The Stuart Co., Pasadena, Cal.; Edward D. Stone, archt.—April 1958, pp. 161-168. Torrington Manufacturing Co., Van Nuys, Cal.; Marcel Breuer & Assocs., archts.—Jan. 1958, BTS, pp. 163-167. "Floor Slab Problems in Factories and Warehouses," by J. L. Staunton—Jan. 1958, AE, pp. 179-182
Industrial Floor Slabs. "Industrial Floor Slabs: Design and Construction," by Jack L. Staunton—May 1958, AE, pp. 245-249. Industrial Floor Slabs, Parts 1, 2, 3, by Jack L. Staunton—May 1958, TSS, pp. 257, 259, 261
Inland Steel Building, Chicago; Skidmore, Owings & Merrill, archts.—April 1958, pp. 169-178
Institute for Advanced Study, Princeton, N. J., Housing; Marcel Breuer, archt.; Robert Gatje, assoc.—March 1958, pp.

N. J., Housing; Marcel Breuer, archt.; Robert Gatje, assoc.—March 1958, pp. 157-164

Jinnah, Qaide Azam Ali, Mausoleum, Karachi, Pakistan; Raglan Squire & Partners, archts. (winners in international competition) June 1958, News, pp. 32, 36
Johansen, John MacL., archt.; House, Connecticut—Mid-May 1958, pp. 170-175
Johnson, Howard, Motor Lodges, "Design for a Franchise Chain," by Carl Koch—April 1958, BTS, pp. 205-208
Johnson & Johnson Surgical Dressings Plant, New Brunswick, N. J.; Walter Kidde Constructors, Inc., designers and builders—Jan. 1958, BTS, pp. 152-158

K
Kane, John J., Hospital, Pittsburgh; Button and McLean, Mitchell and Ritchey, archts.—May 1958, pp. 199-206
Kassler, Elizabeth B., "Water and Architecture," Part I.—June 1958, pp. 137-152
Keck, George Fred and William Keck, archts.; Walter D. Gray House, Olympia Fields, Ill.—Mid-May 1958, pp. 122-127
Key West High School, Key West, Fla.; William H. Merriam, archt.—May 1958, BTS, pp. 234-237
Kelly & Kress, archts.; R. Buckminster Fuller, designer of dome; Headquarters, American Society of Metals, Cleveland—April 1958, pp. 197-198
Kidde, Walter, Constructors, Inc., designers and builders; Johnson & Johnson Surgical Dressings Plant, New Brunswick, N. J.—Jan. 1958, BTS, pp. 152-158
Killingsworth, Brady, and Smith, archts.; Richard Opdahl House, Long Beach, Cal.—Mid-May 1958, pp. 152-157
Kirkpatrick House, Kalamazoo, Mich.; George Nelson & Gordon Chadwick, archts.—Mid-May 1958, pp. 146-151
Kling, Vincent G., archt.; Elementary School, Church of the New Jerusalem, Bryn Athyn, Pa.; Engelhardt, Engelhardt & Leggett, educational consultants—Feb. 1958, BTS, pp. 204-206
Koch, Carl, "Design for a Franchise Chain," Howard Johnson Motor Lodges—April 1958, BTS, pp. 205-208

Knorr-Elliott Assocs., archts.; Robert Hil-mer House, Atherton, Cal.—Mid-May mer House, Atherton, Cal.—Mid-May 1958, pp. 110-115. As assoc. archts.; Ya-masaki, Leinweber & Assocs., archts.; Parke-Davis Warehouse and Office Build-ings, Menlo Park, Cal.—June 1958, pp. 171-174

La Sands Western Hills Hotel, Shreveport,
La.; Lester G. Haas, archt.—April 1958,
BTS, pp. 226-227

Lawrence, Saunders and Calongne, archts.;
Ben Freedman House, New Orleans—
Mid-May 1958, pp. 116-121

Libraries. Main Library, Palo Alto, Cal.;
Edward D. Stone, archt.—Feb. 1958, pp.
192-193. Mitchell Park Branch Library,
Palo Alto, Cal.; Edward D. Stone, archt. Palo Alto, Cal.; Edward D. Stone, archt.—Feb. 1958, pp. 192-193. University of South Carolina, Library, Columbia; Lyles, Bissett, Carlisle & Wolff, archts.; Edward D. Stone, assoc. archt.—Feb. 1958, pp. 190-191

1958, pp. 190-191 ghting. "Lighting—A Basis for Design," by Derek Phillips—April 1958, pp. 187-

194 Lodi Union High School, Lodi, Cal.; Falk & Booth, archts.—May 1958, BTS, pp.

218-221 Longwood, James C., assoc. archt.; Wilmsen & Endicott, archts.; McLymar Medical Building, Eugene, Ore.—March 1958, BTS, pp. 202-203 Los Angeles Memorial Sports Arena; Wel-

Becket & Assocs., archts.-May 1958, ton Be p. 212

p. 212
Lundy, Victor A., archt.; Bee Ridge Presbyterian Church, Sarasota, Fla.—June 1958, BTS, pp. 178-181. Samuel H. Herron Jr. House, Sarasota, Fla.—Mid-May 1958, pp. 86-91. Pavilion, Warm Mineral Springs, Inc., Venice, Fla.—Jan. 1958, pp. 141-146. "A Place for Worship"—June 1958, BTS, pp. 176-177
Lyles, Bissett, Carlisle & Wolff, archts.; Edward D. Stone, assoc. archt.; University of South Carolina, Library, Columbia—Feb. 1958, pp. 190-191

M

Martin, Robert Thomas, archt.; Faith Lutheran Church, Frayser, Tenn.—June 1958, BTS, pp. 182-185
Masonry. The Cracking of Masonry Walls, Parts 1, 2, 3, by Elwyn E. Seelye—Jan. 1958, TSS, pp. 189, 191, 193
Masonry Waterproofing. Waterproofing for Concrete and Masonry, Parts 1, 2, 3, by Elwyn A. Seeley—March 1958, TSS, pp. 235, 237, 239
McClave House, Key Biscayne, Miami, Fla.; Robert B. Browne, archt.—Mid-May 1958, pp. 128-133
McLymar Medical Building, Eugene, Ore.; Wilmsen & Endicott, archts.; James C. Longwood, assoc. archt.—March 1958,

McLymar Medical Building, Eugene, Ore.; Wilmsen & Endicott, archts.; James C. Longwood, assoc. archt.—March 1958, BTS, pp. 202-203

Medical Buildings. Building Types Study No. 256—March 1958, pp. 195-222. Baptist Nursing Home, D. C.; Noakes and Neubauer, archts.—March 1958, BTS, pp. 216-217. Carmel Hall for the Aged, Detroit; Leo M. Bauer & Assocs., archts.—March 1958, BTS, pp. 216-217. Carmel Hall for the Aged, Detroit; Leo M. Bauer & Assocs., archts.—March 1958, BTS, pp. 218-222. Dental Arts Building, Gainesville, Fla.; David Reaves, archt.—March 1958, BTS, pp. 198-199. Hoyt Street Clinic, Portland, Ore.; Skidmore, Owings & Merrill, archts.—March 1958, BTS, pp. 196-197. Group Health Office and Clinic Building, St. Paul, Minn.; Haarstick, Lundgren and Assocs., archts.—March 1958, BTS, pp. 214-215. McLymar Medical Building, Eugene, Ore.; Wilmsen & Endicott, archts., James C. Longwood, assoc. archt.—March 1958, BTS, pp. 202-203. Mississippi Hospital School for Cerebral Palsy, Jackson, Miss.; Biggs, Weir & Chandler, archts.—March 1958, BTS, pp. 204-207. Rotary Foundation Clinic and Rehabilitation Center, Mobile, Ala.; Platt Roberts & Co., archts.—March 1958, BTS, pp. 210-213. Bill Wilkerson Hearing and Speech Center, Nashville, Tenn.; Brush, Hutchinson & Gwinn, archts.—March 1958, BTS, pp. 208-209. Woodley Medical Center, Los

Angeles, Cal.; Victor Gruen, archt.—
March 1958, BTS, pp. 200-201
Merriam, William H., archt.; Key West
High School, Key West, Fla.—May 1958,
BTS, pp. 234-237
Milan Triennale. "Milan's Eleventh Triennale: The Mood (Mode?) International"
—Feb. 1958, News, pp. 16, 320, 326, 332
Miro, Joan, Studio, Mallorca, Spain; Jose
Luis Sert, archt.—Jan. 1958, pp. 138-140
Mississippi Hospital School for Cerebral
Palsy, Jackson, Miss.; Biggs, Weir &
Chandler, archts.—March 1958, BTS, pp.
204-207

Chandler, archts.—March 1958, BTS, pp. 204-207
Mitchell & Ritchey, archts.; Louis Shulman, assoc. archt.; Elementary School, Bradford Woods, Pa.—Feb. 1958, BTS, pp. 207-209. With Button and McLean, archts.; John J. Kane Hospital, Pittsburgh.—May 1958, pp. 199-206
Mitchell Park Branch Library, Palo Alto, Cal.; Edward D. Stone, archt.—Feb. 1958, pp. 192-193
Mohawk Valley Technical Institute, Utica, N. Y.; Edward D. Stone, archt.; Bice & Baird, assoc. archts.—Feb. 1958, pp. 178-181

Monona Terrace project, Madison, Wis.; Frank Lloyd Wright, archt.—May 1958,

Monona Terrace project, Madison, Wis.; Frank Lloyd Wright, archt.—May 1958, pp. 170-171

Motels. Building Types Study No. 257—April 1958, pp. 203-230. Prototype Charterhouse Motor Hotel, Hotel Corporation of America; Victor Gruen Assocs., archts.—April 1958, BTS, pp. 212-215. Cranbrook House, Detroit; Louis G. Redstone, archt.—April 1958, BTS, pp. 224-225. Dinah's Motor Hotel, Palo Alto, Cal.; Campbell & Wong, archts.—April 1958, BTS, pp. 224-225. Dinah's Motor Hotel, Palo Alto, Cal.; Campbell & Wong, archts.—April 1958, BTS, pp. 216-219. Hotel de Ville, Kansas City, Mo.; Colbert & Lowery & Assocs., archts.—April 1958, BTS, pp. 228-230. La Sands Western Hills Hotel, Shreveport, La.; Lester G. Haas, archt.—April 1958, BTS, pp. 226-227. Pan-American Motor Hotel, New Orleans, La.; Curtis & Davis, archts.—April 1958, BTS, p. 223. San Pedro Hacienda, San Pedro, Cal.; Richard J. Neutra and Robert E. Alexander, archts.—April 1958, BTS, pp. 209-211. Project, Motor Hotel; Frank Lloyd Wright, archt.—May 1958, pp. 174-175. "Beyond Prefabrication: The Manufactured Sleeping Unit Offers Startling Implications," by Rufus Nims—April 1958, BTS, pp. 200-222. "Design for a Franchise Chain," Howard Johnson Motor Lodges, by Carl Koch—April 1958, BTS, pp. 205-208. "The Economic Facts of Life About Hotel Design," by William B. Tabler—April 1958, BTS, pp. 204
"Motel Air Conditioning," by F. J. Walsh—April 1958, AE, pp. 231-234
Motor Hotels. Building Types Study No. 255, see Motels, April 1958, pp. 202-223.

naugh and Norman Doelling—April 1958, AE, pp. 231-234

Motor Hotels. Building Types Study No. 257; see Motels—April 1958, pp. 203-230 Mumford, Lewis, "The Highway and the City"—April 1958, pp. 179-186

Museums. Solomon R. Guggenheim Memo-rial Museum, New York City; Frank Lloyd Wright, archt.—May 1958, pp. 182-190

Naramore, Bain, Brady & Johnson, archts.; Worthington & Skilling and Bouillon & Griffith, assoc. archts. Ashwood Elemen-tary School, Bellevue, Wash.—Feb. 1958, BTS, pp. 210-213

Nathan, Fritz, archt.; Jewish Community Center, White Plains, N. Y.—June 1958, BTS, pp. 196-199

elson, George & Gordon Chadwick, archts.; James T. Kirkpatrick House, Kalamazoo, Mich.—Mid-May 1958, pp. Nelson.

Nemeny, George, archt.; Harbor Hills Pool and Bath House, North Hempstead, L. I., N. Y.—May 1958, pp. 192-193. Wildwood Pool and Bath House, Kings Point, L. I., N. Y.—May 1958, p. 191

Nervi, Pier Luigi, eng.; Annibale Vitellozzi, archt.; Olympic Arena, Rome, Italy—May 1958, pp. 207-209. With Marcel Breuer, Bernard Zehrfuss, archts.; UNESCO

Headquarters, Paris, France; critique by Mario Salvadori—Feb. 1958, AE, pp. 165-169. "Structures," reviewed by Herbert M. Noyes Jr.—Jan. 1958, Required Reading, pp. 58, 62

Neuhaus and Taylor, archts.; Harwood Taylor House, Houston; sponsored by Living for Young Homemakers—Mid-May 1958, pp. 158-163

Neutra, Richard J., and Robert E. Alexander, archts.; San Pedro Hacienda, San Pedro, Cal.—April 1958, BTS, pp. 209-211

Nims, Rufus, "Beyond Prefabrication: The Manufactured Sleeping Unit Offers Startling Implications"—April 1958, BTS, pp. 200-222

Noakes and Neubauer, archts.; Baptist

220-222

Noakes and Neubauer, archts.; Baptist Nursing Home, D. C.—March 1958, BTS, pp. 216-217

Noise Control. "Noise Control Techniques for Motels," by William J. Cavanaugh and Norman Doelling—April 1958, AE, pp. 231-234

Northeast Junior High School, Minneapolis; Thorshov and Cerny, archts.—May 1958, BTS, pp. 238-241

Office Buildings. Headquarters, American Society of Metals, Cleveland; Kelly & Kress, archts.; R. Buckminster Fuller, designer of dome—April 1958, pp. 197-198. T. J. Cope, Inc., Collegeville, Pa.; Jules Gregory, archt.—March 1958, pp. 192-193. Edificio Esso, for Columbiana, S. A., Bogotá, Colombia; Lathrop Douglass, archt.—March 1958, pp. 165-170. Illuminating Building, Cleveland; Carson & Lundin, archts.—June 1958, pp. 153-162. Inland Steel Building, Chicago; Skidmore, Owings & Merrill, archts.—April 1958, pp. 169-178. Parke-Davis Warehouse and Office Building, Menlo Park, Cal.; Yamasaki, Leinweber & Assocs., archts.; Knorr-Elliott Assocs., assoc. archts.—June 1958, pp. 171-174 рр. 171-174

pp. 171-174
Olympic Arena, Rome, Italy; Annibale Vitellozzi, archt.; Pier Luigi Nervi, eng.—
May 1958, pp. 207-209
Olympic View Junior High School, Mulkiteo, Wash.; Waldron & Dietz, archts.—
May 1958, BTS, pp. 222-225
Opdahl House, Long Beach, Cal.; Killingsworth, Brady and Smith, archts.—Mid-May 1958, pp. 152-157

Palo Alto Main Library, Palo Alto, Cal.; Edward D. Stone, archt.—Feb. 1958, pp. 192-193

Pan-American Motor Hotel, New Orleans; Curtis & Davis, archts.—April 1958, BTS,

Parke-Davis Warehouse and Office Building, Menlo Park, Cal.; Yamasaki, Leinweber & Assocs., archts.; Knorr-Elliott Assocs., assoc. archts.—June 1958, pp. 171-174

Pekruhn, John, archt.; H. George Foster House, Huntingdon County, Pa.—Mid-May 1958, pp. 80-85
Phillips, Derek, "Lighting—A Basis for Design"—April 1958, pp. 187-194
Pierce, George and Abel B. Pierce, archts.; E. J. Goodwin, assoc. archt.; Webster Elementary School, Webster, Tex.—Feb. 1957, BTS, pp. 214-216
"Pilgrimage: Ronchamp, Raincy, Vezelay," by John Ely Burchard—March 1958, pp. 171-178

171-178

"Place for Worship, A," by Victor A. Lundy—June 1958, BTS, pp. 176-177
Prefabrication. "Beyond Prefabrication:
The Manufactured Sleeping Unit Offers Startling Implications," by Rufus Nims—April 1958, BTS, pp. 220-222
Presidential Palace, Havana, Cuba; Jose Luis Sert, archt.—Jan. 1958, pp. 134-137
Prestressed Bridges. Technical Roundup:
"Approach Bridges: United States Air Force Academy," Skidmore, Owings & Merrill, archts. and engs.—April 1958, AE, pp. 239-240
Prestressed Concrete. "Composite Construction Combats Roof Deflection"—May 1958, AE, pp. 250-251
Price, Robert Billsbrough, archt.; Puyallup

Junior High School, Puyallup, Wash.— May 1958, BTS, pp. 226-229. St. Mary's Episcopal Church, Tacoma, Wash.—June 1958, BTS, pp. 186-189

Public Buildings, U.S. Consulate General Headquarters, Kobe, Japan; Minoru Yamasaki, archt.—Feb. 1958, pp. 157-164. U.S. Embassy, Baghdad, Iraq; Jose Luis Sert, archt.—Jan. 1958, pp. 126-133. UNESCO Headquarters, Paris, France; Marcel Breuer, Bernard Zehrfuss, archts.; Pier Luigi Nervi, eng.; critique by Mario Salvadori—Feb. 1958, AE, pp. 165-169

Puyallup Junior High School, Puyallup, Wash.; Robert Billsbrough Price, archt.— May 1958, BTS, pp. 226-229

R

"Range of Gaudi, The," by Henry-Russell Hitchcock-March 1958, pp. 183-188

Reaves, David, archt.; Dental Arts Build-ing, Gainesville, Fla.—March 1958, BTS, pp. 198-199

ing, Gainesville, Fla.—March 1958, BTS, pp. 198-199

Recreation Buildings. Dallas Theater Center, Dallas; Frank Lloyd Wright, archt.—May 1958, pp. 168-169. Harbor Hills Pool and Bath House, North Hempstead, L. I., N. Y.; George Nemeny, archt.—May 1958, pp. 192-193. Assembly Hall, University of Illinois, Champaign; Harrison & Abramovitz, archts.—May 1958, pp. 210-211. Memorial Sports Arena, Los Angeles; Welton Becket & Assocs., archts.—May 1958, pp. 212. Monona Terrace Project, Madison, Wis.; Frank Lloyd Wright, archt.—May 1958, pp. 170-171. Municipal Pool, St. Bernard, Ohio; Charles Burchard, archt.—May 1958, pp. 194-195. Olympic Arena, Rome, Italy; Annibale Vitellozzi, archt.; Pier Luigi Nervi, eng.—May 1958, pp. 207-209. Pavilion, Warm Mineral Springs, Inc., Venice, Fla.; Victor Lundy, archt.—Jan. 1958, pp. 141-146. Wildwood Pool and Bath House, Kings Point, L. I., N. Y.; George Nemeny, archt.—May 1958, pp. 191. Proposed Beach House and Studio; Hanford Yang, designer—May 1958, pp. 196-198

Redstone, Louis G., archt.; Allan G. Agree, assoc. archt.: Architect's Offices. Detroited.

Yang, designer—May 1998, pp. 190-198 Redstone, Louis G., archt.; Allan G. Agree, assoc. archt.; Architect's Offices, Detroit —March 1958, p. 189. Cranbrook House, Detroit—April 1958, BTS, pp. 224-225

assoc. archt.; Architect's Offices, Detroit—March 1958, p. 189. Cranbrook House, Detroit—April 1958, BTS, pp. 224-225
Religious Buildings. Building Types Study No. 259—June 1958, pp. 175-202. Bee Ridge Presbyterian Church, Sarasota, Fla.; Victor A. Lundy, archt.—June 1958, BTS, pp. 178-181. Beth Sholom Synagogue, Elkins Park, Pa.; Frank Lloyd Wright, archt.—May 1958, pp. 178-181. Christian Science Church, Bolinas, Cal.; Frank Lloyd Wright, archt.—May 1958, pp. 176-177. Church of St. Botvid. Oxelosund, Sweden; Rolf Bergh, archt.—May 1958, News, p. 18. Faith Lutheran Church, Frayser, Tenn.; Robert Thomas Martin, archt.—June 1958, BTS, pp. 182-185. First Presbyterian Church, Boulder, Colo.; Hobart D. Wagener, archt.—June 1958, BTS, pp. 200-202. Jewish Community Center, White Plains, N. Y.; Fritz Nathan, archt.—June 1958, BTS, pp. 196-199. St. Catherine of Siena Roman Catholic Church, New Orleans; Burk, Lebreton & Lamantia, archts.—June 1958, BTS, pp. 192-195. St. Mary's Episcopal Church, Tacoma, Wash.; Robert Billsbrough Price, archt.—June 1958, BTS, pp. 186-189. Nonsectarian Chapel for a Midwestern Hospital; Henry Hill, archt.—June 1958, BTS, pp. 190-191. "A Pilgrimage: Ronchamp, Raincy, Vezelay," by John Ely Burchard—March 1958, pp. 171-178. "A Place for Worship," by Victor A. Lundy—June 1958, BTS, pp. 176-177
Roberts, Platt, & Co., archts.; Rotary Foundation Clinic and Rehabilitation Center, Mobile, Ala.—March 1958, BTS, pp. 210-213
Rockrise, George T., archt; Dunbar Car-

Rockrise, George T., archt.; Dunbar Car-penter House, Medford, Ore.—Mid-May 1958, pp. 92-97

Rockwell Manufacturing Co., Porterville, Cal.; Walter Wagner & Partners, archts. —Jan. 1958, BTS, pp. 173-176

Rotary Foundation Clinic and Rehabilita-tion Center, Mobile, Ala.; Platt Roberts & Co., archts.—March 1958, BTS, pp. 210-

S

St. Bernard, Ohio, Municipal Pool; Charles Burchard, archt.—May 1958, pp. 194-195 . Catherine of Siena Roman Catholic Church, New Orleans; Burk, Lebreton & Lamantia, archts.-June 1958, BTS, pp.

192-195
St. Mary's Episcopal Church, Tacoma, Wash.; Robert Billsbrough Price, archt.— June 1958, BTS, pp. 186-189
St. Paul, Minn., Group Health Office and Clinic Building; Haarstick, Lundgren & Assocs., archts.—March 1958, BTS, pp. 214-215

Salvadori, Mario, critique of UNESCO Headquarters, Paris, France; Marcel Breuer, Bernard Zehrfuss, archts.; Pier Luigi Nervi, eng.—Feb. 1958, AE, pp. Luigi N 165-169

San Pedro Hacienda, San Pedro, Cal.; Richard J. Neutra and Robert E. Alexan-der, archts.—April 1958, BTS, pp. 209-211

San Pedro Hacienda, San Pedro, Cal.; Richard J. Neutra and Robert E. Alexander, archts.—April 1958, BTS, pp. 209-211 Scholer, Sakellar & Fuller, archts.; Catalina High School, Tucson, Ariz.—May 1958, BTS, pp. 230-233
Schools. Building Types Study No. 255—Feb. 1958, pp. 197-224. Building Types Study No. 258—May 1958, pp. 213-244. Ashwood Elementary School, Bellevue, Wash.; Naramore, Bain, Brady & Johnson, archts.; Worthington & Skilling and Bouillon & Griffith, assoc. archts.—Feb. 1958, BTS, pp. 210-213. Bogalusa High School, Bogalusa, La.; Burk, Lebreton and Lamantia, archts.—May 1958, BTS, pp. 242-244. Elementary School, Bradford Woods, Pa.; Mitchell & Ritchey, archts.; Louis Shulman, assoc. archt.—Feb. 1958, BTS, pp. 207-209. Catalina High School, Tucson; Scholer, Sakellar & Fuller, archts.—May 1958, BTS, pp. 230-233. Elementary School, Church of the New Jerusalem, Bryn Athyn, Pa.; Vincent G. Kling, archt.; Engelhardt, Engelhardt & Leggett, educational consultants—Feb. 1958, BTS, pp. 204-206. Fletcher Judson Elementary School, Watertown, Conn.; Warren H. Ashley, archt.—Feb. 1958, BTS, pp. 200-203. Greenfield Elementary School, Birmingham, Mich.; Eberle M. Smith Assocs, archts.—Feb. 1958, BTS, pp. 217-219. Key West High School, Key West, Fla.; William H. Merriam, archt.—May 1958, BTS, pp. 234-237. Lodi Union High School, Lodi, Cal.; Falk & Booth, archts.—May 1958, BTS, pp. 234-247. Northeast Junior High School, Minneapolis Thorshov & Cerny, archts.—May 1958, BTS, pp. 228-221. Mississippi Hospital School for Cerebral Palsy, Jackson, Miss.; Biggs, Weir & Chandler, archts.—March 1958, BTS, pp. 226-229. Webster Elementary School, Mester, Tex.; George Pierce and Abel B. Pierce, archts.—Feb. 1958, BTS, pp. 226-229. Webster Elementary School, Wester, Tex.; George Pierce and Abel B. Pierce, archts.—Feb. 1958, BTS, pp. 228-221. Mississippi Hospital School for Cerebral Palsy, Jackson, Miss.; Biggs, Weir & Chandler, archts.—Feb. 1958, BTS, pp. 228-229. Webster Elementary School, Wester, Tex.; George Pierce and Abel B. Pi

Schwartzman, Daniel, archt.; Architect's House, Sea Cliff, L. I., N. Y.—Feb. 1958, pp. 170-172

Parts 1, 2, 3—Feb. 1958. TSS, pp. 235, 237, 239. Technical Roundup: Preformed Resilient Gaskets—June 1958, AE, pp. 210-211

Sert, Jose Luis, archt.; U. S. Embassy, Baghdad, Iraq; Presidential Palace, Ha-vana, Cuba; Studio for Joan Miro, Mal-lorca, Spain—Jan. 1958, pp. 125-140

Shulman, Louis, assoc. archt.; Mitchell & Ritchey, archts.; Elementary School,

Bradford Woods, Pa .- Feb. 1958, BTS,

Bradford Woods, Pa.—Feb. 1958, BTS, pp. 207-209
Simonds, John, "Check List for Site Planning"—May 1958, BTS, pp. 214-217
Skidmore, Owings & Merrill, archts.; Avon Products, Inc., Morton Grove, Ill.—Jan. 1958, BTS, pp. 168-172. Hoyt Street, Clinic, Portland, Ore.—March 1958, BTS, pp. 196-197. Inland Steel Building, Chicago—April 1958, pp. 169-178. Technical Roundup: "Approach Bridges: United States Air Force Academy"—April 1958, AE, pp. 239-240
Smith, Eberle M., Assoc., archts.; Greenfield Elementary School, Birmingham, Mich.—Feb. 1958, BTS, pp. 217-219
South Carolina, University of, Columbia, Dormitories; G. Thomas Harmon, archt.; Edward D. Stone, assoc. archt.—Feb. 1958, pp. 186-189. Library; Lyles, Bissett, Carlisle & Wolff, archts.; Edward D. Stone, assoc. archt—Feb. 1958, pp. 190-191

Spitznagel, Harold, archt.; Architect's Offices, Sioux Falls, S. Dak.—March 1958, pp. 190-191

fices, Stoux Falls, S. Dan.
pp. 190-191
Stadiums. Zarzuela Hippodrome, Madrid,
Spain; Eduardo Torroja, eng.—June
1958, AE, pp. 207-209
Starkey House, Duluth, Minn.; Marcel
Breuer, archt.; Herbert Beckhard, assoc.
—Mid-May 1958, pp. 188-193
State Bank of Clearing, Chicago; Harry
Weese & Assocs., archts.—Feb. 1958, pp.
173-176

Weese & Assocs., archts.—Feb. 1958, pp. 173-176

Stone, Edward D., archt.; educational work: with Bice & Baird, assoc. archts., Mohawk Valley Technical Institute, Utica, N. Y.; University of Arkansas, Fayetteville, Married Students' Apartments, Alpha Gamma Rho Fraternity House; with G. Thomas Harmon, archt., University of South Carolina, Columbia, Dormitories; with Lyles, Bissett, Carlisle & Wolff, archts., University of South Carolina, Columbia, Library; Mitchell Park Branch Library, Palo Alto, Cal.; Main Library, Palo Alto, Cal.; Main Library, Palo Alto, Cal.; University of Arkansas, Fayetteville, Fine Arts Center—Feb. 1958, pp. 177-196. The Stuart Co., Pasadena, Cal.—April 1958, pp. 161-168

Structure. "Giant Balloons Hoist Aluminum Stressed-Skin Dome"—Jan. 1958, AE, p. 183

Stuart Co., Pasadena, Cal.; Edward D. Stone, archt.—April 1958, pp. 161-168 Swimming Pools, portfolio—May 1958, pp.

Tabler, William B., "The Economic Facts of Life About Hotel Design"—April 1958, p. 204

Taylor House, Houston, Tex.; sponsored by Living for Young Homemakers; Neuhaus & Taylor, archts.—Mid-May 1958, pp.

**Taylor, archts.—Mid-May 1958, pp. 158-163

Technical Roundup. "Approach Bridges: United States Air Force Academy" Skidmore, Owings & Merrill, archts. and engs.—April 1958, AE, pp. 239-240. "Composite Construction Combats Roof Deflection" (prestressed concrete)—May 1958, AE, pp. 250-251. "Giant Balloons Hoist Aluminum Stressed-Skin Dome"—Jan. 1958, AE, p. 183. "In-Floor Duct System Saves Space, Cuts Cost"—March 1958, AE, pp. 228-230. "King Size Thin Shell Roofs Denver Shop"—Feb. 1958, AE, p. 229. Preformed Resilient Gaskets—June 1958, AE, pp. 210-211. "Students Test Corrugated Precast Beams"—Feb. 1958, AE, p. 232. "Three-Inch Shell Cantilevers 90 Feet," Hippodromo Nacional, Caracas, Venezuela—May 1058 AE, p. 232. Hippodromo Nacional, Caracas, Venezuela—May 1958, AE, p. 252. Zarzuela Hippodrome, Madrid, Spain; Eduardo Torroja, eng.—June 1958, AE, pp. 207-

209
"Technology Misapplied," by Robert E. Fischer—June 1958, AE, 203-206
Theaters. Chamber Music Amphitheater, Westport, Conn.; Davis, Brody & Wisniewski, archts.—April 1958, pp. 195-196.
"Cologne Builds a New Home for Its Opera to Replace a Wartime Casualty"—April 1958, News, p. 18
Thin Shells. Technical Roundup: "King Size Thin Shell Roofs Denver Shop"—Feb. 1958, AE, p. 229. "Three-Inch Shell Canti-

levers 90 Feet," Hippodromo Nacional, Caracas, Venezuela—May 1958, AE, p. 252. Zarzuela Hippodrome, Madrid, Spain; Eduardo Torroja, eng.-June 1958, AE, pp. 207-209

Thiry, Paul, archt.; Mrs. Allison T. Wana-maker House, Seattle-Mid-May 1958,

Thiry, Paul, archt.; Mrs. Allison T. Wanamaker House, Seattle—Mid-May 1958, pp. 134-139

Thorshov & Cerny, archts.; Northeast Junior High School, Minneapolis—May 1958, BTS, pp. 238-241

Time-Saver Standards. Cracking of Masonry Walls, Parts 1, 2, 3, by Elwyn A. Seelye—Jan. 1958, pp. 189, 191, 193. Industrial Floor Slabs, Parts 1, 2, 3, by Jack L. Staunton—May 1958, pp. 257, 259, 261. Joint Seals for Curtain Walls, Parts 1, 2, 3—Feb. 1958, pp. 235, 237, 239. Useful Curves and Curved Surfaces, Parts 28, 29, 30, by Seymour Howard—April 1958, pp. 245, 247, 249; Parts 31, 32, 33—June 1958, pp. 215, 217, 219. Waterproofing for Concrete and Masonry, Parts 1, 2, 3, by Elwyn A. Seelye—March 1958, pp. 235, 237, 239

Toombs, Amisano & Wells, archts.; Architects' Offices, Atlanta, Ga.—March 1958, pp. 194

Torrington Manufacturing Co., Van Nuys.

Torrington Manufacturing Co., Van Nuys, Cal.; Marcel Breuer & Assocs., archts.—
Jan. 1958, BTS, pp. 163-167
Torroja, Eduardo, eng.; Zarzuela Hippodrome, Madrid, Spain—June 1958, AE, pp. 207-209
Transportation, Publication

Transportation Buildings. "New York ternational Airport Opens Major Buildings of Its 'Terminal City'"—Jan. 1958, News, pp. 10-11.

U

U. S. Consulate General Headquarters, Kobe, Japan; Minoru Yamasaki, archt.— Feb. 1958, pp. 157-164 U. S. Department of State, see Foreign Building Operations U. S. Embassy, Baghdad, Iraq; Jose Luis Sert, archt.—Jan. 1958, pp. 126-133 UNESCO Headquarters, Paris, France; Marcel Breuer, Bernard Zehrfuss, archts.; Pier Luigi Nervi, eng.; critique by Mario Salvadori—Feb. 1958, AE, pp. 165-169

Villa Tesdorpf, Skovde, Sweden; Ralph Erskine, archt.—March 1958, pp. 179-182
Vitellozzi, Annibale, archt.; Pier Luigi
Nervi, eng.; Olympic Arena, Rome, Italy
—May 1958, pp. 207-209

W

W Wagener, Hobart D., archt.; First Presbyterian Church, Boulder, Colo.—June 1958, BTS, pp. 200-202
Wagner, Walter, archt.; Rockwell Manufacturing Co., Porterville, Cal.—Jan. 1958, BTS, pp. 173-176
Waldron & Dietz, archts.; Olympic View Junior High School, Mulkiteo, Wash.—May 1958, BTS, pp. 222-225
Wanamaker House, Seattle; Paul Thiry, archt.—Mid-May 1958, pp. 134-139
Warehouses. Parke-Davis Warehouse and Office Building, Menlo Park, Cal.; Yamasaki, Leinweber & Assocs., archts.—June 1958,

Elliott Assocs., assoc. archts.-June 1958, pp. 171-174

pp. 171-174
Warm Mineral Springs, Inc., Pavilion,
Venice, Fla.; Victor Lundy, archt.—Jan.
1958, pp. 141-146
"Water and Architecture," Part I, by Elizabeth B. Kassler—June 1958, pp. 137-

Waterproofing for Concrete and Masonry, Parts 1, 2, 3, by Elwyn A. Seelye—March 1958, TSS, pp. 235, 237, 239 Webb, Chard F., archt.; Architect's House, Phoenixville, Pa.—Mid-May 1958, pp. 140-

Webster Elementary School, Webster, Tex.; George Pierce and Abel B. Pierce, archts.; E. J. Goodwin, assoc. archt.—Feb. 1958, BTS, pp. 214-216 Weese, Harry, archt.; State Bank of Clearing, Chicago—Feb. 1958, pp. 173-176 West Bridgewater, Mass., Elementary

School, standard units; The Architects Collaborative, archts.—Feb. 1958, BTS,

pp. 220-224 White Plains

pp. 220-224
White Plains Jewish Community Center,
White Plains, N. Y.; Fritz Nathan, archt.
—June 1958, BTS, pp. 196-199
Wildwood Pool and Bath House, Kings Point,
L. I., N. Y.; George Nemeny, archt.—
May 1958, p. 191
Wilkerson, Bill, Hearing and Speech Center,
Nashville, Tenn.; Brush, Hutchinson &
Gwinn, archts.—March 1958, BTS, pp.
208-209
Wilmsen & Endicott. archts.: James C.

208-209
Wilmsen & Endicott, archts.; James C.
Longwood, assoc. archt.; McLymar Medical Building, Eugene, Ore.—March 1958,
BTS, pp. 202-203
Woodley Medical Center, Los Angeles; Victor Gruen, archt.—March 1958, BTS, pp.
200-201

Worthington & Skilling, and Bouillon &

The American Chair, 1630-1890, by Marion Day Iverson—Feb. 1958, p. 382

Asimolar, report from American Craftsmen Council—Feb. 1958, p. 382

Building for Industry, an ARCHITECTURAL RECORD book, reviewed by K. K. Stowell—March 1958, pp. 58, 62

Building the New Church, by William S. Clark—March 1958, p. 380

The Chanel at Ranchamp, by Le Corbusier.

The Chapel at Ronchamp, by Le Corbusier, reviewed by G. E. Kidder Smith—April 1958, pp. 68, 72 Gardens of Japan, by Tetsuro Yoshida, re-

Griffith, assoc. archts.; Naramore, Bain, Brady & Johnson, archts.; Ashwood Elementary School, Bellevue, Wash.—Feb. 1958, BTS, pp. 210-213
Wright, Frank Lloyd, archt.; Dallas Theater Center, Dallas; Monona Terrace, Madison, Wis.; Music Building, Florida Southern College, Lakeland, Fla.; Motor Hotel Project; Christian Science Church, Bolinas, Cal.; Greek Orthodox Church, Milwaukee; Beth Sholom Synagogue, Elkins Park, Pa.; Solomon R. Guggenheim Memorial Museum, New York City—May 1958, pp. 167-190. "The Solomon R. Guggenheim Memorial," a statement—May 1958, pp. 182 1958, p. 182

Yamasaki, Leinweber & Assocs., archts.;

Knorr-Elliott Assocs., assoc. archts.; Parke-Davis Warehouse and Office Building, Menlo Park, Cal.—June 1958, pp.

ing, Menlo Park, Cal.—June 1958, pp. 171-174
Yamasaki, Minoru, archt.; U.S. Consulate General Headquarters, Kobe, Japan—Feb. 1959

1958, pp. 157-164 ang, Hanford, designer; Proposed Beach House and Studio—May 1958, pp. 196-

Zarzuela Hippodrome, Madrid, Spain; Ed-uardo Torroja, eng.—June 1958, AE, pp.

Zehrfuss, Bernard, Marcel Breuer, archts.; Pier Luigi Nervi, eng.; UNESCO Head-quarters, Paris, France; critique by Mario Salvadori—Feb. 1958, AE, pp. 165-169

BOOKS REVIEWED

viewed by George Brower Cash—May 1958, pp. 410, 414 Housing: A Factual Analysis, by Glenn Beyer—Feb. 1958, p. 382 The Organ in Church Design, by Joseph E. Blanton, reviewed by Arthur Fisher— April 1958, pp. 72, 394 Problems of Design, by George Nelson, reviewed by Charles Moore—June 1958, pp. 60, 64, 348

60, 64, 348

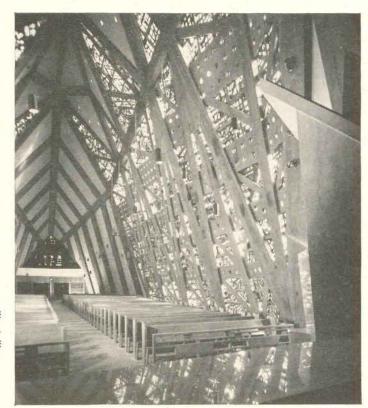
Relocation: Critical Phase of Redevelopment—Feb. 1958, p. 382

Solar Control and Shading Devices, by Ala-

dar Olgyay and Victor Olgyay, reviewed by Seymour Howard—May 1958, pp. 60, 64, 410

Structures, by Pier Luigi Nervi, reviewed by Herbert M. Noyes Jr.—Jan. 1958, pp. 58, 62

58, 62
A Testament, by Frank Lloyd Wright, reviewed by Charles W. Moore—Feb. 1958, pp. 58, 62
Urban Planning and Municipal Public Policy, by Donald H. Webster—June 1958, pp. 60, 348
Ralph Walker, Architect, by Ralph Walker—March 1958, pp. 62, 380



LOIRE FACETED STAINED GLASS IN THE FIRST PRESBYTERIAN CHURCH OF STAMFORD, CONN. BY GABRIEL LOIRE OF CHARTRES, FRANCE

LOIRE IMPORTS, Inc.

150 EAST 38TH STREET, NEW YORK 16, NEW YORK

Index to Advertising

| | PRE-FILED CATALOGS of the manufacturers' listed below are avail- able in the 1988 Sweet's Catalog Files as follows: (A) Architectural File (green), (IC) Industrial Con- struction File (blue), (LC) Light | A-IC Flexicore Co | A-IC-LC Overhead Door Corporation , 290-291 A-IC-LC Owens-Corning Fiberglas Corp |
|--------------|---|--|---|
| | struction File (blue), (LC) Light Construction File (yellow). | | |
| IC | Abolite Lighting Division 125 | A General Aniline & Film Corp 255 A General Bronze Corporation 121 | A-IC Peelle Company |
| | Aerofin Corporation | A-IC General Electric Co., Air Conditioning | A-IC Pittsburgh Corning Corp 120 A-LC Pittsburgh Plate Glass Co 78 |
| | Air Devices, Inc | A-IC-LC Gering Products, Inc | A-IC Portland Cement Association 256 A Powers Regulator Co |
| A-IC | Allen, W. D. Manufacturing Co. | A Goodrich, B. F. Koroseal . 43-284-285 A-IC Granco Steel Products Co 10-11 | A Pratt & Lambert, Inc 57 |
| A-IC-LC | Allied Chemical & Dye Corp 113 | A-IC Grinnell Company, Inc 2nd Cover | A-LC Precision Parts Corp |
| A-IC | Aloe, A. S. Co | A Gustin-Bacon Mfg. Co 237 | |
| A-IC | Aluminum Co. of America 35 American Blower Corporation | Hager & Sons, C. Hinge Mfg. | R.L.M. Standard Institute 53 A-IC-LC Raynor Mfg. Company 218 |
| | 334-335 American Brass Company 102-103-345 | Co | Red Cedar Shingle Bureau 313 |
| A-IC | American Bridge Division 252 | A-IC Hauserman, E. F. Company 19 A Haws Drinking Faucet Company 320 | A-LC Republic Steel Corp 322-323 A Rilco Laminated Products, Inc 56 |
| | American District Telegraph Co. 264 American Gas Association 134-135 | A Hoffman Specialty Mfg. Corp . 41 | A Rixson, Oscar C. Company 65 to 68 A Robbins Flooring Company 341 |
| | American Laundry Machinery Co | A Holcomb & Hoke Manufacturing Co., Inc | A-IC Robertson, H. H. Company 297 A-LC Roddis Plywood Corporation 242-243 |
| A-LC | Co | Holophane Company, Inc 231 Hotel Pittsburgher 350 | Roebling's John A. Sons Corp 108 A Rowe Manufacturing Co 84 |
| A-LC | American Welding & Manufac- turing Co | A Huntington Laboratories, Inc 105 A Hussey Mfg. Co., Inc 52 | Rubatex Division Great Ameri- |
| | Andersen Corporation 270-271 | | can Industries 228 |
| A | Anemostat Corp. of America 213 Arcadia Metal Products 45 | Ideal Cement Company 94 A-IC Imperial Brass Mfg. Co 2-3 | A Sargent & Greenleaf, Inc 333 |
| A | Architectural Record 346-347 Armco Steel Corp 267 | A Indiana Limestone Institute 314 | Schumacher Industries, Inc 14-15 A-IC Schundler, F. E. & Company |
| A-LC | Armstrong Cork Company 29 | Infra Insulation, Inc | Inc 3rd Cover |
| | | International Nickel Co., Inc 74 A International Steel Company 104 | A-IC Scott Paper Company |
| A-IC-LC | Barber-Colman Company 98 Barrett Division | A-LC Iron Fireman Mfg. Co 109 | A Sedgwick Machine Works 48 A Sherron Metallic Corp 353 |
| A | Basic Incorporated 32 A-B Bastian-Blessing Co 122-123 | Jacoby Studios 248 | A-IC Shlagro Steel Products Corp 340 |
| A | Besser Company | A Jamison Cold Storage Door Co. 34 | A-IC Sloan Valve Company 4th Cover |
| A-IC | Bethlehem Steel Company 58-289-303 | Janitrol Heating & Air Conditioning Div | A-IC-LC Sonoco Products Company 92 A-LC Southern Sash Sales & Supply |
| | Boeckh, E. H. & Associates 327 | A Jenn-Air Products Co., Inc 116 | Co. Inc. 281 Spang-Chalfant, Division of |
| A-IC A-IC | Borden Metal Products Co 71 Bradley Washfountain Co 95 | A-IC-LC Johns-Manville Corp | National Supply Company 91 |
| A | Brandt & Co | A-IC Josam Manufacturing Co 341 | Square D Company 96-97 A Stanley Works 33 |
| | Buensod-Stacey, Inc | Kelly Company Inc 331 | A-IC Steel Joist Institute 342-343 A-IC Stran-Steel Corp 241 |
| | Burgess-Manning Company | Kerrigan Iron Works 225 | A-LC Stylon Corporation 38-39 |
| A-IC | Butler Manufacturing Co 286 | A-IC Kewanee Boiler Division 299 Kimble Glass Co., subsidiary of | A Summitville Tiles, Inc 63 Surface Combustion 279-280 |
| A-IG | Byers, A. M. Company 130-131 | Owens-Illinois | A Swartwout Co |
| A | Cabot, Samuel Inc 348 | | A Sylvania Electric Products Inc. 235 |
| A-LC | California Redwood Association 232 Cambridge Tile Mfg. Co 106-107 | A LCN Closers, Inc | |
| A-IC-LC | Carrier Corporation 316-317 | A-IC Lexsuco, Inc | A-IC Tectum Corporation 54 Thermador Electrical Mfg. Co., |
| A | Carter-Waters Corp 4 Case Manufacturing Corp 83 | Loire Imports, Inc | Division of Norris-Thermador 64 A Tiger Brands Division 32 A-B |
| A-LC | Ceco Steel Products Corp 300-301 Cedar Rapids Block Co 273 | Lone Star Cement Corporation . | A-IC Timber Structures, Inc 283-338-339 A Titus Mfg. Corp |
| A-IC | Ceresit Waterproofing Co 325 Certified Ballast Manufacturers 269 | A-IC Macomber, Inc | A Tremco Manufacturing Co 133 |
| IC | Cipco Corporation 266 Cleveland Crane & Engineering | A-IC Mahon, R. C. Company 238-239 Manning, R. A. Company 333 | Triplex Heating Specialty Co 349 |
| | Co 304 Concrete Reinforcing Steel In- | A-LC Marlite Division of Masonite Corp 128 | A Unit Structures, Inc 115 |
| | stitute 324-325 | A-IC-LC Masonite Corporation | A United States Ceramic Tile |
| A | Connor Lumber & Land Co 351 | A-IC McKinley Iron Works 361 A McPhilben Lighting Co 344 | United States Stainless Steel 126-127 |
| A-IC | Cook, Loren Company 336 Cookson Company 244 | McQuay, Inc | A-IC United States Steel Corporation (Subs.) 89-126-127-252 |
| | Crane Co | Midget Louver Company 337 | A Universal Atlas Cement Co 89 |
| | | A-IC Mills Company | A TO T D T A C 200 |
| A-IC | Day-Brite Lighting, Inc 310-311 | Mitchell Models | A-IC Van Range, John Co |
| | Deluxe Metal Furniture Co 348 Designware Industries, Inc 351 | A-IC Montgomery Elevator Co 224 A Mosaic Tile Company 245-246 | Vogt Machine, Henry Company 101 A Vonnegut Hardware Co 30-31 |
| A-LC | Devoe & Raynolds Co., Inc 315 Dodge Books 312-325-330-341 | A Moultile, Inc | |
| | Dow Chemical Company 294-295 Dox Plank Mfrs. Assn | A-LO Muchel Black Co 20-21 | Warp Bros |
| | Dunham-Bush, Inc., | A-IC-LC Natco Corporation 261 | A Wasco Products, Inc 42 A Waylite Company 351 |
| | Du Pont, E. I. De Nemours & | National Clay Manufacturers, Inc 50 | Webster Warren & Company 55 Weirton Steel Company 99 |
| 10 1000 | Co., Inc., Elastomer Chemicals Dept | National Concrete Masonry Assoc | Westinghouse Electric Corp 362 |
| A-LC | Dur-O-Wal Products, Inc 273 | A-IC National Electric Products 8 National Pool Equipment Co 331 | A-IC Westinghouse Electric Corp., Water Coolers 328-329 |
| 2.4 | Factour Products Cove | A-IC National Steel Corporation 99-241 | A-IC Westinghouse Elevators & Elec- tric Stairways 293 |
| A | | A National Terrazzo & Mosaic Assoc | Weyerhaeuser Sales Company 318 |
| А | Electro Silv-A-King Corp 297 Ellison Bronze Co 302 | A Neo-Ray Products, Inc 345 Nesbitt, John J., Inc 118-119 | A-IC Wheeling Corrugating Co 111 A Wilkinson Chutes Inc 350 |
| A | Erie Enameling Company 132 | A New Castle Products, Inc 21 A Nicholson, W. H. & Company 236 | A-IC Williams Equipment and Supply Co |
| 9/2/2 | | A-IC-LC Nixalite Co. of America 337 A-IC Norton Company 234 | A-LC Woodall Industries, Inc 72 |
| A-LC | Fairbanks Morse & Co 350 Federal Seaboard Terra Cotta | A Norton Door Closers 309 | W. I. W. W. |
| A | Corp 59 Fenestra, Incorporated . 305-306-307 | | York Corporation 248-249 |
| | Fitzgibbons Boiler Co., Inc 296 Fleet of America, Inc 254 | A Onan, D. W. & Sons, Inc 340 A Otis Elevator Company 47 | A-IC-LC Zonolite Company 345 |
| | AND | Director: Robert F. Marshall General Manager: Ton | THE THE REPORT OF THE PARTY OF |

NEW YORK—H. Judd Payne, Publishing Director; Robert F. Marshall, General Manager; Tom Tredwell, Advertising Mgr.; Blake Hughes, Promotion & Research Mgr.; Richard C. Crabtree, Sales Service Mgr., Benton B. Orwig, Director of New Business Development; M. A. Murphy, Advertising Production Mgr.; Harry M. Horn, Jr., James E. Boddorf, Michael J. Davin, 119 W. 40 St.; BOSTON—Harry M. Horn, Jr., 855 Park Square Bldg.; BUFFALO—Benton B. Orwig, 70 Niagara St.; CHICAGO—Claude B. Riemersma, Regional Sales Mgr.; Robert T. Franden, David K. Bortz, James A. Anderson, Charles L. Reed, Jr., 919 N. Michigan Ave.; CLEVELAND—John C. Jackson, Regional Sales Mgr.; Joseph F. Palmer, Louis F. Kutscher, 321 Hanna Bldg.; LOS ANGELES—Bob Wettstein, 672 S. Lafayette Park Pl.; MIAMI—Benton B. Orwig, 802 N. W. First St.; PHILADELPHIA—Tom Tredwell, James E. Boddorf, 1321 Arch St.; PITTSBURGH—John C. Jackson, 411 Seventh Ave.; PORTLAND—Bob Wettstein, 921 S. Washington St.; ST. LOUIS—Claude B. Riemersma, John I. Howell, 3842 W. Pine Blvd.; SAN FRANCISCO—Bob Wettstein, 355 Stockton St.

A-IC-LC

These symbols tell you which advertisers' catalogs are INSTANTLY ACCESSIBLE in your office

The great majority of Architectural Record advertisers employ Sweet's Catalog Service to maintain their catalogs continuously in the offices of qualified architects, engineers, and building contractors.

By doing so, these manufacturers make it easier than is otherwise possible for you always to have instant access to further information about their products or services.

The above symbols* are included in the facing Advertisers' Index as a quick guide to which advertisers' catalogs are in *your* Sweet's File — Classified by product type, indexed, up-to-date, and always ready for use whenever you want them.

9

Sweet's Catalog Service

Division – F. W. Dodge Corporation 119 West 40th Street New York 18, N. Y.

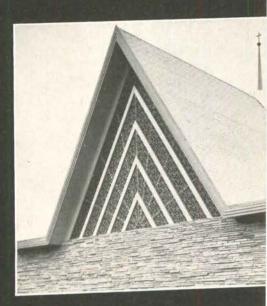


*A (Architectural File) IC (Industrial Construction File)
LC (Light Construction File)



schuler's restaurant grand rapids, michigan architect: h. edward brunhoff, ir. address: grand rapids, michigan

immanuel baptist church omaha, nebraska architect: chas. w. & john a. shaver address: salina, kansas



"mckinley designs" are our own original creations. they are patented and their use is controlled. our control program is to protect the architect, the designer, their clients, and our designs from duplication, where we feel that a second installation will depreciate the originality and individuality of an original installation. for this purpose, we keep a running file on all installations of our controlled designs.

"mckinley designs" are discriminately used by leading architects and designers for many of their finer structures.

information on "mckinley designs" is offered only to registered architects and members of A.I.D., and the N.S.I.D. associations, when requested on letterhead.

Te tit m skully



... the Westinghouse Life-Line A motor

Everybody appreciates a motor which runs quiet . . . especially when it comes to motors for air conditioning systems.

That's why more and more people find the Westinghouse Life-Line® "A" the ideal choice for air conditioning units in industrial and commercial establishments . . . places where quietness counts. The Life-Line "A" is sound-engineered; it is the most quiet standard motor available today. Precision manufacturing, dynamically balanced rotor, well-balanced, low-velocity ventilating system and minimized vibration make the Life-Line "A" the motor with the built-in hush.

Maintenance is a thing of the past, too. Prelubricated bearings which keep grease in, dirt out, Bondar® and Bondite insulation and close-tolerance machining offer the nearest thing to a service-free motor.

For complete information, contact your nearby Westinghouse representative. Or, write Westinghouse Electric Corporation, P. O. Box 868, 3 Gateway Center, Pittsburgh 30, Pa.

YOU CAN BE SURE ... IF IT'S Westinghouse

Designing Schools?

Here's why to specify FESCO®

ROOF INSULATION BOARD

For Maximum Incombustibility: Fire-proofing is a critical requirement in school construction. Because Fesco Board is formed of all-mineral Perlite, processed at temperatures in excess of 1700°F, it provides the ultimate in incombustibility, exceeding the maximum code ratings. Even under extreme temperatures Fesco Board remains physically stable, contributing importantly to fire containment. Fesco Board carries the label of Underwriters' Laboratories, Inc.

For Maximum Moisture Resistance: The varying loads of temperature and humidity, characteristic of school occupancy, impose extreme requirements on roof insulation. Fesco Board is designed specifically to meet these extremes in moisture load. Being formed principally of air-entrained beads of glass it has no capillary action. On total immersion for 2 hours Fesco Board absorbs only .06% water by volume. This is vitally important because as the moisture content of insulation rises its insulation value drops

For Maximum Adaptability: Fesco Board can be applied over any structural membrane — wood, pre-cast slabs, gypsum, steel, etc. It is therefore suitable for all types of school construction in all price ranges.

For Maximum Value: Though Fesco Board has the highest overall performance rating of any roof insulation, it is not the most costly. Because of its permanence, and its speed of application, Fesco Board can be used on the lowest budget school.

504 RAILROAD STREET . JOLIET, ILLINOIS

RATED FIREPROOF MATERIALS, ACOUSTICAL & INSULATING
Developers and producers of incombustible mineral products including Ebbtone Acoustical Tile,

ARCHITECT — PERKINS & WILL Chicago, Illinois

JOB — Proviso West High School Hillside, Illinois

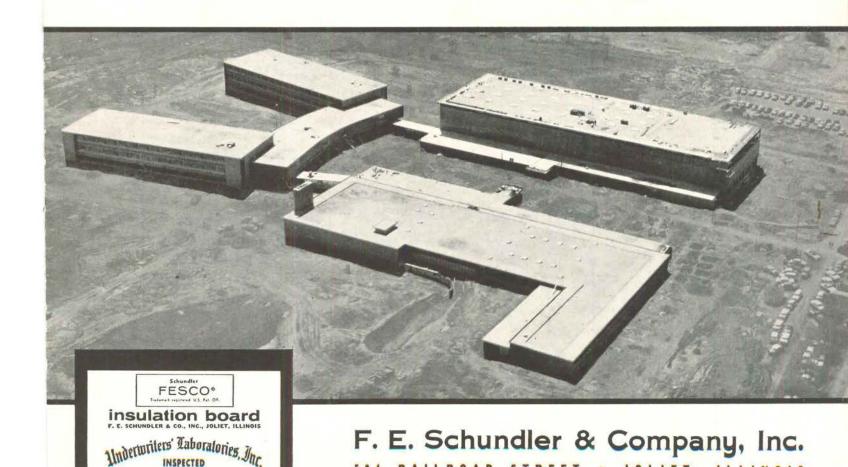
GENERAL CONTRACTOR —
Power Construction Co.
Oak Park, Illinois

BUILDING UNIT

Not over 50 Sq. Ft.

ROOFER — HERB BOICE LaGrange, Illinois

FOOTAGE - 172,500 sq. ft.



THE VAST MAJORITY OF THE NATION'S FINE BUILDINGS ARE SLOAN EQUIPPED

MILTON M. SCHWARTZ & ASSOCIATES

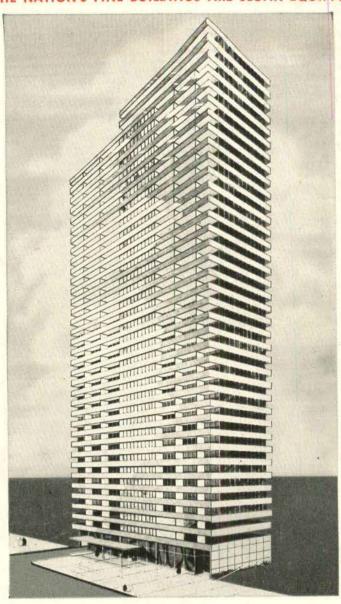
A. H. SCHWARTZ mechanical consultant

C. A. THARNSTROM & COMPANY general contractor

ECONOMY PLUMBING & HEATING CO.

plumbing contractor

MID-CITY PLUMBING SUPPLY CO. plumbing wholesaler



Chicago's ENTIRELY NEW HOTEL CONCEPT

• The new \$6-million, 40-story EXECUTIVE HOUSE, soon to be completed in downtown CHICAGO, bears the distinction of being the tallest reinforced concrete building in the U. S., and the first hotel to establish a new concept in operations. Approximately half of its 448 units will be leased to business firms to accommodate out-of-city clients or company representatives who make frequent business trips to Chicago. Suites consist

of studio-living room, kitchenette, bath and shower. Larger units include bedroom. All areas throughout the building will be comfortized by a combined heating and cooling system. The building is sheathed in stainless steel and glass, and nearly three-fourths of the units will have private balconies. As are thousands of other great buildings, this remarkable hotel structure is completely equipped with SLOAN Flush VALVES.

SLOAN Hush VALVES

FAMOUS FOR EFFICIENCY, DURABILITY, ECONOMY

—— SLOAN VALVE COMPANY • CHICAGO • ILLINOIS ——

Another achievement in efficiency, endurance and economy is the SLOAN Act-O-Matic SHOWER HEAD, which is automatically self-cleaning each time it is used! No clogging. No dripping. Architects and Engineers specify, and Wholesalers and Master Plumbers recommend the Act-O-Matic—the better shower head for better bathing.

Write for completely descriptive folder

