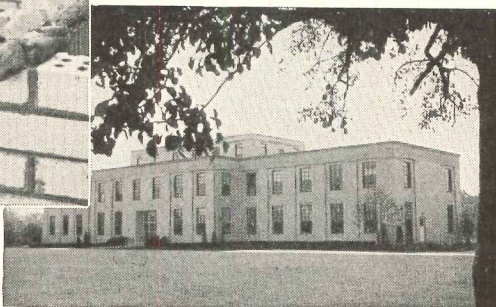


Prize-Winner!

SYLVANIA ELECTRIC BUILDING MERITS TOP AWARD



SYLVANIA ELECTRIC PRODUCTS, INC.—PHYSICS LABORATORY Bayside, L. I.

Architect: **AYMAR EMBURY 2nd**

Ready-Mix Lone Star Concrete: **COLONIAL SAND & STONE CO., INC.**

Lone Star Masonry Cement: **ACE BUILDERS SUPPLY CO., INC.**

General Contractor: **JOHN H. EISELE COMPANY, INC.**

—all of New York City



LONE STAR CEMENTS COVER THE ENTIRE CONSTRUCTION FIELD

● Public appreciation of this Physics Laboratory of Sylvania Electric Products, Inc., in Bayside, L. I., was expressed by a Prize Award from the Chamber of Commerce of the Borough of Queens for excellence of design and construction.

Two stories and penthouse high, the building is non-industrial in appearance—it would look at home on any modern college campus. And the substance is as sound as the form is pleasing. For it is Lone Star throughout—Lone Star Portland Cement in foundations and structure...Lone Star Masonry Cement in attractive exterior walls and beautifully tiled interior.

The clean lines of the white-glazed-brick exterior are pleasantly punctuated by clean-cut joints, which speak of the artisan working with quality materials. And what doesn't meet the eye is equally important—for high-quality mortar like this means as much to the owner in low-maintenance service as it does to the mason whose work it expedites.

Lone Star Masonry Cement has won a premier position in the mortar field on the excellence of its performance.

Rich, buttery, extra-fat mortar... uniform texture, easy-spreading quality, sustained high yield... retains water... remains plastic, beds units firmly, assures better bond.

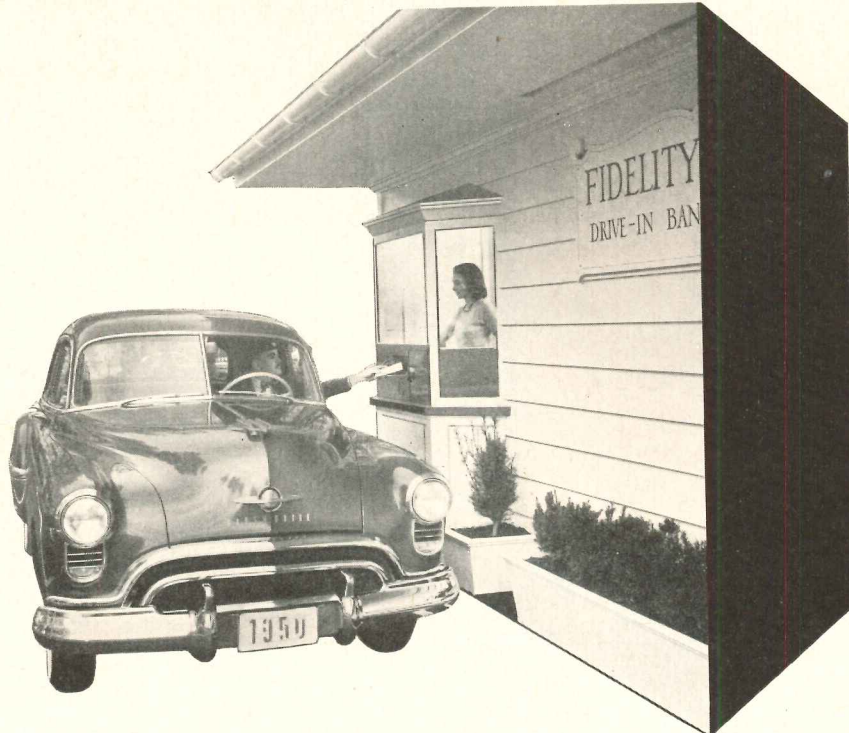
Prize-winning attributes in mortar, which do their part in the sum total of prize-winning merit in attractive structures the country over.

LONE STAR CEMENT CORPORATION

Offices: ALBANY • BETHLEHEM, PA. • BIRMINGHAM • BOSTON
CHICAGO • DALLAS • HOUSTON • INDIANAPOLIS • JACKSON, MISS.
KANSAS CITY, MO. • NEW ORLEANS • NEW YORK • NORFOLK
ST. LOUIS • PHILADELPHIA • WASHINGTON, D. C.

LONE STAR CEMENT, WITH ITS SUBSIDIARIES, IS ONE OF THE WORLD'S LARGEST CEMENT PRODUCERS: 15 MODERN MILLS, 27,500,000 BARRELS ANNUAL CAPACITY

NEW OPPORTUNITIES to serve banks



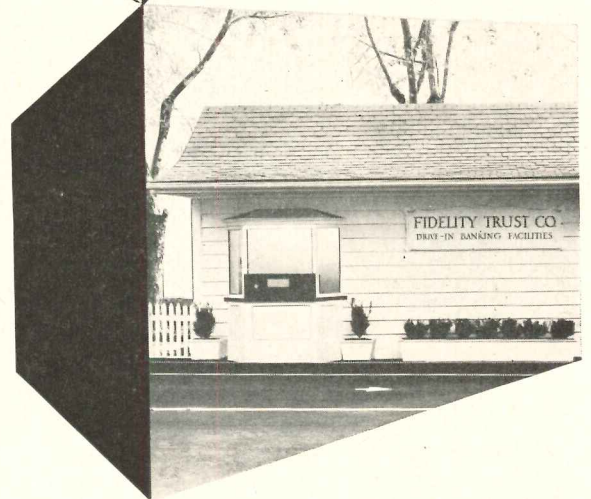
Bank service today is a marketable, merchandisable commodity, in a highly competitive field.

That's why, today, bankers are increasingly receptive to every new step which will improve the scope of their service to the public.

The Mosler-Duplex Drive-In Window is just such a factor. It offers banks important competitive advantages. *And it offers architects a two-fold opportunity—both in redesigning existing bank facilities to accommodate drive-in service, or, where such changes are architecturally impracticable, in suggesting the establishment of new drive-in branches, for the convenience of customers.*

BANKS GET

added customer-appeal, resulting in increased business . . . facilities to handle this increased business smoothly, quickly, efficiently (many units are now serving up to 500 customers a day) . . . proven protection, backed by the reputation of the largest builders of safes and vaults in the world . . . heightened community interest and attention.



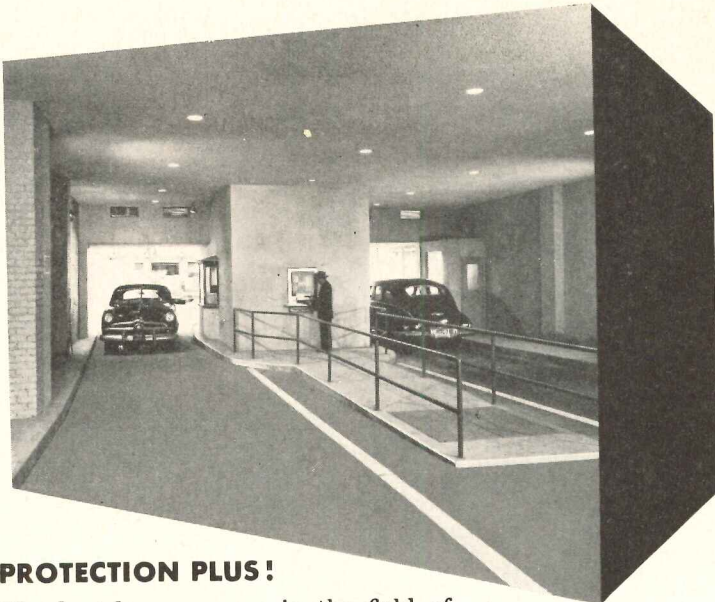
CUSTOMERS GET

quick efficient service, right-from-the-car
no parking problem
no standing in line at teller's window
no time lost walking to and from parking places
complete protection throughout each transaction.

AND YOU GET

recognition for submitting a complete, modern and well-integrated plan—
credit for taking into account the bank's competitive problem—thus assuring more favorable consideration for your plans.

HERE'S WHAT BANKERS SAY
about the Mosler-Duplex
Drive-In Window:



PROTECTION PLUS!

The best-known name in the field of protective equipment is Mosler—and no Mosler-Duplex unit is more carefully designed and engineered to do its job than the Mosler-Duplex Drive-In Window, featuring bullet-resistive glass and steel construction; two-way speaker; package and payroll receiver; gunport (operable only from *inside*). This up-to-the-minute Mosler-Duplex unit is available in Flush or Bay Design, giving maximum adaptability to structural styling.

OTHER COMMERCIAL APPLICATIONS

The use of the Mosler-Duplex Drive-In Window is by no means confined to the field of banking. Telephone companies, gas and electric companies, department stores and many other commercial establishments offer unlimited opportunities for the installation of this practical, convenient unit.

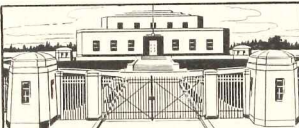
Mr. Russell J. Apgar, President, First National Bank, Roselle, N. J., writes: "In one year alone, (1948), our bank handled 62,664 transactions through our Drive-In Window . . . our customers like this new convenient service and we have had many new accounts as a result."

Mr. Howard Cooper, Cashier, Union National Bank of Lowell, Lowell, Mass., writes:

"We find that for the past two weeks more than twelve hundred cars have used the Drive-In Window each week, which is in the vicinity of two hundred and fifty cars a day for a five-day week . . . It has filled the need that we have long felt in providing a place where our customers could make a quick deposit or cash a check without wasting time, finding a place to park or standing in line at a teller's window."

Mr. Harry H. Pond, Chairman, The Plainfield Trust Company, Plainfield, N. J., writes:

"We installed two windows that have met the universal approval of our customers. Ladies with small children are particularly enthusiastic about the service, because they do not have to look for parking space in the street. Its use is constantly growing, and now more than 5,300 cars a month are taking advantage of this convenience. On particularly busy days we average better than a car a minute."



Builders of the U. S. Gold Storage Vault Doors at Fort Knox, Ky.

The **Mosler Safe Co.**

Main Office: 320 Fifth Avenue, New York 1, N. Y.

Offices in principal cities. Factories: Hamilton, Ohio

Largest Builders of Safes and Vaults in the World

MAIL THE COUPON TODAY

We'll be glad to send you, without obligation of any sort, complete details and specifications of the Mosler-Duplex Drive-In Window . . . showing why so many bank architects today are making it an integral part of their plans. It's information you should have. Just use this coupon.

The Mosler Safe Co., Dept. AR
 320 Fifth Ave., New York 1, N. Y.

Please send me full details on the Mosler-Duplex Drive-In Window.

Name.....

Firm.....

Business.....

Address.....

City..... Zone..... State.....

This
"Largest of its kind"

AIR CONDITIONING SYSTEM
checks corrosion with

**BYERS
WROUGHT IRON
PIPE**

Said to be the largest job of its kind, and one of the largest office building installations in the country, the air conditioning in this Oklahoma City building is safeguarded against corrosion by Byers Wrought Iron pipe.

Chilled water lines, recirculating water lines, and condensed water lines all utilize this time-proven material. This 1350-ton absorption-type refrigeration equipment is located in a pent-house on the 14th floor roof of one of the wings. Chilled water lines are carried on bridges across areaways. Design contemplates the use of 45° F. water.

The Southwest has been a leader in the use of air conditioning equipment, and it is interesting to note how widely engineers have forestalled corrosive attack by using Byers Wrought Iron. Since the cost of even minor repairs is bound to be high, this use of wrought iron is a definite economy measure.

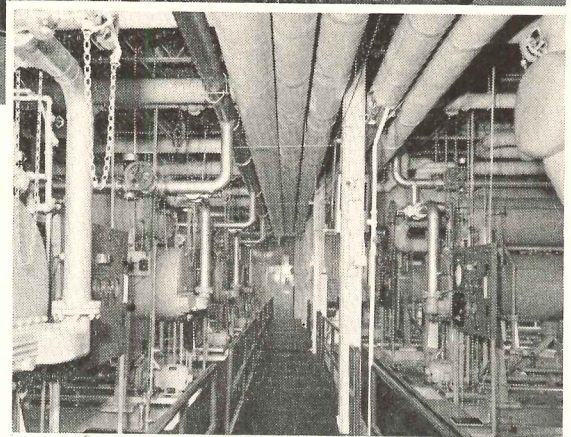
Wrought iron owes its ability to combat corrosion to its unusual composition and structure. Tiny fibers of glass-like silicate slag, threaded through the body of high-purity iron, act like a series of baffles, to halt and disperse corrosive attack. The fibers also anchor the initial protective scale, which shields the underlying metal. In cases where galvanizing is used, the naturally rougher surface of wrought iron takes and retains a heavier coating of spelter.

With air conditioning becoming a "must" in new office building construction in many sections, you may be interested in the information contained in our bulletin **WROUGHT IRON FOR REFRIGERATION AND AIR CONDITIONING INSTALLATIONS**. We will be glad to send you a copy.

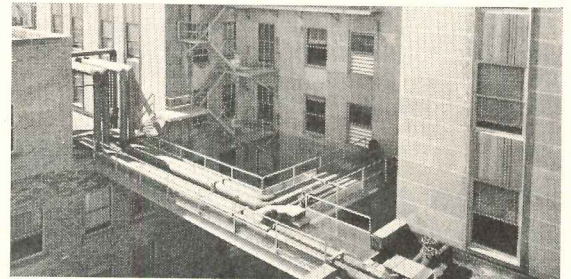
A. M. Byers Co., Pittsburgh, Pa. Established 1864. Boston, New York, Philadelphia, Washington, Atlanta, Chicago, St. Louis, Houston, Salt Lake City, San Francisco. Export Division: New York, N. Y.



**First National Bank Building,
Oklahoma City, Oklahoma.**
**Sorey, Hill and Sorey and
Ira G. Howlett, Architects.**
**Spaeth Engineering Company,
Piping Contractors.**



Equipment room. Chilled water lines, Condensed water lines, Steam supply lines, and Steam returns—exposed and under grating—are all Byers Wrought Iron pipe.



Bridges carry wrought iron chilled water lines from wing to wing, solving space problems.

CORROSION COSTS YOU MORE THAN WROUGHT IRON

BYERS
GENUINE WROUGHT IRON
TUBULAR AND HOT ROLLED PRODUCTS
ELECTRIC FURNACE QUALITY ALLOY AND STAINLESS STEEL PRODUCTS

ARCHITECTURAL RECORD



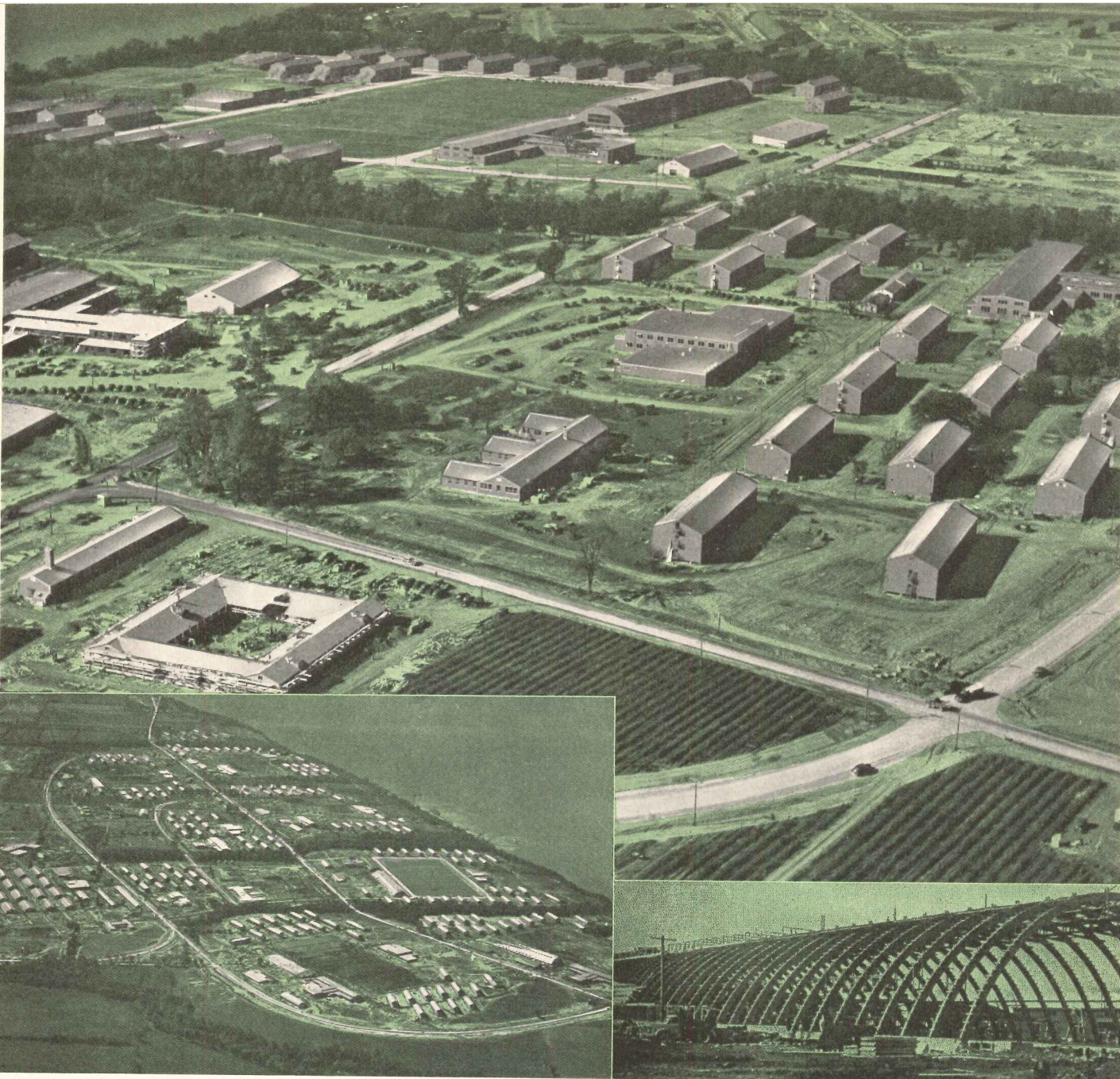
Copyright 1950 by F. W. DODGE CORPORATION, with all rights reserved • Publishing Director, Magazine Division, H. Judd Payne • Business Manager, Robert F. Marshall • **EDITORS:** Editor-in-Chief: Harold D. Hauf, A.I.A., A.S.C.E.; Managing Editor, Emerson Goble; Senior Associate Editor, Frank G. Lopez, A.I.A.; Associate Editors, Robert E. Fischer (Engineering), Florence A. van Wyck; Washington News, Ernest Mickel; Contributing Editor, Frederic A. Pawley; Western Editor, Elisabeth Kendall Thompson; Special Editorial Representative, Western Section, William C. Rodd; Associate in South America, Edmund J. Whiting, A.I.A.; Editorial Assistants, Jeanne Davern, Dorothy C. Jackson, Herbert L. Smith, Jr., A.I.A. • **ART DEPARTMENT:** Design Consultant, M. Peter Piening; Assistant, Frances Torbert; Drafting, Sigman-Ward • **CONSULTANTS:** Chairman, Editorial Board, Kenneth Kingsley Stowell, A.I.A.; Industry Relations Consultant, Thomas S. Holden; Statistical Consultant, Clyde Shute; Field Research Consultant, Clifford Dunnells, Jr.

Architectural Record (combined with American Architect and Architecture) is published monthly by F. W. Dodge Corporation, 10 Ferry St., Concord, N. H., with Editorial and Executive Offices at 119 West 40th Street, New York, N. Y. Western Editorial Office, 2813 Channing Way, Berkeley, Calif. Thomas S. Holden, Pres.; Howard J. Barringer, Vice-Pres. and Treas.; Irving W. Hadsell, Vice-Pres.; Chauncey L. Williams, Vice-Pres.; Sanford D. Stockton, Jr., Secy.; Walter F. De Saix, Asst. Treas.; Edwin H. Freed, Asst. Treas.; Irving B. Satin, Asst. Treas. Member Audit Bureau of Circulation and Associated Business Papers Inc. Architectural Record is indexed in Reader's Guide, Art Index, Industrial Arts Index and Engineering Index. Subscription rates: United States and Possessions, Canada, Cuba, Mexico, Central and South America, and Spain, \$4.50 the year, \$7.50 for two years, \$9 for three years; elsewhere, \$6.50 the year, \$11.50 for two years, \$15 for three years. Single copy \$1. Circulation Manager: Marshall T. Ginn. 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. Other Dodge Services: Real Estate Record & Builders' Guide, Sweet's Files, Home Owners' Catalog, Dodge Reports & Dodge Statistical Research Service.

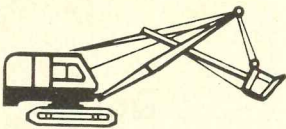
COVER:

Wieboldt's, Evanston, Ill. department store, Hedrich-Blessing Studio Photo; St. Ann's Church, Mission, Kan., L. D. Jones Photo; House in Chappaqua, N. Y., Ezra Stoller Photo; Biff's Restaurant, Hollywood, Calif., George R. Szanik Photo.

THE RECORD REPORTS.....	9
News from Washington. By Ernest Mickel.....	15
News from Canada. By John Caulfield Smith.....	16
Construction Cost Indexes.....	26
REQUIRED READING.....	28
HOUSE IN CHAPPAQUA, N. Y.....	99
Katz-Waisman-Blumenkranz-Stein-Weber, Associate Architects	
RESIDENCE OF MRS. EVELYN B. FICKE.....	106
New London, Conn. Stanhope B. Ficke and Grieshaber & Neilan, Architects	
DEPARTMENT STORE WITH AMPLE PARKING.....	111
Wieboldt's, Evanston, Ill. Holabird & Root & Burgee & Associates, Architects-Engineers	
REMODELING	
BETHLEHEM STEEL COMPANY HOME OFFICE BUILDING.....	117
McKim, Mead & White, Architects	
WESTERN SAVING FUND SOCIETY.....	120
Philadelphia, Pa. Harbeson, Hough, Livingston & Larson, Architects. Willing, Sims & Talbutt, Associate Architects	
PENNSYLVANIA COMPANY FOR BANKING AND TRUSTS.....	123
Philadelphia, Pa. Howell Lewis Shay, Architects	
ST. ANN'S CHURCH AND SCHOOL.....	126
Mission, Kansas. Kivett and Meyers, Architects	
BUILDING TYPES STUDY NO. 164	
DRIVE-INS — BANKS, THEATERS, RESTAURANTS	
INTRODUCTION.....	131
BANKS.....	132
THEATERS.....	140
RESTAURANTS.....	146
ARCHITECTURAL ENGINEERING	
TECHNICAL NEWS AND RESEARCH	
ALL PURPOSE MILITARY SHELTER.....	154
Hugh B. Johnson and Associates, Architects. Paul Weidlinger, Consulting Engineer	
WATER SAVING DEVICES FOR AIR CONDITIONING.....	158
By Lawrence A. Benenson, Architect	
WEATHER'S EFFECT ON DESIGN STUDIED BY TEXAS COLLEGES.....	161
PRODUCTS . . . for Better Building.....	162
TIME-SAVER STANDARDS.....	165
Bibliography of Standard Codes and Specifications: 1 Prepared by William Henry Deacy, A.I.A.	
MANUFACTURERS' LITERATURE.....	172



Defense Always Demands the Utmost—Two Huge Projects,



SAMPSON NAVAL TRAINING STATION, Sampson, N. Y. — 450 Buildings

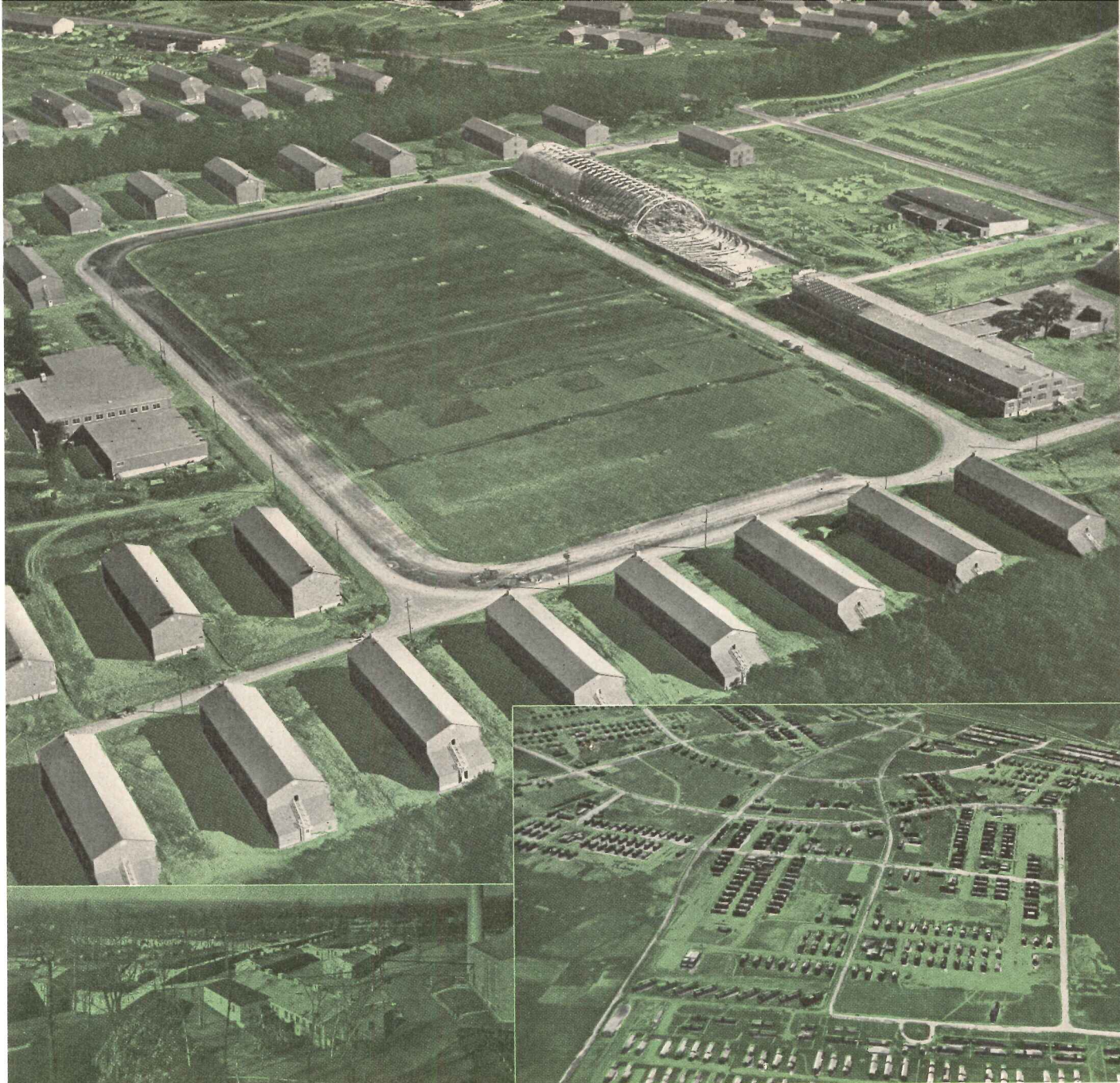
The largest Naval Training Station built in America during World War II. It comprises 450 separate buildings, and all necessary utilities and facilities, including 6 huge Drill Halls, 626 ft. long by 120 ft. truss-span, 5000-man Mess Halls, Schools, Barracks, Drill Fields, a \$12,000,000 Hospital Group, a 2 million gallon Reservoir, 52 miles of roads, 12 miles of railroad tracks, submarine cables, sewage facilities and civilian housing for a complete city of 50,000. This project for the Navy Dept. was completed in approximately seven months at a cost of \$52,000,000 . . . Shreve, Lamb & Harmon, Architect-Engineers

During the war years the Johnson Organization completed \$300,000,000 of construction in the United States for government agencies.

The two large views across entire top of two pages show some of the training areas surrounding Drill Fields, at the Sampson Naval Training Station.

View at extreme left shows practically entire area of Sampson Naval Training Station, including most of the 450 buildings.

Small picture directly above shows erection of 120' laminated Arch-Trusses for 626 ft. Drill Halls at Sampson Naval Training Station, Lake Geneva, N. Y.



Totalling \$94,000,000, Each Completed in Seven Months



CAMP KILMER, Stelton, New Jersey, U. S. Army Project — Over 1000 Buildings

A principal staging area for troop embarkations abroad. Over 1000 structures were required, and this vitally important U. S. Army project was also completed in phenomenally short time. In addition to vast housing requirements, utilities and sewerage facilities of a substantial city were simultaneously completed. *Both the above projects were completed, together with 14 others, within the same single calendar year. Cost of project \$42,000,000... Tuttle, Seelye, Place & Raymond, Architect-Engineers*

**John A. Johnson
& Sons Inc.**

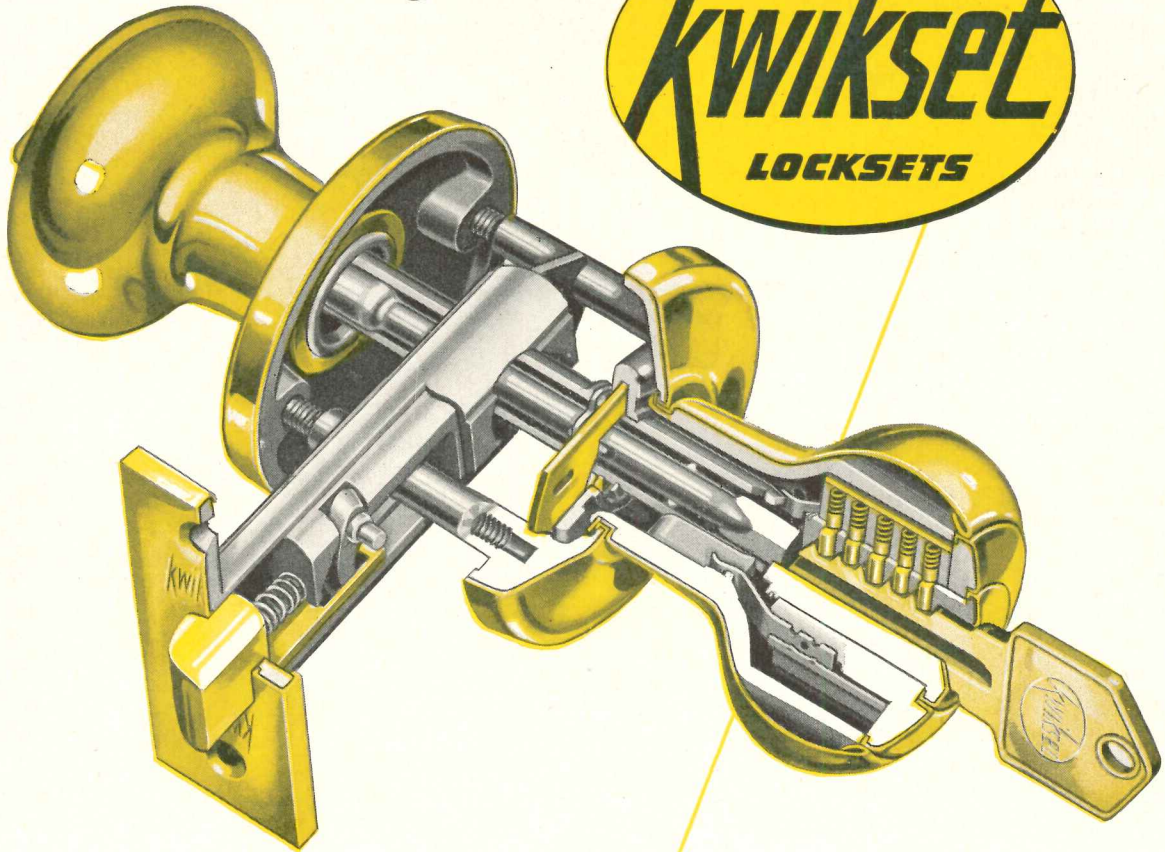
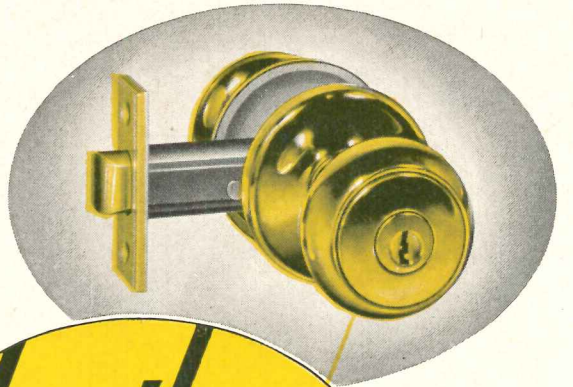
BUILDING CONSTRUCTION . . . "A FIRM FOUNDATION SINCE 1896"

NEW YORK • BROOKLYN • PEMBERTON • WASHINGTON
COLUMBUS • OAK RIDGE • ATLANTA

Small picture directly above: A group of connected hospital buildings at Camp Kilmer, N. J.

Air view directly above shows most of the 1000 buildings at Camp Kilmer, N. J.

*There's more than
meets the eye in...*



Look inside a KWIKSET lock. See the advanced design, the simplicity of operation, the rugged, precision-built construction... the *built-in* features that make KWIKSET locks *first choice* with architects and builders across the nation. KWIKSET's unique cam action locking device provides positive knob locking. The ingenious half-round spindle reduces number of working parts. And fewer parts mean faster, more economical manufacturing operations... *lower unit costs!*

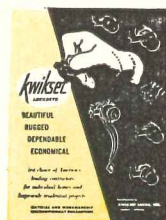
But mechanical design isn't the whole story. KWIKSET locks are exceptionally clean and attractive in appearance

... beautifully hand-finished in satin or polished chrome or brass, or satin bronze.

Architects find that KWIKSET's clean design and striking beauty enhance the appearance of both modern and traditional residences. Add to this KWIKSET's high quality, low price and ease of installation and there is little wonder why leading architects are specifying KWIKSET locks for every door on every house.

MATERIAL AND WORKMANSHIP UNCONDITIONALLY GUARANTEED

MANUFACTURED BY



NEW CATALOG AVAILABLE

A new full color catalog describes KWIKSET's pin-tumbler, cylindrical locks. Write for your copy today! Address inquiries to: KWIKSET LOCKS, INC., Dept. AR, Anaheim, California.

SOLD BY LEADING HARDWARE WHOLESALERS, JOBBERS AND DEALERS FROM COAST TO COAST

THE RECORD REPORTS

ARCHITECTS AND CONTRACTORS MEET TO FURTHER MUTUAL INTERESTS

MEMBERS of the Pasadena Chapter of The American Institute of Architects and of the Building Contractors Association of that area recently held a joint meeting termed "epochal" by Col. William H. Evans, regional vice president of the National Association of Home Builders.

The meeting, arranged not without reluctance by members of both groups, aired grievances and constructive suggestions of both architects and builders so successfully that those attending voted to have a joint committee work on common problems and to have further joint meetings of the entire groups.

D. B. Barker presided for the contractors, and Burton Romberger for the A.I.A. group.

"Here in Southern California, with all the progress we have made in home building, we have neglected one thing, our architecture," declared Colonel Evans in opening the discussion.

"We have built a lot of tripe. There are many advantages the architect can receive from the builder, but numerous more advantages the builder can receive from the architect."

Colonel Evans said his own experience as one of the state's largest merchant builders had shown him the advantage of architectural service, including building economies devised by architects.

He emphasized the need for architects in site planning, and suggested a committee be appointed on this subject.

"Let's Get Together"

He urged that builders and architects sit down together everywhere and work out mutual problems and understanding.

Contractor Russell Elam cited these reasons why many builders do not send customers to architects:

Architects are not interested in smaller homes.

Many builders do not realize the advantages of using architects' plans.

Builders fear the architect's fee will too greatly diminish the funds of prospect with only a small down payment.

Builders are afraid they will lose a customer — the bid will go to another

contractor, or the architect will act as general contractor.

Mr. Elam also commented that too often architects "bring in plans that would cost \$20,000 when the client only wants to spend \$15,000."

Architects sometimes take advantage of the builder if the plans are wrong, he said. "Builders ordinarily do not make more than 10 per cent," he explained. "Do not compel a builder to pay for changes."

Mr. Elam declared he liked to "have an architect on the job as arbitrator; I like to work for architects, because I like to do a better job."

Better Cost Control Urged

The other speaker for the contractors, Luther Eskijian, echoed many of Elam's points and also made these suggestions:

"There should be better cost control, with the architect and the owner setting up a budget to shoot at.

"Sometimes architects put in expensive details. I know of a case where details cost more than labor.

"Architects should not ask for sub-

bids too far in advance, because prices change. They should have preliminary bids. If the architect is unwilling to guarantee costs he should not expect the contractor to do so.

"Architects should select contractors who are competent to do the job."

A.I.A. speakers were Walter Hagedohm and Adrian Wilson.

"A good contractor must have honesty of purpose, a sense of responsibility to the owner," Mr. Hagedohm declared. "He needs a knowledge of costs."

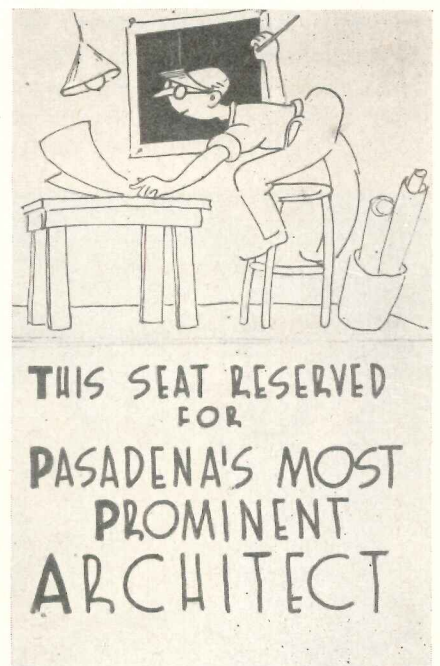
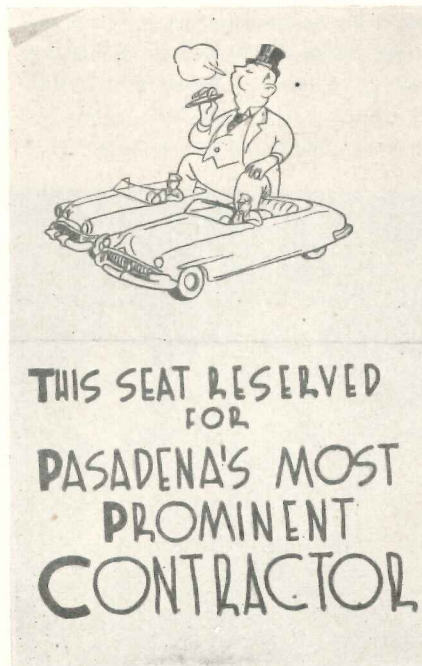
Dual Responsibility Stressed

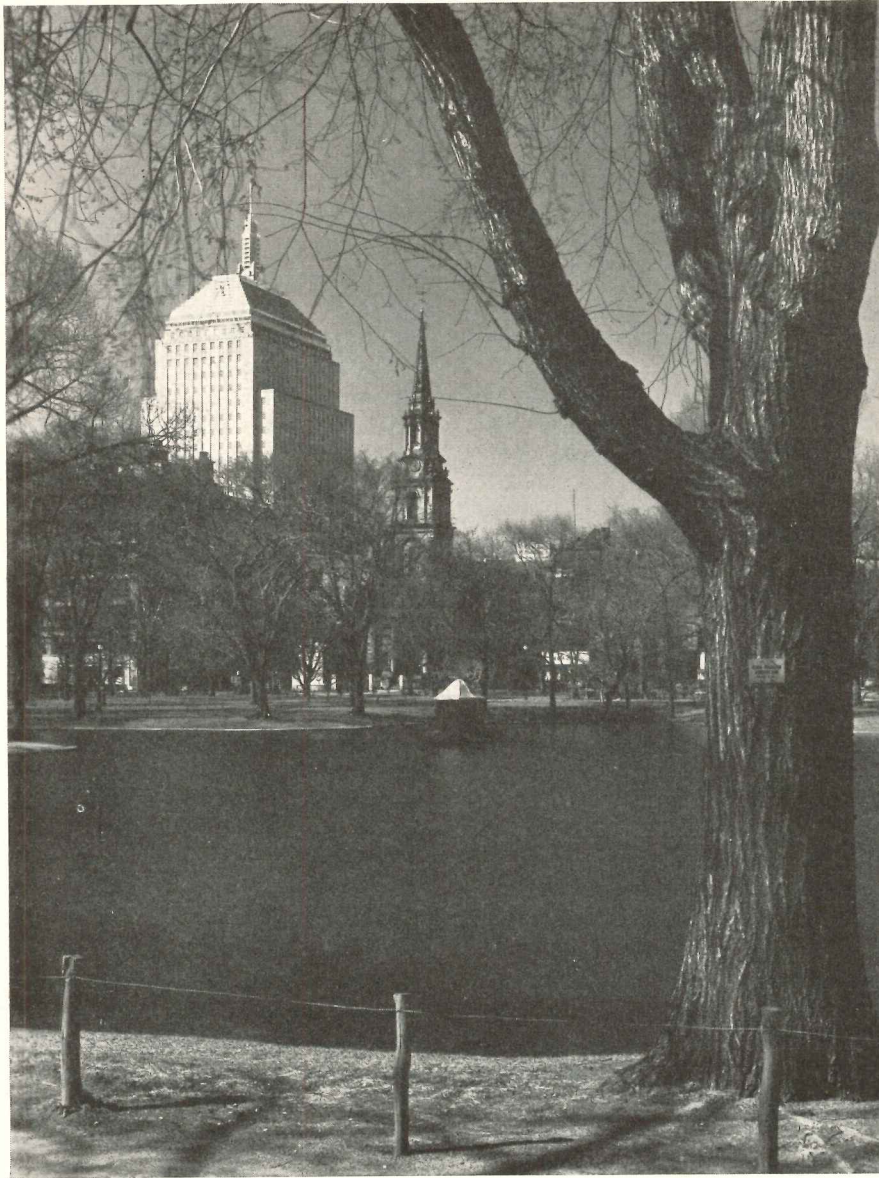
He said contractors also should have a willingness to learn and adopt new methods. Sometimes contractors change the whole appearance of a building because they refuse to try something new, he said.

"Both architects and contractors have a responsibility to the client. We should also understand our responsibility to the community."

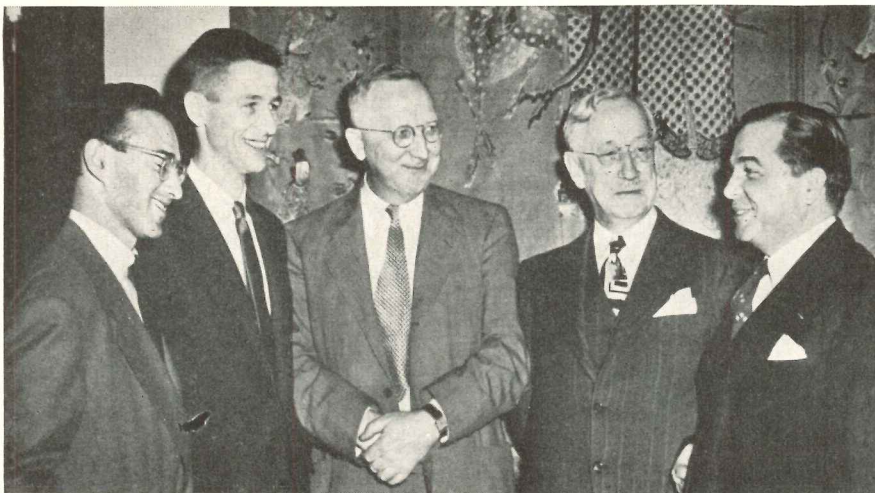
Mr. Wilson ended the program with his review of the positions of the architect and the contractor in the building team, suggesting that a project consists of "ideas, things and people." The architect acts in the realm of ideas primarily, he said.

Place cards (reproduced below) guided contractors and architects to alternate places





John Hancock Mutual Life Insurance Building (above) won Architects Cram & Ferguson the Harleston Parker Medal for 1950, given for "the most beautiful piece of architecture, building or monument" completed in Boston since last year. The Boston Society of Architects selects the recipient. Pictured below at presentation dinner are: Ralph Bedar, winner of Society's \$1000 traveling scholarship; Robert Bliss, \$3000 Rotch Traveling Scholarship winner; James T. Doran and Chester N. Godfrey, of Cram & Ferguson; and Robert C. Dean, president of the Boston Society of Architects



NEW JERSEY'S ARCHITECTS HOLD BIGGEST CONVENTION

THE NEW JERSEY Chapter, American Institute of Architects, and the New Jersey Society of Architects climaxed the first year of an expanded program with their most ambitious convention, complete with producers' exhibits, architectural awards, seminars, and a full complement of distinguished guests.

About 150 member architects and "an unknown number" of non-member architects, engineers and contractors were on hand for the three-day meeting at Asbury Park's Berkeley-Carteret Hotel.

The seminars, on "The Case for Traditional and Modern Architecture" and "Contemporary Architectural Education" provoked lively discussions.

At the first, Cameron Clark, F.A.I.A., of New York, and Robert S. Hutchins, A.I.A., also of New York, proved to be "a liberal conservative and a conservative liberal" (in that order), agreeing that any architectural design must satisfy the demands of beauty and the practical requirements of the program, whether these be embodied in traditional or modern forms. Joseph N. Hettel, A.I.A., was moderator.

Dean George S. Koyl, F.A.I.A., of the School of Fine Arts, University of Pennsylvania, and Robert B. O'Connor, F.A.I.A., of New York were the speakers for the architectural education seminar, with Neil J. Convery, past president of the New Jersey State Board of Architects, as moderator. The topic was approached from three angles — the requirements of practicing architects, the aims of the architectural schools and the problem of the State Board of Registration in examining for the state license.

The convention heard addresses by President Ralph Walker of The A.I.A., Thomas S. Holden, president of the F. W. Dodge Corp., and Myron L. Matthews, Dow Service vice president and Technical Valuation Society president.

Certificates of Merit and Honorable Mentions for their entries in the architectural exhibition went to Alfonso Alvarez Jr., Marcel Villanueva, Levy & Scheingarten, Drake & Tuthill, Matthews M. Simpson, C. Harvey Convery, Leo L. Fischer and Vincent G. Kling. Special mention without award was given to Munn Pattison for excellence in model construction, to Knopf and Oshiver for brilliant presentation, and to Clarence Tabor for the plan of the Williams residence.

President Lauren V. Pohlman and his fellow officers, the same for both organizations, all were reelected.

Photograph by Haskell

REFURBISHED OCTAGON IS OPENED TO PUBLIC

HISTORIC OCTAGON HOUSE in Washington, D. C., since 1900 the official headquarters of The American Institute of Architects, is now open to the general public.

Its interior has been redecorated and refurnished and a new garden, designed by Cary Millholland, landscape architect, has been created as a memorial to architects killed in two world wars.

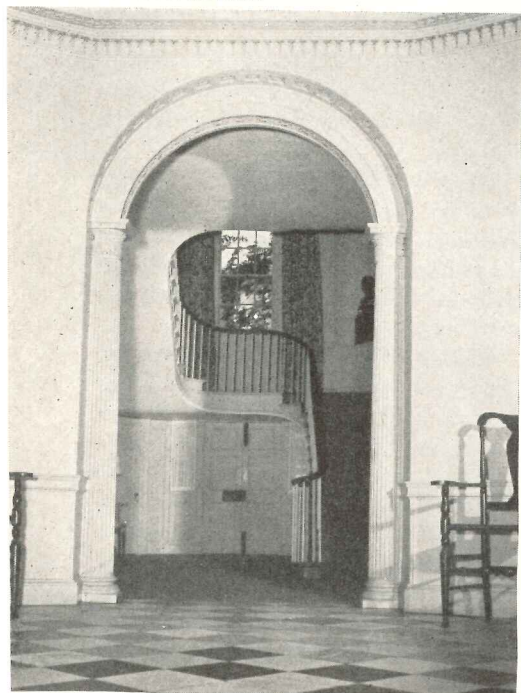
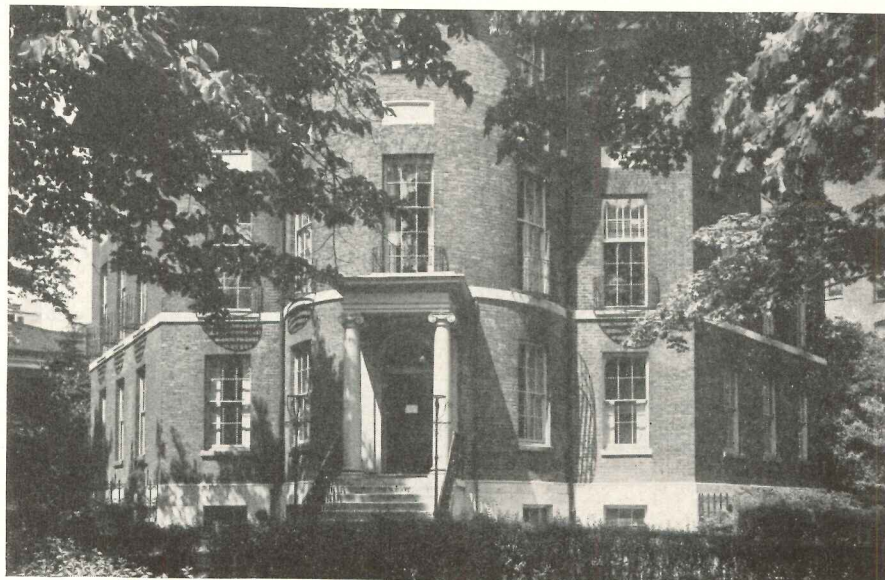
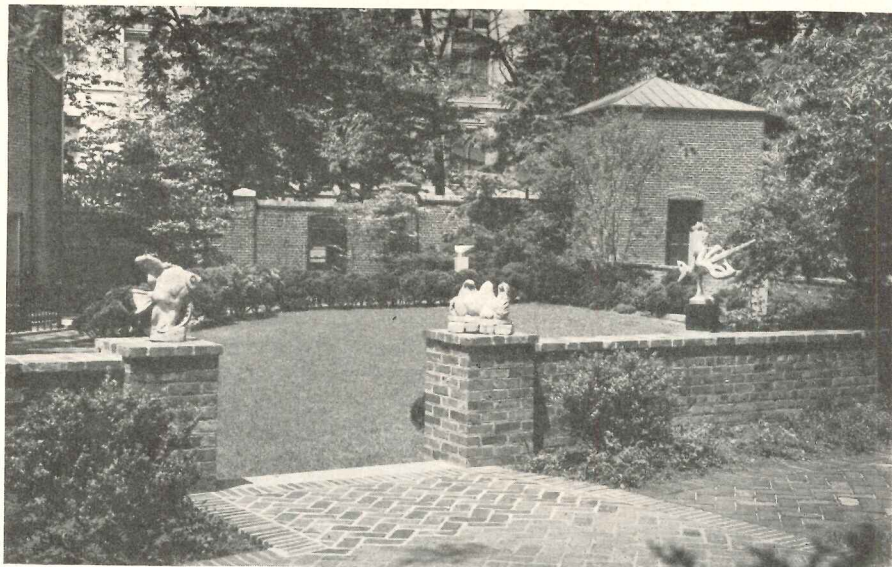
An exhibition of contemporary sculpture by the Washington Sculpture Group is currently being shown in the garden.

(Photos at bottom of page show front hall and staircase and one corner of dining room. At right are views of the garden and of the front exterior.)

Offices of the Institute have been moved into the adjacent administration building which faces the garden of Octagon House. The Octagon itself will be used as an active part of the headquarters of The A.I.A. for the reception of distinguished guests, members and their friends. The rooms are comfortably furnished for present-day use in the manner of the early Federal period.

Once the home of President and Mrs. Madison after the burning of the White House during the War of 1812, the 150-year-old Octagon House was originally the town house of Col. John Tayloe of Mount Airy, Va., and the scene of many historic events including the ratification of the Treaty of Ghent in 1814. The study where the signing occurred has been reserved from general use as a public shrine.

Edward M. Allen Photos



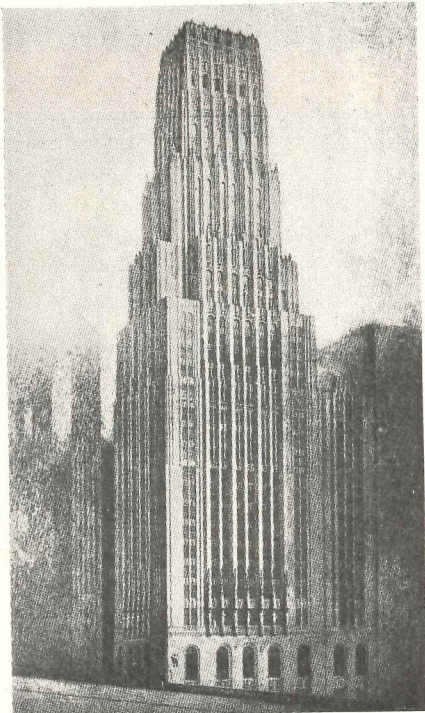


A recent photograph of Eliel Saarinen

ELIEL SAARINEN: HONORS STARRED HIS LONG CAREER

THE DEATH of Eliel Saarinen, which occurred on July 1 at his Bloomfield Hills, Mich., home, ended at 76 a career in architecture and city planning which had brought to Mr. Saarinen most of the high honors in the gift of his profession.

Only this Spring he was selected by the Royal Institute of British Architects to receive its Royal Gold Medal for Architecture. In 1947 he received the Gold Medal of The American Institute of Architects for the first-prize design in the competition for the proposed addition to the Smithsonian Institution, Washington, D. C. His work for the Cranbrook Foundation, with which he



The Architectural Record February, 1923
SECOND PRIZE—THE CHICAGO TRIBUNE COMPETITION
Eliel Saarinen, Helsingfors, Finland

had been associated since 1925, won him a gold medal from the Architectural League of New York.

The Tribune Competition

Saarinen designs have received awards in innumerable competitions; and it was in fact one of these, the well-remembered Chicago Tribune competition of 1922, that aroused Mr. Saarinen's interest in the United States and a year later brought him here from his native Finland. There he had already achieved international recognition for such designs as his famed plan for the Helsinki Railroad Station and city plans for Reval, Estonia, Riga, Latvia and Canberra, Australia.

The Tribune's widely-advertised competition to secure a design for "the most beautiful office building in the world" brought Mr. Saarinen the second prize of \$20,000 and unloosed a storm of criticism which was reflected in Louis Sullivan's article in the February 1923 issue of the RECORD:

"... the second and the first prize stand before us side by side. One glance of the trained eye, and instant judgment comes; that judgment which flashes from inner experience, in recognition of a masterpiece. The verdict of the Jury of Award is at once reversed, and the second prize is placed first, where it belongs by virtue of its beautifully controlled and virile power. The first prize is demoted to the level of those works evolved of dying ideas. . . ."

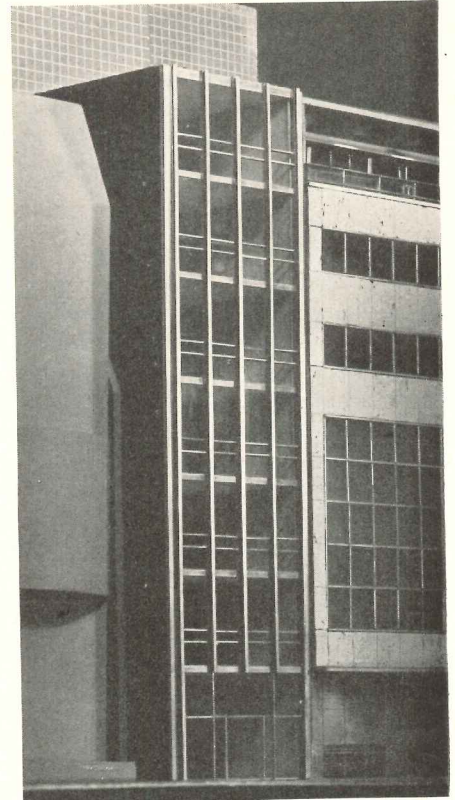
Not long after coming to this country, Mr. Saarinen became chief design critic for the Department of Architecture at the University of Michigan. At the Cranbrook Foundation, a development aided by the Detroit publisher, George G. Booth, he was head of the architectural department. He designed many of the buildings at Cranbrook School for Boys and the adjoining Kingswood School for Girls, as well as the Cranbrook Academy.

Some Noted Buildings

He will be remembered, too, for his designs for the Christian Church in Columbus, Ind., the Kleinhans Music Hall in Buffalo, and the structures for the Berkshire summer music festival in Stockbridge, Mass. A plan for Detroit and a design for the rebuilding of Chicago's waterfront were drawn up by Mr. Saarinen but never executed.

But he will be remembered above all for the truly creative spirit which gave his work its unquestioned integrity.

Below: Photo of rendering of new annex for New York's Museum of Modern Art, designed by Philip C. Johnson, director of the Museum's Department of Architecture and Design. The all-steel-and-glass exterior has vertical lines to contrast with horizontal design of the Museum proper. It will be New York's first non-frame structure without surface masonry. Expected cost: \$350,000



ILLINOIS ARCHITECTS ELECT THEIR OFFICERS AT CHICAGO

F. M. BERNHAM of Chicago was elected president of the Illinois Society of Architects at the Society's annual meeting in Chicago.

Other officers elected were: Benjamin F. Olson, first vice president; A. Reyner Eastman, second vice president; Edgar D. Martin, treasurer; Gerald L. Palmer, financial secretary; Alfred Schimek, secretary.

Elected to the Board of Directors for three-year terms were Nathaniel Koenigsberg (secretary for the past five years) and Edward A. Schiewe.

Seven members were elected to the Board of Arbitration: Clarence W. Doll, Hamilton B. Dox, Thomas F. Imbs, Gilbert A. Johnson, Charles Macklin, Charles B. Rowe and David C. Wilson.

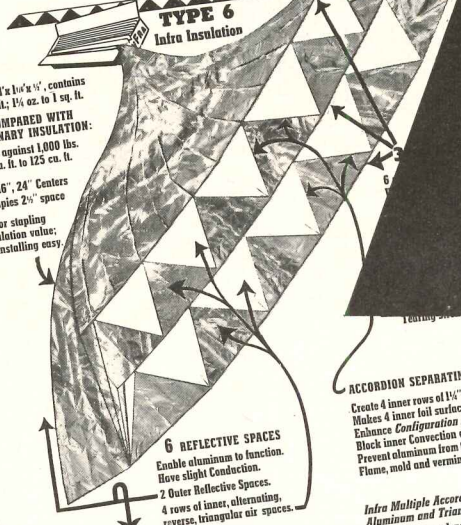
Dr. Melchior Palyi, German economist, gave the main address at the meeting.

FOURTH REVISED EDITION
Summer, 1950

SIMPLIFIED PHYSICS OF VAPOR AND THERMAL INSULATION

Subjects: Heat Transfer, Condensation, Vapor, Vermin, Mold, Fire, Radiant Heating
By Alexander Schwartz, President, Infra Insulation, Inc.

AIA FILE NO. 37



Carton, 4' x 16" x 16", contains
500 sq. ft. 1 1/4 oz. to 1 sq. ft.
COMPARED WITH
ORDINARY INSULATION:
48 lbs. against 1,000 lbs.
1-3/5 cu. ft. to 125 cu. ft.
12", 16", 24" Centers
Occupies 2 1/2" space
Flange for stapling
has insulation value;
makes installing easy.

6 REFLECTIVE SPACES
Enable aluminum to function.
Have slight Conduction.
2 Outer Reflective Spaces.
4 rows of inner, alternating,
reverse, triangular air spaces.

THERMAL FACTORS—TYPE 6
Down Heat C.044 R 22.72-7 1/2" Dry Rockwool
Up-Heat C.08 R 12.50-4" Dry Rockwool
Wall Heat C.073 R 13.69-4 1/2"

ACCORDION SEPARATING PARTITIONS
Creates 4 inner rows of 1 1/2" reflective spaces.
Makes 4 inner foil surfaces 97% effective.
Enhance Configuration Factor.
Block inner Convection currents.
Prevent aluminum from touching aluminum.
Flame, mold and vermin-proof.

**Infra Multiple Accordion Insulation,
Aluminum and Triangular Air-Cells.**
Does not form condensation.
Does not store moisture.
Low storage and handling costs.
Lowest first cost and per year.
100% more installed per man.
Safe for skin, eyes and lungs.
Not damaged by roof leaks.
Does not retain odors.

"Simplified Physics OF VAPOR AND THERMAL INSULATION"

by Alexander Schwartz

The New Edition is Ready!

Simply, clearly and precisely written in down-to-earth language. 44 Pages crammed with Facts, Figures, Charts, Illustrations, and Explanations of Heat and Vapor Transfer; Conduction and Density; Convection; Radiation and Emissivity; Rejection, Reflection, Absorption and Permeability.

SENT FREE! JUST USE THE COUPON

A handy reference manual on insulation for Architect, Engineer, Public Official, Builder, Contractor, Insulator, Heating Installer. Used by hundreds of universities and technical schools as a text on insulation.

Topics include Vapor, Vapor Barriers, Humidity, Condensation, Radiant Heating. Discusses every kind of material, fibrous and reflective insulations, tells where and how to use them. Explains how to make one's own tests of heat flow.

Worth Getting Just for The Famous "Chart of Thermal Insulation Values"
Latest, specially compiled data, conveniently tabulated, on k, C, R and U factors of all insulations, of all thicknesses, and their densities, weights, cubic contents.

INFRA INSULATION, INC.
10 Murray Street, New York, N. Y.

Dept. R8

Please send me complimentary copy of "Simplified Physics of Vapor and Thermal Insulation."

Name _____

Connection _____

Address _____

INFRA INSULATION, INC.

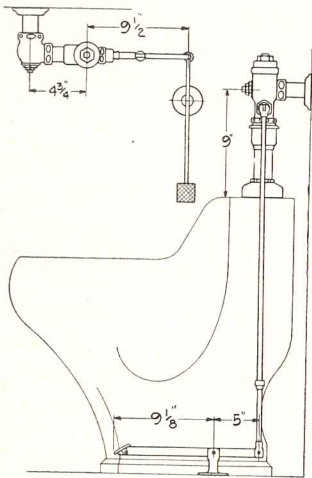
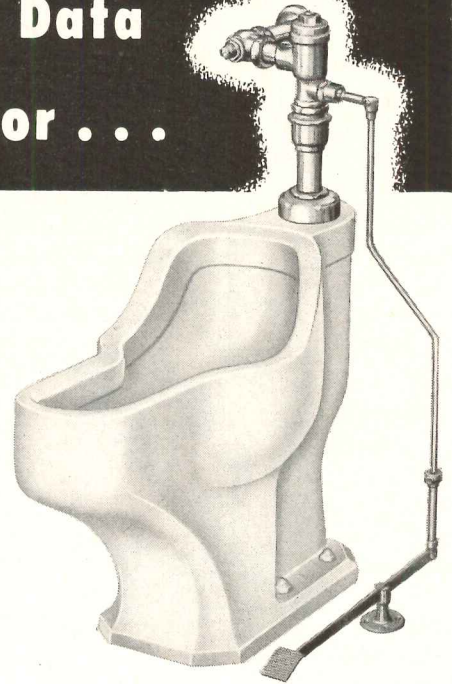
ACCORDION MULTIPLE ALUMINUM &
TRIANGULAR REFLECTIVE AIR CELLS

10 Murray St., N. Y., N. Y. Telephone: COrtlandt 7-3833

Installation and Specification Data Watrous Flush Valves for ...

THE *Sanistand* FIXTURE

A new type plumbing fixture for Women's toilet rooms by American-Standard

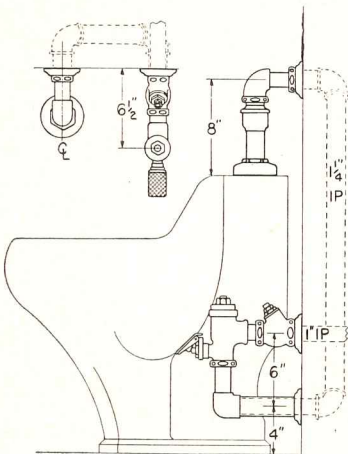


M-498-VB
Foot-lever-operated flush valve

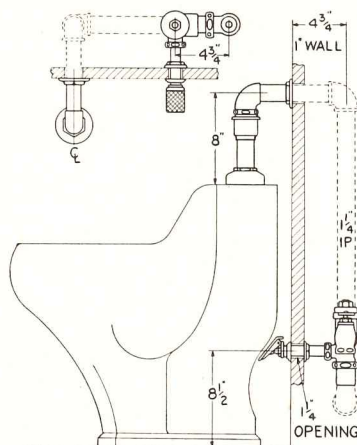
Here are the Watrous Flush Valve Combinations recommended for use with American-Standard F-5800 fixture — the new Sanistand fixture recently developed for use in women's toilet rooms.

These Watrous Flush Valve combinations have been worked out in cooperation with the fixture manufacturer, and provide the necessary 3½ gallon flush and 3 quart refill. As furnished they include Watrous Flush Valves with foot pedals, foot levers or handles as desired, shut-offs, wall flanges, flush connections, spud nuts, spud flanges and vacuum breakers. All exposed parts are heavily chromium plated; concealed valves are rough finished.

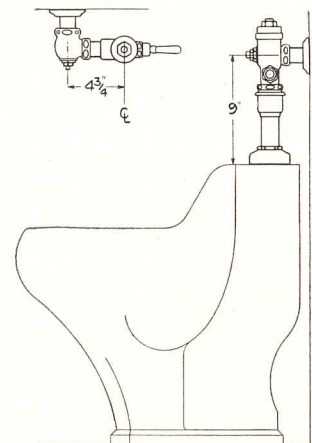
The flush valves themselves, of course, offer all those basic Watrous superiorities—water-saver adjustment, self-cleansing by-pass, self-tightening handle packing and single-step-servicing. Screenless silent-action can also be furnished at slight additional cost. Write for Watrous "Series S" Data Sheets.



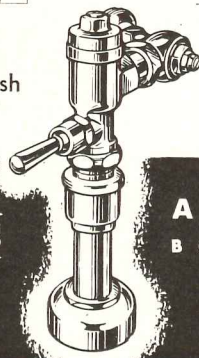
M-479-VB
Foot-operated exposed flush valve



M-499-VB
Foot-operated concealed flush valve



M-497-VB
Manually-operated flush valve



Watrous

ADJUSTABLE FLUSH VALVES
BOTH DIAPHRAGM AND PISTON TYPES

THE IMPERIAL BRASS MANUFACTURING CO.

1240 W. Harrison Street, Chicago 7, Illinois

NEWS FROM WASHINGTON by Ernest Michel

As we go to press, the President's recommendations on measures required to meet the Korean crisis have just been made known. This Washington report, prepared before the emergency developed, still reflects the aims of the government; but already executive orders have suspended certain parts of the program, and at this writing, with the extent of the economic mobilization not yet known, it is impossible to make any judgment on when the full program may be resumed.

— The Editors

IF THERE ARE to be adequate schools in this country the present building program must be doubled. That, in simple terms, is the feeling of private and public officials alike. The construction of schools now is running in the neighborhood of \$500 million a year. It must be stepped up to at least \$1 billion each year for the next decade if actual needs are to be satisfied.

The architect will be called upon increasingly during the years just ahead to help solve this major problem.

The fifth annual report of the National Education Association of the United States, just released, brings new pressure to bear on the need for more school classrooms. A good share of the 15-page brochure is devoted to overcrowding. A section on "Housing Our School Population" details the current need but offers little in the way of suggested solution.

The significant thing about this annual report is that the estimated demand for new school building again is stated to be \$10 billion, or \$1 billion per year for the next 10 years. This now has become a familiar refrain in construction as well as education circles. Government sources have used it for months.

More specifically, the N. E. A. finds in a survey conducted as late as January 1950 that 12,559 classrooms now under construction will be ready for occupancy next September. This is estimated to be about one-third the new classrooms needed next year. And the survey covered only public school facilities in cities above 2500 population. The Association claims it will require an additional 24,499 rooms to give all children in these cities a full school day and to house nearly 400,000 additional pupils which these city schools expect to enroll in September, 1950.

There is a very logical reason why school construction has not kept pace with the increasing population and the demand for new buildings. Depression

years, war years, and increased building costs are all part of the reason. As it was, the value of the American school plant more than doubled between 1920 and 1930. But this fell far short of permitting capacity to equal need.

Comments the N. E. A. in its recent report:

"It would have been the part of wisdom to continue school construction at a rate commensurate with the increasing enrollments. Nothing like this happened. Our national economy was affected by a serious depression. Few school buildings were erected because money for construction purposes was not available. When we were involved in World War II, both money and materials were dedicated to maintaining the battle lines. Skyrocketing prices at the war's close deterred the thrifty from expensive building programs."

The result is that one-fifth of school buildings now in use in city school sys-

tems are from 50 to 80 years old. Furthermore, 16 per cent of city children are going to school in buildings erected before 1900. It is estimated that thousands of other structures should be examined architecturally with a view to protection of life and for elimination of conditions in the school plant which lower the quality of educational programs.

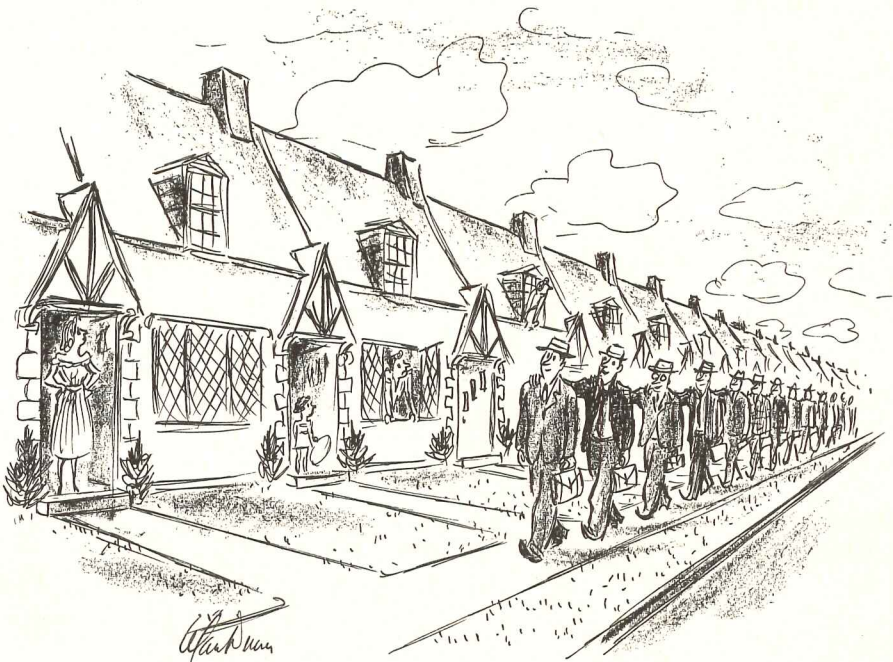
Improved quality of school construction since 1900 has added to its cost, the report points out. As the century began, there were few school buildings of concrete and steel. Disastrous school fires have lighted the way toward fireproof or "slow-burning" materials. Describing progress over the past half century, the N. E. A. said offices, laboratories, libraries, auditoriums, gymnasiums, clinics, and scores of special building provisions for auxiliary services have taken their places in school plants. These plants would have been mostly halls and classrooms 50 years ago.

The report continues:

"Adjustable seats, lockers, adequate lighting, heating and ventilation, program clocks, central communication systems and telephones have found their places in the schoolhouse since 1900. Some of these are fairly recent acquisitions. In 1936 an extensive study showed only 500 16mm sound motion picture projectors in the nation's schools. It is predicted that in 1951 there will be 24,500 of them."

The N. E. A. clinches its case for more

(Continued on page 16)



—Drawn for the RECORD by Alan Dunn

THE RECORD REPORTS

WASHINGTON

(Continued from page 15)

and better construction with this statement:

"While better school construction, better equipment and more efficient instructional supplies have brought a higher grade of schooling to millions of children in the past 50 years, there is today in hundreds of communities, particularly farm and village neighborhoods, an astonishing lack of these important provisions for safety, welfare, and better learning conditions. There can be little equalization of opportunity unless the tools of teaching and learning are available in all schools."

Contractors Cite School Needs

Earlier this year, the Associated General Contractors of America, Inc., called attention to the vast potential market awaiting architects and builders in school construction. It cited a General Services Administration report which held that a building volume of \$11.5 billion at current price levels, exclusive of land, would be needed in the next 10 years. This amount of work must be done, it said, if the current demand for public elementary and secondary schools, publicly financed colleges and universities is to be met.

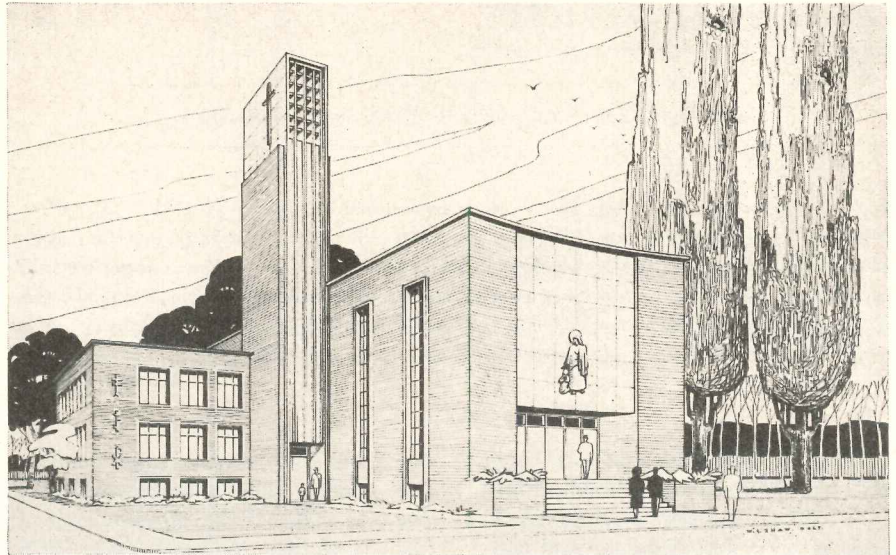
The volume is equivalent to all public school construction put in place since 1924. GSA pointed out that to meet this current and growing need for more school rooms, it would be necessary to compress within the next decade as much school construction as was accomplished in the past two and one-half decades. The agency expressed the opinion that school construction would level off at less than the needed billion-plus per year in 1950. School building contracts for \$705 million were awarded in 1948, and GSA shows that public construction educational awards in 1949 amounted to \$853,312,000. The total first quarter figure for 1950 was \$199,191,000.

No Immediate Answer

Like so many other lagging construction programs, new schools are held up not for lack of planning but for lack of funds. What's to be done?

When ARCHITECTURAL RECORD posed this question for Dr. Willard E. Givens, N. E. A.'s executive secretary, he replied

(Continued on page 18)



Gordon S. Adamson of Toronto is architect for the United Church (photo above), Oshawa, Ont. The main church building, 39 by 107 ft, will include nave and chancel with gallery and gymnasium. Sunday School section attached will be two stories and basement, 50 by 34 ft. Church proper will seat 438 persons, is expected to cost about \$225,000

NEWS FROM CANADA by John Caulfield Smith

Massey Medals Set Up to Reward Good Architects

IMPORTANT NEWS for every Canadian architect is the inauguration of the Massey Medals for Architecture. These medals, awarded by the Massey Foundation, will give deserving architects national recognition and stimulate public interest in architecture.

The initial exhibition will be held in the National Gallery at Ottawa during November 1950. For this exhibition only buildings completed since the end of World War II (Aug. 15, 1945) may be entered. No building may be entered more than once, and no firm or architect may have more than two entries in each category. Those architects wishing to exhibit have already filled in entry forms and returned them to the R.A.I.C.

A three-man jury has been chosen according to a ruling that two must be Canadian architects, the third a non-resident architect. The Canadians are J. W. Balharrie, M.R.A.I.C., Ottawa, and J. Roxburgh Smith, F.R.A.I.C., Montreal, president of the R.A.I.C. The non-resident is an American—Joseph Hudnut, B.Arch., S.M., A.M., Dean of the Graduate School of Design at Harvard University.

It will be the task of these three men to select the Canadian architect or firm of architects designing the work judged

best in each of 15 categories. Silver medals will be awarded these winners. As well, a gold medal will go to the architect or firm whose work is judged best of all entries. It is planned that the winning entries, at least, will be exhibited across the country.

The Massey Medals will be awarded every two or three years, depending upon the amount of building activity.

Five Months of 1950 Show 12 Per Cent Building Gain

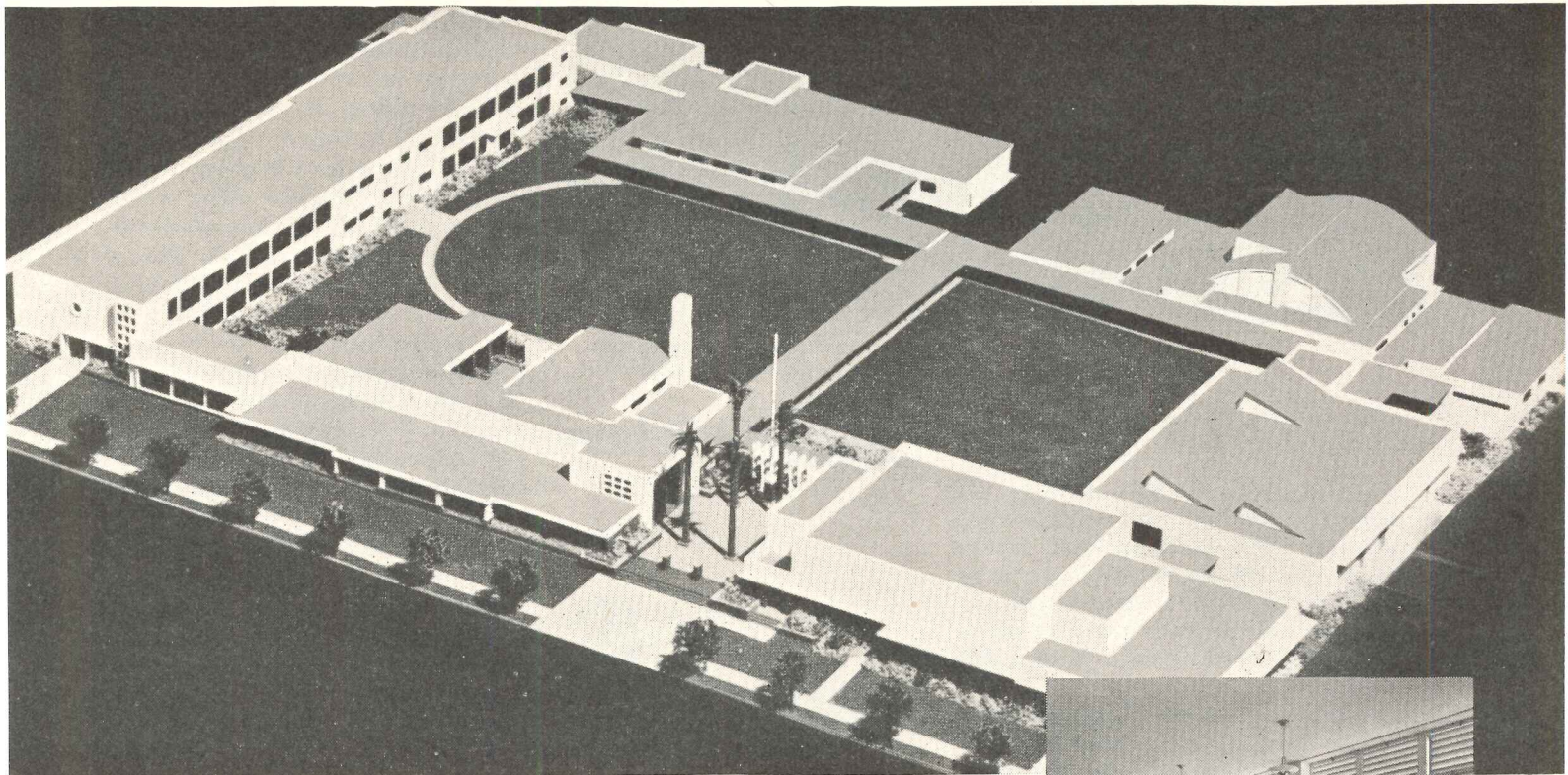
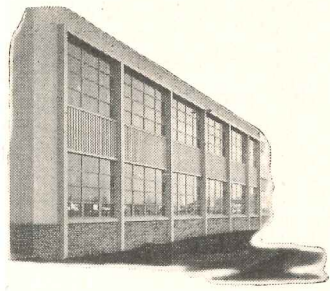
Construction awards for the first five months of 1950 show a substantial gain of 12 per cent over last year. Residential totals for May of \$54 million are over \$6 million ahead of May 1949. Ontario registered an impressive gain of \$10 million in residential contracts. Figures are from Maclean Building Reports Ltd.

New construction jobs include a \$3 million pulp mill extension in Northern Ontario and a \$3 million bridge at Ottawa. A high school in Montreal and another in British Columbia are valued at over \$1 million each. Central Mortgage & Housing Corp. is backing two new housing developments in Ontario, and work is starting on a privately developed apartment plan in Ottawa.

Comparative May figures for the four classifications show gains for residential

(Continued on page 204)

How a School with *14 Sides* Utilizes *free* Natural Daylight

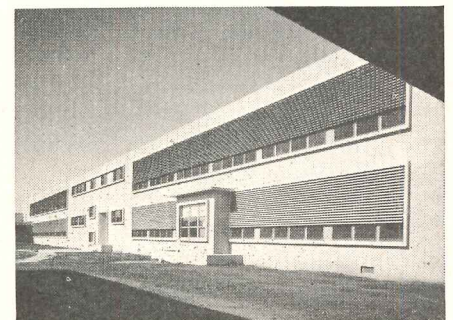


There's a popular old song that tells us "The Best Things in Life Are Free". When it comes to illuminating school-rooms, that certainly is true because there's no better light than daylight and it's FREE. Architects Austin, Field & Fry took full advantage of natural daylight in designing the Sun Valley Junior High School. First, they designed a building with two hollow squares making daylight available on 14 sides. Then they specified Ceco Steel Windows. In that way, they as-

sured more natural daylight because steel windows admit more light than any other type of window opening. And, finally on the sides where brightest sunlight prevailed, fixed horizontal overhangs and stationary louvers were provided as controls. The result—a properly daylight-illuminated school. To be doubly sure of a better structure and economy in building, concrete joist construction was specified, using Ceco Removable Steel Forms and Ceco Reinforcing Bars.



Stationary steel louvers were employed to control light, deflecting it to the ceiling.



Outside view showing stationary steel louvers which eliminate high brightness areas in rooms.

CECO STEEL PRODUCTS CORPORATION

General Offices: 5601 West 26th Street, Chicago 50, Illinois

Offices, warehouses and fabricating plants in principal cities

**CECO
STEEL**®

In construction products **CECO ENGINEERING** *makes the big difference*

Ideas for Auto Banking...



Michigan National Bank
Saginaw, Michigan

with H·H·M Drive-in or Walk-up windows

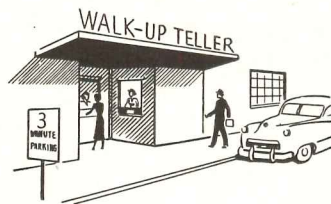
Auto Banking is here to stay by popular acclaim! Its convenience attracts new business, and makes regular depositors of those unable to use lobby service. It saves depositors' time as well as your own. It saves lobby and work space. It shortens window lines.

Let the H-H-M Man help you offer this needed, profitable banking service. He can show you why the public recognizes it as banking service fitted to the facilities for driving and parking automobiles.

He can offer you both DRIVE-IN and WALK-UP Auto Banking ideas for new or present buildings. Depending upon your location and building program it may be to your interest to offer Walk-Up facilities . . . or, arrange for a Branch Teller (not a bank), of either the Drive-In or Walk-Up type, in your suburban business centers. Send for a copy of "New Customer Appeal" describing the functional advantages of H-H-M Stainless Steel DRIVE-IN WINDOWS. Write today.



DRIVE-WAY INSTALLATION



WALK-UP INSTALLATION



SUBURBAN INSTALLATION

REPRESENTED



WORLD WIDE

HERRING-HALL-MARVIN SAFE CO.

HAMILTON, OHIO

Builders of the world's finest . . . Rotary Record Files • Insulated Record Files • Steel Transfer Files • Safes • Money Chests • Vault Doors • Bank Vault Equipment • Drive-In Windows • Night Depositories • Stainless Steel Hospital and Building Equipment

THE RECORD REPORTS

WASHINGTON

(Continued from page 16)

that there is plenty of money. If people can be brought to realize the value of a proper kind of education, and an adequate education, they will find the money. Dr. Givens is confident of this. They just haven't been able to appreciate the situation yet, he said.

Private school officials would welcome a sizable federal construction program but are not looking to Congress for it this year. There are bills pending which would funnel from \$300 million to \$500 million in federal funds into school construction programs, carried forward under supervision of the individual states. But this would bring little in the way of assistance now. For one thing, the allocations under the federal legislation would be spread over a period of years. N. E. A. says the vital need is for the school building program to be doubled now, for it to continue at the increased pace until 1960 at least.

The requirement for new schools is placed second in importance only to the need for additional teachers. But the Association feels there will be a gigantic shortage of places to teach children when the teacher supply has been augmented. That shortage is all too evident today. It is shown graphically in the denial of an adequate education to hundreds of thousands of children, in multiple shifts and in too-high teacher loads.

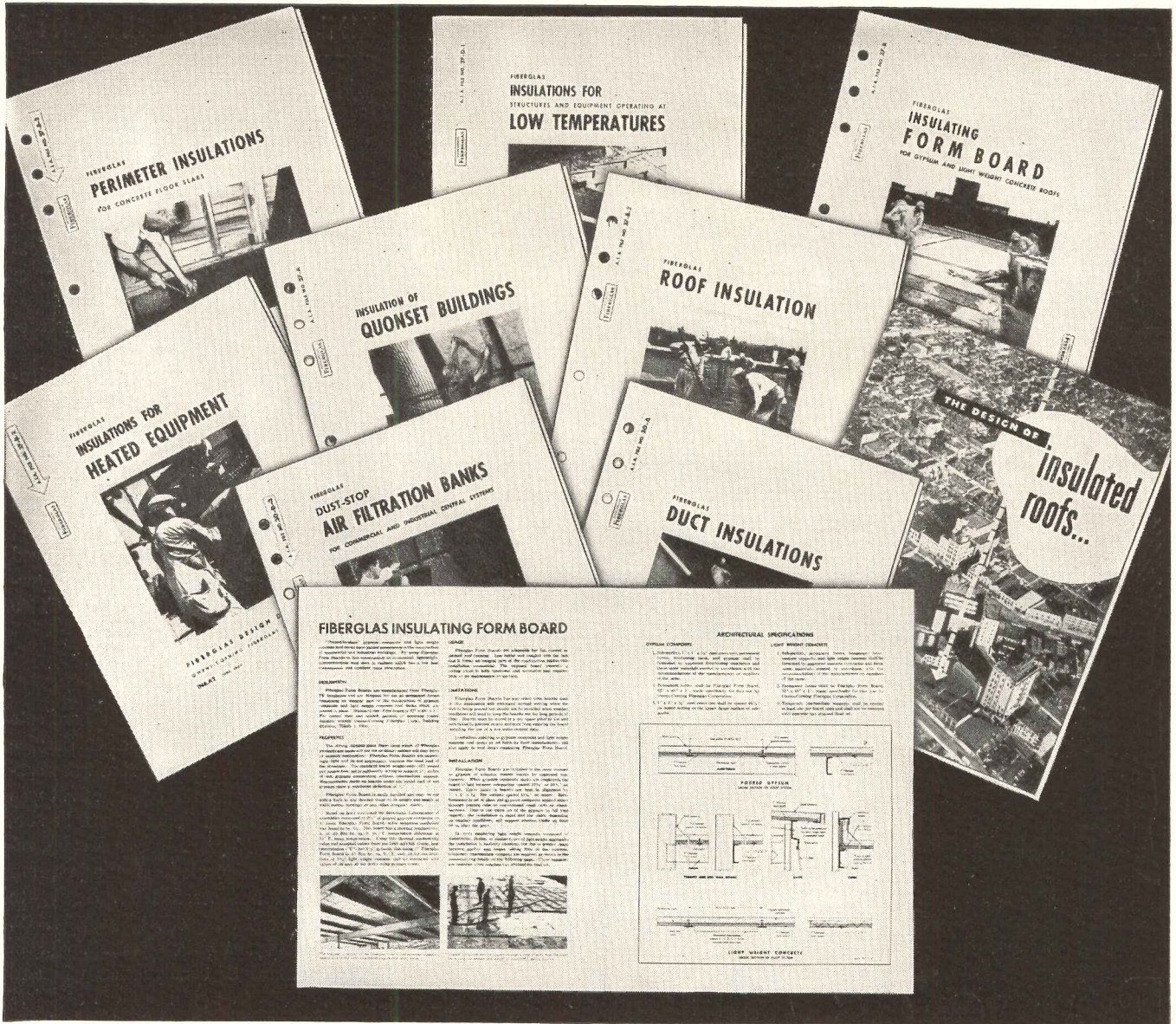
Dr. Givens explained that when superintendents have no money for new buildings, they crowd far past the limits of existing structures. Then they go on schedules that deny a full day of schooling to hundreds of thousands of youngsters.

The problem is likely to be around for some time, with more money for buildings the only answer.

College Program Progresses

Meanwhile, activity signs were beginning to show on the college housing front. The Housing and Home Finance Agency, designated by Congress to administer the new \$300 million loan program, said it expects to receive from 500 to 700 applications during the 1951 fiscal year. The Housing Act of 1950 authorized HHFA to handle the aid. Spokesmen assured private architects they would be called upon to design all

(Continued on page 20)



QUICK FACTS FOR YOUR FILES

Have you the facts in these Fiberglas* Design Data Books—all prepared especially for A.I.A. Files? Several have been issued as recently as June and July, 1950. More are coming! We'll continue to keep you posted.

Fiberglas Design Data Books have won Certificates of Merit from the A.I.A. and Producers' Council Inc.—awards given for product literature of a character which best serves the architect in the selection and specification of building materials.

Check your files today! Be sure you have the latest issues of the Fiberglas Design Data Books listed below. Order by titles only.

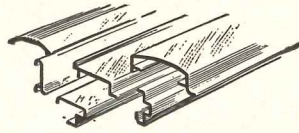
A.I.A. File No.	Title and Issue Date	A.I.A. File No.	Title and Issue Date
30-D-3	Fiberglas Dust-Stop Air Filtration Banks for Commercial and Industrial Central Systems. July, '50	37-B-2	Fiberglas Roof Insulation. Rev. Jan., '50
30-D-2	Fiberglas Insulations for Heated Equipment. June, '50	37-B	Fiberglas Insulating Form Board. Nov., '49
30-D-1	Fiberglas Insulations for Structures and Equipment Operating at Low Temperatures. June, '50	37-A	Insulation of Quonset Buildings. Sept., '49
37	The Design of Insulated Roofs. Rev. April, '50	37-B-3	Fiberglas Perimeter Insulations for Concrete Floor Slabs. Rev. July, '50
		30-A	Fiberglas Duct Insulations. Aug., '49



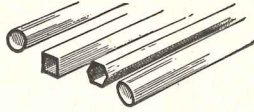
*Fiberglas is the trade-mark (Reg. U. S. Pat. Off.) of the Owens-Corning Fiberglas Corporation for a variety of products made of or with glass fibers.

Write: Owens-Corning Fiberglas Corporation, Dept. 68H, Toledo 1, Ohio

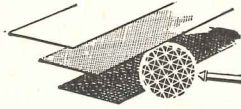
ARCHITECTURAL USES UNLIMITED!



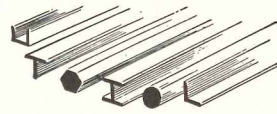
Extruded Shapes for thresholds, jambs, sills, copings, etc. Both standard and special designs.



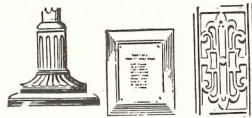
Tubular Products, like other standard items, may be ordered from a warehouse in your area.



Sheet is available plain or with embossed, corrugated and perforated patterns.



Structurals in all forms; angles, channels, tees, etc. Also rod and bar stock.



Ornamental Castings produced to your specifications by independent foundries from Reynolds Aluminum ingot.

Other Aluminum Building Materials—Gutters, Downspouts, Reflective Insulation, Roofing and Siding, Built-up Roofing, Nails, Windows, Roll Formed Shapes.

Reynolds Aluminum

A COMPLETE ARCHITECTURAL SERVICE AT THE OTHER END OF YOUR 'PHONE

Aluminum is the most tempting of metals for so many architectural applications! Its low cost—its light weight—its STRENGTH—its natural beauty—its freedom from rust and corrosion problems—these qualities are making and keeping it first choice with an ever increasing number of architects and fabricators.

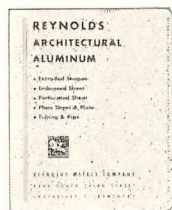
To meet this steadily growing demand Reynolds has set up a special and complete sales and distribution service. This means practical and fast-moving response to your "on-the-job" requirements.

For this prompt action, just 'phone the nearest Reynolds office. Look under "Aluminum" in your classified

directory or write direct. There's an architectural specialist to work with you on new designs—to follow through with the fabricator on delivery of standard items from a Reynolds distributor warehouse—to speed up shipment of specials to meet your building schedules.

SEND TODAY

Reynolds Architectural Folio includes complete data and drawings you can use for direct tracing. Write to Reynolds Metals Co., 2572 South Third Street, Louisville 1, Ky.



REYNOLDS Architectural ALUMINUM

A COMPLETE ALUMINUM SERVICE TO ARCHITECTS AND FABRICATORS

THE RECORD REPORTS

WASHINGTON

(Continued from page 18)

structures approved. Institutions (colleges and universities) will let contracts to private construction firms after open competitive bidding. The federal housing agency will make periodic construction advances.

Indications are that applying institutions will request loan funds in excess of double the \$300 million authorized by Congress. The guess that from 500 to 700 applications will come in the first year is based on early correspondence and is said to be a conservative one.

Eligibility of the applicant and need for the college housing will be determined with the assistance of the Office of Education.

National Hospital Program

The total estimated cost of all projects approved in the Public Health Service hospital construction program was nearing the \$1 billion mark on June 1. It was apparent this high figure was to be surpassed by mid-year. Public Health reported that all projects in the program to June 1 numbered 1340. Aggregate building cost was set at \$919,625,112, the federal share being \$327,507,808. This amount of construction will add 64,483 beds in new hospitals and 247 health centers to the nation's supply.

Of these projects, 177 were in operation by June 1, 689 were under construction, and 476 had passed the initially approved stage.

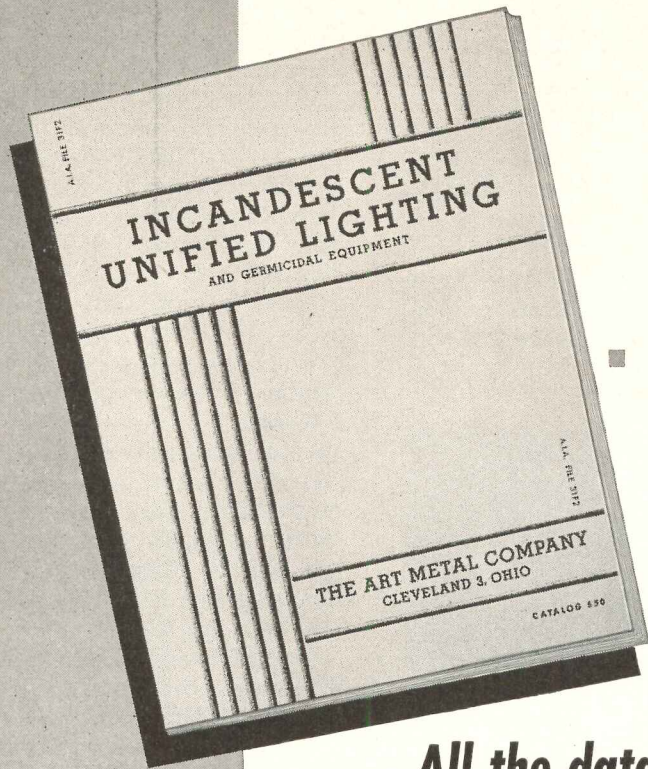
Construction Estimates Up

At mid-year the Department of Commerce and Labor lifted the sights on their estimates of total construction activity for 1950. Now, they say outlays for new building of all types this year will reach nearly \$26 billion. It was noted that the estimate was prepared before the international crisis developed so suddenly late in June.

This unprecedented volume of expenditures for new construction is anticipated on the basis of record-breaking activity during the first half of the year, the agencies said. They saw no indication of a marked let-up in the building boom during the second half.

The new \$26 billion total is 14 per cent above the revised estimate of \$22.6

(Continued on page 22)



... For the
FIRST TIME

All the data you need to specify and use
Incandescent Lighting

A new and different catalog presentation containing:
Incandescent lighting equipment of all types . . . classified as to use.
Explicit information in easy-to-use form.

- 99 Product Illustrations
- 24 Coefficient of Utilization Tables
- 51 Cross Section Details
- Detailed Product Specifications
- 47 Light Distribution Curves
- General Engineering Information

Your catalog is ready . . . Ask for it!

THE ART METAL COMPANY • CLEVELAND 3, OHIO

Manufacturers of Unified Lighting Equipment for Office, Store, School, Hospital and Hotel

There's an Art Metal Incandescent Unit for every lighting need.

Art Metal Unified Lighting, standardizes the design, style, and finish of each unit, to achieve an architecturally integrated installation.

The ART METAL Company
1814 East 40th Street, Cleveland 3, Ohio

Gentlemen: Kindly send me a copy of the new, free ART METAL CATALOG.

Firm _____

Name _____ Title _____

Address _____

City _____ State _____

billion spent in 1949. During the first six months of 1950, expenditures for all types of construction ran 17 per cent above the corresponding period of 1949. Yet, the departments said they foresaw a seasonal downturn in construction in the late fall and winter this year. Such a trend would be in contrast to last year's contra-seasonal increase which made itself particularly evident in home-building.

The six months summary showed outlays for new private non-farm housing to be 48 per cent above the 1949 first-half volume. Expenditures for hospitals, schools, reclamation and flood control projects also were substantially higher, but highway construction was at about the same level as in 1949.

Private expenditures for new dwelling construction for all 1950 are expected to reach \$10 billion. These were \$7.3 billion

in 1949. Outlays for public housing in 1950 now are placed at something just over the 1949 level, spurred by the public housing program authorized in the Housing Act of 1949.

The joint department release said that indications now point to 1,125,000 new dwelling units being placed under construction during the current calendar year. This includes some 50,000 public units. However, it would surpass greatly the 1,025,000 volume now officially recorded for 1949, and the previous high point of 937,000 units reached in 1925.

Commerce and labor noted that construction of stores and other retail establishments has expanded in recent months. Industrial construction, after a three-year decline, has turned upward. Public utility construction is declining slightly, especially in the communication facilities. Farm construction outlays are at a lower rate than last year; or were, as of July 1.

The high level of construction activity in evidence since last fall has brought pressure to bear on supplies of building materials and skilled labor. There are spot shortages of some materials but no general breakdown in the line of supply is expected at this time. The federal agencies point out that increased production of materials and additional skilled craftsmen made available through apprentice training programs should prevent any serious over-all supply difficulties such as those experienced immediately after World War II.

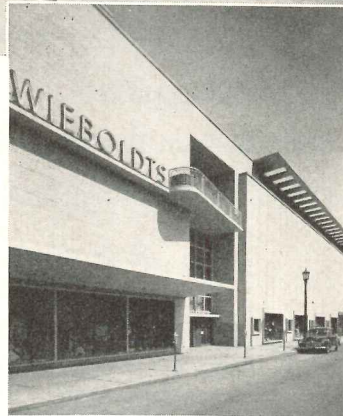
Maximum Lender Charges

In mid-July, the Federal Housing Administration made effective a new schedule of maximum fees and commission charges that lenders can assess builders. The regulation applies, of course, only to financing of housing covered by FHA loan insurance and VA guarantees. The new schedule applies for all applications received on or after July 17. It is part of certain actions ordered in the Housing Act of 1950.

Maximum interest rate on construction advances is set at five per cent. Lenders can charge builders a service fee of not more than two and one-half per cent of the amount loaned in the advance. This service charge is meant to cover supervision of the loan, handling of periodic advances, clearance of liens and other "overhead."

Where the lender financing the construction loan also finances the mortgage (or permanent) loan of the purchaser, no additional service charge can be made

(Continued on page 24)



Architects—Holabird, Root and Burgee

ADVANTAGES OF

"Trueline" ALUMINUM DOORS

made them first choice for the

New Weiboldt Store • Evanston, Ill.

- **Highest Quality Construction**
- **Complete Visibility**
- **Low Cost**
- **Ease of Installation**—Designed and fabricated into a packaged unit.
- **Low Maintenance**—Doors in operation over a long period show minor maintenance requirements.
- **Versatility**—Can be used with overhead door checks, floor checks or magic eyes.

Our service to Architects includes prepared details and design assistance—write for further information

CRANE FULVIEW GLASS DOOR CO.

4616 NORTH CLIFTON AVENUE
CHICAGO 40, ILLINOIS



- at Park View

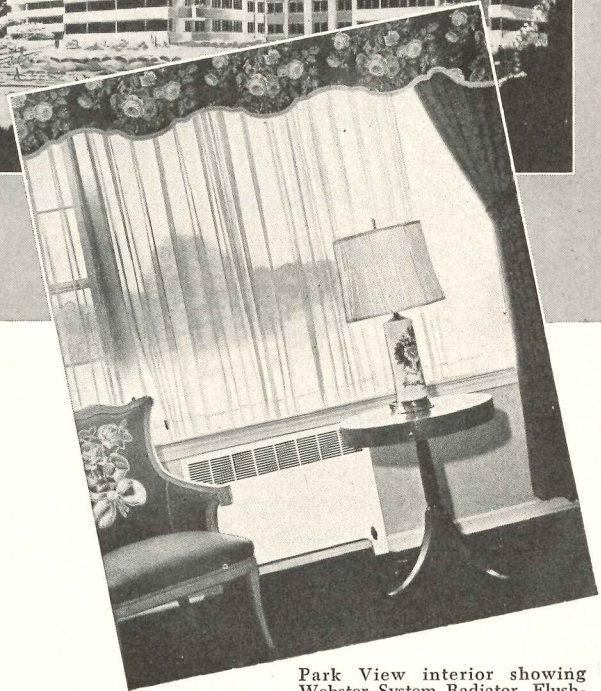
Positive Heat shut-off at Each Radiator

The \$10 million Park View development in Collingswood, N. J., is the largest post-war apartment in the Philadelphia area. The arresting design with an almost unbroken expanse of window space has won professional acclaim. Television, radio and newspaper promotions have brought thousands to the model apartment.

The owners of Park View put comfort first. They provided a "Controlled-by-the-Weather" Webster Moderator System of Steam Heating. With fully recessed Webster System Radiation . . . Convector Radiators with built-in radiator trap and valve. Each radiator has a convenient, accessible, easy to operate handle providing complete shut-off at tenants' convenience.

With the Webster Moderator System, heat is delivered continuously — plenty of heat in really cold weather, mild heat for mild days. The supply of steam is varied automatically with changes in the weather. There's a Webster Radiator Valve for 100% heat shut-off from each radiator — no dampers are needed.

Park View is owned by Sylvester A. and Sylvester



Park View interior showing Webster System Radiator. Flush-with-wall, takes no useable room space. Metal front provides easy access if necessary. Convenient, quick shut-off handle.

J. Lowery. The Builders are S. J. Lowery and E. J. Frankel. The architects were J. Raymond Knopf and Samuel J. Oshiver (associate). Engineers included Robert E. McLoughlin, Salvatore S. Guzzardi, and Robertson & Johnson. The heating contractor was Benjamin Lessner Co., Inc.

Park View was financed through County Trust Co., Tarrytown, N. Y., with the Seaman's Bank for Savings of New York as permanent mortgagee. It is insured by FHA.

For information, address Dept. AR-8

WARREN WEBSTER & COMPANY
Camden 5, N. J. Representatives in Principal U. S. Cities
In Canada, Darling Brothers, Limited, Montreal

WEBSTER
MODERATOR
SYSTEM
OF STEAM HEATING
"Controlled by the weather"

WASHINGTON (Cont. from p. 22)

on the permanent financing. On other sales of new and existing homes a flat fee of not more than one per cent continues to be allowable. This is charged by the lender to the builder if the lender does not make the construction loan but does sponsor the permanent loan.

All this means new problems for the builder. The National Association of Home Builders pointed out that it now requires housing contractors to function under new "limitations imposed." Henceforth, builders and lenders must certify that no fees in excess of the maximums established have been paid or imposed.

The announcement of the new regulation came from FHA Commissioner Franklin D. Richards and Veterans Administrator Carl Gray, Jr. But it was Raymond M. Foley, Housing and Home Finance Agency head, who got the two agencies together to work out the details.

Builders also can be required to pay recording fees, appraisal and inspection costs under the new rules. This regulation takes care of a wide difference in local and state legal practices. Many localities require such fees be paid, some do not.

Excessive construction loan charges have become a serious problem in many areas; probably more serious than federal officials will concede. Be that as it may, the new restrictions curb the former off-color practices and presumably impose a legal check rein on the activity. Congress showed itself fully aware of the overcharge situation — or at least the Banking committees did — when directions for the new regulations were written into the Housing Act.

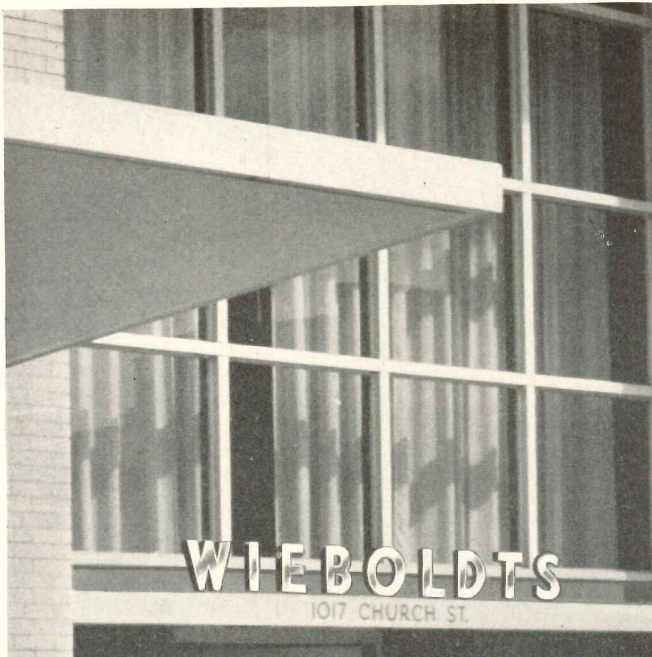
FNMA Switch Gets Attention

The plan to provide new legislation to control a modified Federal National Mortgage Association program gained momentum on Capitol Hill. Hearings were held last month (beginning July 10) on the new bill introduced by Senator Burnet Maybank (D-S. C.), chairman of the Banking committee. As explained by the Housing and Home Finance Agency, this measure would assist in returning the secondary credit operations of the FNMA to a stand-by source of liquidity for private holders of FHA-insured and VA-guaranteed home loans. At the same time, it would reduce the impact on the budget caused by government purchase of such mortgages from initial lenders.

Incorporated in the Maybank Bill is a request for \$250 million in additional purchase authority for the secondary market agency. This, if approved, and enacted into law, will bring the total FNMA operation up to the sizable \$3 billion level.

An important part of the proposal is the creation of private national mortgage corporations to be chartered by the HHFA. These private national entities would purchase, service and sell government-backed mortgages, borrowing money for the operation. Each corporation would have a capital stock of not less than \$1 million par value. It could begin operating when the stock had been subscribed for, and at least 25 per cent of it paid in. Each corporation would be authorized to issue and have outstanding obligations up to 25 times the amount of its capital stock and surplus.

(Continued on page 174)



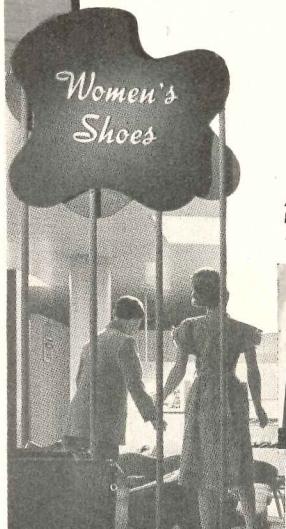
SPANJER LETTERS
THE STANDARD OF QUALITY
FOR EXTERIOR and INTERIOR SIGNS

Spanjer metal letters used at all the exterior entrances and wood letters used for interior identification signs throughout the new, modern Wieboldt store in Evanston, Illinois, have added immeasurably to the modern design and appearance.

When Spanjer letters are specified, there is always the assurance that your clients will have a quality product; the best they can get. This means architecturally correct form and proportion . . . design that is authentic . . . careful manufacture with highest grade materials . . . all based

on more than fifty years of craftsmanship. Spanjer letters are made in a variety of styles to conform to any architectural treatment and are applicable for a wide range of use.

Architect: Holabird, Root & Burgee
Photograph: Hedrich-Blessing
Exterior Installation: Fed. Enterprises Inc.

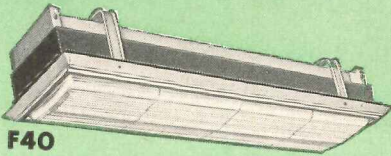


This newly printed Spanjer catalog will be invaluable for use in selecting a variety of designs and styles. It also illustrates outstanding uses and applications of metal letters.

SPANJER BROTHERS INC.
267 Mt. Pleasant Ave., Newark 4, N. J.
1158 N. Howe St., Chicago 10, Ill.

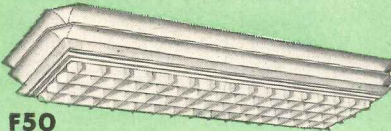
SPANJER BROTHERS INC., 1158 N. Howe St., Chicago 10, Ill.
Please send me, without obligation, your 20 page catalog.

Name _____
Firm Name _____
Address _____
City _____ Zone _____ State _____



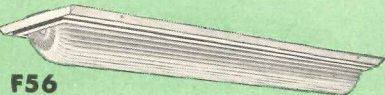
F40

Joleco's new Recessed Fixture for fine store and office lighting . . . available in 2 or 4 lamps with shielding of either Aluminum Louver, Inverted Flush Aluminum Louver, Corning "Alba-lite" Glass, Corning "Fresnel" Lens or Formed "Plexiglas".



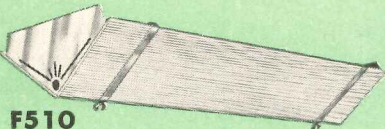
F50

A surface or suspension mounted fixture designed as a companion to F40 . . . available in 2 or 4 lamps with shielding of either Aluminum Louver, Inverted Flush Aluminum Louver, Corning "Alba-lite" Glass, Corning "Fresnel" Lens or Formed "Plexiglas".



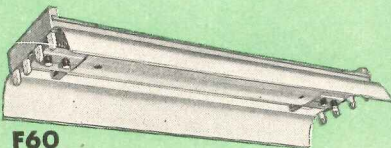
F56

Single-lamp, surface or suspension mounted fixture . . . ideal for corridors, lobbies, meeting rooms, dining rooms, cafeterias and similar installations . . . streamlined, plastic shield of pleasing appearance, non-breakable, shatter-proof and light in weight.



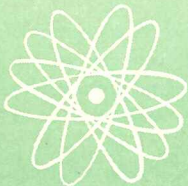
F510

Four-lamp, surface mounted shielded unit for store lighting . . . Corning "Alba-lite" glass shielding produces shadowless illumination and excellent distribution of light on shelves and displays . . . easily and inexpensively maintained.



F60

Surface or suspension mounted luminaire for factories, warehouses, drafting rooms, laboratories . . . available in 1, 2 or 4 lamps . . . economical in first cost, installation and upkeep.



All of the Joleco fixtures shown can be installed as individual units, in patterns or in continuous rows. They are available for use with pre-heat or instant start Fluorescent and 4 foot or 8 foot Slimline.

© 1950



THE RESULT OF

Progressive Design

by JOLECO

Out of our program of continuing research in lighting has come a new concept which we choose to call *Illumineering*—a composite of ILLUMINATION and ENGINEERING.

This *Illumineering* approach "remembers" lighting requirements, efficiency factors, design and appearance, plus installation, maintenance and inspection features. All of these are built into every JOLECO luminaire to insure complete approval by buyer and seller.

We are now compiling our "Illumineering Data Book." Basic *Illumineering* and fixture data is ready. Continuing studies and features will be added as completed. Be sure your name is on the mailing list for this valuable information. Write today.



JOLECO Corporation

Designers and Manufacturers of LIGHTING FIXTURES

2521 BALDWIN STREET

ST. LOUIS 6, MO.

CONSTRUCTION COST INDEXES

Labor and Materials

United States average 1926-1929 = 100

Presented by Clyde Shute, manager, Statistical and Research Division, F. W. Dodge Corp., from data compiled by E. H. Boeckh & Assocs., Inc.

NEW YORK

ATLANTA

Period	Residential		Apts., Hotels Office Bldgs. Brick and Concr.	Commercial and Factory Bldgs. Brick and Steel		Residential		Apts., Hotels Office Bldgs. Brick and Concr.	Commercial and Factory Bldgs. Brick and Steel	
	Brick	Frame		Brick	Steel	Brick	Frame		Brick	Steel
1925	121.5	122.8	111.4	113.3	110.3	86.4	85.0	88.6	92.5	83.4
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
1940	126.3	125.1	132.2	135.1	131.4	91.0	89.0	96.9	98.5	97.5
1945	160.5	161.7	156.3	158.0	155.4	132.1	133.9	123.2	122.8	123.3
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	199.2	202.5	178.8	178.8	178.8
1949	243.7	240.8	242.8	246.4	240.0	189.3	189.9	180.6	180.8	177.5
Mar. 1950	244.9	242.0	243.4	246.0	242.2	186.9	188.4	180.3	179.4	178.8
April 1950	246.2	243.6	243.6	246.1	242.5	187.9	189.7	180.5	179.5	179.0
May 1950	250.8	248.9	245.4	247.7	244.3	190.9	192.9	181.0	179.9	180.7
	% increase over 1939					% increase over 1939				
May 1950	103.1	103.3	87.8	85.7	87.8	121.2	132.1	90.3	84.7	90.8

ST. LOUIS

SAN FRANCISCO

1925	118.6	118.4	116.3	118.1	114.4	91.0	86.5	99.5	102.1	98.0
1930	108.9	108.3	112.4	115.3	111.3	90.8	86.8	100.4	104.9	100.4
1935	95.1	90.1	104.1	108.3	105.4	89.5	84.5	96.4	103.7	99.7
1939	110.2	107.0	118.7	119.8	119.0	105.6	99.3	117.4	121.9	116.5
1940	112.6	110.1	119.3	120.3	119.4	106.4	101.2	116.3	120.1	115.5
1945	152.8	152.3	146.2	148.5	145.6	146.2	144.3	144.5	146.8	147.9
1946	167.1	167.4	159.1	161.1	158.1	159.7	157.5	157.9	159.3	160.0
1947	202.4	203.8	183.9	184.2	184.0	193.1	191.6	183.7	186.8	186.9
1948	227.9	231.2	207.7	210.0	208.1	218.9	216.6	208.3	214.7	211.1
1949	221.4	220.7	212.8	215.7	213.6	213.0	207.1	214.0	219.8	216.1
Mar. 1950	222.8	221.2	215.8	219.1	217.6	216.7	211.0	218.1	221.6	218.3
April 1950	223.1	221.6	215.9	219.1	217.7	216.7	211.0	218.1	221.6	218.3
May 1950	231.5	229.8	219.8	222.4	221.5	224.8	220.4	220.1	223.1	220.8
	% increase over 1939					% increase over 1939				
May 1950	110.1	114.8	85.2	85.6	86.1	112.9	122.0	87.5	83.0	89.5

The index numbers shown are for combined material and labor costs. The indexes for each separate type of construction relate to the United States average for 1926-29 for that particular type — considered 100.

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.:

index for city A = 110

index for city B = 95

(both indexes must be for the same type of construction).

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.

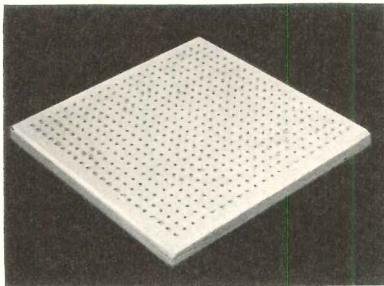
These index numbers will appear whenever changes are significant.

Quiet Dignity

CERTILE AND CERTACOUSTIC INCOMBUSTIBLE ACOUSTICAL TILE . . .



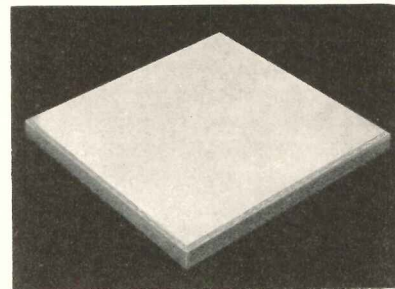
. . . in keeping with the carefully appointed office of the discriminating executive . . . the luxurious comfort of the club lounge . . . the subdued elegance of the concert hall . . . or wherever Quiet Dignity is called for.



Certile and **Certacoustic**

are highly efficient sound absorbing tiles made of Fiberglas*. Available in standard sizes and thicknesses . . . perforated and plain surface.

*T. M. REG. U./S. PAT. OFF. BY OWENS-CORNING FIBERGLAS CORP.



Approved acoustical applicators are available for consultation and advice. Contact one of these district sales offices for the name of the applicator in your area:

Atlanta, Ga. • Chicago, Ill. • Cleveland, Ohio • Dallas, Tex. • Detroit, Mich. • East St. Louis, Ill.
Kansas City, Mo. • Niagara Falls, N. Y. • Philadelphia (Ardmore), Pa. • Salt Lake City, Utah
Richmond, Calif. • St. Paul, Minn.

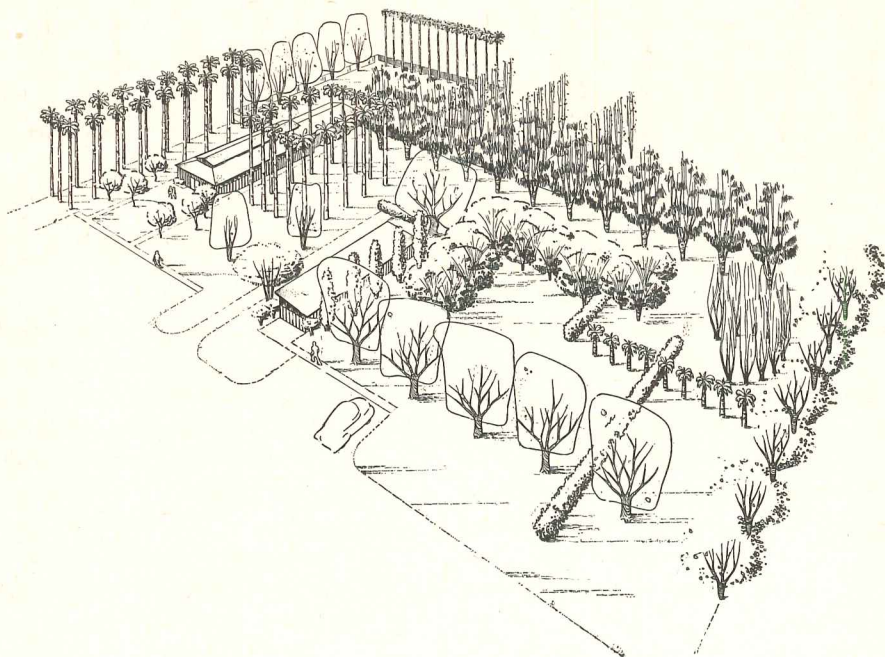
Quality made Certain . . .
CERTAIN-TEED PRODUCTS CORPORATION



. . . Satisfaction Guaranteed
ARDMORE, PENNSYLVANIA, U. S. A.

ASPHALT ROOFING • SHINGLES • SIDINGS • GYPSUM PLASTER • LATH • WALLBOARD • ACOUSTICAL TILE • INSULATION • FIBREBOARD • ROOF DECKS

REQUIRED READING



Study pattern for Texas Community Center. Tree, grass, shrub relations indicated. Eckbo, *Landscape for Living*

GARDEN VARIETY

Landscape for Living. By Garrett Eckbo. *An Architectural Record Book with Duell, Sloan & Pearce* (119 West 40th St., New York 18, N. Y.) 1950. 8 $\frac{3}{8}$ by 10 $\frac{3}{4}$ in. 262 pp. illus. \$10.00.

REVIEWED BY ROBERT W. KENNEDY

Landscape for Living is perhaps the second book to be written on contemporary landscape design. Christopher Tunnard's *Gardens in the Modern Landscape* is the only other one I know of. That in itself is enough to recommend it. In addition it is an excellent book of a certain unique, and to me, very appealing variety. It is the kind of thing that artists write about in their art, and it has all the strength and weaknesses of its type. Like most artists, Mr. Eckbo distrusts words. "The danger of words is that they can distort and distract," he says. One feels he is more at home at the drawing board and on the job than he is writing. Even though his book is almost exclusively concerned with theory, it is the theory of the doer, of the essentially creative person. Again like many artists, he has a cosmic way with words. MAN, EARTH NATURE, BUILDING NATURE, TIME SPACE PRESENTATIONS and the like resound as one from every page of the text. Once one gets the hang of them they become effective image producers, and more important still, seem to put one in personal

communication with Mr. Garrett Eckbo. For myself I was really delighted to make his acquaintance.

The principal theme of the book, as one might expect from such an able designer, is that landscape architecture is an art on a par with the others. Every paragraph, every sentence, almost every word is designed to drive the idea home. The technique of the landscaper is considered solely and consistently from the point of view of the artist. Space, materials, human reactions are all analyzed with one end in view — a work of art. Nothing which might bear on the business of making people happy outdoors is left out, or left unconsidered. One direct product of these virtues is that this is not a "how to do it" book. It contains no hint of three easy ways to design your garden in your spare time. Mr. Eckbo goes at it in the long, hard laborious way of the professional, and loves it.

The secondary theme, reiterated again and again in varying contexts, is the importance of synthesis or integration or cooperation of ideas and things and disciplines. "We (landscapers) work in from the natural periphery toward the refined core, the architects and engineers work out in reverse directions, and we cannot stop where we meet without establishing a boundary that defeats our objectives. We must overlap as a beginning, and become increasingly

collaborative as we proceed." Boundaries, divisions, limits, the myriad human devices for keeping people and things apart are attacked and mourned throughout the text.

Finally, I was constantly delighted by Mr. Eckbo's cliché pricking abilities. To pick one example, like a bit of lemon out of a good rum punch, is to exhibit my own prejudices. Nevertheless when he says things like "... foundation planting, that great technique for moving miscellaneous nursery stock..." I hear that special click inside usually associated with a pregnant slot machine.

CUPBOARDS AND TABLES

Shaker Furniture. By Edward Deming Andrews and Faith Andrews. *Dover Publications, Inc.* (1780 Broadway, New York 19, N. Y.) 1950. 7 $\frac{7}{8}$ by 10 $\frac{3}{4}$ in. 133 pp. illus. \$6.00.

In *Shaker Furniture* the Andrews' have collected a sizeable amount of information and photographs which not only show the furniture, but which also give the underlying principles of Shaker craftsmanship.

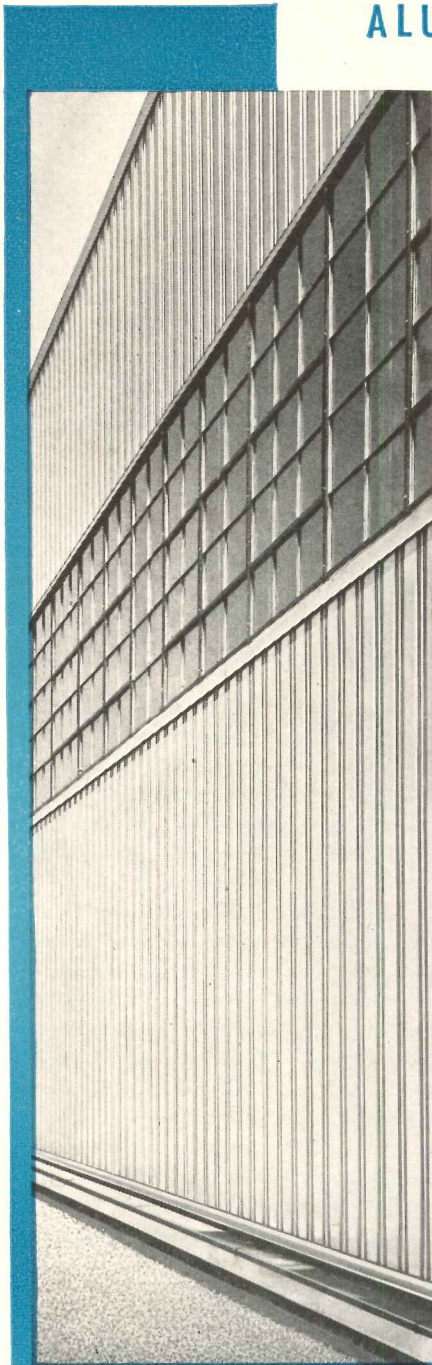
Cultural background is given; its essential character or nature and its craftsmen are described. Documentary material in the form of excerpts from journals, for the most part, further explains

(Continued on page 30)

INSULATED METAL WALLS

for INDUSTRIAL and COMMERCIAL BUILDINGS

ALUMINUM, STAINLESS or GALVANIZED STEEL

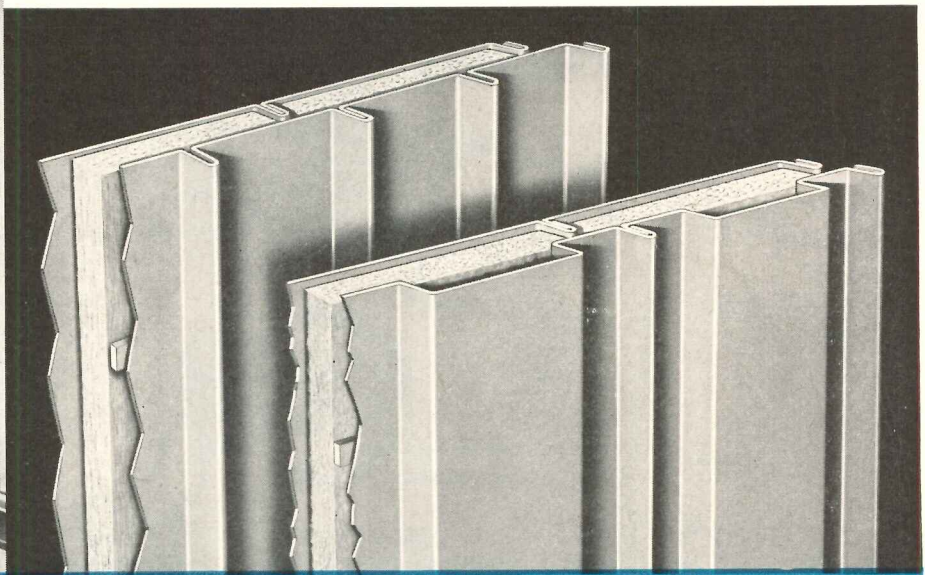


Insulated Metal Walls continue to gain favor with architects and owners throughout the country . . . this enthusiastic acceptance is only natural, because, from any angle, appearance, thermal properties, material cost, or the economies effected through labor-saving rapid construction, they more than justify their selection for any type of industrial or commercial building. Mahon Insulated Metal Walls offer several distinct advantages . . . exterior plates are available in several ribbed or fluted designs in either Aluminum, Stainless Steel, or Galvanized Steel. Individual architectural treatment may be obtained by combining or reversing these exterior plates to form pilasters, coping, and other effects, and, Mahan wall plates can be rolled in any length up to 55 ft. to produce high expanses of wall without horizontal joints — a feature that instantly appeals to architects everywhere. With 2 inches of Fiberglas insulation, thermal properties are excellent—an over-all "U" factor of 0.15. Mahon Insulated Metal Walls in combination with a Mahon Steel Deck Roof provide an ideal type of permanent, firesafe construction which can be quickly and economically erected in any season of the year. See Sweet's Files for complete information or write for Catalogs B-49-A and B.

T H E R . C . M A H O N C O M P A N Y

Detroit 34, Michigan • Chicago 4, Illinois • Representatives in Principal Cities

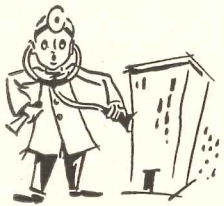
Manufacturers of Insulated Metal Walls; Steel Deck for Roofs, Ceilings, Floors, and Partitions; Rolling Steel Doors, Grilles and Underwriters' Labeled Rolling Steel Doors and Fire Shutters.



The Budd Manufacturing Company's new plant at Gary, Indiana, illustrated above, is typical of modern Insulated Metal Wall buildings. In this plant 31,000 Sq. Ft. of Mahon Insulated Metal Wall, with aluminum exterior plates, and 300,000 Sq. Ft. of Mahon Steel Deck was employed. Giffles and Vallet, Detroit, Mich., Architects. S. N. Nielsen Company, Chicago, Ill., Gen. Contrs.

MAHON

What causes putty to crack and peel?



... perhaps you have wondered why glazing can often cause trouble even when you have carefully specified the proper materials . . . It may check, crack or peel soon after installation. Well, here is our answer taken from our 82 years of experience in the manufacture of putty and compounds . . . experience borne out in extensive tests in the Dicks-Pontius testing laboratory.

ANSWER: If putty checks, cracks or peels there may be one or several causes. Many possible causes ought to be checked.

First, of course, the job requirements should be checked again to be sure the original specification is correct and to be sure that any extreme conditions have been taken into consideration.

Second, the sash should be checked for dirt or excessive moisture conditions. Clips should have been properly installed. Thinners should have been avoided and the putty mixed with *all* the oil that may have separated in the drum. Sash should have been free from jarring and excessive handling until putty had set. Conditions of extreme condensation and moisture during below freezing weather especially should have been avoided.

Third, whether metal or wood, the sash should be painted after proper glazing to prevent excessive drying out and to avoid cracking or peeling. Unprimed wood sash naturally should take special primeless grade putty to prevent trouble. While putty forms a natural film which protects against the elements, it takes paint to seal properly. We recommend painting after putty has set about 14 days. Paint should be brought above the putty line to provide proper seal. If putty is properly mixed and applied it will give years of service.

CHECK THE ABOVE VITAL GLAZING DETAILS WHEN YOU SPECIFY AND ALWAYS PLAY SAFE

DEMAND D-P BRANDS

- NO. 1012 ALUMINUM GRAY GLAZING COMPOUND
- D-P INDUSTRIAL TYPES OF GLAZING COMPOUNDS FOR STEEL OR WOOD SASH
- COMPLETE LINE OF PUTTIES FOR WOOD AND METAL SASH FED SPECS. AND SPECIAL USE
- CAULKING COMPOUND
- WHITE WONDER GENERAL PURPOSE TILE CEMENT



Write today for the new D-P Catalog



COPYRIGHT 1950 BY DICKS-PONTIUS CO.

The DICKS-PONTIUS Co.
Makers of Quality Putty Products Since 1867
DAYTON, OHIO • Alexandria, Va. • Atlanta, Ga.

REQUIRED READING

(Continued from page 28)

the houses and shops as well as livens the study.

Following the text are 48 plates (William F. Winter photographs) and supplementing these, at the end of the book, is a section which gives details of the plates. For example: "The washstand (from the South family, New Lebanon) also serves as a small case of drawers . . ." or, "Pine stools called 'two-steppers,' 'three-steppers' . . . rendered accessible the top drawers of the high Shaker cases or built-in drawers." There are also appendices and a bibliography.

The work is integrated. It shows the many facets of the philosophy of the Shaker sect in order better to present the furniture. An absorbing study, it will be of interest to those designers and architects concerned with restorations, and to those in search of still another aspect of the long story of simple and straightforward design.

PRINCIPLES

Design This Day. The Technique of Order in the Machine Age. By Walter Dorwin Teague. Rev. ed. Harcourt, Brace and Co. (383 Madison Ave., New York, N. Y.) 1950. 7 3/8 by 9 1/2 in. xvii+285 pp. illus. \$6.00.

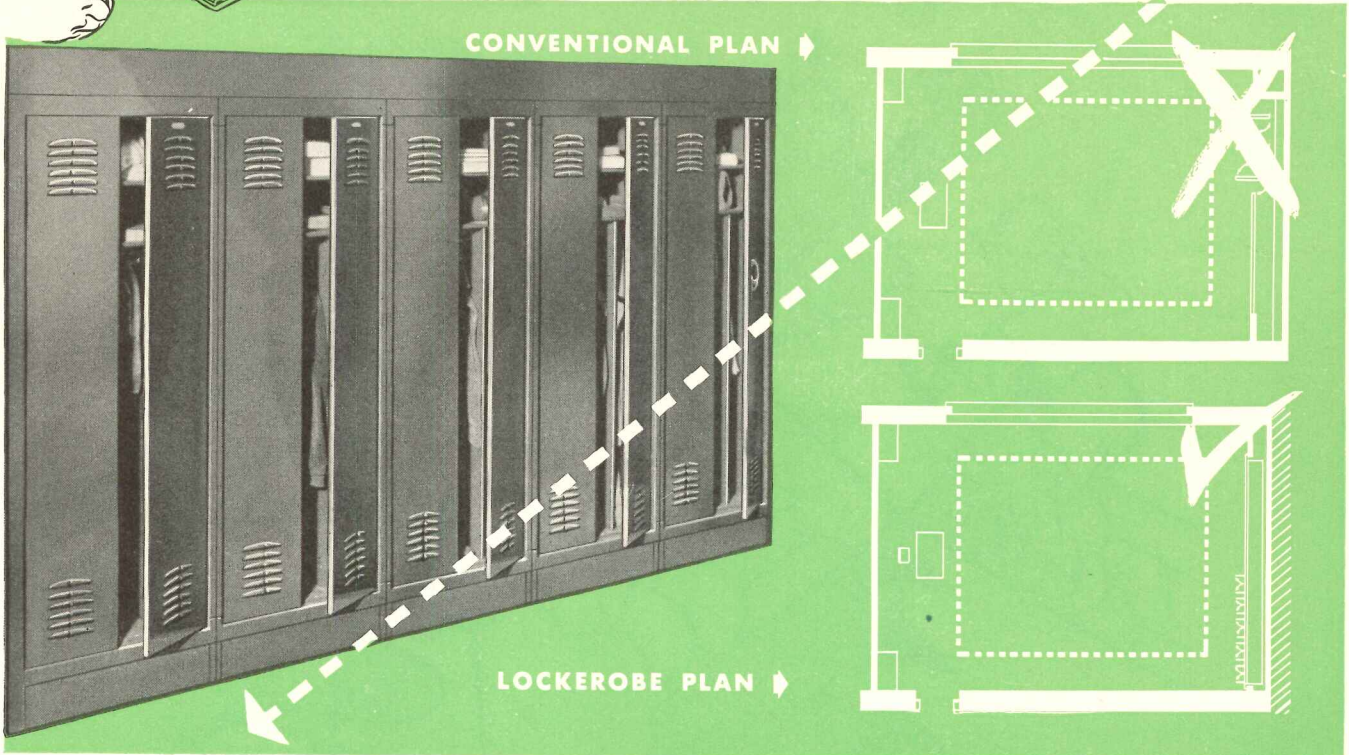
Mr. Teague thoughtfully has suggested in *Design This Day*, not only the nature of the reconstruction process that embraces our entire physical world; he further has shown the principles that must direct those concerned with the current physical world and its design.

A statement of the status quo of design within the reconstruction process leads the reader into specific aspects of design principles found in "Fitness to Techniques," "Unity," "Rhythmic relationships," "Balance and Symmetry," etc. ". . . while leaders shrieked and nations fell, the builders have been at work. The vision of a rebuilt world has grown clearer to more men, and the step-by-step progress toward it does not falter." Here, expressed in a meaningful last chapter ("Program"), is Mr. Teague's essential optimism.

Except for some minor substitutions in its illustrative material plus a few changes in phraseology, the book remains the same as its previous edition. It also remains a small gold mine of information — especially considering the quality and amount of photographs which complement the text.



Cut Building Costs with



MEDART LOCKEROBES

"SIMULTANEOUS OPENING—MASTER DOOR CONTROL"



Medart Steel Lockers available in all standard types and sizes... either recessed or free standing. Write for descriptive literature.

Medart Steel Cabinets provide convenient and economical storage space for valuable supplies and clothing. Write for descriptive literature.



Compare the floor plans above. Here is a graphic illustration of the practicable possibility of reducing the cubic area of school buildings . . . representing savings of hundreds of dollars in construction costs. Compare the recess depth of 16 inch Lockerobes with the space waste (and higher upkeep!) of ordinary elementary school wardrobes or separate cloakrooms.

The Medart Lockerobe is a completely enclosed, self-contained assembly and may be installed in unfinished recesses, thus entirely eliminating today's costly expenses of plaster or tile walls, overhead framing, finished flooring . . . and future maintenance costs!

The Lockerobe, featuring the exclusive "Simultaneous Opening—Master Door Control," was developed by Medart at the request and with the cooperation of leading architects and school authorities to provide a practicable storage facility for elementary school use. The teacher, not the pupils, operates the Medart Lockerobe . . . ensuring safety, quiet . . . and order in the classroom.

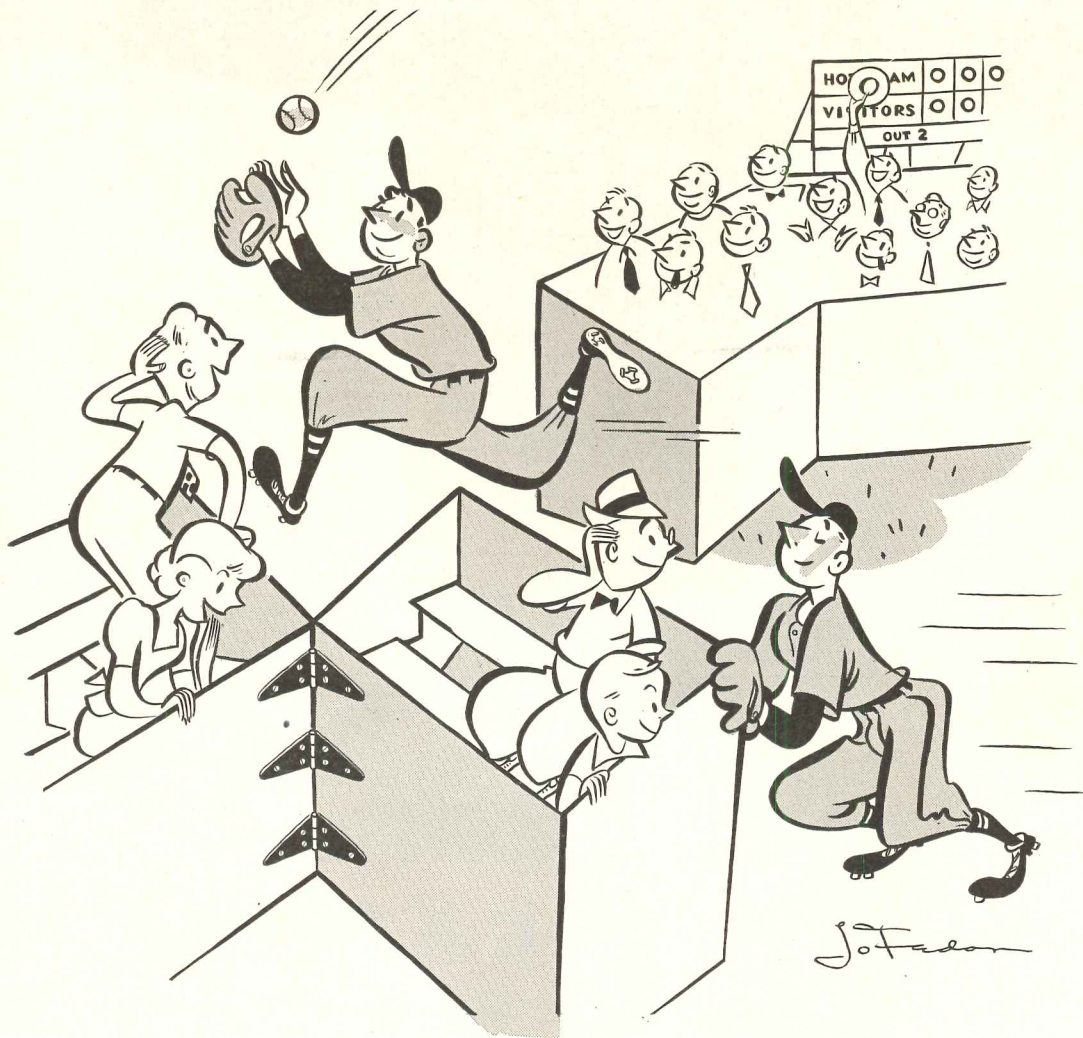
FM80-B

Write for descriptive literature . . . send your plans for suggestions.

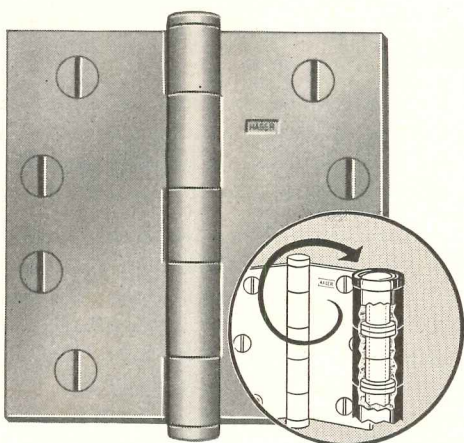
SWEET'S FILE (ARCHITECTURAL) NO. 23g—3a and 23c—8a



FRED MEDART PRODUCTS, INC.
 3540 DE KALB ST. ST. LOUIS 18, MO.
Leadership for over 75 years in School Equipment



EVERYTHING HINGES ON HAGER!



HAGER 1193 FBT
BRASS BUTTON TIP BUTT, STEEL BUSHED
Solid Brass Rust-Resisting Beauty
Hardened Steel-Bushed Knuckle Strength

BRASS BEAUTY and STEEL STRENGTH!

Hager combines the glistening elegance of luxurious solid brass with the timeless strength of steel (at the critical point of knuckle joint wear) to reinforce permanent beauty with long life performance!

Door weight swings on case-hardened, cadmium plated steel bushings, extending the full length of each knuckle. These hardened steel bushings—steel-against-steel—actually support door weight . . . leave brass knuckles free from erosive joint wear and friction. Beveled leaves insure close-fitting joints. Trim, square outer edges are firmly milled sharp and clean. Steel Pin with Brass Tip.

Specify Hager Solid Brass Steel-Bushed Butts for average frequency residence doors calling for finest service and enduring beauty.

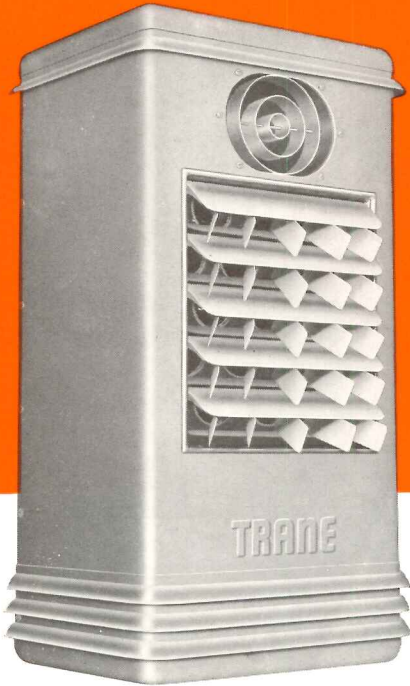
C. Hager & Sons Hinge Mfg. Co. • St. Louis, Mo.
Founded 1849—Every Hager Hinge Swings on 100 Years of Experience



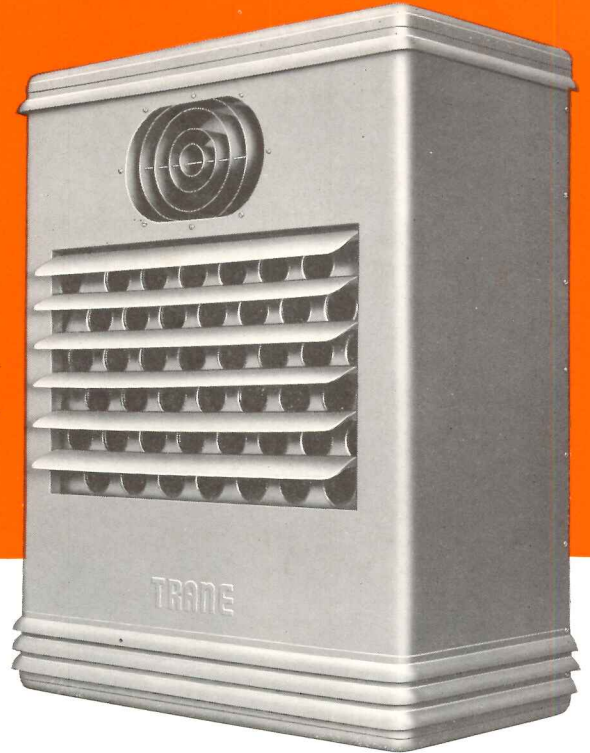
© 1950

TRANE

Presents...



Trane Gas Unit Heater with Louver Fin Diffuser.



Trane Gas Unit Heaters are built of steel heavier than AGA standard.

A new GAS UNIT HEATER BUILT LIKE A BOILER

It's new! It's attractive and functional! It's built like a boiler! That's the Trane Gas Fired Unit Heater.

Heart of the unit is the exclusive Torrid Tube Heat Exchanger. Its steel tubes, generously sized for easy air passage, are rolled into heavy end sheets, boiler tube style — fortified with additional outer and inner rolled flanges. Completely leakproof. Built for continuous, heavy duty service.

Note, in illustration below, the new, improved *one-piece* burner assembly. Cast iron burners, together with mixing tubes, pilot light and valves are mounted so that they can be withdrawn *as a unit* for quick, easy maintenance.

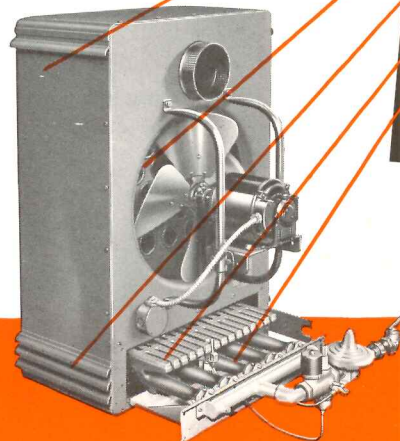
The Trane office in your area is ready to supply you with complete details on the long-life design of this ruggedly attractive Trane high capacity gas unit heater.

NEW COMPLETE CATALOG

Just in from the printers — 12-page bulletin contains details on construction advantages, capacities, and other pertinent data on all seven gas unit heater sizes. Ask the Trane Sales office in your area for your copy now.

THESE GREAT FEATURES

1. Sturdily attractive unit fits everywhere.
2. Husky heat exchanger "built like a boiler".
3. Masked secondary air openings improve appearance.
4. One-piece cast iron burners and mixing tubes — permanently correct.
5. Unitary design of burners, pilot, valves speeds maintenance.



Trane Gas Unit Heaters carry both AGA and UL approval.

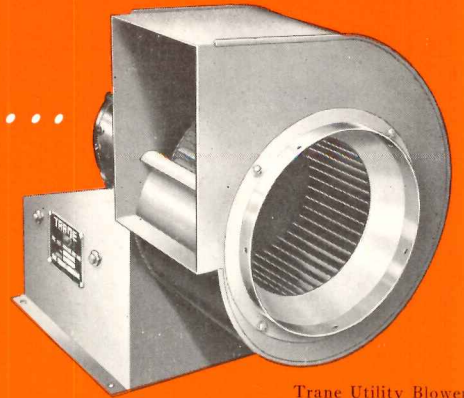
TURN THE PAGE!

New Fans, New Projection Heaters, New Diffusers are announced. ➔



TRANE

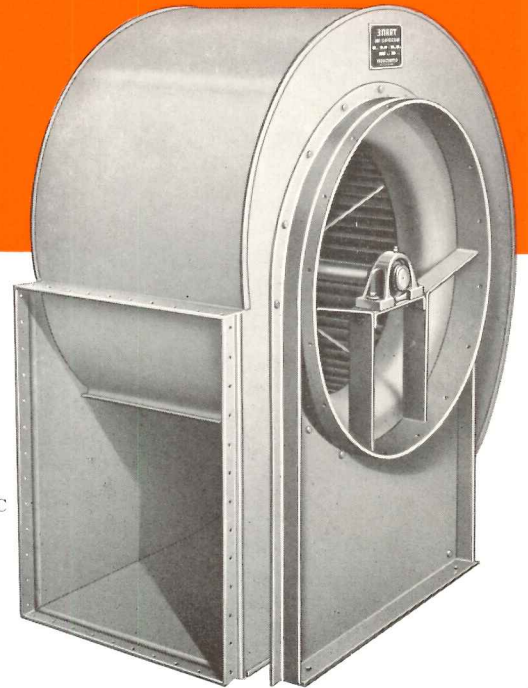
Presents...



Trane Utility Blower.



Trane
Type BI Fan.



Trane
Type FC
Fan.

A new COMPLETE FAN LINE

**NEW WIDE RANGE OF SIZES — NEW CONSTRUCTION
FEATURES — CERTIFIED RATINGS**

MATCH THESE FEATURES

1. Low Horsepower--designed for greatest over-all efficiency.
2. Low Noise Level--quiet operation in all sizes.
3. Maximum Outlet Openings--outlet velocities kept at a minimum.
4. Quality Construction--heavy gage steel, husky bearings and heavier shafts.
5. Durable Finish--every fan protected by rubberbase enamel.
6. Rigid Bracing--angle-iron frame and steel apron provide dual strength.

Now — a new Trane Fan Line. The manufacturing engineers who introduced the convactor — perfected the projection heater — developed new methods of multi-room air conditioning, present an entirely new and more complete line of centrifugal fans. Trane, drawing on its quarter-of-a-century in building fans separately and for hundreds of thousands of heating and cooling units, has created

1. A new Trane Type BI Fan with *Backwardly Inclined Blades*.
2. A new Trane Type FC Fan with *Forward Curved Blades*.

TURN THE PAGE!

This is the second of four great new Trane Products

Class I and II Fans

The new Trane Fans are available in Class I and II construction. They can now be used in every heating and air conditioning installation as well as most industrial applications.

Certified Ratings

Trane Fans have Certified Ratings. *Each Trane Fan is rated in accordance with the Standard Test Code for Centrifugal Fans* approved jointly by NAFM and the ASH&VE, and close manufacturing tolerances are rigidly maintained.

Complete Line

The line is complete: Type BI Fans are available in 23 sizes. Type FC in 21 sizes. Wheel diameters range from 12" to 108". All arrangements. All direction of rotations.

Complete Accessories

To make the Trane Fan Line even more comprehensive, a complete array of special features and accessories have been made available. Included are such items as discharge dampers, inlet vanes, inlet screens, high temperature modifications, sparkproof fans, fans of special metals or with corrosion resistant coatings, gas tight housings with shaft seal and many more.

NEW LITERATURE THAT TELLS EFFICIENCY AT A GLANCE

Trane Fan Line literature is ready. Featured for the first time is an entirely new idea in fan data. Rating tables tell fan efficiency at a glance. Each rating table is divided into easy to see efficiency zones. Now you can know without calculation, how efficient the fan you select really is, and there is a constant reminder to select fans in the best zone of operation.

Type BI Fan Catalog > DS-348B

First of three new Trane Catalogs — 88 pages — complete in every detail — write for a free copy now.

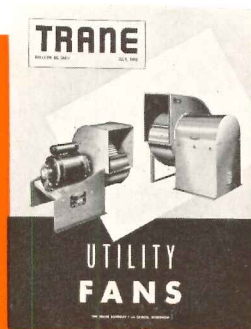


Type FC Fan Catalog DS-348F

80 Pages of ready-to-use information on the FC Fan.

Utility Blower Catalog > DS-348U

Separate data on utility blowers contained in this compact booklet.



Multi-Feature Fans

Feature upon feature has been crammed into the new Trane Fan Line. Trane Fans are finished in chlorinated rubber base enamel for corrosion resistance — an exclusive feature. Other features include low horsepower, low noise level, and minimum outlet velocity. Literature is the most complete in the industry. Contact your nearest Trane Sales Office for complete information on the new Trane Fan Line and learn why Trane Fans are superior to any other fan line.

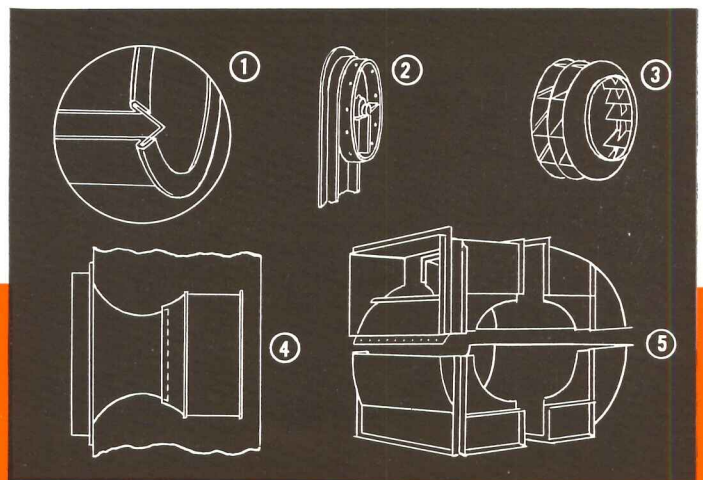


New Duct Calculator

To make fan application even easier Trane engineers have perfected an entirely new duct calculator. Direct readings, from *one* setting. This new calculator is available through The Trane Educational Division at a non-profit price of \$1.00 each.

CONSTRUCTION FEATURES

- 1 Lock seam construction on all smaller units prevents air leakage. Larger sizes have all-welded construction for air tightness and greater strength.
- 2 Uninterrupted inlet collar on all fan sizes simplifies duct connection.
- 3 Stiffening rings provide extra rigidity to the wheel where size of fan and kind of duty require it.
- 4 Streamlined inlets scientifically designed to increase fan efficiency and produce exceptionally quiet operation.
- 5 Split housings make it possible to disassemble larger fan housings in horizontal and vertical sections.



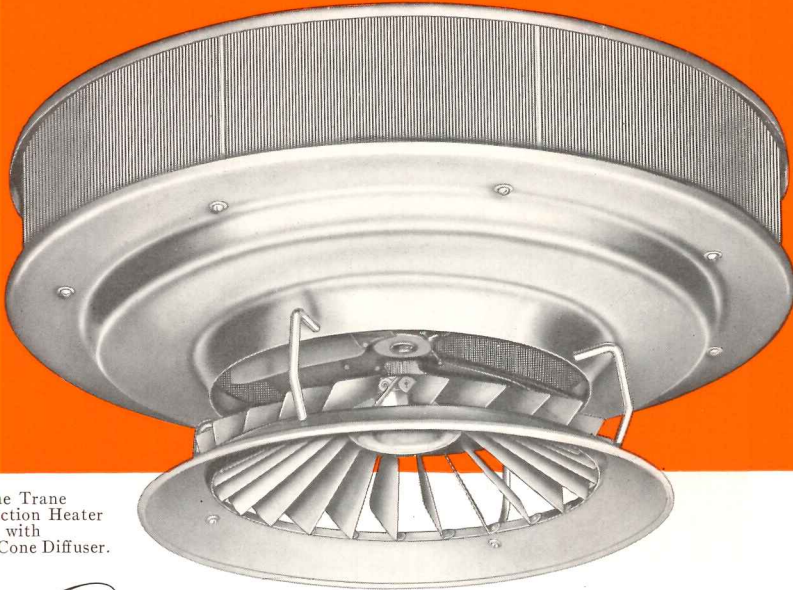
THE TRANE COMPANY

LA CROSSE, WISCONSIN

MANUFACTURING ENGINEERS OF HEATING AND AIR CONDITIONING EQUIPMENT • OFFICES IN 80 CITIES

TRANE

Presents...



The Trane Projection Heater with Louver Cone Diffuser.

Above: Projection Heater with-out diffuser.
Below: Louver Cone Diffuser.

A new ATTRACTIVE PROJECTION HEATER **PLUS** A NEW DIFFUSER THAT IS COMPLETELY ADJUSTABLE

Now the Projection Unit Heater — the unit originally introduced by Trane — has been succeeded by a completely new model. The new 1950 Projection Heater has even more features than its history-making predecessor.

Big feature is a new attractiveness that makes the unit ideal for commercial as well as industrial application. The bottom plate has been given new, graceful yet strength-producing lines. The top has been streamlined for neater appearance, greater strength and simpler suspension.

Among its many other new features are — 1. Coil expanded hydraulically at pressures exceeding 3000 pounds guarantees against coil leakage. 2. New coil for more heat per pound of metal. 3. Motor removable from the bottom in larger sizes for easier maintenance.

New Adjustable Diffuser

To make the Projection Heater even more versatile and to solve on-the-job diffusion problems easily, Trane engineers have developed a remarkable new diffuser — the Louver Cone. It's attractive and positive in its action. But more important — it's completely adjustable. Now, a projection heater can be installed and then adjusted to meet exactly every requirement. Once installed the heater can be adjusted easily to meet any changes in the building arrangement.

When blades of cone are wide open, increased velocity increases

distance of vertical discharge as much as 60%. With cone blades closed, warmed air is spread over an extremely wide area. Any point between these extremes easily results from simple adjustment of the blades.

Close the blades completely and the diffuser forms a cone for low ceiling mounting.



Only a touch of the fingers is required to adjust the individual blades.

By varying the pitch of the louvers the air can be directed to any angle — some of it straight down, the balance in a wide half-circle.



THE TRANE COMPANY . . . LA CROSSE, WIS.
EASTERN MANUFACTURING DIVISION, SCRANTON, PA.
Manufacturing Engineers of Heating, Ventilating and Air Conditioning Equipment—Unit Heaters, Convectors—radiators, Heating and Cooling Coils, Fans, Compressors, Air Conditioners, Unit Ventilators, Special Heat Exchange Equipment, Steam and Hot Water Heating Specialties.
IN CANADA, TRANE COMPANY OF CANADA, LTD., TORONTO

FOUR NEW PRODUCTS

ABOVE ARE ANNOUNCEMENTS OF TWO OF FOUR GREAT NEW TRANE PRODUCTS. INFORMATION ABOUT NEW TRANE FANS AND NEW TRANE GAS UNIT HEATERS APPEARS ON PRECEDING PAGES.

MANUFACTURING ENGINEERS OF HEATING AND AIR CONDITIONING EQUIPMENT • OFFICES IN 80 CITIES

1949-181-750 PRINTED IN U.S.A. BY J & J

QUALITY CONTROLLED

MA-TI-CO
ASPHALT TILE
FLOORING

REPLACEMENT OR REFUND OF MONEY
Guaranteed by
Good Housekeeping
IF NOT AS ADVERTISED THEREIN

SANITARY!

NAPA STATE HOSPITAL, NAPA, CALIF.

Architect—State Division of
Architecture of Calif.; Anson Boyd, State Architect.
General Contractor—Moore & Roberts.
Flooring Contractor—L. D. Reeder Company.

SAFE!

ECONOMICAL!

DURABLE!

COLORFUL!

These outstanding MA-TI-CO advantages ideally meet RIGID HOSPITAL REQUIREMENTS

In addition to these advantages, MA-TI-CO is resilient underfoot, easy to clean, and has odor-free characteristics—qualities that make MA-TI-CO ideal for every type of installation.

And MA-TI-CO is especially desirable because of its 27 richer, clearer colors in solid tones and marbled patterns—including five new pastel "Petal Tones"—that keep pace with the nation's most colorful architectural period. Today, even in hospitals, cheerful colors are replacing dreary monotonies.

Selected for such impressive developments as Napa Hospital shown above, New York's Fort Hamilton Veterans Hospital and the Michael Reese Hospital in Chicago, MA-TI-CO also points to a list of prominent installations that includes industrial plants, apartments, commercial stores and individual homes. Levitt & Sons, America's largest builder of private homes, specifies MA-TI-CO for flooring every room of 4,000 new homes—convincing proof of MA-TI-CO's quality and versatility.

Specify MA-TI-CO when next you order asphalt tile—it has national recognition and assures satisfaction wherever it's used.

Dept. 88

MASTIC TILE CORPORATION OF AMERICA

Factories: Newburgh, N. Y. • Long Beach, Calif.

Member Asphalt Tile Institute

GET TO KNOW MA-TI-CO
See our insert in Sweets File
Architectural, section 13. For
free samples write us on your
business letterhead.

PRECISION TESTED

to conform to Federal
specifications for

Flexure
Indentation
Curling
Impact



WHY TROFFERS? WHY DAY-BRITE?

There's this to say about troffer lighting: *good taste and good light!* The smart, modern appearance of recessed troffers . . . the smooth, unbroken surface of the ceiling . . . the endless variety of lighting patterns . . . all contribute an atmosphere of elegance and discrimination.

And when interiors deserve top-quality troffer lighting, there's no equal for Day-Brite troffers . . . in appearance, in quality, in true economy. Day-Brite quality is especially important, for troffer installations are permanent . . . *you must be sure of long-term, trouble-free performance before you buy!*

Six basic groups to choose from . . . each available in 96" Slimline and 48" Standard Fluorescent . . . each available in snap-in and flange types . . . each adaptable for countless geometric patterns or for unit or continuous installations. Fine lighting equipment? Yes . . . and fine lighting *value*: value that *only* famous Day-Brite quality can produce.



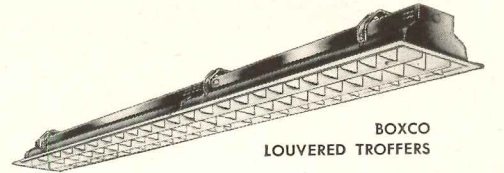
DISTRIBUTED NATIONALLY BY LEADING ELECTRICAL WHOLESALERS

Day-Brite Lighting, Inc., 5465 Bulwer Ave., St. Louis 7, Mo.

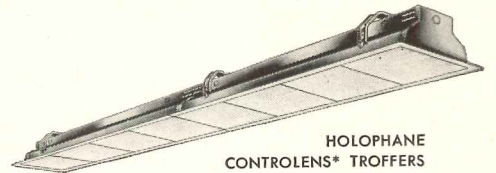
In Canada: Amalgamated Electric Corp., Ltd., Toronto 6, Ontario

034

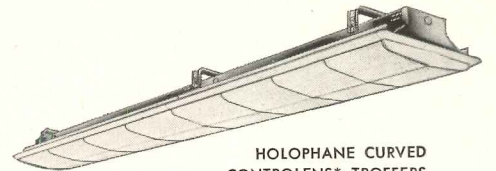
A COMPLETE TROFFER LINE



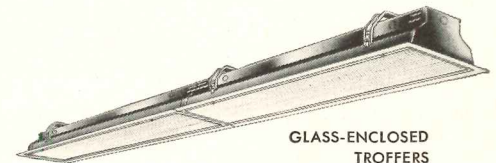
BOXCO
LOUVERED TROFFERS



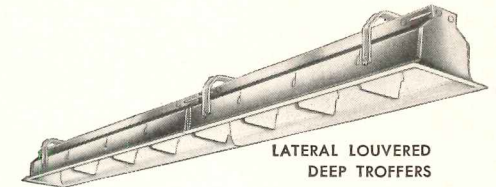
HOLOPHANE
CONTROLENS* TROFFERS



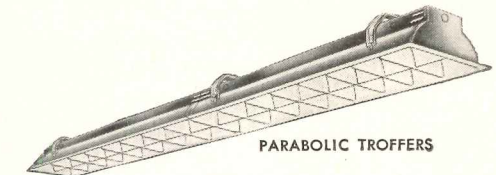
HOLOPHANE CURVED
CONTROLENS* TROFFERS



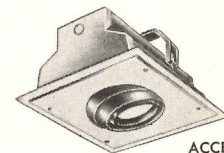
GLASS-ENCLOSED
TROFFERS



LATERAL LOUVERED
DEEP TROFFERS



PARABOLIC TROFFERS



ACCENT UNITS—
FIXED AND ADJUSTABLE

*© HOLOPHANE CO.

ONLY QUALITY IS ECONOMICAL

"DECIDEDLY BETTER"
DAY-BRITE
Lighting Fixtures

SCHLAGE®

Entrance Door Distinction

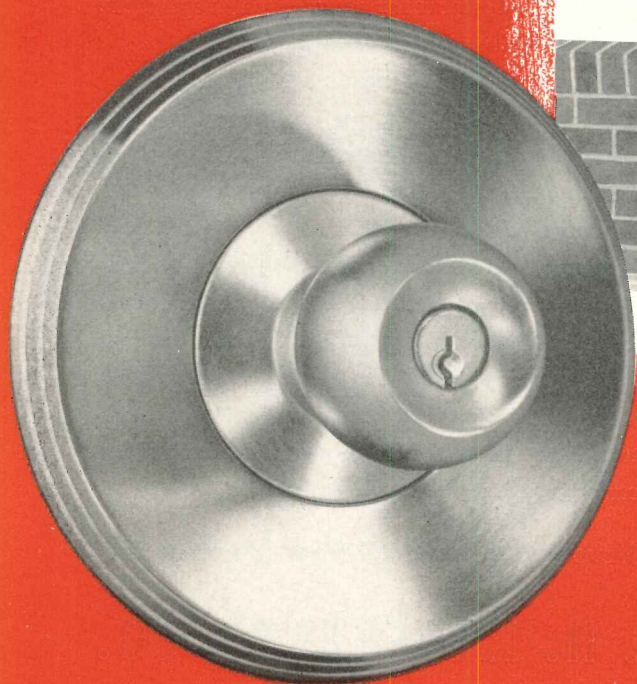
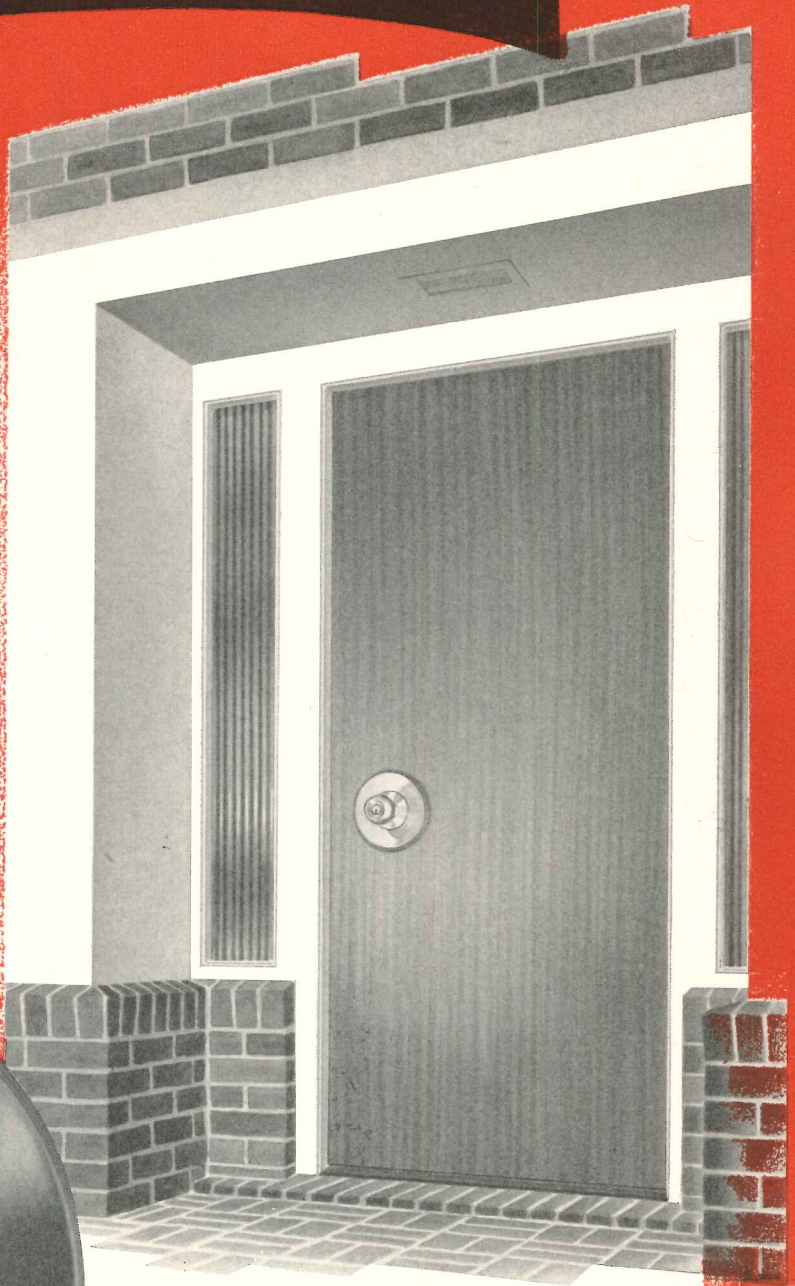
created by

Schlage "long backset"

Use of impressive, large escutcheons is made possible by the Schlage "long backset." Here is a new and notable design factor for dramatic treatment of flush panel doors. Schlage "long backset" locks are easy to install — have the dependable Schlage mechanism — proved by more than a quarter century in use. Do you have the new Schlage brochure illustrating "long backset" locks and designs? You may have your copy by sending for Booklet No. AR-630.

For Flush Panel Doors

The distinctive Schlage Saturn design lock — set off by the 5" Backset — and supplemented by the beautiful Riviera escutcheon.



SCHLAGE®

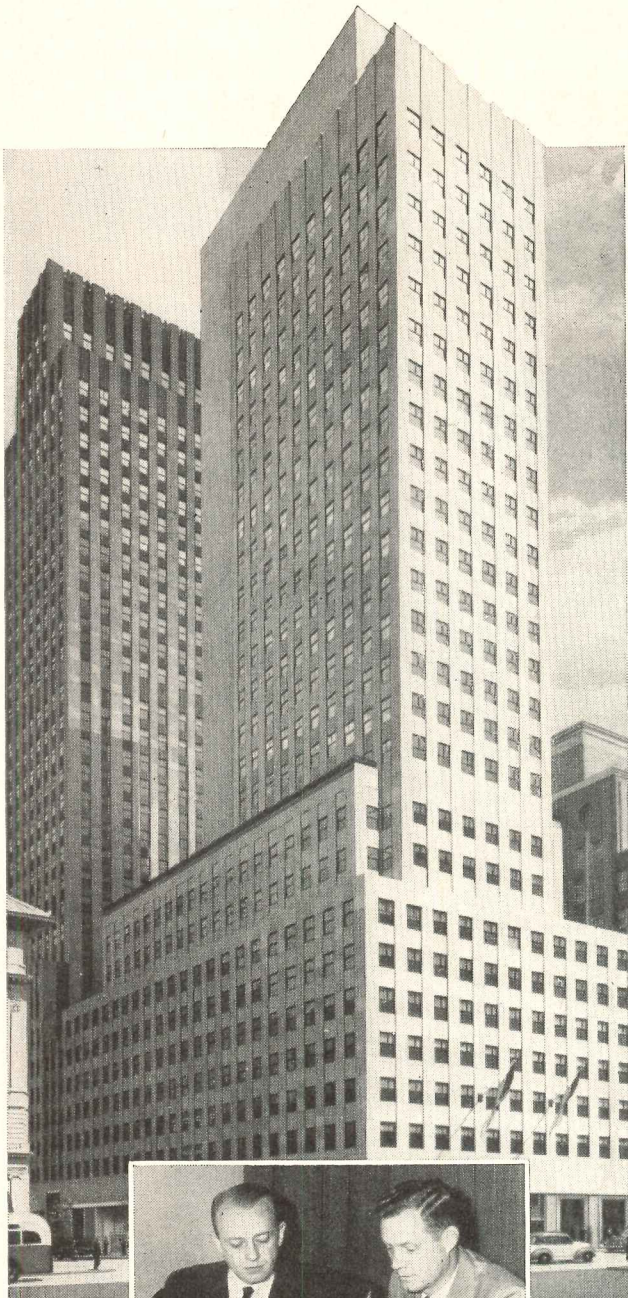
SCHLAGE LOCK COMPANY

BAYSHORE BLVD.,
SAN FRANCISCO

EMPIRE STATE BLDG.,
NEW YORK

SCHLAGE . . . FIRST NAME IN CYLINDRICAL LOCKS

CARSON AND LUNDIN, Architects, design premium space in NEW YORK with . . .



600 FIFTH AVENUE RADIO CITY
MASSACHUSETTS MUTUAL LIFE INSURANCE,
NEW YORK, N. Y., OWNER

CARSON AND LUNDIN, ARCHITECTS

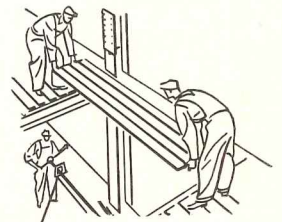
TURNER CONSTRUCTION COMPANY
BUILDER

ROBERTSON Q-FLOORS

AT NO EXTRA COST

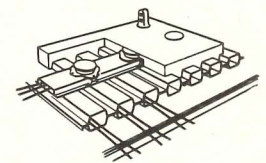
Of all the modern building features you can incorporate to entice tenants, only Q-Floors do not increase the over-all cost of your building.

Taking all factors into account, Q-Floors save materials, save erection time, save subcontractors storage expense, reduce fire and accident risk during construction.



The electrical feature of Q-Floors permits you to locate electrical outlets and partitions with complete freedom. Outlets can even be located after tenant moves in at negligible cost. This has strong rental appeal.

The total saving in time permits owners to occupy the building 15 to 20% sooner. This reduces financing costs and brings earlier revenue.



Q-Floors protect the earning ability of a building because they spare tenants the high initial cost of electrical alterations and the cost of changes over the years. The owner is assured that his building will remain electrically adequate, no matter how great the increase in demand for electricity during the next decades.

Have you the latest Q-Floor Literature ?

H. H. ROBERTSON CO.

2404 Farmers Bank Building
Pittsburgh 22, Pennsylvania



Offices in 50 Principal Cities
World-Wide Building Services

Announcing — BullDog Unit-Versal Vacu-Break Switchboards

Completely interchangeable, flexible Service and Distribution sections to meet every immediate and future need.

New Unit-Versal Vacu-Break Switchboards provide unequalled *flexibility* and *interchangeability* plus the exclusive Vacu-Break principle

of arc control for longer switch life. Write today for Bulletin 496. It contains complete information on these remarkable, new switchboards.

BULLDOG ELECTRIC PRODUCTS COMPANY
DETROIT 32, MICHIGAN • FIELD OFFICES IN ALL PRINCIPAL CITIES
IN CANADA: BULLDOG ELECTRIC PRODUCTS OF CANADA, LTD., TORONTO

Simple to wire. Only a screw-driver and crescent wrench are needed to assemble, install, extend or convert these modern switchboards. Removable front plates provide quick access to large wiring gutters at top, bottom and both sides.

Large mounting space. More than 5½ feet of vertical mounting for branch circuits. Blank filler plates cover unused space and allow for future unit additions. All sections and units can be interchanged quickly and easily.

Complete Distribution Sections. Distribution Sections accommodate the full range of interchangeable ET Circuit Breakers and fusible Vacu-Break switch units—15-ampere to 600-ampere capacities.

Complete Service Sections. Service Sections include space only for meter and current transformer. They also include riser bus and Main ET Circuit Breaker or Fusible Vacu-Break Switch in capacities of 225, 400, or 600 amperes or Main Air Circuit Breaker of 800-, 1200-, or 1600-ampere capacities.

Extremely flexible. New Unit-Versal Service and Distribution sections may be used individually or combined into multiple-section switchboards. Sections may be added or removed as needed.

Vacu-Break Switch Units or ET Circuit Breakers (as indicated) may be used as Mains in Service Sections. Vacu-Break Switch Units are Horsepower-rated and approved by Underwriters' Laboratories.



BULLDOG

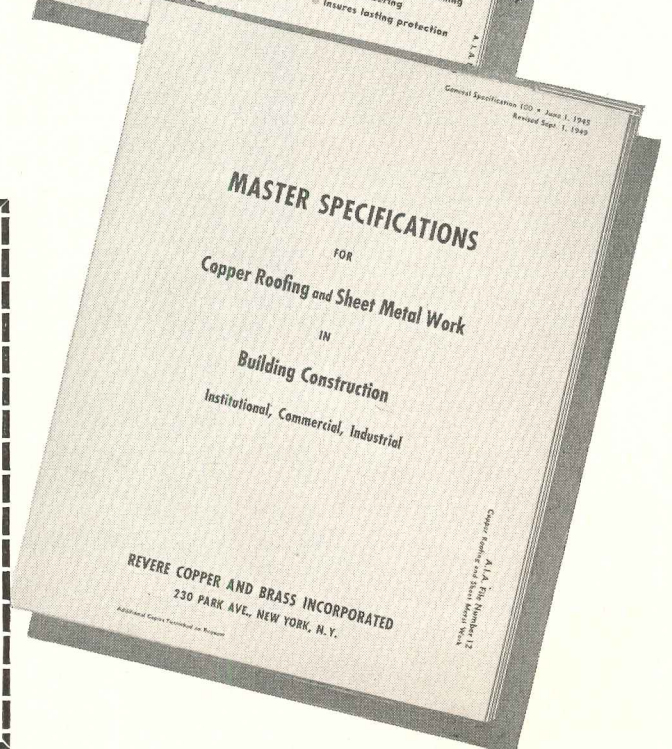
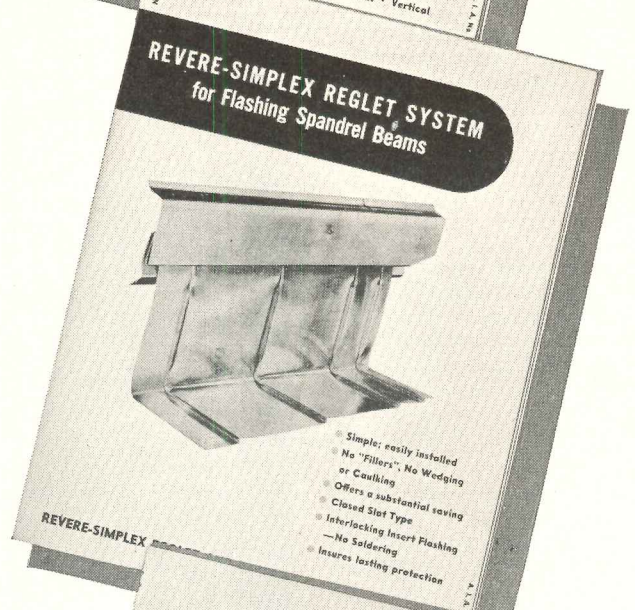
PIONEERS IN FLEXIBLE ELECTRICAL DISTRIBUTION SYSTEMS

FACTS ABOUT REVERE'S FLASHING SERVICE

In addition to sheet, strip and roll copper for flashing, roofing and other sheet metal work, Revere now offers you Revere-Keystone Thru-Wall Flashing, Revere Simplex Reglet and Reglet Insert Flashing, and Revere-Keystone Vertical Ribbed Siding. These products make available to you a complete system of solid copper flashing for all types of masonry construction.

If literature describing these products is not already in your files, please let us know and we shall send copies to you . . . as well as a copy of Revere's "Master Specifications for Sheet Copper Construction."

These Revere products are available for prompt delivery from leading sheet metal distributors throughout the United States. A Revere Technical Advisor will always be glad to consult with you, without obligation.



REVERE COPPER AND BRASS INCORPORATED

230 Park Avenue, New York 17, N. Y.

Please send me a copy of each piece of literature which I have checked below:

- Revere-Keystone Interlocking Thru-Wall Flashing
- Revere-Simplex Reglet System for Flashing Spandrel Beams
- Master Specifications for Copper Roofing and Sheet Metal Work

Name

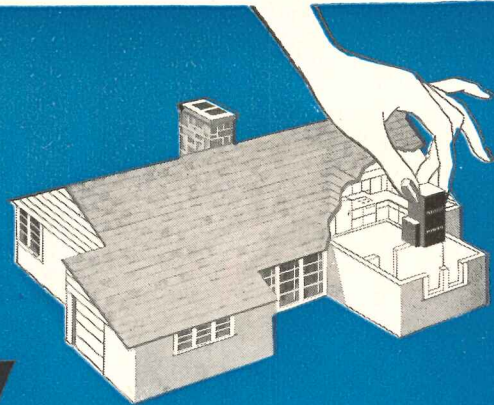
Firm

Address

**TO THE HOUSE WITH
A HEATING PROBLEM...**

RICHMOND

**INTRODUCES A COMPACT NEW
GAS-FIRED WINTER AIR CONDITIONER**



Here's an introduction that's sure to meet with the approval of clients concerned with heating modern ranch style homes—or garden apartments where heat control and distribution are problems!

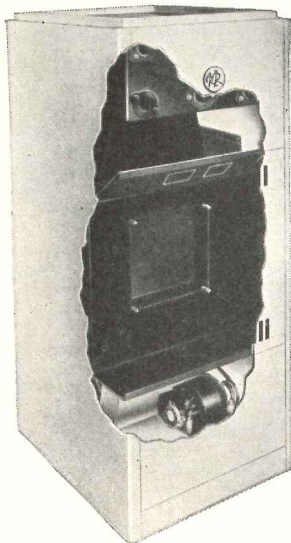
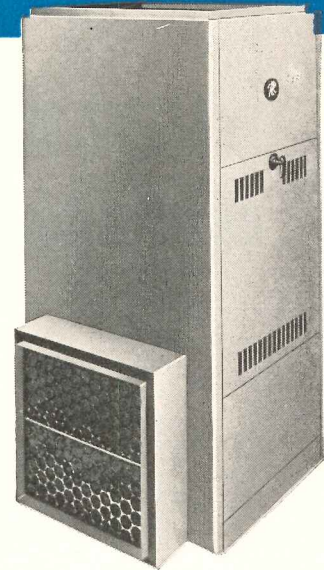
Here's a brand new, cabinet-enclosed Richmond unit that takes up just 22½ x 28 inches of floor space to fit easily into a closet or utility area—to lend itself ideally to any first floor or basement installation.

Here's a thermostatically-controlled unit that delivers uniform

heat to every room—and does it efficiently and economically.

The new Richmond Furnace is available in two popular sizes—85,000 and 110,000 BTU input per hour—and is fully approved by AGA for all types of manufactured, natural and LP gases.

When you introduce your customers to this new space-saving, money-saving Richmond unit they'll like its ultra-modern features—in the Richmond tradition of fine engineering, design and workmanship.



**EXAMINE THESE
FINE FEATURES**

of the Model SU Steel Gas-Fired Winter Air Conditioner

- 1 Sturdy round-cornered light green steel hammertone jacket.
- 2 1725 R.P.M., 115 volt, 60 cycle motor with V-belt drive, variable pitch motor pulley that quickly changes air volume for continuous air circulation.
- 3 Slow speed blower of efficient squirrel cage type. Resiliently mounted for quiet operation.
- 4 Heavy gauge welded steel heat exchanger is extra-durable, extra-efficient.
- 5 Gas-tight, all-welded radiator assures a large heating surface, long flue travel.
- 6 Choice of two fine Gas Burner Assemblies—one for natural and mixed gases; one for manufactured, natural and mixed gases.



RICHMOND

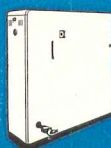
RICHMOND RADIATOR CO.—AFFILIATE OF REYNOLDS METALS CO.



See your wholesaler or Mail Coupon Today:



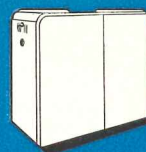
Vitreous China



Gas Boilers



Enameled Cast Iron Ware



Winter Air Conditioners
Gas—Cast iron or steel
Oil—Steel

Richmond Radiator Company
19 East 47th Street
New York 17, N. Y.

AR-8

Please send me additional information and literature on the new Richmond Model SU gas-fired, warm-air heating units. No obligation, of course.

NAME.....
COMPANY.....
ADDRESS.....

GUTH LITE-

New Recessed Troffers

"BLOCKS OF LIGHT"
that adapt themselves to *Your* needs



Guth

LIGHTING

GUTH LITE-BLOX fit the job instead of making the job fit the fixture. Call your nearest GUTH resident engineer today, or write for Bulletin 869-J

THE EDWIN F. GUTH COMPANY • ST. LOUIS 3, MISSOURI

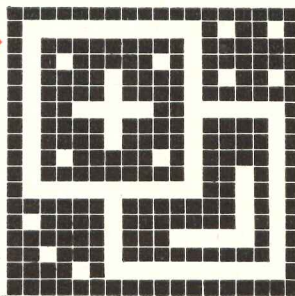
Leaders in Lighting

BLOX



on the boards: ▶

LITE-BLOX give the designer modular coordination...infinite freedom to use any pattern based on 12" grid. New tailored trim (in a choice of smart plated finishes) gives "Hand-Crafted" appearance.



TYPE OF LAMP	NO. LAMPS			
	1	2	3	4
2'—20W	★	★	★	★
4'—40W	★	★	★	★
5'—85W	★	★		
5' T-17/LB*	★	★		
4'/425 ma.	★	★	★	★
6'/425 ma.	★	★	★	★
8'/425 ma.	★	★	★	★

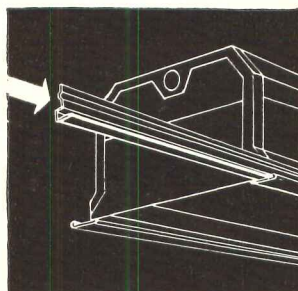
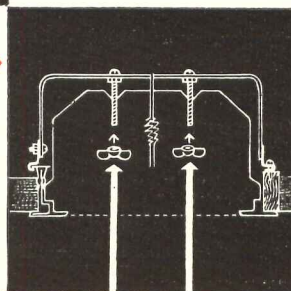
*Low Brightness Lamps

◀ in the lightmeter:

LITE-BLOX give the engineer practically any footcandle level or quality of light. 24 sizes of standard and slimline lamps... a wide range of diffusing and shielding media.

on the job: ▶

LITE-BLOX give the contractor unequalled installation speed and economy. "One-man" hanging with QM Brackets. Complete units ready to mount... no joiners. Exact footlengths...no trimming.

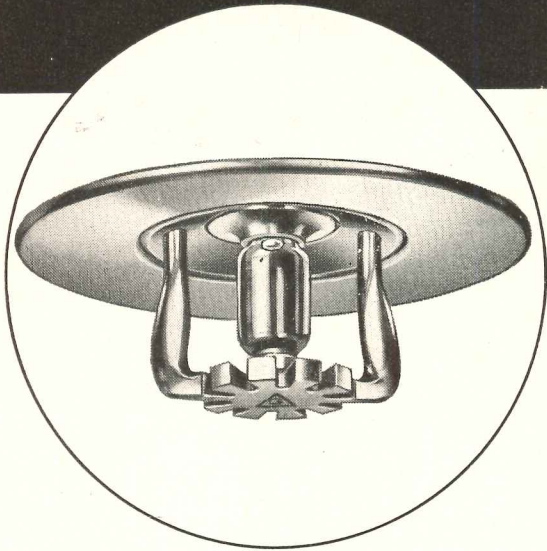


◀ in the stockroom:

LITE-BLOX give the wholesaler a basic "packaged" unit that is quickly convertible from flange to teebar or vice versa. Simplified ordering...one number for a complete row.

since 1902

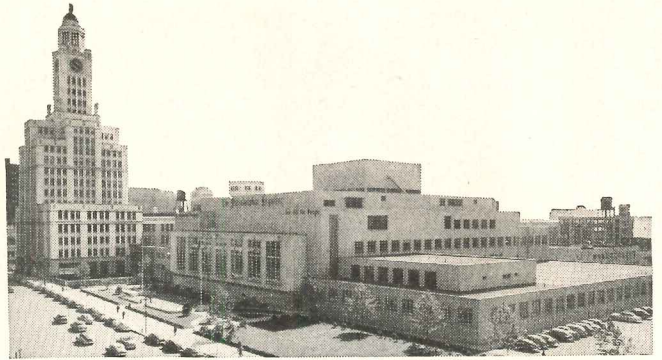
GRINNELL QUARTZOID CEILING SPRINKLERS



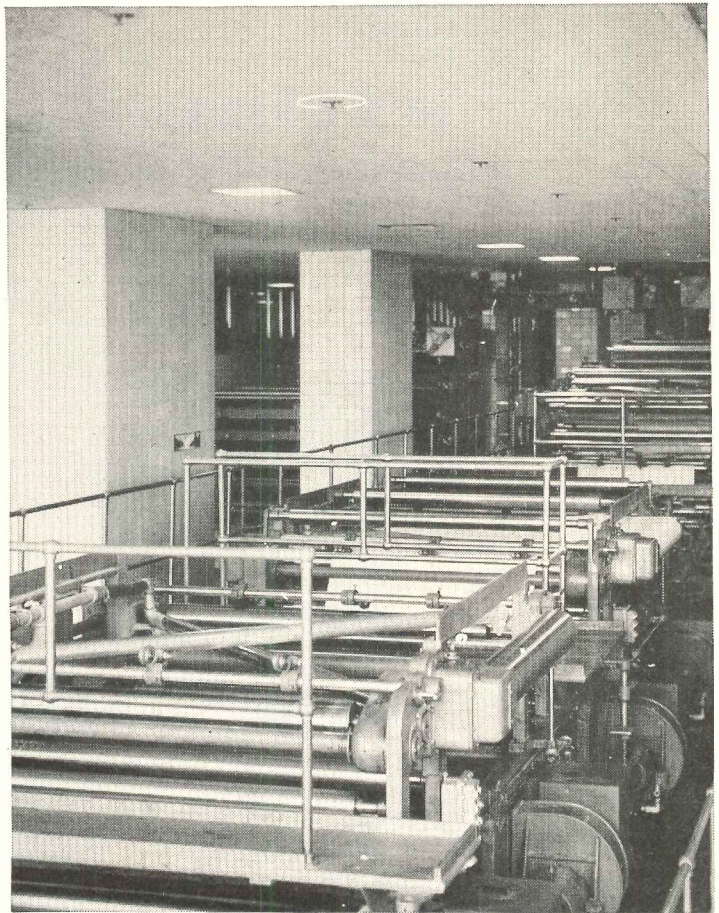
Over 8000 Grinnell Sprinkler Heads, many of them the new unobtrusive Ceiling Sprinklers, positively protect the Inquirer's new plant against industry's greatest hazard—fire. Should fire strike, it will be stopped immediately, automatically, whenever and wherever it occurs.

Do you include this positive fire protection in the buildings you plan? Remember that a Grinnell automatic sprinkler system frequently pays for itself in reduced insurance premiums in a few years. Remember too, that a Grinnell automatic sprinkler system can be a blended part of the building's design. So, while your projects are still in the planning stage, call the nearest Grinnell office and take advantage of the fire protection engineering experience that awaits you there.

Grinnell Company, Inc., Providence, R. I.
Branch offices in principal cities.



*protect the new Philadelphia
Inquirer roto plant against fire
...automatically...inconspicuously*



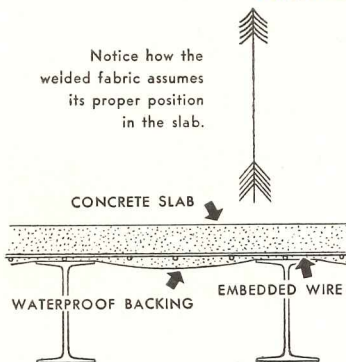
GRINNELL

F I R E P R O T E C T I O N S Y S T E M S

You speed construction
and cut costs
with
Pittsburgh
Steeltex
Floor Lath



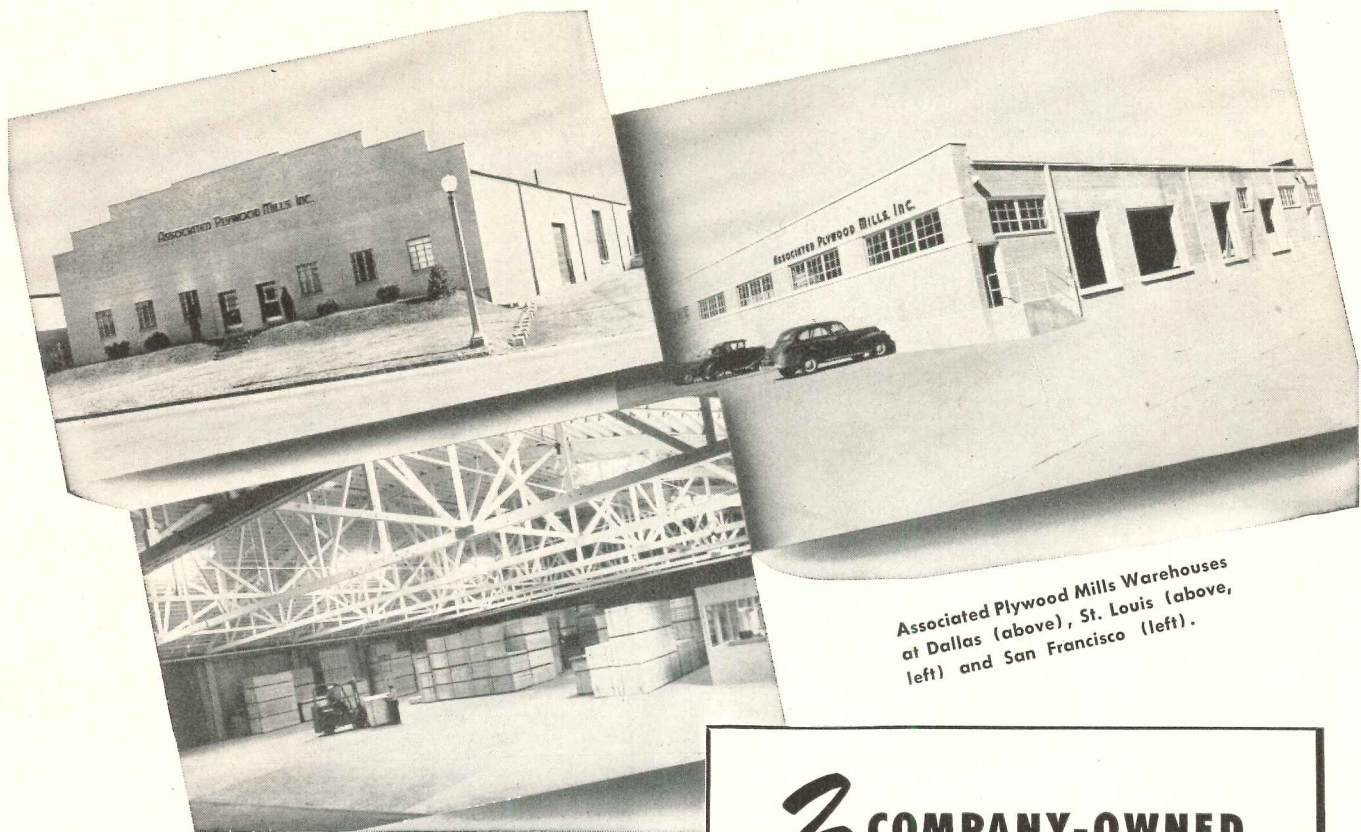
Notice how the
welded fabric assumes
its proper position
in the slab.



Pittsburgh Steeltex Floor Lath speeds construction and cuts costs because it permits you to pour your floors while continuing complete operations on the floor below. You get a stronger slab because it is properly reinforced with welded wire mesh—properly cured because the moisture is retained by waterproof backing. For further detailed reasons for specifying *Steeltex*, see Sweet's or write for catalog D. S. 133, Dept. AR, Pittsburgh Steel Products Co., Grant Building, Pittsburgh 30, Penna.

Pittsburgh Steel Products Company

A Subsidiary of Pittsburgh Steel Company
Pittsburgh 30, Pa.



Associated Plywood Mills Warehouses at Dallas (above), St. Louis (above, left) and San Francisco (left).



While you may live and work hundreds or thousands of miles from Associated Plywood mills in Oregon, the chances are very good that APMI exterior-type and interior-type panels are quickly available in your own area.

For, in addition to company-owned warehouses in St. Louis, Dallas and San Francisco, there are other sales warehouses in major building and distribution centers.

These regional depots stock plywood that is grademarked *and* trademarked; assurance that regardless of where you buy APMI plywood, you get the guaranteed products of a pioneer manufacturer in the industry.

Equally important—you get the services of experienced plywood men. They welcome your inquiries for general information, for prices, for delivery schedules.

Panels up to 60 inches in width and up to 144 inches in length

3 COMPANY-OWNED WAREHOUSES bring you the products of Oregon's finest Plywood mills

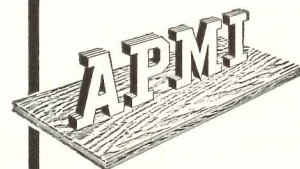
APMI SALES WAREHOUSES

Eugene and Willamina, Oregon
 San Francisco, 925 Toland St., 24
 Dallas, 4814 Bengal St., 9
 St. Louis, 4268 Utah St., 16

OTHER SALES WAREHOUSES

BESSONETTE & ECKSTROM
 LOS ANGELES 11, CALIFORNIA

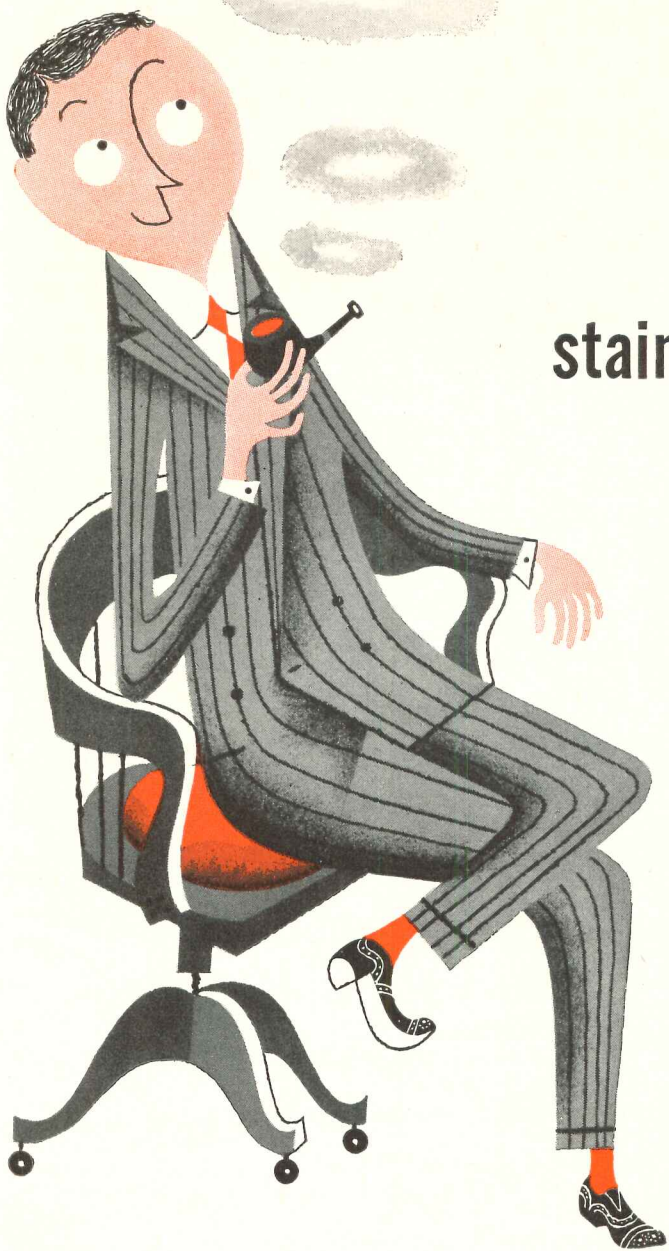
PACIFIC MUTUAL DOOR CO.
 TACOMA 2, WASHINGTON
 BALTIMORE 31, MARYLAND
 GARWOOD, NEW JERSEY
 KANSAS CITY 3, KANSAS
 ST. PAUL 4, MINNESOTA



ASSOCIATED PLYWOOD MILLS, INC.

GENERAL OFFICES: EUGENE, OREGON

Plywood plants at Eugene and Willamina, Oregon ☆ Lumber mill at Roseburg, Oregon



stainless is no pipe dream

There's no reason to blow smoke rings of fantasy about stainless steels. Since stainless steel is a versatile *family* of steels, the right analysis must be used or stainless will not perform its "miracles" in your application. Crucible, pioneer in the development of these specialty steels, makes freely available to you an alert staff of metallurgists — experts in the application of stainless. Crucible's engineers and metallurgists can show you the right grade and finish you need . . . and how Crucible Stainless offers you maximum satisfaction.

Whatever your application may be, Crucible is prepared to help you. Crucible's half century of specialty steel leadership is based on finding the best way to solve Industry-posed problems. Whether the order is in tons or pounds . . . your application will receive this same careful attention. When you think of stainless . . . call Crucible. CRUCIBLE STEEL COMPANY OF AMERICA, Chrysler Building, New York 17, New York.

CRUCIBLE

first name in special purpose steels

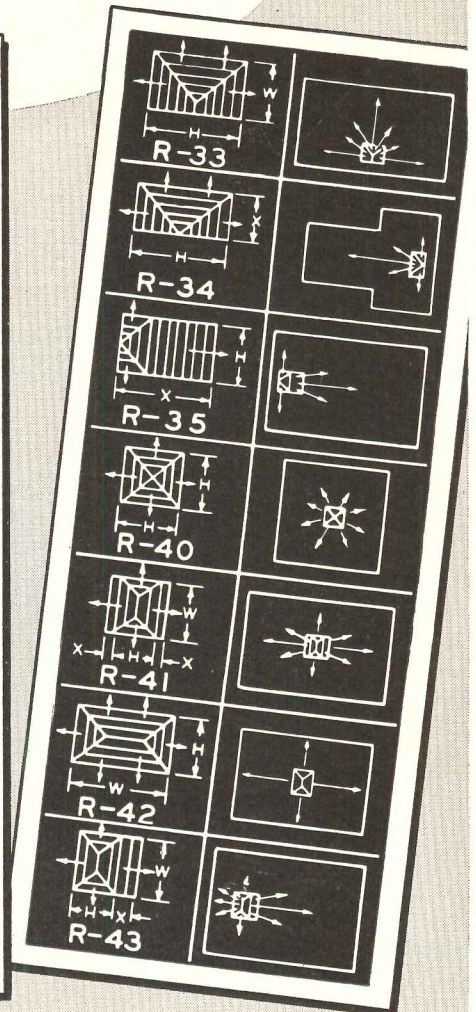
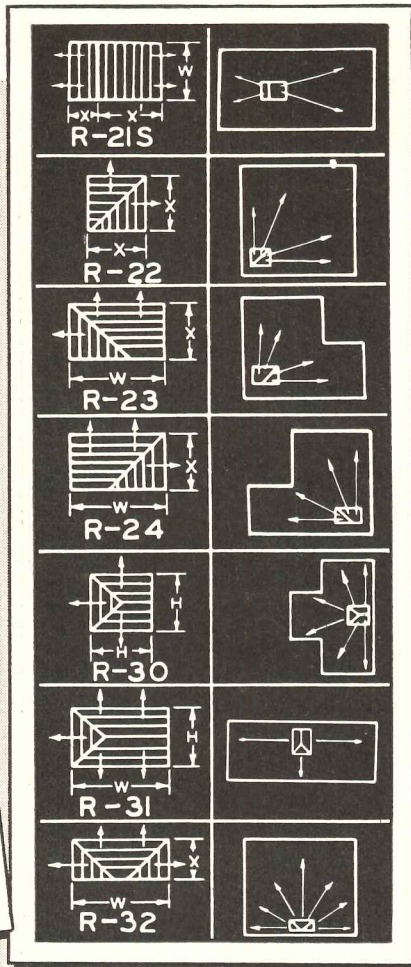
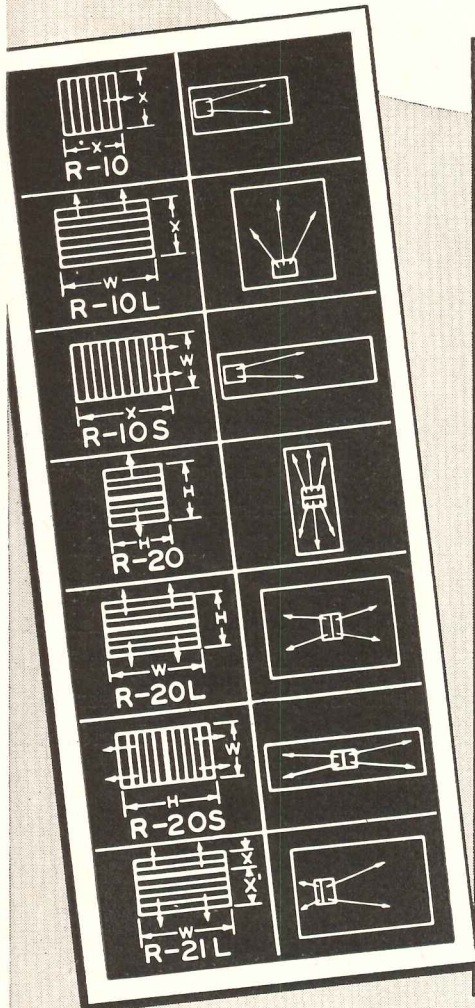
STAINLESS STEELS

fifty years of *Fine* steelmaking

STAINLESS • HIGH SPEED • TOOL • ALLOY • MACHINERY • SPECIAL PURPOSE STEELS

AGT AIR®

THE ONLY AIR DIFFUSER *Tailor-Made*
TO SUIT CONDITIONS
OF EACH APPLICATION



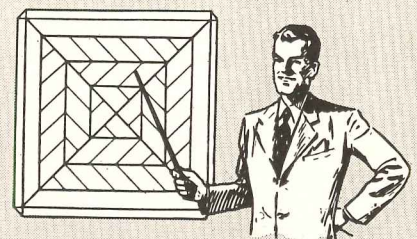
Center of ceiling, off-center . . . sidewall or baseboard? Square, rectangular . . . "L" or "T" shaped? Low ceilings, high ceilings . . . long, narrow or wide corridors? Yes—whatever the air distribution problem, you'll find the answer is Agitair. It's the only diffuser that gives complete freedom of design, yet assures 100% air distribution without the use of makeshift blank-off's or oversized outlets. The applications above give you some idea of the amazing versatility of Agitair square and rectangular air diffusers. You design the room and we'll help select the Agitair pattern most suitable for the location you desire.

Write for Complete Data

AIR DEVICES, INC.

17 EAST 42nd ST. • NEW YORK 17, N. Y.
AIR DIFFUSERS • AIR FILTERS • ROOF EXHAUSTERS

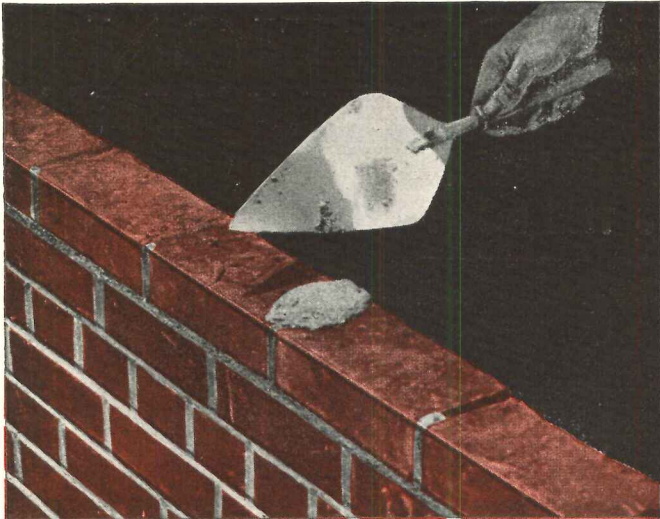
Here's the Secret of Greater
Diffusing Ability:



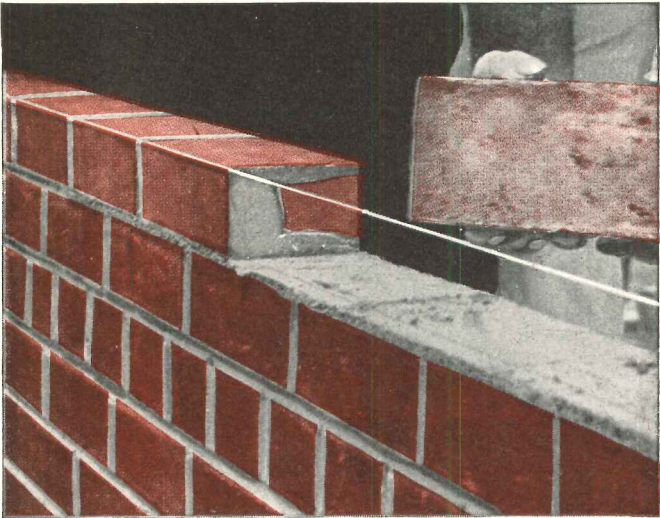
Patented built-in vanes deflect the air in numerous divergent streams resulting in turbulence at the point of contact with the aspirated air. Result: Rapid mixing, diffusion and temperature equalization.

THE DIFFUSING VANES MAKE THE DIFFERENCE

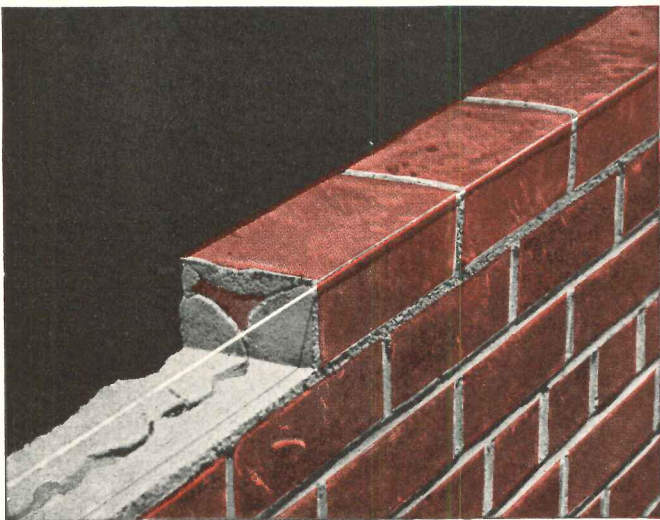
GOOD BRICKWORK = GOOD DESIGN + GOOD WORKMANSHIP + GOOD MATERIALS



Slushing does not properly fill the voids in the head joints.



When mortar is spotted on only one corner of the brick, slushing seldom fills the voids.



Even when mortar is spotted on both corners of the brick, slushing will not always fill the voids.

"SLUSHING"

INVITES

LEAKAGE

IN BRICKWORK

WE SUGGEST THAT—

Brick should always be so laid that when the brick is shoved into place, the head or cross joint will be filled solid with mortar, without slushing. If the joints are not completely filled, water may leak through the voids to the inside of the building.

The photos at the left show the voids that often result when slushing is used to "fill" a joint. Even when mortar has first been spotted on both corners of the brick, slushing cannot be relied upon to fill the voids completely.

The great plasticity of Brixment enables the bricklayer to throw plenty of mortar onto the brick to be placed — to use plenty of mortar in the bed joint — and still shove the brick easily into position, with excess mortar oozing out all around, and with all voids filled.

BRIXMENT

Brixment mortar has greater plasticity, higher water-retaining capacity and bonding quality, greater resistance to freezing and thawing, and freedom from efflorescence. Because of this combination of advantages, Brixment is the leading masonry cement on the market.

LOUISVILLE CEMENT COMPANY, Incorporated, LOUISVILLE, KENTUCKY

MINNEAPOLIS STAR & TRIBUNE BUILDS A NEW ADDITION...

AND BARRETT AGAIN PROVIDES THE ROOF



Arch.: Larson & McLaren, Gen. Cont.: F. F. Haglin & Sons Co., Roof. Cont.: John A. Dalsin & Son. All of Minneapolis.

With its new addition now in full operation, the Minneapolis Star & Tribune now has one of the finest and most modern newspaper plants in this country. Like the main building and press room, previously constructed, the new addition is protected by a Barrett* roof of coal-tar pitch and felt. Barrett Specification* roofs carry Fire Underwriters' Class "A" rating, and are the longest-lasting, best-value roofs that can be built—usually outlasting their 20-year bond by many years.

SEE BARRETT'S CATALOG IN "SWEET'S"



THE BARRETT DIVISION

ALLIED CHEMICAL & DYE CORPORATION

40 Rector Street, New York 6, N. Y.

36th St. & Gray's Ferry Ave., Philadelphia 46, Pa.

205 W. Wacker Drive, Chicago 6, Ill.

1327 Erie Street, Birmingham 8, Alabama

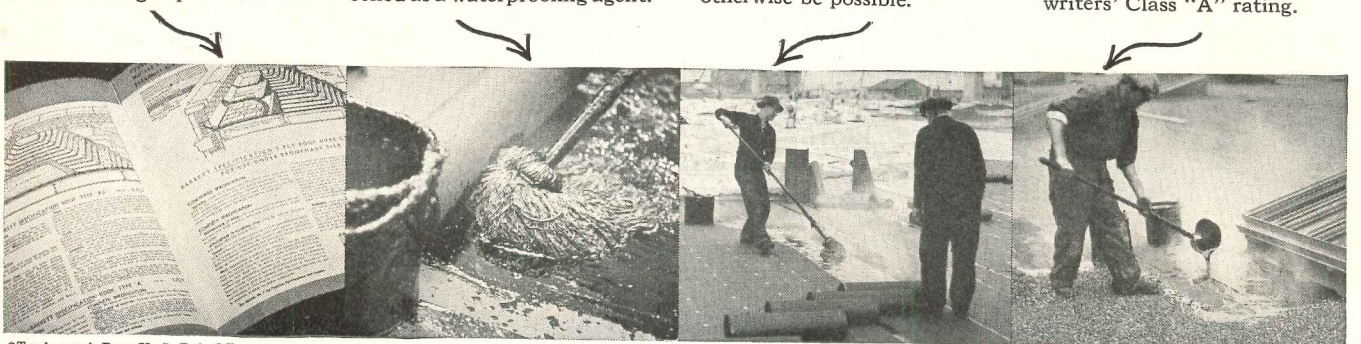
In Canada: The Barrett Company, Ltd., 5551 St. Hubert St., Montreal, P. Q.

1 Barrett Specification* roofs are applied by Barrett Approved Roofers according to rigid Barrett specifications developed through years of successful roofing experience.

2 They are built up of alternate layers of finest grade coal-tar pitch and felt. Pitch, the *life-blood* of the roof, is impervious to water and unexcelled as a waterproofing agent.

3 Top-quality felt of Barrett's own manufacture holds the pitch in place and permits the use of greater quantities of this waterproofing than would otherwise be possible.

4 Final steps are a triple-thick coating of pitch—*poured*, not mopped—plus an armored surface of gravel or slag. Result is a roof that takes Fire Underwriters' Class "A" rating.



*Trade-mark Reg. U. S. Pat. Off.

New

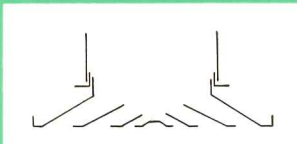
Aerofuse

TYPE D

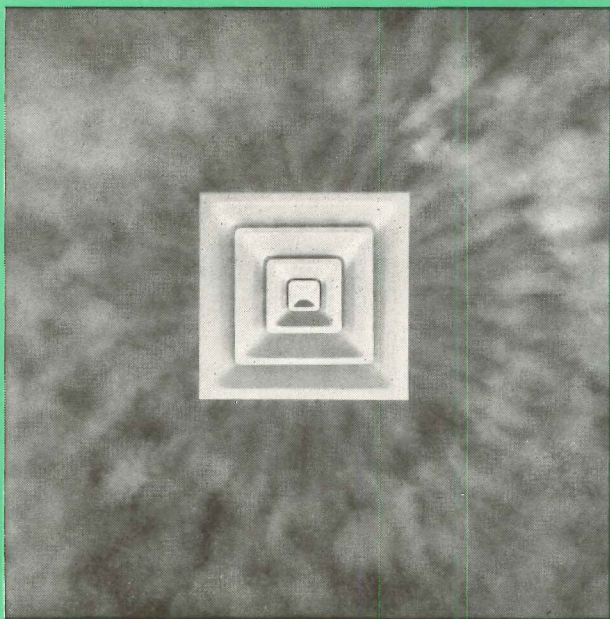
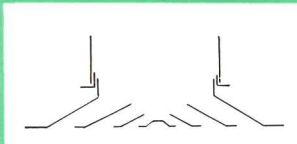
SQUARE DIFFUSER

360° AIR DISTRIBUTION or any required pattern at the vital point of air delivery

TYPE DF

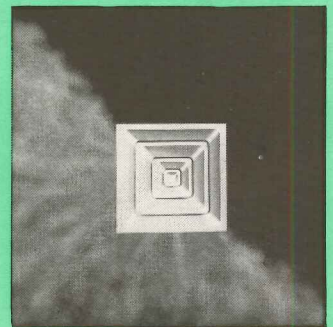
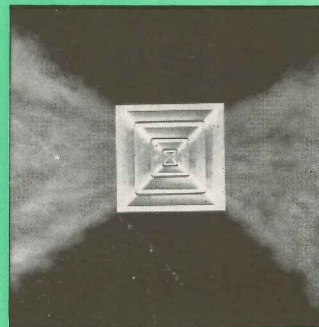


TYPE DE



Styled to harmonize with modern architectural design . . . engineered for efficient performance . . . the new Type D Aerofuse is the answer to demands of both architect and engineer for a square diffuser that will deliver supply air in a 360° pattern. Assuring a complete flexibility to meet specific job requirements where circular distribution is not practical, baffles may be used to block off any portion of the diffuser and direct air stream in a variety of patterns, as illustrated below.

Two types are available . . . Type DF for flush mounting in standard acoustical tile ceilings . . . Type DE, for installation on plaster ceilings. Both types are listed in five sizes (12"x12", 16"x16", 20"x20", 24"x24", 30"x30") with neck diameters from 6" to 15".



For complete details on the Type D Aerofuse, size selection information and engineering data . . . send for Catalog 103.



TUTTLE & BAILEY inc



NEW BRITAIN, CONNECTICUT

Aerofuse

IN HOUSTON



WESTERN ELECTRIC CO.

There are good reasons why important air conditioning jobs in Houston — and throughout the country as well — are Aerofuse jobs. The competent engineers, architects, and contractors responsible for the selection and installation of equipment know from experience that Aerofuse Diffusers meet the most exacting requirements of performance and appearance . . . *at the vital point of air delivery.*

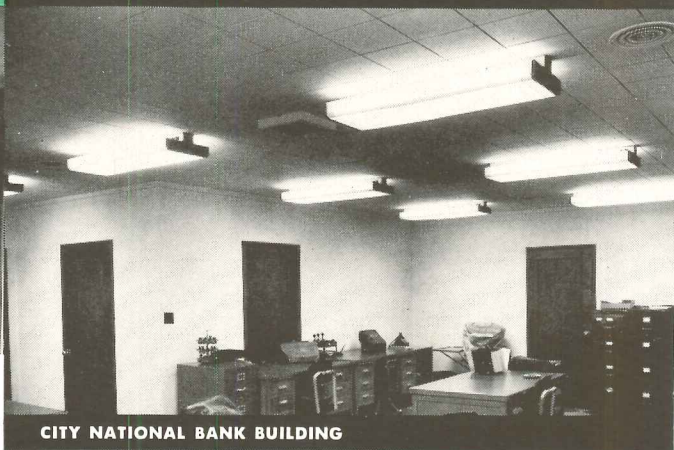
Aerofuse Diffusers are available in a wide range of types and sizes. For the details, size selection information, and complete engineering data . . . write for a copy of Catalog 102.

OTHER TYPICAL AEROFUSE INSTALLATIONS IN HOUSTON

- National Biscuit Co.
- First Presbyterian Church
- The Chef
- Texas State University for Negroes
- National Standard Building



FOLEY'S



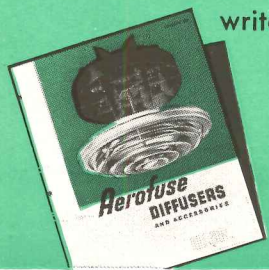
CITY NATIONAL BANK BUILDING



CORRIGAN'S, INC.



REAGAN STATE BANK

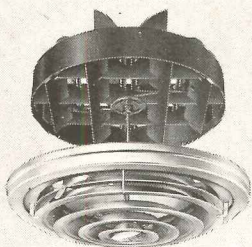


TUTTLE & BAILEY inc

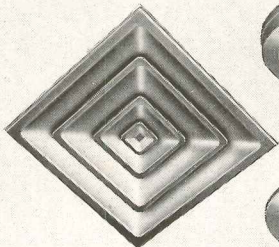
NEW BRITAIN, CONNECTICUT

THE AEROFUSE LINE

TYPE EAC
with No. 4 Volume
Control Unit



TYPE D



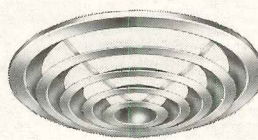
TYPE ES



TYPE R



TYPE E



TYPE H



TYPE S



TYPE LF



for the finest

WHY HAVE THESE UNSIGHTLY, DUST-CATCHING INDENTATIONS? "SMOOTHEDGE" ELIMINATES THEM

carpet installation

NOT A SINGLE TACK MARK • "SMOOTHEDGE" SECURES CARPET FROM BENEATH

possible...

EVEN AT DOOR JAMBS, "SMOOTHEDGE" INSTALLATIONS ARE UNMARRED BY TACK MARKS

specify the

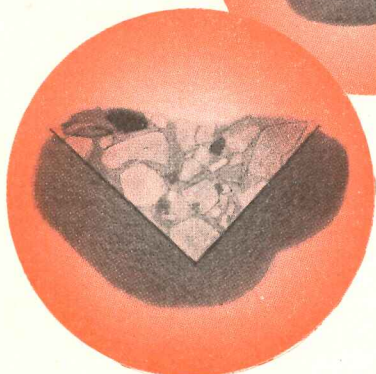
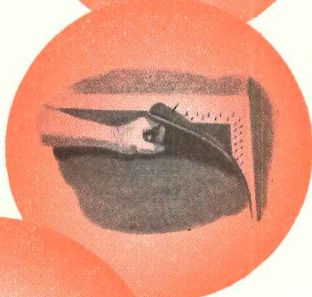
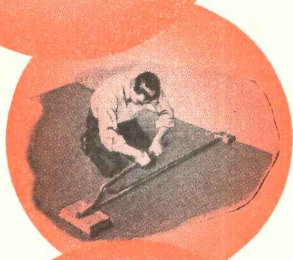
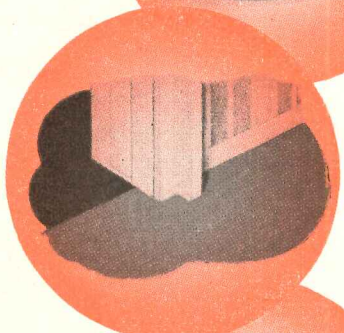
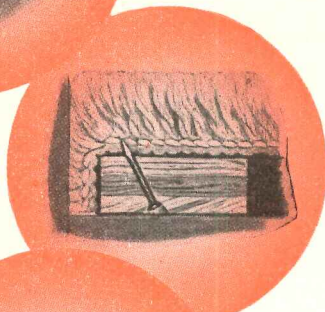
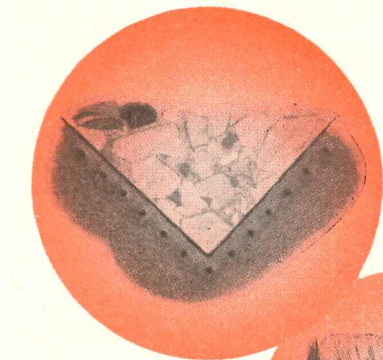
PROPER TOOLS MAKE A BIG DIFFERENCE • POWER STRETCHERS REMOVE LOOSENESS

Smoothedge

CARPET CLEANING PROBLEMS SIMPLIFIED • "SMOOTHEDGE" MAKES REMOVAL EASY

tackless method

BEAUTIFUL, UNBLEMISHED WALL-TO-WALL CARPET • THIS IS THE ADVANTAGE OF "SMOOTHEDGE"



RECOGNIZED AND AVAILABLE NATIONALLY • Handled by over 4,000 carpet retailers and by 68 carpet distributors. Recommended by leading mills for wall-to-wall carpet installation.

THE ROBERTS CO.



1536 NORTH INDIANA STREET, LOS ANGELES 63, CALIFORNIA



THE ROBERTS COMPANY, DEPT. AS8
1536 North Indiana Street, Los Angeles 63, California

GENTLEMEN:

Please send detailed, illustrated literature on "Smoothedge" tackless installation. Also send "Smoothedge" A.I.A. file.

Name _____

Firm _____

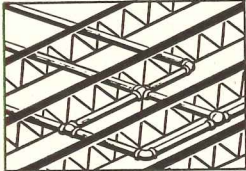
Street _____

City _____ Zone _____ State _____



TRUSCON
"O-T"
STEEL JOISTS

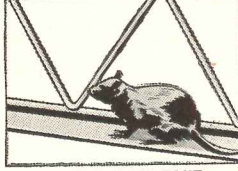
Eight advantages...



PIPE AND CONDUIT
easily installed through open web



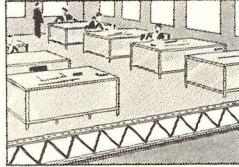
FIRE-RESISTANT
because built of incombustible materials



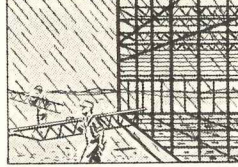
VERMIN-RESISTANT
because steel is impregnable to insect and animal life



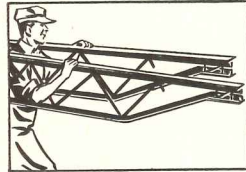
RADIANT HEATING
through unobstructed flow of heat



SOUND-RESISTANT
through dead air space and built-up materials



ALL-WEATHER BUILDING
because not dependent on setting concrete



LIGHT WEIGHT
permits quick, convenient handling and placement with a minimum amount of labor



WIDELY USED *in factories, office buildings, apartments, schools, hospitals and similar structures*



ECONOMICAL *through savings in supporting framework and foundations; speed of erection; insurance; maintenance.*

for architectural advancement

Truscon "O-T" Open Truss Steel

Joists offer the architect and builder an extremely modern instrument for rigid, fire resistant, economical and light weight floor construction. This unit is a Warren truss having top and bottom chords of wide tee-shaped members and a plain round continuous web member. The bottom chord is continuous from end to end of joist and bent up at the ends to form the bearings. These steel joists are fabricated by means of electric machine welding under pressure, making positive connections at all joints. Study the many advantages described above—then write for free illustrated literature on Truscon "O-T" Open Truss Steel Joists.



FREE Book on Truscon "O-T" Steel Joists. Write for it. The Truscon Steel Company Manufactures a Complete Line of Steel Windows and Mechanical Operators . . . Steel Joists . . . Metal Lath . . . Steel-deck Roofs . . . Reinforcing Steel . . . Industrial and Hangar Steel Doors . . . Bank Vault Reinforcing . . . Radio Towers . . . Bridge Floors.

TRUSCON STEEL COMPANY
 Subsidiary of Republic Steel Corporation
 YOUNGSTOWN 1, OHIO
 Warehouses and sales offices in principal cities

It's Hollywood.. **IT'S JANE WYATT.. IT'S**

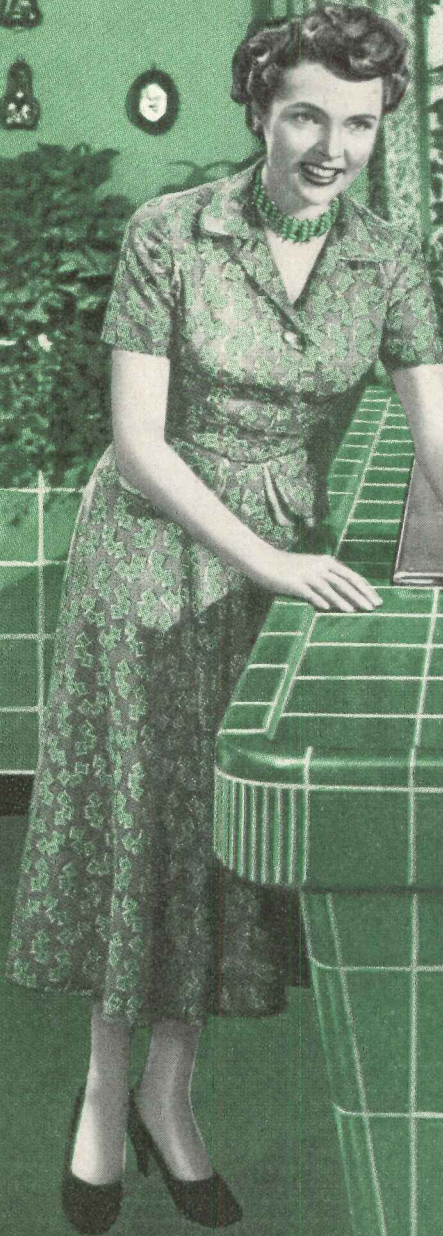


Hollywood leads the way in making America's housewives want the latest and best for *their* homes. That's why Jane Wyatt* is pictured in a kitchen that sparkles with Genuine Clay Tile. The rich, decorator colors are fired-in . . . tiled surfaces defy scratches and stains . . . wipe clean with just a damp cloth.

Available in a wide variety of colors and patterns.

***Jane Wyatt will soon be seen in MY BLUE HEAVEN, starring Betty Grable, a 20th-Century Fox production. Color by Technicolor.**

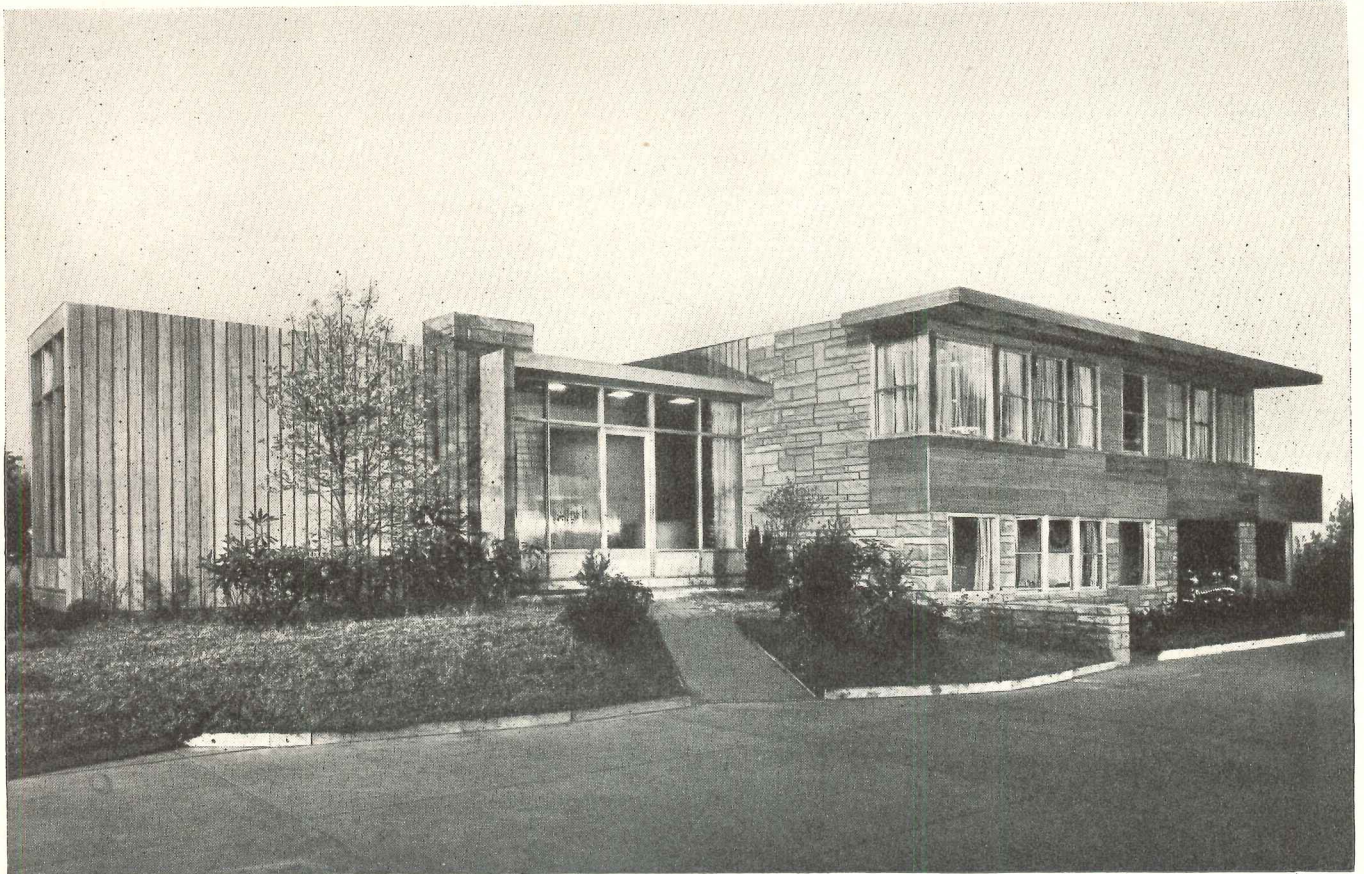
The Tile Council of America, Room 3401, 10 East 40th Street, New York 16, N. Y., Room 433, 727 W. Seventh Street, Los Angeles, California.



PARTICIPATING COMPANIES:

- American Encaustic Tiling Co.
- Architectural Tiling Company, Inc.
- Atlantic Tile Manufacturing Co.
- B. Mifflin Hood Co.
- Cambridge Tile Manufacturing Co.
- Carlyle Tile Company
- General Tile Corporation
- Gladding, McBean & Co.
- Mosaic Tile Company
- Murray Tile Company, Inc.
- National Tile & Manufacturing Co.
- Olean Tile Company
- Pacific Clay Products
- Pacific Tile and Porcelain Co.
- Pomona Tile Manufacturing Co.
- Robertson Manufacturing Co.
- Summitville Face Brick Co.
- United States Quarry Tile Co.

THE MODERN STYLE IS CLAY TILE



GEORGE DAUB, *Architect*

A "HIDDEN FEATURE" OF MODERN HOMES—TELEPHONE RACEWAYS

Most modern homes owe their beauty to clean simplicity of design—inside and out. Such beauty is always enhanced when telephone wires are concealed within the walls.

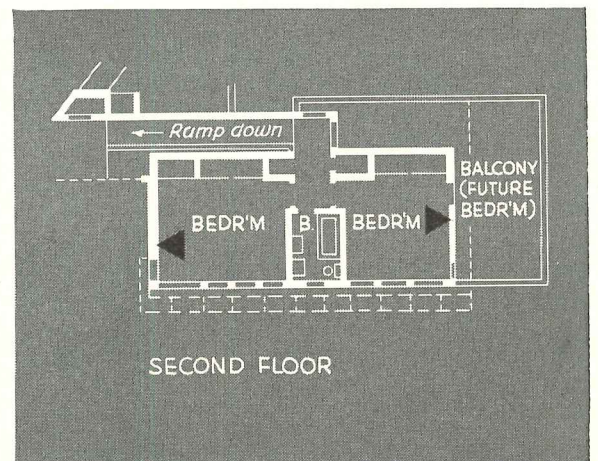
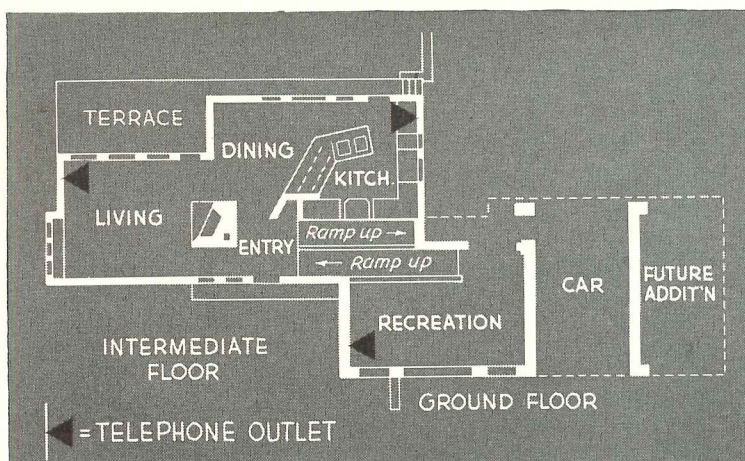
Telephone conduit, built in during construction, makes concealed wiring easy. And it promises that more telephones may be added later with the same

regard for handsome walls and woodwork. One or two lengths of pipe or tubing placed in the walls are usually enough for the average house—and the cost is low.

Your Bell Telephone Company will be glad to help you plan telephone wiring facilities for any type of home. Why not call your Telephone Business Office for free telephone planning service?



BELL TELEPHONE SYSTEM



DON'T BLAME YOUR PAINTING CONTRACTOR

You've often seen unsightly rust stains from metal sash on the adjacent brick and stone surfaces. You need never blame your painting contractor for unsightly stains caused by rust! You can prevent rust... and at no extra cost... simply by specifying RUST-OLEUM as the shop coat, primer and finish coat on all metal rust can attack.

But, specify Rust-Oleum in the first stages... when design, engineering and contracting take form... before actual delivery of material for the job. Rust-Oleum costs no more than quality material you may now be using... and is easy to apply at no added expense.

Rust-Oleum is tested and proved by a host of nationally known users. Rust-Oleum stops and prevents rust! RUST-OLEUM protects metal from rust with a tough, pliable film that dries to a firm finish. Rust-Oleum defies sun, rain, snow, salt air, smoke, fumes and other rust-producing conditions... and adds longer life wherever it is used. Girders, plates, stacks, gutters, roofs, tanks... every metal surface can be protected surely, safely and economically with RUST-OLEUM.

Rust-Oleum beautifies as it protects because it is available in many attractive colors including aluminum and white. Rust-Oleum can be applied to already rusted surfaces with minimum preparation... it is not necessary to remove every appearance of rust!

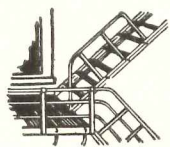
So, take the sure way to stop rust. Specify Rust-Oleum on all rustable metal, inside or out. It costs less ALL WAYS to do the job right.

Rust-Oleum is stocked and sold by leading industrial distributors in all principal cities of the United States and Canada. See Sweets for complete catalog and nearest source of supply, or write us direct for complete information.

Architects, Engineers, Builders

If you have a client with a rust problem, and would like a free survey and recommendations, send his name and address on your business stationery. A qualified Factory Representative will arrange this FREE Service, and it includes a trial size of Rust-Oleum for specific test purposes. There's no obligation on your part. Write today.

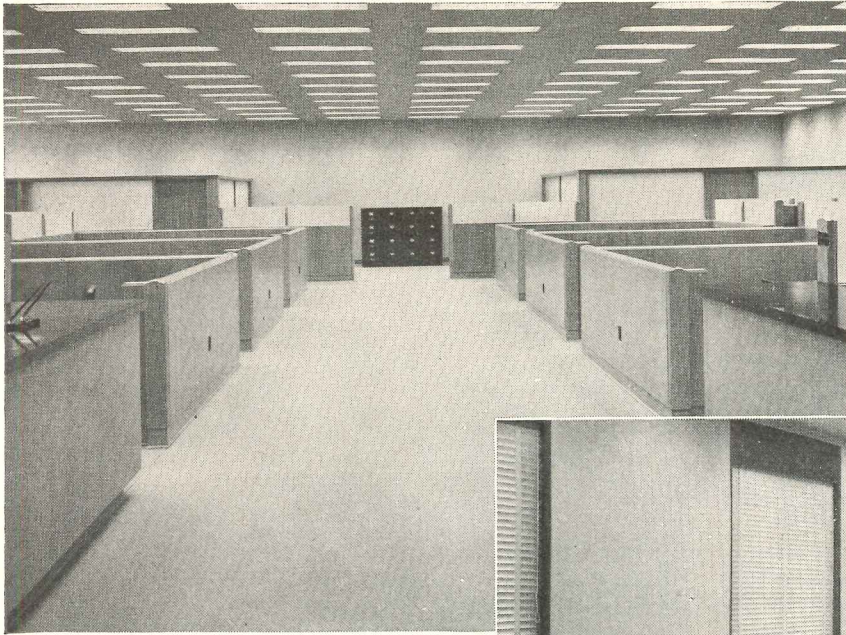
**Names on request*



RUST-OLEUM CORPORATION

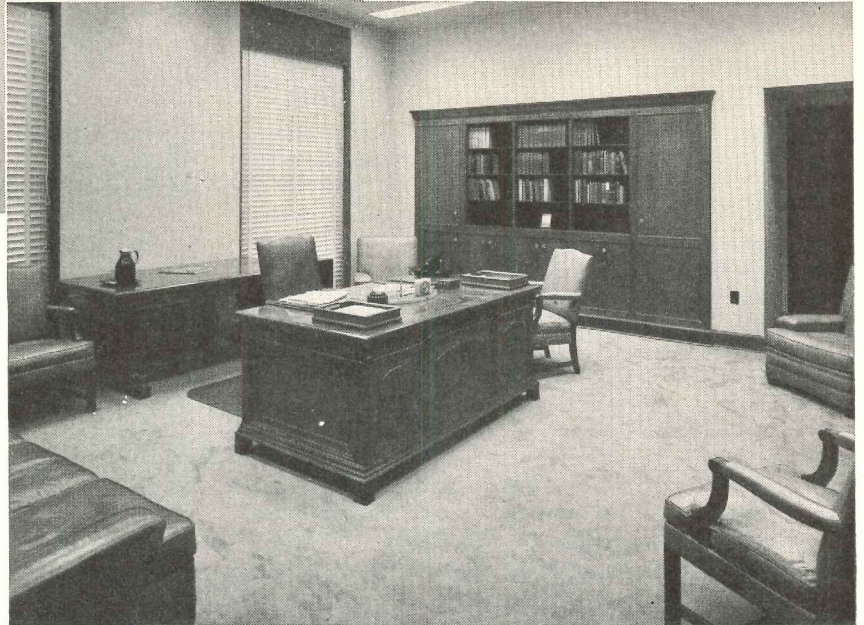
2513 Oakton Street

• Evanston, Illinois



In all public areas: Bigelow's suave-surface Gropoint Carpet. The president says: "Your Gropoint quality was selected for public areas because of its good appearance, its ability to wear well under heavy traffic, and the ease with which we could move it and match it in the event of partitions and walls being changed in the future."

In the executive offices: Bigelow's rich, soft Grandeur Carpet. Reason why: "We selected the Grandeur quality for our executive quarters because of its better-than-ordinary appearance, its sound-reduction qualities, and its comfort features." Installation by Miami Rug Co., Miami, Fla.



Why a savings institution invested in Bigelow Carpets

As reported by the First Federal Savings and Loan Association of Miami, Florida



When this modern, forward-looking Florida institution planned new carpeting, it considered all possibilities, chose Bigelow Carpet for installation throughout. As reported by Dr. W. H. Walker, the president:

"Your Grandeur quality carpet was chosen for our executive quarters and your Gropoint quality carpet for all other areas after considerable research on the part of our architect and engineers. Of course, the good reputation of your company had a lot to do with our decision.

"We were further influenced by recommendations from outstanding firms which reported long and satis-

factory use of your products, by a favorable cost comparison with similar good carpeting sold by other manufacturers, and by the co-operation offered by your company to meet our delivery requirements.

"We are receiving many compliments about our carpeting, and we ourselves are very satisfied with the installation."

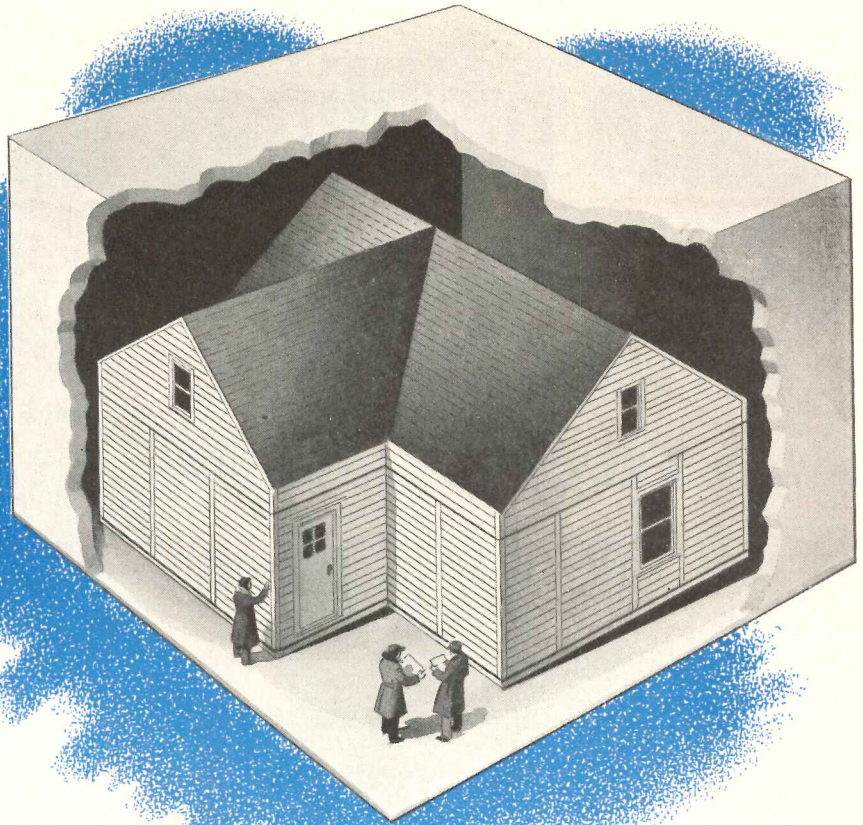
Planning an installation? See Bigelow's Carpet Counsel! For help in choosing the carpet best suited to your needs, and in solving special problems, consult Bigelow's Carpet Counsel without obligation.

Call on one of the 26 Carpet Counsel offices near you or write Bigelow Carpet Counsel, 140 Madison Avenue, New York, N. Y.

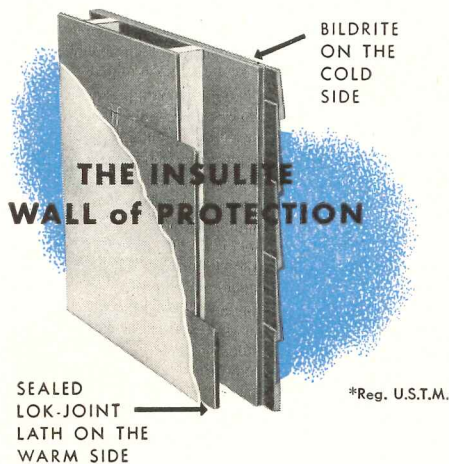
BIGELOW Rugs and Carpets

Beauty you can see... quality you can trust... since 1825

IN A
LABORATORY
"ICEBOX"
BIG ENOUGH
TO HOLD
A HOUSE



tests prove
principle by which
the *INSULITE** "Wall of Protection"
controls moisture condensation in walls!



To find out by scientific experiment how to prevent moisture condensation (and frost) in walls, a prominent Mid-West University built a giant "ice-box" 30 feet square and 25 feet high, cooled by a 25 ton refrigerating machine.

Inside, they built a full-size four room bungalow of standard construction but with removable wall sections of various materials to document the test. The house was heated to 70° F. with humidities up to 40%. The outside was cooled to -10° F. to duplicate winter conditions.

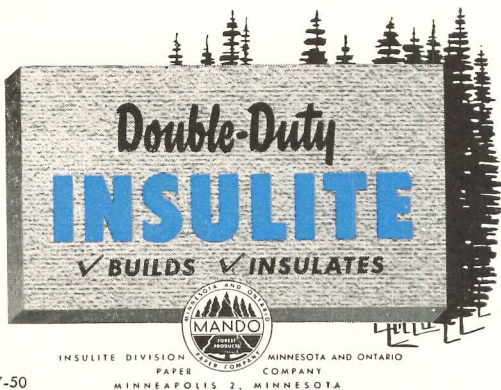
Here's what they found out

To properly control condensation, a wall should be "sealed on the warm side and vented on the cold side." This is *exactly* the principle of construction used for 10 years in the INSULITE Wall of Protection.

INSULITE Sealed Lok-Joint Lath provides the vapor barrier required on the warm side of the wall. Bildrite Sheathing on the cold side of the wall provides permeability that lets vapor "breathe" through towards the outside. The INSULITE Wall of Protection controls moisture condensation and frost in walls. Now is the time to build winter comfort into your homes. Correct construction is important at any season—summer or winter.

AND in addition, you get *extra* bracing strength, *extra* insulating value and *extra* protection because INSULITE is asphalt-treated inside and outside—every fiber protected. Specify Double-Duty INSULITE for better wall construction.

Refer to Sweet's File, Architectural Section 10a/8

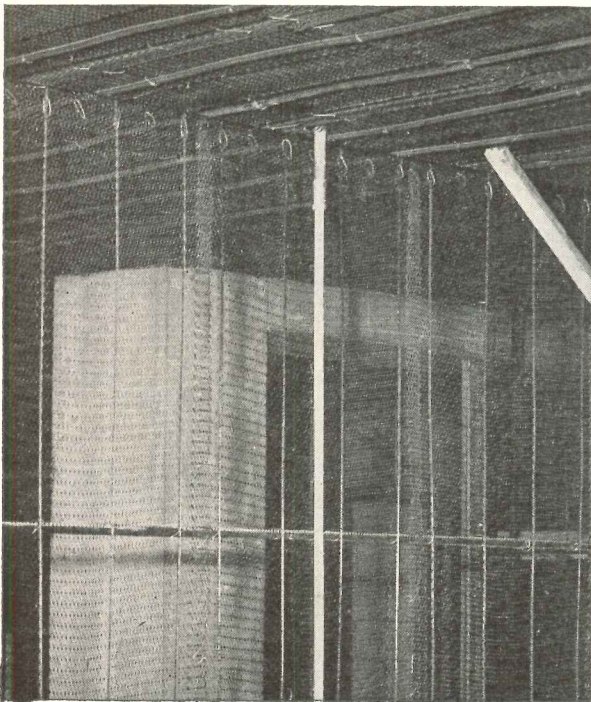


7-50

Into buildings that make news

24,000 sq. yards Wheeling Bar-X-Lath help make
CHICAGO'S NEW PROMONTORY APARTMENTS
 a miracle in low cost design, construction

What makes the Promontory Apartments news-worthy? The fact that simple, undisguised commercial loft construction was used in the creation of dwelling units. The fact that this building—Chicago's finest apartments—went up at the cost of \$8.55 per square foot . . . incredibly low cost for this type of structure.



2" studless partitions made with Wheeling materials cut cubic footage cost . . .

In developing low cost Promontory Apartments, 2" studless partitions were decided upon for construction of interior walls. Made of Wheeling Bar-X-Lath, they offer the fire- and crack-resistance, stability and sound proofing of thicker partitions . . . while allowing more floor space, cubage savings.

		
Wheeling Flat Rib Metal Lath	Wheeling Bar-Z-Partitions Studs, track, and shoes	Wheeling Curved and Straight Point Base Screed
		
Wheeling Diamond Lath Standard and Bantam Mesh	Wheeling Corner Lath an improved cornerite	Wheeling Strip Lath for strengthening joints
		
Wheeling 3/4" and 5/8" Rib Lath	Wheeling Scallop Edge Corner Bead	Wheeling Arch Lath for extra fire resistance
		
Wheeling Bar-X-Lath with solid steel ribs	Wheeling Metal Picture Mould	Wheeling Flat Apron Corner Bead
		
Wheeling Ashpit and Clean-out Doors	Wheeling Anti-Skid, Expanded Metal	Wheeling Expanded Metal

WHEELING CORRUGATING COMPANY • WHEELING, W. VA.
BUILDING MATERIAL DIVISION

ATLANTA
LOUISVILLE

BOSTON
MINNEAPOLIS

BUFFALO
NEW ORLEANS

CHICAGO
NEW YORK

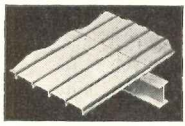
COLUMBUS
PHILADELPHIA

DETROIT
RICHMOND

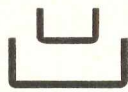
KANSAS CITY
ST. LOUIS

go Wheeling Building Materials

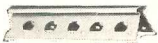
Wheeling Building Materials helped keep this cost down. Economy is one of the many reasons architects and builders constantly turn to Wheeling. In addition, Wheeling products offer unsurpassed quality and dependability resulting from 60 years experience in the manufacture of steel building materials.



Wheeling Tri-Rib Roof Deck



Wheeling Cold Rolled Channels



Wheeling Bull Nose Bead



Wheeling Expansion Corner Bead



Wheeling Stucco Binder Mesh



Wheeling Combination Lath, Diamond or Bar-X-Lath



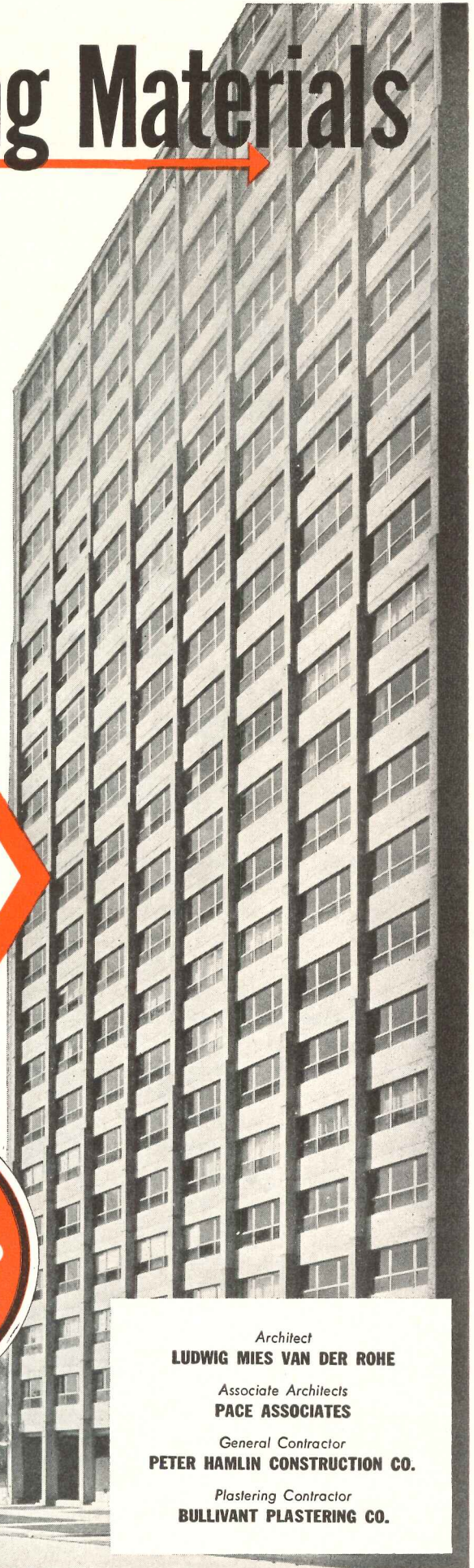
Wheeling Flattened Expanded Metal



Wheeling Casings and Corner Grounds



Wheeling Coal Doors



Architect
LUDWIG MIES VAN DER ROHE

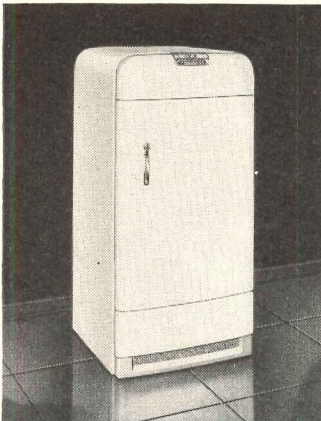
Associate Architects
PACE ASSOCIATES

General Contractor
PETER HAMLIN CONSTRUCTION CO.

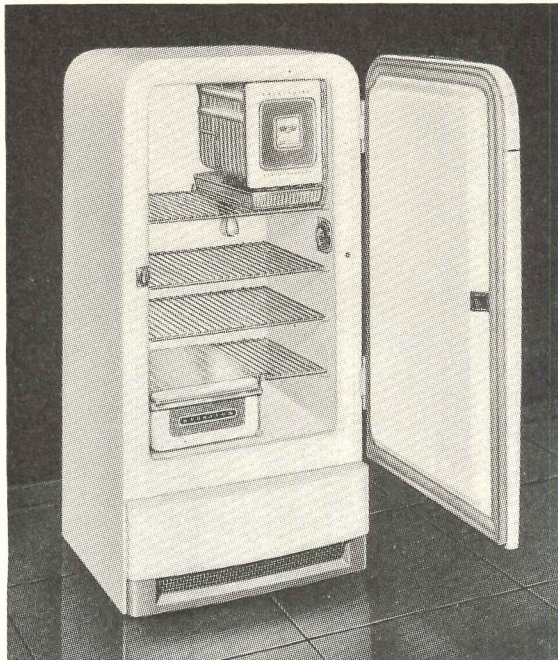
Plastering Contractor
BULLIVANT PLASTERING CO.

Photo: Hedrich-Blessing Studio

Look Outside! Look Inside!



Architects and builders agree that it pays to choose Frigidaire... because *Frigidaire makes a good building better*. And the makers of America's No. 1 Refrigerator stand firmly back of that statement.



You can't match a FRIGIDAIRE *Apartment-Size Refrigerator!*

Cut refrigerating maintenance costs by specifying refrigerators that can be depended on year in, year out, to give economical, trouble-free service. Frigidaire's Standard Model SM-60 (illustrated) has been designed to meet the particular demands of apartment and small-home kitchens. It requires little more than 4 sq. ft. of floor space, is 51 $\frac{1}{8}$ " high, yet has a full 6 cu. ft. of storage capacity, 11.7 sq. ft. of shelf space and stores 16 lbs. of frozen foods.

Genuine Frigidaire quality features include new, streamlined Raymond Loewy styling—colder-than-ever Super-Freezer—acid-resisting Lifetime Porce-

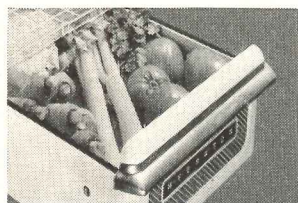
lain in Hydrator and food compartment—glass Cold Storage Tray.

See your Frigidaire Dealer for proof that you can't match Frigidaire products for apartment kitchens and laundries. Look for his name in Yellow Pages of phone book. Or write Frigidaire Division of General Motors, Dayton 1, Ohio. In Canada, Leaside 12, Ontario.

FRIGIDAIRE 
America's No. 1 Refrigerator



Money-saving Meter-Miser... simplest cold-maker built. Oiled for life, sealed in steel. Economical, trouble-free.



Acid-resisting Porcelain Hydrator... keeps fruit and vegetables fresh. Slides easily, even when loaded. Plastic cover.



Double-Easy Quickcube Ice Trays... slide out instantly and release cubes with finger-touch. All-aluminum construction.

Ask for facts on these other Apartment Products by Frigidaire

Complete quick facts about the compact, low-cost Frigidaire products shown below are yours for the asking. Get in touch with your Frigidaire Dealer.

Model AM-43 Refrigerator

4.3 cu. ft. capacity—shelf area, 8 sq. ft. Ideal for Pullman-type apartment kitchens.



Model RK-3 Electric Range

21 inches wide—yet has all basic cooking facilities.



Model RM-30 Electric Range

Has new Thrifty Giant oven, yet is only 30 inches wide.



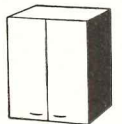
Frigidaire Water Heaters

30-to 80-gallon capacity. Round and table-top models.



Frigidaire Kitchen Cabinets

Variety of types and sizes. Individual units—yet they give kitchens a custom-built look.



Frigidaire Kitchen Sinks

Single and double sink styles. Plenty of organized storage space.



Frigidaire Electric Dehumidifier

Removes moisture from air automatically. Dozens of uses. Powered by Meter-Miser.



Frigidaire Automatic Washer

Has exclusive Live-Water Action. Frigidaire Ironer and Electric Clothes Dryer are also available.



NATIONAL ELECTRIC'S CAA-APPROVED CABLES

MEET THE TEST

FOR RELIABLE
AIRPORT LIGHTING

CAA
APPROVED
CABLES

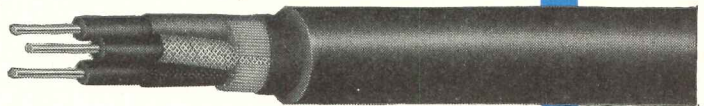
Approved under
specification L-824

Now that the CAA's airport lighting program has been given the "green light," there's a *sure* way to meet the rigid requirements of Civil Aeronautics Authority Specification L-824, "Underground Electrical Cables for Airport Lighting." *Specify National Electric Style RR Flexlay Cables!*

NE Flexlay Cables are *dependable* for the continuous service conditions required by airports. Designed for underground installation—either direct burial in the earth or pulled in conduits—these cables have plenty of "abuse resistance" built-in. The tough, specially-compounded Neoprene sheath affords complete protection against the destructive forces below the earth's surface, as well as sun and weather.

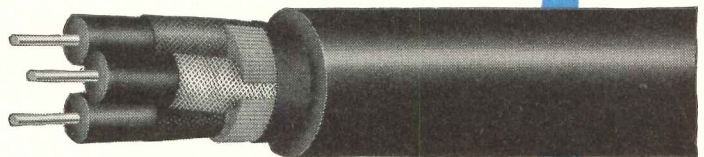
NE CAA-approved cables are recommended not only for airport lighting and signal circuits, but for street and highway lighting, municipal, power and other installations—indeed wherever *reliability counts the most*.

You're sure of safe, dependable operations when you specify National Electric CAA-approved cables in your next airport installation.



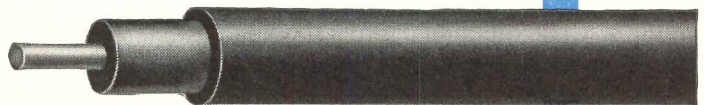
TYPE "A" PERFORMANCE INSULATION

Flexlay Cable, Style RR, Airport Lighting Cable, 600 Volt Rating, AWG Sizes 4 through 16. (Single and Multiple conductor available)



TYPE "B" OZONE RESISTANT INSULATION

Flexlay Cable, Style RR, Airport Lighting Cable, 3000 Volt Rating, AWG Sizes 4 through 10. (Single and Multiple conductor available)



TYPE "B" OZONE RESISTANT INSULATION

Flexlay Cable, Style RR, Airport Lighting Cable, 5000 Volt Rating, AWG Sizes 4 through 8. (Single Conductor)

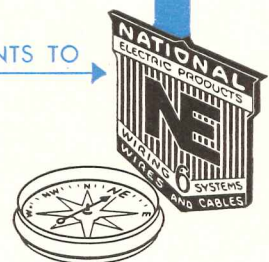
Light in weight—Flexible
Easy to handle

EVERYTHING IN WIRING POINTS TO

National Electric

PRODUCTS CORPORATION

1327 CHAMBER OF COMMERCE BUILDING, PITTSBURGH 19, PA.





Bethlehem Longspan Joists in garage of Ohio Fuel Gas Co., Toledo, Ohio.

Longspans = Fewer Columns = More Floor Area

BY designing warehouses, factories, garages and similar structures with Bethlehem Longspan Steel Joists, you minimize the number of interior columns and provide a greater amount of usable floor area.

Longspan Joists are excellent for supporting the roofs of industrial buildings, because they eliminate interior columns in floor areas up to 64 ft across. What's more, they reduce the need for pilasters. They save construction time, too, because pipes, conduits and ducts can be run through the open webs. In addition to their use in roofs they can also be used in floor construction.

These joists reach the job completely fabricated

and clearly marked, ready for installation. They come in two types: (1) underslung construction with top-bearing ends, and (2) bottom-bearing construction with square ends. They have cambers of approximately $\frac{1}{2}$ in. for 30-ft spans, $\frac{3}{4}$ in. for 40-ft spans, 1 in. for 50-ft spans, and $1\frac{1}{2}$ in. for 60-ft spans.

Plan to use Bethlehem Longspans the next time you design an industrial building. The nearest Bethlehem representative will be glad to furnish complete details. Or drop a line to us at Bethlehem, Pa.

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 LONGSPAN JOISTS





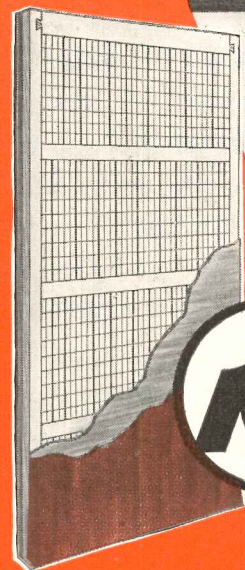
See
the difference in
MENGEL Stabilized
SOLID-CORE Flush DOORS!

Mengel Stabilized Solid-Core Flush Doors employ an entirely unique and exclusive principle to give you a new standard of stability and dependability — and at strictly competitive prices.

Instead of attempting the impossible task of preventing expansion and contraction in wood, Mengel has developed a construction design which absorbs expansion and contraction within the core itself. All Mengel core members are deeply slotted at frequent intervals, both with and across the grain. The result is that the slots expand or contract in width, but the door remains stable!

Get all the facts, and see a cutaway sample. When you see the difference, you'll greatly prefer Mengel Stabilized Solid-Core Doors!

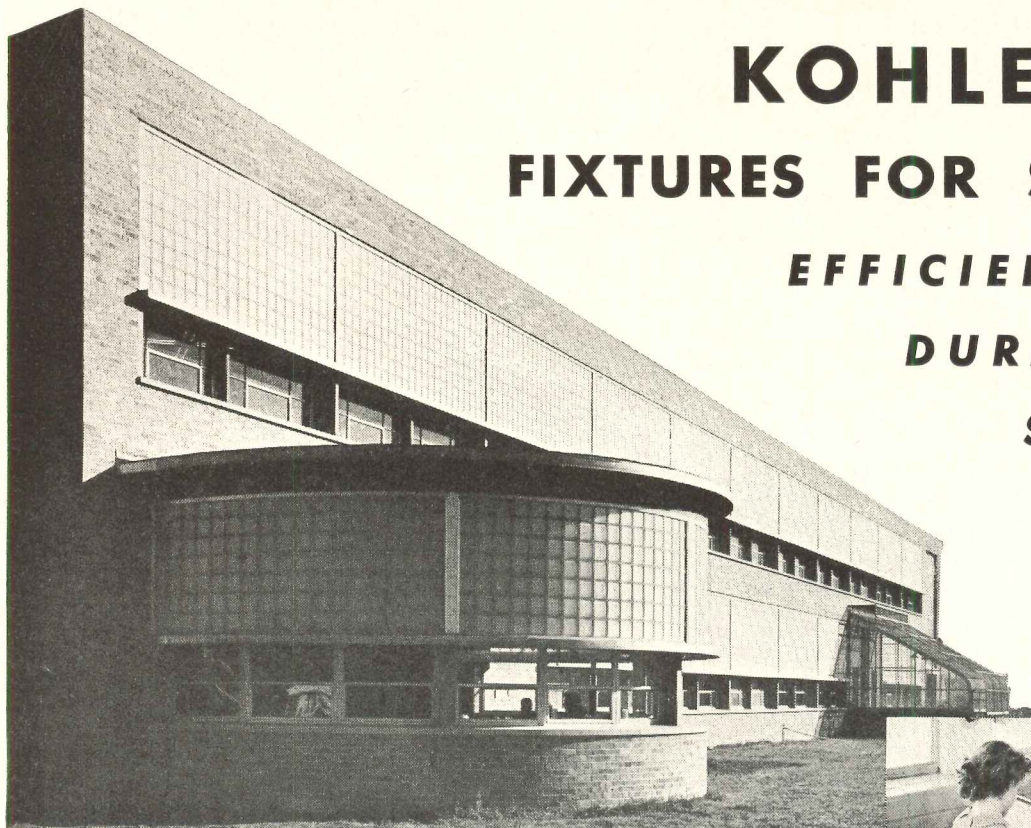
Also see —
MENGEL HOLLOW-CORE FLUSH DOORS
the finest products of their type on the market.



All standard
stock sizes and
species available

**FOR FULL DETAILS, PLEASE JUST WRITE
YOUR NAME AND ADDRESS IN MARGIN, AND MAIL TO —**

Plywood Division • **THE MENGEL CO.** • *Louisville 1, Kentucky*



KOHLER

FIXTURES FOR SCHOOLS

EFFICIENT

DURABLE

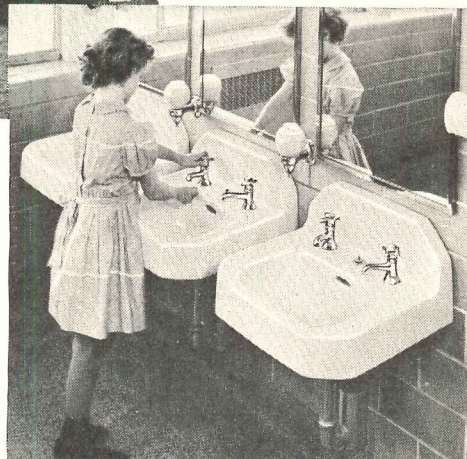
SAFE

Edward Everett Elementary School. Giffels & Vallet, Inc., L. Rosetti, Associated Engineers and Architects; C. H. Reisdorf, Inc., General Contractors; W. Wilbur White, Plumbing Contractor; and T. W. Andrew Company, Kohler Distributor.

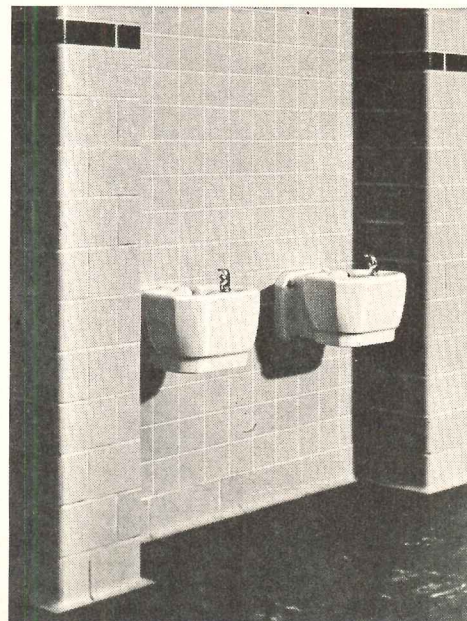
THE Edward Everett Elementary School, Detroit, Michigan, embodies the latest developments in structural design, lighting and equipment. As in many recently completed educational buildings, Kohler plumbing fixtures and fittings were used throughout.

It is estimated that one billion dollars will be spent in building new schools and remodeling present ones during 1950. Plumbing fixtures will receive careful consideration because they contribute to health and cleanliness. Kohler lavatories, drinking fountains, water closets, urinals and other fixtures are a sound investment in efficient sanitation and low-cost maintenance. They have earned the approval of administrators, architects and engineers for long, satisfactory school service.

Send for our latest catalog, showing a complete line of Kohler fixtures and fittings especially designed for schools and other institutions. Kohler Co., Dept. 16-P, Kohler, Wis. Established 1873.



Washroom showing Kohler (K-1950) Greenwich Vitreous China Lavatories with self-closing faucets.

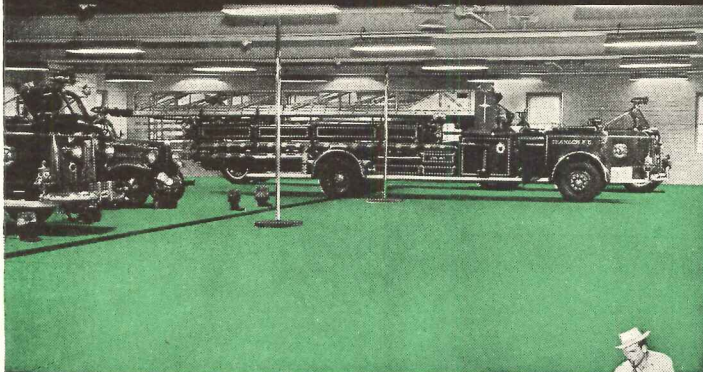


Corridor showing Kohler Daybrook Drinking Fountains. (K-5335-A).

KOHLER OF KOHLER

PLUMBING FIXTURES • HEATING EQUIPMENT • ELECTRIC PLANTS • AIR-COOLED ENGINES

Modern fire house floor.



modern building design
calls for **colored concrete floors & sidewalks**

Modern shop sidewalk.



Modern garage floor.

colorundum

For colored concrete floors or sidewalks of real beauty and durability specify the use of Colorundum. For interiors or exteriors of hotels, banks, stores, hospitals, show rooms, service stations and factories you get bright, colorful surfaces with a wear-resistant topping of long life—at practically the average cost of ordinary concrete. Colors are red, brown, green, French grey and black.

Colorundum is a dry powder, composed of coloring mediums, fused aggregates, water-repellent and hardening elements, plus cementitious binders. Colorundum is used as a dust-coat which is floated and trowelled into the topping. The non-slip, dense surface makes it an ideal flooring on new concrete or when replacing old concrete floors or sidewalks.

A. C. HORN COMPANY, INC.

Manufacturers of materials for building maintenance and construction—established in 1897
10th Street & 44th Avenue, Long Island City 1, N. Y.
Los Angeles • San Francisco • Houston • Chicago • Toronto
SUBSIDIARY OF SUN CHEMICAL CORPORATION



GENTLEMEN:

AR

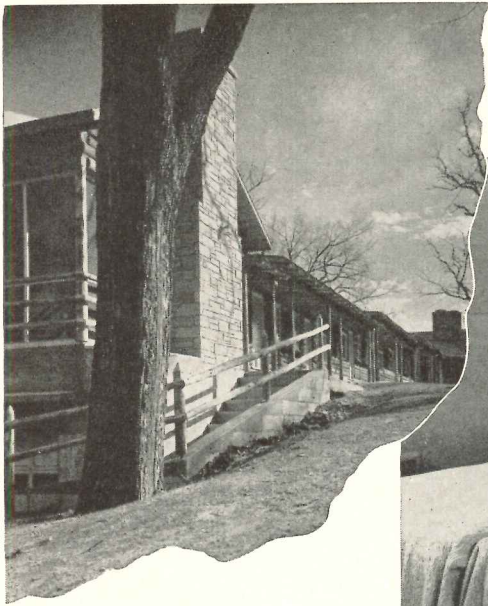
Please send complete data on COLORUNDUM.

NAME _____ TITLE _____

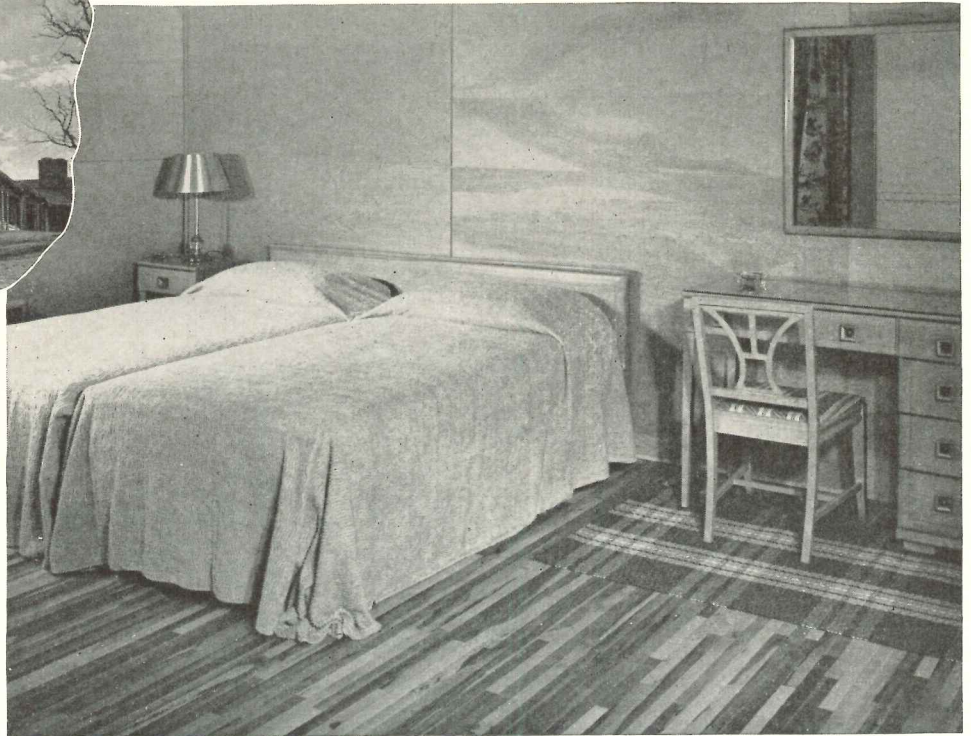
COMPANY _____

ADDRESS _____

CITY _____ STATE _____



DARTFORD MOTOR COURT, Green Lake, Wisconsin.
Architects: Auler, Irion & Wertsch, Inc., Oshkosh, Wisconsin.



"Thrifty Third" NORTHERN HARD MAPLE for low-cost floors of character and beauty

Wherever cost is a first consideration . . . in motor court, residence or large-scale housing project . . . the "economy grades" of Northern Hard Maple offer recognized advantages. Durability and ease-of-maintenance you take for granted. But here's real beauty, too! The interesting blendings of varying warmer tones are a unique and highly attractive characteristic of "Thrifty Third" and Second Grade Maple and Birch!

Says Mr. Theodore Irion, architect for the Dartford Motor Court: "I like Maple floors for any type of building . . . for hard service in a motor court no floor could be more practical and attractive. Third Grade Maple, in my opinion, is beautiful and characterful when properly laid and finished . . . the delicate grain formation and deep colorations seem just right for these floors."

When MFMA Second and Third Grades are specified there is important economy *at no sacrifice of intrinsic quality*. Thus the money savings are real and enduring. For maximum thrift, and even subtler shade blendings, the narrower, tighter-laying 1½" face is now available.

SEE SWEET'S...

Architects' 13g-7; Engineers' 4j-21
for full data and standard specifications, both strip and patterned designs.

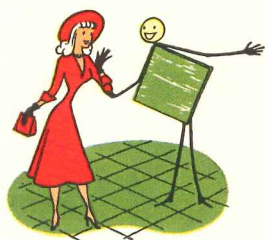
MAPLE FLOORING MANUFACTURERS ASSOCIATION

Room 363, 46 Washington Blvd.
OSHKOSH • WISCONSIN

FLOOR WITH **NORTHERN** HARD MAPLE
BEECH AND BIRCH



EVEN THE



Floor

HELPS SALES APPEAL

Milliron's Department Store, in Los Angeles, is one of the most modern merchandising units in the world. Crack designers were assigned to put sales effectiveness and operating efficiency into every nook and cranny.

With this objective, they specified floors of Tile-Tex* Asphalt Tile. For Tile-Tex has a property very important to retail interiors. Laid in a solid, single color pattern of marbled tiles, it enables designers to create a floor that provides an attractive background for merchandise on display . . . without calling attention to itself.

Yet the very fact that Tile-Tex is installed a tile at a time . . . plus an unusually wide range of color . . . offers an almost unlimited choice of patterns, if that's a requirement.

And there are other characteristics . . . important to any floor.

Tile-Tex is extraordinarily durable. You're laying the foundation for many, many years of flooring service when you select these *quality* asphalt tiles.

Maintenance is a simple, economical routine: Daily sweeping to remove loose dirt, periodic washing, water-waxing (if desired).

All of these advantages, plus low installed cost, add up to amazingly low cost-per-square-foot-per-year.

Comprehensive literature and complete specifications are yours for the asking. Just write: THE TILE-TEX DIVISION, The Flintkote Company, Dept. C, 1234 McKinley St., Chicago Heights, Ill.

Tile-Tex

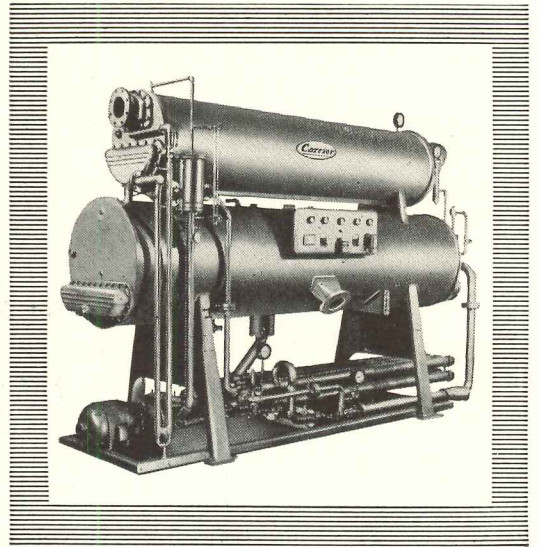
ASPHALT

FLOORS AND WALLS

*REGISTERED TRADEMARK, THE FLINTKOTE COMPANY

This Carrier Absorption Refrigerating Machine uses heat to make cold. It is safe, compact and completely automatic. It has no moving parts.

New Machine



lowers cost of air conditioning!

Uses low-cost steam—cuts installation and operating expense

CAN your clients afford air conditioning? Even though the answer *was* "no" it may *now* be "yes." Where steam costs are reasonable, the Carrier Absorption Refrigerating Machine can lower owning and operating costs of any air conditioning system.

Who can use the Carrier Absorption Refrigerating Machine

Any office building, department store, factory or apartment building that uses steam for heating in the winter and has a steam plant that is relatively idle in the summer. Any sort of building or business in areas where steam costs are reasonable, or where there are district steam plants. The Carrier Absorption Refrigerating Machine is an alternative to refrigerating equipment operated by electric power.

Installation economies lower first cost

The Carrier Absorption Refrigerating Machine takes up a minimum of space. (The 115-ton capacity model is approximately 9 feet high, 5 feet wide, and 12 feet long.) Expensive foundations are unnecessary. It is so light in weight (net operating weight 5 tons) that it may be located on the roof with other mechanical

equipment such as boilers, cooling towers, elevators, and air conditioning apparatus. This feature saves valuable basement space and places all mechanical equipment together.

Operating economies lower owning cost

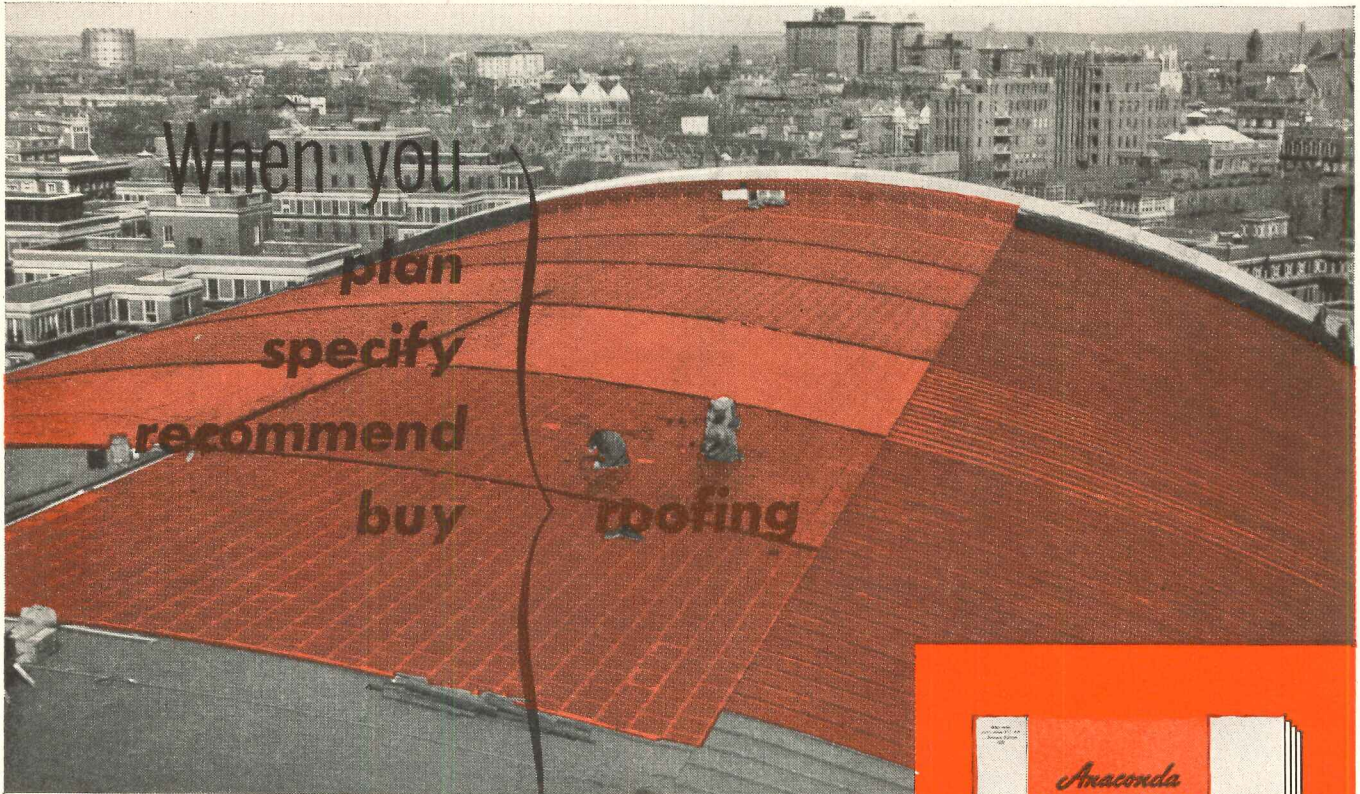
The Carrier Absorption Refrigerating Machine uses either high or low pressure steam. It uses less than 20 pounds of steam per hour per ton of refrigeration. It automatically adjusts itself to partial loads down to 15% of total capacity — without losing efficiency. Because there are no moving parts (other than a small centrifugal pump) and because the safe absorbent cannot be lost by evaporation, maintenance costs are exceptionally low.

Wide range of sizes available

For air conditioning, the Carrier Absorption Refrigerating Machine chills water to 50 degrees F. or below. For refrigeration, the machine will chill water to 36 degrees F. It is available in individual capacities of 115, 150, 200, 270 and 350 tons. It is suited to multi-unit installations in any combination. We suggest that you write for the booklet, "Cooling with Heat." Carrier Corporation, Syracuse 1, New York.



AIR CONDITIONING • REFRIGERATION • INDUSTRIAL HEATING



Specify

ANACONDA COLD ROLLED COPPER

Here's why—Laboratory tests and studies in the construction field have demonstrated that cold rolled, light-tempered sheet copper, commonly known as cornice temper copper, is the best quality, most satisfactory material for copper roofing of all types.

Cornice temper copper, with its greater stiffness and higher yield strength, is better able to distribute the stresses induced by contraction and expansion caused by temperature changes and to eliminate sharp local buckling. The stiffer sheets also slide more readily in expansion joints and other mechanical devices used to absorb contraction and expansion.

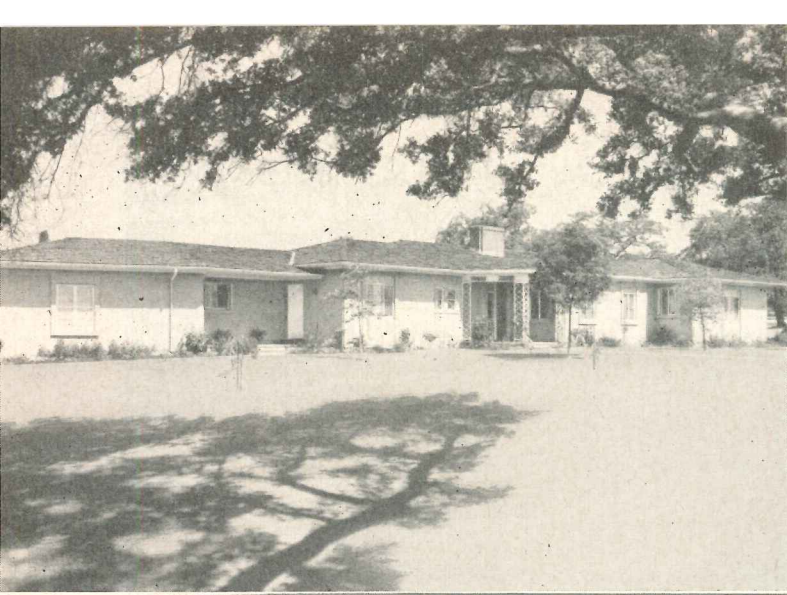
Ask your supplier for ANACONDA Sheet Copper. It is available in all standard sizes and weights for roofing, flashing, valleys, hanging and built-in gutters, leaderheads and leaders. He also handles such specially developed ANACONDA products as Economy* Copper Roofing, Economy Strip Copper and ANACONDA Through-Wall Flashing. 5034

*Reg. U. S. Pat. Off.

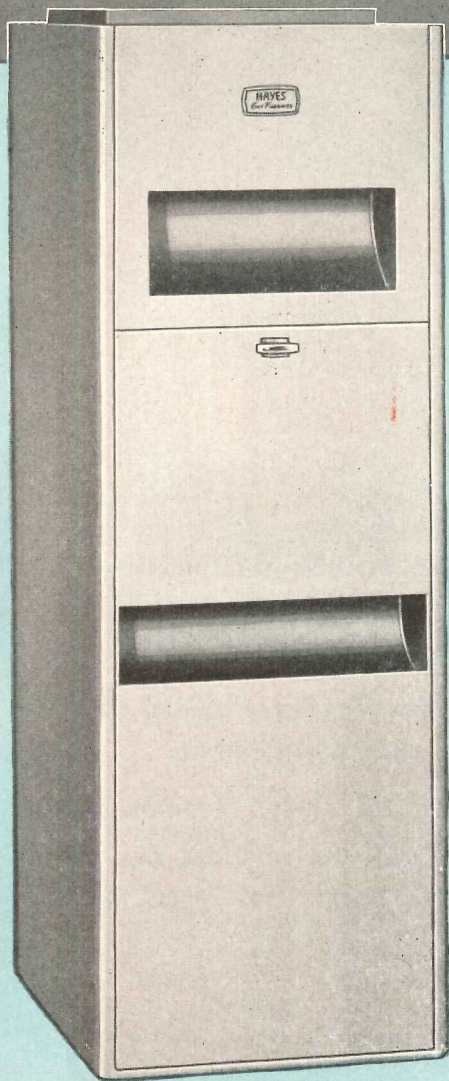
**Get this new, helpful
Anaconda Bulletin**

Ask for the 1951 bulletin "ANACONDA Sheet Copper for Building Construction." It's new and up to date, based on extensive investigation and practical experience. Address The American Brass Company, Waterbury 20, Connecticut. In Canada: Anaconda American Brass Ltd., New Toronto, Ontario.

You can build it better with **ANACONDA[®]**
COPPER



Residence of Ford J. Twalls
Architect — Roland E. Coate

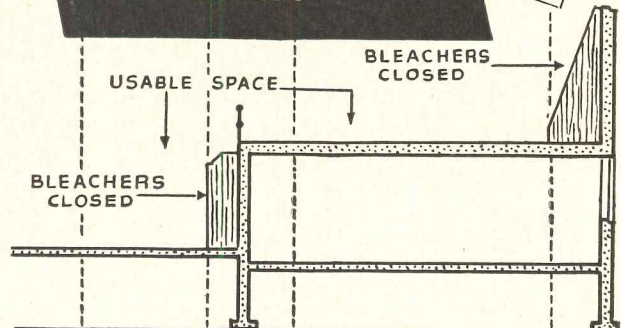


Hayes Stainless Steel Furnace for schools, small professional buildings and quality homes. For complete information and specifications, write your nearest dealer or: HAYES FURNACE MANUFACTURING & SUPPLY CO., 2929 SOUTH FAIRFAX AVENUE, LOS ANGELES 16, CALIFORNIA.

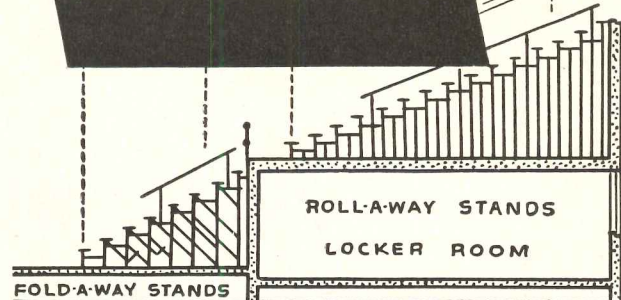
HAYES FORCED AIR FURNACE

BOYD ENGINEERING CO., Albuquerque, New Mexico; RUMBOLD & CO., Atlanta, Georgia; RODGERS-BARBECK CO., INC., Dallas, Texas; HARRY HERMAN, Denver, Colorado; BOYD ENGINEERING CO., El Paso, Texas; LUEDECKE ENGINEERING CO., Houston, Austin, San Antonio, Texas; SMITH STEAM SPECIALTY CO., Kansas City, Missouri; J. C. LEWIS, Little Rock, Arkansas; J. M. O'CONNOR CO., Oklahoma City, Oklahoma; E. B. BOMAR, Phoenix, Arizona; TAY HOLBROOK, INC., San Francisco, Oakland, Berkeley, Sacramento, Fresno, San Jose, Stockton, Santa Rosa, California; STANDARD BRASS & MANUFACTURING CO., Shreveport & New Orleans, Louisiana.

DON'T 'Throw Away'
THIS VALUABLE
GYMNASIUM
AREA



NOW YOU CAN GET
60% TO 70%
MORE
USABLE FLOOR SPACE



with *Universal*
TWO-LEVEL SEATING

Many installations prove that *modern two-level seating* with Universal Folding Stands (instead of old type built-in seats) opens up thousands of square feet . . . 60% to 70% . . . of otherwise unusable gym space. On the balcony level alone, ample area is provided for practice wrestling, boxing, corrective physical education, etc. Main floor gains result in one or two extra basketball cross-courts, plus additional space for physical education and specialized training. But that's not all. Total seating capacity can be increased up to 40% . . . yet the costs of Universal Folding Stands are at least 50% less than built-in seats. It will pay you to investigate now. Descriptive literature on two-level seating and complete Universal catalog free on request.

WORKING SCALE BLUEPRINTS

of two-level seating in large and small gymnasiums available without cost; also comprehensive studies of gymnasium seating by Harold R. Sleeper, F.A.I.A.

Universal
BLEACHER COMPANY

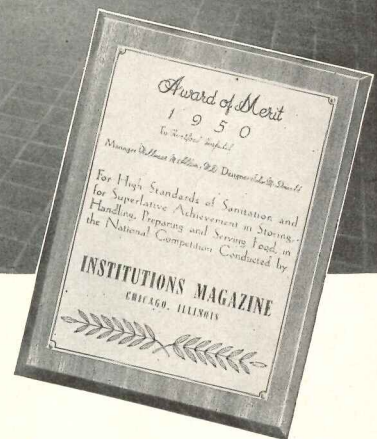
606 SOUTH NEIL STREET • CHAMPAIGN, ILLINOIS

Bleacher Experts for Over 30 Years



Hartford Hospital

Architects Coolidge Shepley Bullfinch and Abbott



for four years VAN customers award winners

- The buyer of food service equipment and his architect will be impressed by the four year consistent parade of awards to Van clients by the successive annual boards of experts of the magazine INSTITUTIONS.
- No matter what kind of food service establishment . . . regardless of size . . . the awards 1947-1950 have given fresh recognition to the high quality of equipment on which Van's name plate appears. The 1950 Awards of Merit to Hartford Hospital, Hartford, and St. Francis Hotel, Canton, indicate again the unusual character of Van's national service to all kinds of institutions.
- If you are planning food service equipment improvements, get the benefit of Van's century of experience.

The John Van Range Co.

EQUIPMENT FOR THE PREPARATION AND SERVING OF FOOD

DIVISION OF THE EDWARDS MANUFACTURING CO.

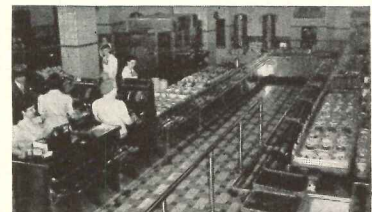
Branches in Principal Cities

429 CULVERT STREET

CINCINNATI 2, OHIO

1947

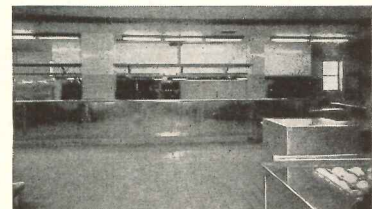
GRAND
AWARD



Mills Restaurant . . . Cincinnati

1948

GRAND
AWARD



Hotel Roanoke . . . Roanoke

1949

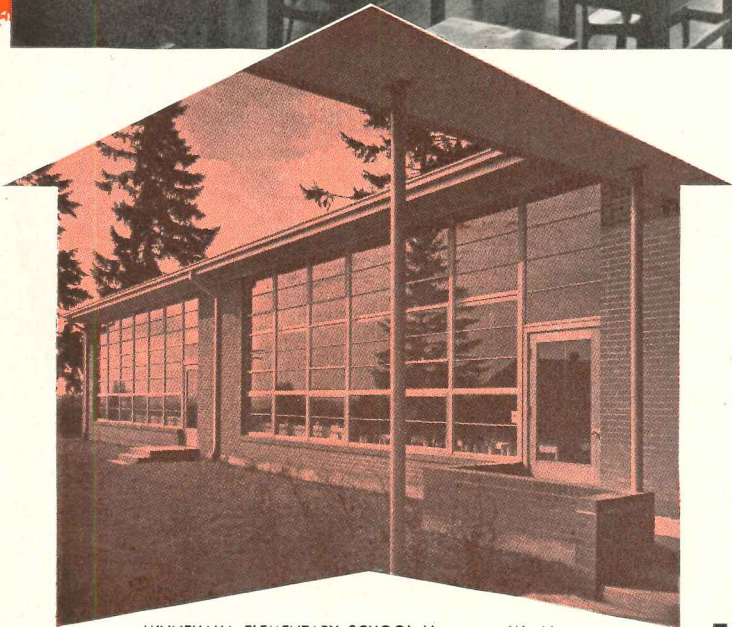
GRAND
AWARD



Michigan State College . . . Lansing

Mesker

STEEL WINDOWS . . .



MINNEHAHA ELEMENTARY SCHOOL, Vancouver, Washington

Architect: Donald J. Stewart, Vancouver

Contractor: A. N. King & Co., Vancouver

Mesker Sales Engineers: Masons Supply Company, Portland, Oregon

Get the effects
you want with
STURDY Mesker
“walls of windows”

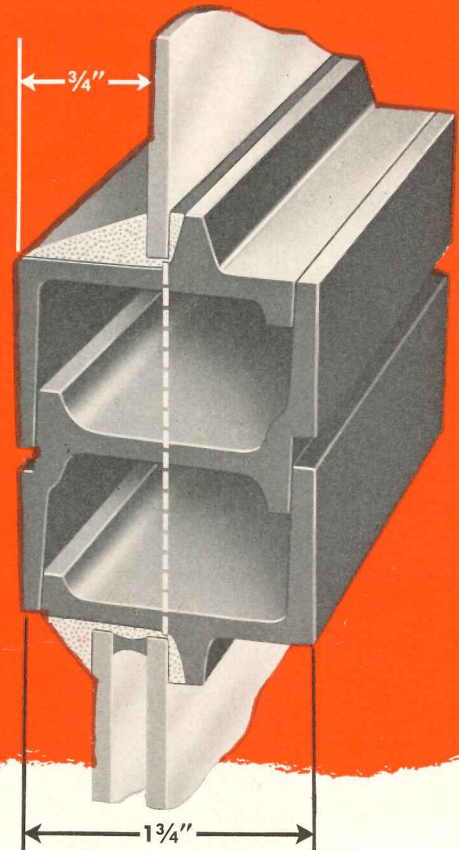
FOR MONUMENTAL BUILDINGS, FOR COMMERCIAL BUILDINGS

KNOWN FOR THEIR

Strength

WHERE EXTRA STEEL PAYS OFF !

More steel *plus* Mesker engineering make the Mesker Intermediate Windows used in this school project *the strongest*, and thus *the safest windows made!* The section shown here is a full 1 3/4 inches deep, deeper than that of any other window. This means rigid construction that resists all kinds of punishment better, and a window that you can use in large window openings without hesitation. Frame members alone are a full 1 1/2 inches deep, and the hot rolled weather angle and wide contact on ventilator bars insures maximum weather-tightness. The narrow putty rebate makes a better glazing job, and cuts labor costs, too. Choose a stronger, safer, more beautiful Mesker STEEL Window, whatever your project. They're *the strongest windows made!*



Yes, get *more* of the effects you want, make your own design job easier, and produce more of the features your clients like, with Mesker STEEL Windows . . . *the strongest windows made!* Look at the huge window areas in this Far Northwest school, for example . . . safe and strong as a solid wall, yet contributing far more to the comfort and well-being of hundreds of children. The days are short here during the school season, and it's often cloudy. But there's plenty of natural light coming through walls of windows 11 feet high and 30 feet long. There are 330 square feet of Mesker Window area in every classroom . . . a model of beautiful and purposeful design, providing easily controlled fresh air, better natural light, and relaxing distant vision. Important, too, the cost of these large size Mesker installations is as low or lower than any other window, and upkeep is practically nil.

So when you want the easiest, most economical way of designing the features your clients like, specify MESKER. Hear the particulars from your Mesker sales engineer . . . the man who sells *the strongest windows made!*

Available now and **FREE** to architects!

It's here—new 1950 Catalog of Mesker "Heavy Duty" Windows! An organized reference book that covers every aspect of steel window designing, engineering and specifying. Order your copy today by mailing the coupon below!



MESKER BROTHERS
4338 GERALDINE, ST. LOUIS 15, MO.

Gentlemen: I want to know more about the added advantages of Mesker Heavy Duty Steel Windows. Please send me (free) your 1950 Catalog.

Name _____

Address _____

City and State _____

FOR SCHOOLS, FOR HOSPITALS



**nothing protects
against sudden
shower scalds**

like

SAFETYMIX



**GIVE THEM THIS EXTRA SHOWER SAFETY
... AT NO EXTRA COST!**

**SHOWER
SAFETY**

... No scalds ... no chills. Protects against both sudden scalds and chills. Even with pressure fluctuations up to 85%, *Safetymix* keeps shower temperature constant. Automatically shuts down flow when either hot or cold water fails.

**LIFETIME
QUALITY**

... Only one moving part. Designed and manufactured by engineers and approved by architects, pressure-actuated *Safetymix* is the most rugged shower control valve made. Only *Safetymix* has the patented Flow Control Spindle with but one moving part to control all valve functions.

**FREE FROM
MAINTENANCE**

... Easy to fix as a faucet. *Safetymix* is designed with self-cleaning action to prevent clogging. Saves water. All parts accessible from front. Easy to fix as a faucet.

**COSTS
NO MORE**

Because it costs no more than ordinary shower valves and is guaranteed to be entirely as represented, architects specify *Safetymix* and engineers recommend it. *Safetymix* gives the extra safety and satisfaction that builds better reputations. *Safetymix* is used in thousands of schools, colleges, hotels, industrial plants, institutions and better homes from coast to coast.

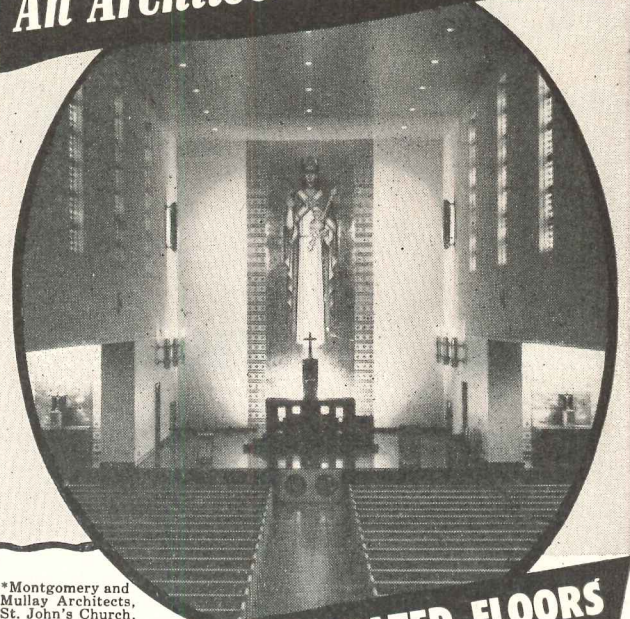
See Sweets Architectural File or your Domestic Engineering Catalog.

Send for bulletin and prices.

Symmons
ENGINEERING COMPANY

791 TREMONT STREET, BOSTON, MASS.

An Architectural Triumph!



*Montgomery and Mulloy Architects, St. John's Church, Los Angeles, Calif.

**HILLYARD TREATED FLOORS
add to its fame!**

● St. John's Church in Los Angeles, California, with its rich, dark green terrazzo aisles and altar floor, is famous in church architecture. The beautiful floors of this church were sealed, cleaned, and are regularly maintained with HILLYARD quality floor products approved, for nearly half a century, by leading architects and building manufacturers throughout the world.

TERRAZZINE—permanently seals the terrazzo against stains, grease, moisture, traffic wear. Specified through the years, by leading architects, for new terrazzo.

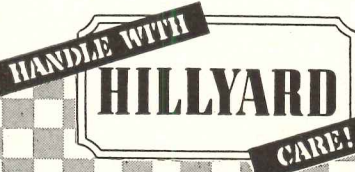
SUPER SHINE-ALL—Hillyard's neutral chemical cleaner, thoroughly cleans the floor without harmful scrubbing or time consuming rinsing. Specified by floor manufacturers. U/L approved.

HIL-TONE DRESSING—Picks up germ-laden dust gives a protective non-slip coverage that does not track and reduces necessity for frequent washings.

Send for your FREE A. I. A. Folder

. . . . gives clear, concise specifications for every type of flooring proper treatments for new and old floors.

Call on your Hillyard Maintainer for free advice on all floor problems.

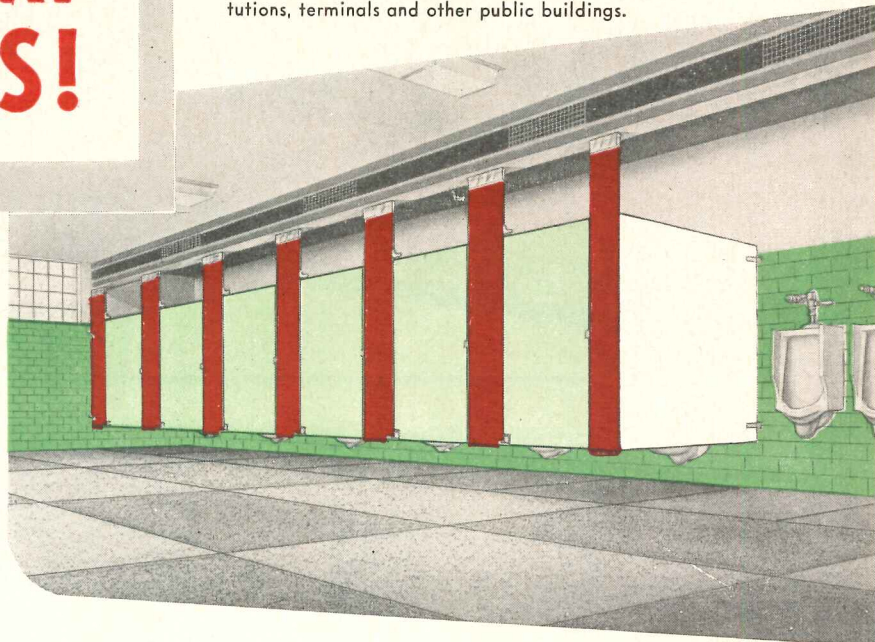


**ST. JOSEPH,
MISSOURI
U. S. A.**

BRANCHES IN PRINCIPAL CITIES

TOILET ROOM ENVIRONMENTS THAT STAY NEW ALWAYS!

Sanymetal CENTURY Type Ceiling Hung Toilet Compartments offer the utmost in sanitation and provide modern, distinctive toilet room environments for schools, institutions, terminals and other public buildings.



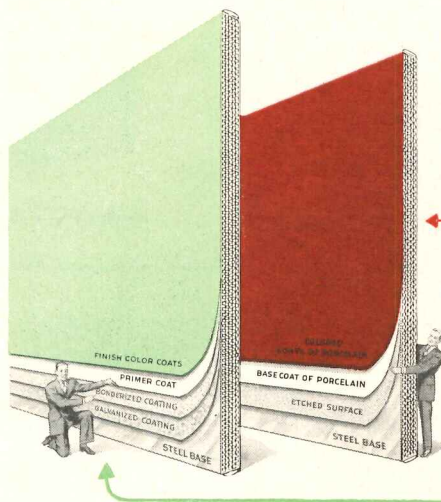
The toilet room environment that stays new is the toilet room in which the most suitable type of toilet compartment available has been installed. Toilet compartments usually dominate a toilet room, influence the toilet room environment and emphasize the utility of fixtures and appointments. The bare functional type of toilet room is inadequate according to today's standards.

Sanymetal offers several different types of toilet compartments for creating the most suitable toilet room environment for every type of building. Sanymetal also offers and recommends Two Full Purpose Metal Base Materials which combine colorful attractiveness with long years of service life and effect important, day after day, savings in cleaning and maintenance cost. These Two Full Purpose Metal Base Materials—Sanymetal "Tenac" (galvanized, Bonderized* steel), a highly corrosion-resistant material; and Sanymetal "Porcena" (porcelain on steel), the ageless and fadeless, rust proof material—represent years of engineering research and skillful adaptation by Sanymetal engineers of corrosion-resistant steels to the fabrication of new and different types of toilet compartments.

THE SANYMETAL PRODUCTS CO., INC.
1689 Urbana Road • Cleveland 12, Ohio



Over 150,000 Sanymetal Toilet Compartments have been installed in all types of buildings. Ask the Sanymetal representative in your vicinity for information about planning suitable toilet room environments that will always stay new. Refer to Sanymetal Catalog 22b in Sweet's Architectural File for 1950.



This is Sanymetal
"PORCENA"
(Porcelain on Steel)

A metal base material that is impervious to moisture, odors, cleaning and uric acids, oils and grease. It is rust proof. Available in 21 glistening colors.

This is Sanymetal
"TENAC"

(Baked-On Paint Enamel over Galvanized, Bonderized* Steel)

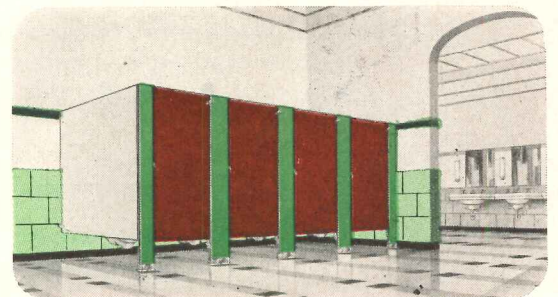
A metal base material that is notable for the positive adhesion of the baked-on paint enamel to the metal and its resistance to corrosion. Its lustrous, protective finish assures long-lasting newness. Available in 21 gleaming colors.

Sanymetal*

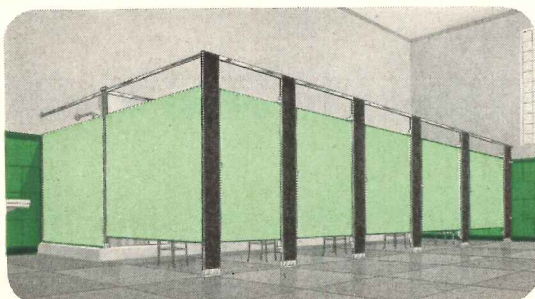
*Trade Mark Reg. U. S. Pat. Off.

*Treated with "Bonderite", a product of Parker Rust Proof Co.

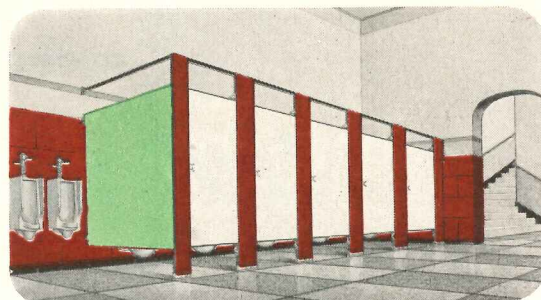
Sanymetal NORMANDIE Type Toilet Compartments endow a toilet room environment with dignity and good taste.



TOILET COMPARTMENTS, SHOWER STALLS AND DRESSING ROOMS



Sanymetal ACADEMY Type Shower Stalls and Dressing Room Compartments provide the utmost in sanitation for gymnasiums, stadium dressing rooms, Y.M.C.A.'s, clubs, trailer camps and tourist motels, etc.

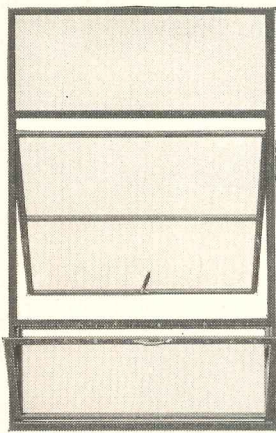


Sanymetal ACADEMY Type Toilet Compartments are suitable for conservative but modern toilet room environments.

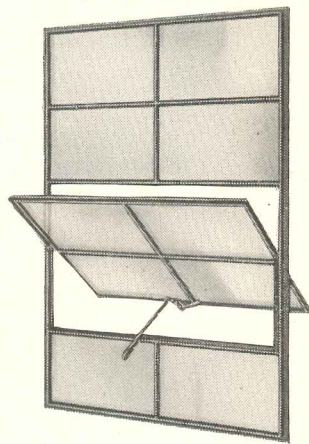
DESIGN NOW!

FOR MAINTENANCE-FREE STEEL WINDOWS

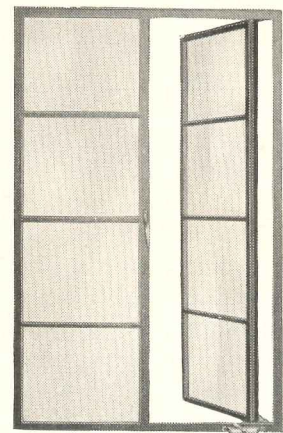
Fenestra's Special Hot-dip Galvanizing Process Gives You Steel-strong Windows Made to Stay New!



Intermediate Steel Windows



Industrial Steel Windows



Residential Steel Windows

Hot-dip, keyed-in galvanizing—*after fabrication!* No metal left unprotected. All done in Fenestra's specially designed plant . . . with specially designed equipment. Complete quality control by skilled window craftsmen—every inch of the way from steel bars to finished windows.

These maintenance-free Fenestra* Windows are:

Built of Hot-rolled Sections of Fine Steel
—then Specially Hot-dip Galvanized

—then Bonderized for a Perfect Finish (as well as for an excellent base for decorative paint—when desired)

Now you'll get *strong, steel* windows that will always stay new.

You'll get them from Fenestra.

Just as you got the first steel windows in America from Fenestra.

Just as you got the first Bonderized steel windows from Fenestra.

*®

For further information . . . call your Fenestra representative today!

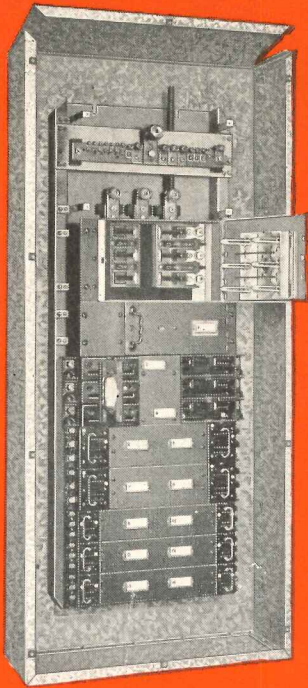
(He's listed in the yellow pages of your phone book.) Or write Detroit Steel Products Company, Dept. AR-8, 2252 East Grand Blvd., Detroit 11, Michigan.



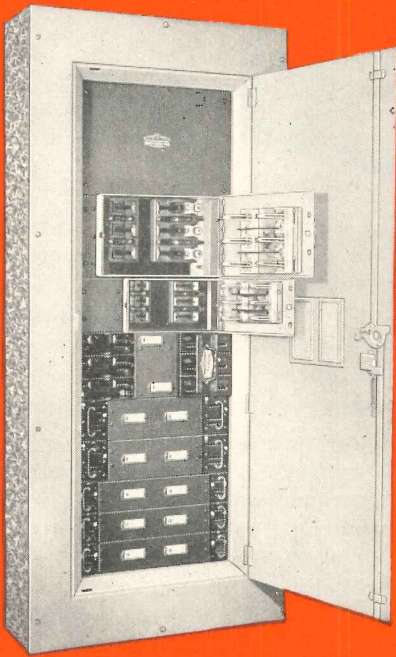
STEEL-STRONG WINDOWS MADE TO STAY NEW

Fenestra

Hot-dip Galvanized Steel Windows



Ⓢ FEEDER PANELBOARD



Re-designed
**inside
and out**

LESS SPACE IS REQUIRED for the same panelboard requirements in the *re-designed* Ⓢ FEEDER PANELBOARD . . . without sacrificing such popular Ⓢ features as generous wiring space and ease of installation.

This improved, compact Ⓢ FEEDER PANELBOARD is built of standardized units and assembled as required for specific application. Four standardized widths, 10 standardized heights and 3 standardized depths of boxes meet any requirement. Boxes are shipped from stock . . . with removable ends to permit drilling conduit openings on the job. Panels are readily installed after boxes are in position.

Two dependable Ⓢ Switches . . . the Ⓢ PULFUZSWITCH and the Ⓢ KLAMPSWITCHFUZ . . . make these feeder distribution panelboards the finest in safety and efficiency. Both types combine switch and fuse in one unit so that current is OFF when the door is opened, or the fuse carrier removed. This makes replacement of fuses safe . . . quick . . . simple.

In operation, the switch blades make pressure contact with the fixed switch parts, assuring full current-carrying capacity. Silver-plated contact parts insure low resistance to current flow, and reduce heating.

Ⓢ PULFUZSWITCH capacities: 30, 60 and 100 amps., 250 volts AC or DC; 30 and 60 amps., 600 volts AC, 2, 3 and 4 pole.

Ⓢ KLAMPSWITCHFUZ capacities: 30 to 600 amps., 250 volts AC or DC; and 30 to 200 amps., 600 volts AC in 2, 3 and 4 pole types, single or double throw.

For more information about the *re-designed* Ⓢ FEEDER PANELBOARD, talk it over with your Ⓢ Representative (he's listed in Sweet's).



Frank Adam Electric Co.

ST. LOUIS 13, MISSOURI

Makers of BUSDUCT • PANELBOARDS • SWITCHBOARDS • SERVICE EQUIPMENT • SAFETY SWITCHES • LOAD CENTERS • QUIKHETER



ROBERTSON

CLAY WALL TILE FOR SALES APPEAL

Robertson Clay Wall Tile forms a perfect setting for goods that must be sold in the best surroundings. It makes possible glistening bright interiors, permanently color-fast, permanently beautiful. Robertson Tile is easy to clean, inexpensive to maintain, absolutely fireproof. You can solve any color problem with its 40 lustrous bright or soft matt glazes. Write on your business letterhead for free color charts.

ROBERTSON
MANUFACTURING COMPANY
TILE DIVISION
TRENTON 5 NEW JERSEY

THE RUSCO

PRIME WINDOW

(VERTICAL SLIDE)

the durable,
rust-resisting
Armco Metal window unit
that will **REDUCE**
your installation costs



ONLY RUSCO OFFERS THESE DESIGN AND CONSTRUCTION FEATURES...

All working parts are of strong, tubular, hot-dipped galvanized Armco Ingot Iron Zinc-grip, Bonderized and finished with baked-on enamel. No field painting required, (except wood trim when used). Glazing and on-the-job refitting are all completely eliminated. Design permits installation in *less* than half the time required by ordinary window units. **A quality product, competitive with the lowest price window unit on the market.**

OFFERS YEAR 'ROUND BENEFITS:

1—A year 'round unit—no screens or storm sash to buy . . . 2—Built-in ventilation control . . . 3—Glass and screen panels removable from inside for easy washing . . . 4—No weights, cords or balances . . . 5—Waterproof felt weather stripping . . . 6—No binding or sticking . . . 7—Lumite plastic screen cloth—permanent—no deterioration or streaking . . . 8—Automatic locking in closed and ventilating positions.

RUSCO GIVES YOU a complete, factory-assembled, factory-painted metal unit . . . contains glass, screen, weather stripping, installation members (wood or metal), self-storing insulating sash*.

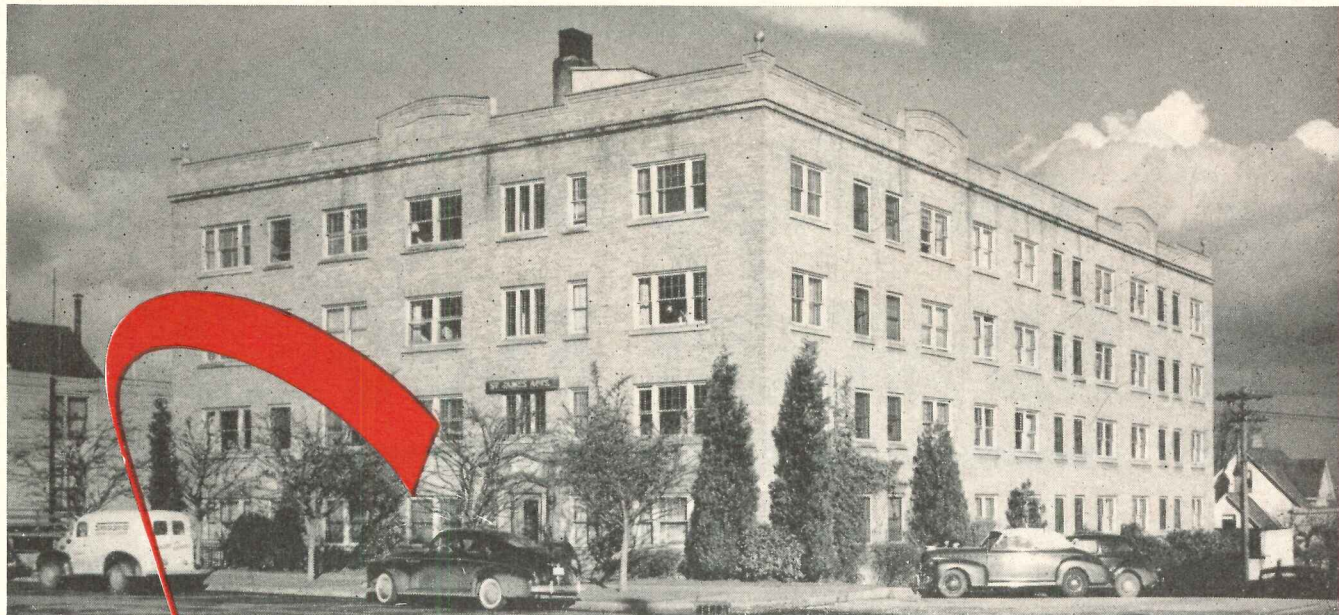
*optional
Get the facts about Rusco Prime Windows. You'll see why they save on-the-job costs . . . help sell houses. See the Rusco distributor in your locality, or write direct.

THE F. C. RUSSELL CO.

Department 7-AR80, Cleveland 1, Ohio

Manufacturer of the famous Rusco all-metal,
self-storing combination screen and storm sash.





In apartment houses, B & G Hydro-Flo Heating remedies the lack of proper heat control. Apartments can be zoned for individual temperature control.

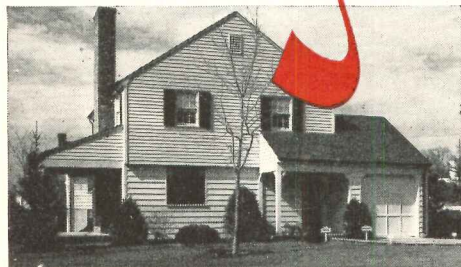
NO JOB TOO **BIG** OR TOO **SMALL** FOR B & G *Hydro-Flo** HEATING

Adding up all the advantages of B & G *Hydro-Flo* Heating results in an impressive total—reveals why it is today's fastest growing type of system. Mechanically circulated water is the ideal heating medium and B & G *Hydro-Flo* Equipment supports its fundamental superiority with top operating efficiency.

No matter how large the installation, B & G *Hydro-Flo* Heating equipment never becomes complex nor requires critical adjustment. The basic units are the same, whether heating a cottage, apartment or industrial building.

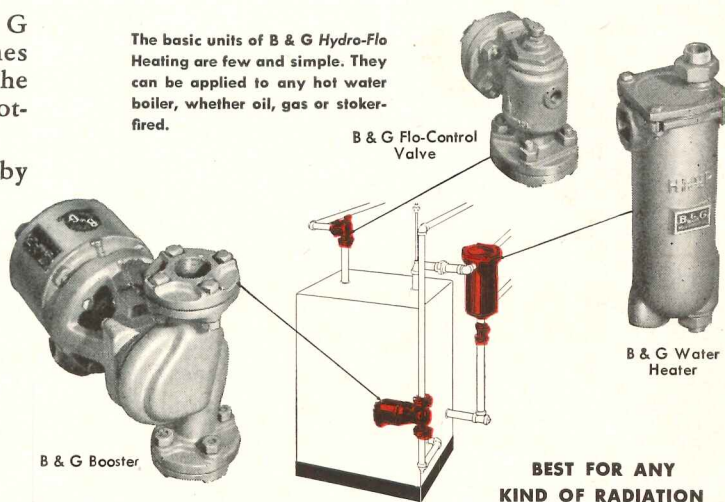
The close control of temperature afforded by

B & G *Hydro-Flo* Heating leads to two great benefits. First, *comfort!* Always the same uniform temperature—regardless of how rapidly or sharply the weather changes. Second, *fuel economy!* Since the heat supply is matched to outdoor temperature, fuel is never burned needlessly.



No over-heating—no under-heating—no fuel waste in this small home . . . it has B & G *Hydro-Flo* Heating.

The basic units of B & G *Hydro-Flo* Heating are few and simple. They can be applied to any hot water boiler, whether oil, gas or stoker-fired.



Radiators

Convectors

Baseboards

Radiant Panels



BELL & GOSSETT

Dept. BR-32, Morton Grove, Ill.
Canadian Licensee: S. A. Armstrong, Ltd.,
1400 O'Connor Drive, Toronto 13

Company

* Reg. U. S. Pat. Off.

From *Higgins* WORLD-FAMOUS
BOAT BUILDERS

HARDWOOD FLOORING

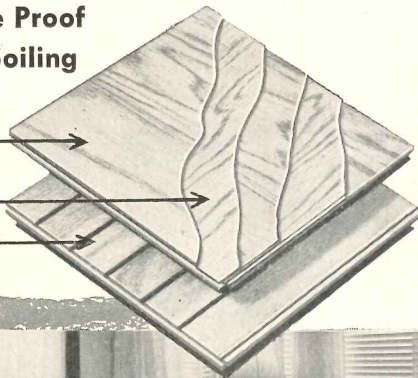
With Features No Other Flooring Gives You

- Lifetime Beauty • Resists Abrasion • Will Not Warp, Cup, Buckle or Crack • Rot Proof • Termite Proof
- Water Repellent • Climate Proof
- Money Saving • Resists Soiling

SELECTED OAK FACE

5-PLY CROSS-GRAIN CONSTRUCTION

GROOVED BACK



Home owners enjoy the many housekeeping advantages that go with the luxurious beauty of Higgins Bonded Hardwood Block Flooring. Higgins Floors keep their fine finish indefinitely with only dry mopping and an occasional waxing—are quiet and comfortable to walk on.

Higgins blocks are bonded under terrific heat and pressure with marine-type waterproof glue—impregnated with penetrating varnish sealer of 100% phenolic resin base, and treated with a powerful

solution of pentachlorophenol. Tongues are integral part of block. Precision made to exact 9" x 9" face. Blocks come with final finish.

Ideal for radiant heating. Grooves on back of blocks act as heat conductors, assuring uniform heat with practically no increase in water temperature. Easy to install direct on any type subflooring. Can be blind-nailed or laid in adhesive. You can specify Higgins Flooring with confidence, wherever a flooring of rich beauty and permanence is desired.

Write for Literature and Sample Block



Higgins BONDDED HARDWOOD
BLOCK FLOORING
INCORPORATED NEW ORLEANS

fedders

COMPLETE LINE OF HEATING EQUIPMENT • Accurately Cataloged



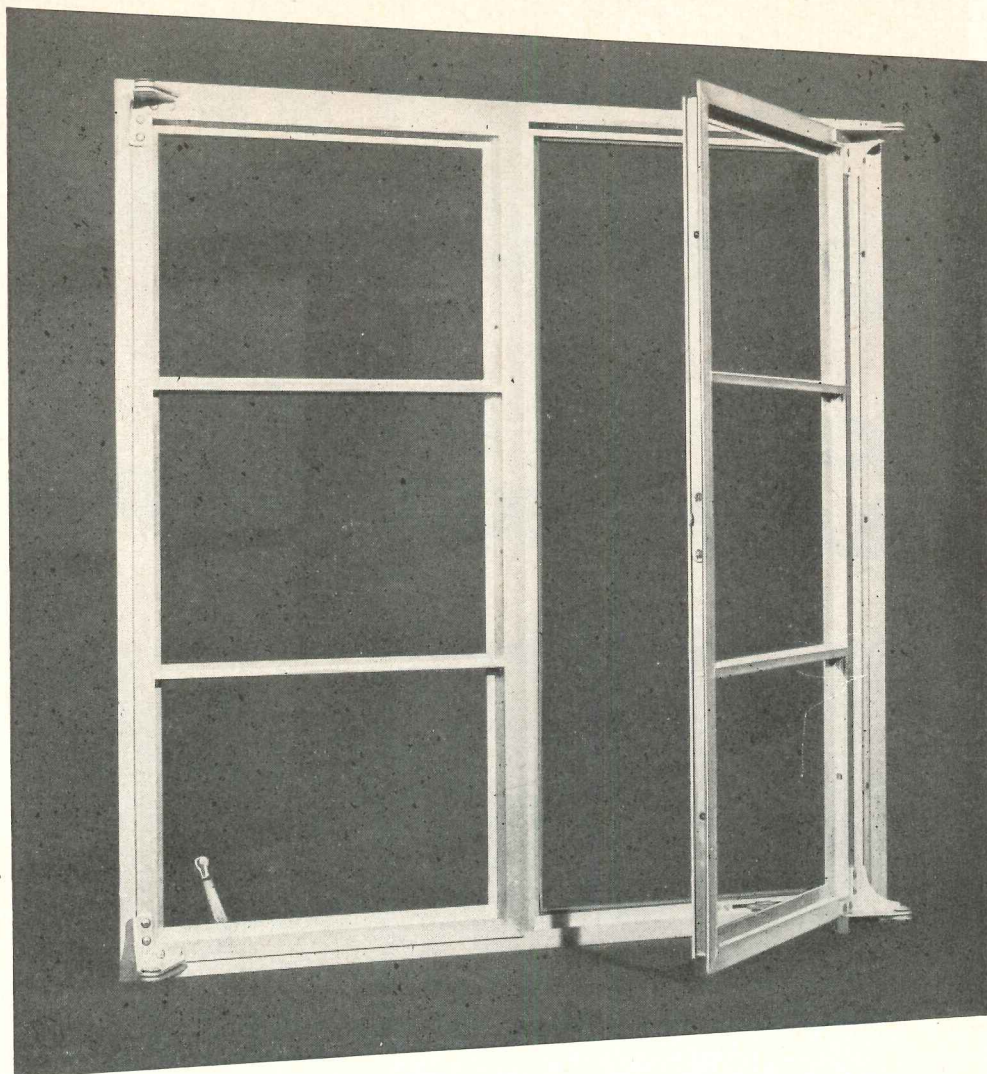
fedders
A Great Name Since 1896

● For years accurate ratings have been traditional with Fedders heat transfer equipment. Men who specify, sell and install Fedders heating equipment use Fedders catalogs as authoritative, convenient working tools. They cover the complete Fedders line of Horizontal and Downblow Unit Heaters, Convector-Radiators, Wall and Baseboard Radiation.

Write for your personal copy of newest bulletins just off the press.

FEDDERS - QUIGAN CORPORATION, BUFFALO 7, N. Y.

Quigan



Window shopping stops here...

The most intensive of all "window shopping"—that of the architect and builder—must stop at the sight of Reynolds Aluminum Casements.

Their superiority in design and especially in *finish* is outstanding.

Their flash-welded corners assure maximum rigidity and weathertightness. Their roto-operation is smooth and dependable. And of course they have the basic advantages exclusive to aluminum windows: rustproof permanence with no need for protective painting, narrow frames of neutral tone to harmonize with any concept.

Reynolds supplies residential casement, fixed and picture windows in all combinations, standard and western types...also Reynolds Aluminum Screens to fit these and all metal casement windows.

Stop right here and write for complete descriptive literature in A.I.A. file form. **Reynolds Metals Company,** Building Products Section, 2015 South Ninth Street, Louisville 1, Ky. Offices in 32 principal cities.

IF YOU SEE RUST
YOU KNOW IT'S NOT
ALUMINUM



REYNOLDS
Lifetime ALUMINUM
BUILDING PRODUCTS

Window Specifications Start Here...

"...as manufactured by Reynolds Metals Company...made of solid extruded aluminum shapes of not less than 1/8" in thickness...special alloy of not less than 17,000 pounds tensile strength psi...Frames shall be Zee sections 1" in depth and 7/8" in cross section, and will provide continuous double contact...All corners shall be electrically flash welded...Satin type finish and protective lacquer coating..."

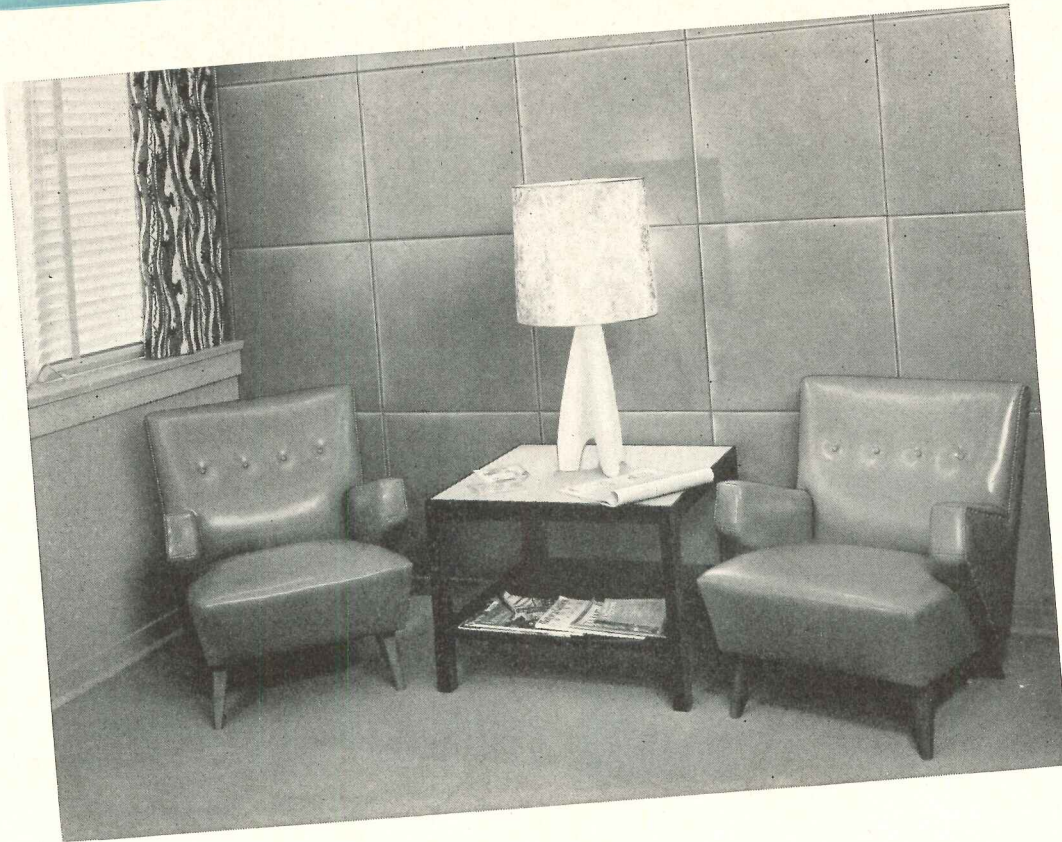
**REYNOLDS ALUMINUM
RESIDENTIAL CASEMENT FIXED
AND PICTURE WINDOWS**

REYNOLDS ALUMINUM

masland *Duran* all plastic upholstery covering

MAIN DINING ROOM

STORAGE



KITCHEN

LOBBY

MEN'S LOUNGE

LADIES' LOUNGE

Plan with Masland Duran all-plastic upholstery for beauty and economical upkeep on booths, stools, tabletops, walls and panelling. For distinctive beauty in hotels, restaurants, offices and institutions, choose from a variety of 300 Duran colors and designs.

ALL plastics are not the same!
Be sure it's MASLAND DURAN.
This tag is your protection.

SEE DURAN IN *Sealtuft* DESIGNS

GRILLE

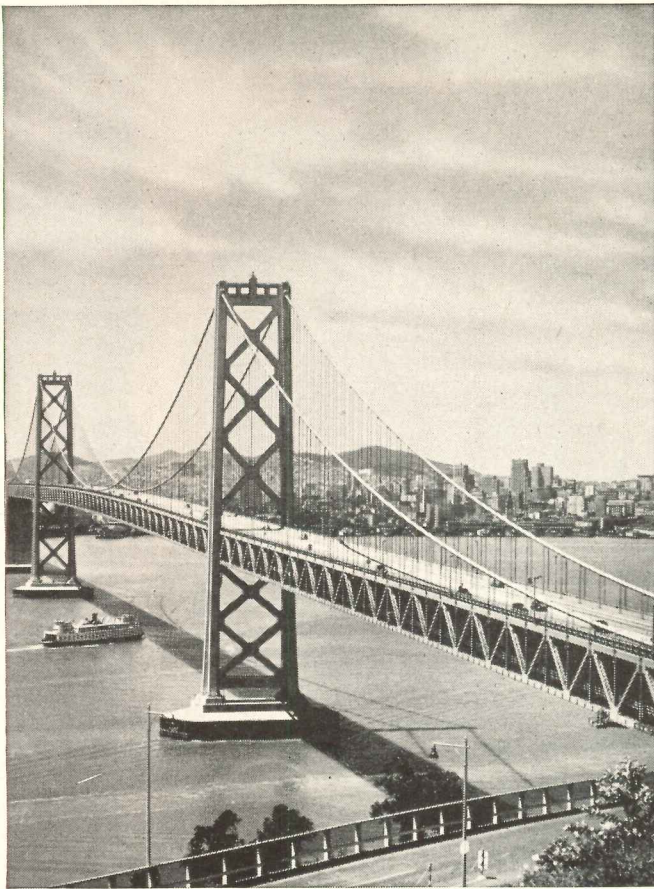
COFFEE SHOP

THE MASLAND DURALEATHER COMPANY, DEPT. 36, PHILA. 34, PA.

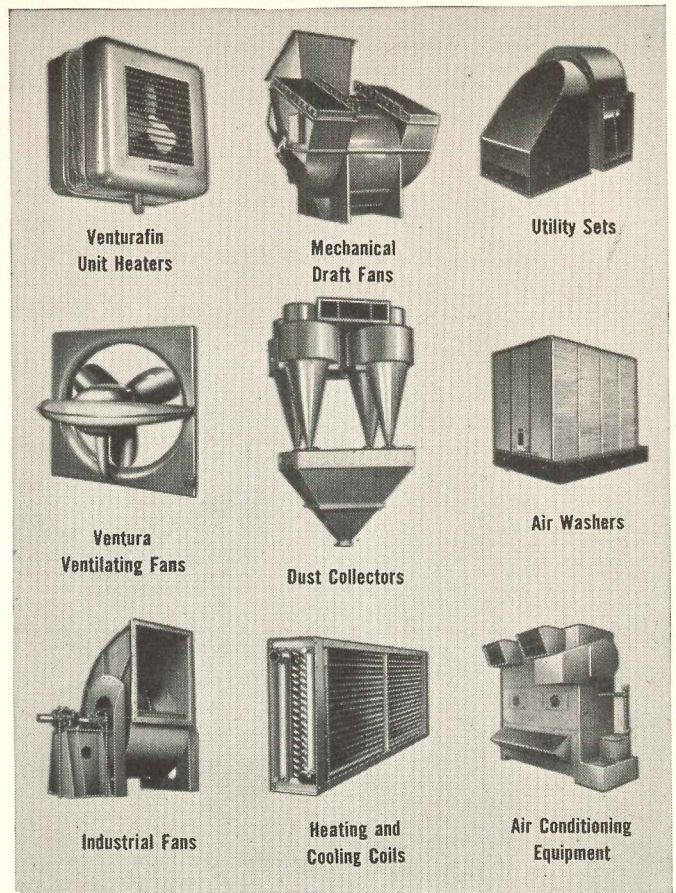
Celebrating our 36th year in business.



American Blower — a time-honored name in air handling



In the San Francisco area, for air handling data call American Blower—Sutter 1024. In other areas consult your phone book. NOTE: To better serve our Western customers, American Blower has built another new plant—conveniently located in San Leandro, California.



If you look before you buy, we're certain you'll buy American Blower Air Handling Equipment. There's a vast difference in quality, design, quietness, operating costs and efficiency. Users' records prove the superiority of American Blower products.

Air is free . . . use it profitably!

WE WOULD like to suggest that you, as an architect, bear these two factors in mind:

1. There are American Blower Air Handling Products which are ideally suited to help your clients put air to work profitably.
2. There is an American Blower Branch Office strategically located to assist you.

And no matter what type of American Blower equipment you recommend, your customers get these plus advantages:

Equipment built by a reputable manufacturer with a background of 69 years of experience—equipment which is tested in accordance with the Standard Test Code as adopted jointly by the N.A.F.M. and the American Society of Heating and Ventilating Engineers and carries Certified Ratings—equipment which is the result of the broadest and most thorough methods of engineering and research known.

If you consider the merits of the air handling equipment you are about to specify in the light of these advantages, we're certain you'll agree that American Blower offers more value per dollar invested.

Phone our nearest branch office for data.

AMERICAN BLOWER CORPORATION, DETROIT 32, MICHIGAN
CANADIAN SIROCCO COMPANY, LTD., WINDSOR, ONTARIO

Division of AMERICAN RADIATOR & Standard Sanitary CORPORATION

YOUR BEST BUY

AMERICAN BLOWER

AIR HANDLING EQUIPMENT

Serving home and industry

AMERICAN-STANDARD • AMERICAN BLOWER • CHURCH SEATS • DETROIT LUBRICATOR • KEWANEE BOILERS • ROSS HEATER • TONAWANDA IRON

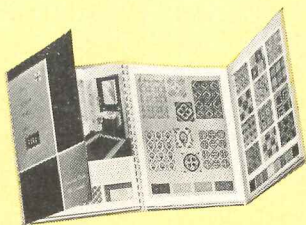
One of many full color illustrations in *The Color Book Of Tile*. Complete tile specifications are given for each installation.

Simplify
TILE
Specifications
from Start
to Finish



SEE IT... CHOOSE IT

in THE COLOR BOOK OF TILE



Free to Every Architect

THE COLOR BOOK OF TILE

The most complete, most helpful tile book ever produced. 100 pages, including 30 of typical installations in full color; plus color charts of wall and floor tile, trim, and hand decorated inserts. Full architectural data and ready-to-use specifications. If you have not received your copy, or if you need another, write today.

Now, The Color Book of Tile makes it possible to select and specify tile installations . . . *in minutes!*

See and choose wall and floor tile, patterns, decorative strips and panels in full color. Preview complete room installations from 30 full color plates in exact scale . . . 23 more color pages offer side-by-side comparison of alternate treatments.

To specify a certain type of tile installation, simply send your American-Olean Contractor the 42-word, ready-to-copy specifications from The Color Book Of Tile. Choice of colors can be made later.

To help your clients visualize installations, and to save your time by simplifying specifications . . . use the American-Olean Color Book of Tile for every job!

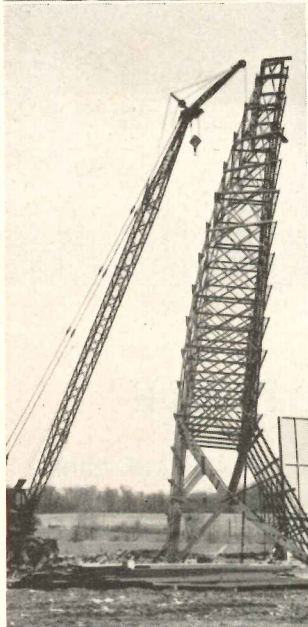
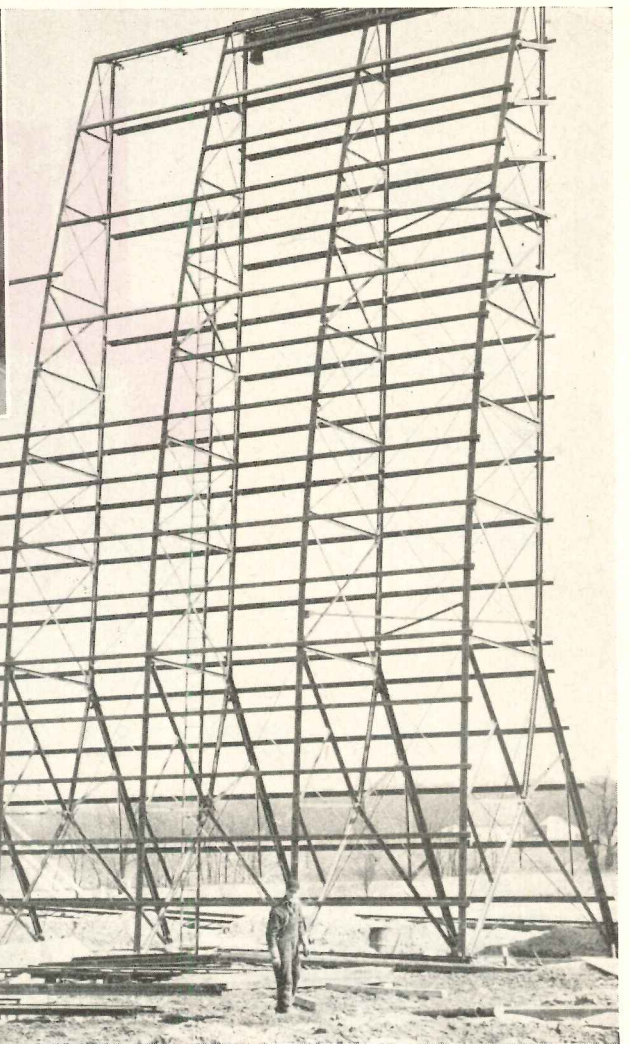
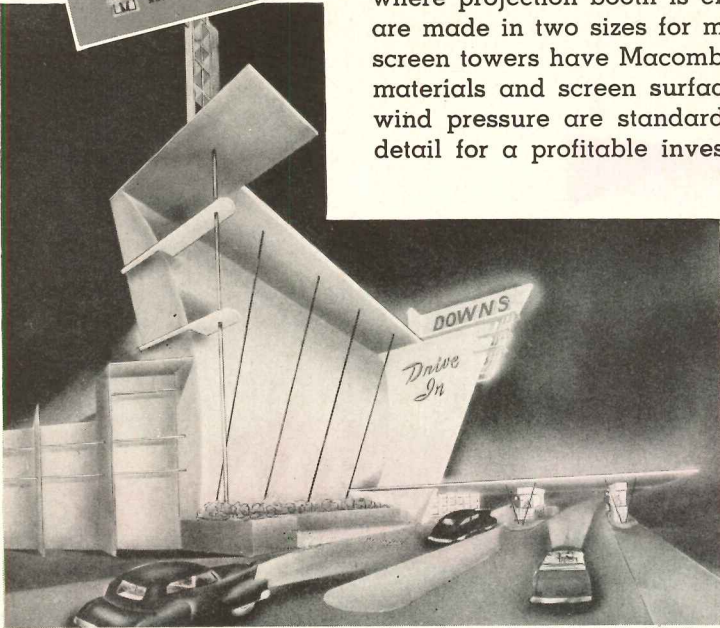
AMERICAN-OLEAN TILE COMPANY
Executive Offices, 925 Kenilworth Ave., Lansdale, Penna.

IT'S REAL CLAY TILE



You'll Want This Latest Information ON DRIVE-IN THEATRE FRAMING

The catalog on the left shows the details of the two types of Macomber Drive-In Theatre Screen Supports engineered, fabricated and erected in accordance with state authority groups who approve this type of structure. The one shown is a modified Bowstring frame with sloping front for a low projection angle. The other type is an "A" Frame design with vertical screen where projection booth is elevated midway up amphitheatre layout. Frames are made in two sizes for medium and large layouts. All four sides of these screen towers have Macomber Nailable Steel Girts for attachment of finishing materials and screen surface. These screens designed for 100 mile an hour wind pressure are standardized, in production now and approved in every detail for a profitable investment. Write us for catalog.



STANDARDIZED STEEL BUILDING PRODUCTS

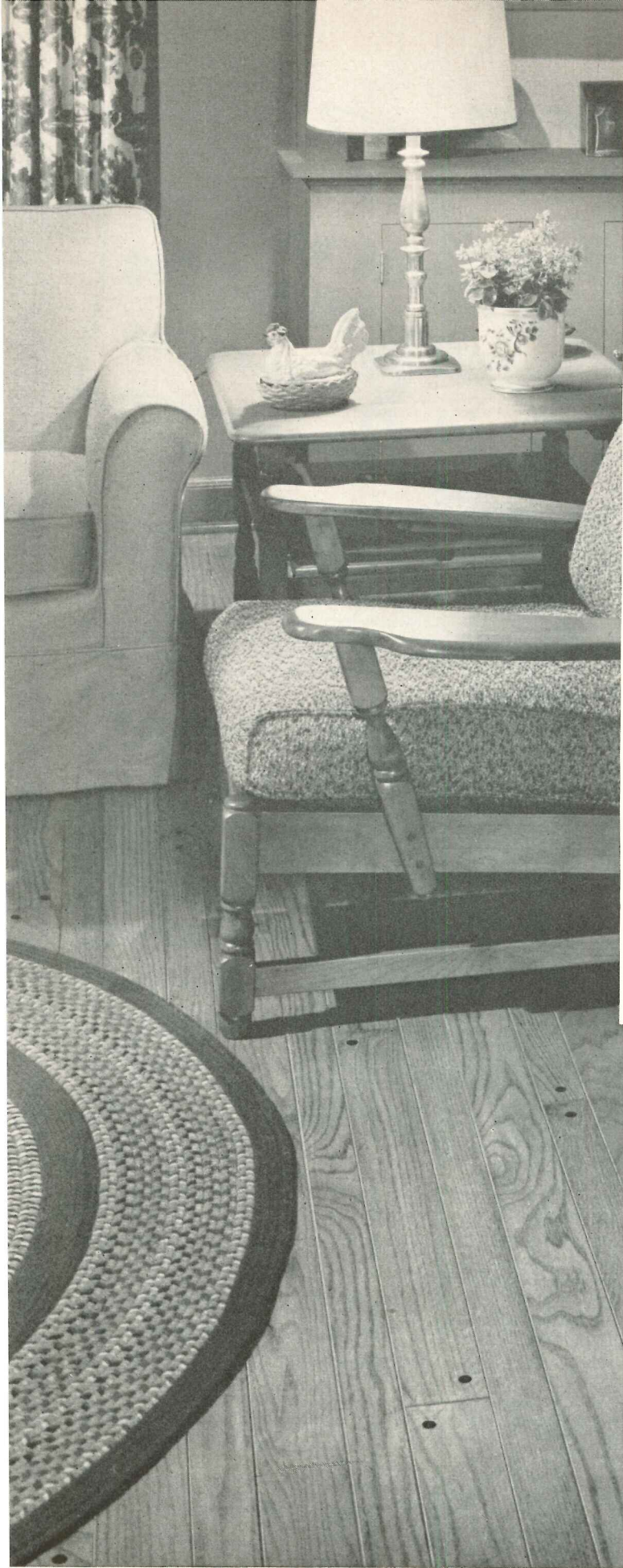
MACOMBER • INCORPORATED

CANTON, OHIO

IN CANADA, SARNIA BRIDGE CO., LIMITED, SARNIA, ONT.
IN MEXICO D. F.—MACOMBER DE MEXICO S. A. CEDRO 500

V BAR JOISTS • LONGSPANS • BOWSTRING TRUSSES • STEEL DECK





*Here's beauty
that never
grows old!*

■ When you specify a Bruce Ranch Plank Floor for a home, you're giving the owner three advantages he won't soon forget.

First of all, you're giving him a solid oak floor that will withstand a lifetime of wear and tear . . . and never show its age. More than that, it's a floor that will always be admired . . . with the alternate widths and walnut pegs lending the informal charm and beauty of an expensive random-width plank floor. The owner can be certain, too, that his floor will remain in good taste and perfect harmony through changes in decoration styles and individual preferences.

Sounds expensive, but it's not! A Bruce Ranch Plank Floor costs little more than a regular strip floor finished on the job. Include it in your next plans, and get ready for a lot of praise from Mr. and Mrs. Homeowner.

See our catalog in Sweet's Files for complete data. For new color booklet showing Bruce Ranch Plank Floors in modern and traditional interiors, write:

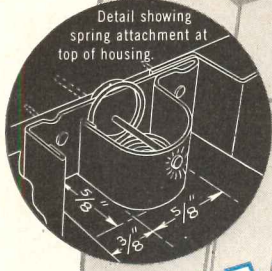
E. L. BRUCE CO., MEMPHIS 1, TENN.



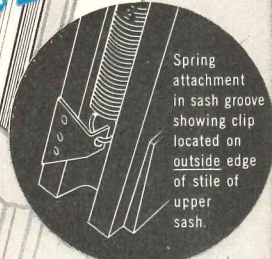
Bruce Ranch Plank Floor

IT'S PEGGED AND FINISHED AT THE FACTORY

This is the way to
balance windows . . . and
weatherstrip them too!



Detail showing spring attachment at top of housing.

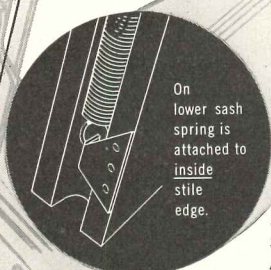


Spring attachment in sash groove showing clip located on outside edge of stile of upper sash.

ALLMETAL

Combination

SASH BALANCE AND WEATHERSTRIP UNIT
Do two jobs at once on any double-hung window. Here is an installation on an economy frame giving an all metal sash run. Or simply "cap" old or new wood parting beads. Allmetal Sash Balance give stable sash — provides finger-tip control — cuts labor and material costs and provides better windows by weatherstripping as well as balancing. Send for complete information now.



On lower sash spring is attached to inside stile edge.

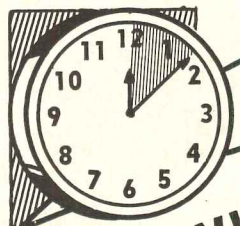
See Our Catalog in Sweet's File 18A Architectural T

ALLMETAL WEATHERSTRIP CO.

2239 North Knox Avenue, Chicago 39, Illinois

Gentlemen: Please send me complete information and prices.

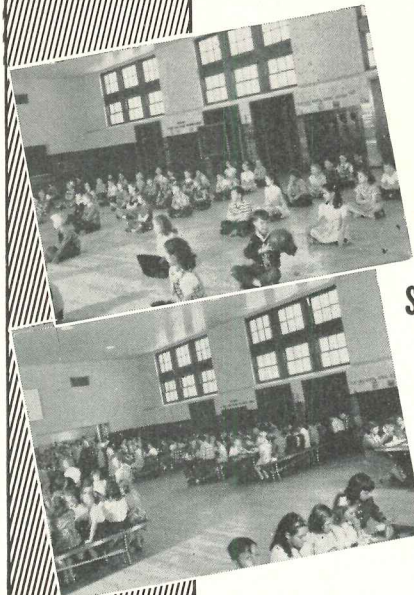
Name _____
Address _____
City _____ Zone _____ State _____



ACTIVITIES ROOM TO LUNCHROOM FOR 200 in 8 minutes

IN-WALL EQUIPMENT ACHIEVES FUNCTION and ECONOMY IN SCHOOL DESIGN

Multiple use of space means economy. Hundreds of schools in cities from coast to coast now use and testify to the practical advantages of In-Wall installations—seats more students in less space, maintains better discipline, eliminates storage area.



MORE THAN 85% OF LEADING SCHOOL ARCHITECTS SPECIFY "IN-WALL"

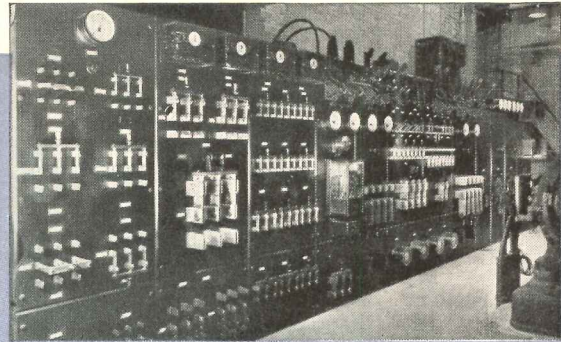
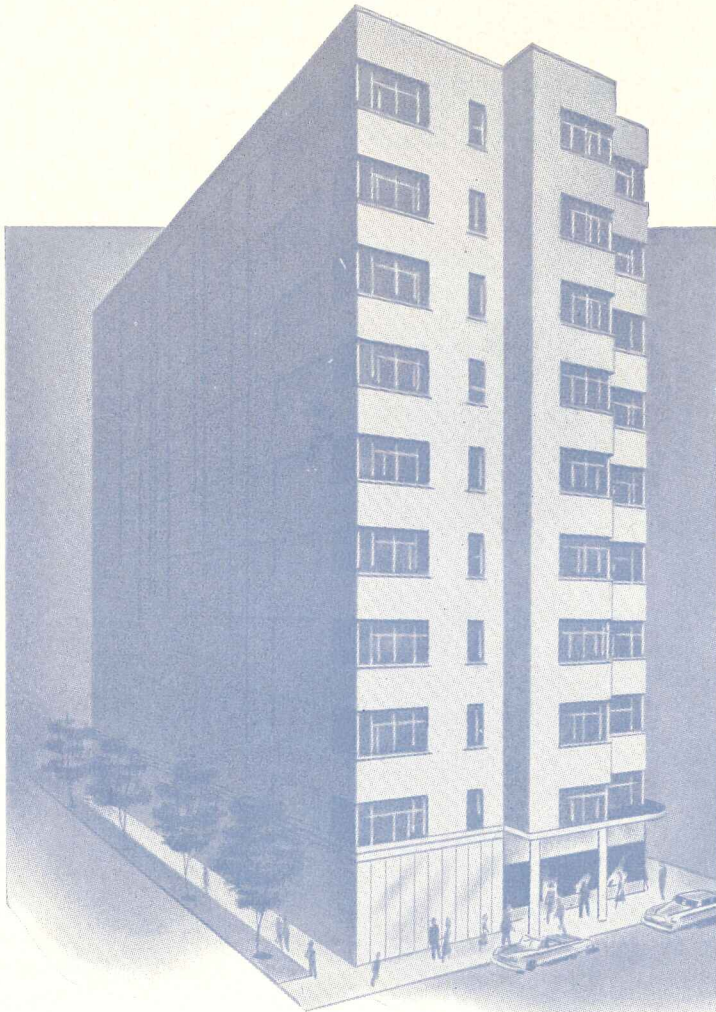


Sturdy, welded, long-life metal construction, sanitary composition surfaces, oil-less bearing rubber casters. Consult Sweet's Catalog or write direct for complete details and name of nearest representative.

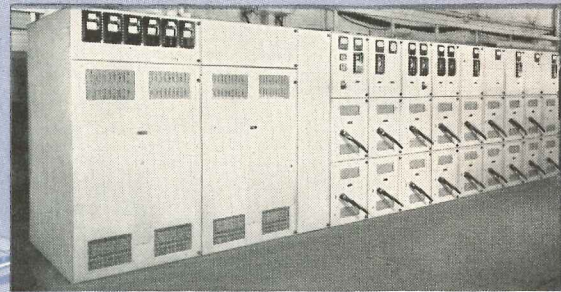
SCHIEBER Manufacturing Co.
12728 Burt Road, Detroit 23, Michigan

In-wall FOLDING TABLES and BENCHES

YOU CAN BE **SURE**.. IF IT'S
Westinghouse



THE OLD WAY . . . live-front, with fuses, knife switches and air circuit breakers—a disorderly arrangement of equipment that introduces problems of safety, flexibility and service continuity.



THE MODERN WAY . . . Westinghouse "Unitized", Low-Voltage Switchgear. Metal-enclosed air circuit breakers speed servicing . . . are interlocked for safety. All operations accomplished without exposing live parts.

Kerosene lamps in the lobby?

The question probably amuses you—for it suggests an incongruity one would hardly expect to find in today's fine new buildings. Yet . . . electrical equipment, almost as out of date as the kerosene lamp, is often specified, purchased and installed in buildings under construction today!

We refer to electrical control equipment, which—in view of the many services dependent upon electricity—is truly the functional heart of any modern building. Here, you must be *sure* . . . for the protection of costly equipment, the safety of personnel, and all-important continuity of service are at stake.

Westinghouse Low-Voltage, Metal-Enclosed Switchgear offers the kind of dependability you need for controlling and distributing vital electrical power. This is the modern way . . . the way that assures adequate interrupting capacity . . . that eliminates fire hazard. Breakers and all associated equipment are completely enclosed in convenient, self-supporting,

"Unitized" structures. The result is safety . . . flexibility . . . reliability. Contrast this with the old-fashioned installation shown above—a type which is still being specified—and ask yourself this question:

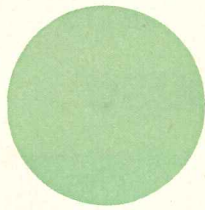
Which type of installation will best fit the buildings I design?

For complete information on Westinghouse Low-Voltage Switchgear, send for booklet B-2296-D; Address: Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pa. J-60734

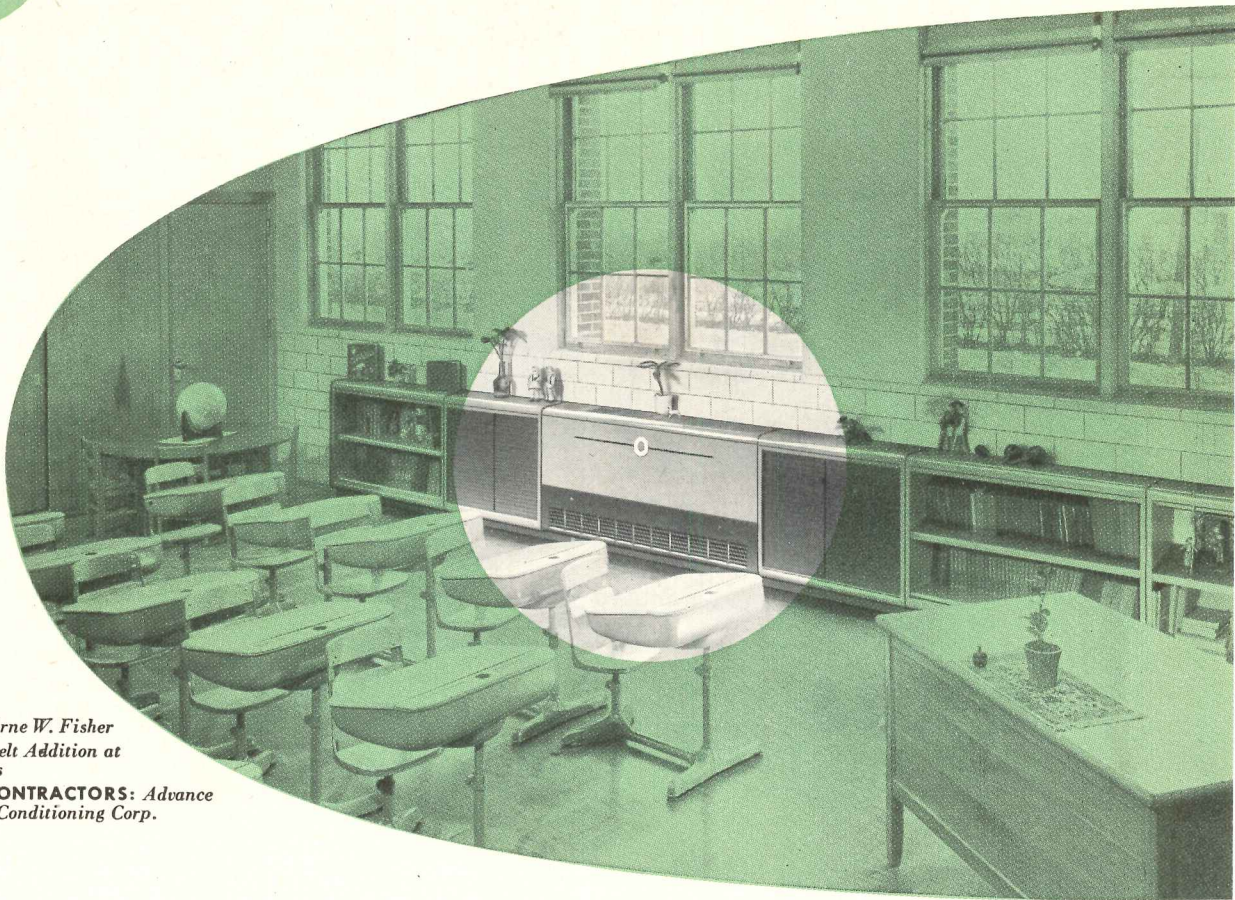
Westinghouse

**LOW-VOLTAGE
SWITCHGEAR**





TODAY'S DECISION.....



ARCHITECT: *Nairne W. Fisher*
SCHOOL: *Roosevelt Addition at Elmhurst, Illinois*
MECHANICAL CONTRACTORS: *Advance Heating and Air Conditioning Corp.*

● Choice of the best method of ventilating school classrooms shouldn't be based on a theory or claims. There is one system of unit ventilation with exclusive, patented features which is more modern today, which is designed for more years of service and which cannot be matched in performance by a mere "or equal" clause in architectural specifications. This system, designed, developed and perfected by The Herman Nelson Division of American Air Filter Company is advanced in design and performance. Not only does it introduce fresh outdoor air into the classroom, it mixes air to the proper degree of warmth under conditions of proper temperature control.

Back drafts are eliminated by a patented damper . . . no chilling

blasts of cold air across the floor. The Herman Nelson "draw thru" design maintains uniform diffusion of a constant volume of air at proper velocity. The unit is quiet. Operation is economical and trouble-free. Its exterior is beautifully designed, finished in high-baked enamel, constructed so that little hands can't get past the tamper-proof grilles.

In every way, Herman Nelson Unit Ventilation offers more in appearance and performance. It is so important to make the right decision today on the equipment that means so much for weeks, months and years of comfort, good health and the right atmosphere for student learning. Compare each feature in detail and you'll see why there is no equal for Herman Nelson Unit Ventilation.

**ONLY HERMAN NELSON
UNIT VENTILATORS
MAINTAIN UNIFORM
TEMPERATURES
IN CLASSROOMS . . .**

By a patented system
which provides gradual throttling
of the steam supply.



. has to be good for years

**INDOOR AIR —
OUTDOOR VITALITY**

Ready for bright-eyed youngsters, the classroom at left is at 70 degrees. The temperature will stay in this comfortable range. The Herman Nelson System of Unit Ventilation brings in fresh, outdoor air. It is filtered air, clean and healthful. It is properly warmed air that is activated mechanically; drafts are eliminated. Pupils have vitality as in outdoor air.

Without this modern system, little bodies radiate warmth, room temperature increases, overheated air and a stuffy room cast a drowsy spell over the classroom.

Modern engineering has corrected unstable temperature, positively and economically, in the scientific system of Herman Nelson Unit Ventilation.



**every
teacher**

knows how open windows for ventilation pose problems. A room depending on its supply of fresh air this way is cold near windows, still uncomfortable at more remote parts of the room. Dirt, insects and oftentimes rain are nerve-wracking hazards of open window ventilation. Uncontrolled drafts precede inevitable coughs and sneezing.

In city schools, noise from the street makes instructing difficult, distracts pupils and makes open windows totally impractical.

37

**points of proven
superiority make the
herman nelson system of unit
ventilation the perfect system
for modern, healthful classrooms.**



GET THESE ILLUSTRATED FACTS

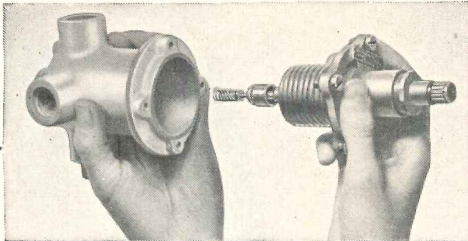
The booklet tells how 37 points of better design and better performance make the ideal system of unit ventilation. Send request to Dept. AR8.

HERMAN NELSON DIVISION

AMERICAN AIR FILTER COMPANY, INC.

Moline, Illinois

TESTS PROVE.. POWERS



ONLY ONE MOVING PART—Powerful thermostatic motor assembly is easily accessible from the front. Simple and durable construction insures long life and minimum of maintenance.

STANDARD TESTS

Federal Government Specifications (WW-P-541a) require that thermostatic water mixing valves be tested under conditions specified below:

Pressure Changes in Hot and Cold Water Supplies

- 50% Increase in pressure
- 50% Decrease in pressure
- Failure of Cold or Hot Water Supply

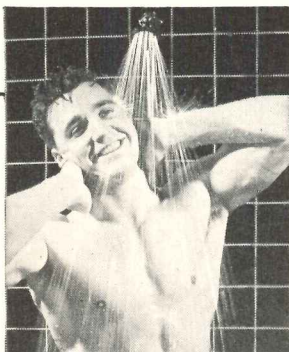
Temperature Rise in Hot Water Supply

- 100° rise in temperature of hot water supply from 125 to 225°F

If You Test Various Water Mixing Valves by the above conditions . . . you will find that POWERS Type H THERMOSTATIC WATER MIXERS Will Out-perform All Other Mixers

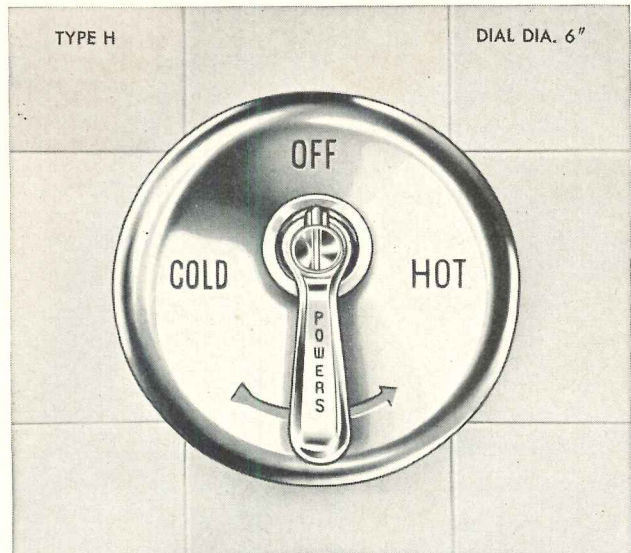
Note that Government test specifications include TEMPERATURE rise. Pressure actuated mixers do not safeguard shower users against this danger.

"The BEST Showers



are regulated by POWERS"

THERMOSTATIC SHOWER MIXERS Give SAFEST Control Obtainable



● Proof obtained from tests described at left will show that no other *thermostatic* or *pressure actuated* shower mixer provides the greater safety insured by a Powers Type H Mixer.

In 1923 POWERS pioneered with the first pressure actuated type mixer which has been obsoleted by our far superior Type H Thermostatic Mixer. Its powerful quick acting thermostatic motor gives the most accurate control obtainable regardless of *pressure* or *temperature* changes in water supply lines.

When only one shower accident may cost many times more than POWERS mixers, why risk being "half-safe" with less than the safest mixer made?

(TH)

THE POWERS REGULATOR CO.

OFFICES IN OVER 50 CITIES • SEE YOUR PHONE BOOK

Over 58 Years of Water Temperature Control

CHICAGO 14, ILL., 2752 Greenview Ave. • NEW YORK 17, N.Y., 231 E. 46 St.

LOS ANGELES 5, CAL., 1808 W. 8th St. • TORONTO, ONT., 195 Spadina Ave.

"Shop here!"
 says this inviting interior
 of sparkling real clay

Suntile

It speaks for itself, this store interior of real clay Suntile. It speaks for you, too.

Cheerful, color-bright and ever-so-clean, it tells shoppers you've planned a really pleasant place for doing business.

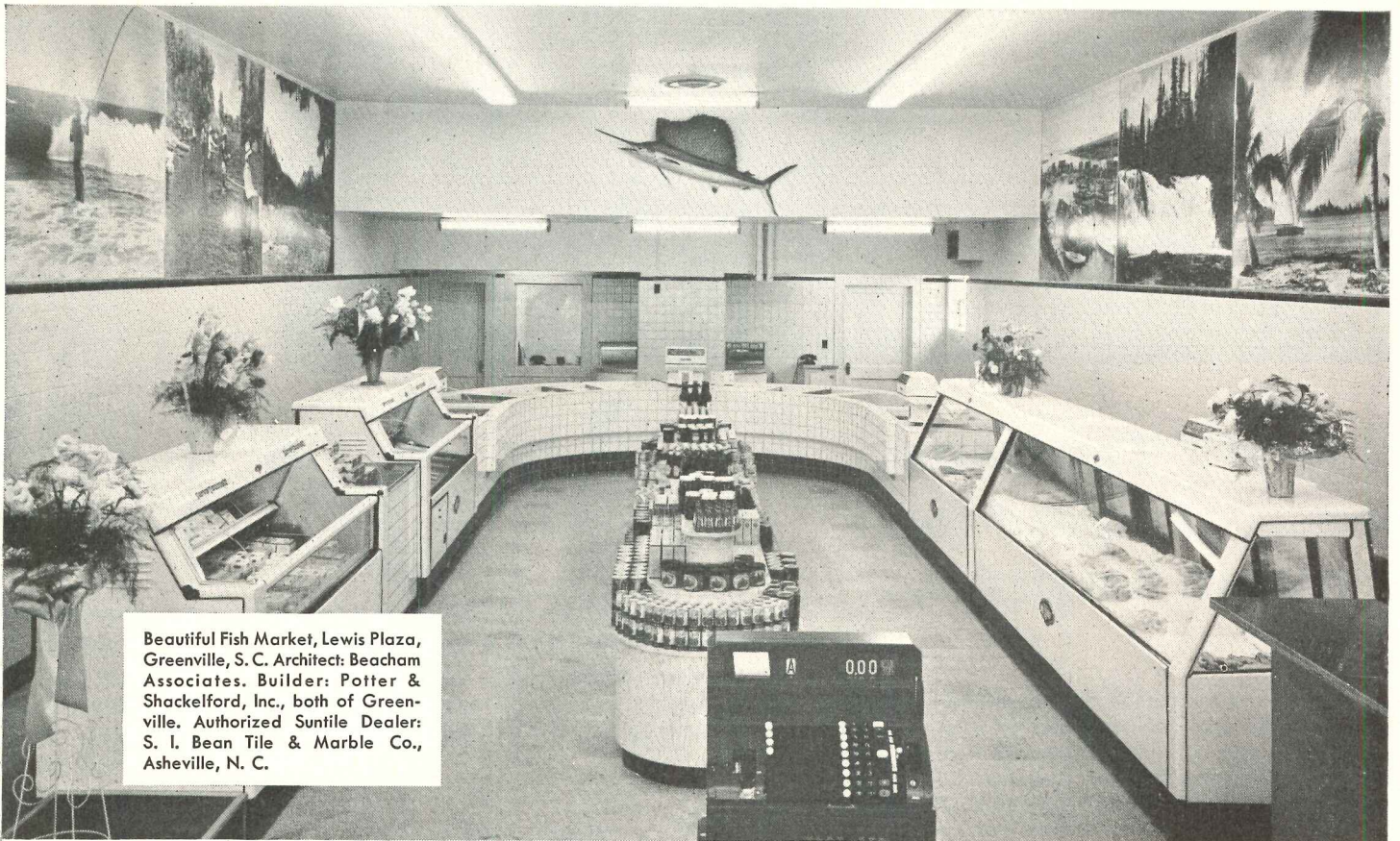
Durable, impervious, clean-in-a-second, it tells your client, over and over again, that you have helped him cut—almost to nothing—refinishing, redecorating and cleaning costs.

Yes, a Suntile interior *recommends* your work on *every* job because it's quality-built, through and through.

Only the finest clays are used in manufacture, fired at approximately 2000 degrees and precision processed every step of the way.

Colors are permanently fadeless. The beautiful blends you can achieve so easily with Suntile's Color-Balance will *last* for a lifetime.

Installation is *guaranteed* for excellence by a specially trained Authorized Suntile Dealer. He knows tile and he can show you why it's good business to plan any store in Suntile. See his name in your classified directory or write us.



Beautiful Fish Market, Lewis Plaza, Greenville, S. C. Architect: Beacham Associates. Builder: Potter & Shackelford, Inc., both of Greenville. Authorized Suntile Dealer: S. I. Bean Tile & Marble Co., Asheville, N. C.

Ideal for: schools, hospitals, stores, public buildings, industrial plants, residences



"PERSONALLY YOURS" Free! This valuable booklet illustrates striking Color-Balanced Suntile installations. Shows many of Suntile's 22 beautiful new wall colors, 27 colors of unglazed ceramic mosaics, 10 colors of Suntile Camargos. Send for your copy today! Dept. AR-8, The Cambridge Tile Manufacturing Co., Cincinnati 15, Ohio.

WAREHOUSES

The Cambridge Tile Mfg. Co. The Cambridge Tile Mfg. Co.
 470 Alabama St. 941 N. Citrus Ave.
 San Francisco 10, California Los Angeles 38, California



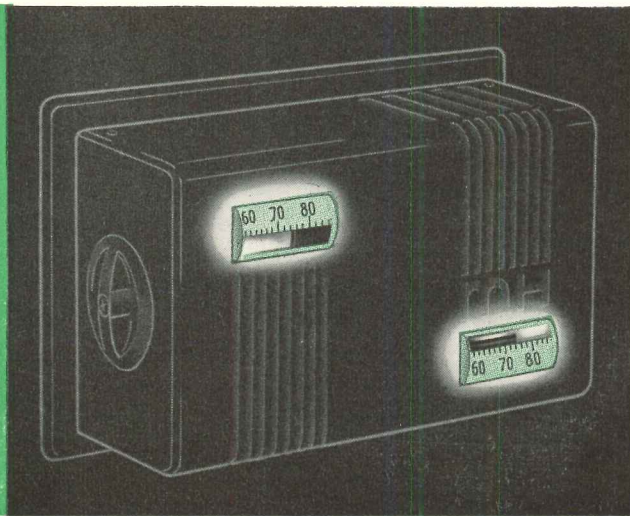
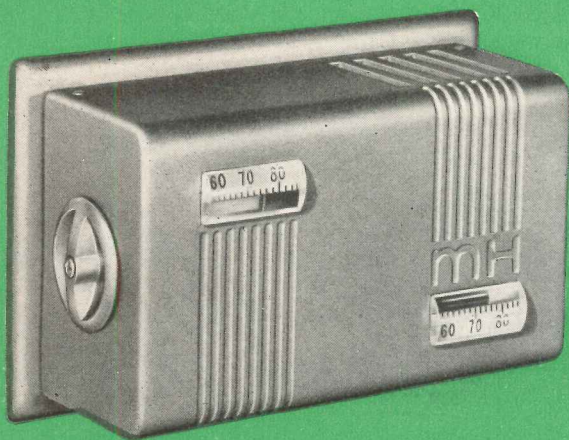
SUNTILE OFFERS YOU BOTH • BETTER TILE • BETTER INSTALLATION

Proudly Announcing

Honeywell's **NEW** Hospital Thermostat

with

**NITE
GLOWING
DIALS**



The Only Thermostat especially designed for the modern hospital!...

Here's what your clients in the hospital field have needed—a pneumatic room temperature controller designed to meet their own specific needs. Equipped with exclusive "Nite-Glowing Dial" requiring no electrical connections, this new Honeywell thermostat can be read easily—day or night without turning on lights. Plastic magnifiers make numerals and indicators extra-large for quick, accurate reading and setting. And new control knob is camouflaged against tampering, putting an end to carrying a special key.

Specify this modern hospital thermostat for every room of the hospitals you design. It's equally adaptable for modernization work. Only with a thermostat in each room can you offer your clients all the different temperatures they need. Minneapolis-Honeywell, Minneapolis 8, Minnesota. In Canada: Leaside, Toronto 17, Ontario.



MAGNIFIED INDICATORS

Clear, accurate readings in an instant!... without squinting!



SPEED-SET CONTROL

New camouflaged control knob or conventional adjusting key—optional.

"NITE-GLOWING DIALS

Read them... make adjustment without light, they glow in the dark

Get this free book! **"Plan Your Hospital's Atmosphere"**

"Plan Your Hospital's Atmosphere" is the book that tells the full story of automatic temperature control. It describes the special benefits of individual room control and many other modern trends. Simply address a card to Minneapolis-Honeywell, Minneapolis 8, Minn.

DEPENDABLE CONTROLS COST LESS THAN SERVICE

Guarding America's Health...

MINNEAPOLIS
Honeywell
FIRST IN CONTROLS



HOUSE IN CHAPPAQUA, NEW YORK

Katz-Waisman-Blumenkranz-Stein-Weber

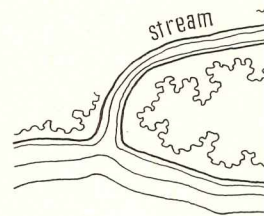
Associated Architects

PLANNING, structure, equipment, interior decoration, and landscaping here are integrated to a degree seldom achieved in a house. In particular, the architects wish to stress the exceptional degree of coordination of planning and interior design. The owners wanted a simple house, easy to keep up; household cares should not obtrude unduly on enjoyment of the rural setting. They also wanted individuality, even to specially commissioning some furniture and fabrics. Inside, a coordinated color scheme was developed for everything from walls to hand towels.

To indicate the thoroughness with which equipment was studied: lighting was employed not only for "practical" ends, but to enhance the mood of the house inside and out. General diffused lighting, fluorescent, is built into storage walls and curtain tracks. Recessed in the ceiling are spotlights to raise local lighting levels for card playing or reading, pin-point lights to accent paintings; there is a special free-form fixture over the dining table; outdoor lights bring the surrounding trees and rocks to life after dark and flood the beach for night swimming. Kitchen and other utility areas are well lighted; closet lights have door switches; there are plenty of convenience outlets for future floor lamps.

Other types of equipment were equally carefully installed; and it is noteworthy that the gadgets were not allowed to dominate the overall design.

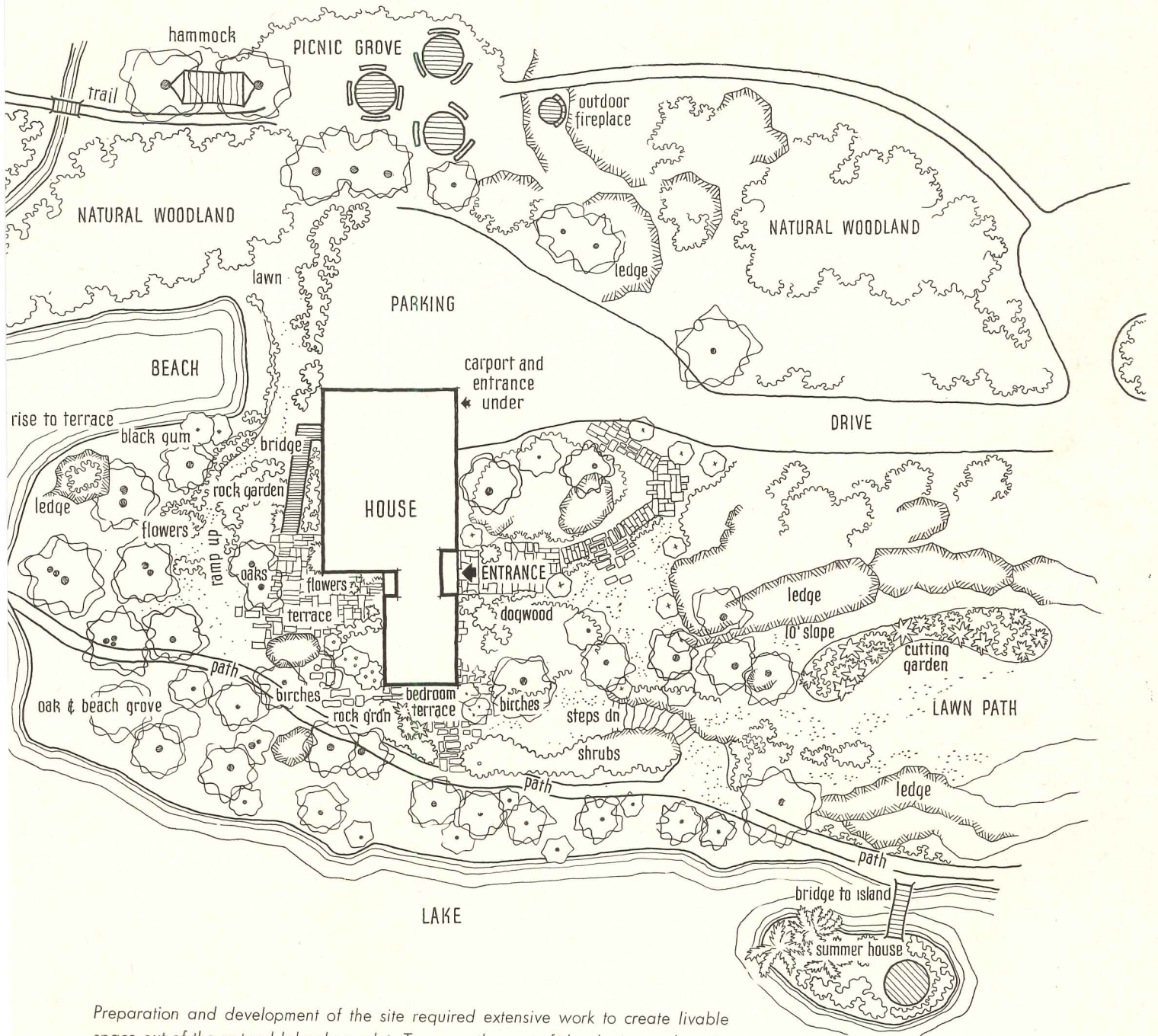
DRETZIN HOUSE



LAKE

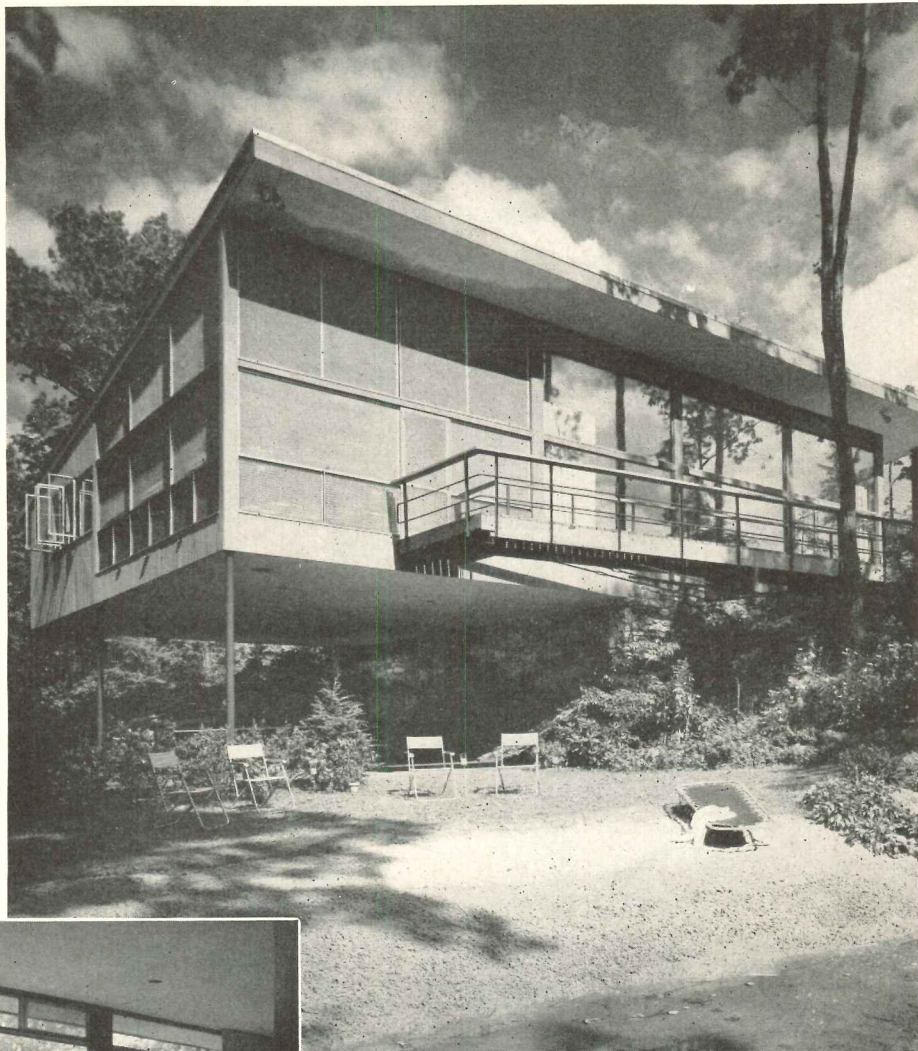
NORTH ▶

Ezra Stoller Photos; Photo preceding page by Ezra Stoller

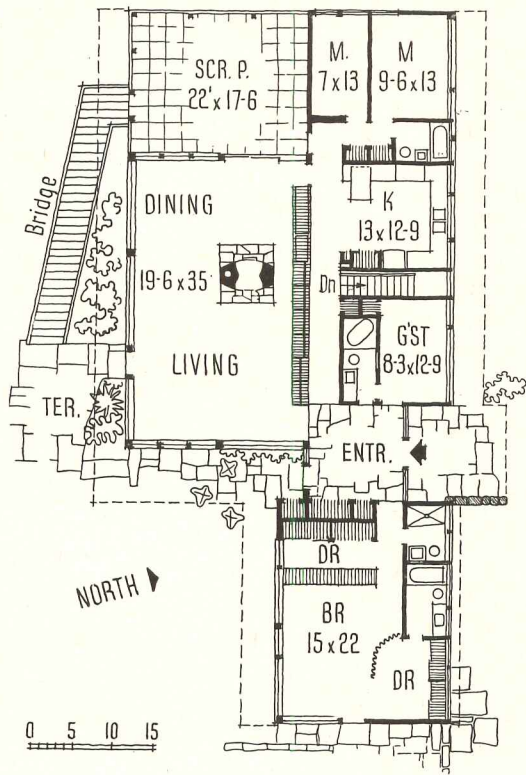
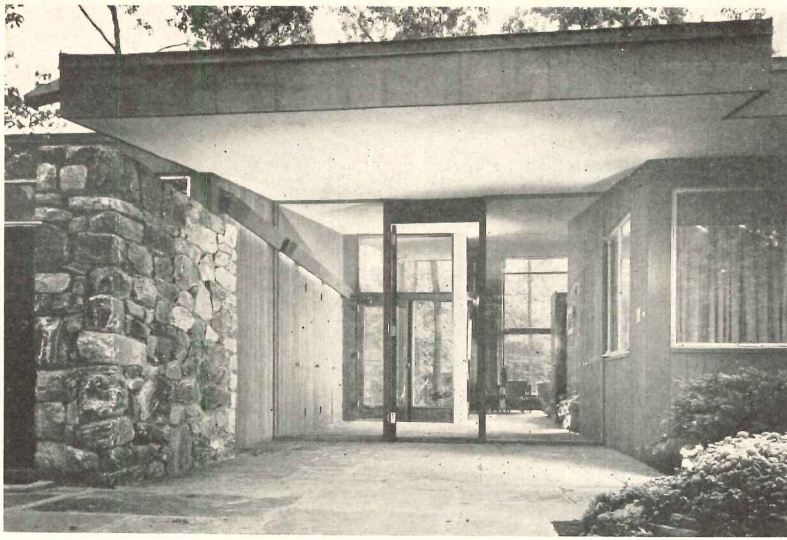


Preparation and development of the site required extensive work to create livable space out of the natural lake-shore plot. To some, the cost of developing such a site might be prohibitive, but once its potentialities had been glimpsed, nothing was allowed to stand in the way of their realization. Natural elements are fully utilized: water, rock, mosses, ferns, wild laurel, evergreens, oaks and beeches for shade

DRETZIN HOUSE



The house, planned for its specific site, consists of a few simple units; each, a large open space during construction, did not take on its true character until installation of the cabinet work defined the spaces. For example, the living-dining room-kitchen is structurally one area, the roof framing through from wall to wall with steel and wood. The necessary sepa-



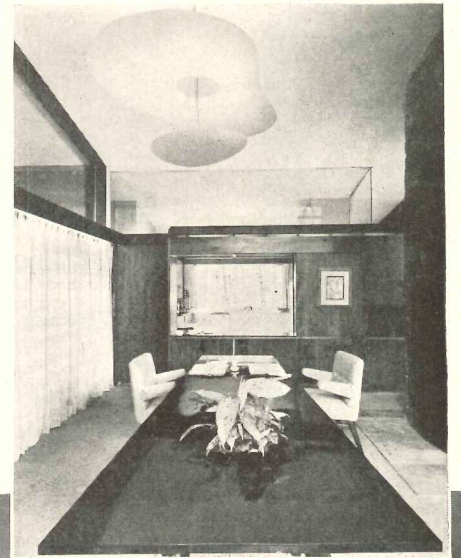
Ezra Stoller Photos

rations are made by fireplace, and by cabinets which form one wall. Above use-height, walls are open except surrounding the kitchen, where glazing keeps out cooking odors without visually obstructing the ceiling's sweep. A fabric specially woven by Trude Guermonprez can be drawn over the glazed south wall of the living room to cut glare and sun



DRETZIN HOUSE

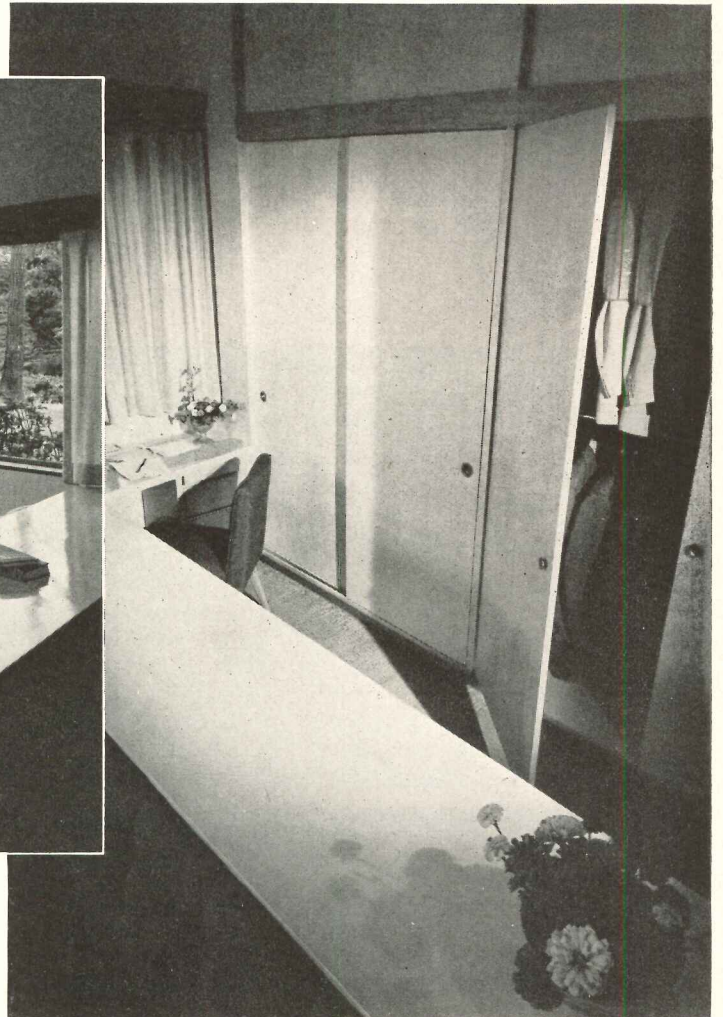
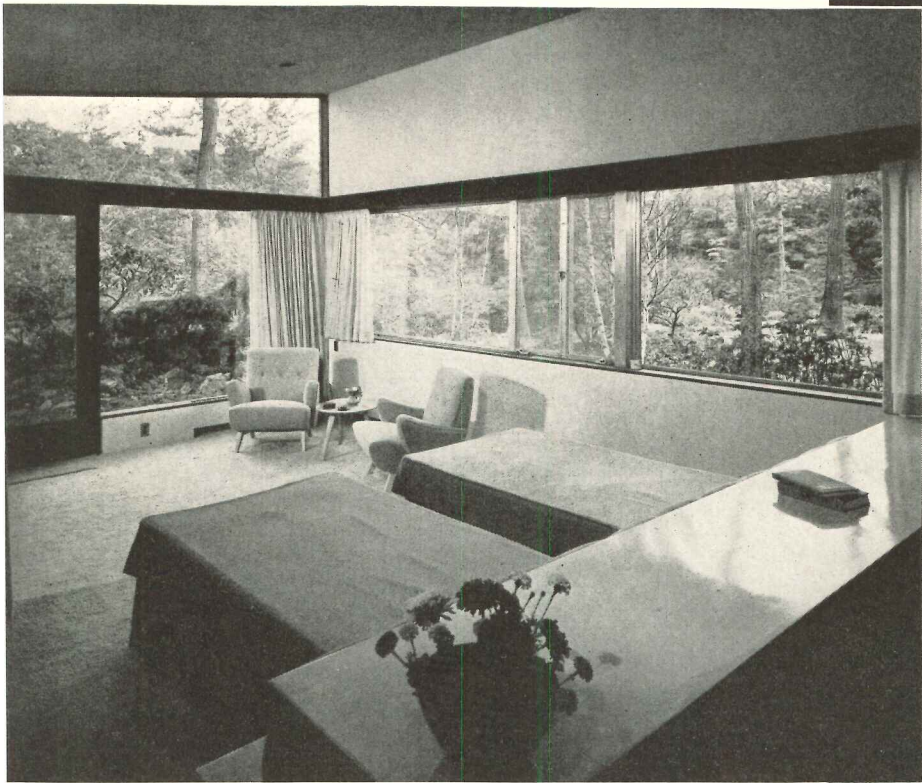
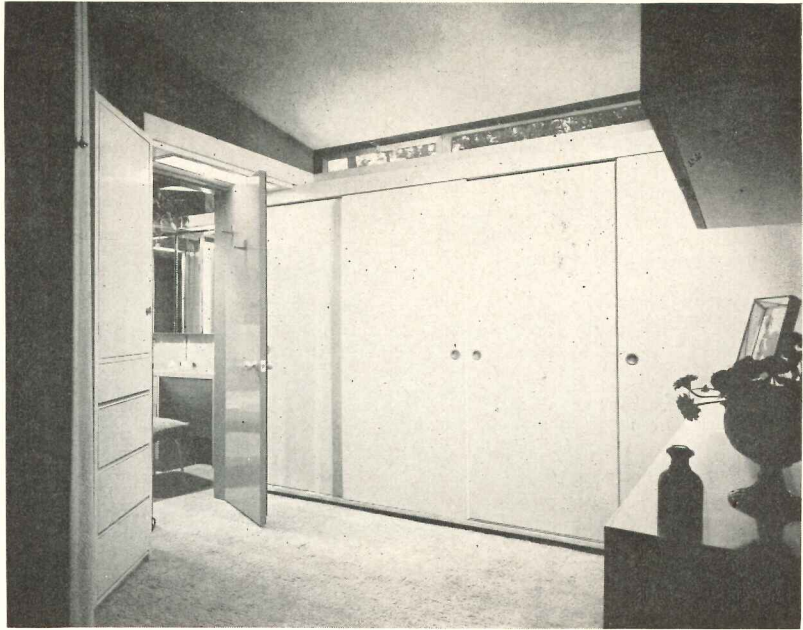
Soffit of the pass-through opening between kitchen and dining area is a lighting fixture; concealed fluorescent lamps above also supply general lighting. Photo immediately below shows dining table of cocobolo wood. This, the coffee table of black Belgian marble in the living room, and the aluminum dining room lighting fixture were designed for the house by Isamo Noguchi



Kitchen equipment (below) is so organized that the room, though not large, is spacious. Walls are washable structural glass; over the range are hood and vent fan. Heat is provided by hot water convectors built-in under windows; same system is used throughout house except for a radiant panel in the upper entrance hall



Mr. and Mrs. Dretzin have separate baths and dressing alcoves off their bedroom. Closets are carefully designed for maximum utility. In Mrs. Dretzin's bath (right) the lavatory counter, finished in sheet plastic matching in color the structural glass walls, has drawer bases and a three-way mirrored cabinet above; the head of the cabinet houses both an overhead light and a plant box set at the level of a row of clerestory windows





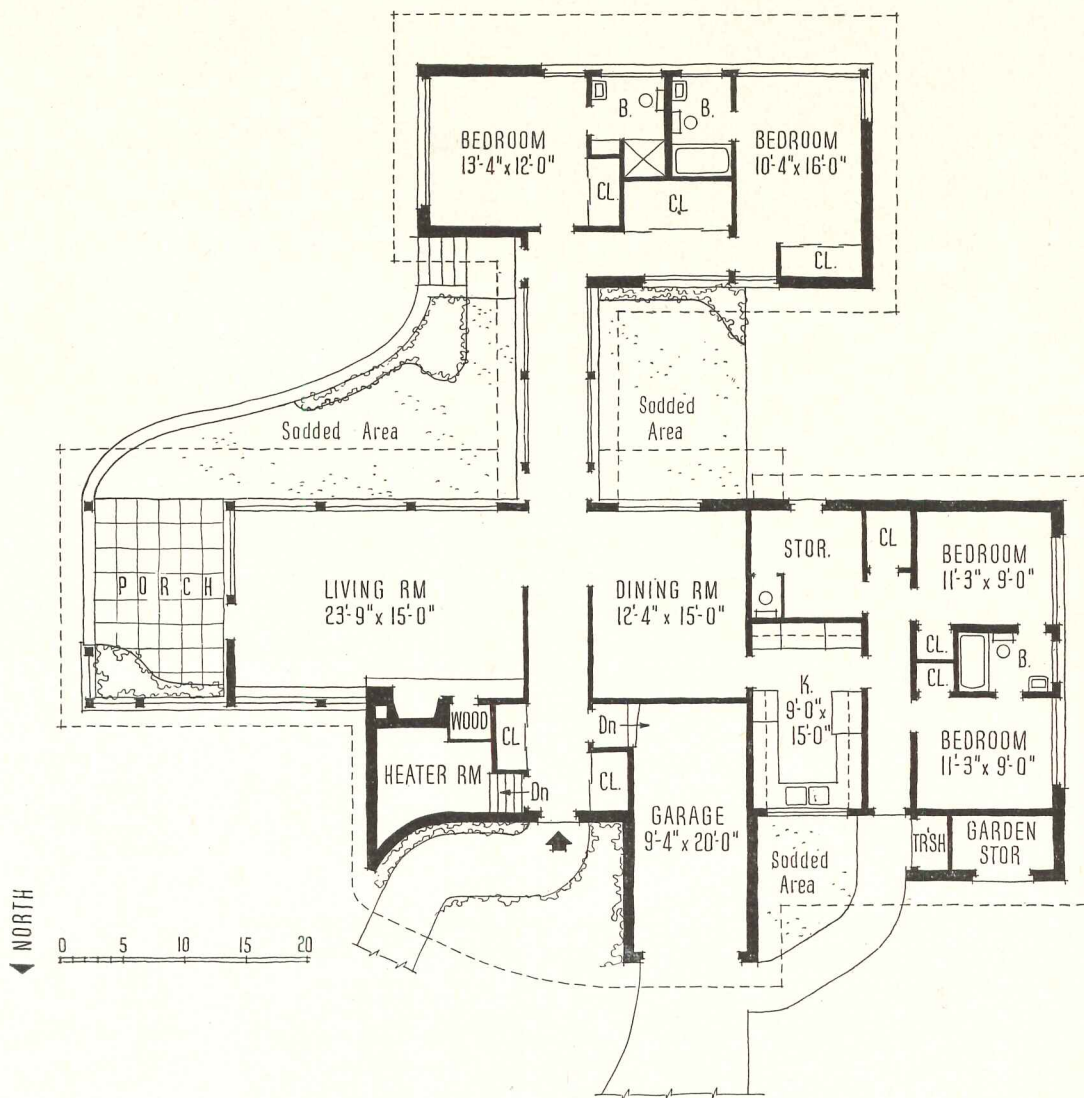
RESIDENCE OF MRS. EVELYN B. FICKE

New London, Connecticut

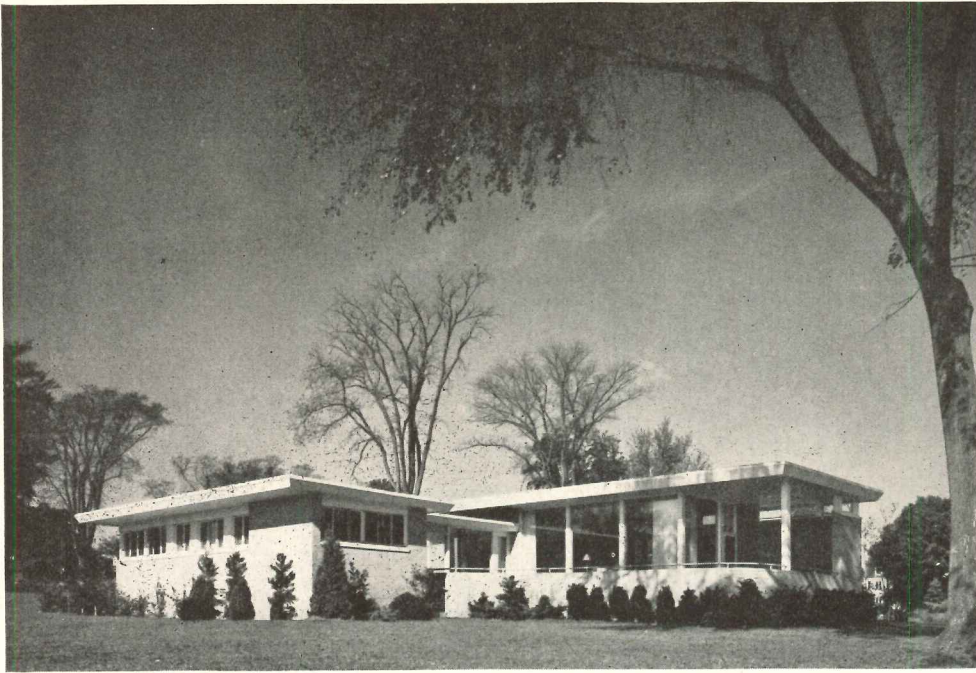
Stanhope B. Ficke and Grieshaber & Neilan, Architects

Bill Moris: Pictor



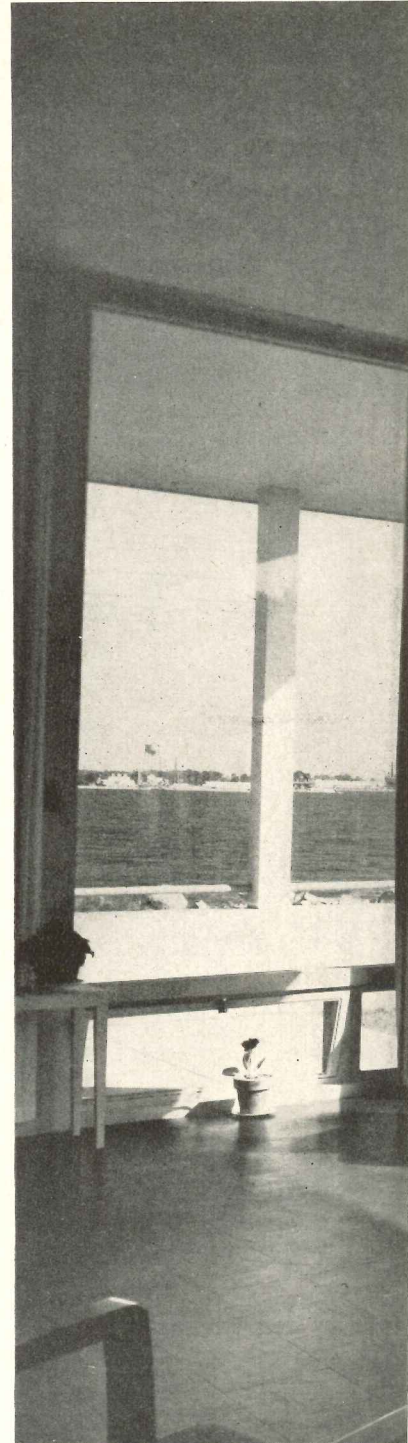
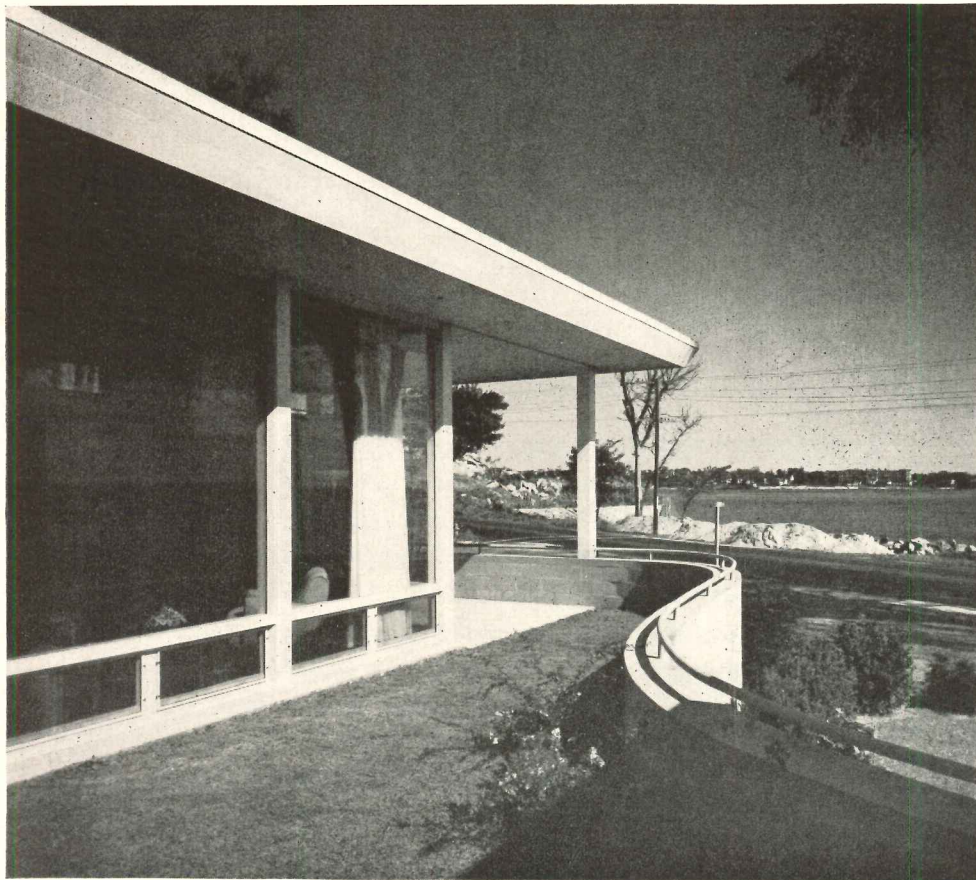


A CORNER site with a sweeping view of Long Island Sound to the south and southeast, and a busy street to the east, dictated the unusual plan of this house. Main living areas, of course, were placed facing the view and given large glass areas to dramatize it. The two bedrooms were separated from the rest of the house by a passage of floor-to-ceiling glass (center in photo opposite) to bring, ingeniously, light and view to the dining room and cross ventilation to the guest room. Two terraces were provided — a curved one to the east for the view and the sea breeze, and a small one sheltered by the west wall of the bedroom passage, for use on cool days. Clerestory windows in the north wall (opposite page, above) afford important cross ventilation, and a wide roof overhang on the south controls the sun's rays. The house was designed by the owner's son.



Bill Maris: Pictor

FICKE HOUSE



The feeling of distance is always present in this house, the architect comments—and no wonder, with the three main rooms looking out on a view such as that below. The rooms flow into each other, adding to the sense of spaciousness created by the large glass areas and the two terraces





Bill Moris: Pictor

FICKE HOUSE

East elevation (above) faces a busy street, but terrace is high enough to give some privacy. Future low planting at the street line will give additional privacy without obstructing the view. Partition separating living room (right) from entrance hall is only head high, allowing circulation of air and contributing to feeling of spaciousness. Effective treatment of fireplace wall gives living room a second center of interest despite the dramatic view. Bedroom windows are high for privacy



DEPARTMENT STORE
WITH AMPLE PARKING

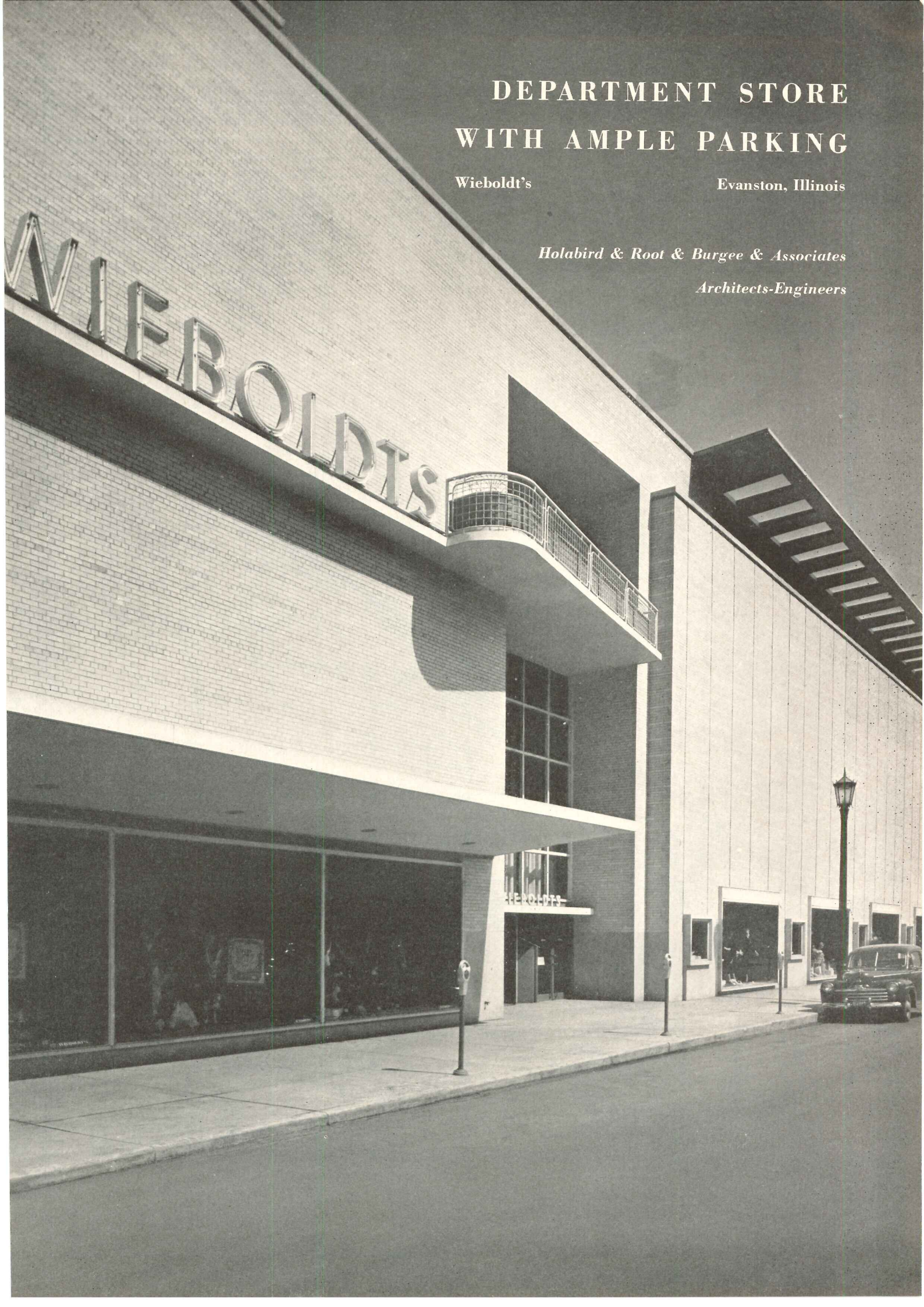
Wieboldt's

Evanston, Illinois

Holabird & Root & Burgee & Associates

Architects-Engineers

WIEBOLDT'S



**WIEBOLDT'S STORE
EVANSTON, ILL.**

This newest structure in Wieboldt's chain of six department stores, all in the Chicago metropolitan area, incorporates many ideas proved in the owners' long merchandising experience; their first store opened in 1883, the Evanston branch in 1929. The new building is deliberately horizontal because Wieboldt's believes women prefer to shop as much as possible on one floor rather than several. The large site facilitates such a scheme. On each of the three floors above grade (and self-service basement) related departments are planned to be contiguous. There are virtually no windows in sales areas. The bays, relatively small, are sized to accommodate a flexible merchandising fixture layout (for which H. Allan Majestic & Assoc. were consultants) and for economy in the reinforced concrete construction

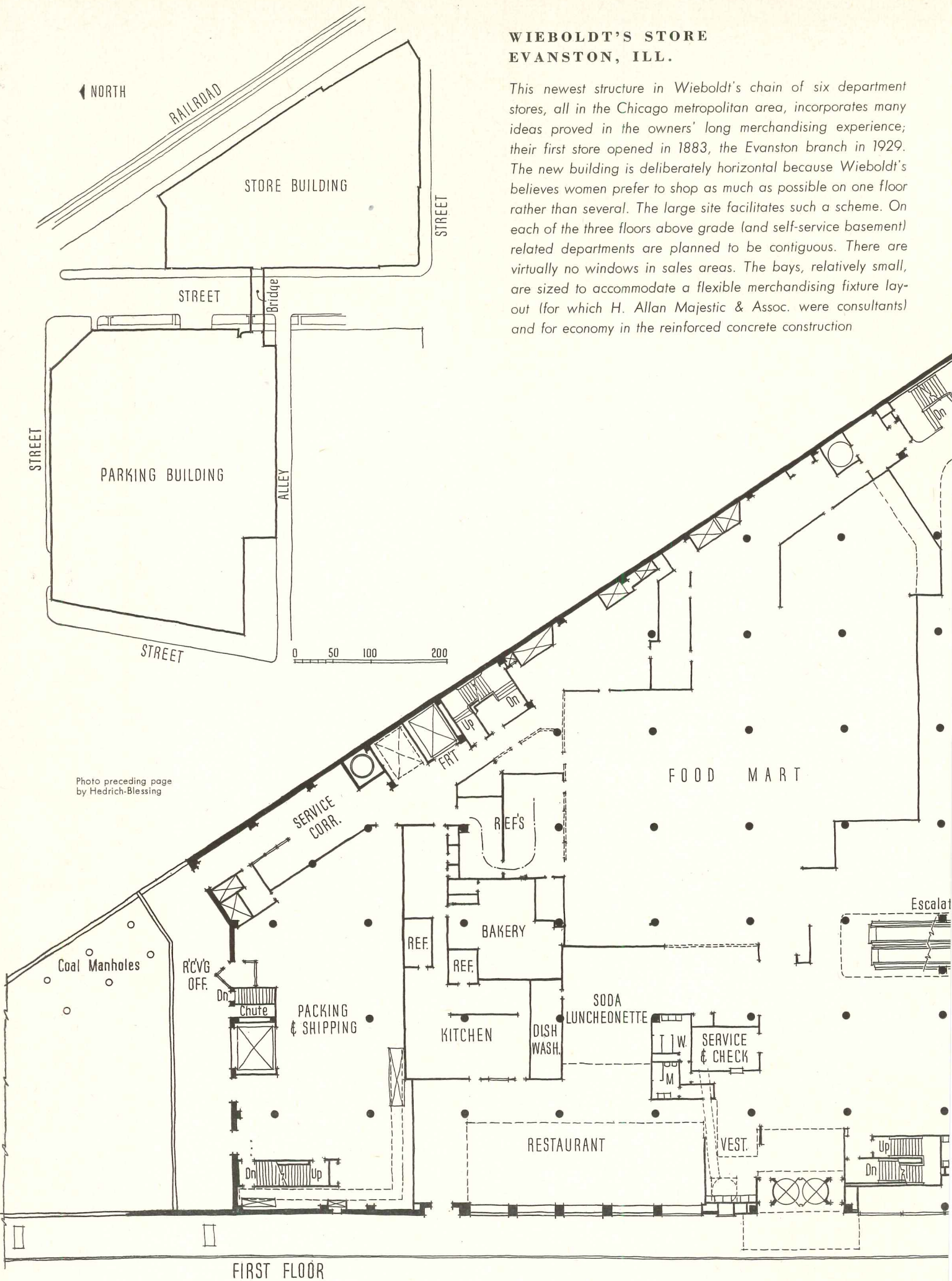
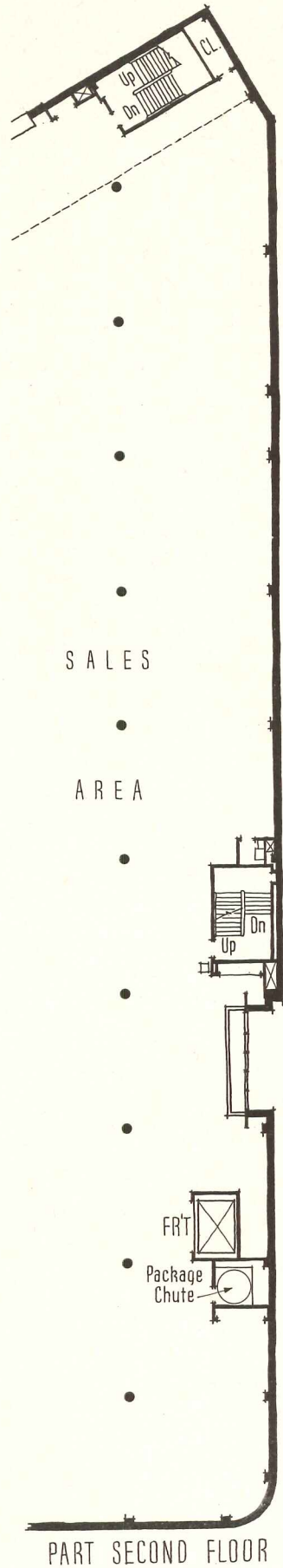
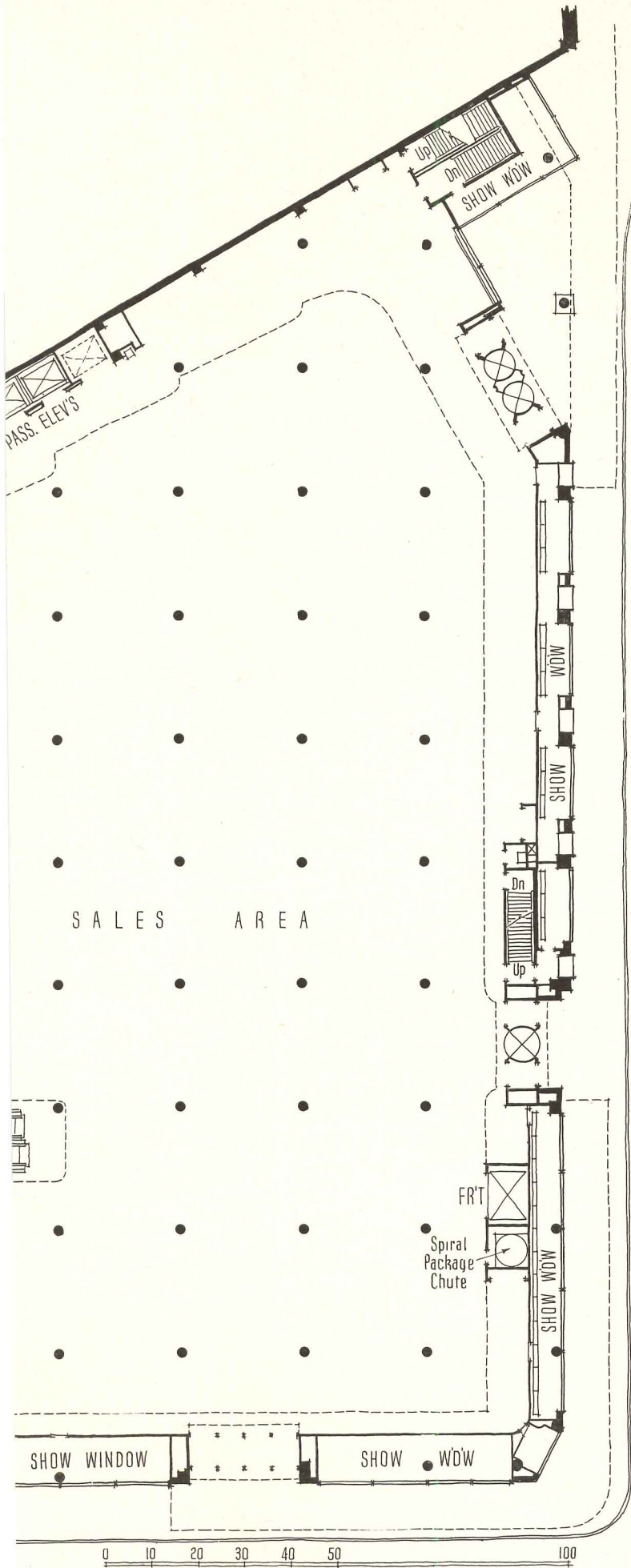


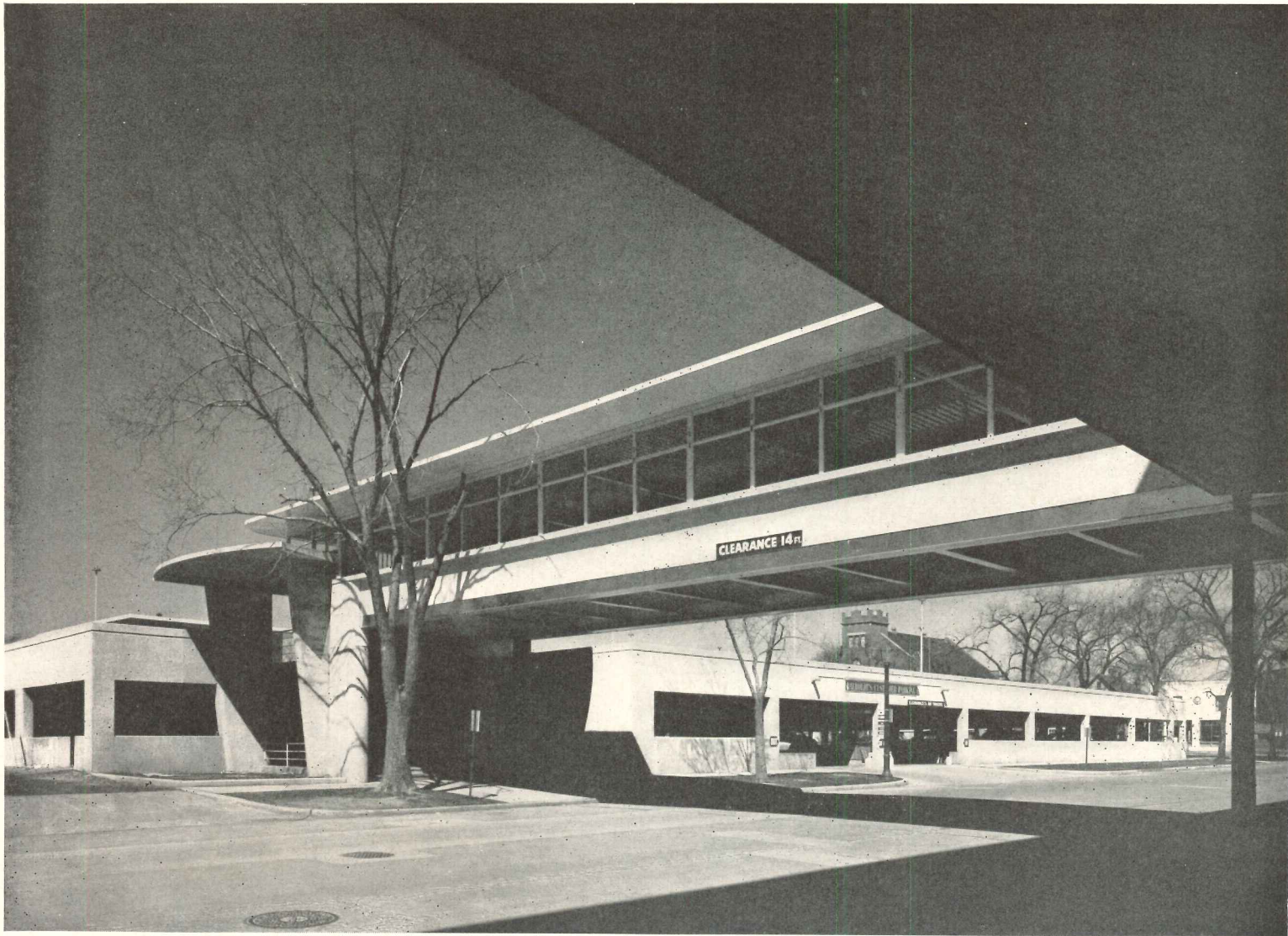
Photo preceding page
by Hedrich-Blessing



WIEBOLDT'S DEPARTMENT STORE

AMONG the store's many up-to-date ideas is a package-gathering system using chutes and belt conveyors to simplify the problem of getting to one place all the purchases made by each customer. It also speeds delivery service. From the point of purchase wrapped packages to be taken by the customer may be conveyed to a first-floor service desk or to either deck of the parking building; packages for delivery go to the basement and onto delivery trucks, without handling, within minutes after sale.

One of the main problems in downtown Evanston, as elsewhere, is parking; hence the huge parking structure which accommodates 744 cars on two floors. Its top deck was opened for public use some months before the store itself was ready

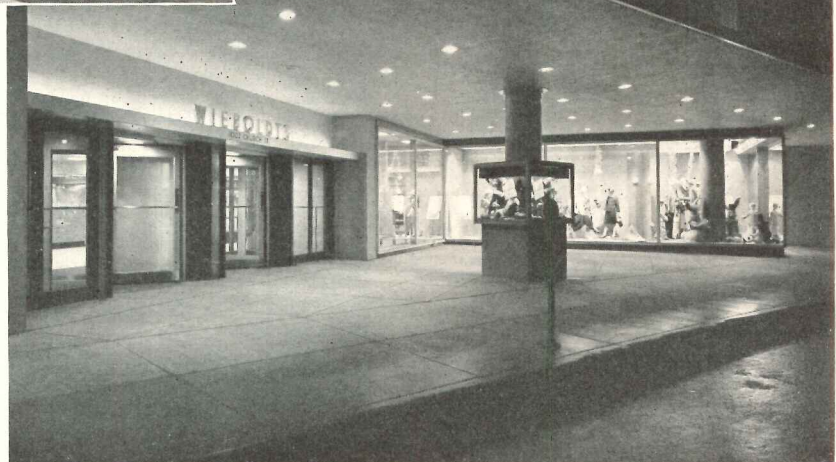
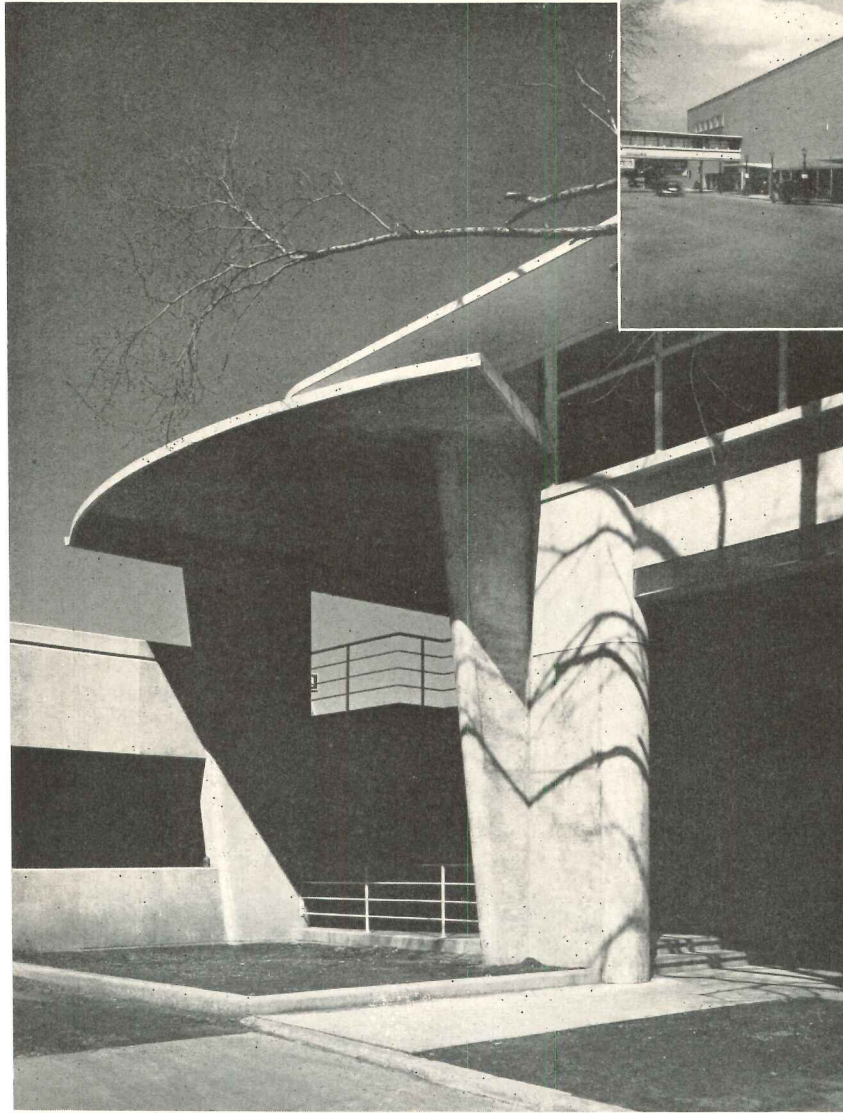


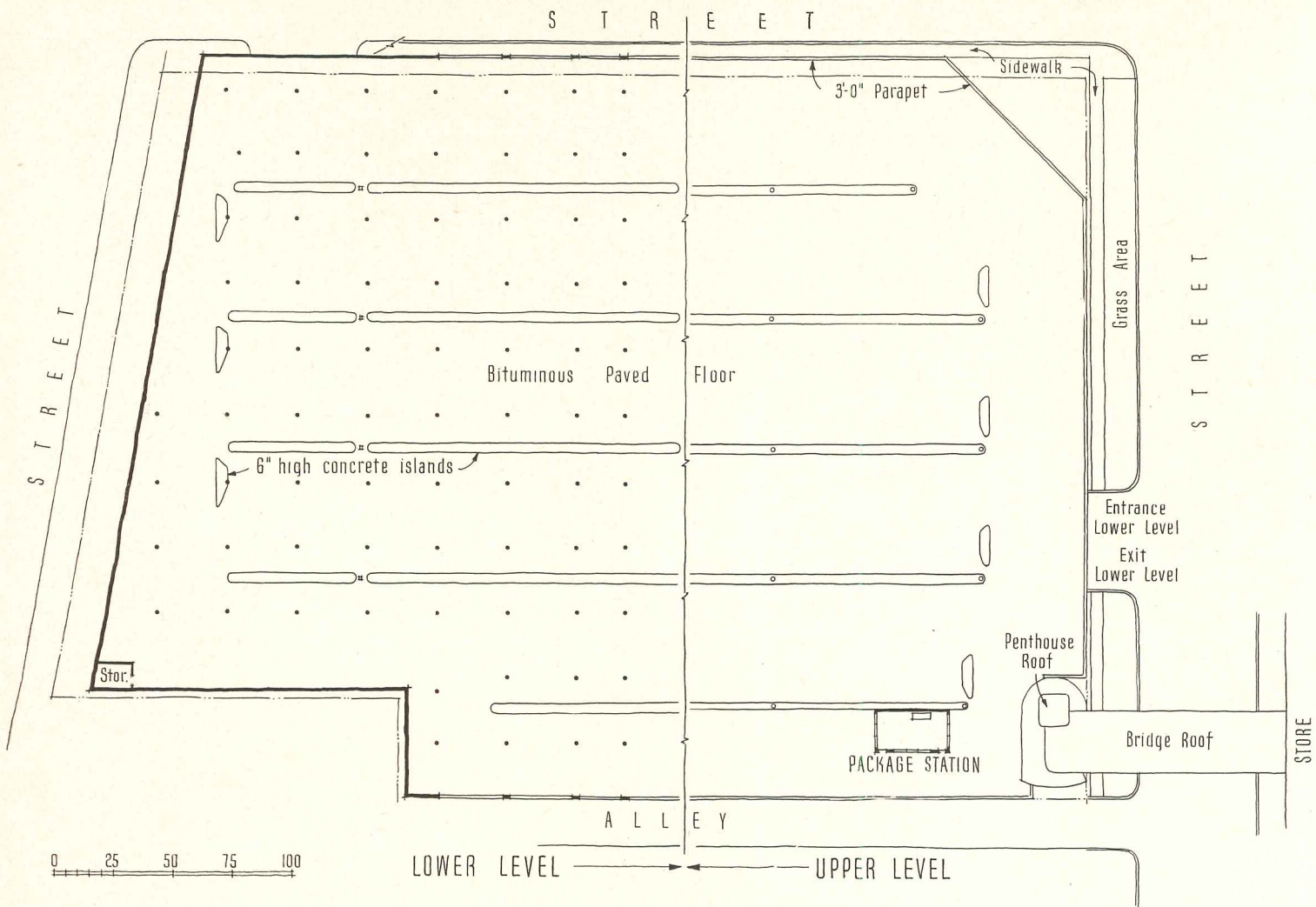
Because windows don't admit enough light to display merchandise well, and do admit dirt, they are virtually eliminated. Lighting is generally from louvered fluorescent fixtures, with incandescent fixtures for accents and special lighting. Each flush ceiling fixture is also an access panel to service lines in the furred space above; over each fixture is a pullbox with an extra electrical connection to accommodate future changes on the floor above or below. There are two heating systems: one for air conditioning during business hours; the other, radiation used to maintain 65 F temperature in off hours in winter. Automatic controls govern temperatures throughout.

Second-floor bridge, like garage and store which it connects, is reinforced concrete. At garage end of bridge is control tower from which an observer telephones attendant at street-level entrance directions for cars to be parked on second floor. First-floor cars are directed by an elaborate system of lights



Walls of the three-story building, virtually windowless, are relieved of monotony by pattern and texture of the face brick. Entrances are spacious, in keeping with Wieboldt's intention of providing friendly rather than frenzied service. Show windows and cases are provided along street facades and entrance shown below for both small objects and large





WIEBOLDT'S DEPARTMENT STORE

Hedrich-Blessing Studio Photos

Plan of parking building, above, shows lower level at left, upper level at right. Customer driving in at lower level is directed to available parking space, crosses bridge to store. Customer leaving store crosses bridge, picks up packages at station on level where her car is parked. In photo of store interior, right, note simplicity of fixtures and interior treatment; nothing in sales areas is permitted to compete with the merchandise



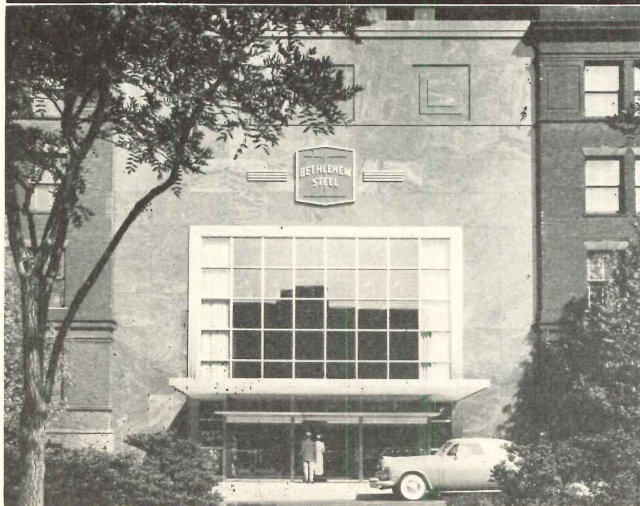
REMODELING



Damora

BETHLEHEM STEEL COMPANY HOME OFFICE BUILDING

McKim, Mead & White, Architects



AMERICAN industry knows how to deal summarily with obsolescence in its plants and machines, but, as has frequently been pointed out, it is much too tender with obsolete buildings, especially office buildings. Bethlehem Steel Company faced the latter type of obsolescence in its home office building, and has dealt with it vigorously. The results, while not measurable in production statistics, are plainly observable not only by management personnel, but also by the large numbers of distributors and customers received at the home office.

The usual prescription for obsolete machines — junk the things and start over — was hardly available here. The 30-year-old office building occupied the favorite spot, could not be vacated. In many important respects it was serviceable. But it was old, uncomfortable and depressing, incompatible with modern management.

Some sort of commendation award is in order for the manner in which the modernization was undertaken. (1) The job was thoroughly done (still being done). There is always a frightful temptation to do just a little,

REMODELING

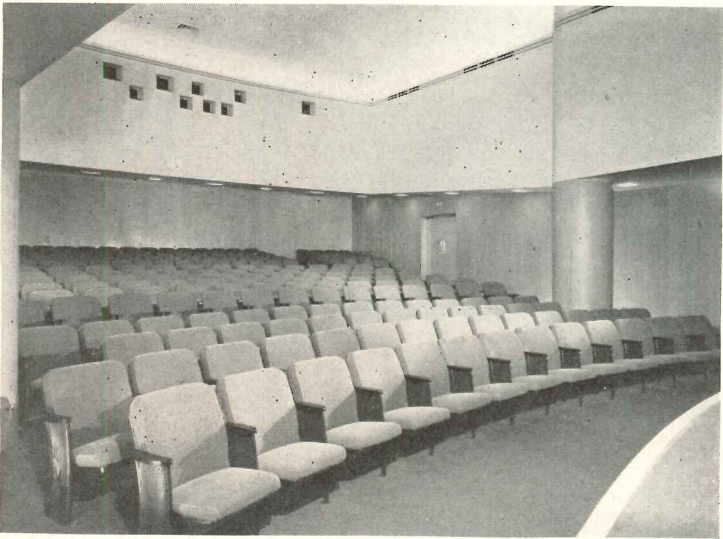


Above: spaciousness gives reception lobby an imposing quality

a bit of sprucing up here and there, some redecoration and face lifting. But the Bethlehem management kept going. (2) The task was turned over to an architect. The management included plenty of engineers, real estate and management officials and maintenance men to have tackled it themselves. But human and sales values counted heavily in the goal, and it was reasoned that these are matters for an architect.

In the words of E. G. Grace, Bethlehem chairman, "Our office building, considered an excellent one when it was built more than 30 years ago, lacked certain modern advantages, such as air conditioning, acoustic ceilings, and fluorescent lighting. These have all been installed. But we have gone much further than that. A company which is on its toes with respect to having the most modern and efficient plant and working forces certainly should have the most comfortable and efficient housing for its executives and office staff. We aim to make our whole lobby development, facilities and decoration symbolic of the extent of our company and its purposes."

Damora



Above: auditorium for sales meetings, Below: display room



Above: reading room of Charles M. Schwab Memorial Library, which, despite its sentimental intent, is a highly functional room



Implicit in his statement is the assignment to the architects. The mention of the lobby development touches an especial need, starting with really suitable space for receiving visitors, extending on to institutional and promotional displays, library, auditorium.

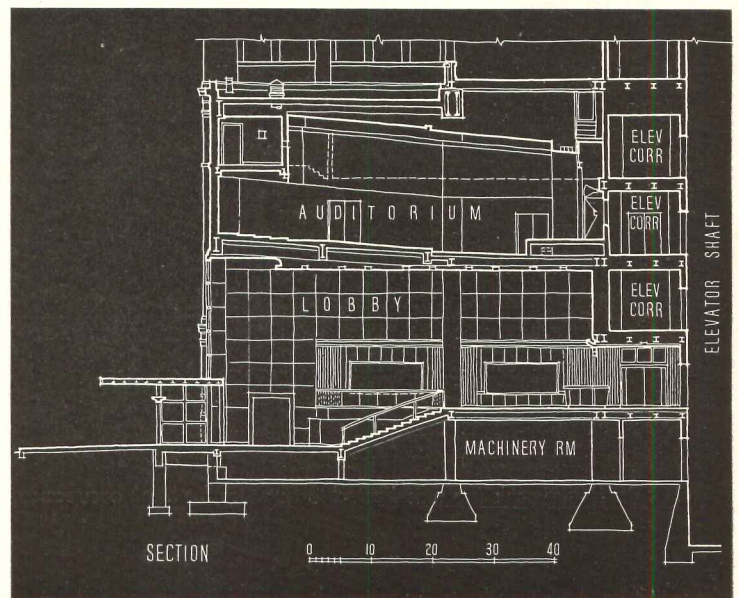
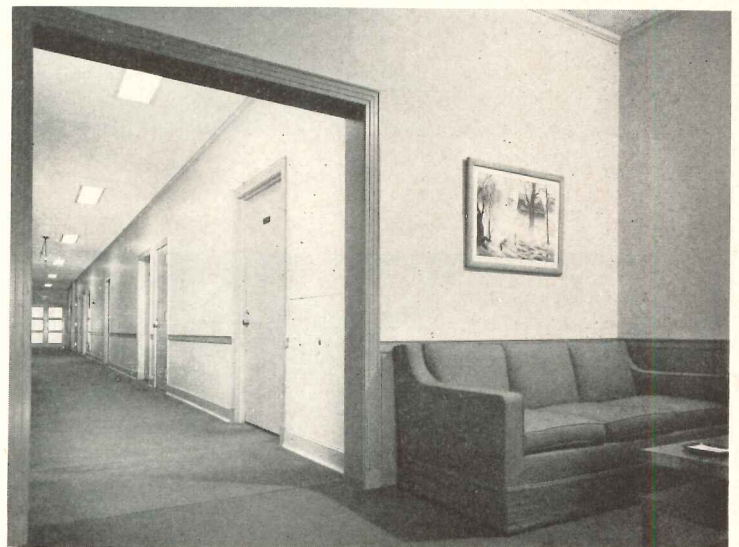
The before-and-after in the matter of reception of visitors is not possible to show in photographs. The main entrance was formerly at what is now the side of the building, with a flight of outside steps, leading to a small lobby where the visitor was announced. The new entrance opens from a plaza development at the end of the building into a huge lobby. The lobby space was achieved by developing what was formerly an open light court.

These strong measures, while still involving the difficulty of the stairs, did achieve something that would hardly have been designed into a new building. So much space was thus created for the lobby that the visitor feels strongly a sense of space and calm. The calm comes partly from the spaciousness, partly from careful acoustic treatment. The huge window at the doorway

contributes somewhat to it, for the room is flooded with daylight. Thus, while the lobby is modern in styling, its space luxury is not often seen in today's buildings.

It is odd, but probably not significant, that in the rooms where modern design had fullest freedom — library, auditorium, display rooms — this feeling of spaciousness is not felt; these rooms were newly created, but were strong-armed into restricted spaces. But on office floors the space luxury is again felt, and here is one of the most cogent arguments for modernization — forty or fifty years ago offices were roomy rather than merely efficient. Build the new efficiency into them — in modern lighting, air conditioning, sound treatment, brighter design — and you have something better than one would have the nerve to design for today's costs.

The company's reaction to the remodeling is summed up by Mr. Grace: "I feel that the job has been a success beyond our fondest expectations. Other industrialists, seeing what has been accomplished here, have told me that they were going home to study their remodeling possibilities."



Right, above: view along refinished corridor in office section.
Right: longitudinal section through newly created reception room

REMODELING



Cortlandt V. D. Hubbard Photos



WESTERN SAVING FUND SOCIETY Philadelphia, Pa.

Harbeson, Hough, Livingston & Larson, Architects

Willing, Sims & Talbutt, Associate Architects



Extensive remodeling was limited to quarters for bank occupancy

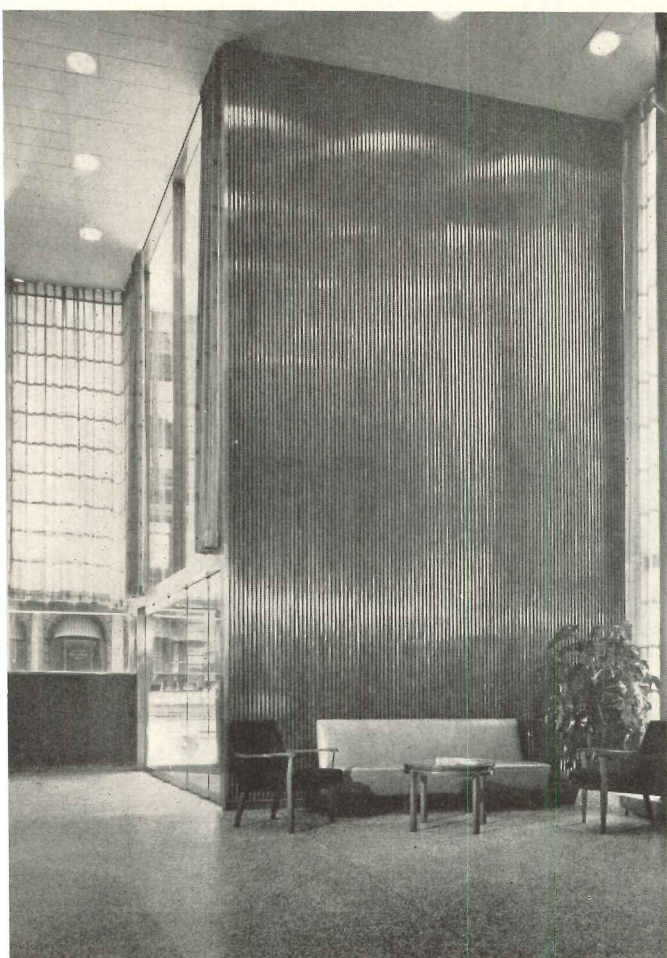
THE DECISION to remodel this 50-year-old building was a sort of double-take. In 1945, when the bank bought it to obtain a new location, there was careful discussion of whether to remove the upper stories and remodel space for the banking quarters or raze it and start over. The decision then was to raze it, and the architects drew plans for a new building, but construction costs rose so precipitously that the plans were later set aside in favor of remodeling.

Two principal considerations influenced the design of the new banking room. One was a wish to remove the monumental granite and deeply inset windows which spread a gloom over this important business corner — Broad and Chestnut. Also contemporary design was wanted for itself, to brighten up dealings with the bank's clientele. The bank's officers were at first willing, then "increasingly enthusiastic . . ."

The bank exterior uses great glass panels above a granite base, and above the glass a wide course of pink marble adds a desirable note of color, and one which establishes a harmony with the older facade.

The dominant color inside the banking room is the brown of teak paneling covering the walls, along with the natural travertine on the piers, and blue green with which columns are painted. Floor is terrazzo, the marble chips black and buff.

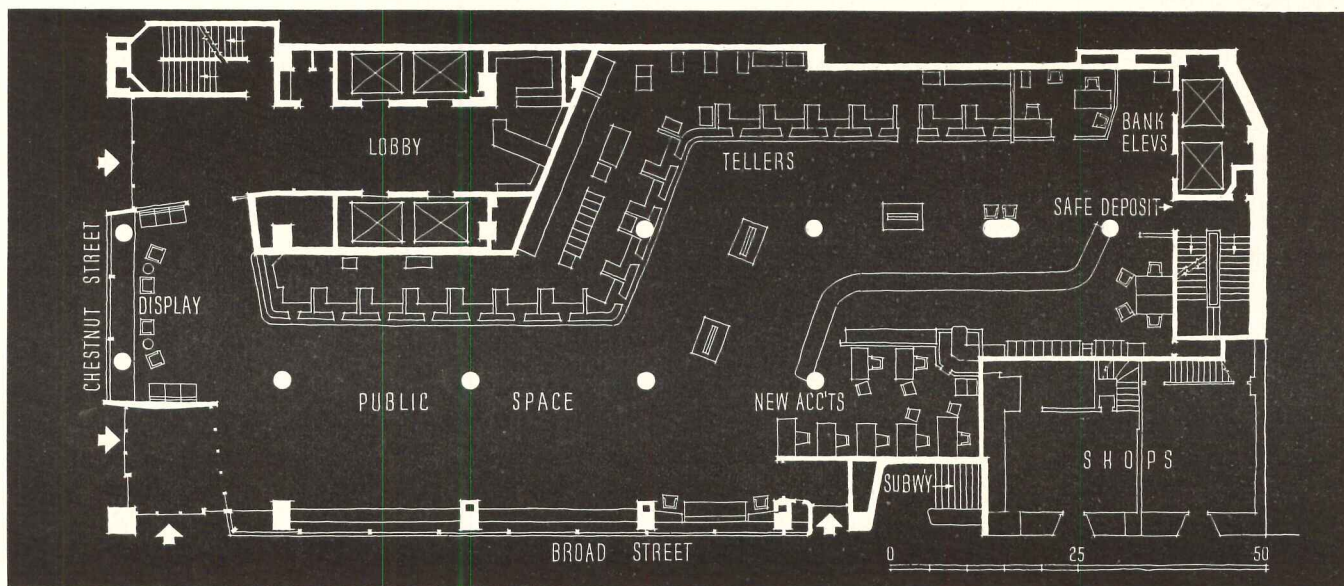
The architects explain that the bronze panel on vesti-



bule walls does not represent anything. It serves as enclosure for ventilating and heating ducts, and, of course, as a separation of the vestibule from the banking room, and metal seemed more frank than would marble or granite masonry.

The third and fourth floors were completely rebuilt

also, to house bank offices and officers' rooms. The second floor was included in this remodeling; it is now tenanted until such time as the bank may need it for expansion. Certain officers' rooms were fitted into the fifth floor. Alterations to the rest of the building were relatively minor.



REMODELING

Though the photographs show the curtains drawn, the tall windows usually flood the interior with daylight, and the pleasant aspect has been one of the features most commented on by customers of the Western Saving Fund Society. The architects won full support from officers in the avoidance of unnecessary symbolism and meaningless decoration. Dominant colors in banking room are soft brown of unstained teakwood and the buff of natural travertine



Cortlandt V. D. Hubbard photos, courtesy Armco Steel Corporation





**PENNSYLVANIA COMPANY
FOR BANKING AND TRUSTS**

Philadelphia, Pa.

Howell Lewis Shay, Architects



Lindelle Studios Photo

IN PHILADELPHIA, a city of history and tradition, a 23-year-old office building is practically a youngster, but start to bring it up to today's standards and you soon find how seriously obsolescence and depreciation have affected it. This was the case when the Pennsylvania Company for Banking and Trusts acquired the strategically located 1500 Chestnut St. Building for its new banking headquarters.

Back of the obvious matter of appearances, the architects found, in their survey, that while the basic structure was sound, all piping, generators, pumps, electrical system were in poor condition and needed complete renovation. Add virtually complete change of occupancy in 21 stories and complete air conditioning for the building, and the project becomes extensive.

Altogether the remodeling consisted of removal of all existing partitions and installation of complete new plumbing and electrical services, installation of year-round air conditioning, a new two-story facade on the Chestnut and 15th St. fronts, a new kitchen and cafeteria in the basement, a banking room and vault on the first floor, and interior refinishing of the rest of the building. The bank occupies the first ten stories for

REMODELING

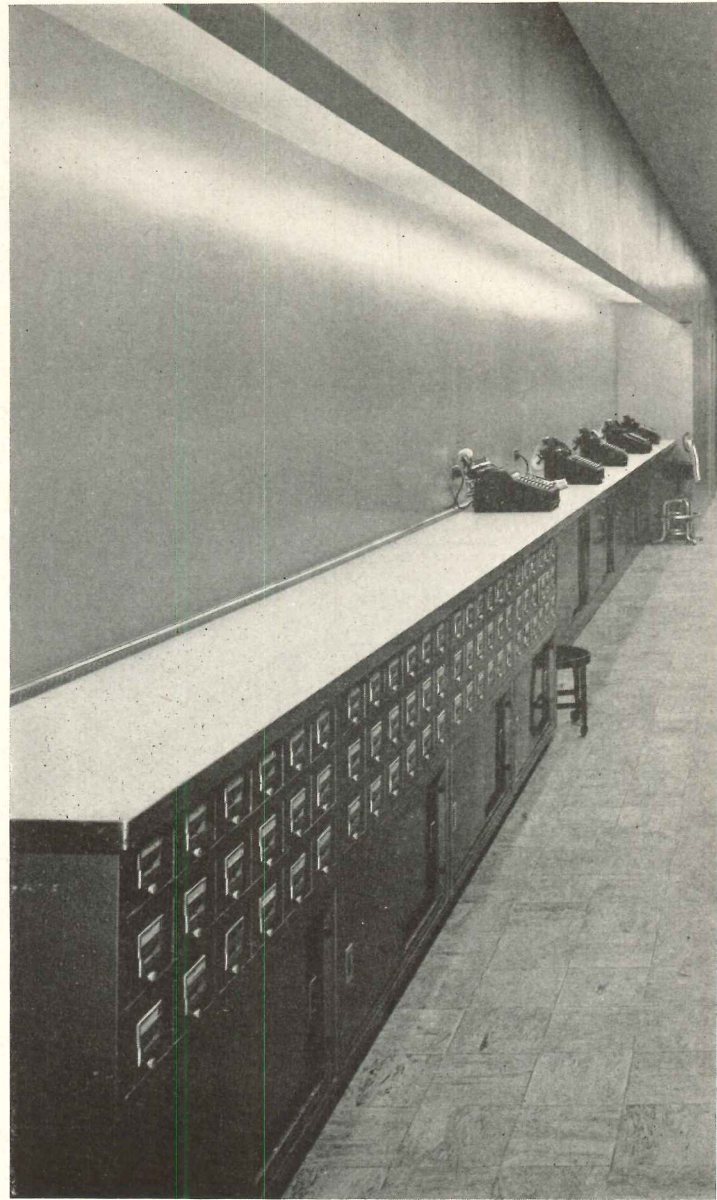
banking room and offices of a "shop" nature, upper floors being retented.

The new facade is of buff limestone and stainless steel with windows of double insulating glass. The "windows" virtually amount to full glass walls from floor to first floor ceiling line, a full open front. The visual effect, however, is that of huge windows in massive frames of stainless steel. The base is a low course of granite.

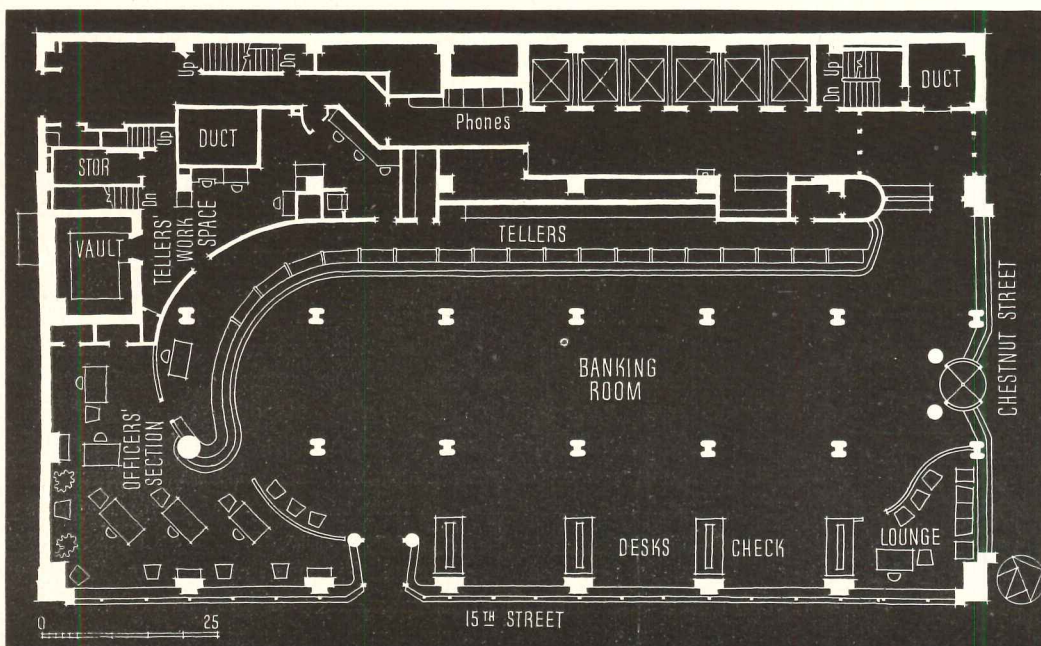
The banking room is characterized by soft colors, indirect lighting, open areas for free circulation, and curving forms. Tellers' desks are combined in one long curving counter, which winds around a prominent splayed column marking the officers' space. The counter is covered with plastic of a rich brown color and trimmed with two bands of stainless steel. The curve of the counter is matched above by a lighting cove combining direct and indirect light. The lighting installation won a first prize award in General Electric's 1949 planned lighting competition.

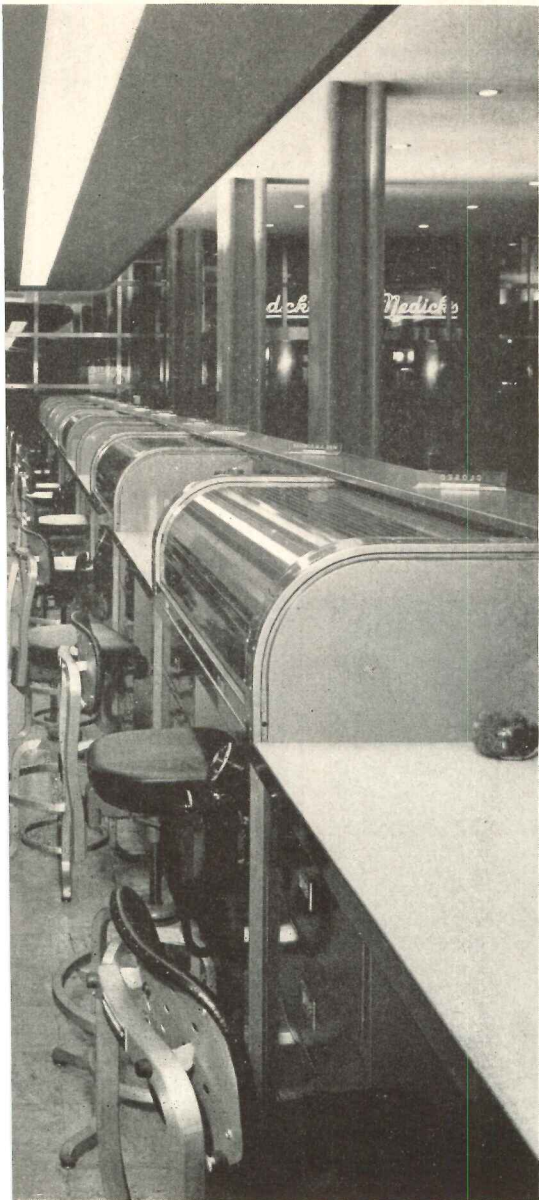
The terrazzo floor picks up some of the brown tones of the counter and check desks across the room, using in rather bold fashion a considerable variety of marble colors and chip sizes. The building columns occurring in the banking room were given the minimum fireproofing, taking a frankly H form.

To find space for air conditioning equipment required strong shoehorn methods, to the point where the building's boiler plant was removed in favor of purchasing steam from the local utility. Cooling compressors and pumps are in the sub-basement, cooling tower on the roof. Actual air heating, cooling and dehumidifying equipment is divided into two parts, one in sub-basement, one on 21st floor, each serving half of the building. Office radiators are orificed to maintain 70 deg. against window and wall losses; air conditioning supplies heated ventilation air. In summer the system will cool to 80 for an outside temperature of 95.

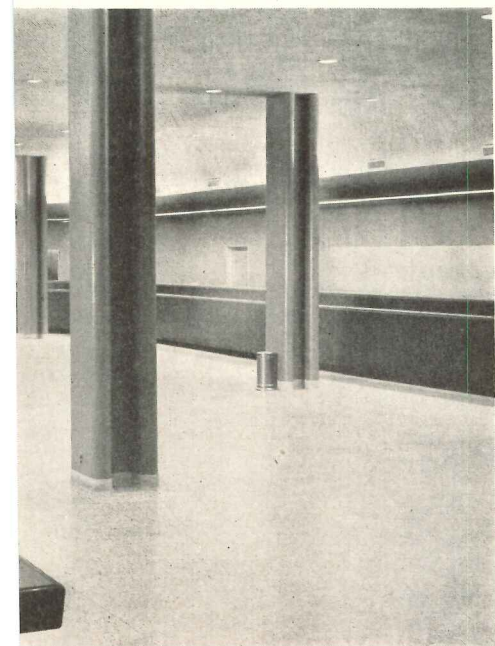


Condax Studios Photo

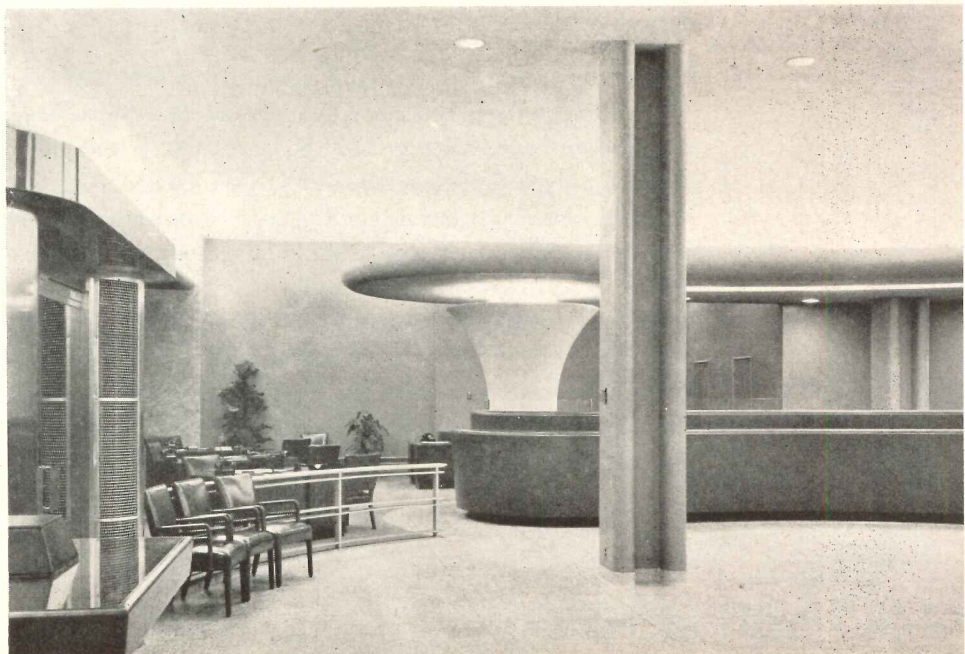




Condax Studios Photo



Universal Photo Service



ST. ANN'S CHURCH AND SCHOOL

Mission, Kansas

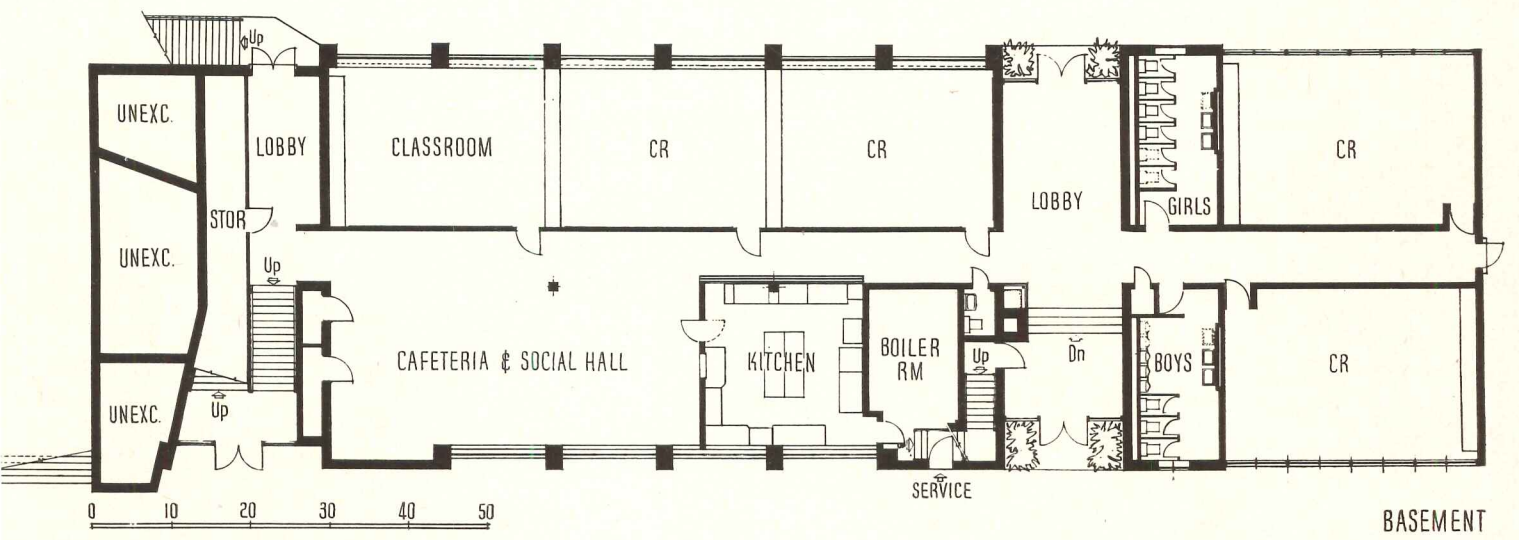
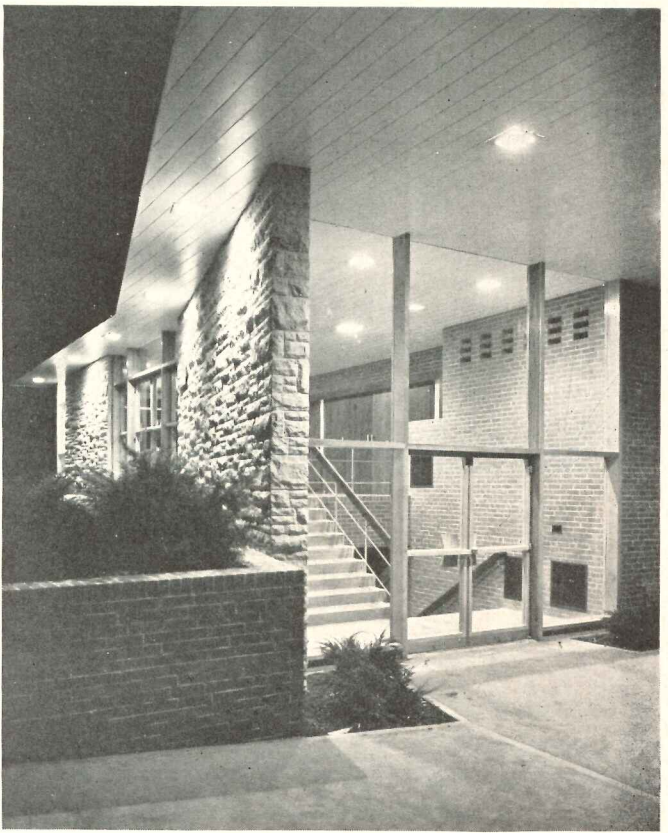
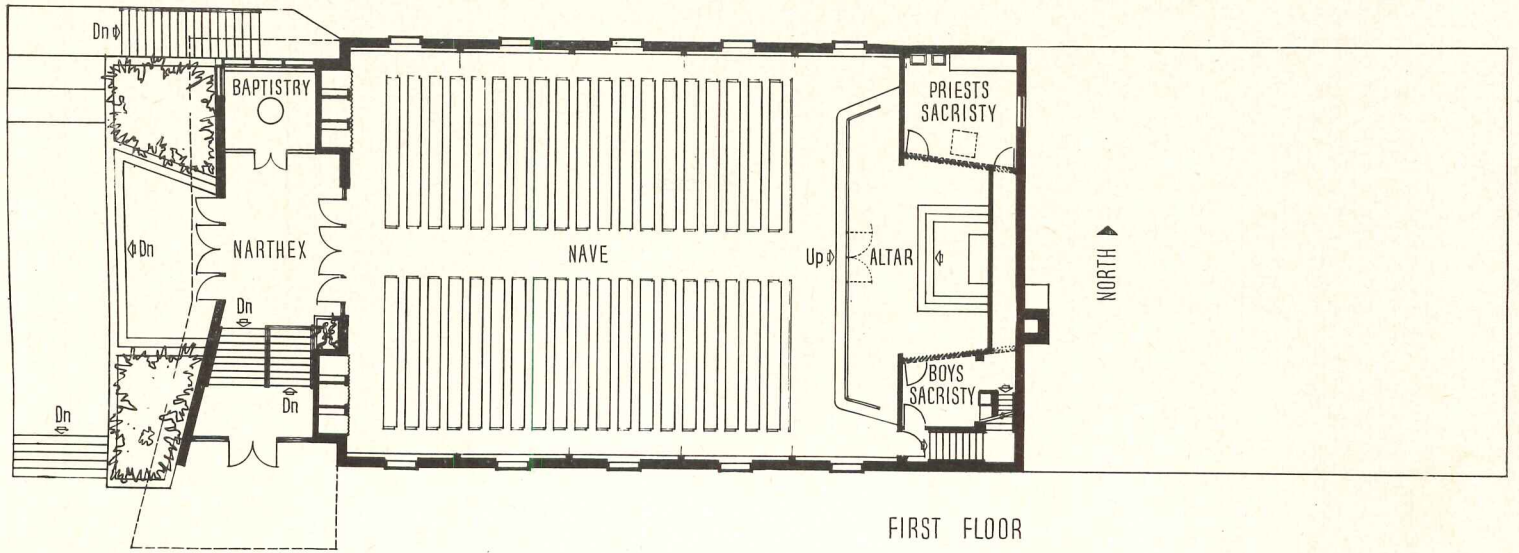
Kivett and Myers, Architects

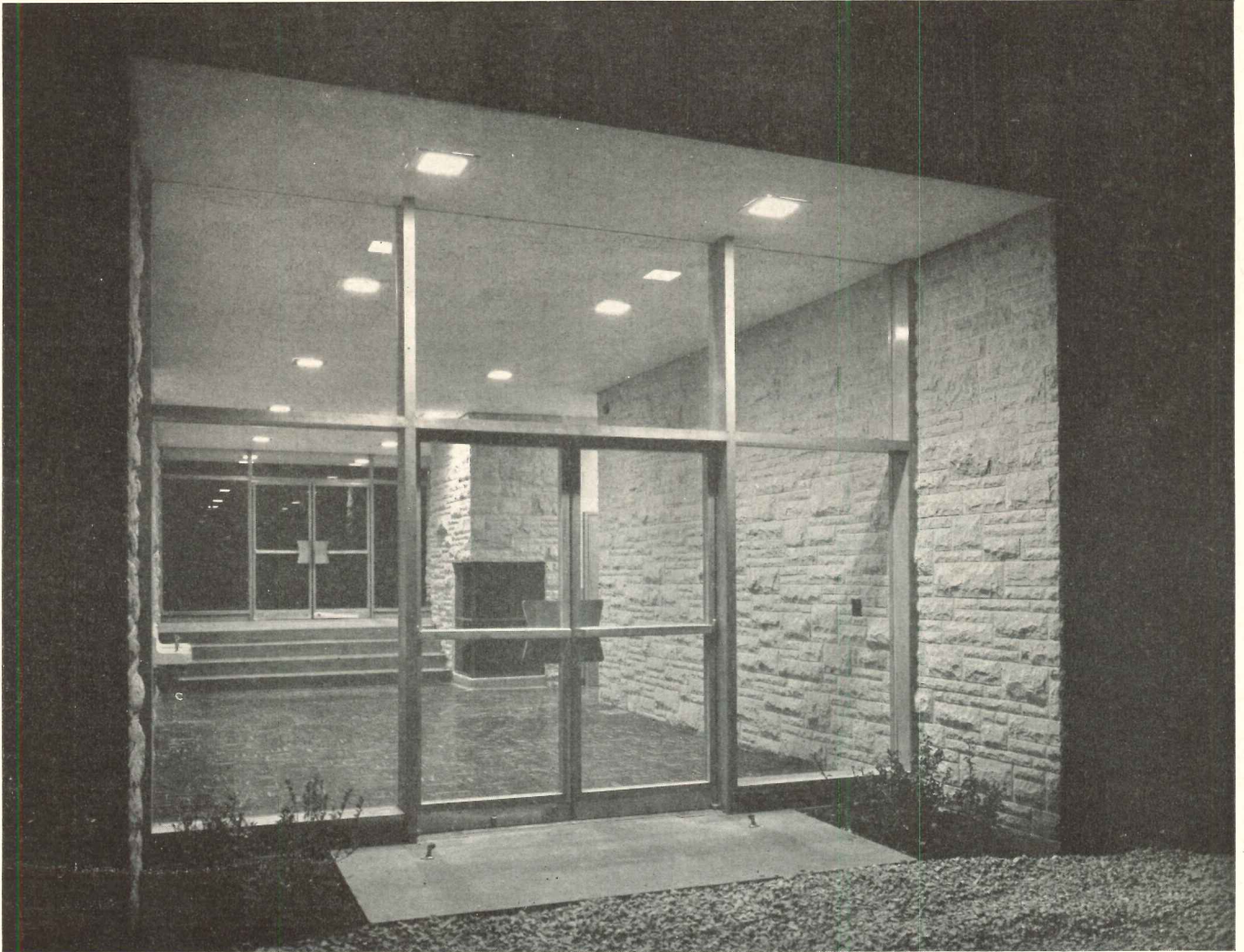
L. D. Jones Photos



THIS combination church and school is the first unit in a group of buildings planned to meet the religious and educational needs of a suburban community outside Kansas City. If the plans are fully realized, the present structure will be converted wholly to school use, with the church portion becoming an auditorium-gymnasium, and a new and larger church, a convent and a rectory added. The classroom wing can be expanded as required.

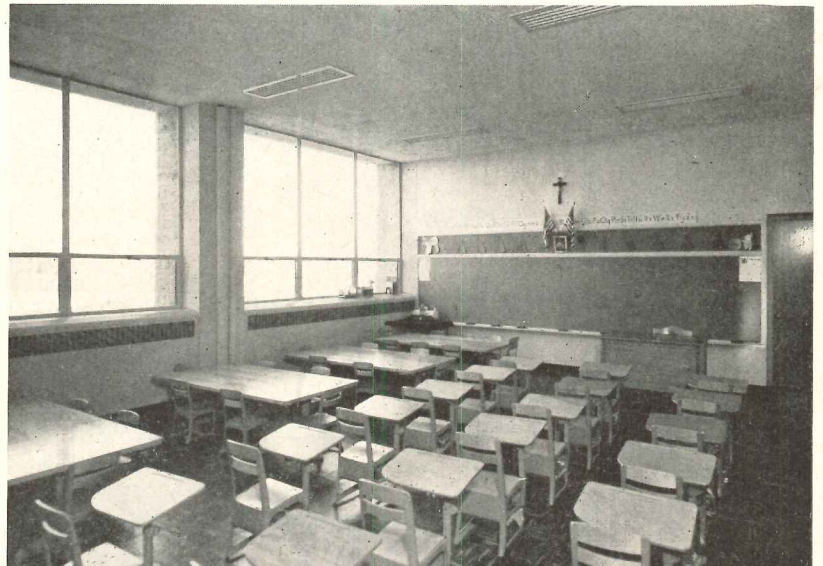
The present building, because of a sloping site, has two levels. The church, on the upper, seats 450. The school wing, on the lower, has five classrooms and a cafeteria. Each has its own entrance, but both are accessible from a mid-level entrance. Exterior is red face brick and white stone, with wood trim painted white. Framing is steel.



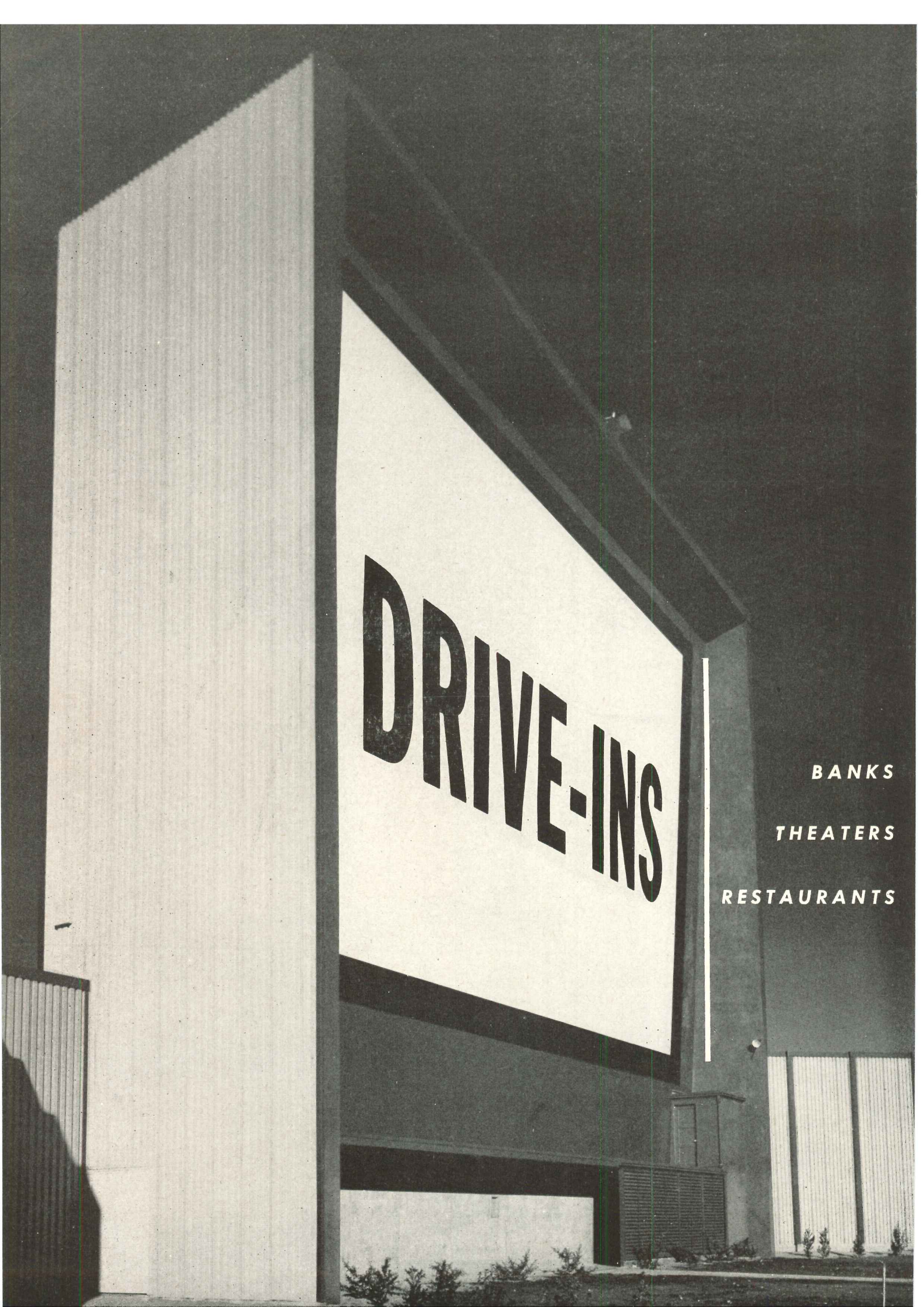


L. D. Jones photos

Main entrance to school (above) is on lower level, directly opposite a 75-car parking lot; lobby stretches across entire wing. Classrooms (right) have continuous overall luminous ceilings, color schemes designed to reduce eye-strain and glare. Church interior (opposite page) is unusually and effectively simple: walls are painted plaster, floor is asphalt tile; tall windows allow daylight to pour in. Conversion to school auditorium-gymnasium when new church is built should not be difficult





A black and white photograph of a building facade. A large, light-colored rectangular sign is mounted on the wall, featuring the words "DRIVE-INS" in a bold, black, sans-serif font. The sign is tilted slightly to the right. To the right of the sign, the words "BANKS", "THEATERS", and "RESTAURANTS" are listed vertically in a smaller, white, sans-serif font. The building has a modern, minimalist design with a dark, possibly concrete, exterior. The sky is dark, suggesting a nighttime or low-light setting. The overall composition is clean and industrial.

DRIVE-INS

BANKS

THEATERS

RESTAURANTS

THE OLD theory that a busy corner was always a good business location is accepted today with great reservation. It has become increasingly difficult for would-be customers to find places to park. Passenger car registrations in the U. S. have risen from 26 million to over 33 million in the past five years. Establishments of all kinds are finding it necessary to urge greater public facilities for this increase in automobiles, and to seek methods of providing private services of their own. Drive-in concerns are rapidly coming to the fore to fill this need. Motels, restaurants, theaters, banks, shopping centers, even a church, have been planned for the use of motorists.

Most drive-in types were started in depression days as novelties to lure customers. Questionable connotations arose during this period — the drive-in restaurant was often considered a drink stand, or a honky-tonk; some banks used a rigged-up affair for drive-in service; and theaters were often regarded as rather slipshod concerns playing third rate movies. They are all now developing into solidly housed, sound businesses, and are acquiring a permanent status in our social habits.

Families are being won over by the drive-in sales slogans — “No parking problems! Fast service! Con-

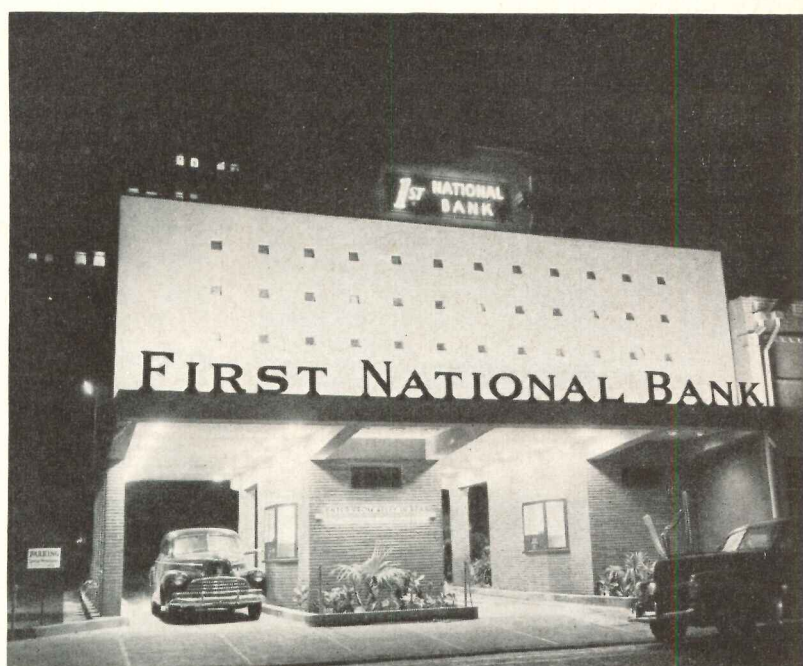
venience, comfort! No need to dress up! No standing in line!” Perhaps the most convincing argument for many is that small children may be brought along, kept out of harm’s way in the car.

This is all reflected in current building figures. Drive-in theaters have increased from less than 100 in 1947, with a capacity of 5000 cars, to more than 2000 at the present time. The capacity exceeds 775,000 cars. The growth of restaurants has closely paralleled that of theaters. The U. S. Dept. of Commerce Bulletin, *Restaurants and Other Eating Places*, states “. . . mass feeding in a wide variety of types is now an integral part of American life and is likely to assume an increasing role.” The popularity of the drive-in restaurant makes its importance obvious. The American Bankers Association estimates that there are about 800 to 1000 drive-in banks in the country, with two or three new ones being reported almost every day.

This study has been prepared to provide brief check lists and planning suggestions for architects concerned with the design of drive-in banks, restaurants or theaters. For reviews of some of the equipment available on the market for drive-ins, see Products For Better Building, page 162, in this issue.

Photo opposite page by Vic Stein

Below: George R. Szanik Photo



The editors wish to express appreciation to the following for their generosity in providing material for this study: **BANKS** — Walter S. Bucklin, President of the National Shawmut Bank, Boston, Mass.; Mosler-Duplex Co.; Diebold, Inc. **THEATERS** — William Glenn Balch, Architect; Jack Corgan, Architect; Motion Picture Herald; Jay Emanuel Publications; and many manufacturers. **RESTAURANTS** — Restaurant Management magazine. Photo, left: Baseline Theater, San Bernardino, Calif., William Glenn Balch, Architect, Louis L. Bryan, Associate. Center: Biff's Restaurant, Hollywood, Calif., Douglas Honnold, Architect. Right: First National Bank Drive-in Facility, St. Petersburg, Fla., William B. Harvard, Architect, John B. Dodd, Associate

ARCHITECTURAL RECORD'S
BUILDING TYPES STUDY
NUMBER 164

DRIVE-INS | BANKS

SUPPLEMENTARY banking facilities for motorists are being incorporated in all types of banks, all over the country. Aside from helping to alleviate street congestion and parking dilemmas, exterior tellers' windows and parking areas are used to ease crowded banking floors, develop new business, and improve customer service. They have been used in every type of neighborhood from business and industrial to residential sections. The convenience offered is said to have caused success even where parking is not a problem. Most banks where units have been installed feel that the investment and maintenance was worth while and developed new business for their concerns.

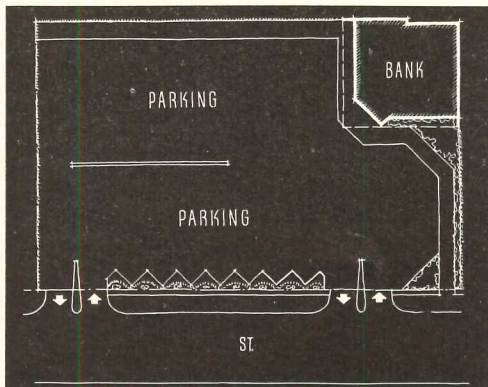
TYPES AND EXTENT OF SERVICES

Facilities offered range from parking lots adjoining banks to installations of one to four tellers' windows with overhanging canopies or completely enclosed drives. Variants include walk-up windows for pedestrians, and curb tellers. The latter are remote control

units with tellers' booths located under the sidewalk. Although a reasonable traffic turnover by a drive-in window will cut down on need for parking areas, some provision must be made for motorists who have business to transact in the bank itself. Precise needs of an individual bank are best indicated by a poll of its customers on services desired.

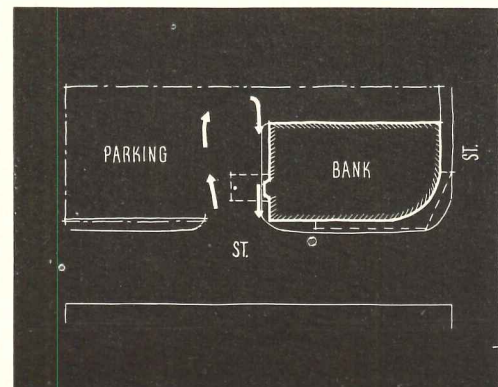
Many banks offer complete teller services at drive-in windows. Others limit them to commercial account transactions, deposits, check cashing, or special deposits and payrolls. Some require advance notice of an hour or more to prepare payrolls. In some localities, early morning and evening services are offered on special days.

By properly training tellers serving drive-in windows and educating customers to their use, transactions can be handled with considerable speed. This is increased where services are limited. The customer is expected to have checks and forms filled out and signed on arrival; some banks provide booths off the parking lot for customers who have failed to do so. Where a large number of transactions are handled, additional windows are often used. If two windows are placed in line on a



University National Bank Parking Lot Branch, Seattle., Wash., Smith, Carroll & Johanson, archts. Parking lot has time limit for patrons. All service is on interior of the bank

Dearborn-Massar Photo



Desert Bank, Inc., Cathedral City, Calif., Clark & Frey, archts. Bank has parking lot and single drive-in window for both interior and exterior service, car transactions sheltered by roof

Julius Shulman Photo



single wall, the number of transactions cannot be doubled, as there is always a period of delay or interference by the first car in line. Business usually increases at the windows on stormy days. Peak loads in general coincide with lobby traffic loads.

If the volume of business is sufficient, a full-time teller may be kept at a drive-in window, with extra duties for slack periods. In other banks it may be advisable to have any teller free at the time perform the duties. The location of some parking lots will necessitate a part- or full-time guard. His duties will consist of directing customers to open parking spaces, and seeing that they do not overstay the privilege of free parking. Such policing also discourages attempted robbery. Most banks make no security provisions for the customers other than possibly providing a gun port at the window. Some patrons feel that there is, even so, an added safety in handling transactions in the car.

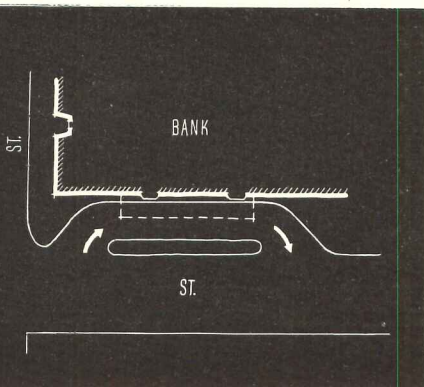
The use of regular drive-in windows by pedestrians can be hazardous, as well as slow up traffic. Many banks fill the customer's first request, but suggest that he use the regular facilities in the future. Walk-up windows offer a safe alternative.

Civil authorities in general are very favorable toward drive-in banking service. Some communities object to the curb-teller units, however, on the basis of city codes against sidewalk vending.

LOCATION, CONNECTION WITH BANK

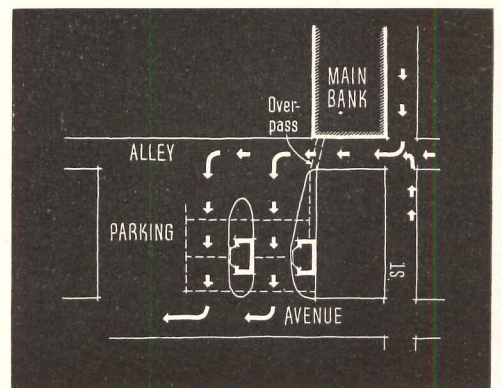
In main bank: Permission may sometimes be obtained to use an inset section of sidewalk or window traffic and parking on a main thoroughfare. A unit might also be placed on a public alley at the rear of a bank building. Care must be taken in such a case that there are no truck loading docks in that section which would block the drive-in window from traffic. In some cases use might be made of a basement for drive-in and parking facilities. In new construction roof areas might be used for parking.

Island units: Small booths could be placed in parking lots or garages adjacent to, or across the street from the bank. They could be entirely separate or connected by a tunnel or overpass to the main building. Legal restrictions may require a physical connection. Such a set-up could have its own ledger and signature cards, or be



The First National Bank of Boston, Boston, Mass., Cram & Ferguson, archts. Two windows, but no parking, at main bank. Difficult approach used to place window on car's left

First National Bank Drive-in Facility, St. Petersburg, Fla., Wm. B. Harvard, archt., John B. Dodd, assoc. Double units adjoin main bank; limited parking provided on lot



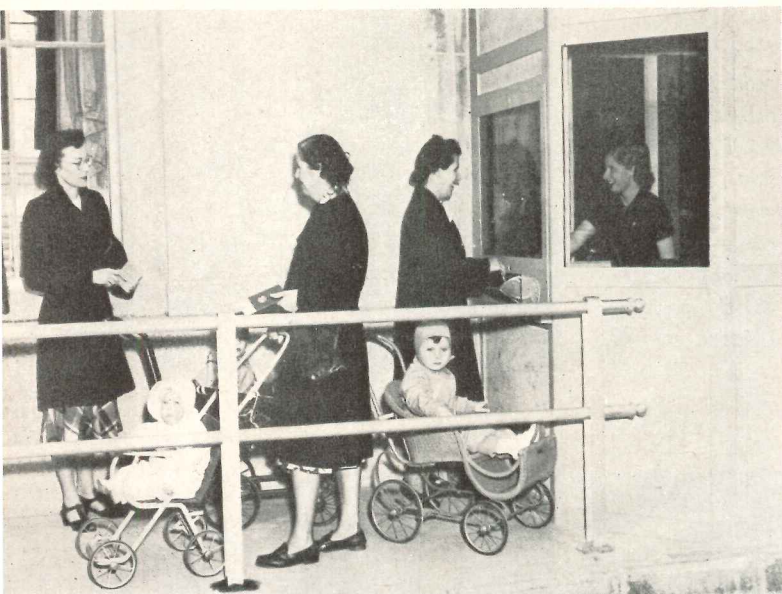
Courtesy of Mosler-Duplex

Florida Photo



DRIVE-INS | BANKS

Below: Bank of Passaic & Trust Co., Passaic, N. J. An island type drive-in is housed in portion of ground floor, connects with two streets for dual approach. Walk-up window serves pedestrians and patrons from adjacent parking lot



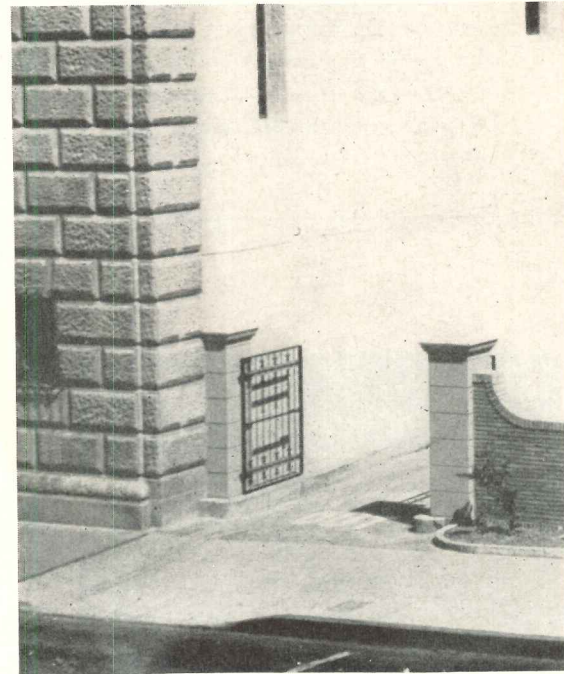
Above: Bayside National Bank, Bayside, N. Y. Walk-up window for pedestrians and shoppers. Wide walk permits passage of baby carriages. Guard rails prevent customers from stepping into traffic. Standard drive-in window unit is used for this service

connected to bank facilities by pneumatic tubes or conveyor belt.

In branch banks: Growth of local shopping areas in lower cost suburban zones has caused the establishment of many small branch banks in their environs. Location of teller units and parking lots is generally a lesser problem in such a case, due to the availability of more space. Completely separate records and personnel are required.

PLOT LAYOUT

Entrances: Where there is a separate exit, entrances should be a minimum of 10 ft in width. When both



parking lot and drive-in window are served by a common entrance, 20 ft width minimum should be provided if possible. It is common practice to provide gate posts and a chain to close off the parking area after hours. Such posts should be of solid masonry to ward off damage if hit by an automobile. Fences around lots should be durable and protected by some type of buffer on the parking lot side. The grade of sidewalk ramps should be low enough to prevent scraping of cars.

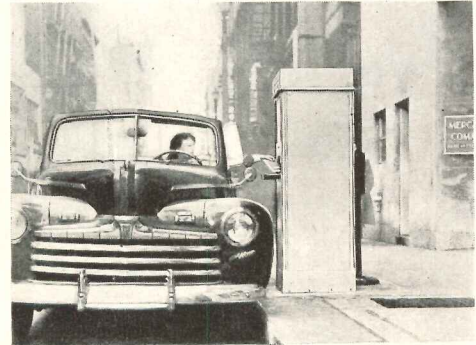
Approaches and drives: A straight approach to a window is best, and should allow sufficient space for several cars to line up off the street. Where a "U" turn is required, about 50 ft should be allowed, with the window far enough away for the car to be out of the turning stage on arrival.

The window transaction requires less effort on the part of the driver when located to his left. Often, however, the advantages of allowing extra line-up space, or the utilization of both sides of an island unit, will justify the placing of a window unit to the driver's right.

If two windows are in line, enough room should be left between them so that the second car in line can pull out and depart after being served. Where possible, the second window should be so located that it may be approached by a separate line of cars. An electric-eye indicator is often used to tell customer which window to use.

Painted stripes or bumpers are used to guide cars

Photos Courtesy Mosler-Duplex



into position at the windows. A curb should be provided below the window to protect it from collision.

Guard rails should be placed around any building exits opening on driveways.

Several types of devices are used for signaling the teller, during slack periods, of a customer's arrival at the window. These include: a compression hose on the drive, push-button buzzer on the window, mirrors and photo-electric cells.

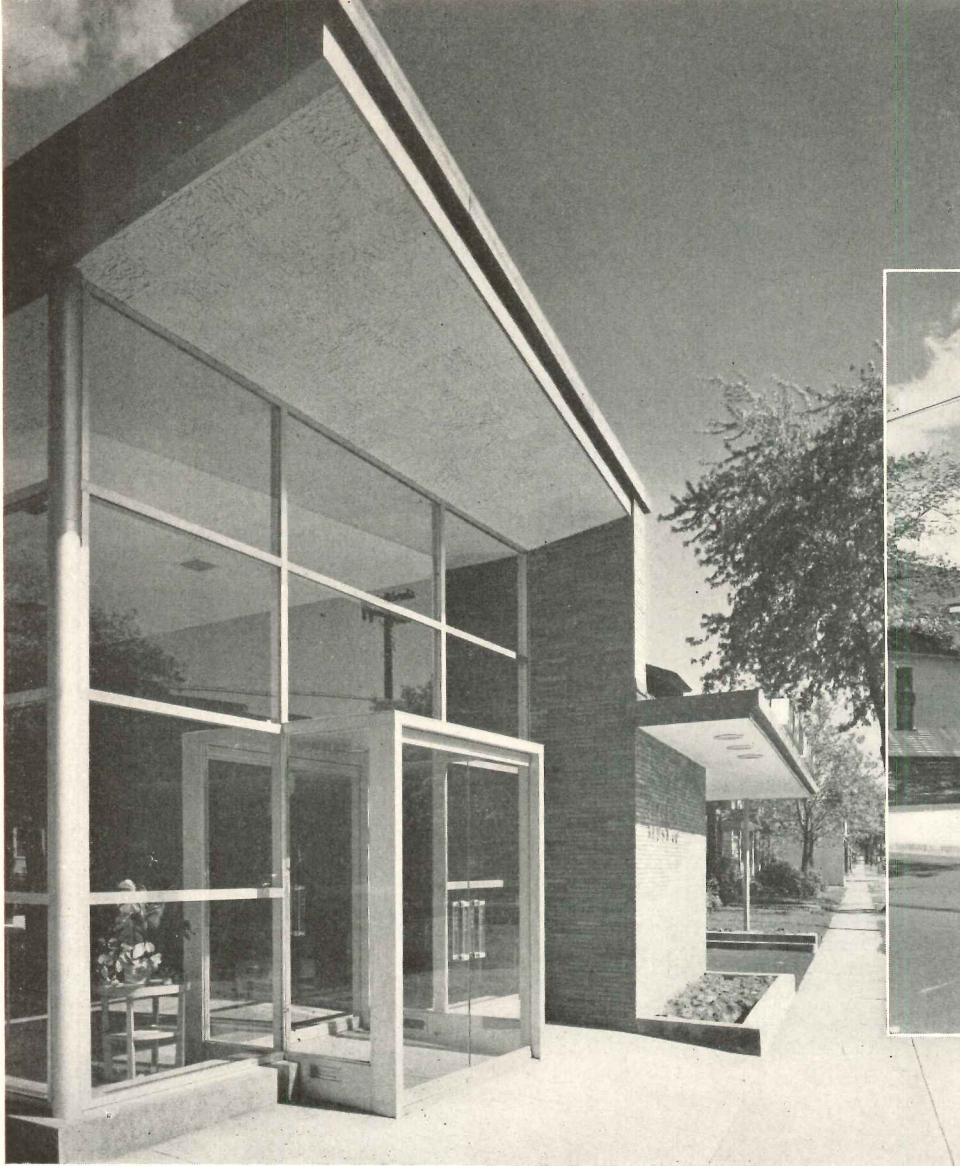
Parking lots and paving: Wide variation in the size and shape of lots, and their relation to streets and buildings prevent the forming of any standard layout for parking areas. In general, ease of maneuvering automobiles, and a maximum capacity for the lot are prime factors.

Below, left: Union National Bank, Ventura, Calif. Lot adjoining bank treated as patio-like drive for auto service. Location of window places it on drivers' right, but permits nine cars to line up off the street to avoid traffic congestion

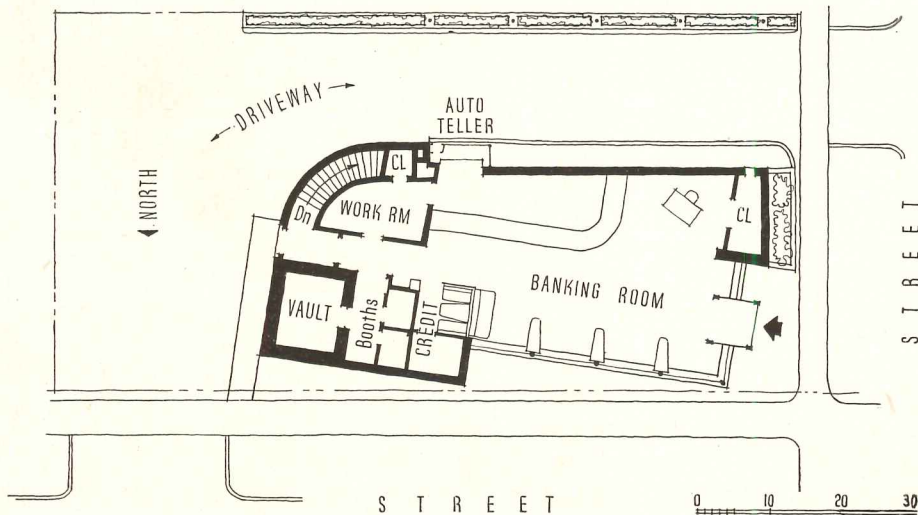
Above: Mercantile-Commerce Bank & Trust Co., St. Louis, Mo. Curb teller gives drive-up service where space is unavailable for window. Deposit placed in unit is lowered to teller's booth below sidewalk. Mirror system and two-way speaker permit customer and teller to see and converse with each other

DRIVE-INS | **BANKS**

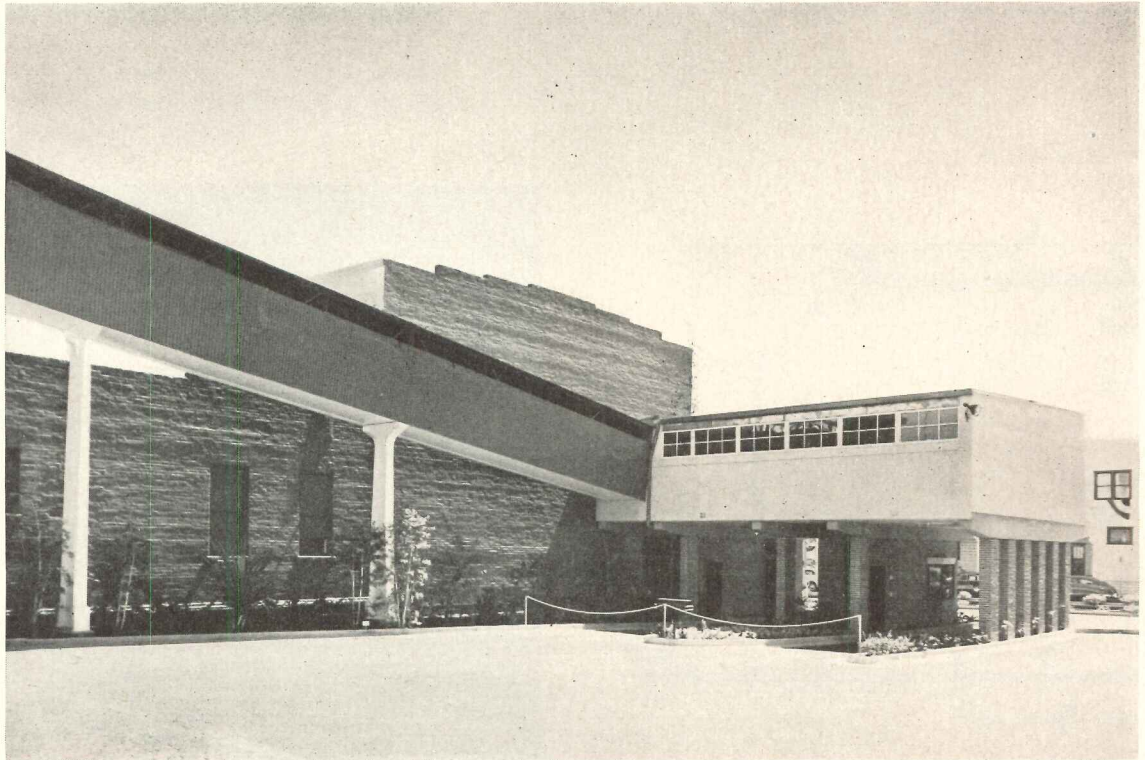
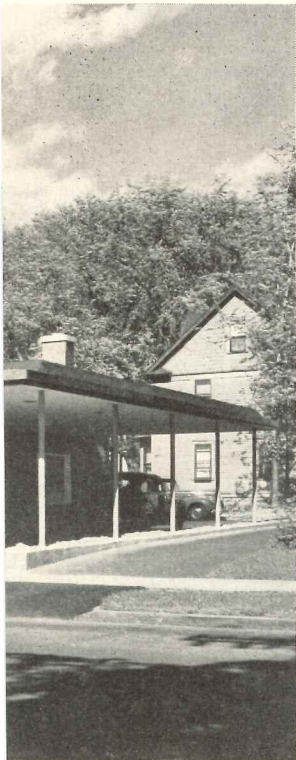
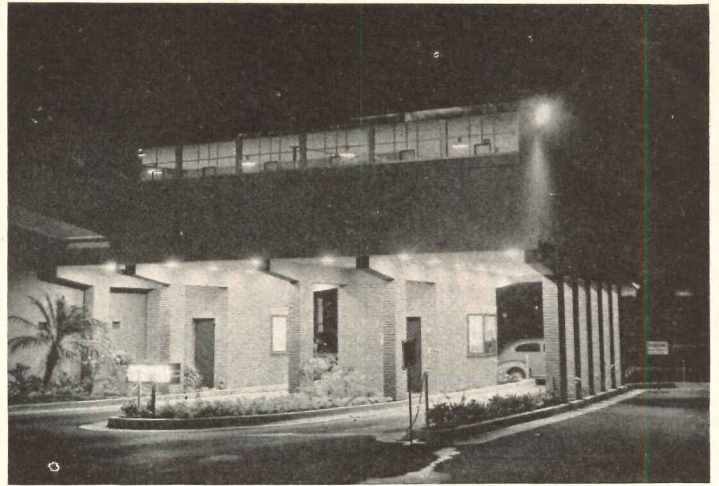
Security Trust Co. Auto Bank, Rochester, N. Y., A. Charles Pioch, archt., Edgar N. Phillips, dsnr. Integrated roof shelters approach to drive-in window. Placement towards rear permits car line-up, easy access by all tellers



Joseph Molitor Photos



First National Bank Drive-in Facility, St. Petersburg, Fla., Wm. B. Harvard, archt., John B. Dodd, assoc. Right: adequate lighting gives safety at night for money handling and traffic. Second floor houses storage room. Below center: an overpass connects drive-in unit with main bank. Banking laws would have required separate charter for drive-in if it were not physically connected with bank. Bottom: detail of teller's cage. Work counters and opening provided for manufactured window unit



Florida Photo

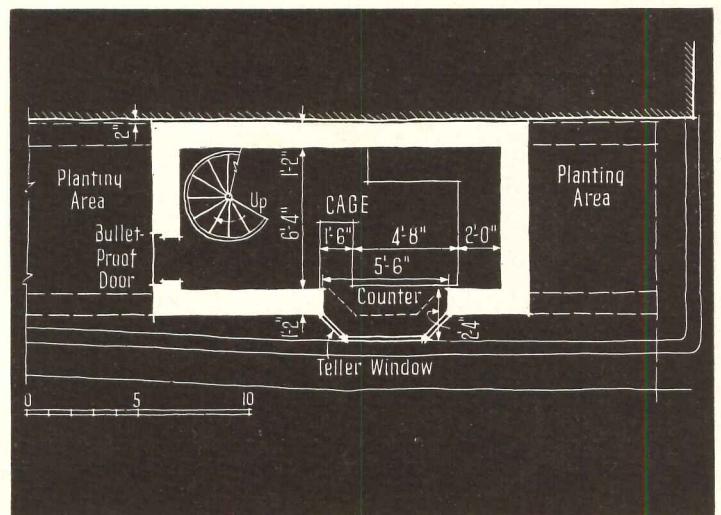
Concrete or asphalt are generally preferred for paving. The usual precautions should be taken for foundations and drainage. Radiant coils are sometimes used in concrete slabs for snow removal.

GENERAL PLANNING

Window location: A location centered behind banking room tellers' cages is usually best for a drive-in window. This permits any of the tellers to perform the service, and dispenses with the need of an extra full time teller for the average bank.

Use of the windows is expected to increase; it would be advisable to provide for future expansion if possible.

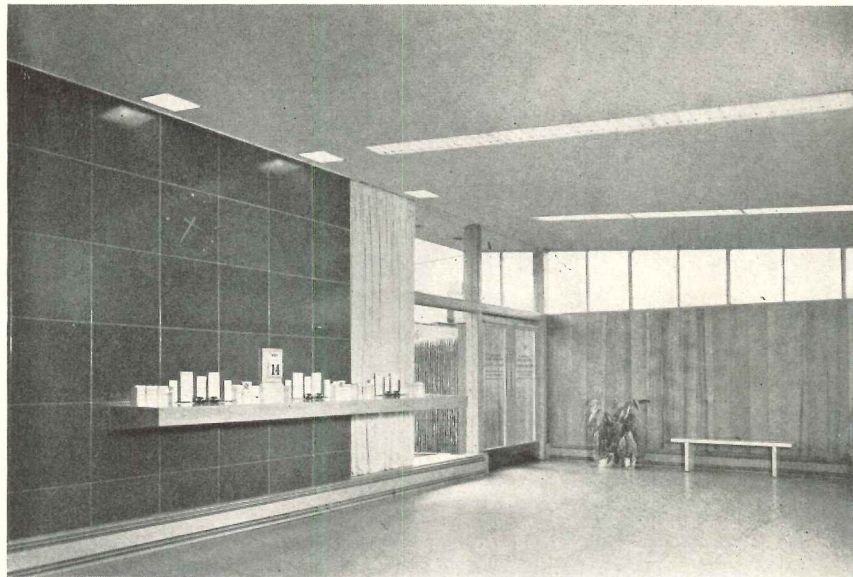
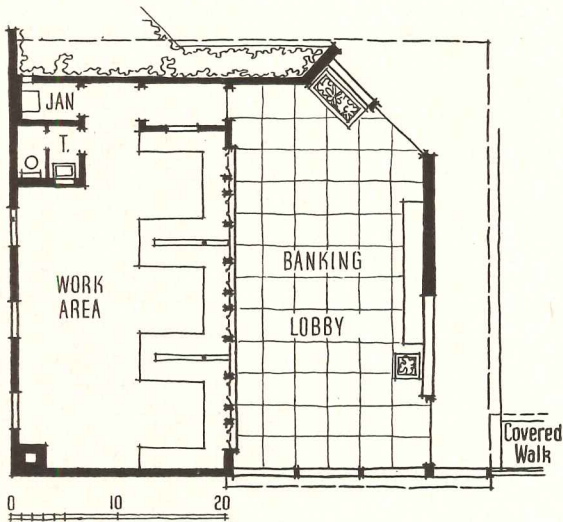
All enclosed units should be air conditioned and draft-proof. Inside pressure should be slightly above that of the exterior to prevent entry of exhaust fumes.



Weather shelter: In all cases, windows should be provided with some form of shelter to protect the area where the customer will be reaching to the teller's unit. This may be a completely covered drive, or just a 6 ft square marquee. Height of marquees should be clearly marked to warn trucks using the service. Although few banks provide after hour service at present, it would be well to wire marquees for future lighting installations.



University National Bank Parking Lot Branch, Seattle, Wash., Smith, Carroll & Johanson, archts.: designed for inside service

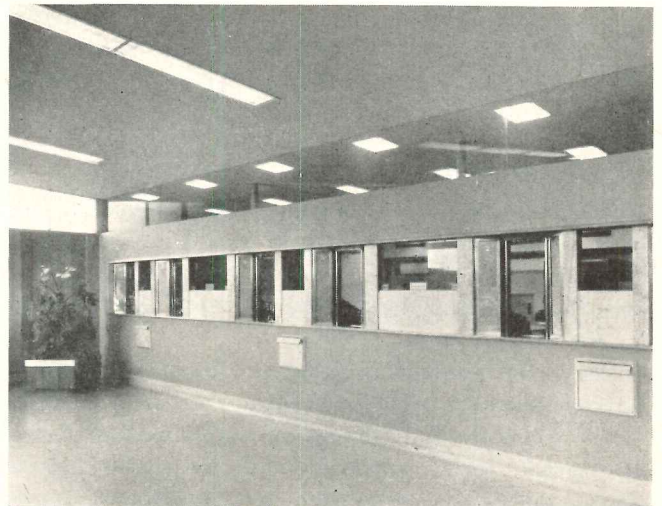


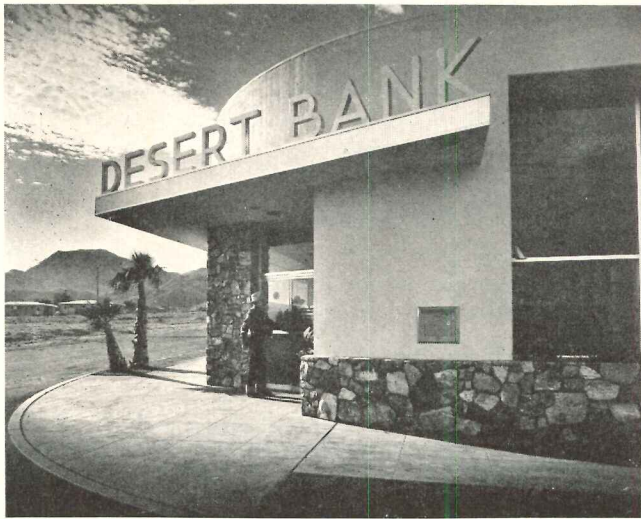
Large, uncluttered banking floor is provided for patrons. Teller booths (below) are enclosed, tend to speed up service

EQUIPMENT, INSTALLATION

Window selection: Manufactured window units are available to fit most types of bank design. The units vary chiefly in the operation mechanism of the pass door or tray. Each system permits only one side of the pass to be open at a time. Some types also incorporate such items as package receivers, night depositories and gun ports. Care should be taken to select one with a durable finish, and with safety features preventing mashed fingers as the pass door is shut. The glazing should be bullet-proof glass. Metal enclosing the unit should be armor plate.

Window installation: A wall opening should be provided as specified by the manufacturer of the unit selected. The units are usually installed directly into





Desert Bank Inc., Cathedral City, Calif., Clark & Frey, archts. Drive-in window and parking lot for interior service provided

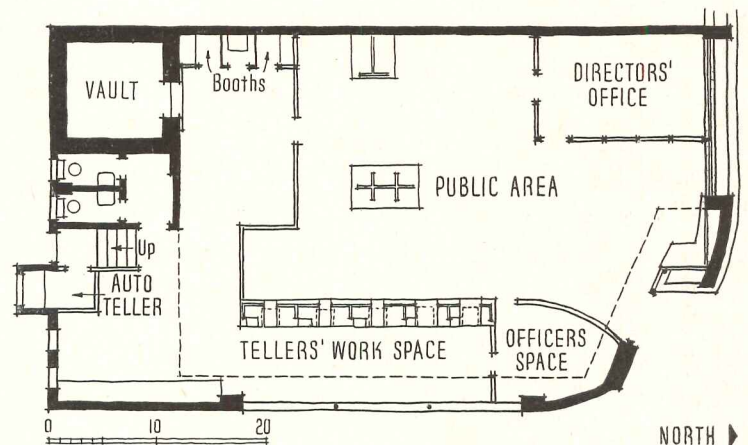
the space. The different window types require different mounting heights; the manufacturer's advice should also be followed on this. The average height of the bottom edge of the driver's window in a car is between 43 and 47 in. On some of the older models it is more; some of the more modern are as low as 38 in.

The window should be of sufficient width to permit full teller service. A minimum of 42 to 60 in. should provide counter space for such change machines, adding machines, etc., as might be needed.

Speaker units: Two-way speakers are generally found to be the most satisfactory means of communication between the teller and the customer. A switch permits the teller to check accounts without being overheard by the driver. The unit may also be used to amplify instructions over the parking lot.



Dual facilities lessen banking floor traffic, permit more informal relations. Open tellers' booths and lounge are used



PROMOTIONAL FEATURES

A drive-in service should be introduced to customers and the public through statement stuffers, direct mail, newspapers and other advertising. They should be fully informed on the methods of its proper use, and the directions of traffic flow. A large sign at the site is helpful to acquaint customers with the service.

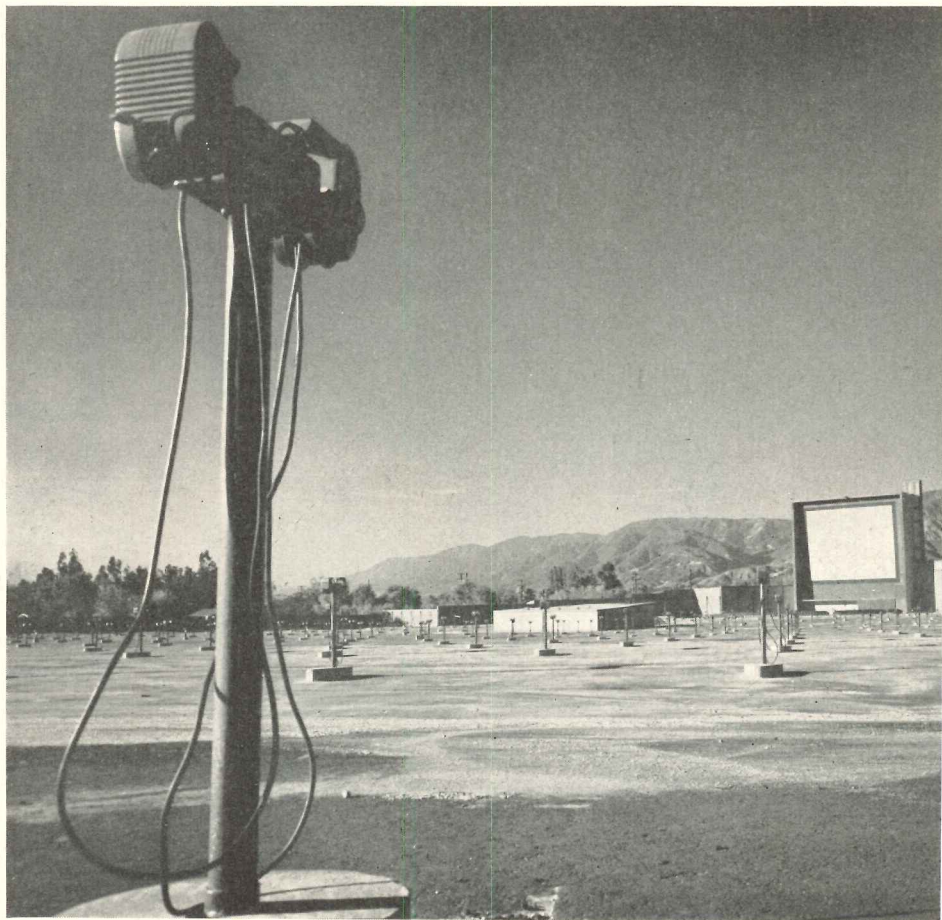
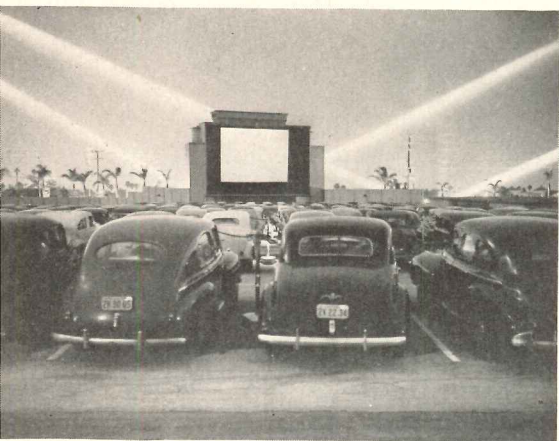
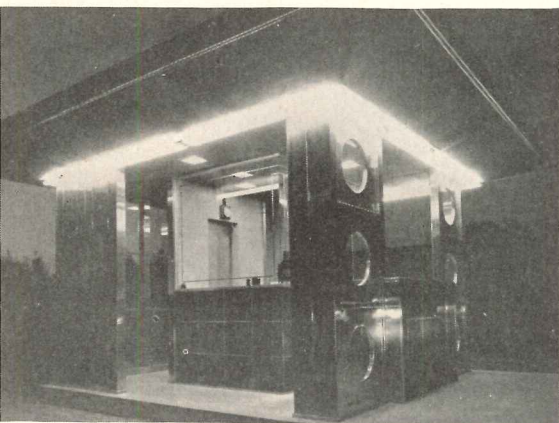
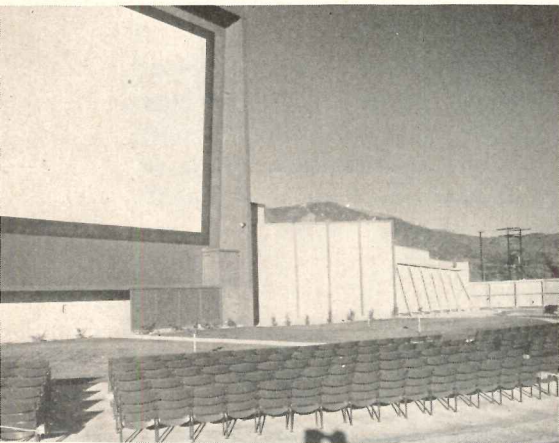
It has been found by many banks that without sufficient advertising, full use has not been made of the drive-in facilities offered to customers.

Landscaping of plots can be used to advantage for securing good will in residential areas. It should, however, be kept as simple as possible to avoid high maintenance and replacement costs.

DRIVE-INS | THEATERS

IT WAS once thought that only cities with more than 50,000 people could support a drive-in theater. Today many towns of less than 2000 draw sufficient patronage from outlying rural areas to make them profitable. Costs for drive-in theaters range from about 25,000 to half a million dollars. With success, owners often get their entire investment back in three years or so. Some financing institutions are now said to loan money on the theater's own value, without collateral.

Vic Stein Photos



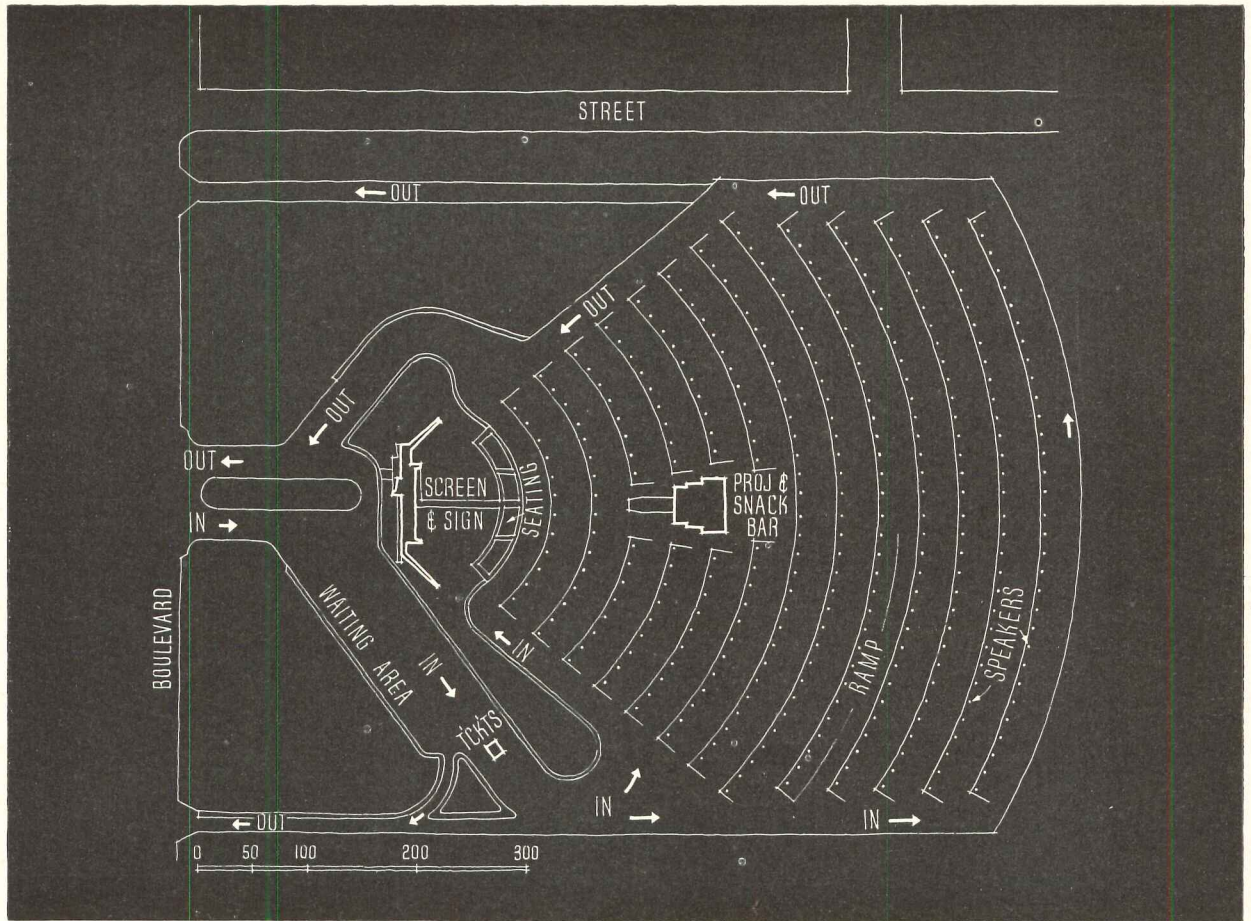
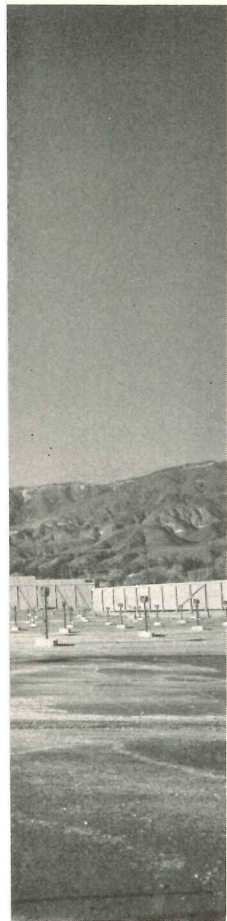
Western Photo

Baseline Theater, San Bernardino, Calif., William Glenn Balch, archt., Louis L. Bryan, assoc. General layout of ramps and speakers is shown in photo above and plan, right. Waiting area at entry keeps cars off highway; several exits ease after-show traffic congestion. Aluminum fencing surrounds the site. Photos at left (top to bottom) show principle elements of theater: entry with attraction sign and screen structure; seating area for walk-in patrons — entrance is below screen; ticket booth serves two lanes of cars simultaneously; and bottom, interior of snack bar. Photo second from bottom shows cars parked, ready for show, at Gilmore Theater, Los Angeles, Calif., also by Balch and Bryan

LOCATION OF SITE

A sufficient area of inexpensive land is the prime consideration in selecting a site. Location is generally better close to town, but theaters have been successful several miles from city limits. Many states and communities are developing codes regulating location and design of drive-ins; these should be carefully investigated. Other factors to check include: proximity to other drive-ins; nature of soil; natural drainage; simple, cheap excavation and grading; nearness to railroads or

Capacity and size: Maximum capacity is limited by number of ramps possible with clear view of screen. Picture size is limited to lenses and projection equipment available. Until larger and brighter pictures are possible, about 1000 to 1300 cars is maximum. Smaller theaters generally average about 450 cars, larger ones near cities, 650 to 1000 cars. *Motion Picture Herald* (Feb. 14, 1948) recommends roughly 100 ft of width for each 100 cars, and the following depths (based on full radii ramps, 38 ft o.c., and speaker posts 17 ft o.c.):



other distracting noises or odors; electricity — 220 volt, 3-phase service is needed. Drive-ins are usually best located on secondary roads connecting with major highways to prevent traffic congestion. Outside city limits, septic tanks must often be used for waste disposal, wells for water supply. Theater size should be derived from potential patronage; an average of 3.28 patrons per car was reported by *Theater Catalog, 1949-50 Edition*, from a survey conducted in the Minneapolis area.

PLOT LAYOUT

Ramps: The theater area is a series of ramps, laid out one behind the other in arcs. They are graded to elevate the front of each row of cars, permitting vision of screen above cars ahead. Sight lines and road grades must be established by size and terrain.

Capacity	No. of Ramps	Screen to rear of ramps
500 cars	10	510 ft
586	11	548
670	12	586
778	13	624
886	14	662
1000	15	700

Entrances and exits: Provide waiting space or extra wide entrance drives to get cars off highways; say for around 30 to 40 per cent of capacity. An escape exit drive by ticket office gives patron a means of getting out when cars are stacked behind him. On leaving ramps, it is best to have cars drive forward for exit. Several well lighted exits will ease traffic congestion. Often front-footage is retained for commercial use.

Surfacing: Drives should minimize dust and not be

DRIVE-INS | THEATERS

slippery when wet. Crushed stone topped with gravel, oil treated or black topped, is often used.

Ticket booths: Ticket selling must get patrons in quickly to start show on time. One ticket booth can usually serve up to 300 car capacity, two up to 600, three up to 800, and four up to 1000 cars.

Screens: Screen towers should be placed so pictures cannot be seen from highway. Screen widths vary from 40 to 60 ft, depending on number of ramps and topography. Sizes often used are: 48 by 37 ft for 650 cars, 56 by 42 ft for 950 cars. It is desirable to face screen east or north; this blocks evening sun, permits earlier show. Height above ground is determined by ramp and sight angles. Tilting screen at top minimizes distortion. Manager's office and caretaker's apartment are often located in screen tower.

The screen may be of almost any material which will take a good covering of white paint; provisions should be made for frequent and rapid repainting. Asbestos sheets, aluminum and steel decking have been used. Minimize joints to prevent distortion and streaking. The structure should withstand at least 25 lb per sq ft wind pressure and be fire-resistant. Wood frames, structural steel, reinforced concrete, even telephone poles are used. Prefabricated units are available.

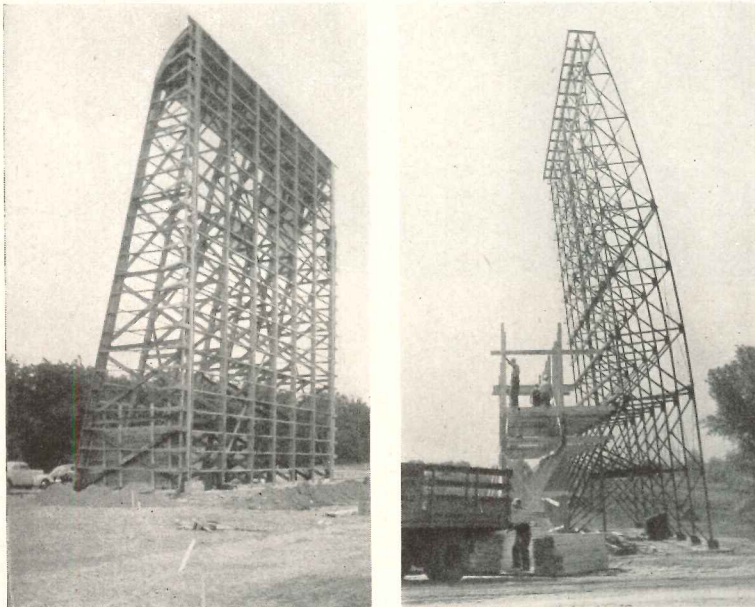
Seating area: If near residential areas, provide seating for walk-in patrons, in front of screen or by concession. A children's playground is desirable.

Photos courtesy of H. H. Robertson Co.

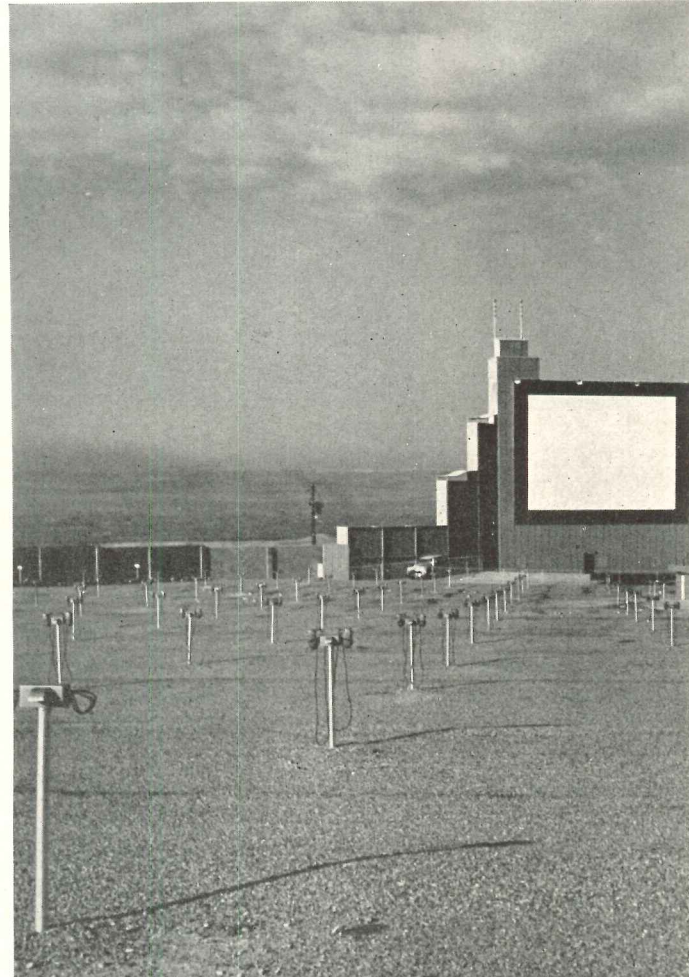


Courtesy Timber Engineering Co.

Courtesy Macomber, Inc.

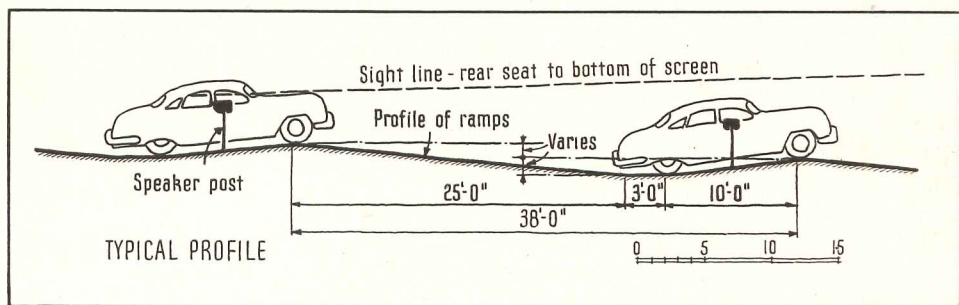


Screen towers may be fabricated of any one of a variety of materials; typical construction is shown above in wood (left) and steel (right). Structures must be wind and fire resistant for safety

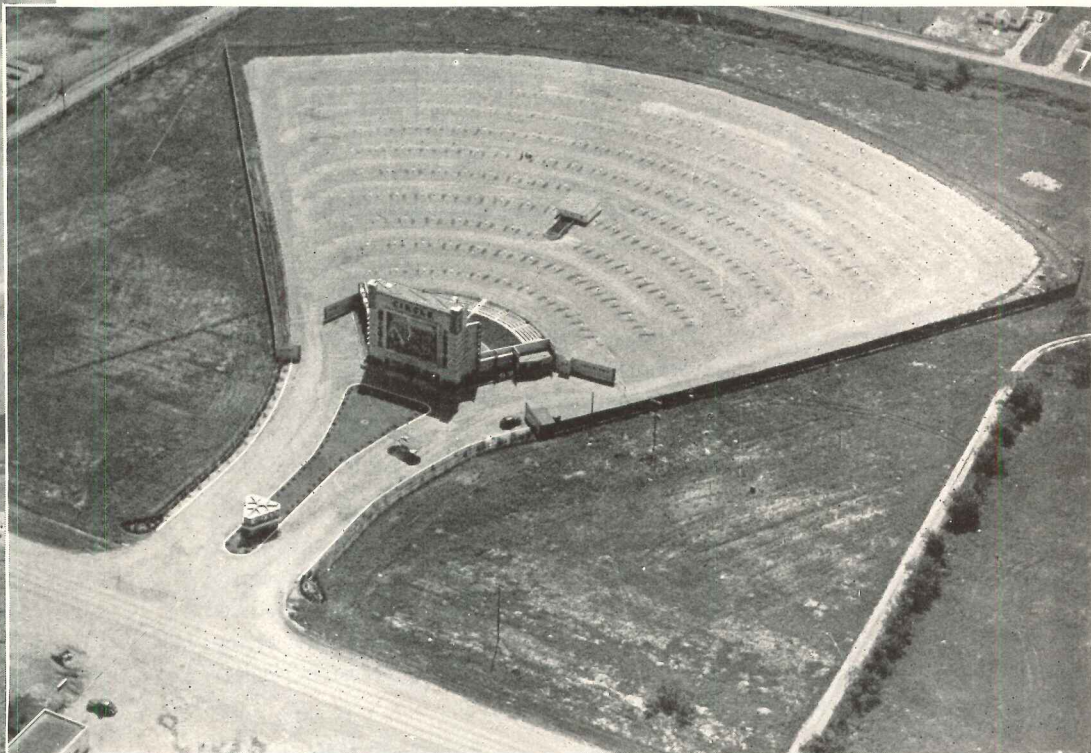
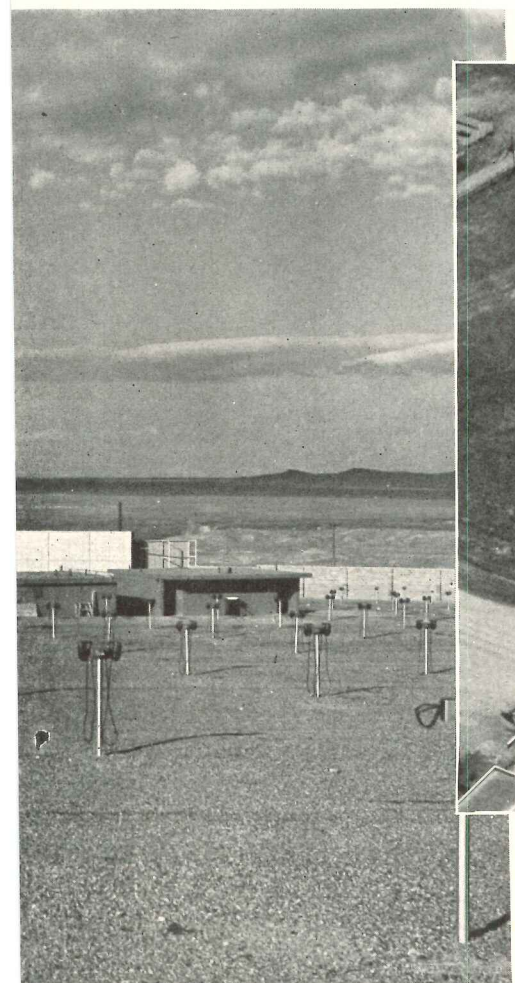




Cactus Drive-in Theater, Albuquerque, N. M., Jack Corgan, archt. Fluted surfaces and relief forms are used to give play of shadow in the desert terrain. The screen tower (above left) is finished with cellular steel panels. Flat steel plates with welded joints are used for the white-painted screen surface (below left). Auxiliary buildings are also constructed of cellular steel panels. Fences enclosing the area are of brick



Jimmie Willis Photo

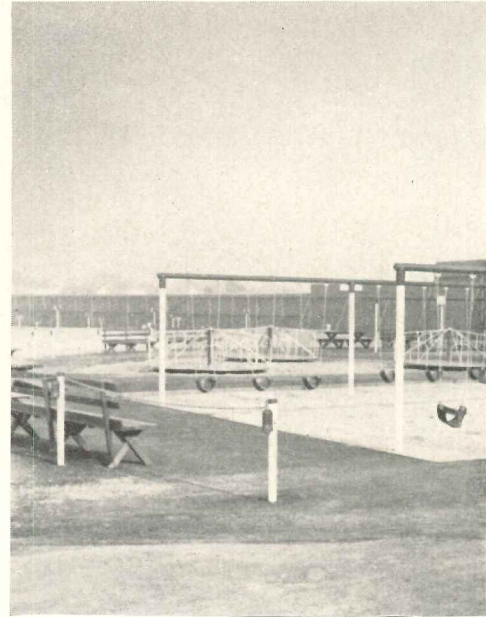
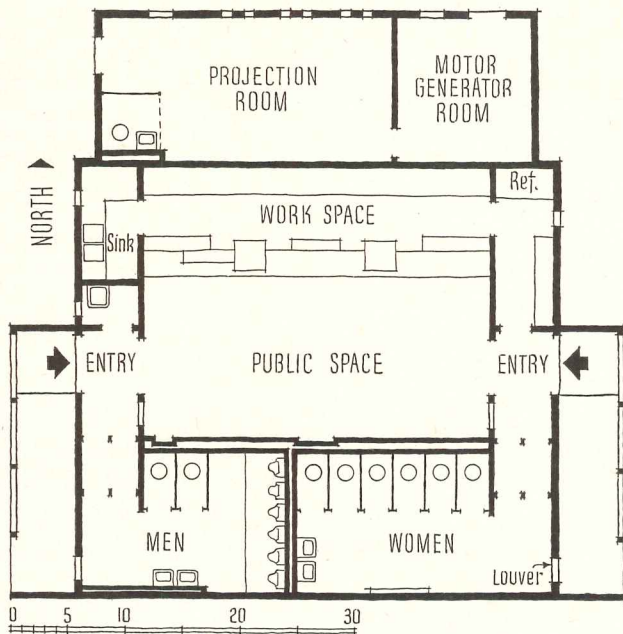


Simplest ramp layout shown in diagram and photo above; Circle Drive-in Theater, Waco, Texas, Jack Corgan, archt. Radiating fanwise from screen, ramps elevate car front for clear view over other rows. Low projection booth clears sight-lines

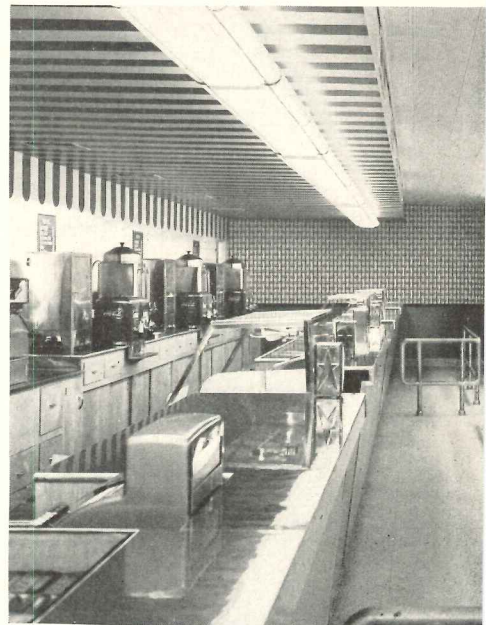
Projection booth: Picture size and focal length of lens control placement and design of projection booth. It is often placed about 280 ft from screen, centered in lot. Special lenses can project greater distances. Projection angle depends on ramp layout. The booth must house two operators, two projectors, a large generator, and an amplification system for speakers. Heat becomes a problem in throwing pictures such distances; water cooled equipment is often needed.

Speaker units: Sound is best served by "in-car" speakers on posts about 16 to 18 ft o.c. Each serves two cars. Speakers may be removed from posts and hooked inside cars. Underground cables supply power. Aisle and signal lights are built into many commercial models. Electric car-heaters may be used for cool weather.

Concessions: Attractive, clean and roomy snack bars can



Laugharn Photo

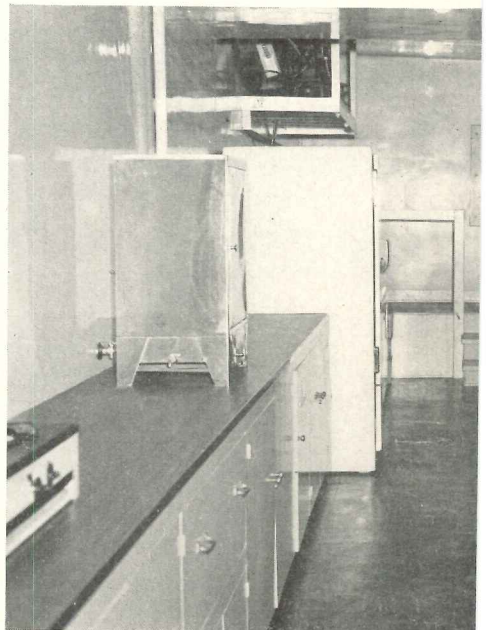


Western Photo

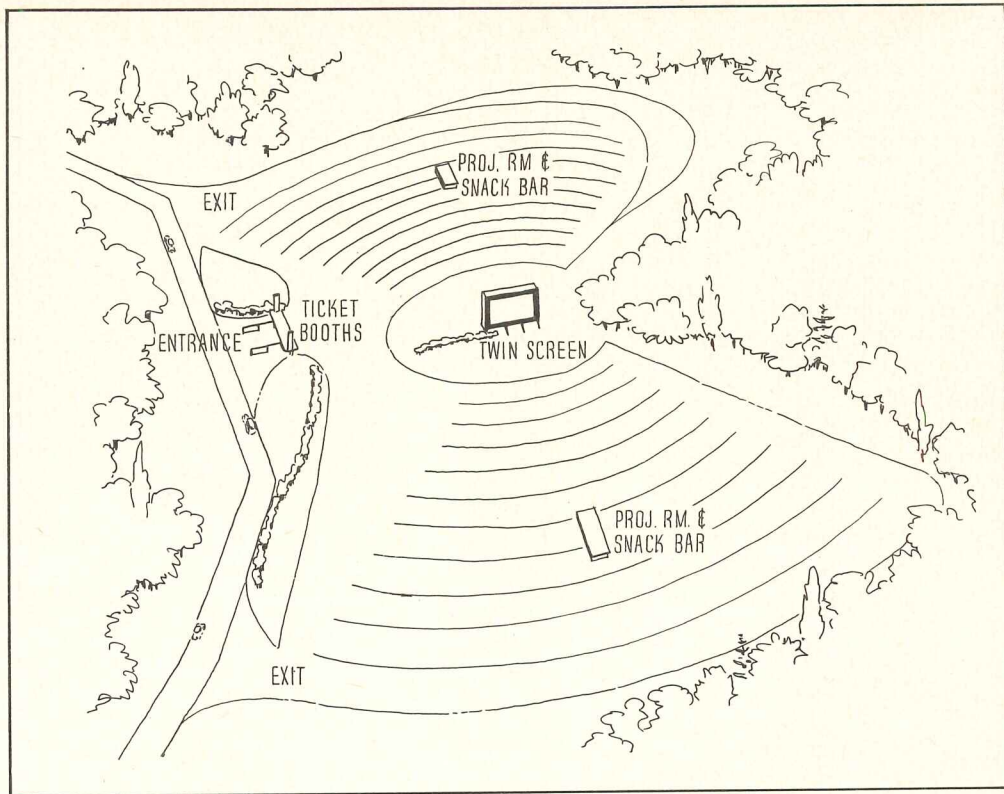
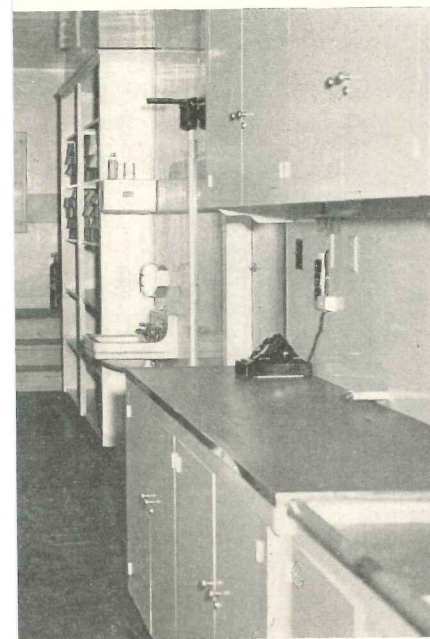
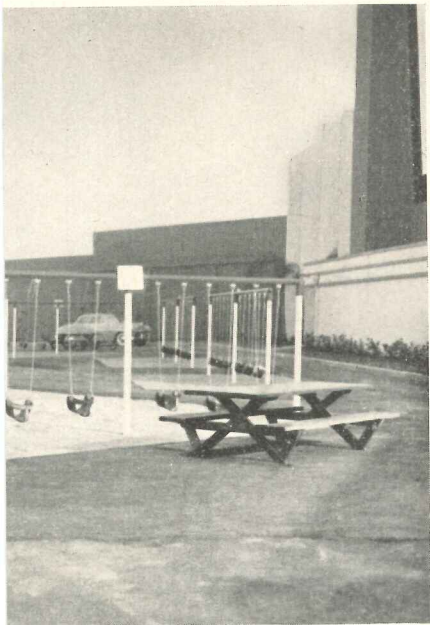
be an important source of income. Large numbers must be served quickly during intermissions and before showings. A terrace in front of concession allows continued viewing. Illumination must not detract from screen during showing. Service carts are used for ramp service; signal lights or an intercommunication system may be used for calling car-hops.

Storage: Space is needed for clean-up and repair equipment, and for supplies. If speakers, junction boxes and projection equipment are removed for winter, safe, dry storage is needed on site or in a warehouse. If left in place, waterproof covers should be used. Sprays for insect control, and fire extinguishers should be on hand.

Design notes: Illuminated signs should be placed near highway, but so as not to form a traffic hazard. The back of the screen is often used for advertising. Fencing should be high enough to cut off headlights of cars on highways. Simple, neat landscaping can help maintain desirability in the community, and attract customers.

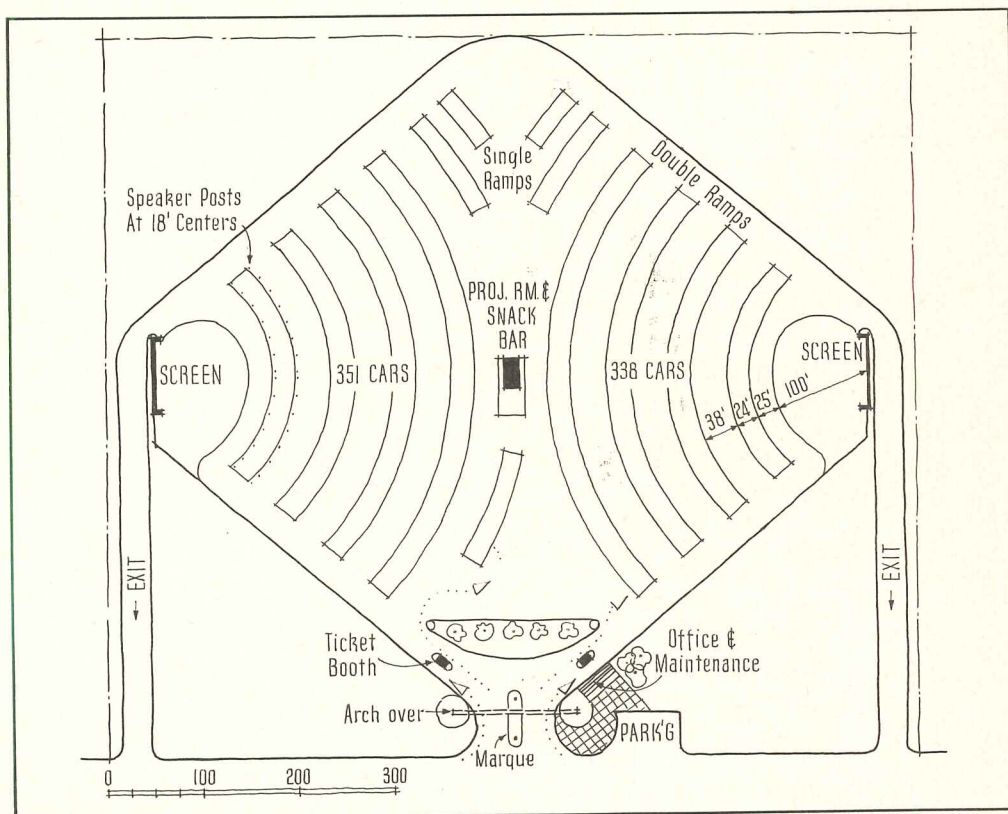


Omar Adams Photo



Courtesy R. C. Mahon Co.

Far left: plan of concession building, Baseline Theater. Projection booth, snack bar and toilet facilities are housed in single structure. Left: playground for children and picnic tables (top), Compton Theater, Los Angeles, Calif. Interior of snack bar (center), San Pedro Theater, Los Angeles, Calif., is closed in to prevent distraction from movie. Dispensing machines are used for quick service. Typical kitchen shown at bottom, Gage Theater, Los Angeles, Calif. All are the work of William Glenn Balch, archt., Louis L. Bryan, assoc. Sketches at right show schemes for expanding drive-in theaters by R. J. Haberstroh, engr. (above) and William Glenn Balch (below)



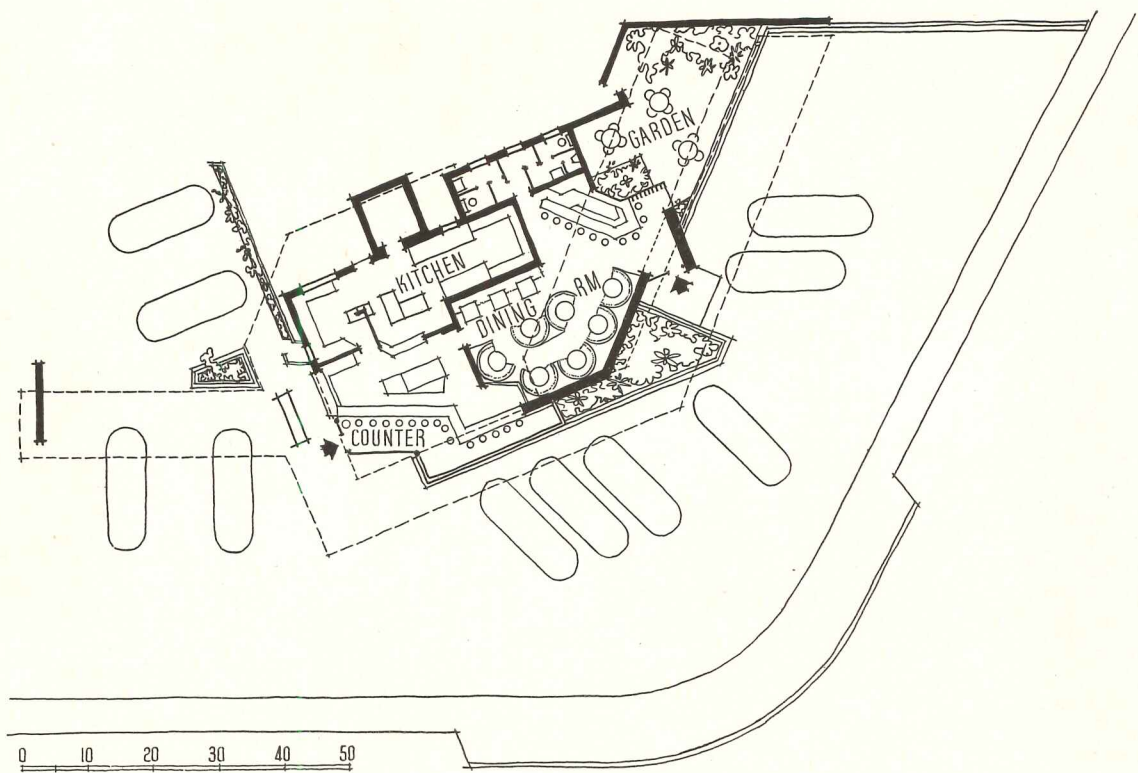
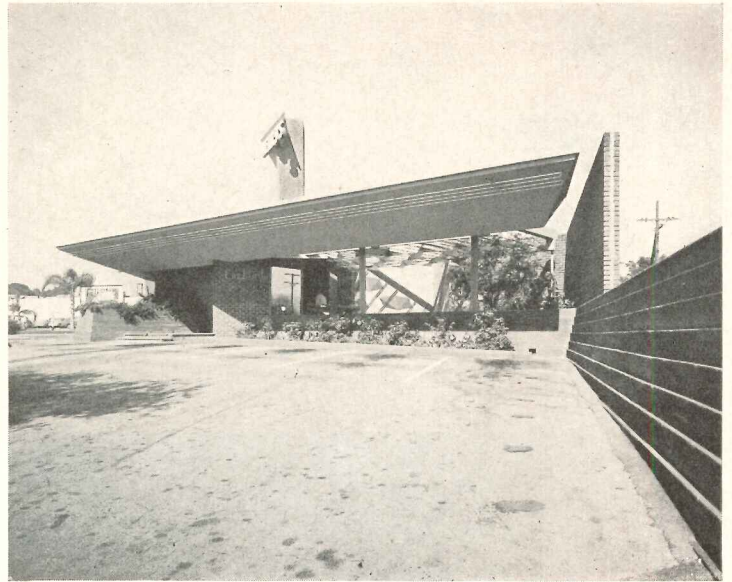


This section of the study on drive-in buildings was prepared in joint collaboration of Architectural Record and Restaurant Management, in which it also appears

DRIVE-IN restaurants include a vast range of establishments, from hamburger stands to elaborate coffee shops, dining and banquet rooms and cocktail lounges. Some cater solely to motorists, with no interior seating, others provide large parking areas for interior service. The success of all can be fostered by careful planning. Apart from good food, success factors include: adequate parking, attractive surroundings, service efficiency, and employee welfare.

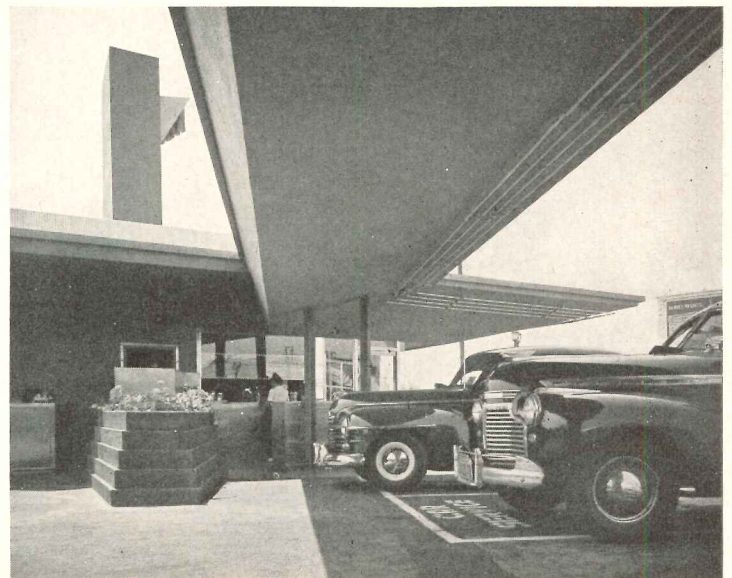
Surroundings and menu should be determined by the type of clientele to be served. Tastes of business people

(Continued on page 149)

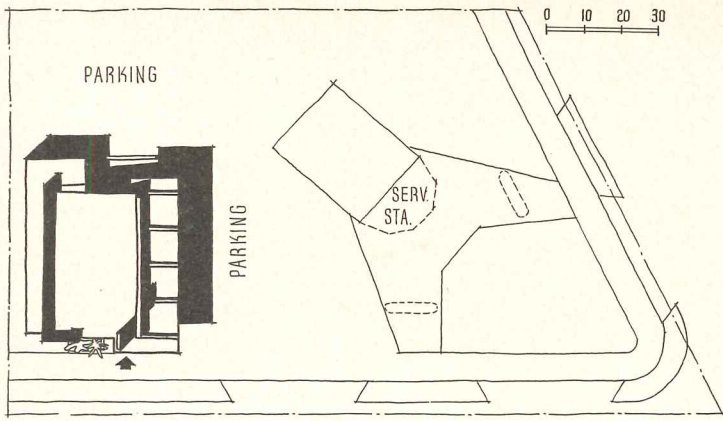


D. Garber & C. Sturges Photos

Henry's Drive-In Restaurant, Glendale, Calif.; John Lautner, Architect. Layout shows good organization of the various elements; drive-in facilities (at left in plan and photo, right) are clearly separated from those of dining room and bar. Car-hop service is well sheltered by roofs and overhangs. Garden room (top right and opposite page) takes advantage of California climate, provides cool retreat for afternoon cocktails. Structural elements have been expressed frankly as decorative devices. Kitchen and behind-counter service areas are centrally located for all food service; deliveries may be made conveniently from rear of building. Good visibility is assured sign by elevating it on tower above building



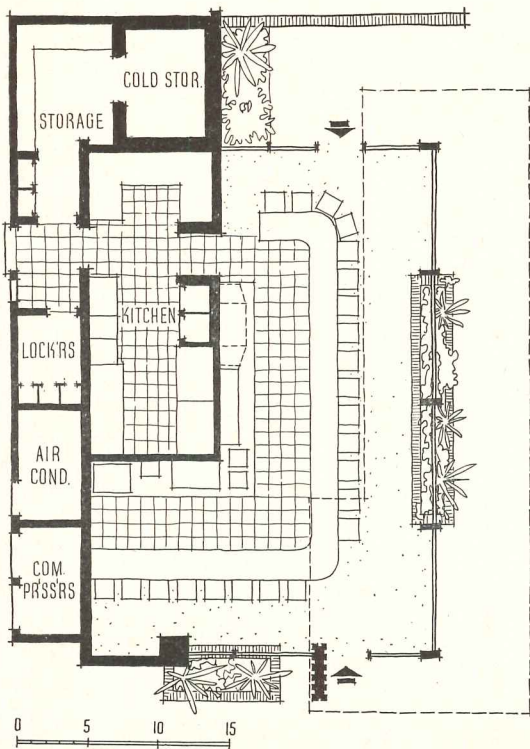
DRIVE-INS | RESTAURANTS



Biff's Restaurant, Hollywood, Calif.; Douglas Honnald, Architect. Extensive glass areas and well studied lighting are used to attract customers to this compact restaurant. Solid brick mass of service areas provides visual, as well as actual, anchorage for lean-to steel framing members of lunch room structure



George R. Szanik Photo



Van de Kamp's Restaurant (right), Los Angeles, Calif.; Wayne McAllister, Architect. Service speed and capacity of the drive-in are doubled by use of twin facilities: two service areas, two short order kitchens, two dishwashing rooms and a two-way walk-in refrigerator. Tile and stainless steel surfaces make kitchen (second from top) easy to clean. Special tray racks are loaded directly from dishwashing room. Pick-up counter (bottom) is fitted with all necessary service items. Coffee shop is located in an adjacent building

vary from those of families with children, shoppers or plant workers. Some locations will attract different people at different hours. A full menu requires large kitchens for preparation, large parking areas because of time required for consumption. Areas can be minimized by limiting choice of foods. Profit requires frequent customer turnover: convenient layouts and time-saving devices can speed food preparation and service. Labor costs can be cut if areas can be closed in slack periods.

SIZE AND LOCATION OF SITE

Size of plot depends on type and extent of facilities provided: minimum is probably 150 by 150 ft, preferably on a corner. A wide frontage is best for visibility and ease of access. Inadequate parking can create ill will. Inclusion of dining rooms, bars, etc., requires proportionately larger space.

Relationship to neighborhood: Select site which will have stable year-round patronage from near-by business, shopping or industrial centers. A low cost area toward which business is moving, or the outskirts of a dense residential area, is often advantageous. Zoning ordinances should be checked for possible changes. Check availability of such services as: sewage disposal, rubbish removal, electricity, city phones, laundry, equipment repair, food and ice supplies.

Relationship to highways: Site should be on a major traffic artery, plainly visible from a distance, and so situated that traffic can easily stop and approach property from both directions. Check for highway changes.

PLOT LAYOUT

Parking areas: Entrances, exits, and parking spaces should be clearly marked to assure maximum capacity and prevent road block. Use easily maintained surfacing; a dark color will cut down glare. The area should slope only enough for drainage; say, $\frac{1}{4}$ in. to the ft. Separate drive-in parking from that of dining areas. Set apart areas for deliveries, and for trucks and busses, if such patronage is expected.

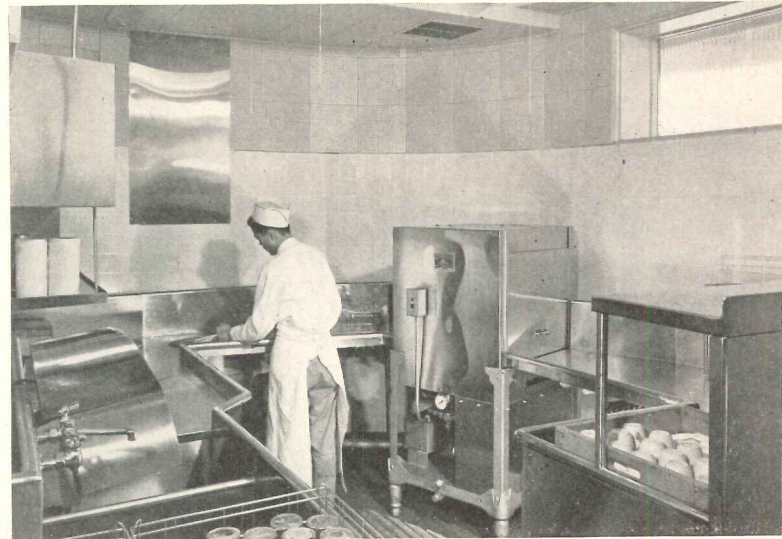
Service walks: Allow for car bumper overhang on walks adjacent to buildings; raise about 6 in. Radiant heat is sometimes used for snow melting and for comfort of car-hops on chill evenings.

Weather protection: Canopies shelter car-hops from rain and glare. An overhang 18 ft wide will protect service to all car doors. Other methods: fixed or sliding awnings on metal frames; column-supported roofs.

Terraces and landscaping: Take full advantage of any pleasant view. Outdoor terraces or gardens with tables can be attractive and profitable; many motorists like to get out and "stretch their legs." Trees used for shade should not hamper traffic.

GENERAL PLANNING

Plans: All elements should radiate from central kitchens. Each should have separate service-ports into



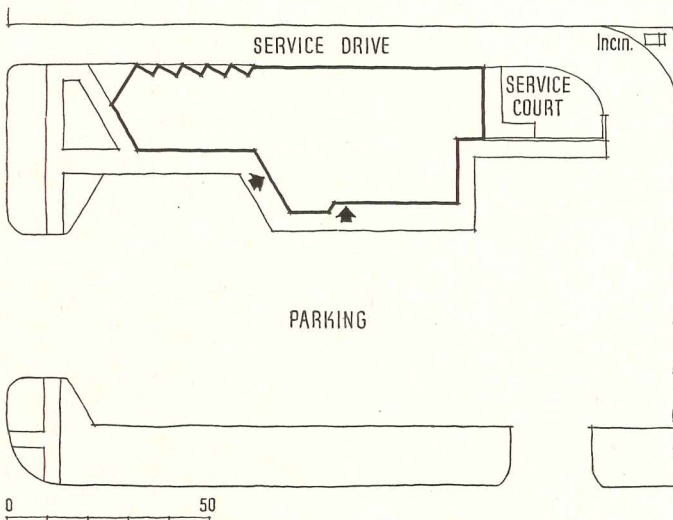
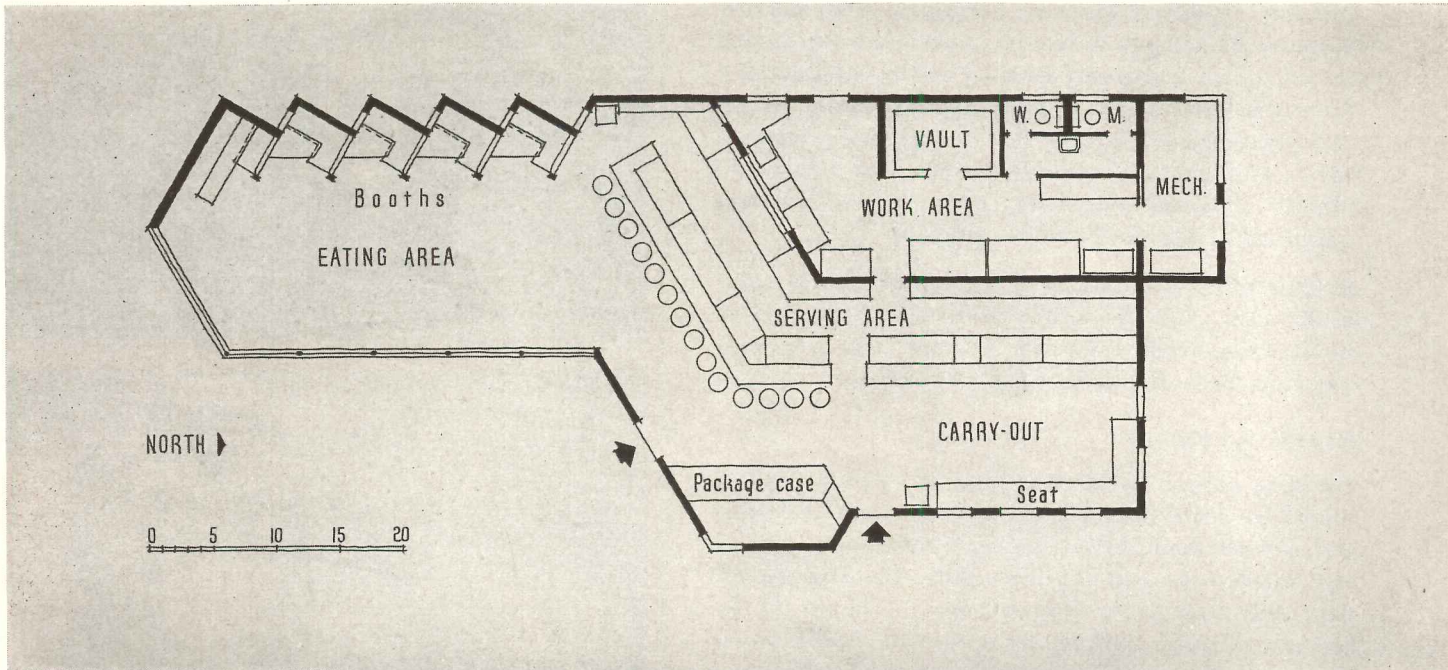
Rettig's Restaurant, Houston, Texas; MacKie & Kamrath, Architects. An interplay of wood forms and textures produce an arresting, easily identified building. Setbacks in plan permit window for each booth. Service drive is adjacent to kitchen, routes delivery trucks away from customer parking. Location of entrances permits close supervision of all areas

kitchen, an exterior entrance, plainly marked on outside, and interior intercommunication.

Kitchens: Group together all equipment for each operation. Allow aisles wide enough for easy passage with loaded trays. "In" and "out" doors will speed service. A rear entry should be included for deliveries and garbage removal. Labor costs can be cut if layout permits one cook to handle kitchen during quiet hours.

Dishwashing area: Locate area convenient to car-hops, counter, dining areas and kitchen; conceal from the public. Pass doors for depositing soiled dishes, and for picking up clean ones will speed service.

Pick-up counter: Allow pick-up space for 50 per cent of car-hops at one time; the average car-hop can handle 6 cars. Automatic doors ease service. Wings at each side



of counter should contain service set-ups, trays and water. Counter men should be able to reach kitchen passport, coffee urns, malt mixers, fountain and refrigerated bottle box.

Cashier's desk: If checking is done as food is delivered to car-hops, cash register should be located in pick-up space. With one cashier and both interior and car-hop service, the desk should be convenient to each and near entry for control and supervision. In small drive-ins, records might be kept here; in large concerns, a separate office is needed.

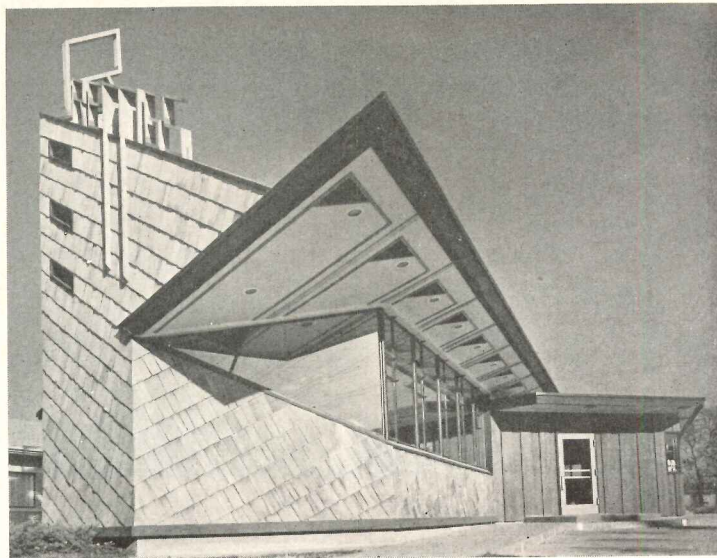
Counter service: A minimum of 30 to 36 in. clear aisle must be left behind counters. Turnover is faster and cost of operation less with counter seats than with tables. When combined with dining rooms, counters should be nearest entrance. Counter-high pass windows and a

central entrance to kitchen from behind counter are desirable. Part of counter might be devoted to dining room service.

Dining rooms: Side tables should be provided with equipment for all set-ups, and with soiled linen hoppers. The most flexible table layout uses 2-seat tables, combined for groups. Booths use more space, but are preferred by some customers. Extensive dining areas require extra pantries and equipment. Protect diners against heat, moisture and sounds from kitchen.

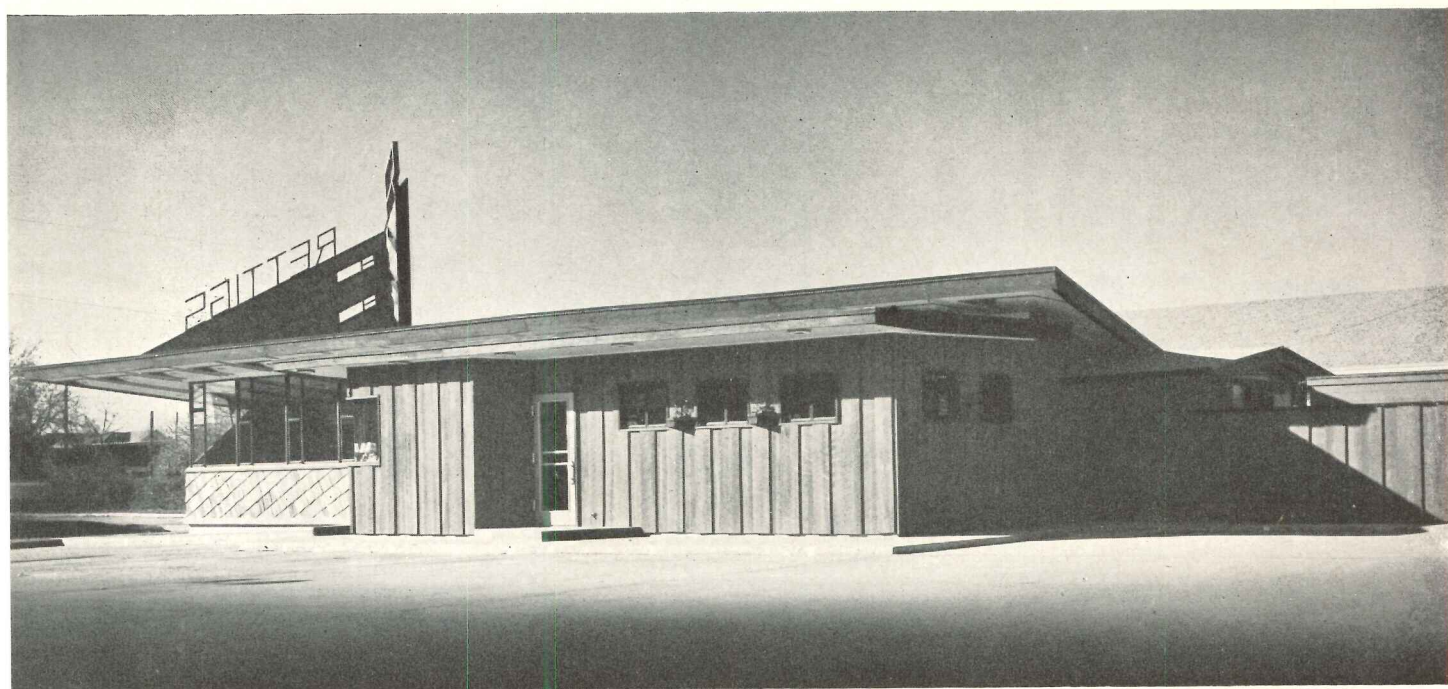
Storage rooms: Provide for food, supply and equipment storage of all types, near delivery entrances. Protect overhead waste and water lines against drip. Cleaning equipment should be apart from food processes.

Wash rooms: Toilets should open from inside and out-



End wall extends at angles above building to provide unified base for restaurant signs

Mears Studio Photos



side where there is drive-in service. Large concerns need separate rooms for employees, with lockers for coats and changes of uniform located near by.

CONSTRUCTION AND FINISHES

Construction: Climate and fire hazards are important in establishing type of construction. Many cities require fireproof materials.

Finishes should be durable and easy to keep up. Sanitation is one of the most serious problems; state and local regulations must be followed.

Periodic modernization of building may be necessary; construction should be adaptable.

Floors: Tile, Terazzo, concrete or composition make good floors. Avoid surfaces which are slippery when

Waist-high windows allow use of built-in seats along outer wall, still permit interior and exterior views



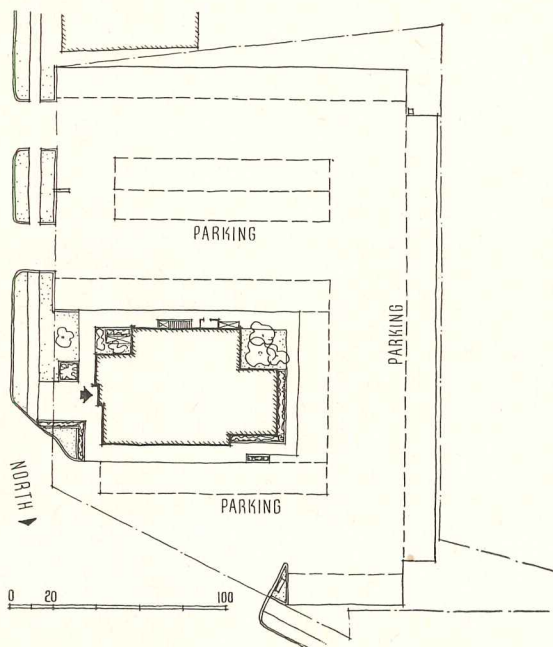
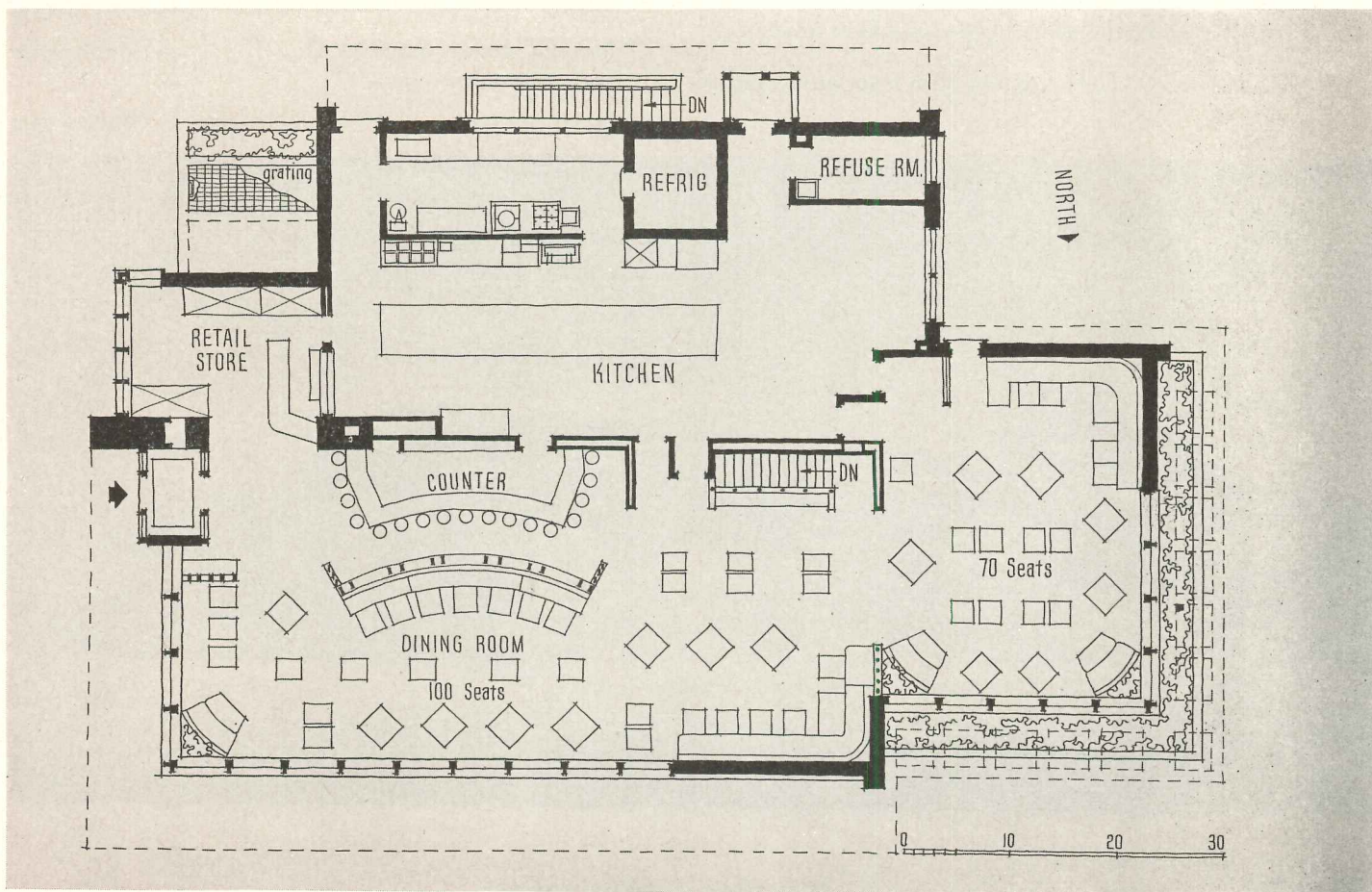


DRIVE-INS | RESTAURANTS

wet. Wooden slat floors in service areas should be recessed flush with floor, removable for scrubbing.

Walls: Surfaces of walls should be washable. Simple decoration is usually preferred. Plants, lighting, mirrors and color provide accent.

Counter and table tops: Materials should not discolor, scratch or chip easily. They should stand up under heavy usage and be easy to clean. Plastics, tile, linoleum and wood make good surfaces.



DESIGN AND PROMOTIONAL FEATURES

Visibility: A successful restaurant must attract motorists from a distance by signs, colors and illumination. A tower serves as a commanding billboard. Dining areas should be made visible from exterior by use of glass and illumination. Lights should never shine directly into the eyes of patrons.

Architectural treatment: It is best to avoid a superficial treatment; frank expression of structure can often make an arresting design. Standardized treatments are useful for identification of a chain.

Advertising features: Dishes, trays, uniforms, windshield cards, menus and sales books can be good advertising if well designed. Many drive-ins feature entertain-

Hot Shoppes Restaurant, Philadelphia, Pa.; Joseph Morgan, Architect. Design, both interior and exterior, expresses quiet, comfortable dining. Sense of privacy is given to interior spaces by screen partition enclosing lunch counter and folding wall between dining areas (below). Glare is controlled by overhangs, trees and thin curtains at windows. Retail shop sells food specialties to take out. Curb service is offered to motorists at rear of building

Cortlandt V. D. Hubbard Photos

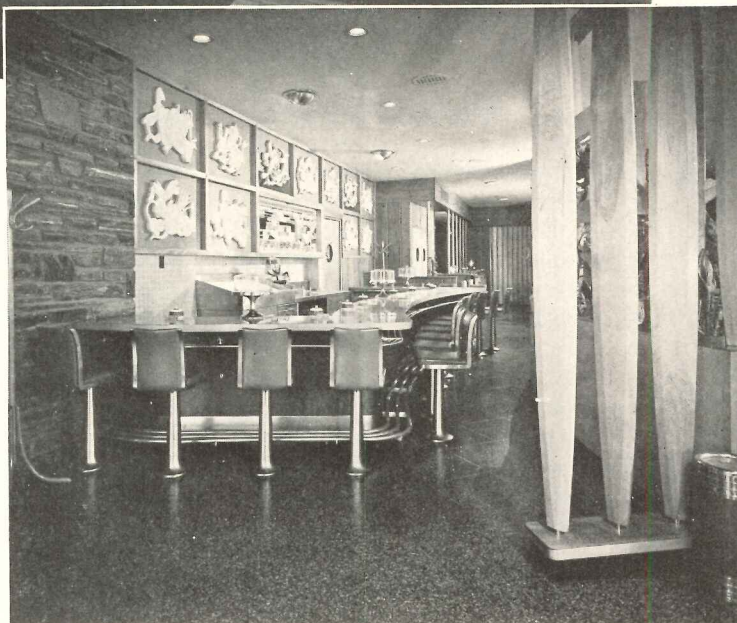


ment, sometimes staged on the roof, as added customer inducement.

EQUIPMENT

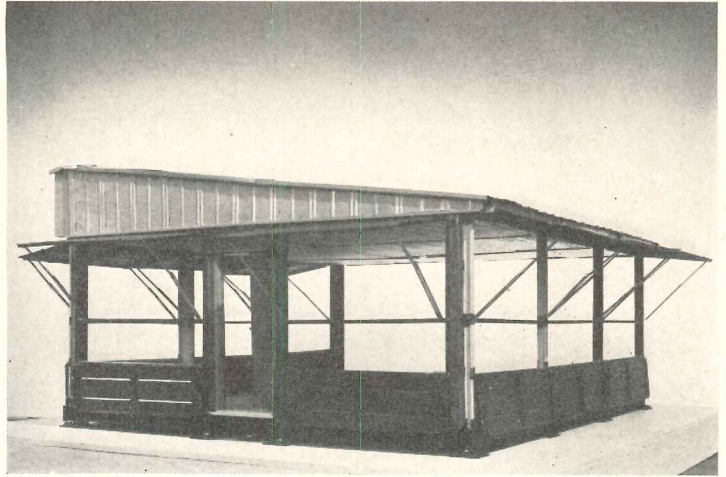
Food preparation equipment should be of sanitary construction, easily taken apart for cleaning, and with no lead or cadmium plated parts. Electrical machines should be of same voltage. Depending on menu, kitchens should include: preparation table, broiler, fryer, range, griddle, work table, sink, refrigerator, sandwich unit, range hood and exhaust fan, food warmer, service pick-up table with refrigerator below, ice cream cabinet.

To facilitate car service, a microphone might be used to place orders; a light panel with waitresses' numbers signals when orders are ready.





Structure adaptable to: Temperate Zone



Tropic Zone

Robert Lautman Photos

ALL-PURPOSE MILITARY SHELTER

HARDLY ever must a structure meet such varied and numerous requirements as did this proposed prefabricated Army shelter. To satisfy these, many departures from conventional construction were necessary — for example designing with a safety factor of one!

Nevertheless, much of the thinking that went into the design might well be put to work in the analysis of the structures for other buildings, including both strength of materials and prefabrication possibilities.

After restudying the prefabricated steel and pre-cut wood buildings used in World War II, which were packaged and shipped for a particular use in one climate, the Army established new requirements for an all purpose, "theater of operations" structure.

Essentially these amounted to a basic unit which would have to be adaptable to all climates; capable of being combined for a number of different building sizes and shapes; easily erected, dismantled, and moved to another location; and designed so as to be built with a variety of materials, any of which could be stored in a minimum of standard and interchangeable packages (this would permit substitutions in case supply of one or another became critical).

Out of these requirements came a project on which preliminary work was done by the Corps of Engineers. It was then assigned to the architects for development, resulting in the proposed all-purpose building shown here.

Military Requirements

Size. The Army wanted the building

unit to be 20 ft wide and the length to be variable within a suitable module (this turned out to be 8 ft). The structure was to be designed so that two 20-ft width units can be placed side by side to form a 40-ft width building with center supports. The two widths can provide for many military requirements such as barracks, mess halls, hospitals, warehouses, etc.

A shed-type roof facilitates arrangements of units in 40-ft widths and in buildings with projecting wings, avoiding the drainage problem of intersecting eaves.

Packaging and Erection. The prefabricated building components would be packed for 20 by 48 ft building units, divided according to four "phases": (1) structural frame and roof; (2) exterior wall covering, including doors and windows; (3) floor; (4) insulation. Building erection would follow this order. Each package contains all the parts necessary to complete its phase of the 20 by 48 ft unit.

Phase 1 — Structural frame and roof. This is the basic package, comprising footings, frame members and roof parts which would be used for all climates and in all combinations of building shapes. This portion may be erected without any of the other components, and, if necessary, may be used with improvised or substitute wall materials.

Priority of effort would go toward getting this phase to its destination. Under some emergency conditions, Phase 1 might be shipped to an area which could not be supplied with other prefabricated components because of a

shortage in shipping. This sort of packaging and distribution system makes it more certain that the personnel will have a roof over their heads at the earliest possible moment.

Phase 2 — Exterior walls, doors and windows. Obviously this Phase is secondary to Phase 1 both in order of erection and necessity.

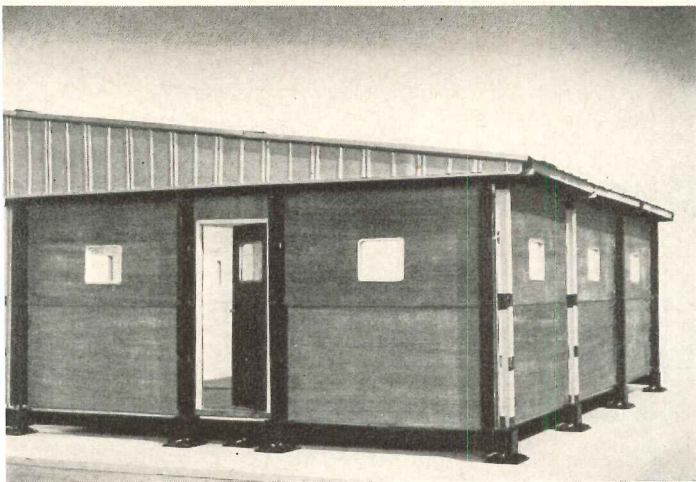
Phase 3 — Floor. The floor is to be installed after the frame and walls, rather than conventionally. The floor can be either prefabricated panels which fasten to the structural frame, or of gravel, sand, prepared earth and concrete. Floors constructed of locally available lumber or crating materials are also visualized.

Phase 3 — Insulation. Reflective type metal sheets for the ceiling are the only insulation for the Tropic Zone. Temperate Zone insulation comprises 4 by 8 ft panels combining insulation and interior wall and ceiling finish. For the Frigid Zone, insulation is not packaged as a separate phase but is combined with exterior walls, floor and ceiling.

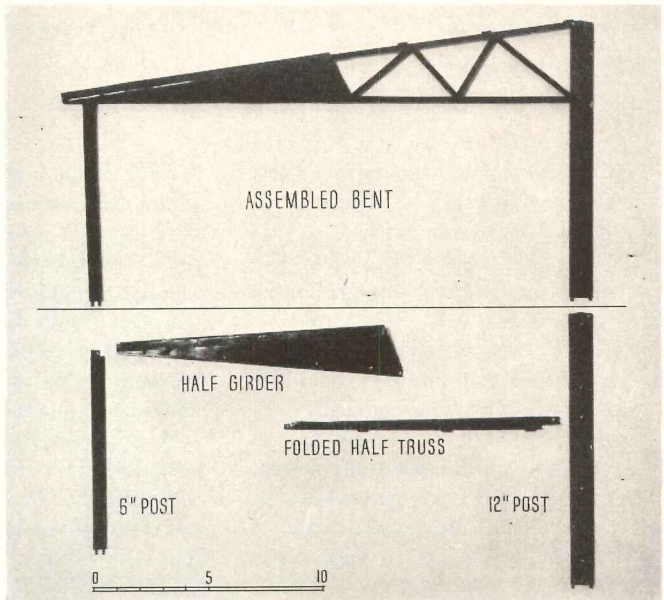
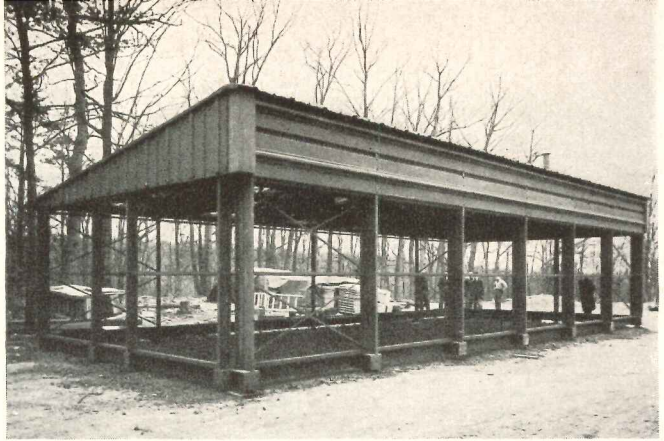
Determining Structural Form

Extensive preliminary studies were conducted to ascertain what structural form was most economical and efficient in the use of materials. Eighteen designs were investigated including frameless buildings constructed of deep corrugated metal pans, 2-hinged shed-type frames, 2-hinged A-type frames, symmetrical 3-hinged frames and asymmetrical 3-hinged frames.

They were compared by tabulation of ratings as to cost, shipping cubage and



Frigid Zone



Frame and roof works for all zones

Hugh Johnson Associates, Architects
Paul Weidlinger, Structural Consultant

10 other factors indicating to what degree they met the special requirements of the program.

The most important of the conclusions reached after the different systems were studied are:

1. That a framed rather than a panel type building was indicated by the emphasis on the Phase 1 minimum package, and by the need for maximum opening of side walls for ventilation in the Tropics.

2. That both interior and exterior surfaces of framing members should form unobstructed planes for application of wall and ceiling materials. This eliminated curved forms, knee braces, etc., but would provide ideal conditions for material substitution and would permit placing wall materials either inside the frame, outside the frame or both.

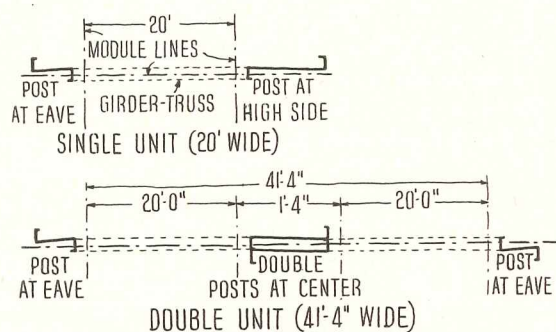
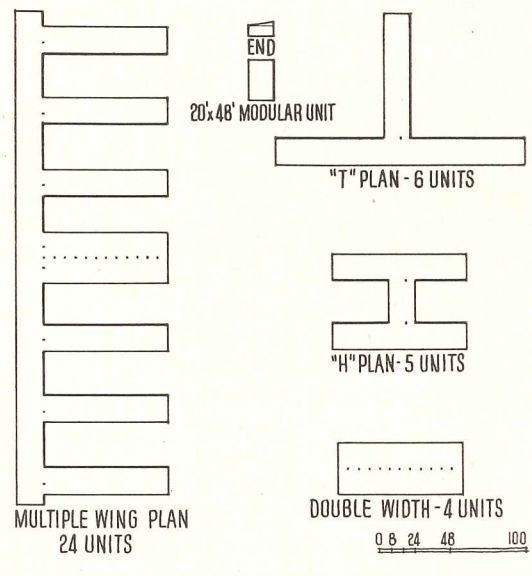
3. For logistic efficiency, the frame should be designed in at least two common structural materials, steel and wood, with interchangeability of major components possible. Aluminum is another possibility which has been studied, but as yet no designs have been completed.

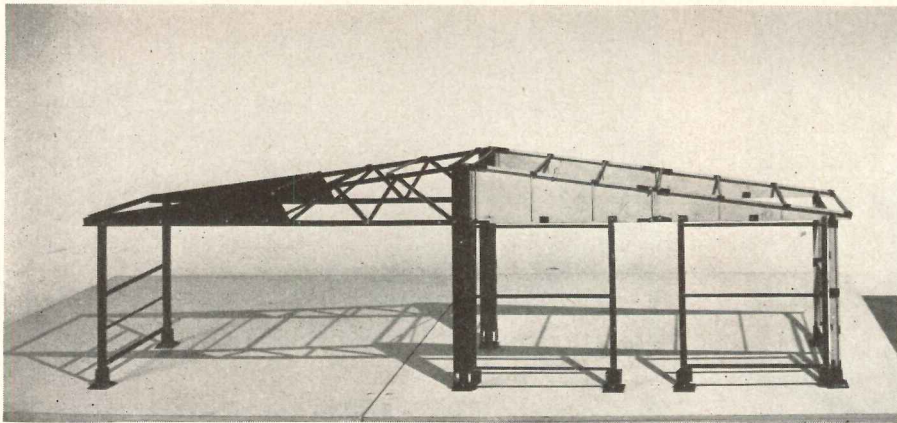
The 3-hinged asymmetrical frame came out best in the comparative evaluation with other types of framing for both wood and steel. In regard to cost or structural efficiency alone, one other scheme was slightly superior, but this advantage was more than offset by the increased shipping space required for 20 by 48 ft units.

The structural design presented three unusual problems:

(1) application of light gage steel to medium sized spans (20 ft); (2) inter-

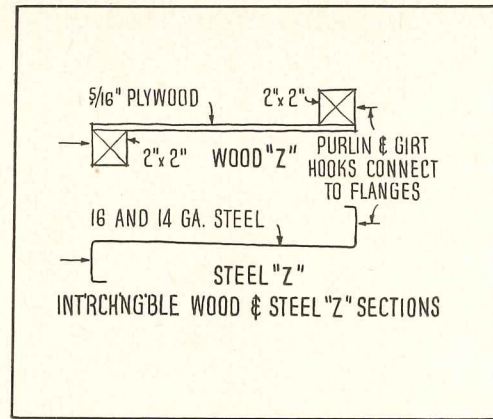
Basic unit combines for many sizes and shapes





Steel and wood framing members are interchangeable so there can be a substitution in case supply of one or the other becomes

critical. The "Z" shape of posts not only permits interchangeability, but also lets posts be nested to save shipping space



changeability of steel framing with wood and plywood members of identical dimensions; (3) design of the structure and its components for a comparatively low service load with a *theoretical safety factor of one*.

Each of these is a departure from more conventional specifications, the last of the three the most radical.

Problem 1. Although light gage members are not new in structural design, this project offered an opportunity to analyze and compare various sizes of light gage steel members with other common types of framing.

The design followed provisions of the American Iron and Steel Institute (A.I.S.I.) code,* with modifications to satisfy requirements in *Problem 3*. This code provided considerable help to the structural designer, as its provisions are based on the most up-to-date studies in elastic stability, many of which have found application in the structural analysis of aircraft.

Although the framing design was completed before the publication of the

A.I.S.I. design manual,† the proportions of the members for maximum effectiveness closely corresponded to similar provisions of the manual, whenever functional requirements permitted the use of optimum dimensions. The use of "most effective proportions" can result in considerable economies, so it seems highly desirable that dimensions of light gage members be standardized as has been done with ordinary weights.

Problem 2. The requirement here imposed a very special and unusual limitation. It is almost impossible to obtain the most efficient design in two such diverse materials as steel and wood, if the geometrical dimensions of the members are to be identical. The same is true about the substitution of aluminum, which also was investigated during the design process.

By keeping in mind both materials simultaneously during the design process, it was possible to obtain a highly satisfactory compromise. This double life and the necessity for use of minimum shipping space accounts for the use of

"Z" sections in both steel and wood and for some of the other unconventional solutions.

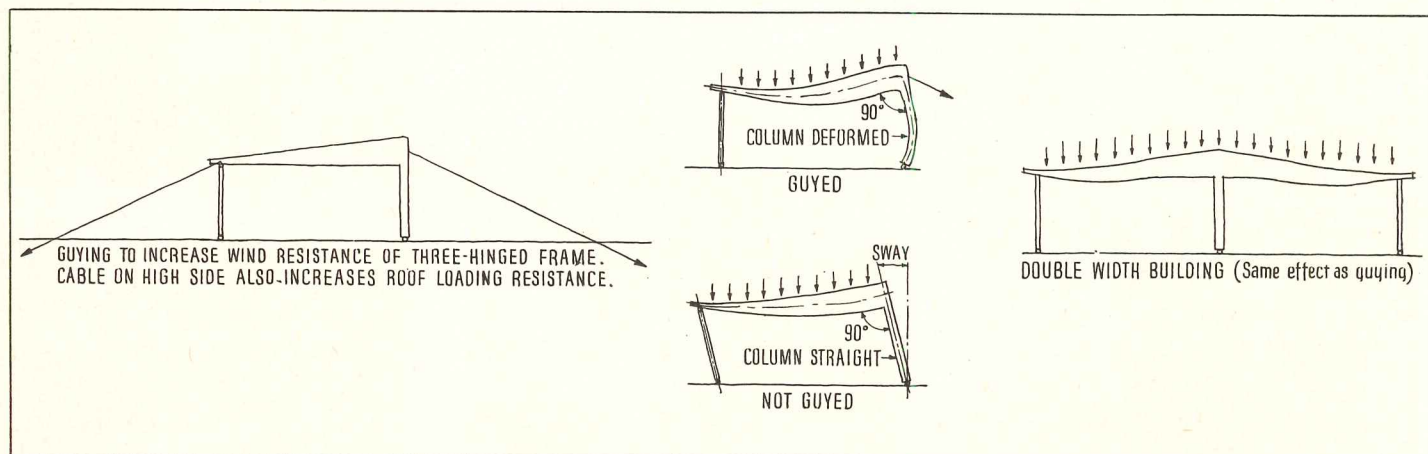
The most pronounced of such effects is evident in the details of the roof girder. Its depth was determined by the requirements of the plywood girder; therefore, for the steel girder the ineffective web section at the high end (which would have buckled) was removed and transformed into an open web truss (collapsible for shipment) with resulting weight and space savings.

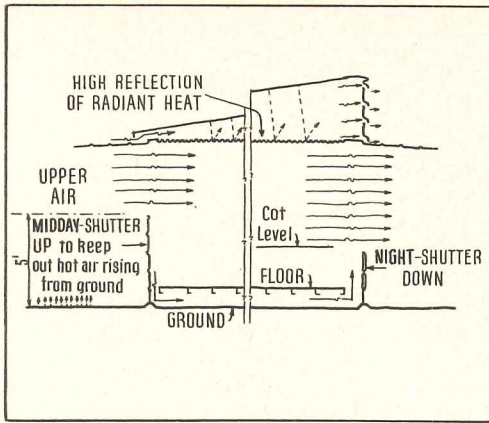
Problem 3. Some of the very interesting conclusions that came out of this problem are: (a) The lowering of the safety factor does not necessarily result in a very large savings. In the steel design, this factor was reduced from 1.85 (as used in the Specifications) to 1.00.

(b) It is hardly possible to take full advantage of the reduction of the safety factor consistently in all elements. In many instances, requirements of fabrication, or the danger of distortion during transportation or erection, resulted in heavier sections than were required to carry the load. Sometimes, connections become virtually impossible to accom-

The structure was designed with a theoretical safety factor of one; so, in the event of a wind storm, it must be guyed to give

it increased strength. Sketches show action under loading. The structure always deforms in a manner requiring the least work





To keep Tropic shelter cool: awning and side shutters plus a reflective ceiling

plish, if the members were to have the theoretical dimensions.

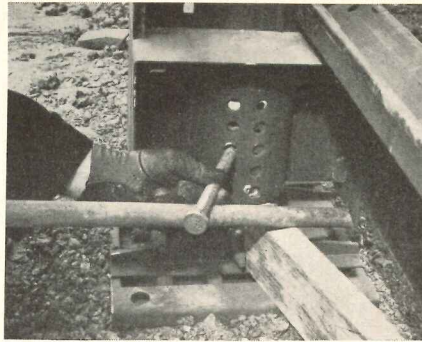
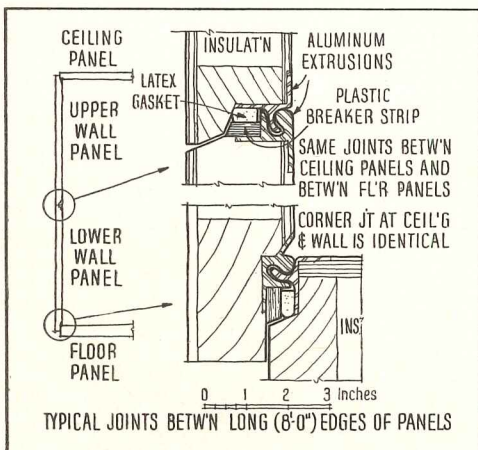
(c) The most significant aspect of the theoretical safety factor, itself, was demonstrated during tests performed at the National Bureau of Standards. The design load was to be "ultimate strength before buckling." During tests at the design load buckling waves appeared at the locations predicted by analysis. But the structure, after having passed the stage of elastic limit, seemed to readjust itself under increased loading, performing well above the design load, in spite of visible damage and deformations.

These results should be useful in the design of more conventional structures, inasmuch as they throw some light on the efficiency and excellent performance of light gage members, afford an objective comparison of the performance of various structural materials and also clarify the effect of lowering the factor of safety as it is commonly understood.

Substitution of Materials

The solution to providing substitutions for critical materials in war time has three aspects:

Insulated shell of Frigid shelter employs unique aluminum extrusions for connections



Photos at right show erection process. Footings (above) set on top of ground, are adjustable through a range of 3 in.

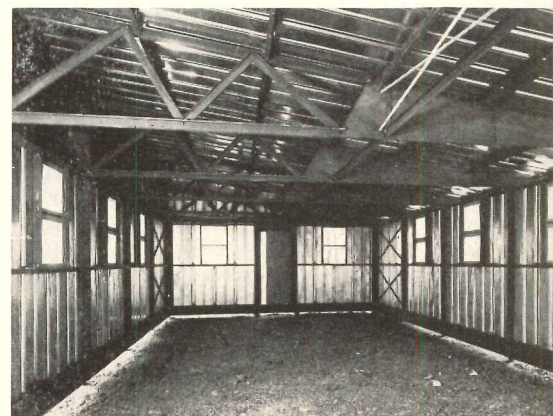
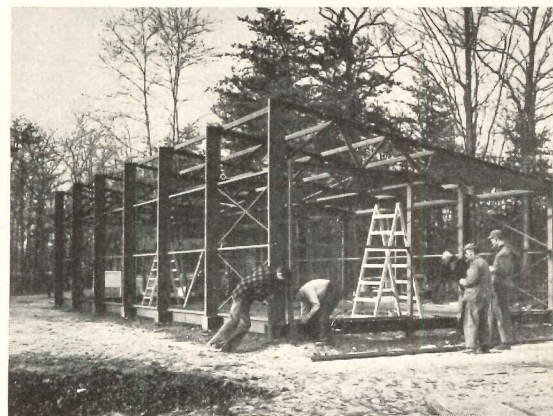
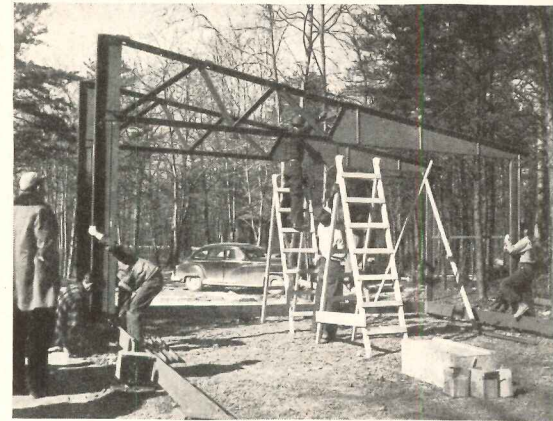
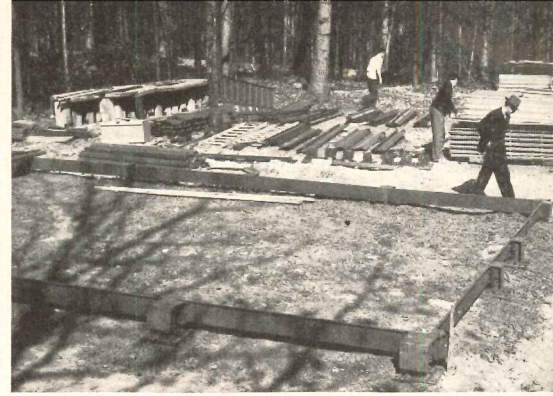
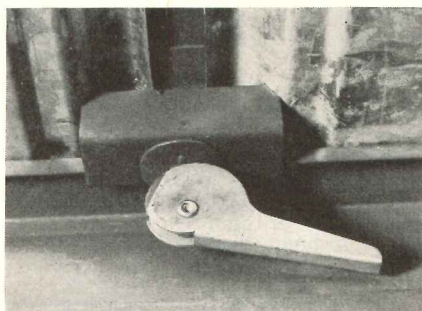
(1) *Structural Members.* It is assumed that the frame would be prefabricated to standard patterns, permitting the use of alternate, interchangeable materials. Plastics and other materials were considered, but it was decided that the most commonly used construction materials, consequently steel and wood, would be most likely to be available, and that's the way the problem was attacked.

(2) *Prefabricated Covering Materials.* All other prefabricated parts of the building may be designed in interchangeable materials. For example, preliminary designs were made of roof sheets in aluminum, plywood, corrugated molded plastic and flat plastic laminate. The same procedure can be followed for floors, ceilings and walls.

(3) *Non-prefabricated Covering Materials.* Under emergency conditions where only the frame and roof (Phase I) might be available, the frame might be enclosed in some improvised material. Wood nailing strips can be secured to the 18-gage steel girts with drive screws, after which lumber, wall board, canvas,

(Continued on page 220)

Special fasteners, such as the cams which hold on the roof, are used throughout. Note (right) that floor goes in after walls



WATER SAVING DEVICES FOR AIR CONDITIONING

By Lawrence A. Benenson, Architect

WATER CURBS FIXED ON AIR CONDITIONING

Refrigeration Units Affected in Rules Expected to Save Billions of Gallons Yearly

7,000 INSTALLATIONS HERE

Water May Be Shut Off Next Summer if Machine Uses Over 6 Gallons a Minute

The Water Situation
 The following figures as of 8 A. M. yesterday give the number of gallons in the city's reservoirs. The difference in the

The New York Times, January 5, 1950

After New York City set up restrictions early this year on the consumption of water by air conditioning equipment, ARCHITECTURAL RECORD was prompted to find out what other cities had water supply or disposal problems such that water conservation devices are mandatory.

In a survey to all cities in the U. S. over 100,000 population, the RECORD learned in 50 replies that seven (in addition to N. Y.) had legislation requiring this equipment: Yonkers, N. Y., Rochester, N. Y., Newark, N. J., Columbus, O., New Orleans, La., Oklahoma City, Okla. and Reading, Pa. Similar legislation was being prepared in three other cities. Thirteen had some sort of standby legislation that could be invoked in case of shortage. In other cities like Houston, water conservation is self imposed, generally because of cost.

In view of the potential importance to architects and engineers of equipment to save cooling water, the RECORD had the author prepare this article.

THE RECENT water shortage in New York City has focused attention on a nationwide water problem. The country is suffering from maldistribution of its water resources; certain communities have water to spare, while others, like New York, find it difficult to supply

water for all necessary services. The increasing use of air-conditioning has brought with it a demand for large quantities of water to cool the refrigerant.

Wherever water is short in supply or costly, air-conditioning without water conservation equipment causes needless waste. Conservation devices can save 90 per cent or more water that otherwise would go down the drain.

Use of water conservation with refrigeration equipment is not new. Recirculation of cooling water has been used for many years. Cooling towers have been in operation in those cities where water is too expensive to throw away, where restrictions have been placed on its use, or where the sewerage system will not allow large, unrestricted quantities.

While the public has become more conscious of the advantages of summer comfort, it also has become increasingly aware of the tremendous loss of water it will suffer if waste is uncurbed. Conservation equipment will become increasingly necessary in the years to come, as one of the prime requisites of satisfactory air-conditioning, both for economical design and for the public interest.

Sources of Cooling Water

In some communities it is practical to drill special wells to obtain cooling water. Usually the cost of drilling a well is far more expensive than installing a cooling tower.

The chief advantage of well water is

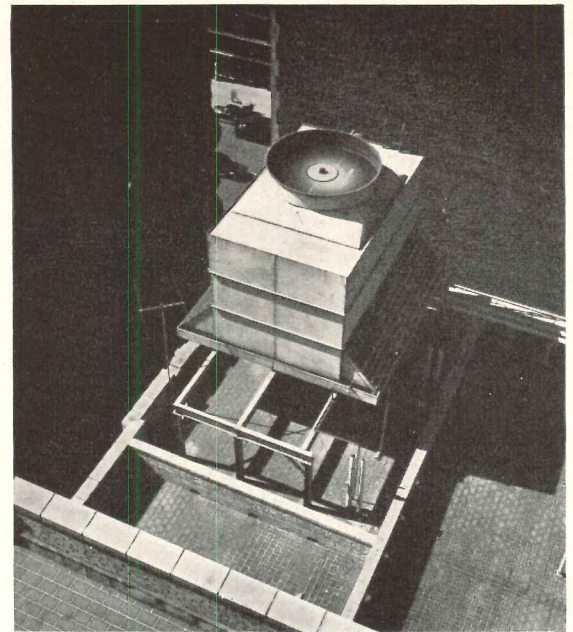
that it is quite cold and that the cost of purifying it is not expensive.

A Freon or ammonia air-conditioning system will ordinarily require approximately 90 gallons of city water an hour for each ton of refrigeration (12,900 Btu's of cooling per hour). Since a ton of refrigeration is a relatively small amount of cooling — perhaps enough for the average living room with several people in it on a very hot day — it is apparent that the amount of water necessary for a large installation will be very great. Water recirculating devices such as cooling towers, evaporative condensers, or the less popular spray ponds can reduce the cooling water necessary approximately 90 to 95 per cent.

Balanced against this saving will be the cost of the water conservation equipment, its depreciation, and the cost of electrical power for the fans and pumps. Another loss, and one not sufficiently appreciated, is the decreased efficiency of the refrigeration equipment which employs a water conservation device. This loss may amount to as high as 10 per cent reduced output.

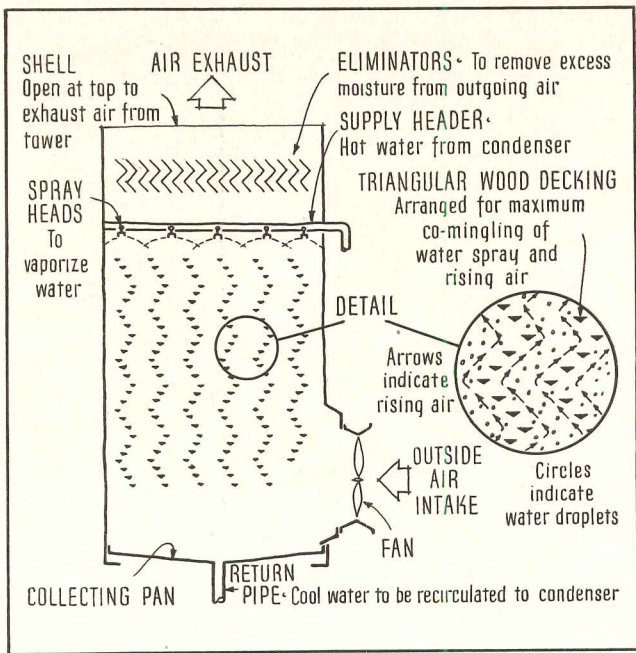
The operation of all conservation equipment that continuously cools water is based on the principle of evaporation. When any liquid evaporates, it absorbs heat and cools the surface it leaves. In water conservation equipment, spray droplets of water are used to evaporate and cool the remaining body of water.

Most of the 5 to 10 per cent make-up water required is evaporation loss. This amount has to be lost to the atmosphere



Courtesy Thermal Products: Photo by Joseph Mollitor

Mechanical draft cooling tower (induced type) atop Essex House, N. Y. Capacity 200 refrigeration tons



Operation of forced draft cooling tower. Air pushed up through tower evaporates part of water traveling down, causing cooling

in order to cool the remainder of the water sufficiently for re-use.

There are three different types of conservation devices, each with its own particular applications.

Spray Ponds. These are large ponds with a series of small nozzles mounted about 6-ft above the surface to spray water into the air. About 10 per cent of the water is lost by evaporation to the air, and the remainder is cooled to be re-used by the condenser coils of the refrigerating machine. The surface of the pond also loses a small part by evaporation which helps cool the main body of water. The warm water from the condenser coils is piped to the spray nozzles, while the cooler water collects at the bottom and is recirculated back to the condenser.

Naturally the amount of evaporation, and consequently efficiency, is dependent on the prevailing weather. For instance, the usual spray pond installation is designed for a 5-mph wind blowing over it. On a very hot, calm day the spray pond cannot operate satisfactorily, which will impair the use of the air-conditioning system at the worst time. On the other hand, if the wind is much higher than 5-mph, there is the danger that the spray pond will lose some of its water over the edges, a condition known as "drift". The principal difficulty of spray ponds is that they require such a large area for installation. They can either be placed on the ground or on a roof. If installed on a roof, drift may be a very serious hazard to passers-by below. Because of these problems,

spray ponds have lost favor for most installations.

Certain large low buildings located in open areas have tried spray ponds on their roofs. The large area of water accomplishes two purposes: first as a water conservation device, and secondly as insulation for the air-conditioned area against the effect of the direct rays of the sun.

With a spray pond on a roof, it is sometimes possible to utilize smaller refrigerating equipment for the air-conditioning system, an economy of some importance. However, this application of spray ponds is not common, and engineers usually depend on cooling towers or evaporative condensers.

Cooling Towers. The cooling tower was developed for use either indoors or outdoors, and for erection vertically wherever the owner wants it. Although operating on the same principle as the spray pond, cooling towers are much more adaptable to the needs of modern buildings. There are two types — the natural draft and the mechanical draft.

The *natural draft cooling tower* has spray nozzles at the top of it which finely divide the warm water so that it has a chance to evaporate. Since the sides of the tower are open, air from the outdoors enters it and rises by convection up against the downward water spray. The water as it reaches the bottom of the tower is considerably cooler than when it entered the nozzles, and may be recirculated back to the condenser coils.

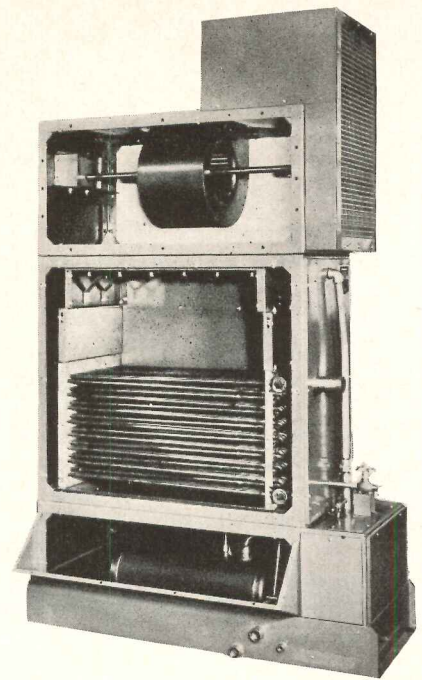
The natural draft cooling tower is

Induced Fan—air out

Water Sprays

Condenser Coils

Sump—air in

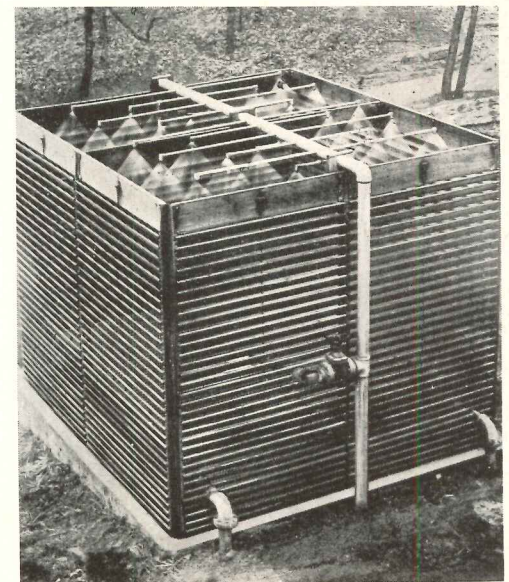


Evaporative condenser sprays cooling water over refrigerant condensing coils; water is then collected and recirculated

satisfactory for some installations, but it has limitations due to its reliance on atmospheric conditions. It suffers the same basic disadvantage as the spray ponds — on a very hot and humid day, when air-conditioning should be at its best, the natural draft tower is at its worst. The *mechanical draft tower* was developed to overcome this basic deficiency.

The mechanical draft cooling tower can be located anywhere, and is able to cool more water in less time. It uses a fan to blow the air upwards against the falling spray of water. Since the cooling effect is dependent on the amount of air passing the spray, obviously it has a much greater effect than the natural draft tower. Of course it costs

Natural draft tower relies on favorable atmospheric conditions to work efficiently



Courtesy Marley Co., Inc.

Courtesy Worthington Pump and Machine Corp.

WATER SAVING DEVICES

more to operate, since it has a fan which must be in constant operation while the tower is cooling.

Mechanical draft cooling towers either force the air through them from the bottom by *forced draft*, or pull the air up from the top through *induced draft*.

The cooling tower may be used either indoors or outdoors. If used outdoors, of course, only the warm water from the condenser coils need be brought to it, and cool water returned. If used indoors, near the air-conditioning equipment itself, the water piping is still necessary and, along with it, ductwork.

An *air washer* is a type of indoor cooling tower that is designed for horizontal rather than vertical operation. It can be used to cleanse the air necessary for the air-conditioning system, as well as recirculate cooling water. It is particularly useful in existing buildings with fixed ceiling heights when an indoor tower might be too tall. An air washer requires somewhat more floor area, but its usefulness in cleansing the incoming air gives it a big advantage over conventional indoor cooling towers.

Evaporative Condensers. For many installations, the evaporative condenser is the most economical water conservation device. Besides its efficient operation, the evaporative condenser is cheaper in first cost for large built-up air-conditioning systems, since it contains an essential part of the refrigeration unit. It operates on the same principle as the cooling tower and the spray pond. However, instead of bringing the water necessary for condenser cooling to a separate piece of equipment, water for evaporation runs over the condenser coils. (See photo top of page 159.) The hot refrigerant is cooled by evaporation of 5 to 10 per cent of the water. The remainder drops into a pan to be

pumped back over the coils again. As in the case of the cooling tower, the small amount of water lost by evaporation has to be made up and added from the fresh water supply.

Most air-conditioning installations of over 15 tons are built up at the site rather than bought in a complete "package." For these systems, the evaporative condenser is particularly popular, as it is the most economical way of purchasing water conservation. Conversely, it is very seldom specified for use with "unit" systems since it duplicates a fundamental part of the air-conditioning system already bought.

Evaporative condensers may be used either indoors or outdoors, but most generally their application has been quite near the system requiring water conservation. Since the water to be evaporated must run over the condenser coils, the evaporative condenser must be located near the rest of the machinery to minimize expensive refrigerant piping and insulation. If located indoors, it generally requires ductwork for the incoming fresh air and outgoing exhaust, (except in one type of small unit which hangs in a window). Also, the outdoor evaporative condenser requires a special weatherproof pump motor which is somewhat more expensive.

In size, evaporative condensers are not limited except by the market which manufacturers try to serve. The market for very large evaporative condensers is necessarily limited, since they should not be placed too far from the remainder of the refrigeration equipment. Air-conditioning engineers generally prefer cooling towers for installations above 50 tons. Similarly, it is not economical to make them for refrigeration machinery of under 5 tons capacity, and few manufacturers try for that market.

One conservation device can take care of several refrigeration machines if it is fitted with special controls to turn the fans on and off, and regulate the flow of water back to the individual units. For instance, three small refrigeration machines of five tons each can be served by a cooling tower that can handle 15 tons. The tower's fan would have to be so connected that it would turn on when any one of the condenser coils had cooling water flowing to it. If the three air-conditioning units all were connected to the same evaporative condenser, the controls would be somewhat more complicated since the refrigerant would have to be controlled from each machine to the evaporative condenser. Since a large part of the installation cost of any of the water conservation devices is ductwork, electrical connections, etc., it is often more economical to connect many units to the same cooling tower or evaporative condenser than to have a separate one for each.

Choosing Right Type

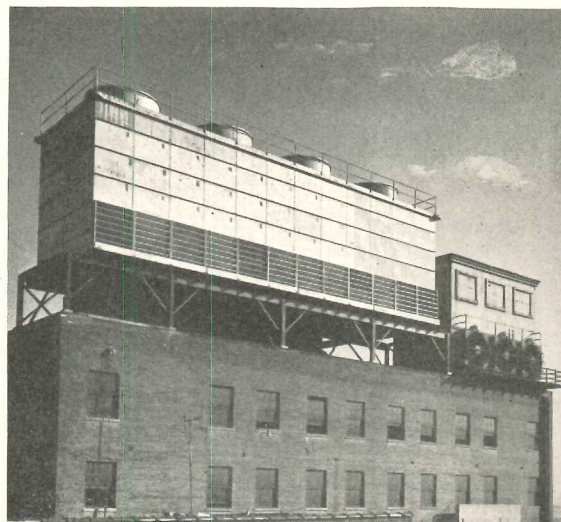
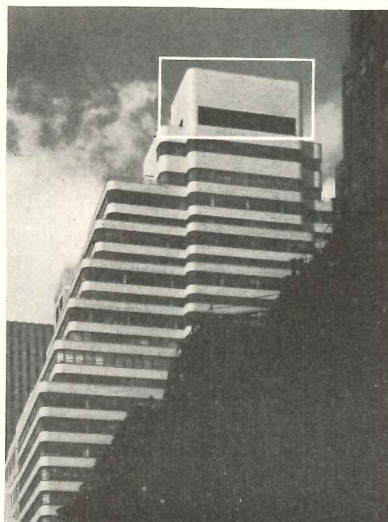
In building design, the architect must bear in mind the different applications of spray ponds, cooling towers, or evaporative condensers.

Very tall buildings which are to be completely air-conditioned will most generally require an outdoor cooling tower upon the roof. This is the most satisfactory location, particularly in office buildings where the loss of floor area with indoor towers would represent a sizeable decrease in rentable space. In order to keep the size (and corresponding weight) of the tower to a minimum, big installations require a mechanical draft rather than a natural draft tower on the roof. If the tower is to be located near other buildings' windows,

(Continued on page 222)

On new building, cooling tower installed on top is frequently concealed (left). Exposed cooling tower for department store is at right

Courtesy Emery Roth; Photo by Adolph Study



Courtesy Thermal Products, Inc.; Photo by Joseph Mollitor

WEATHER'S EFFECT ON DESIGN STUDIED BY TEXAS COLLEGES

The University of Texas tests model in wind tunnel

Texas A. & M. changes roof and walls at full scale

TO BE ABLE to design buildings that will best fit their climate, architects need more factual data on performance of structures under different weather conditions. This was manifested at the recent conference, "Weather and the Building Industry," sponsored by the Building Research Advisory Board. In particular, architects wanted performance data on climatic control devices, and information on air movements at low velocity to determine air paths outside and within buildings. Research aimed in this direction is now being conducted at two Texas colleges.

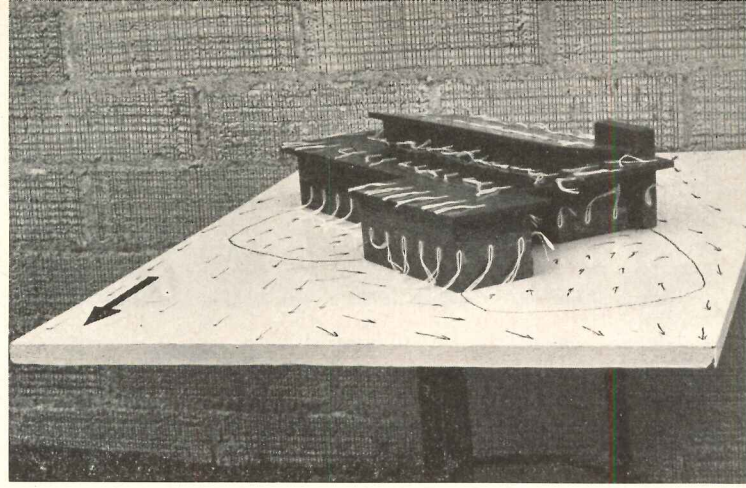
The University of Texas, in conjunction with the All-Ceramics Home Research Program, has made small-scale models of homes being built under the program. The models are being tested in a low-speed wind tunnel by the Dept. of Aeronautical Engineering. The tests are to determine the most satisfactory roof line design and types of window installation for good ventilation. Tests on one model have been completed.

The model was mounted on a 2 by 3 ft board to simulate the ground. Tufts of cotton were fastened to the model with Scotch tape to observe "wind" direction. A probe was used to determine the air

pressure at many points about the model. From this probe data, arrows were drawn on the board, and areas with negative pressure were circled (see photo top).

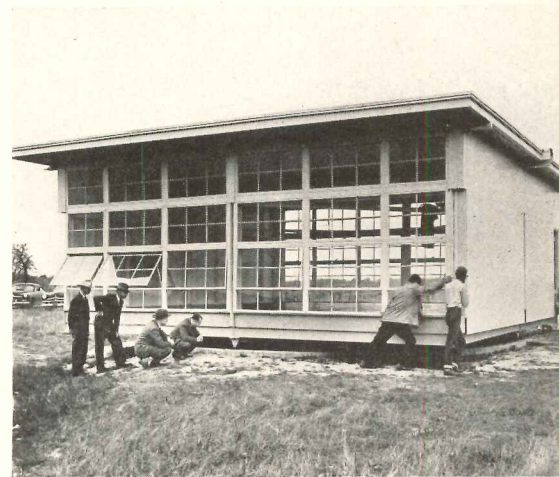
According to investigators, where a low or negative pressure exists as indicated in the test, the air is exhausted from the house by a "pumping" action. High windows under the overhang of the pitched roof would be advantageous for two reasons: (1) they naturally exhaust rising warm air from within the building and (2) being in a negative pressure area they allow pumping action when a breeze exists.

At Texas A. & M. an experimental room has been designed to study the performance of daylighting, natural ventilation and sound with different roof shapes and fenestration patterns. The 30 by 30 ft structure (sized so that findings can be adapted to classrooms) is mounted on wheels which roll on a track to permit rotation to various exposures. The outside walls are non-load-bearing, and interchangeable. The roof shape is altered by means of eight jacks, integral with the columns. Research Architect William W. Caudill is in charge of the project.

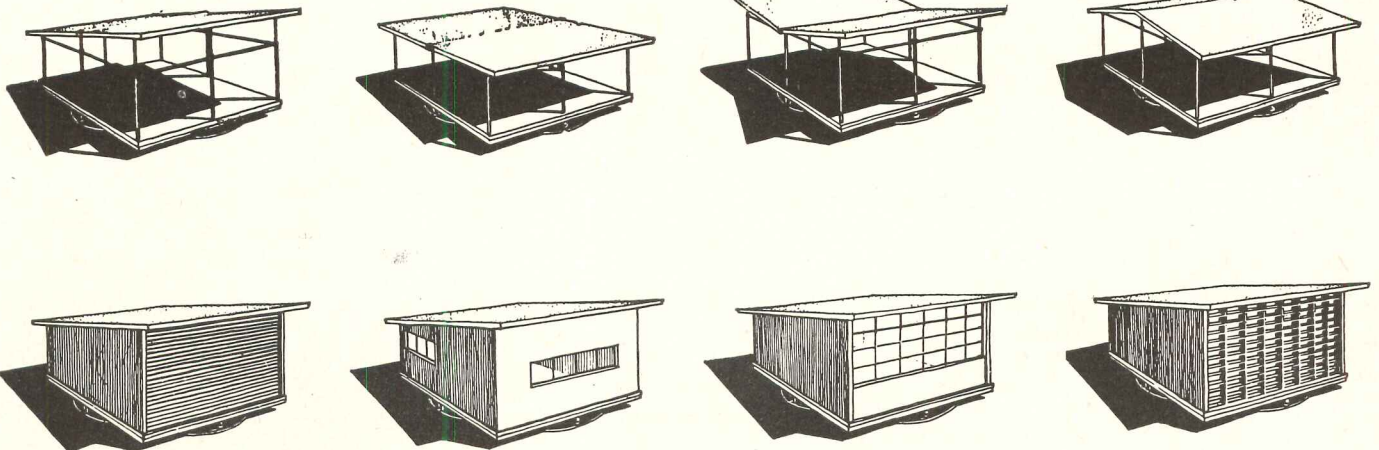


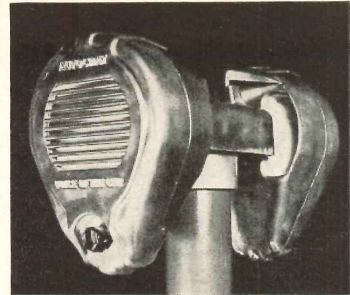
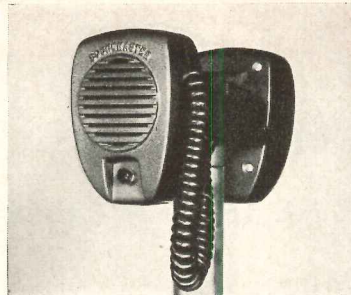
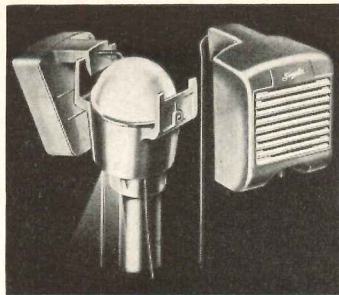
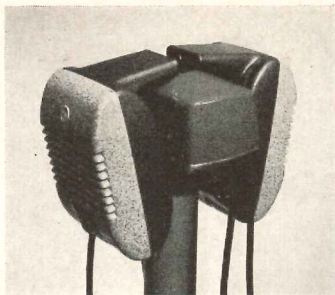
Wind tunnel blows air at 80 mph over model to simulate 5-10 mph breeze. Large arrow indicates prevailing wind direction

Structure rotates on wheels to test out different orientations. Walls are interchangeable and jacks raise or lower roof



Top row shows how jacks, integral with the eight columns, can alter the roof. Bottom row includes several walls to be studied: (left to right) louvered walls; small, large and gridded windows





PRODUCTS for Better Building

Speakers For Drive-in Theaters

• *Simplex In-A-Car Speakers* provide a choice of speakers, mounted on a coupling unit. The latter has a hanger for two speakers and a terminal for connection with underground wires. A post opening accommodates any post having an outside diam of 2 $\frac{3}{8}$ in. or less. Terminals and transformer are mounted in a waterproof housing. One low voltage lamp provides a post light and an amber dome light.

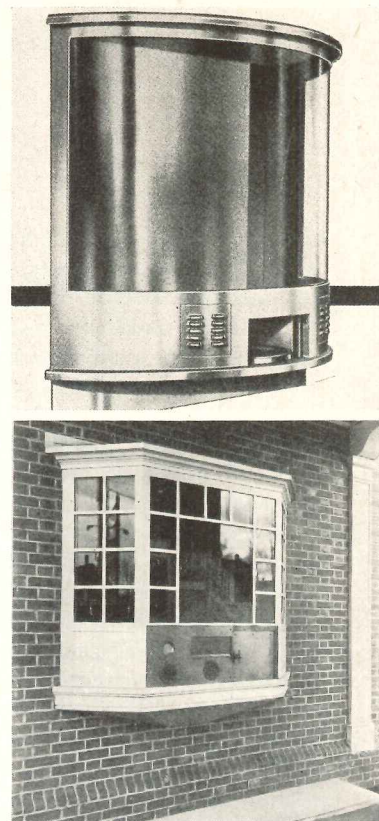
The deluxe speakers are diecast in lightweight aluminum alloy, finished in gray lacquer. G.E. 4 in. aluminum voice coil speaker units are used. The volume control knob is driven by a spring-loaded slip-clutch to prevent loosening or removing the control. Drain holes are provided to empty condensation from the interior of the case.

Standard speakers use a 3 $\frac{1}{2}$ in. Alnico V unit. All models have an auto-window hook as an integral part of the housing. Either straight or coiled cords may be used. National Theater Supply, 92 Gold St., New York 7, N. Y.

• *Ballantyne In-A-Car Speakers* are also available in two price ranges, the standard *MX40 Series*, and the deluxe *Soundmaster Series*. The former has a heavy gage steel case, the latter is of aluminum. Both are finished in baked-on enamel. Speaker cones are said to be completely weather-treated, and the case has water drainage at cone level and at the case bottom. Features include rubberoid covered speaker hangers, extended louvers and double strength back. Coiled or straight cords may be used.

The junction box has a heavy duty matching transformer and enclosed terminal strip. It will fit any pipe from 1 $\frac{1}{2}$ to 2 $\frac{3}{8}$ in. O.D. with no special adaptors needed. Built-in down lights, Plexiglass ramp marking lights, and illuminated volume control knobs are available. The Ballantyne Co., 1707 Davenport St., Omaha, Neb.

• *RCA Drive-in Speakers* feature cast aluminum speakers and junction boxes, with a special "Starlight" finish on
(Continued on page 226)

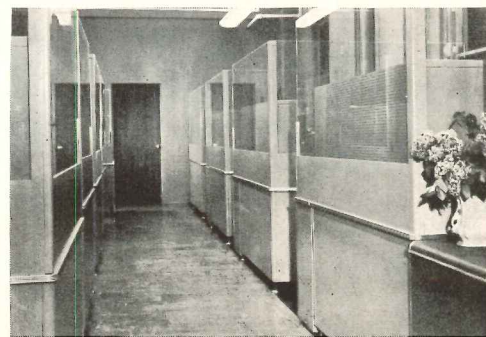
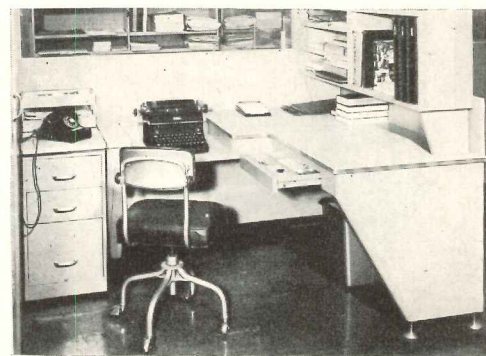


Top: Speakers for drive-in theaters (left to right) — RCA; Simplex; Ballantyne; Autocrat. Center: Drive-up bank windows — Diebold (top); Mosler-Duplex (bottom). Below: Office desk with integral partitions, shelves and fittings

Packaged Office

Developed by du Pont to increase effective working space in crowded office areas, the *Korda-Room* is a movable semi-private office comprising an L-shaped desk with integral partitions, cabinets, desk drawers, bookcases, shelving and other accessories. Partitions are moved simply by moving the desks. The unit is claimed to reduce office space requirements by 30 per cent or more. The desk is planned to have all equipment at arm's reach. Each room is sufficiently large to accommodate two visitors.

Lower portions of the units are of wood, braced by aluminum channels, upper portions are glazed. Linoleum is used for work surfaces. All the basic elements are available in an extensive range of modular sizes to fit office layouts and operational needs. Standard colors are blue-green and medium gray. Units may be in any color desired with orders of 15 or more. Natural finished wood and formica tops are also available. A special unit may be obtained equipped for drafting. Korda Industries, 20 W. 46 St., New York 19, N. Y.





WESLOCK[®]

CYLINDRICAL LOCKS

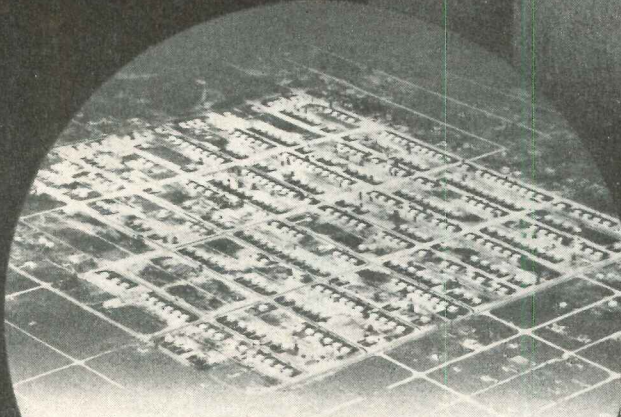
No. 240 Exterior Lock Set with
No. 256 Moderne design
escutcheon.

High Style on a Budget

In WESLOCKS you get the ultimate in hardware design, yet priced to meet the most modest budgets. Their many quality features such as five-pin tumbler and key-in-knob construction, split-spindle operation and factory assembled units are usually found only in the most expensive locks. You also get a wide choice of types and finishes. Standardize on WESLOCKS, the budget-priced quality line for every door in the house. Send today for a complete catalog.

WESTWOOD

MANUFACTURING CO.
1420 So. Evergreen Avenue
Los Angeles 23, California



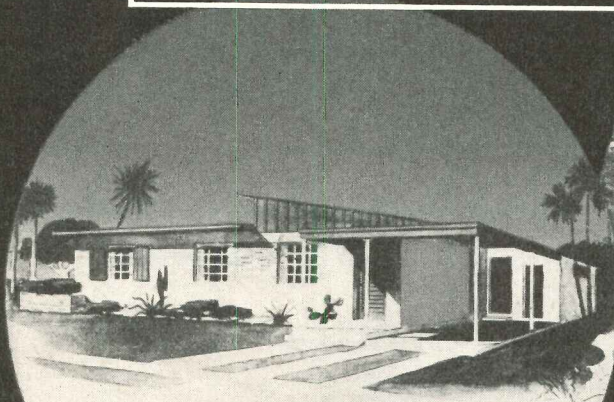
Hialeah and Sunkist Grove, Miami, Florida
934 homes, F.H.A. insured

Architect: Ed Walz

Builder: Gaines Construction Co.

Hardware Contractor: Atlantic
Consolidated Builders Supply Co.

More WESLOCK installations . . .

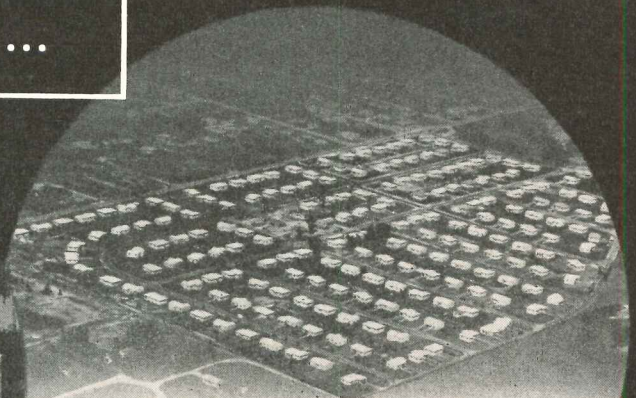


Princess Park Manor, Miami, Florida
174 homes, F.H.A. insured

Architect: Tyrus T. Tripp

Builder: Moss & Son, Inc.

Hardware Contractor: State Hardware
& Paint Co.



Flamingo Village, Miami, Florida
220 homes, F.H.A. insured

Architect: V. H. Nellenbogen

Builder: Superior Home Builders, Inc.

Hardware Contractor: Atlantic Consolidated
Builders Supply Co.

FITZGIBBONS

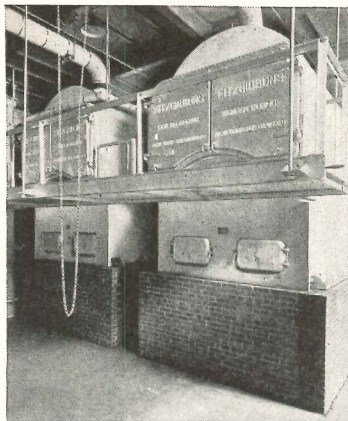
heats the big jobs!



BAMBERGER'S WAREHOUSE

Largest department store warehouse on one level

Boiler room of the Bamberger Warehouse.
Architects and Engineers: Abbott, Merkt Co.
10 W. 40th St. N. Y. C.
Heating Contractor: Frank P. Farrell, Inc.
269 Camden St. Newark, N. J.



TWO FITZGIBBONS STEEL BOILERS heat the 9-acre expanse of the huge new service building for Bamberger's, the famous Newark, N. J. store. The building is planned throughout for the extreme of economy in merchandise handling costs, which is further aided by the extreme fuel economy of the Fitzgibbons steel boilers.

The best buildings deserve "the best in steel boiler heat"—The Fitzgibbons Boiler.



Reg. U. S. Pat. Off.



Reg. U.S. Pat. Off.

Fitzgibbons Boiler Company, Inc.

101 PARK AVENUE, NEW YORK 17, N. Y.

Send me the "D" TYPE Boiler Catalog.

Name: Position:

Address:

City: Zone: State:

ARCH. REC. 8-50

BIBLIOGRAPHY OF STANDARD CODES AND SPECIFICATIONS: I

Prepared by William Henry Deacy, A.I.A.

This bibliography was prepared to serve as an aid to architects in the preparation of building specifications. On this page are listed the addresses of trade, Federal and professional organizations which normally are concerned with formulating and issuing standards, codes and manuals, helpful and of value to architects. Titles of officials to be addressed are included. The successive sections are devoted to lists of specifications and codes frequently cited.

A

1. Acoustical Materials Assn., 205 West Monroe St., Chicago, Ill., Secretary.
2. Aluminum Assn., 420 Lexington Ave., New York 17, N. Y., Secretary.
3. Aluminum Window Mfrs. Assn., 209 Cedar Ave., Washington 12, D. C., Secretary.
4. American Boiler & Affiliated Industries, 15 Park Row, New York 7, N. Y., Manager.
5. American Concrete Institute, New Center Bldg., Detroit 2, Mich., Secretary.
6. American Gas Assn., 420 Lexington Ave., New York 17, N. Y., Managing Director.
7. American Home Lighting Institute, 55 West 42nd St., New York 18, N. Y., Secretary.
8. American Institute of Architects, 1741 New York Ave., Washington 6, D. C., Executive Director.
9. American Institute of Steel Construction, 101 Park Ave., New York 17, N. Y., Executive Vice-President.
10. American Iron and Steel Institute, 350 5th Ave., New York 1, N. Y., President.
11. American Society of Heating & Ventilating Engineers, 51 Madison Ave., New York 10, N. Y., Secretary.
12. American Society of Landscape Architects, 9 Park St., Boston 8, Mass., Secretary.
13. American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pa., Executive Secretary.
14. American Specifications Institute, 134 North La Salle St., Chicago 2, Ill., Executive Secretary.

15. American Standards Assn., 70 East 45 St., New York 17, N. Y., Secretary.

16. Asbestos Cement Products Assn., 509 Madison Ave., New York 22, N. Y., Manager.

B

17. Building Officials Conference of America, 26 Norman St., Boston 14, Mass., President.

C

18. Copper and Brass Research Assn., 420 Lexington Ave., New York 17, N. Y., Manager.

I

19. Illuminating Engineering Soc., 51 Madison Ave., New York 10, N. Y., Executive Secretary.

20. Indiana Limestone Institute, Bedford, Indiana, Secretary.

21. Institute of Boiler & Radiator Mfrs., 60 East 42 St., New York 17, N. Y., General Manager.

M

22. Marble Institute of America, 108 Foster Ave., Mt. Vernon, N. Y., Managing Director.

23. Metal Lath Mfrs. Assn., Engineers Bldg., Cleveland 14, Ohio, Commissioner.

24. Metal Window Institute, 806 Rowland Rd., Cheltenham, Pa., Executive Secretary.

N

25. National Board of Fire Underwriters, 85 John St., New York 7, N. Y., General Manager.

26. National Bldg. Granite Quarries Assn., 114 East 40 St., New York 16, N. Y., Secretary.

27. National Bureau of Standards, U. S. Department of Commerce, Washington 25, D. C.

28. National Concrete Masonry Assn., 38 South Dearborn St., Chicago 3, Ill., Executive Secretary.

29. National Electrical Mfrs. Assn., 155 East 44 St., New York 17, N. Y., Managing Director.

30. National Elevator Mfg. Industry, 101 Park Ave., New York 17, N. Y., Commissioner.

31. National Fire Protection Assn., 60 Batterymarch St., Boston, Mass.

32. National Hardwood Lumber Assn., 59 East Van Buren St., Chicago 5, Ill., Executive Secretary.

33. National Lumber Mfrs. Assn., 1319-18th St., Washington 6, D. C., Executive Vice-President.

34. National Oak Flooring Mfrs. Assn., Sterick Bldg., Memphis 3, Tenn., Secretary.

35. National Roofing Contractors Assn., 315 West Madison St., Chicago, Ill., Secretary.

36. National Woodwork Mfrs. Assn., 332 South Michigan Ave., Chicago 4, Ill., Secretary-Manager.

P

37. Pacific Coast Bldg. Officials Conference, 124 West 4th St., Los Angeles, Cal., Managing Secretary.

38. Portland Cement Assn., 33 West Grand Ave., Chicago 10, Ill., President.

39. Producers Council, 815-15th St., Washington 5, D. C., Executive Secretary.

S

40. Southern Bldg. Codes Congress, Brown-Marx Bldg., Birmingham, Ala., Director.

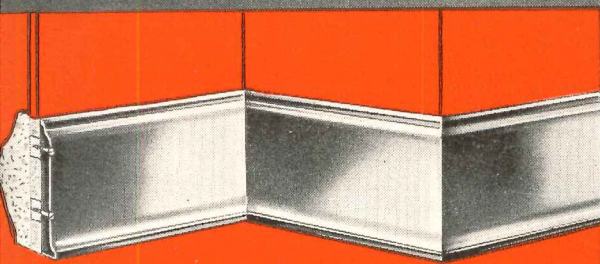
41. Structural Clay Products Institute, 1756 K Street, Washington 6, D. C., Secretary.

U

42. Underwriters Laboratories, 175 West Jackson Blvd., Chicago 4, Ill., Secretary.

43. United States General Services Administration, Federal Specifications. Address Superintendent of Documents, U. S. Printing Office, Washington 25, D. C.

Note—There are several governmental agencies which issue specifications applicable to the particular types of building and construction with which the agency is concerned. Architects interested in this type of building are usually familiarized with the standards and specifications by the agency employing the architect. The FHA, Joint Army and Navy (JAN) Committee and many others issue such standards and regulations.



Milcor Metal Base for Modern Interior Beauty

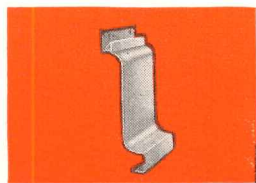
—available in flush-base, projecting-base, adjustable-base, and removable-base types, 4-inch and 6-inch heights, in standard 10-ft. lengths. Made of durable 18-gauge galvanized steel.



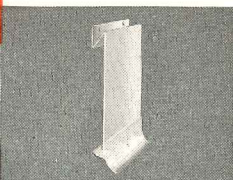
Modern Beauty Begins at the Bottom

...with

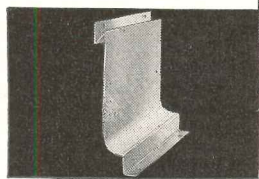
MILCOR Metal Base



No. 623
Projecting Base



No. 631-R
Adjustable Base



No. 601
Flush Base

Interior beauty today calls for functional design. Beauty, yes. But beauty that is efficient, clean, and fire-safe. That's why modern construction everywhere calls for Milcor Metal Base — the sleek and beautiful base trim that ties in to all the other products in the world's most complete line of fireproof building materials. Slots for grouting. With or without expanded metal plaster flanges. Full details in Sweet's. Or write for your free copy of new Milcor Manual. No obligation.



STEEL PRODUCTS COMPANY

Formerly Milcor Steel Company

4035 WEST BURNHAM STREET • MILWAUKEE 1, WISCONSIN

Baltimore 24, Md., Buffalo 11, N. Y., Chicago 9, Ill., Cincinnati 25, Ohio, Cleveland 14, Ohio, Detroit 2, Mich., Kansas City 8, Mo., Los Angeles 23, Calif., New York 22, N. Y., Rochester 9, N. Y., St. Louis 10, Mo.

BIBLIOGRAPHY OF STANDARD CODES AND SPECIFICATIONS: 2

Prepared by William Henry Deacy, A.I.A.

Note: Bold type numbers in parentheses refer to addresses listed in Part I of this bibliography. Other numbers are code designations for each particular standard or specification.

BRICK

Amer. Soc. for Testing Materials (13)

- Spec. for Concrete Building Brick (C 55)
- Spec. for Building Brick (Made from Clay or Shale) (C 62)
- Methods of Sampling and Testing Brick (C 67)
- Spec. for Sand-Lime Building Brick (C 73)
- Spec. for Mortar for Reinforced Brick Masonry (C 161)

Fed. Spec. (43)

- Brick; building (common) clay (SS-B-656)
- Brick; concrete (SS-B-663)
- Brick; paving (SS-B-671a)

CODES

Amer. Iron & Steel Inst. (10)

- Building Code Modernization (A series of reference bulletins)

Amer. Standards Assn. (15)

- Building Exits Code (A9.1-1949)
- Manual of Accident Prevention in Construction (A10.1-1939)
- Safety Code for Building Construction (A10.2-1944)
- Recommended Practice for Industrial Lighting (A11-1942)
- Safety Code for Floor and Wall Openings, Railings and Toe Boards (A12-1932)
- Safety Code for Wood Ladders (A14.1-1948)
- Practice for School Lighting (A23.1-1948)
- Air Gaps in Plumbing Systems (A40.4-1942)
- Backflow Preventers in Plumbing Systems (A40.6-1943)
- Plumbing Code (A40.7-1949)
- Building Code Requirements for Masonry (A41.1-1944)
- Building Code Requirements for Light and Ventilation (A53.1-1946)
- Administrative Requirements for Building Codes (A55.1-1948)
- Building Code Requirements for Structural Steel (A57.1-1943)
- Building Code Requirements for Minimum Design Loads in Buildings and other Structures (A58.1-1945)
- Building Code Requirements for Reinforced Gypsum Concrete (A59.1-1945)
- Building Code Requirements for Signs and Outdoor Display Structures (A60.1-1949)
- Building Code Requirements for Steel Joist Construction (A87.1-1947)
- Building Regulations for Reinforced Concrete (A89.1-1948)
- Code for Mechanical Refrigeration (B 9.1-1950)

Bldg. Officials Conf. of Amer. (17)
Basic Building Code

Nat'l Bd. of Fire Underwriters (25)
National Building Code 1949 Edition
National Building Code (Abbreviated Edition)

Building Code Standards

Nat'l Fire Protection Assn. (31)

- National Fire Codes:
 - Vol. I — Flammable Liquids, Gases, Chemicals and Explosives
 - Vol. II — Prevention of Dust Explosions
 - Vol. III — Building Construction and Equipment
 - Vol. IV — Extinguishing and Alarm Equipment
 - Vol. V — National Electric Code Handbook of Fire Protection

Pacific Coast Bldg. Off. Conf. (37)

- Uniform Building Code
- Uniform Building Code for Small Jurisdictions

Southern Bldg. Codes Congress (40)

- Southern Standard Building Code

CONCRETE

Amer. Concrete Institute (5)

- Building Code Requirements for Reinforced Concrete (AC1318-47)
- Minimum Standard Requirements for Precast Concrete Floor Units (AC1711-46)
- Recommended Practice for the Design of Concrete Mixes (AC1613-44)
- Specifications for Cast Stone (AC1704-44)
- Recommended Practice for Measuring, Mixing and Placing Concrete (AC1614-42)
- Recommended Practice for the Use of Metal Supports for Reinforcement (AC1319-42)
- Manual of Standard Practice for Detailing Reinforced Concrete Structures (Proposed)

Amer. Soc. for Test. Materials (13)

- Spec. for Natural Cement (C 10)
- Spec. for Concrete Sewer Pipe (C 14)
- Method of Test for Voids in Aggregate for Concrete (C 30)
- Method of Making and Curing Concrete Compression and Flexure Test Specimens in the Field (C 31)
- Spec. for Concrete Aggregates (C 33)
- Method of Test for Compressive Strength of Molded Concrete Cylinders (C 39)
- Method of Test for Organic Impurities in Sands for Concrete (C 40)
- Method of Securing, Preparing, and Testing Specimens from Hardened Concrete for Compressive and Flexural Strengths (C 42)
- Def. of the Term Sand and Def. of the Term Aggregate (C 58)
- Spec. for Reinforced Concrete Sewer Pipe (C 75)
- Method of Test for Cement Content of Hardened Portland-Cement Concrete (C 85)
- Method of Test for Measuring Mortar-Making Properties of Fine Aggregate (C 87)

Spec. for Hollow Load-Bearing Concrete Masonry Units (C 90)

- Spec. for Masonry Cement (C 91)
- Spec. for Ready-Mixed Concrete (C 94)

Method of Test for Amount of Material Finer than No. 200 Sieve in Aggregates (C 117)

- Spec. for Hollow Non-Load-Bearing Concrete Masonry Units (C 129)
- Spec. for Lightweight Aggregates for Concrete (C 130)

Method of Test for Sieve Analysis of Fine and Coarse Aggregates (C 136)

Method of Test for Weight per Cubic Foot, Yield, and Air Content (Gravimetric) of Concrete (C 138)

Methods of Sampling and Testing Concrete Masonry Units (C 140)

Method of Slump Test for Consistency of Portland-Cement Concrete (C 143)

Spec. for Aggregate for Masonry Mortar (C 144)

Spec. for Solid Load-Bearing Concrete Masonry Units (C 145)

Spec. for Portland Cement (C 150)

Spec. for Waterproof Paper for Curing Concrete (C 171)

Methods of Sampling Hydraulic Cement (C 183)

Method of Test for Air Content of Portland-Cement Mortar (C 185)

Method of Test for Tensile Strength of Hydraulic-Cement Mortars (C 190)

Method of Making and Curing Concrete Compression and Flexure Test Specimens in the Laboratory (C 192)

Amer. Standards Assn. (15)

- Forms for Concrete Joist Construction Floors (A48-1932)

Nat'l Bureau of Standards (27)

- Concrete Building Units (32-38 S.P.R.)

Fed. Spec. (43)

- Bars, reinforcement (for) concrete (QQ-B-71a)
- Cements; Portland (SS-C-192)
- Concrete units; masonry, hollow (SS-C-614)
- Roofing Slabs; concrete precast (SS-R-531)

DRAFTING & MODULAR SYSTEM

Amer. Inst. of Architects (8)

Complete information on the use of modular coordinated units and construction. Also how the architect may apply the modular system in his office.

Amer. Standards Assn. (15)

Basis for the Coordination of Dimensions of Building Materials and Equipment (A62.1-1945)

Basis for the Coordination of Masonry (A62.2-1945)

Sizes of Clay and Concrete Modular Masonry Units (A62.3-1946)

Sizes of Clay Flue Linings (A62.4-1947)

Producers Council (39)

Complete information on Dimensional Coordination — the Modular System.

Architectural Engineering
TIME-SAVER STANDARDS



Light on an old banking problem

BRIGHT and friendly is the interior of this bank since it was given new life with properly designed lighting. Though the soaring ceiling presented a problem, Litecontrol engineers solved it with incandescent lens boxes. These fixtures blend smoothly into the architectural design — give a narrow concentrated beam that easily bridges the gap between ceiling

and floor. Certainly an excellent solution to the old problem of relighting older style buildings.

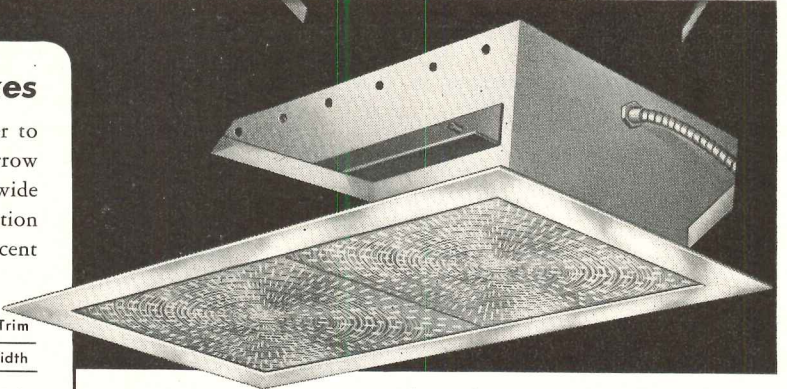
Shown is the Merchants National Bank, Salem, Massachusetts
 Architect, W. H. Jones & Son, Melrose, Mass.; Engineer, John R. McVey, Salem Electric Lighting Company; Electrical Contractor, Wilson & Robinson; Distributor, DesRoberts Electric Supply Company. Ceiling height: 24½ feet. Fixtures: 24, 2 gang recessed lens boxes for top service with Holophane #1765 lens-reflector combination. Designed for 300 watt incandescent lamps to provide an average of 35 footcandles in service in work areas.

... with Litecontrol Lens Boxes

These Litecontrol flush lens boxes can be the answer to many of your lighting problems. Use them with "narrow beam" lens and reflector combinations or with "wide beam" combinations. Be sure and write for information on the many other types of fluorescent and incandescent fixtures manufactured by Litecontrol.

Catalog Number	Lamp Wattage	Roughing Box			Exposed Trim	
		Length	Width	Depth	Length	Width
12F-V30-2	2-150†-300	25"	12 ⁷ / ₈ "	11 ¹ / ₄ "	27"	14 ⁷ / ₈ "
*12F-V30S-2	2-150†-300	25"	12 ⁷ / ₈ "	11 ¹ / ₄ "	27"	14 ⁷ / ₈ "
12F-V30-3	3-150†-300	37"	12 ⁷ / ₈ "	11 ¹ / ₄ "	39"	14 ⁷ / ₈ "
*12F-V30S-3	3-150†-300	37"	12 ⁷ / ₈ "	11 ¹ / ₄ "	39"	14 ⁷ / ₈ "
12F-V30-4SQ	4-150†-300	26"	26"	12"	28"	28"
*12F-V30S-4SQ	4-150†-300	26"	26"	12"	28"	28"

*Supplied with Holophane Square Reflector for wide beam spread.
 †Use ⁷/₈" Socket Extension. Note all these boxes available with top service for relamping from above.



LITECONTROL

Fixtures

KEEP UPKEEP DOWN

LITECONTROL CORPORATION

36 PLEASANT STREET, WATERTOWN 72, MASSACHUSETTS

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

BIBLIOGRAPHY OF STANDARD CODES AND SPECIFICATIONS: 3

Prepared by William Henry Deacy, A.I.A.

ELEVATORS

Nat'l Elevator Mfg. Ind. (30)
 Engineering Standards Data Sheets No. 1, 1A, 1B, 2, 2A, 2B, 2C, 2D, 2E, 3, 3A, 3B, 3C, 3D, 3E

GLASS

Fed. Spec. (43)
 Glass, flat glazing (DD-G-476)

HARDWARE

Nat'l Bureau of Standards (27)
 Builders' Hardware (18 S.P.R.)
 Builders' Hardware (non-template) (22-40 CS)
 Builders' Template Hardware (9-33 CS)
Fed. Spec. (43)
 Hardware; builders'; locks and door trim (FF-H-106a)

HEATING

Nat'l Bureau of Standards (27)
 Air Conditioning and Warm Air Heating; Pipes, Ducts and Fittings (207-49 S.P.R.)

INSULATION

Amer. Soc. for Testing Materials (13)
 Spec. for Mineral Wool Thermal Insulating Cement (C 195)
 Spec. for Structural Insulating Board Made from Vegetable Fibers (C 208)
Fed. Spec. (43)
 Acoustic Material (for) plastic application. (O-A-111)
 Cork; compressed (corkboard) (for thermal insulation) (HH-C-561b)
 Cork; granulated, insulating (HH-C-571a)
 Fiber-board; insulating (LLL-F-321b)
 Insulation, building, mineral wool, batts, loose fill and granular fill. (HH-1-521c)
 Insulation; cotton, batts (HH-I-528)
 Insulation; glass, cellular, block (HH-I-551)
 Insulation; laminated asbestos (HH-I-561b)
 Insulation, (red-wood bark, shredded) (LLL-1-533)

METAL (NON-FERROUS)

Amer. Soc. for Testing (13)
 Spec. for Red Brass Pipe, Standard sizes (b43)
 Spec. for Seamless Copper Tubes (B75)
 Spec. for Copper Water Tube (B88)
 Spec. for Miscellaneous Brass Tubes (B135)
 Spec. for Copper Sheet, Strip and Plate (B152)
Fed. Spec. (43)
 Aluminum Alloy; plates, sheets and strips (QQ-A-327)
 Bronze; castings (QQ-B-691b)

PAINTS & FINISHES

Fed. Spec. (43)
 Enamel; gloss, synthetic (for exterior and interior) (TT-E-489)
 Enamel; gloss, synthetic (for metal and wood hospital furniture) (TT-E-491)
 Paint; alkyd resin-emulsion, exterior, paste, tints and white (TT-P-18)
 Paint; blue-lead-base, basic sulphate, linseed oil, ready mixed (TT-P-20)
 Paint; cement water, powder, white and tints (for interior and exterior) (TT-P-21)
 Paint; cold water, exterior, powder (with mixing liquid) (TT-P-22)
 Paint; cold water, interior, light tints and white (TT-P-24)
 Paint; concrete and masonry, egg-shell finish, ready mixed, white and tints (TT-P-24)
 Paint; oil, exterior, ready mixed, light tints and white (TT-P-40)
 Paint, oil, interior flat, wall, tints and white (TT-P-51b)
 Stain; opaque, wood, exterior, oil (TT-S-706)
 Stain; wood, interior, non-bleeding (TT-S-711)

PLASTER & LATH

Amer. Soc. for Test. Materials (13)
 Spec. for Quicklime for Structural Purposes (C 5)
 Spec. for Normal Finishing Hydrated Lime (C 6)
 Def. of Terms Relating to Gypsum (C 11)
 Spec. for Gypsum (C 11)
 Methods of Testing Gypsum and Gypsum Products (C 26)
 Spec. for Gypsum Plasters (C 28)
 Spec. for Sand for Plaster (C 35)
 Spec. for Gypsum Lath (C 37)
 Methods of Sampling, Inspection, Packing, and Marking of Quicklime and Lime Products (C 50)
 Spec. for Keene's Cement (C 61)
 Spec. for Gypsum Sheathing Board (C 79)
 Test for Compressive Strength of Hydraulic-Cement Mortars (C 109)
 Methods of Physical Testing of Quicklime and Hydrated Lime (C 110)
 Spec. for Hydraulic Hydrated Lime for Structural Purposes (C 141)
 Spec. for Special Finishing Hydrated Lime (C 206)

Amer. Standards Assn. (15)
 Specifications for Gypsum Plastering, including Requirements for Lathing and Furring (A42.1-1946)
 Spec. for Portland Cement Stucco (A42.2-1946)
 Spec. for Portland Cement Plastering (A42.3-1946)

Fed. Spec. (43)
 Lime; hydrated (for) structural purposes (SS-L-351)
 Plaster, gypsum (SS-P-402)
 Quicklime; (for) structural purposes (SS-Q-351)

PLUMBING

Nat'l Bureau of Standards (27)
 Vitreous Glazed Plumbing Fixtures (111-43 CS)
Fed. Spec. (43)
 Plumbing fixtures (for) land use (WW-P-541a)
 Plumbing fixtures (formed metal) (WW-P-542)

ROOFING, ASPHALT

Amer. Soc. for Testing Materials (13)
 Methods of Testing Felted and Woven Fabrics Saturated with Bituminous Substances for Use in Waterproofing and Roofing (D 146)
 Spec. for Asphalt Roofing Surfaced with Powdered Talc or Mica (D 224)
 Spec. for Asphalt Shingles Surfaced with Coarse Mineral Granules (D 225)
 Spec. for Asphalt-Saturated Roofing Felt for Use in Waterproofing and in Constructing Built-Up Roofs (D 226)
 Spec. for Coal-Tar Saturated Roofing Felt for Use in Waterproofing and in Constructing Built-Up Roofs (D 227)
 Methods of Testing Asphalt Roll Roofing, Cap Sheets, and Shingles (D 228)
 Spec. for Asphalt Roofing Surfaced with Coarse Mineral Granules (D 249)
 Spec. for Asphalt-Saturated Asbestos Felts for Use in Waterproofing and in Constructing Built-Up Roofs (D 250)
 Method of Test for Abrasion of Graded Coarse Aggregate by Use of the Deval Machine (D 289)
 Spec. for Asphalt for Use in Constructing Built-Up Roof Coverings (D 312)
 Spec. for Wide Selvage Asphalt Roofing Surfaced with Coarse Mineral Granules (D 371)
 Spec. for Coal-Tar Pitch for Roofing, Damp-proofing, and Waterproofing (D 450)
 Methods of Testing Wool Felt (D 461)
 Rec. Practice for Accelerated Weathering Test of Bituminous Materials (D 529)
 Spec. for Asphalt-Saturated and Coated Asbestos Felts for Use in Constructing Built-Up Roofs (D 655)
Fed. Spec. (43)
 Asphalt (for) built-up roofing, waterproofing and damp-proofing (SS-A-666)
 Felt; coal-tar-saturated (for) roofing and waterproofing (HH-F-201)
 Roofing; asphalt and asbestos prepared, mineral surfaced (SS-R-511)
 Roofing, prepared; asphalt, smooth surfaced (SS-R-501a)

SIDING
Amer. Soc. for Testing Materials (13)
 Spec. for Asphalt Siding Surfaced with Mineral Granules (D 699)
 Roofing and siding; corrugated, asbestos cement (SS-R-524)
 Siding (shingles and clapboards) asbestos cement (SS-S-346a)

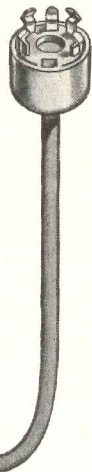
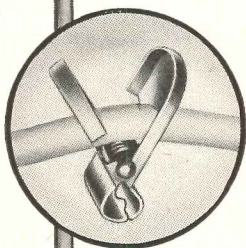
Architectural Engineering STANDARDS TIME-SAVER

2 famous names — now join in producing world's finest **LOUD-SPEAKING**



PATIENT PRESSES CALL BUTTON
... shown above ... and signal
flashes on Nurse's Master Sta-
tion. Only patient can initiate
conversation—hence greater pri-
vacy is assured.

INGENIOUS CLAMP shown be-
low, an exclusive feature of
Nurses' Call Button. Grips bed-
side table or bedding (without
tearing)...ends slipshod "safety-
pin technique"...keeps call bu-
ton within reach always!



GREATER CONVENIENCE...EFFICIENCY...PRIVACY
among many features of this truly modern
hospital communication system!

Mark this as a new day in hospital
administration and patient welfare!

Who else but EDWARDS, with its
78-years' experience in precision-
engineered signal equipment—and
STROMBERG-CARLSON, with its ac-
knowledged leadership in audio
products—who else but these two
great names could produce a
NURSES' CALL SYSTEM with these
outstanding advantages:

Greater Convenience: A flip
of the switch at the Nurse's Master

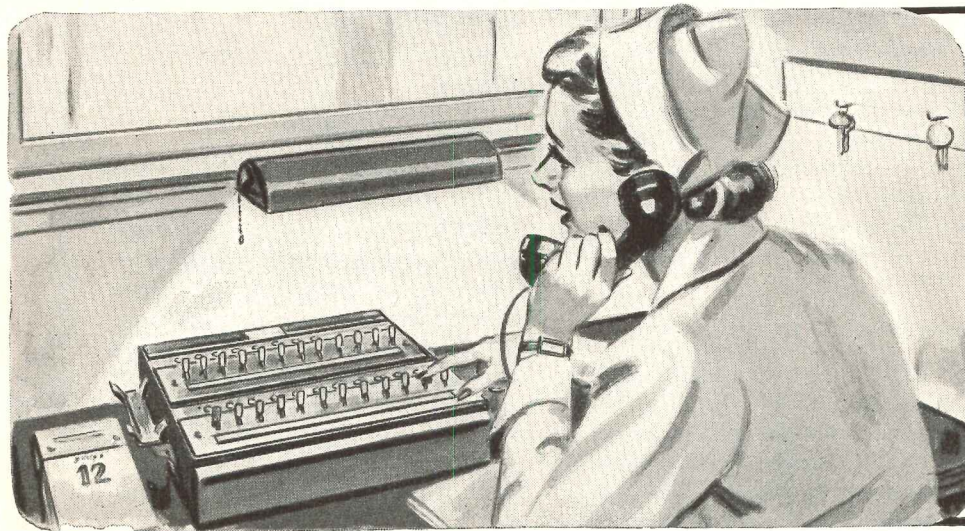
Station enables patient to converse
directly with nurse in attendance.

Greater Efficiency: No more
tiring, time-wasting trips down the
corridors to learn patients' needs—
and trips all the way back to fulfill
them!

Greater Privacy: Only patient
can initiate conversation ... so pa-
tient cannot be disturbed by un-
necessary calls. And no other pa-
tient rooms can listen in!

What's more—the new EDWARDS-

NURSES' CALL SYSTEMS



AT THE MASTER STATION, nurse learns patient's needs without wasting steps and time. Calls can be sorted between those requiring her attention and those that can be handled by aide or orderly.

Telephone handset assures privacy at the station. Highly sensitive wall speaker at bedside transmits slightest sound from room after patient pushes call button.

EDWARDS

...for signaling

STROMBERG-CARLSON

...for sound

STROMBERG-CARLSON Loud-Speaking Nurses' Call System has *already* been hospital-tested, proven in use! It gives reliable, trouble-free performance...operates with standard accessories...and is ready to take its place along with the many EDWARDS products now increasing hospital efficiency, now guarding lives and property in the country's finest hospitals.

For complete data, write:

EDWARDS COMPANY, INC., Norwalk, Conn.

In Canada: Edwards of Canada, Ltd.

MANUFACTURERS' LITERATURE

Theater Developments

Theatre Catalog, 8th Annual Edition, 1949-1950. This big volume is replete with information on planning theatres of all types, whether roofed or drive-in. The following items are included among the numerous chapters: theatre design, construction and materials, front and lobby data, auditorium and stage data, drive-in theatres, projection and sound, air conditioning and heating, supplies and new products, confection vending, television and 16 mm film, practices and maintenance, and advertising and promotion. The catalog is well illustrated and indexed. 544 pp., illus. Price \$5.00. Jay Emanuel Publications, Inc., 1225 Vine St., Philadelphia 7, Pa.

Metal Doors

V M P Architects' and Builders' Manual. Describes line of insulated hollow metal doors, pre-assembled steel frames, fire-rated door and frame combinations, and sliding doors and frames. Construction features, specifications, types and sizes, dimensions and details are included for each item. Notes and drawings show application to various wall constructions. The manual is available on written request on Company letterhead. 38 pp., illus. Virginia Metal Products Corp., Product Information Dept., 60 Hudson St., New York, N. Y.*

Stuccoing and Plastering

The Keystone System — Stucco Application, Plaster Reinforcing and Other Reinforcing Applications. Booklet gives information for the application of siding and surfacing materials where open mesh steel reinforcing is required. Methods of remodeling existing structures are stressed. Details and illustrations are given for applying the reinforcing on various types of construction, for mixing and applying stucco and plaster, and for coloring and finishing. Charts give

* Other product information in *Sweet's File, 1950.*

amounts of cement, stucco and sand required for specified areas. 44 pp., illus. Keystone Steel & Wire Co., Peoria 7, Ill.

Moving Stairways

Peelle Motorstairs. Folder presents the features of the stairs and lists a number of installations in the U. S. The operating mechanism is carefully explained in a series of photographs and diagrams. Planning data is included on sizes, weights, opening requirements and specifications. Notes are given on capacity and speed, and on installation. 8 pp., illus. The Peelle Co., Peelle Motorstair Div., 47 Stewart Ave., Brooklyn 6, N. Y.*

Wood Frame Apartments

Prize Winning Designs: Eight Family Garden-Type Apartments of Wood Frame Construction. Booklet presents the results of an architectural competition sponsored by the Timber Engineering Co., conducted with the approval of the Committee on Competitions of the A.I.A. Eight of the Winning projects are illustrated, with plans, elevations, renderings and details. The problem requirements and the jury report are included. Notes are also given on Teco timber connectors and framing anchors. 22 pp., illus. Timber Engineering Co., 1319 18th St., N. W., Washington 6, D. C.

Abrasive Steel Floor Plate

A. W. Algrip, The Only Abrasive Rolled Steel Floor Plate. Booklet describes features and properties of the floor plate. Fabrication data are included on the cutting, installing and forming of the material. Applications are noted and illustrated. Tables are included for sizes, weights and allowable uniform loads. 8 pp., illus. Allan Wood Steel Co., Conshohocken, Pa.

Metal Letters

Spanjer Metal Letters (Catalog M-50). Booklet gives information about styles,

sizes, finishes and prices of the letters. Each type is illustrated with photographs and drawings. Charts give the height, width, thickness and depth of stroke of each, and corresponding prices for various finishes available. Detailed installation instructions and fastening methods are also included, along with specifications. 16 pp., illus. Spanjer Brothers, Inc., 1158 N. Howe St., Chicago, Ill.

Laminated Panels

New Kaylo Laminated Panels With Cement-Asbestos Facing. Brochure gives fabrication details and features of the panels. Installation and applications are covered with text and photos. Technical data include strength, impact resistance, fire resistance, insulation value, sound and vapor transmission and screw-holding power. Many details are given for use with wood and steel framing, and in connection with glass block. 12 pp., illus. Kaylo Div., Owens-Illinois Glass Co., Toledo 1, Ohio.*

Fabrics and Wallpaper

Laverne Originals. Booklet covers a collection of out of the ordinary fabrics and wallpapers designed by Alvin Lustig, Ray Komai, Zahara Schatz, Juliet and Gyorgy Kepes, and Alexander Calder. Each is illustrated, and has notes on uses, and the sizes and colors available. Some furniture and ceramics are included, designed by William Katalovos, Douglas Kelley and Ross Littell. 26 pp., illus. Laverne Originals, 225 Fifth Ave., New York 10, N. Y.

Masonry Anchoring Devices

U.S.E. The Complete Line of Masonry Anchoring Devices and Allied Products. Booklet gives illustrations, details, size tables and specifications for the following items: expansion shields, screw anchors, nail anchors, wire rope clips and thimbles, toggle bolts, turnbuckles, pipe clamps and bent wire eye bolts. A section is also included on drills, chisels

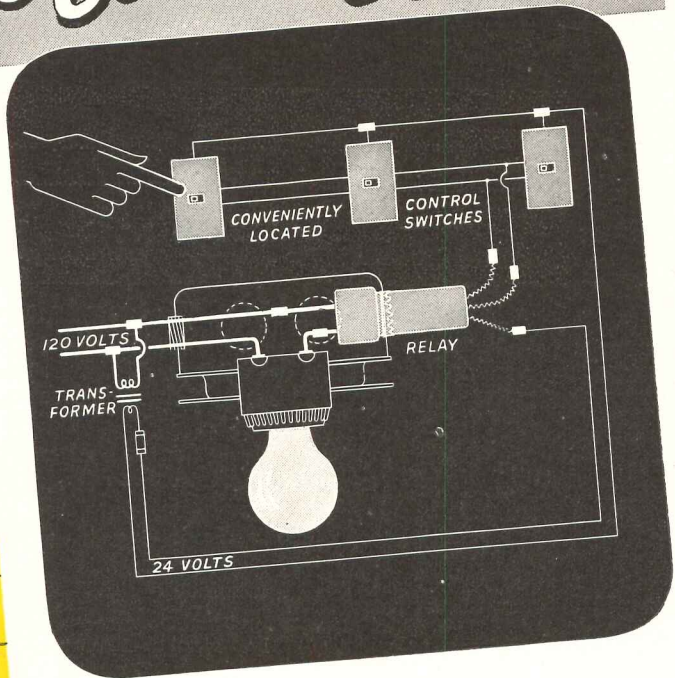
(Continued on page 244)

Light the path ahead

WITH SQUARE D's

NEW Low Voltage Control System

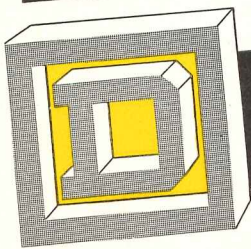
use this
Remote Control Relay System
 instead of conventional switching
 for greater
CONVENIENCE • SAFETY • COMFORT
 ... at very reasonable cost



• The above sketch shows how remote control relays are installed in knockouts of outlet boxes. The relays are controlled from any number of conveniently located switches operating on a 24 volt system. Only the load circuit wiring is at 120 volts.

One relay can be operated by several control switches, or several relays can be operated from one or more locations, using master switches.

Write for Bulletin No. 1008, which gives details of this simple, low-cost way to adequate switching.
 Square D Company,
 6060 Rivard Street, Detroit 11, Michigan



SQUARE D COMPANY

DETROIT

MILWAUKEE

LOS ANGELES

SQUARE D COMPANY CANADA LTD., TORONTO • SQUARE D de MEXICO, S. A., MEXICO CITY, D. F.

WASHINGTON

(Continued from page 24)

At the discretion of the housing administrator, this figure could climb to 40 times such value.

A feature of the new legislation is the attempt to raise the federal loan fund for prefabricated housing and large-scale modernized site construction by \$50 million. At this writing, the prefab loan program still remained with Reconstruction Finance Corporation. There were strong indications, however, it would be transferred under a Presidential reorganization plan to the housing agency.

Actually, there is little of the original prefabricated loan program left in total volume of loan authorizations. The addition of \$50 million — proposed for the new bill — would double the original amount provided by Congress to stimulate the production and sale of factory-made housing and speed up adoption of modern site fabricating methods. RFC officials say less than \$10 million remains in the original program. The addition of another \$50 million would give this lagging scheme some impetus. It would come at a time when all phases of the construction industry are stressing the need for production of housing of moderate cost. Most of the prefabricated units coming from the factories are in the medium or low cost brackets.

RFC's powers for loans to stimulate prefab output first came under the Veterans' Emergency Housing Act of 1946. Most of the early loans went for working capital; strictly for production. Later the plan was altered to provide money for distribution as well. This seems to be the greatest need in the prefab field today — money for financing the sale and erection of ready-made houses after they leave the factory site.

The Administration favors a vigorous program of this type. In the background of White House opinion is an awareness of possible emergency need for housing that can be erected quickly and that is more or less portable.

President Truman, in submitting his reorganization plan for prefab loans, said development of an efficient prefabricated housing industry is an essential part of the total housing program. It requires integration with the major housing activities of government. He

(Continued on page 176)



only **Sealuxe BROWNE**
"Folding-Flue" Windows

offer 100% controllable
draft-free ventilation

When opened slightly the SEALUXE-BROWNE Window makes a vertical flue. Fresh air comes in at bottom and foul air goes out at the top. No drafts. No wind-blown rain.



See our catalog in Sweet's Architectural file.

eliminates "flying" window washer

Both sides can be safely cleaned from the inside by a maid or porter.

lasts indefinitely

No metal-to-masonry contact. Resists tarnish, rust and corrosion.

long, trouble-free life

Folds at finger-tip pressure. Stays put regardless of wind pressure.

shuts out weather and traffic noises

Closes to a force fit against resilient wool felt weather-stripping.

more light . . . greater beauty

Streamlined to admit more light; set off any architectural treatment.

design flexibility

Choice of standard or custom in aluminum, stainless steel or bronze. With or without muntins; reversible Mullions for any width partition; inside screens; crank operators; remote control operators; with or without stool, sills. Models include: Monumental, Residential, Underwriter-approved and escape-proof Psychiatric "windows without bars."

OTHER SEALUXE PRODUCTS

WINDOWS—Picture, Store Front, Commercial and Monumental Casement, Thermo (insulated) • SOLAR CONTROLS—Fins, Canopies, Shades, Louvres • BUILDING ACCESSORIES—Pilasters, Spandrels, Fascias, Wall Panels, Trim • ENTRANCE ACCESSORIES—Building Directories, etc. • DOOR ACCESSORIES • CROWD CONTROL EQUIPMENT. For more information you are invited to clip and mail the coupon at right.

J. P. TRAVIS
President

6710 DENTON DRIVE
DALLAS 9, TEXAS

Universal CORPORATION
DISTRICT SALES OFFICES, AGENTS AND DISTRIBUTORS IN ALL ARCHITECTURAL CENTERS . . .

SEALUXE-Engineered Products are

Miracles in Metals!

MEMBER THE PRODUCERS COUNCIL OF THE BUILDING INDUSTRY

Please send me more information about SEALUXE—Engineered Products.

NAME _____

ADDRESS _____

FIRM _____

4-Square Special S2E Joists

KILN-DRIED FOR STABILITY...SIZED FOR STRENGTH

People who buy homes are not only interested in design and floor plan, but they also have a consuming curiosity about construction. "Is this going to be a well-built house?" they ask.

When you explain the structural values, the low upkeep and long life you have incorporated in your design, tell them about Weyerhaeuser 4-Square S2E Joists.

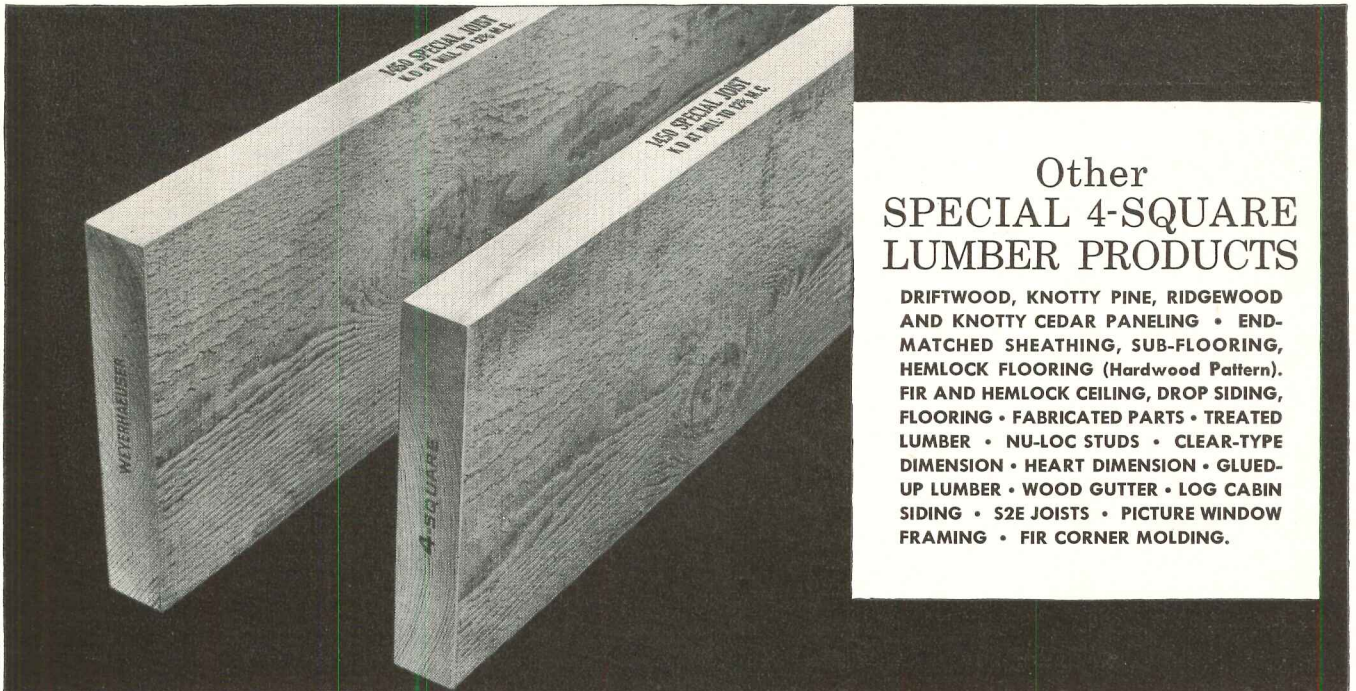
Joists must not only support loads over spans . . . they must also impart stability and stiffness to a structure. They must support loads without movement.

Specially kiln-dried to a 12% moisture

content to avoid shrinkage after installation, Weyerhaeuser 4-Square S2E Joists prevent cracks, binding of doors and windows, separation of interior trim, floor settling and squeaking.

Specially sawn, after drying, to a thickness of 1-13/16" and surfaced on two edges, S2E Joists will support over 10% more load than S4S joists surfaced to 1 5/8" thickness.

Architects who specialize in the design of homes and small structures find in Weyerhaeuser 4-Square S2E Joists the strong, stable, load bearing members they need for sound construction.



Other SPECIAL 4-SQUARE LUMBER PRODUCTS

DRIFTWOOD, KNOTTY PINE, RIDGEWOOD AND KNOTTY CEDAR PANELING • END-MATCHED SHEATHING, SUB-FLOORING, HEMLOCK FLOORING (Hardwood Pattern), FIR AND HEMLOCK CEILING, DROP SIDING, FLOORING • FABRICATED PARTS • TREATED LUMBER • NU-LOC STUDS • CLEAR-TYPE DIMENSION • HEART DIMENSION • GLUED-UP LUMBER • WOOD GUTTER • LOG CABIN SIDING • S2E JOISTS • PICTURE WINDOW FRAMING • FIR CORNER MOLDING.

Design for
**COMFORT, BEAUTY
and ECONOMY**
with
**SPECIAL 4-SQUARE
LUMBER PRODUCTS**

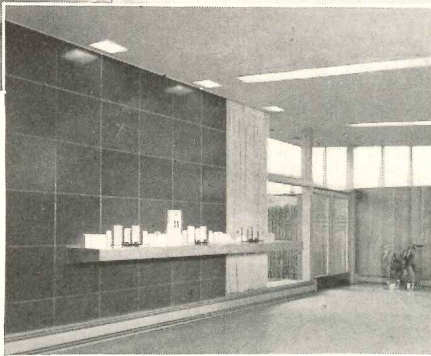
Weyerhaeuser 4-Square

LUMBER AND SERVICES

WEYERHAEUSER SALES COMPANY
ST. PAUL 1, MINNESOTA

WASHINGTON

(Continued from page 174)



Photographs by Dearborn-Massar

In the University National Bank, Seattle, Washington, the architects selected SEAPORCEL ARCHITECTURAL PORCELAIN ENAMEL for the coping and interior and exterior walls. Smith, Carroll and Johanson were the architects, Henrik Valle Company, Inc., the contractors.

Banking On Seaporcel

The American Bankers Association reports that ten new drive-in banks are being put into operation every working day. For this type of construction—as for stores, commercial and public structures (especially for spandrels and mullions), in fact wherever beauty and durability are requisites—SEAPORCEL ARCHITECTURAL PORCELAIN ENAMEL means strength, economy in cost, and the attractiveness of fadeless color.

Exteriors of SEAPORCEL produce a complete range of architectural design; interiors of SEAPORCEL result in the environment that attracts customers and pleases personnel.

SEAPORCEL architectural parts, which include a full range of shapes, are obtainable in such versatile surface textures as "terra cotta," "limestone," "granite," in semi-matte, matte or glass finishes in any color or shade with the exception of the metallic.

Write today for catalog showing applications and current jobs.

SEAPORCEL METALS, INC.

Formerly Porcelain Metals, Inc.

28-02 Borden Ave., Long Island City 1, N. Y.

Complete A. F. of L.-Metal Fabricating & Enameling Shop

West Coast Representative: McFarland & Co., 1206 West 7th St., Long Beach 13, Calif.



argued that the loan functions are complementary to other HHFA activities. For one thing, the FHA insures loans for prefab manufacturers as well as insuring mortgages for the mass produced houses when they are erected and sold.

Said the Truman message: "Thus, the successful operation of the program of loans for the manufacture of prefabricated houses depends to a large extent on the ready availability of mortgage insurance by the FHA as the primary means of assuring permanent financing for their sale. . . ."

"The HHFA, in cooperation with the National Security Resources Board, should be in a position to encourage peacetime emergency requirements of the future."

Meanwhile, the private prefab industry was doing far more than just hanging on in the present market. Prefabricated Home Manufacturers Institute reported that all shipments of prefabricated units during the first five months of 1950 numbered more than 20,000. This was an increase of more than 220 per cent over the same 1949 period. The 6000 units shipped in May alone represented a 50 per cent increase over April and a 235 per cent increase over May of a year ago. The Institute is confident the industry will make a new and proud record for itself when all 1950 activity is summarized.

Shorts

- The picture with respect to National Labor Relations Board jurisdiction over the construction industry continued to be almost as confusing as ever. There were a number of "clarifying" releases from NLRB headquarters, including statements by General Counsel Denham. But trade opinion seemed to agree that these for the most part tended to further cloud the issues. One thing was certain — the rift between NLRB members and their general counsel was wide as ever. And this disagreement stems in no small measure from the widely divergent views concerning building industry cases.

- Some of the bigger contracting firms were beginning to show postwar profits, a new experience since 1945. Thompson-

(Continued on page 178)



Of dogs
and dens...



Patterns.
100 Sun Dawn, 703 Coal Frost

... start the room idea
with easy-to-clean

Fremont Rubber Tile!

Here's a "rough customer" to consider when you plan den flooring. Start the room scheme right with smart, durable Fremont Rubber Tile. Your choice of seventeen fade-resistant colors makes color planning easy. Even under hard wear Fremont Rubber Tile stays sparkling new for the colors go clear through. Formal or informal, make your next beautiful den beginning with Fremont Rubber Tile. It's smart from the start!

Fremont Rubber Company

309 McPherson Highway, FREMONT, OHIO

MAKERS OF: Rubber Tile • Rubber Tile Adhesive • Vinyl Plastic
Cove Base • Rubber Rugs • Sponge Rubber Rug Cushion
Plastics • Foam Rubber

Please send me without obligation a copy of your full-color brochure, "Fremont Opens the Door".

NAME _____

FIRM NAME _____

STREET ADDRESS _____

CITY _____ STATE _____

For Beauty — Stability — Permanence
Design with PERMACLAD STAINLESS CLAD STEEL



**This New Material Cuts Costs —
 Adds Corrosion Resisting Beauty**

PERMACLAD STAINLESS CLAD STEEL is an entirely new and different product. It combines the surface characteristics of stainless steel with the easy forming qualities of mild steel, providing corrosion resistance at decreased costs.

The stainless layer is usually 10% or 20% of the total thickness but the percentage of cladding can be increased or decreased if required.

PERMACLAD is noted for its eye appeal and corrosion resistance. This is why more and more architects are specifying PERMACLAD for modern building facades, doors, panels, shower stalls and interiors.

PERMACLAD is economical, too. It costs less than other corrosion resistant materials but it provides all the important advantages. Reduction of weight is possible through the use of A.W. Dynalloy, low alloy, high strength steel as a backing for PERMACLAD in place of ordinary mild carbon steel.

For additional information and a free copy of our 8-page technical data folder write to Alan Wood Steel Company, Conshohocken, Pa. Ask for Folder P-20.

PERMACLAD
 STAINLESS CLAD STEEL

A Product of
ALAN WOOD STEEL COMPANY
 CONSHOHOCKEN, PA.

Other Products: A.W. ALGRIP ABRASIVE Floor Plate • A.W. SUPER-DIAMOND Floor Plate • Billets • Plates • Sheets • Strip • (Alloy and Special Grades)



The Finer
 The Finish, The
 Finer The Product
 Use
 PERMACLAD

THE RECORD REPORTS

WASHINGTON

(Continued from page 176)

Starrett Co., Inc., reported net income of \$199,239 for the fiscal year ended April 30. This operating profit was the first shown by the concern in six years.

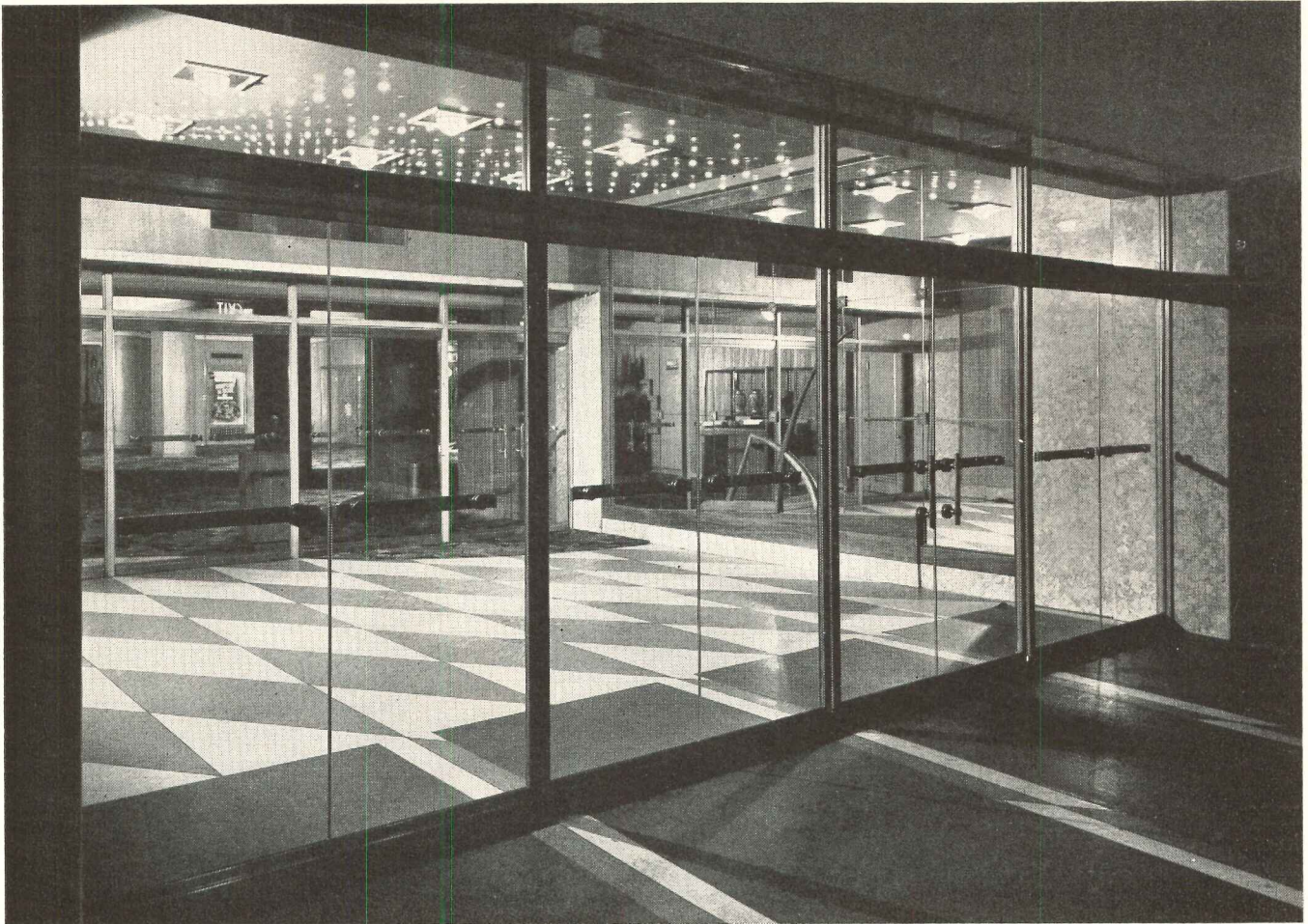
- Reconstruction Finance reported its May sales of FHA-insured and VA-guaranteed mortgages amounted to \$65.8 million. Outstanding commitments to purchase mortgages amounting to \$33 million were cancelled during the month. This resulted in a transfer from government financing to private financial institutions of mortgages aggregating approximately \$98.8 million. It was estimated that potential impact on the federal budget was decreased by more than \$3.5 million as a result of the activities of the Federal National Mortgage Association during May.

- Announcements of new approvals in both the public housing and slum clearance programs were coming with increasing frequency. A batch of 30 different planning loans for public housing programs was announced in one afternoon. The President gave his final sanction to the planning of 4691 low-rent homes for housing 18,760 persons in low-income families. Loans authorized totaled \$1,456,400. They will enable housing authorities in 17 states to plan more than \$39,873,000 worth of low-rent public housing.

- Enactment of the federal rent control extension measure keeps in force until June 30, 1951 the veterans preference regulation governing new housing construction. Under it veterans of World War II are given 30 days preference to buy or rent new housing not built for owner occupancy. The Office of the Housing Expediter, charged with enforcement, reminded that this is in effect nationwide. Included are areas not under rent control and the District of Columbia, which has its own rent control.

- One of the most comprehensive research projects authorized among the many in the housing agency's new program is that covering costs of marketing building materials. Every aspect of this

(Continued on page 180)



Valentine Theater in Toledo, Ohio. Architects: Rapp and Rapp, Chicago.

How to make a Good Impression

How does a person feel about a building he enters or leaves? Does he peg it as smart? Or dowdy?

The entrance has a lot to do with it . . . which probably explains the ever-growing use of *Tuf-flex** doors for stores, theaters, banks, hotels, apartments, offices and many other buildings.

These doors combine transparency with toughness. *Tuf-flex* doors are $\frac{3}{4}$ "-thick plate glass, tempered to make them 3 to 5 times stronger than regular plate. They're made to stand constant usage.

They build traffic, too—a value store owners have discovered. These clear doors

accent the invitation of the Visual Front—the wide-open front that has won such favor in modern store design.

All *Tuf-flex* doors are furnished complete, equipped with bronze or alumilited aluminum fittings, which are designed to receive standard pivot hinges and other builders' hardware. *Tuf-flex* doors are available in a variety of designs and hardware finishes to meet your requirements.

For full information—sizes, hardware and installation details—see your L·O·F Distributor. And mail the coupon below for a copy of our book on *Tuf-flex* doors.

*®



TUF·FLEX

Tempered

Plate Glass DOORS

MADE ONLY BY LIBBEY • OWENS • FORD GLASS COMPANY
6685 Nicholas Building, Toledo 3, Ohio

Libbey • Owens • Ford Glass Company
6685 Nicholas Building, Toledo 3, Ohio

Please send me a copy of your book showing uses of *Tuf-flex* doors, as well as your installation detail folder.

Name _____

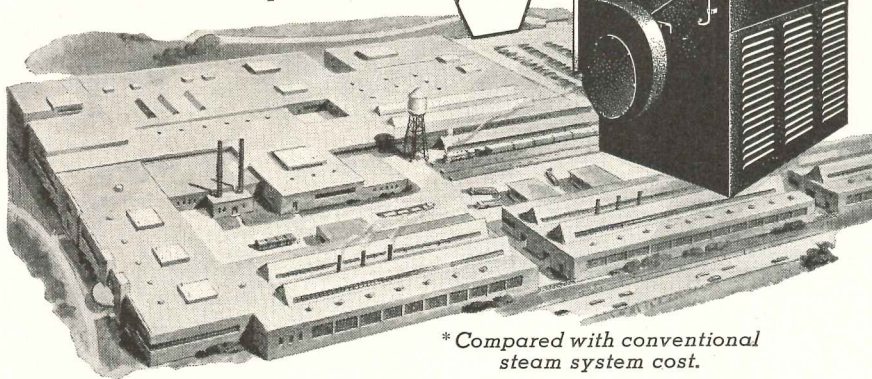
Company _____

Address _____

DRAVO HEATERS

*Saved \$530,000**

*in mammoth
new auto plant*



** Compared with conventional
steam system cost.*

Half a million is important money in anybody's language—and it gets more important when it's **SAVED** instead of spent.

That's just what happened when a leading automobile manufacturer recently built a mammoth new body plant, with over 600,000 sq. ft. of floor space, and with ceiling heights ranging up to 52-feet. Heat requirements, including fresh air tempering provisions, totalled 54,250,000 Btu. Lowest quoted price for a conventional steam boiler plant was \$860,000. **ACTUAL** cost of a complete Dravo *Counterflo* Heater installation of 53 units was \$330,000. These direct-fired warm-air heaters take care of all open-space heating requirements of the manufacturing area of the plant.

Bear in mind that these savings involved no compromise with heating effectiveness. The top-flight engineers responsible for selection knew how vital *comfort* is in keeping employes contented and promoting top output. They looked *first* for the finest in heating results . . . and *second* for economies. They found both profitably combined in Dravo Heaters.

Neither did this saving come from "cutting corners" in building the heater, but rather through the basic simplicity of method and equipment. Each of the oil-fired space heaters manufactures heat "on demand" to blanket its own assigned area with warmth. It also introduces fresh, tempered air into the building as needed. Modulating burner controls permit continuous operation and continuous air circulation. This minimizes temperature fluctuation, assures maximum comfort in all weathers, and conserves fuel—for when any section needs **LESS** heat, its unit burns **LESS** fuel. Units all have the Underwriters' Laboratories label. They can be converted from oil to gas, should the fuel situation make this desirable.

This spectacular saving has been duplicated on a lesser scale in thousands of smaller plants. If you are concerned with heating any new or old building, you owe it to yourself to find out how Dravo *Counterflo* Heaters are serving and saving for others . . . and how they can save both system costs and operating costs for **YOU**. Look in the yellow section of your phone book—or write us direct at Dravo Building, Pittsburgh 22, Pa., for Bulletin FH-523-68

DRAVO CORPORATION

Sales Representatives in Principal Cities

Mfd. and sold in Canada by Marine Industries, Ltd. Sorel, Quebec

Export Associates: Lynch, Wilde & Co., Washington 9, D. C.



THE RECORD REPORTS

WASHINGTON

(Continued from page 178)

subject will be studied by the University of Pennsylvania. The Philadelphia metropolitan area will be used as the initial laboratory. The study may branch out into other cities, however. A sum of \$40,000 is being laid out by HHFA to support the study, which is expected to require four years. This research looks toward the eventual lowering of housing costs and sale prices as its goal.

- The President's veto of the so-called basing point bill gave rise to much speculation on future pricing practices. It seemed certain that further plant expansion would be encouraged as manufacturers sought to locate near their markets. Chairman Edwin C. Johnson (D-Colorado) of the Senate's Commerce committee, promptly announced he would appoint a special watchdog committee. This group will exercise constant vigilance over Federal Trade Commission activities connected with industrial pricing. Senator Johnson for the most part was critical of FTC's "frequent shifts" in policy on the basing point question.

- Federal government agencies and departments took official notice of the increasing trend in building material prices but on the whole appeared unconcerned that any great inflationary spiral was in the making. The FHA urged builders to avoid gray market offers and above all warned against permitting any hysteria to develop. The Commerce Department, through its Survey of Current Business, said expanding volume of residential building during the past winter and first half of 1950, with the rising public construction volume, was responsible for advances in both prices and production of building items.

- A Securities and Exchange Commission survey of the intentions of American business disclosed that plant and equipment expenditures for the first half of 1950 were expected to amount to \$12.7 billion when all the figures were in. This would be only six per cent under the first half period outlays of 1949. An earlier Commission survey had indicated the difference would be 11 per cent in favor of 1949.

(Continued on page 182)



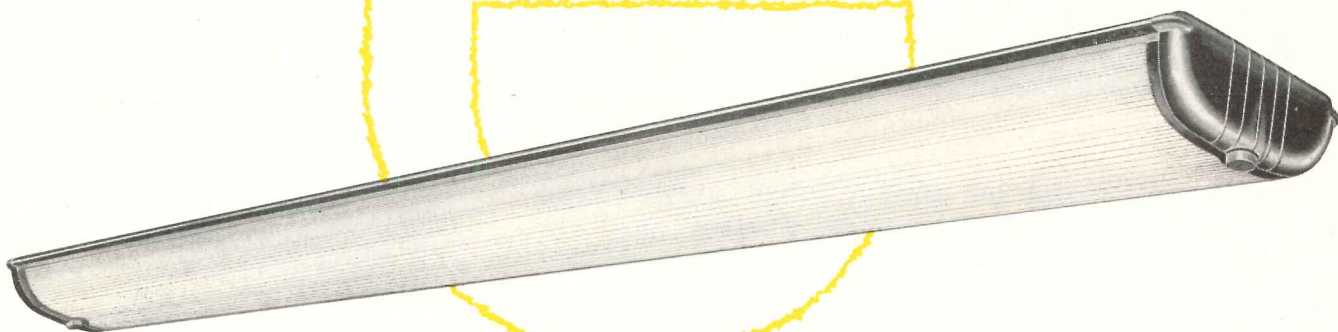
THE WASHBURN TUNNEL, PASADENA, TEXAS

Strategically located, this new 3791-foot vehicular tunnel burrows beneath the Houston ship channel to link the cities of Pasadena and Galena Park in Harris County Texas.

Completely surfaced with glossy ceramic tile, the curved walls and two-way thoroughfare are evenly illuminated by over 500 2-lamp SUNBEAM slimline fixtures. Specially designed by SUNBEAM to meet tunnel specifications, these units are mounted in continuous rows throughout the full length of the tunnel.

Palmer & Baker, Consult. Engineers — W. H. Pry, Elect. Engineer — Pfeiffer Electric Co., Elect. Contrs. — Merritt, Chapman & Scott Corp., General Contractors.

SUNBEAM'S NEW FIXTURE SPECIALLY DESIGNED FOR TUNNEL LIGHTING



Constructed entirely of aluminum extrusions and castings, this new unit (2200 series) features a one-piece, clear-ribbed polystyrene plastic panel which is supported along its entire length in interlocking aluminum extrusions which are gasketed to inhibit water seepage. Designed to take from one to four 72" slimline lamps in any milliamp rating including 430MA, this new unit has been constructed especially for installations in any area where atmospheric conditions warrant special considerations. For complete technical and mechanical information write:



SUNBEAM LIGHTING COMPANY • 777 EAST 14TH PLACE • LOS ANGELES 21, CALIFORNIA

THE RECORD REPORTS

(Continued from page 180)

ON THE CALENDAR

Through Sept. 4: "Three Modern Styles," an exhibition of painting and sculpture, Museum of Modern Art, 11 W. 53rd St., New York 19, N. Y.

Through Sept. 4: Chicago Fair of 1950, dramatizing the achievements of science, agriculture, and industry.

Aug. 13-16: National Planning Con-

ference, American Society of Planning Officials, Hotel Biltmore, Los Angeles, Calif.

Aug. 27-Sept. 2: 20th International Congress for Housing and Planning, City University, Amsterdam, The Netherlands.

Sept. 9-17: National Home Furnishings Show, Grand Central Palace, New York, N. Y.

Sept. 18-21: 52nd Annual Conven-

tion, American Hospital Association, Atlantic City, N. J.

Sept. 28-30: Annual Convention, California Council, The American Institute of Architects, Ahwahnee Hotel, Yosemite National Park.

Oct. 1-Nov. 1: First Annual Exhibition, Society of Contemporary Designers, California State Exposition Bldg., Los Angeles, Calif.

Oct. 16-19: 17th Annual Meeting, National Association of Housing Officials, Hotel Statler, Detroit, Mich.

Oct. 23-26: 1950 Convention, Structural Clay Products Industry, Broadmoor Hotel, Colorado Springs, Colo.



Holabird and Root and Burgee, Architects

to make shopping as comfortable and convenient as possible...Wieboldt Stores use International-Van Kannel Revolving Doors.

There are six stock steel International-Van Kannel Revolving Doors at the new Wieboldt Evanston store . . . designed to make Wieboldt's the most accessible . . . the most convenient . . . the most comfortable department store in the entire area. Wieboldt Stores, Inc., have used revolving doors in their other stores for more than 33 years.



REVOLVING
INTERNATIONAL-VAN KANNEL
DOORS
1806 EDGAR STREET EVANSVILLE 7, IND.

OFFICE NOTES

Offices Opened, Reopened

- Welton Becket, A.I.A., director of the architectural firm of Wurdeman and Becket, has announced the opening of a branch office in San Francisco, at 507 Howard St. The new office will be headed by Firman Meyers and Griswald Raetze, A.I.A.

- Walter P. Blum, Architect, announces the opening of his offices at 4801 Lemmon Ave., Dallas, Tex.

- "Interiors for Living" has opened showrooms at 1147 Merchandise Mart, Chicago. Mrs. Odien Steele Hughes is Director.

- Slater and Chait, Architects, have opened new offices at 15 Park Ave., New York, N. Y.

- Charles Wagner, Architect, has opened an office at 417 W. Church Ave., Knoxville, Tenn.

- Emanuel Weisfeld, R.A., architect and industrial design consultant, announces the opening of his office at 207 E. 37th St., New York 16, N. Y.

New Firms, Firm Changes

- The partnership of Alcox and Stritzel, Architects, has been dissolved. Frederick Stritzel, Architect, is continuing his office at 539 Town St., Columbus, Ohio.

- Lee Burns and David V. Burns announce the continuation of their partnership as architects with the name of Burns and Burns at 333 N. Pennsylvania St., Indianapolis, Ind.

- Alex Danin and Kenneth D. Wheeler wish to announce the formation of a

(Continued on page 184)



**WIEBOLDT'S ADDS THE BEAUTY OF
FLUSH TYPE SPRINKLER HEADS**

VIKING

Wieboldt's achieved the ultimate in beauty . . . provided maximum fire protection by using Viking Flush Type Sprinkler Heads. You too can leave the architectural beauty of your next building unspoiled . . . yet provide maximum fire protection, by specifying Viking Flush Type Sprinkler Heads. Viking Flush Type Heads are unobtrusive . . . but they're always ready when trouble comes. Call your nearest Viking representative or write direct if you need assistance in the planning, engineering or installation of a sprinkler system.

Viking Devices are approved by Underwriters' Laboratories and Factory Mutual Laboratories.



THE VIKING CORPORATION, HASTINGS, MICHIGAN

THE RECORD REPORTS

(Continued from page 182)

partnership for the general practice of architecture under the firm name of Danin & Wheeler, Architects, at 1837 Victory Blvd., Staten Island 14, N. Y.

• William K. Duryea and E. Hartzell Elkins announce the forming of a partnership to practice architecture under the name of Duryea and Elkins. Their offices are located at 910½ Westheimer, Houston, Tex.

• Hardy S. Ferguson has joined the Pulp and Paper Engineering Division of The H. K. Ferguson Co., Industrial Engineers and Builders, as a consultant. Mr. Ferguson recently terminated his own engineering concern, long active in engineering and design of pulp and paper facilities. Several of the principal engineers in his organization have also joined the H. K. Ferguson Co.

The company has announced an ex-

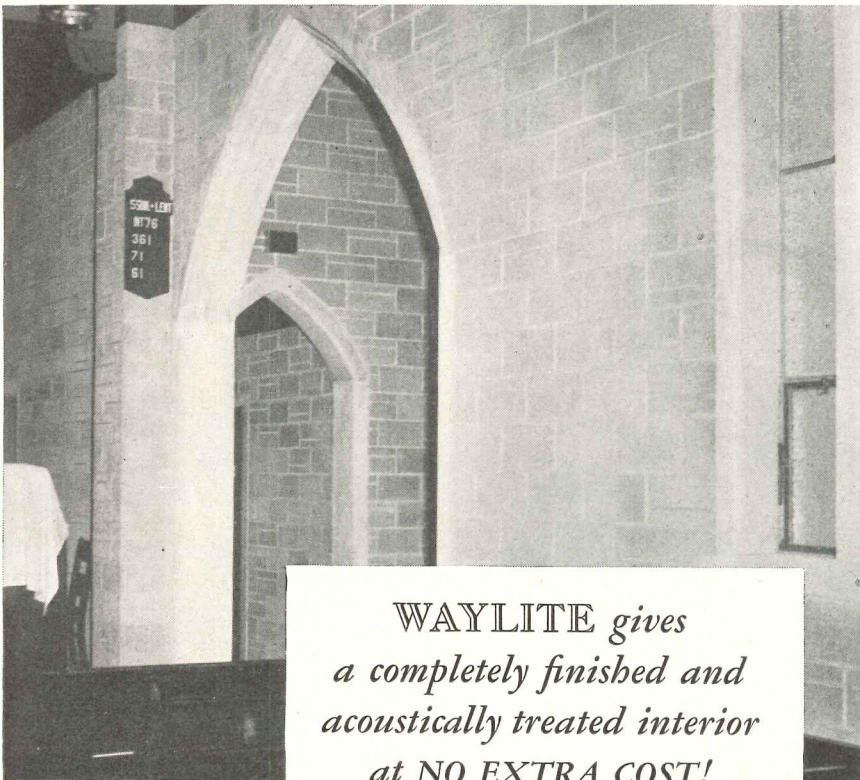
pansion of its Eastern District Office at 19 Rector St., New York, N. Y.

• James L. O'Bryan, Earl R. Wilson, and Robert E. Earnheart announce the formation of a partnership under the name of O'Bryan, Wilson & Earnheart, Architects, at 1135 Minnesota Ave., Kansas City, Kans.

• Tillman Scheeren Jr. and Walter F. Rittenhouse announce the formation of a partnership for the practice of architecture under the firm name of Scheeren & Rittenhouse, with offices at Boarts Bldg., 110 N. McKean St., Kittaning, Pa.

WAYLITE interior Zion Evangelical Lutheran Church, Chicago

Architect: Herbert Brand • Contractor: Crouch-Walker



WAYLITE gives
a completely finished and
acoustically treated interior
at NO EXTRA COST!

A Waylite masonry structural wall with the interior surface left exposed provides a 3-fold advantage for many types of structures. The soft lights and shadows of the textured grey surface are attractive. Waylite masonry has a noise coefficient of up to 50% and provides adequate acoustical treatment. It is a very economical architectural treatment because plaster or other finishes are eliminated.

You'll find such walls useful in churches, theatres, schools and many other types of buildings. You pay only for a structural wall and without further cost you have an attractive interior surface—completely finished—and acoustically treated!

For further information address Waylite Company, 105 W. Madison Street, Chicago 2, or Box 30, Bethlehem, Pennsylvania.

WAYLITE
MASONRY UNITS

New Addresses

The following new addresses have been announced:

Mario J. Ciampi, Architect, Suite 503, 425 Bush St., San Francisco 8, Calif.

Robert T. Coolidge, Architect, 200 Blake Rd., Hamden 14, Conn.

David Fried, Architect, 262 Washington St., Boston, Mass., in association with Archie Riskin, Architect.

Cecil A. Martin, A.I.A., Architect, 503 Karbach Block, 15th and Douglas, Omaha 2, Neb.

Andre Merle Assocs., Registered Engineers, 1424 K St., N.W., Washington, D. C.

ELECTIONS APPOINTMENTS

• Gail A. Hathaway, special assistant to the Chief of Engineers, Department of the Army, has been nominated as 1951 president of the American Society of Civil Engineers. Confirmation of his nomination by letter ballot of the membership is scheduled for later in the year.

• Appointment of George I. Bottcher as chief engineer of Allegheny Ludlum Steel Corp. has been announced. J. F. Chapman and R. E. Smith have been named as assistants to the chief engineer.

• George A. Bryant, president of The Austin Co., engineering and construction organization with headquarters in Cleveland, has been named a member of the Board of Trustees of Oberlin College.

• Ralph L. Goetzenberger, representing the Engineers' Council for Professional Development, has been elected chairman of the Citizens' Federal Committee on Education, an organization devoted to

(Continued on page 186)

How to cut costs when drafting revisions are necessary



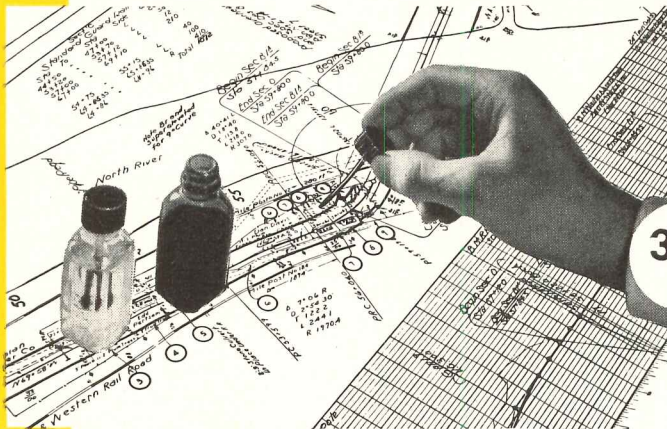
* A case history based on the experience of the Virginia Department of Highways



1

Long-lasting intermediates are assured. In a "permanence test" made by the Virginia Dept. of Highways, an Autopositive print was left on a roof top for 36 days. During this time this photographic intermediate was exposed to 200 hours of sunlight . . . 6.88 inches of rain. Despite all of this abuse it was declared "good as new."

Proof, indeed, that "Autopositives" will stand up under less trying, normal conditions . . . will remain intact in the files year after year . . . ready to produce sharp, clean blueprints whenever needed.

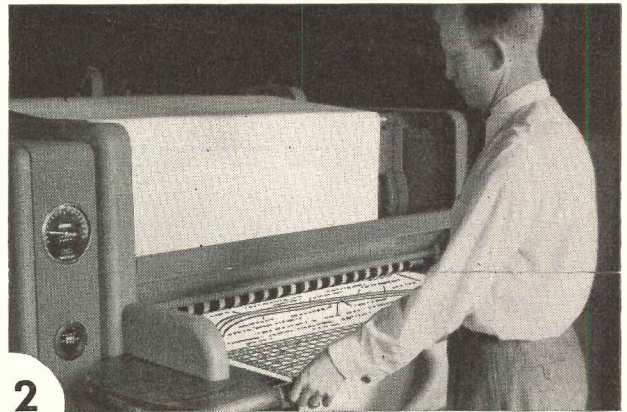


3

TODAY the State of Virginia is engaged in a long-range Highway Zoning Program which necessitates changing thousands of drawings to include proposed right of ways.

How to do the job most economically was an important question: Retracing was ruled out—too slow, too expensive. The use of intermediate prints was considered next. They had to be long-lasting . . . easy to make . . . easy to revise.

Here's why Kodagraph Autopositive Paper was chosen for the job:



2

Photographic intermediates are produced at a new low cost. When "Autopositive" is used, positive photographic intermediates are produced *directly* without a negative step, without darkroom handling. Maximum efficiency is realized by the Virginia Dept. of Highways because its "Autopositives" are turned out automatically . . . in a continuous blueprint machine, which can be converted readily for Autopositive production.

Drafting revisions are easily made. Unwanted details—such as existing right of ways—are removed quickly from "Autopositives" with corrector fluid. Then the proposed right of ways are drawn in with pencil or ink. Thus, new masters—prepared without costly redrafting—are ready to turn out the blueprints needed for county supervisors and resident engineers.

Kodagraph Autopositive Paper "The Big New Plus" in engineering drawing reproduction

- It enables you, or your local blueprinter, to produce positive photographic intermediates at a new low cost.
- It enables you to protect valuable originals from wear and tear . . . obtain more legible final prints.
- It gives you photo-lasting file copies.
- It restores old, worn drawings . . . reproduces opaques.

EASTMAN KODAK COMPANY
Industrial Photographic Division, Rochester 4, N. Y.

Gentlemen: Please send me a copy of your illustrated booklet giving all the facts on Kodagraph Autopositive Paper.

Name _____ (please print) Position _____
 Company _____
 Street _____
 City _____ State _____



THE RECORD REPORTS

(Continued from page 184)

improving educational standards and practices throughout the United States. Mr. Goetzenberger, vice president of the Minneapolis-Honeywell Regulator Co., has just completed a term as secretary of the council.

• Leaders in the construction industry, real estate, racial relations and community activities were elected to the Board of Directors of the Citizens'

Housing and Planning Council of New York at its 13th annual meeting.

New members elected included Paul T. O'Keefe, vice president of the real estate firm of James Felt and Co.; Reginald A. Johnson, director of field services of the National Urban League; Mark A. McCloskey, director of the division of Community Education of the Board of Education; I. Roy Psaty of the construction firm of Psaty and Fuhrman,

Inc.; Allison Lunham, associate professor of law at Columbia University; and Sylvia W. Stark, statistical expert.

Among those reelected to the Board were the Very Rev. Mgr. E. Roberts Moore; J. Clarence Lavies Jr., president of J. Clarence Lavies, Inc., real estate; Irving L. Lazere, vice president of the Wilaka Construction Co.; Edward S. Lewis, executive director of the Urban League of Greater New York; Albert Pleydell, former Commissioner of Purchase of New York City; Dr. Robert W. Searle, editor of *The Protestant World*; and Mrs. Raymond V. Ingersoll, civic leader.

• The appointment of Roland M. Sawyer of Pittsburgh to the newly-created post of administrative officer for minority group housing has been announced by Commissioner Franklin D. Richards of the Federal Housing Administration.

• Earl V. Harlow has been appointed engineering assistant to Walter F. Perkins, vice president and general manager of the Metal Products Division of Koppers Co., Inc.

• Charles Newton Kimball, Sc.D., has been elected president of the Midwest Research Institute. Other officers are: George E. Ziegler, Ph.D., director of research; Leon T. Swan, vice president and treasurer; S. C. Lechtman, secretary; and V. L. Barnett, assistant treasurer.

• Jan Juta has been elected president of the National Society of Mural Painters for 1950-51. Other officers are: Dean Cornwell, first vice president; Nils Hogner, second vice president; Ethel Parsons Paullin, secretary; Hanley Henoch, treasurer. Directors are Hildreth Miere, Allyn Cox, Paul C. Robertson, Lumen Martin Winter, and Helen Treadwell.

• The chief officers of the National Association of Building Owners and Managers for the coming year, elected at the Association's 43rd annual meeting in Seattle, will be: James F. Cook Jr., St. Louis, president; James M. Bradford, Seattle, first vice president; and Sterling H. Bigler, Philadelphia, secretary-treasurer.

• The firm of Guy B. Panero Engineers has been selected by Societa Generale Immobiliare to perform engineering services for one of the largest hotels to be built in Rome since the end of the war. Representatives of the Panero firm

(Continued on page 188)

Which Tile Should You Specify?



COMPARE WITH ALL OTHERS...



CHECK THESE SALES FEATURES!

Features listed below have an important bearing on the amazing success dealers, contractors and architects are experiencing with *HASTINGS alumitile*, the exciting, modern, new wall facing. You, too, can enjoy increased profits from handling and recommending this well known line.

1. *Alumitile* is formed *after* it is painted—an unusual feature. Won't chip, crack, peel or corrode. Enamel finish permanently bonded to aircraft aluminum.
2. Over 25 different shapes and sizes of tile. *Count them and compare* with the number offered in other makes. Inside and outside corners, bases, caps, stripes, triangles; matching switch plates.
3. Fourteen vital colors, available in tile of various patterns, for attractive lettering and unusual designs. Does the tile you are handling have this "self-decorating" feature? Can you do lettering with it, as you can with *alumitile*?
4. *Fireproof, rustproof, waterproof.* Resistant to common acids. No unsightly mortar lines to collect dirt and grease. Easy to clean . . . sanitary . . . beautiful. Guaranteed long life.
5. Adapted to both *interior and exterior* use, with a choice of finish. Serves countless uses for homes, institutions, commercial buildings. Compare *alumitile* with other tile for flexibility.
6. *Light in weight* . . . 120 sq. ft. weigh only 37 lbs. Easy to handle, lower shipping costs. Strength without bulk . . . requires less storage space. Easy to apply . . . saves labor hours.

VERSATILE TILE CUTTER

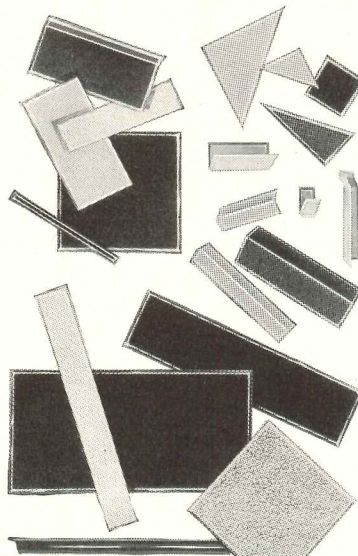
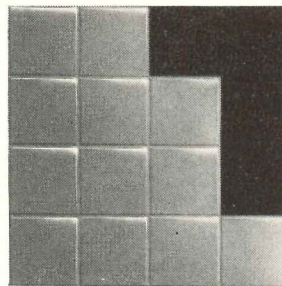
A handy tool that applicators who have used it would not be without. Trims and makes a perfect factory bevel. Four dies in one . . . cuts as small as $\frac{5}{8}$ " and up to 10". Does a professional job. Supplied by Metal Tile Products as one of the "extras" for which *alumitile* is famous.

The St. Joseph Hospital of Bangor, Maine, writes of *HASTINGS alumitile*, "We are happy to announce what satisfaction and pleasant atmosphere it brought and how daily maintenance problems have been cleared right along." The Atlanta Biltmore Hotel says, "After extensive and rigid tests, we decided to install *alumitile* throughout the hotel."

WRITE TODAY!



METAL TILE PRODUCTS, INC.
HASTINGS, MICHIGAN
USE HANDY COUPON



METAL TILE PRODUCTS, INC. Department 802, Hastings, Michigan

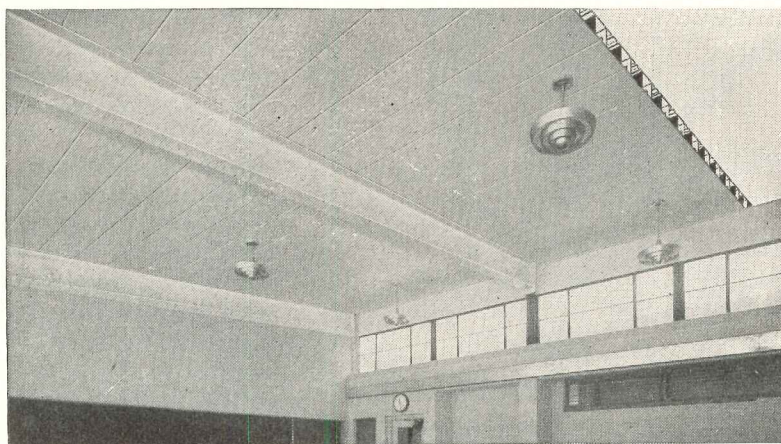
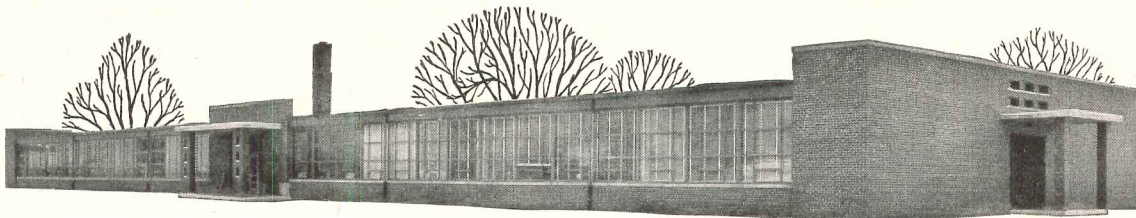
I should like to know more about your products.
I am a Distributor, Dealer, Architect,
 Contractor.

Name _____

Address _____

City _____ State _____

How to Slash the Cost of Structural Steel in Schools



Bendle School at Flint, Michigan, where the two flat surfaces of "AD" Panels form the ceilings and roof. *Architect:* Bennett & Straight, Dearborn. *Contractor:* Perry-Root Company, Flint.

Lower illustration shows how side laps interlock to form smooth, flat ceilings, strong, flat roof. Panels standardized in 16" width. Depths 3", 4½", 6" and 7½". Gauges 16 to 13.

There are fewer purlins here . . . less expense. In many cases, both purlins and girders are completely eliminated. Just lay new, long-span Fenestra* "AD" Panels on supporting masonry . . . one of the quickest, strongest, most economical ways to build a one-story school.

Quickly laid without special skills, these good-looking lightweight metal panels interlock to give you a smooth, finished *ceiling*. So builders paint instead of plaster. If you wish, Fenestra "AD" Panels can be perforated and backed with an insulating element to soak up sound.

"AD" Panels form the *roof*—over the strong,

flat surface, roofing goes on quickly, smoothly.

There's a low-cost, beautiful one-story school—clean-lined and easy to maintain. Economical to heat. Noncombustible.

Get the whole story about this remarkable, new method of school building. And the product that makes it possible . . . the multi-purpose panel package that is structural material, finished ceiling, strong, flat roof, built-in acoustical treatment, safety measure against fire—all in one.

Call your nearest Fenestra representative, listed in the yellow section of your phone book, or mail the coupon.

*Trademark

Fenestra

Panels • Windows • Doors

DETROIT STEEL PRODUCTS COMPANY
Dept. AR-8, 2252 E. Grand Boulevard
Detroit 11, Michigan

Please send me, without obligation, information on Fenestra Building Panels.

Name _____

Company _____

Address _____

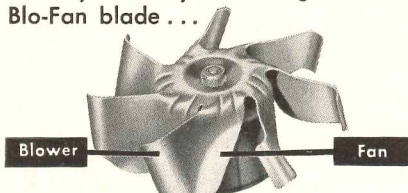
"Use Our 25 Years' Experience in Metal Panel Engineering"

Blo-Fan* really moves air!



This is somewhat extreme, but it's a fact that BLO-FAN moves more air than any conventional type of home ventilator!

It's easy to understand why when you study the design of the Blo-Fan blade...



Remember, if it hasn't got this blade, it isn't a Blo-Fan.

... This blade combines only the positive principles of both fan and blower. The fan element literally scoops up the air and feeds it to the blower element which expels it with great force. Actually, Blo-Fan lowers "shock loss" of the average blower to an irreducible minimum... That's why Blo-Fan moves more air at moderate speeds than either a fan or blower type ventilator...



And, on the subject of speed, Blo-Fan Model 210 is equipped with a 9-speed switch...

... At low to medium speeds, Blo-Fan handles the normal volume of steam and fumes easily, but for emergencies (like burning the toast or grease in the broiler), turn Blo-Fan to high speed and you can clear the room immediately.

This exclusive Blo-Fan feature allows the housewife to control the rate of ventilation in her home as easily as she controls the speed of her car!!!

Spot Ventilation at the Point of Air Pollution. For Kitchen, Bath, Game Room, and Laundry.

Blo-Fan

TRADE MARK REG.

THE MOST IMITATED HOME VENTILATOR IN AMERICA



Stocked by more than 600 wholesalers in 350 cities.

PRYNE & CO., INC. BOX R-8, POMONA, CALIFORNIA
Factories: Pomona, California; Newark, New Jersey
Warehouses: Los Angeles, San Francisco, Chicago, Atlanta

THE RECORD REPORTS

(Continued from page 186)

are now in Rome making preliminary engineer studies for the new 11-story hotel, which will contain 415 guest rooms and suites in addition to a residential wing with 62 apartments.

- F. B. Peckham has been named to head the newly-created Architects' Service Department of the United States Plywood Corp. The department will have representatives in the company's branches in principal cities.

- Martyn N. Weston has been reelected as president of the Brooklyn Chapter of The American Institute of Architects. Other officers elected are: Vito P. Battista, vice president; Andrew DiCamillo, treasurer; Harry Silverman, secretary. Directors elected are Maxwell A. Cantor, Joseph Levy Jr., Harry L. Yakel and Vincent Pellegrino.

At its annual convention, the chapter also approved the report of the Unification Committee in connection with the bylaws of the proposed Architects Council of New York City. The chapter's annual medal for excellence in design was awarded to the outstanding graduate student at Pratt Institute, Joseph A. Mertz.

COMPETITIONS

- Durham & Bates, general insurance agents of Portland, Ore., are offering prizes totaling \$1000 through the National Fire Protection Association for the best description of methods to provide ventilation to reduce fire and smoke losses from a basement fire in a typical mercantile store.

The contest, which is open to all except NFPA staff members and Durham & Bates employees, offers a first prize of \$500; second prize, \$250; and third prize, \$100. Three honorable mention prizes of \$50 each also will be among the awards.

Information is available from the executive office of the National Fire Protection Association, 60 Battery-march St., Boston 10, Mass. The contest closes Nov. 1.

Judges for the contest are: John J. Ahorn, director, department of fire protection and safety engineering, Illinois Institute of Technology; A. H. Baum, president, Building Officials Conference

(Continued on page 190)

THE NEW EQUITABLE SAVINGS AND LOAN ASSOCIATION BUILDING
IN PORTLAND, OREGON

Weather-conditioned with
the nation's largest
HEAT PUMP

Equipped throughout for
lasting efficiency with
JENKINS VALVES

The new Equitable Building in Portland, Oregon, presents an impressive array of "firsts" in ultra-modern construction.

Most notable innovation is the reverse cycle refrigeration—the intriguing new "Heat Pump"—for all-year air conditioning. This superbly engineered system either heats or cools the building, as needed, and in certain seasons, provides heating in some zones, and cooling with humidification in others, both at the same time.

To be economically practical, this highly flexible system must operate with unflinching efficiency. Every component was selected for dependable performance and exceptional durability.

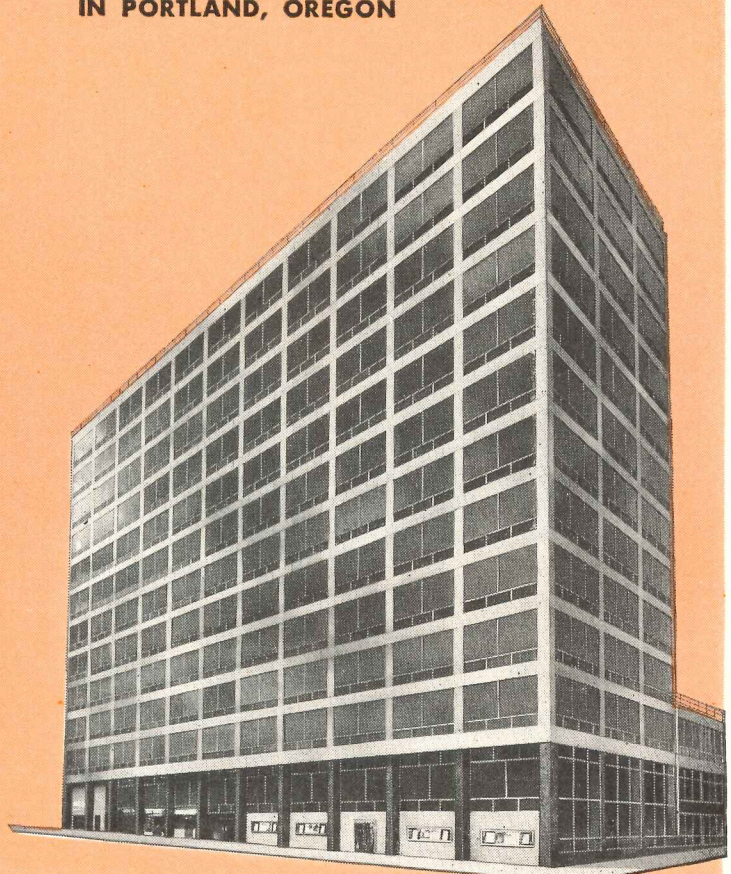
The choice of Jenkins Valves, 582 in all, for all pump and convector lines, and for general pipe-lines as well, is significant. It is further proof that leading architects, engineers, and contractors rely on Jenkins whenever the installation must meet the highest standards of efficiency and economy.

Despite their extra value, *you pay no more* for Jenkins Valves. For new installations, for all replacements, let the Jenkins Diamond be your guide to lasting economy.

Sold through leading Distributors everywhere.

Jenkins Bros., 100 Park Ave., New York 17.

Jenkins Bros., Ltd., Montreal.



Owner:
EQUITABLE SAVINGS & LOAN ASSOCIATION

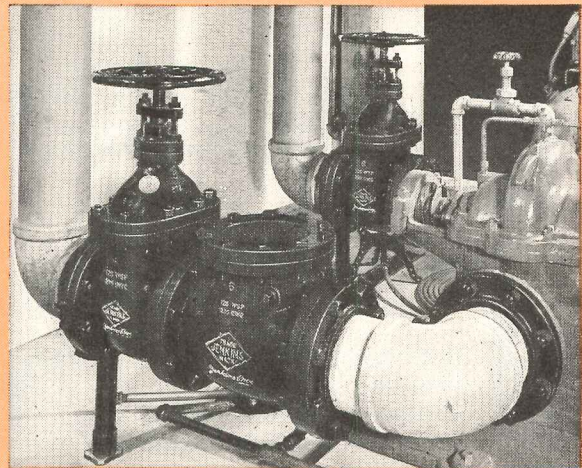
Architect:
PIETRO BELLUSCHI

General Contractor:
ROSS B. HAMMOND CO.

Consulting Engineer:
J. DONALD KROEKER

Mechanical Contractor:
P. S. LORD

Air Conditioning System:
THE TRANE CO.



JENKINS
LOOK FOR THE DIAMOND MARK
VALVES



Jenkins Bros.



EASTGATE APARTMENTS

DRIVE-IT "300" cuts fastening costs 50% on Big Boston Apartment Job!

Over 9000 drive-pins were used at the Eastgate Apartments to fasten ceiling runner channels to concrete "at a saving of over 50%" writes the contractor.

Drive-It is one of the greatest cost-cutting tools ever invented. Hundreds of letters attest to the fact that steel or wood to concrete or steel fastening can be done with Drive-It at savings of 50% to 85% in man-hour costs!

Every architect, building engineer and contractor should investigate the DRIVE-IT system of fastening. It is Underwriter Laboratories approved for efficiency and holding power and engineered for *super-safe* operation.

Clip the coupon below and let us tell you how you, too, can save *safely* with DRIVE-IT!

Distributors Coast to Coast
POWDER POWER TOOL CORPORATION
 0725 S. W. Woods Street Portland 1, Oregon
 (Canadian Distributor:) Ammo Power Tool Co., Ltd.
 Foot of McLean Drive, Vancouver, B. C.



DRIVE-IT "300"

ONLY DRIVE-IT "300" GIVES YOU ALL THESE FEATURES

- Controlled power with one power charge
- Positive, 3-way safety
- Uses flangeless drive-pins
- Permanent, adjustable safety pad
- Semi-silent operation
- Automatic extension barrel



APPROVED BY UNDERWRITERS' LABORATORIES

U.S. Pat. No. 1,984,117; 2,400,878 other patents pending



Send me the money-saving story of DRIVE-IT

Name _____
 Company _____
 Address _____
 City _____ Zone _____ State _____

POWDER-POWER TOOL CORPORATION, 0725 S. W. WOODS STREET, PORTLAND 1, OREGON

THE RECORD REPORTS

(Continued from page 188)

of America; Theodore I. Coe, technical secretary, American Institute of Architects; Ray C. Corson, Engineer, Standards Department, Factory Mutual Engineering Division, and chairman NFPA Committee on Building Construction; and A. J. Mullaney, chief fire marshal, Chicago, and past president, International Association of Fire Chiefs.

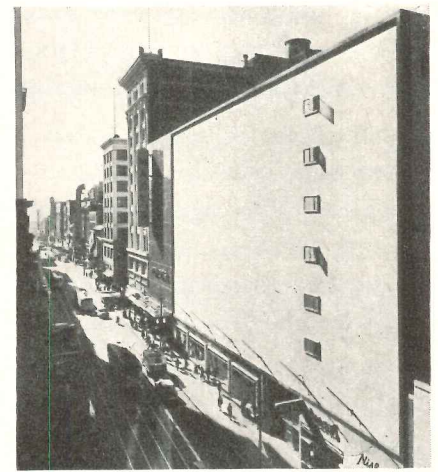
• Entries are due August 24 in the competition for the design of lamps sponsored by the Museum of Modern Art in cooperation with The Heifetz Co.

Prizes totaling \$2600 plus royalties are offered for the design of table lamps and floor lamps. The Heifetz Co. will manufacture at least three-quarters of the winning designs and these will be exhibited at the Museum early in 1951.

Program and entry blanks are available from: Miss Greta Daniel, Lamp Competition Director, Museum of Modern Art, 11 W. 53rd St., New York 19, N. Y.

AWARDS

• Architects Kivett and Myers of Kansas City have received the Medal Award of the Kansas City Chapter of The America Institute of Architects.



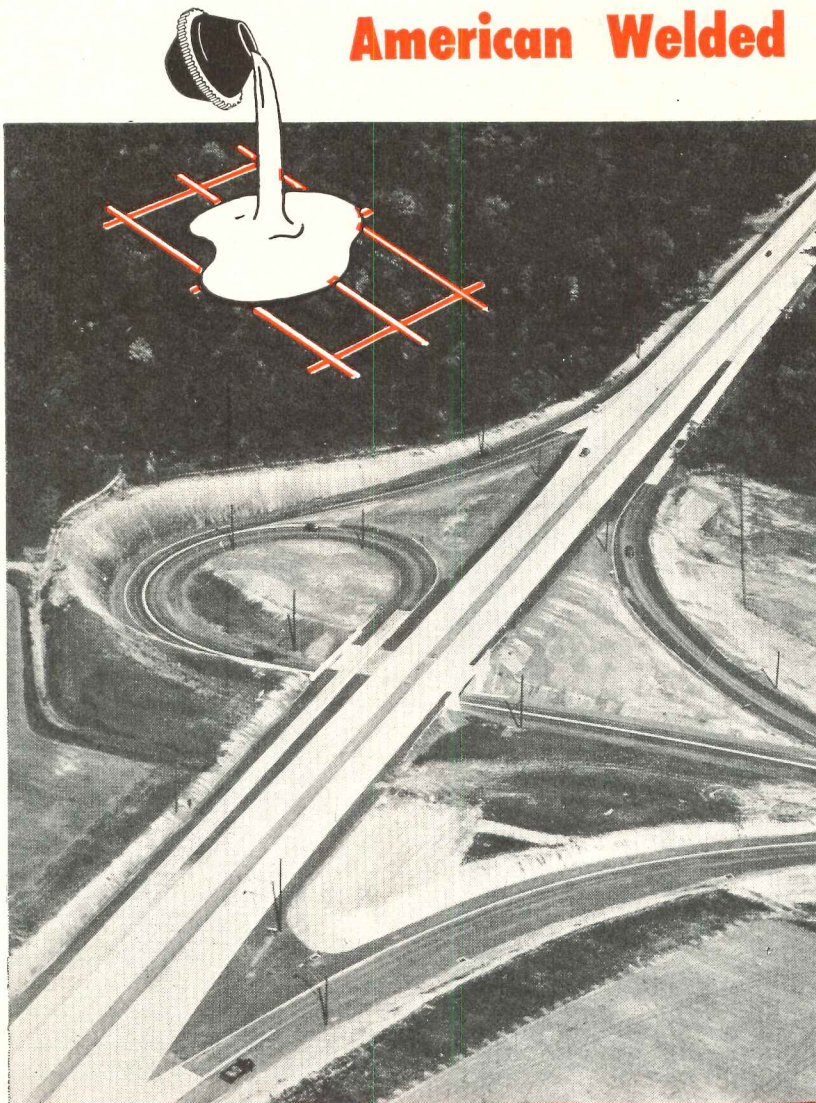
The award, given for the exterior design of Macy's, Kansas City, cited the store as the best example in commercial design for the year 1949.

• Quentin N. Hofman, 28-year-old University of Illinois architectural student, has been announced as the winner of a

(Continued on page 192)

On the Pennsylvania Turnpike

American Welded Wire Fabric



THE men who plan and build our modern concrete superhighways have helped to make American Welded Wire Fabric the world's most widely used reinforcement for pavement construction.

American Welded Wire Fabric keeps cracks that may form tightly closed—preventing progressive damage—distributes stresses, strains and impact in all directions.

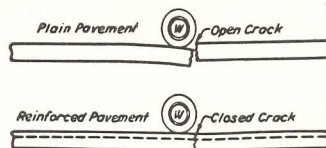
U·S·S American Welded Wire Fabric reinforcement in rolls or in flat sheets is easily handled, lies flat and stays in place. This means important savings in labor costs and construction time.

Standard styles of U·S·S American Welded Wire Fabric are available in every locality from jobbers' stocks when furnished in rolls. When flat sheets or special styles of fabric are required—you can depend upon our Donora, Pa. and Joliet, Ill., mills to maintain your construction schedules.

When you are planning any type of concrete construction, our technical staff will supply complete data on specific designs and standard styles of fabric that are most readily available. Literature containing valuable information is also available. Write to our nearest sales office today, you incur no obligation.

Longer paving slabs, fewer joints, improve riding qualities on concrete highways reinforced with American Welded Wire Fabric. Reduced rate of cracking, prevention of heaving and spalling, also reduce maintenance costs, increase service life of the highway.

As the wheel load approaches an open crack in plain pavement, one slab end carries the entire load. As the wheel load approaches the closed crack in pavement reinforced with American Welded Wire Fabric, both slab ends, instead of one, carry the load, preventing damage to the slab and to the subgrade.



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

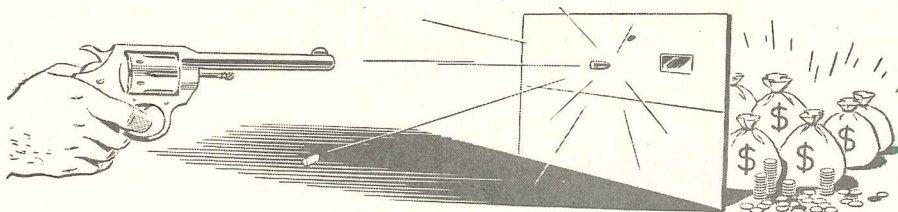
Every concrete paving job needs

AMERICAN WELDED WIRE FABRIC

reinforcement

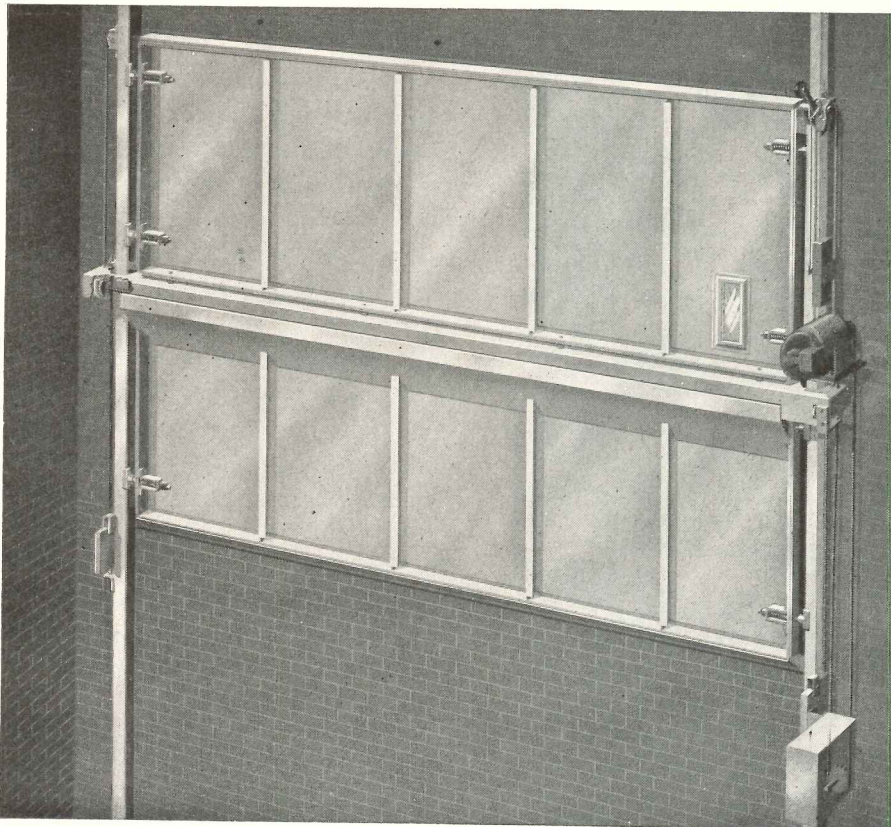


UNITED STATES STEEL



OTIS BUILDS BULLET-PROOF HOISTWAY DOORS FOR MONEY CARRYING ELEVATORS

Bullet-Proof or Standard



A shaftway view of an Otis power-operated door installation.

Otis all-steel, bi-parting freight doors are available for all size openings. Either power-operated, as illustrated, or manually operated. They're all-steel construction. Angle iron frame. Vertical stiffener bars. Bolted steel panels that are easily removed for replacement when necessary. Otis freight doors have no easily damaged wood panels; no wood cores to rot.

When required, Otis hoistway doors may be ordered with any of these optional features: Weather-stripping for exterior doors; special panels, including stainless steel, to match architectural treatments; extra heat insulation; non-sparking electrical equip-

ment for hazardous atmospheric conditions.

All Otis standard bi-parting doors protect the building against the spread of fire into or out of the hoistway. Their construction conforms to the requirements of the Fire Underwriters' Laboratories and may be furnished either with or without Underwriters' labels.

Otis freight doors are also made in a pass-type for limited floor heights. All doors open smoothly to full car opening. Lock independently for safe operation. For further details write for Booklet A-389-F or phone your Otis office. Otis Elevator Company, 260 11th Avenue, New York 1, N. Y.



ALL-STEEL • BI-PARTING FREIGHT DOORS

THE RECORD REPORTS

(Continued from page 190)

national design contest sponsored by the Beaux-Arts Institute of Design, in cooperation with the Tile Council of America. The contest called for the design of a children's tuberculosis sanitarium, with special consideration given to the use of clay tile.

Three other University of Illinois students — Richard Nevara of Chicago, Kenneth H. Mendenhall of Indianapolis, and J. R. Hallbeck of Champaign, Ill. — took second, third and fourth prizes respectively.

The contest drew 160 entries from architectural students throughout the United States.

Below: Quentin Hofman



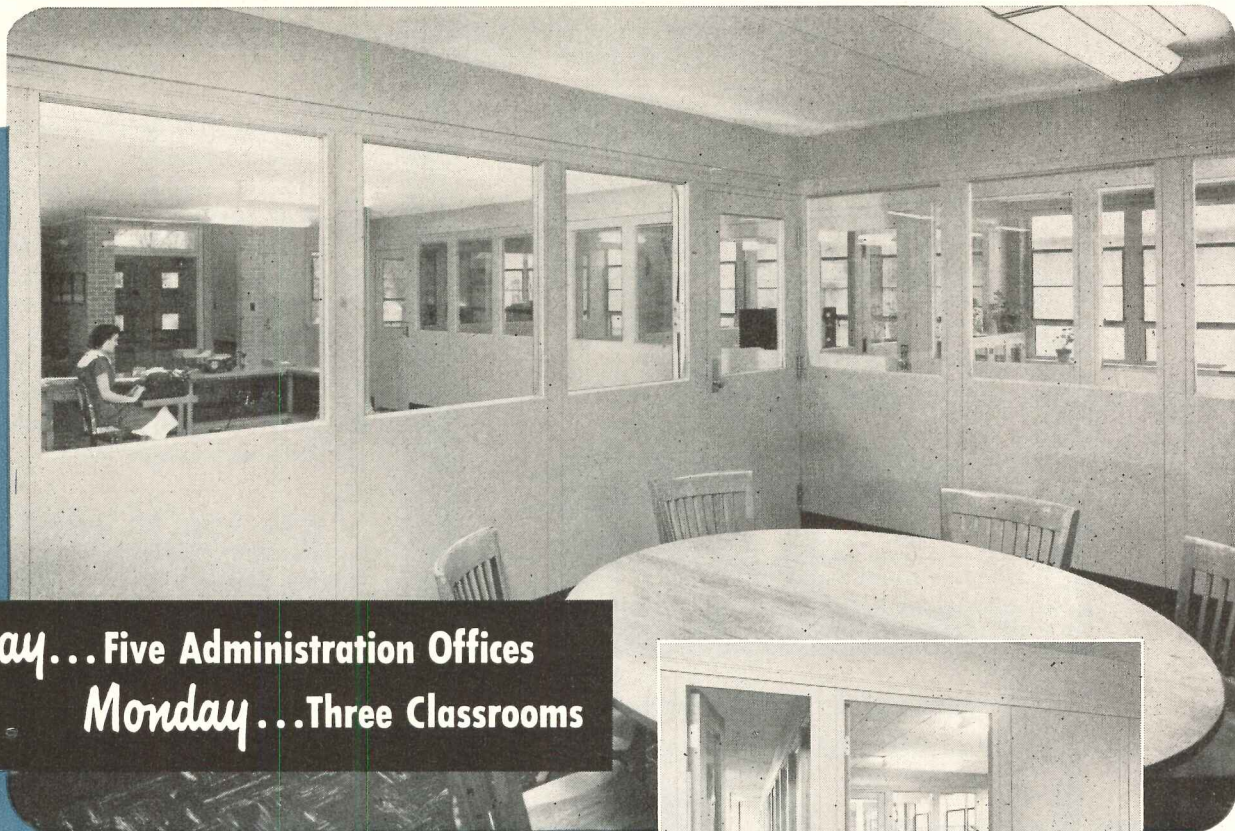
• Frederick H. Zurmuhlen, Commissioner of Public Works, has received the 1950 award of the New York Association of Consulting Engineers. The award, in the form of a hand-lettered scroll, noted particularly the work of Commissioner Zurmuhlen in sponsoring sound engineering practices and promoting cooperation between the department, architects and engineers.

• Awards of 10 scholarships in civil engineering, each of \$1000, have been announced by the American Institute of Steel Construction. The winners were selected from a field of 58 high school seniors, each nominated by a structural steel fabricating company. All entrants took College Entrance Examination Board tests.

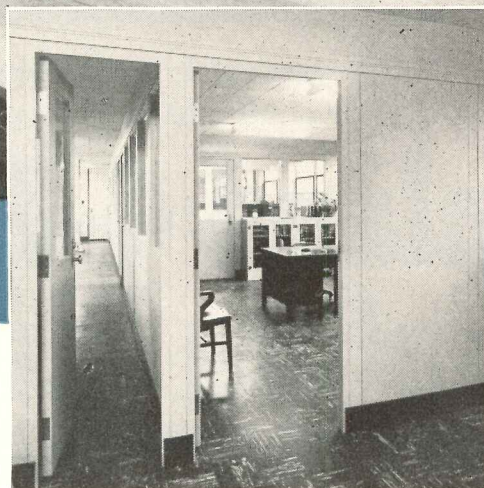
EXHIBITIONS

• Architects have been invited to submit exhibits of their hospital work for the architectural exhibit of hospitals

(Continued on page 194)



Friday... Five Administration Offices
Monday... Three Classrooms



Administration Offices
 Department of Buildings and Grounds
 Oberlin College — Oberlin, Ohio

IF Oberlin's needs for the space shown here were to change as radically as that they could be met during the same weekend. These walls are Mills Walls—as beautiful and solid and permanent as walls can be. Yet they can be moved quickly, easily, economically to fit new space layouts without disturbing administrative or educational routine.

Completely insulated and soundproof, Mills Walls create pleasant, efficient environment for classrooms, laboratories and offices. They are distinguished by their refined architectural design, their structural stability, the pleasing soft colors of their baked-on enamel lifetime finishes. Their smooth flush surfaces are specially treated to eliminate all harsh light reflection. They will not chip or mar. They require no maintenance but occasional ordinary washing to keep their fresh new look.

Maximum mobility with a minimum of labor is achieved through exclusive Mills features, the result of thirty years experience in this field. All-welded panel prefabrication per-

mits easy erection and rearrangement. Entire sections of walls can be moved intact, units are interchangeable. Since all parts are reused there is no loss of materials. Air conditioning, light and phone lines are easily installed in separate lay-in raceways in panel connections, cornice and base.

Complete responsibility for the design, construction and installation of Mills Movable Metal Walls is characteristic of Mills service.

THE MILLS COMPANY
 961 WAYSIDE ROAD • CLEVELAND 10, OHIO



← You'll find this new 48-page Mills Catalog bound into Sweet's File, Architectural, for 1950—or we'll be glad to send you an easy-to-handle copy for your individual use. Just ask for Catalog No. 50.

★ **MILLS** *Movable* **METAL WALLS** ★



THE RECORD REPORTS

(Continued from page 192)

planned in connection with the 52nd annual convention of the American Hospital Association at Atlantic City Sept. 18-21.

Applications may be obtained by registered architects from: American Hospital Association, 18 E. Division, Chicago, Ill.; attention: George Bugbee.

Any hospital contracted for erection in the United States, its territories and possessions and Canada, since Jan. 1, 1945, is eligible for entry.

- The Village Art Center, long known for its art exhibits in Greenwich Village, has announced that it will present this fall its first exhibit on architecture, under the direction of Edgar Tafel, architect.

The contents of the exhibition, open to any architect who lives or works in the Village or its environs, will be determined wholly by the exhibitors, subject only to limitations of space. The individual architect may submit his work as he would like to have it shown; presentation may be from preliminary sketches to finished working drawings, with models or photographs. The announcement invites everything from "dream projects" to finished buildings.

Further information is available from Edgar Tafel, Village Art Center, in care of RoKo Gallery, 51 Greenwich Ave., New York 11, N. Y.

- Now available is the new catalog of the Department of Circulating Exhibitions of the Museum of Modern Art, 11 W. 53rd St., New York, N. Y. The 1950-51 program includes a wide variety of exhibitions of original works of art, photographic enlargements and color reproductions. Also offered are teaching portfolios and slide talks for rental or sale to smaller museums, universities and schools at prices well below the actual cost. The catalog, with detailed descriptions of the exhibitions, can be obtained from the Museum on request.

AT THE COLLEGES

New Department of Design for School of Fine Arts at Yale

Establishment of a new Department of Design and appointment of Josef Albers as its chairman have been announced.

(Continued on page 196)



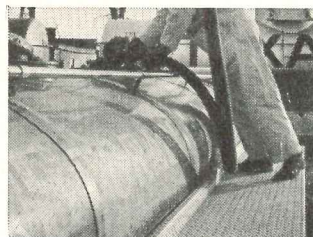
"His Lordship refuses to walk the plank unless we put slip-resistant 4-WAY Safety Plate on it."

For greater safety under foot,
in your plant and on your products

Inland 4-Way Safety Plate®



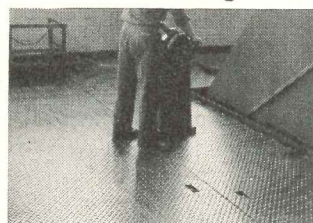
Firesafe



Safe Footing



Easy To Fabricate



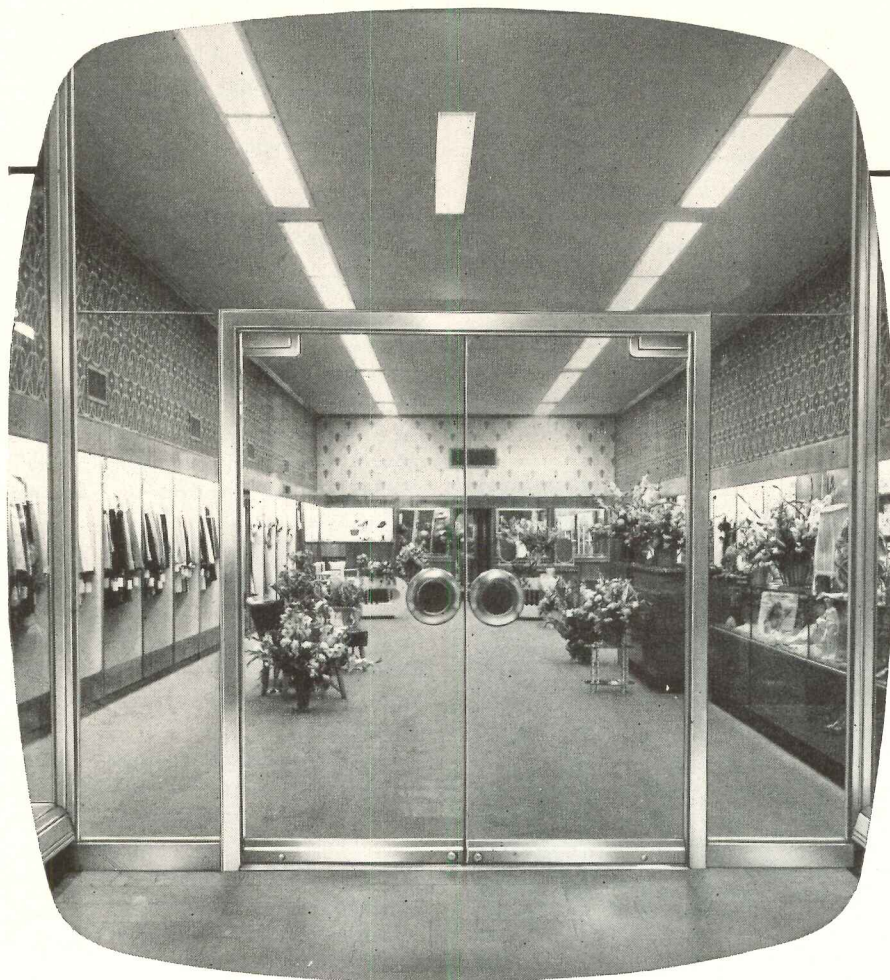
Easy Assembly



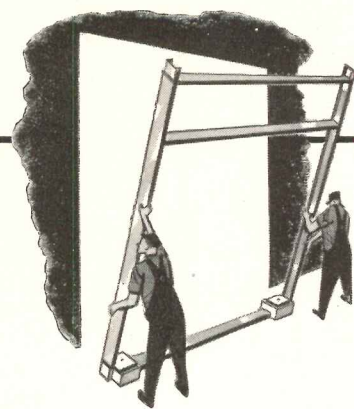
INLAND STEEL COMPANY, Dept., AR 80
38 So. Dearborn St., Chicago 3, Ill.
Sales Offices: Chicago, Davenport, Detroit,
Indianapolis, Kansas City, Milwaukee, New
York, St. Louis and St. Paul.

New Bulletin with New Ideas—Just Out! Bulletin F1. Complete engineering and application data. Send for it!

STOCKED BY LEADING STEEL WAREHOUSES

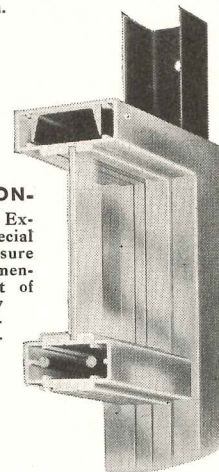


Sher-Lynn Shop, Wilmington, N. C.



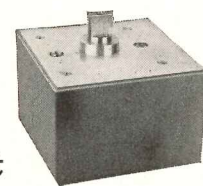
1

A COMPLETE "PACKAGE" . . . 12 standard, and 4 *free-standing*, designs are available to fill almost any requirement. Pittco Checking Floor Hinge, moldings for transom glass, supports for sidelights, strikes for locks, sockets for bolts — *everything* reaches the job complete for quick, easy installation.



2

RUGGED, PRECISION-FABRICATED frame. Expert craftsmen use special checking gauges to assure the accuracy of all dimensions. Frame is built of special shapes and heavy extruded aluminum, reinforced with steel channel and tie rods.



3

THIS HINGE is an engineering marvel. Only $6\frac{1}{4}$ " x $6\frac{1}{4}$ ", the Pittco Checking Floor Hinge is unique. Among its notable characteristics are its positive door-speed control, separate checking control, built-in hold-open feature. And it's sealed in oil for life.

There's less trouble and worry with "the doorway that has everything!"

WITH Pittsburgh Doorways, you're freed of troublesome, time-consuming calculations. You don't have to worry about setting and fitting. There's nothing to assemble. No holes to drill.

When you order a Pittsburgh Doorway, everything reaches the job complete in one "package." You simply

unpack the frame, bolt it into the building opening. Then you hang the sturdy Herculite Doors, for whose strength the frames have been especially engineered.

Why not get *full* details by filling in and returning the convenient coupon—*now*? There's no obligation on your part, of course.

Pittsburgh

DOORWAYS



PAINTS · GLASS · CHEMICALS · BRUSHES · PLASTICS

PITTSBURGH PLATE GLASS COMPANY

Pittsburgh Plate Glass Company
2163-O Grant Building, Pittsburgh 19, Pa.

Without obligation on my part, please send me a FREE copy of your booklet on Pittsburgh Doorways.

Name

Address

City State

nounced by Prof. Charles H. Sawyer, director of the Division of the Arts and Dean of the School of Fine Arts at Yale.

The new department will administer a revised professional curriculum in painting, sculpture and the graphic arts. It will be a four-year course, leading to Bachelor of Fine Arts degree, and will be closely allied with present courses of study of the Department of Architecture and the Department of Drama.

Professor Albers, the new departmental chairman, has been until recently head of the Department of Art at Black Mountain College, North Carolina. Before he came to this country in 1933, he taught for 10 years at the Bauhaus, the famous pioneer and experimental school and laboratory of the visual and structural arts in Germany. During the past year he has been visiting critic and instructor at the Cincinnati

Art Academy, the Pratt Institute in Brooklyn and the Yale School of Fine Arts. He is teaching this summer at the summer session of Harvard's Graduate School of Design.

Architecture Added to Stanford Art Curricula

Architecture will be offered as a major course at Stanford University beginning this Fall.

Courses leading to bachelor and master degrees will give professional training in architecture. The courses will be offered by the Art Department, which will become the Department of Art and Architecture.

Students will be taught by current Art Department faculty members, with professional architects and architectural engineers serving as visiting professors. Virgil Thompson, associate professor of architecture, will coordinate the program.

The undergraduate program during the first two years will include basic courses in art, architecture, mathematics and engineering, in addition to regular lower division requirements in the humanities, natural and social sciences.

In the third and fourth years the student will take courses in house, interior and landscape design, to teach him the relationship between structural materials and technology in relation to site, climate and human needs for the structure.

Two additional years of study will be required for the master's degree. The student will complete a flexible program of study designed to give him a strong engineering and technological background. During the second year of graduate work the emphasis will be placed on architecture's part in regional and city planning. The student will also spend three months as an apprentice under a registered architect before he receives his M.A. degree.

George Fred Keck Receives Lawrence Honorary Degree

Chicago Architect George Fred Keck received an honorary Doctor of Fine Arts degree at the 101st commencement of Lawrence College, Appleton, Wis.

The citation, by Nathan M. Pusey, president of the college, read as follows:

"People contend about the relative value of 'traditional' and 'modern' art, frequently disputing about words rather than things. Theirs is a quixotic pastime, for it is not styles in this sense

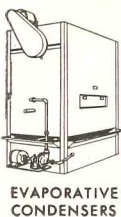
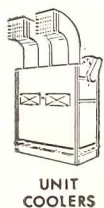
(Continued on page 198)



SAVE UP TO \$5,000 ON AIR CONDITIONING!

PAT. NO. 2,297,928

GOVERNNAIR COMPLETELY PACKAGED AIR CONDITIONER



Save water! Save space! Save installation time and money! Save operating costs! Yes, install Governnair and save from \$50 to \$200 for each ton of the completely packaged Governnair unit designed to fit your needs! Experience proves Governnair can save you up to \$5,000 on

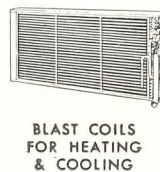
a 50-ton Governnair unit that gives greater dependability and more "engineered efficiency" than ever before!

If you want the best—if you want the most economical and reliable air-conditioning unit on the market . . . CHOOSE GOVERNNAIR and SAVE!

ORIGINATORS OF COMPLETELY PACKAGED AIR CONDITIONERS

GOVERNNAIR

Governnair Corporation • 313 N. Blackwelder • Okla. City



WHEN A STORE NEEDS

Personality...

PLEXIGLAS comes to the front

"Make my store-front different—distinctive," says your client. And PLEXIGLAS makes this tough assignment easy. Clear or in gem-like colors, smooth surfaced, corrugated or artistically patterned—adaptable PLEXIGLAS offers an almost limitless range of design possibilities.

Backlighted PLEXIGLAS gives you completely luminous letters and facades—rich with light and color, yet minus the confusion of visible light sources. PLEXIGLAS permits textured and three-dimensional effects—ranging from the delicate and graceful to the massive and dignified. And with all this, PLEXIGLAS saves on erection and maintenance costs, too.

Lightness and strength mean easy erection—with fewer, lighter supporting members. This sparkling *outdoor plastic* resists age, weather and hard blows. Indoors or outdoors, PLEXIGLAS represents a unique combination of beauty and durability.

WRITE FOR THIS NEW BOOKLET

For your personal file we've reserved a copy of our newest booklet, "PLEXIGLAS... for Modern Store Fronts." Use your business letterhead to tell us where to send it.

Canadian Distributor:
Crystal Glass & Plastics, Ltd.
54 Duke Street, Toronto, Ont.



CHEMICALS



FOR INDUSTRY

**ROHM & HAAS
COMPANY**

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

Representatives in principal foreign countries

Designed by Morris Lapidus of New York, this 20-by-25-foot luminous store-front in Baton Rouge, La., was created by backlighting large panels of corrugated white translucent PLEXIGLAS. The interesting pattern is achieved by means of neon tubing behind the facade. Red and green PLEXIGLAS is used for holly leaves and berries mounted against the glowing acrylic background. Fabricated by Plastics Productions, Inc., New Orleans, La. Installed by Lamarr Advertising Agency, Baton Rouge, La.

PLEXIGLAS is a trade-mark, Reg. U. S. Pat. Off. and in principal foreign countries.

THE RECORD REPORTS

(Continued from page 196)

which should come into question, but in every so-called style the presence or absence of imagination, intelligence, thoughtfulness, talent, taste and honesty.

"George Fred Keck, great architect, classic worker in a modern idiom, designer in 1933 of what proved indeed in essentials to be the House of Tomorrow, you have brought ideas, a willingness to experiment, freshness and integrity to everything you have done.

Neither faddist nor imitator, but a courageous innovator, the art of sound building has been greatly improved by your efforts, and through your achievements in several midwestern states, architectural beauty has found enhanced and widened meaning. Wherefore we are happy today in honoring you to pay tribute to those creative human qualities which are the lifeblood of significant architecture."



Mr. Keck with Commencement speaker, Daniel Defenbacher, director of Walker Art Center in Minneapolis

Mr. Keck was presented for his degree by Charles M. Brooks Jr., chairman of the art department and professor of art and architecture.

Faculty Appointments

- Dr. John Ray Dunning, professor of Physics, scientific director of Columbia's great new Cyclotron at Irvington-on-Hudson, N. Y., and a pioneer in atomic research, has been appointed dean of the School of Engineering at Columbia University. Doctor Dunning succeeds Dean James K. Finch, long a national figure in engineering education, who retired June 30 upon reaching retirement age for Columbia administrative officers. Dean Finch will continue to teach, however, resuming the chair of the Renwick Professor of Civil Engineering, which he formerly held.

- Charles Eames was "visiting artist" on the staff of the University of Wisconsin Art Education Department from July 17-21.

- Prof. Hugo Leipziger-Pearce of the School of Architecture of the University of Texas is spending three months in Europe on an assignment for the United States Department of State as a specialist in its educational information program and as a consultant in housing and planning.

Scholarships

- The Institute of Design and Construction of Brooklyn has announced the establishment of a fund for scholarships in architecture available to graduates of local high schools attending any university in New York State.

The scholarships will be awarded on a competitive basis, according to an an-

(Continued on page 200)



SOLAR AIR-FLO®

ENGINEERED ALL-WEATHER Windows

FOR DRAFTLESS VENTILATION

Louvered sections are placed at top, bottom or sides of stationary window pane, according to design requirements. Units may be used singly or in groupings.

STOCK SIZES FOR A WIDE VARIETY OF DESIGN

Adjustable baffle doors regulate circulation of fresh air, winter and summer. Screens concealed in *air-flo* section, may be removed from inside for cleaning. Solar Air-Flo units fit into all kinds of walls, masonry or wood . . . permit originality of design for all types of homes and buildings . . . provide weathertight insulation.

Solar Air-Flo windows allow the use of narrow mullions, come assembled with all exterior trim. Sill height and number of louvers may be varied to meet ventilation requirements. No precision work or special tools are needed for installation. Frames and sectional parts are made of either treated wood or extruded aluminum, as desired.

Beautiful Solar Air-Flo windows are in keeping with the modern trend . . . give individuality and distinction to exteriors, lend charm and an air of spaciousness to interiors. WRITE NOW for free descriptive literature and specification data, without obligation.

SOLAR AIR-FLO, INC.
ELKHART, INDIANA

MAIL COUPON NOW!

SOLAR AIR-FLO, INC.
DEPARTMENT 804, ELKHART, INDIANA

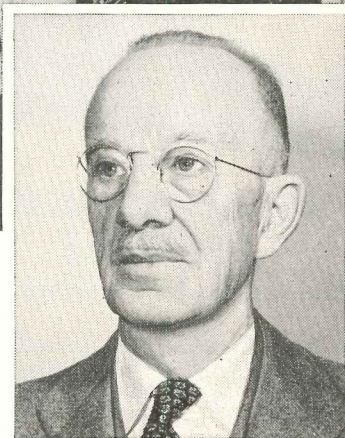
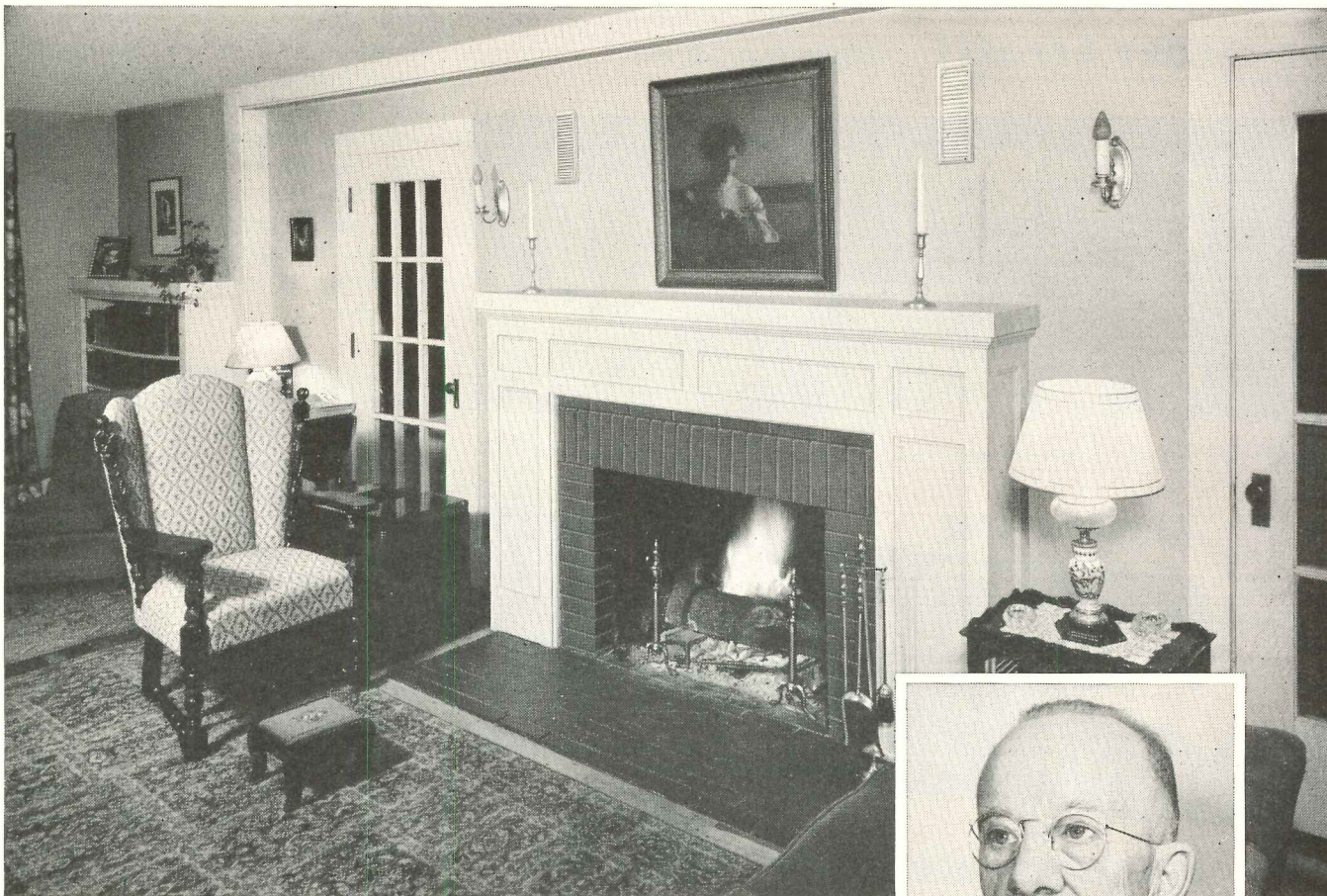
Send free literature on Solar Air-Flo windows.
I am Architect Dealer Contractor.

Name _____

Firm _____

Address _____ Zone _____

City _____ State _____



"Heatilator* fireplace saved time and cost my client no more than an ordinary fireplace!"

*says: HARRY F. HUDSON
prominent Buffalo Architect*

YOU can be sure of a smokeless, trouble-free fireplace by using a Heatilator Fireplace unit, around which any kind of fireplace can be designed. Even inexperienced masons can't go wrong because the Heatilator unit provides all the vital fireplace parts in one compact form. No extra parts to buy or build.

Costs little, if any, more than ordinary fireplace

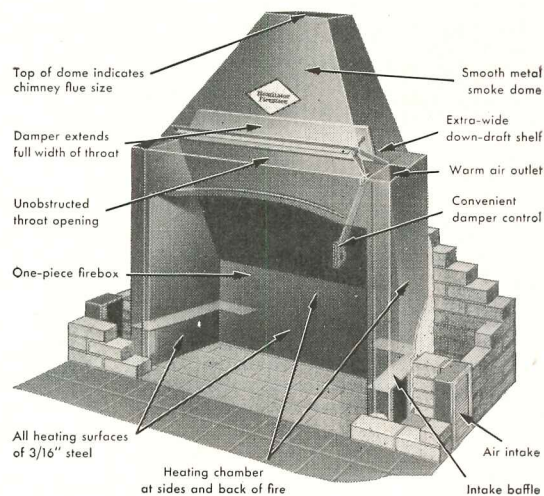
The Heatilator unit adds little or nothing to fireplace cost because it reduces time and labor, and requires less materials. It draws in air from floor level, heats it, and circulates it to every corner of the room. It makes furnace operation

unnecessary on cool Spring and Fall days. In mild climates, it is the only heating equipment needed. Ideal for camps, cabins and basement recreation rooms. Warm-air outlet grilles are easily placed to blend with any design.

Proved for 23 years

Give your clients the advantages of a genuine Heatilator Fireplace . . . perfected over 23 years ago, and now in successful use in hundreds of thousands of American homes. Write today for complete specifications and illustrations. Heatilator, Inc., 618 E. Brighton Ave., Syracuse 5, N. Y.

*Heatilator is the registered trade mark of Heatilator, Inc.



HEATILATOR *America's Leading* **FIREPLACE**
T.M. REG. U.S. PAT. OFF.



Faculty and staff of Institute of Design and Construction, Brooklyn, at recent banquet

SPECIFY THE

Sedgwick

MULTI-STOP

Electric Traction DUMB WAITER

for
SAFE · DEPENDABLE · ECONOMICAL
SERVICE

Where There Are 3 or More Landings to be Served

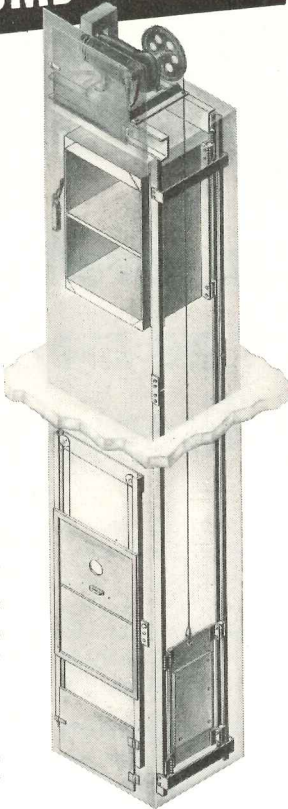
PROVED IN PERFORMANCE . . . by thousands of installations operating successfully from coast-to-coast — in hospitals, hotels, restaurants, clubs, libraries, schools, stores and other commercial, institutional and industrial buildings.

ENGINEERED FOR THE JOB . . . Sedgwick Multi-Stop Dumb Waiters embody the most advanced electrical and mechanical engineering features and are designed and built to meet the highest standards of dependable operation, low-cost maintenance and finished appearance.

AUTOMATICALLY CONTROLLED . . . with momentary pressure push buttons at each landing opening, the car can be called and dispatched as desired. Each push button station is provided with "open door" and "in use" signal lights to expedite efficient use of equipment. Sedgwick Type "SL" Combination Door Locks and Switches are provided for hoistway doors to prevent opening of any door, except that at which the car is at rest — thus the car is permitted to operate only when all doors are closed. Other refinements in the control system include reverse phase relay, overload relay and non-interference relay.

COMPLETE SEDGWICK LINE MEETS EVERY REQUIREMENT

In addition to the Sedgwick Multi-Stop Electric Traction Dumb Waiter, Sedgwick also builds the Roto-Waiter, designed especially for two-stop service — such as under-counter, back bar, or similar limited space installations. Other Sedgwick Dumb Waiters — including both electrically and manually operated types — are likewise available in a wide range of sizes and capacities. Steel towers and enclosures can be supplied where desirable. Specify, too, Sedgwick Steel Dumb Waiter Doors for complete satisfaction.



	STANDARD DIMENSIONS					
Capacity in lbs.	200	200	300	300	500	500
Speed in F.P.M.	50	100	50	100	50	100
Car Width	24"	24"	30"	30"	36"	36"
Car Depth	24"	24"	30"	30"	36"	36"
Car Height Inside	36"	36"	36"	36"	48"	48"
Clear Inside Hoistway Width	33"	33"	39"	39"	45"	45"
Clear Inside Hoistway Depth	29"	29"	35"	35"	41"	41"

Sedgwick **MACHINE WORKS**

142 West 15th Street, New York 11, N. Y.

ELEVATORS · DUMB WAITERS · RESIDENCE ELEVATORS · STAIR-TRAVELORS
 ROTO-WAITERS · SIDEWALK ELEVATORS · FREIGHT ELEVATORS · DUMB WAITER DOORS

THE MAXIMUM IN SAFETY . . . THE ULTIMATE IN ECONOMY — SINCE 1893

nouncement from Vito P. Battista, architect and director of the Institute. A jury of five leading New York City architects, to be announced later, will select the recipients.

To help raise funds for the scholarships, the Institute of Design and Construction will hold its first annual dinner on October 14, at the Towers Hotel in Brooklyn.

• The College of Architecture and Design of the University of Michigan announces the first award of the Harley, Ellington and Day Scholarship to Andrew J. Smith of Tecumseh, Mich. This scholarship, amounting to \$1000, is awarded to an outstanding student about to enter his senior year of architectural design.

Solar Heating Symposium at M.I.T. Scheduled This Month

Massachusetts Institute of Technology's summer program in "Space Heating with Solar Energy" will be given Monday through Friday, Aug. 21-26.

The purpose of the course-symposium is to promote more discriminating application of the available engineering knowledge to the principles of architectural and engineering design.

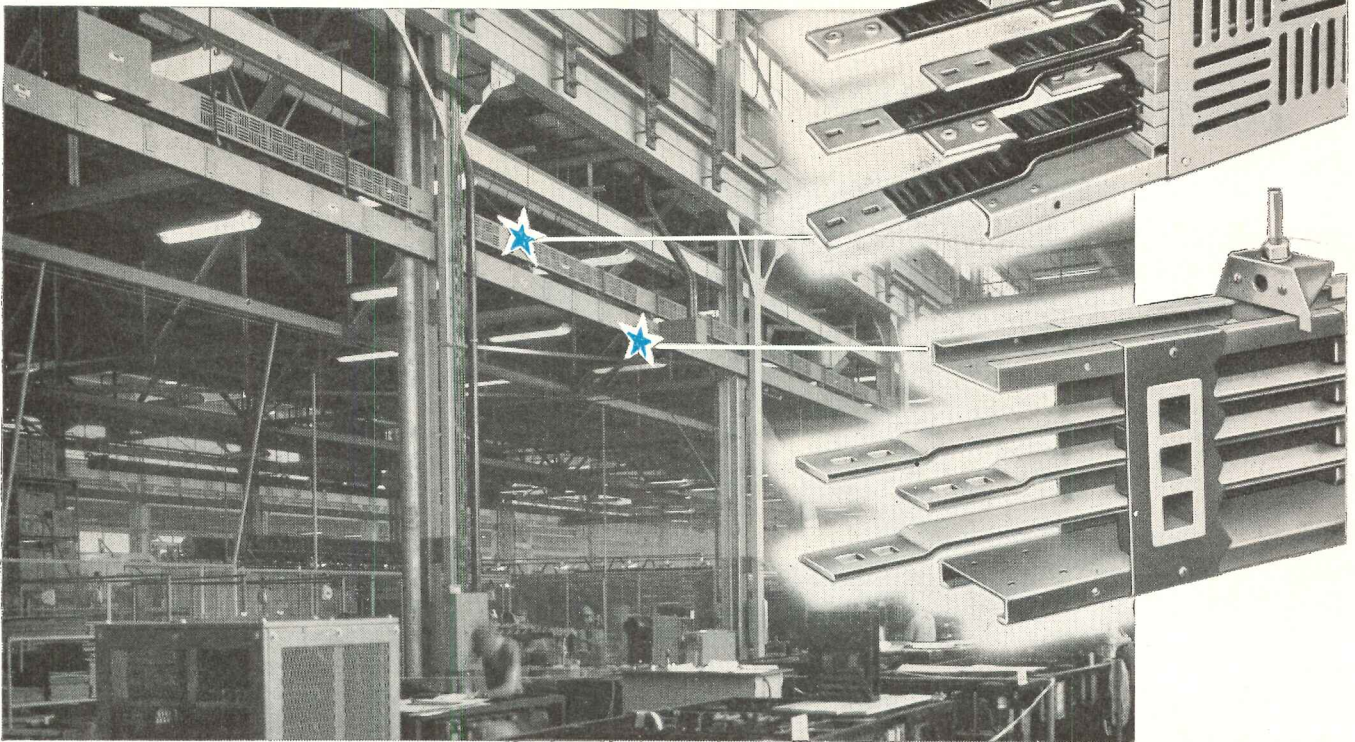
Morning classroom sessions will be devoted to presentation of the fundamental background material of the course, while symposium sessions in the afternoon will feature presentation of papers by several leading investigators in the field of solar heating, followed by discussion periods. The M.I.T. solar house will be used for demonstration purposes in connection with the symposia.

It is expected that among those leading symposium sections will be: E. R. Ambrose, American Gas and Electric Service Corp.; Prof. L. B. Anderson, Dept. of Architecture, M.I.T.; Eugene Ayres, Gulf Research and Development Co.; Prof. F. W. Hutchinson, Dept. of Mechanical Engineering, U. of California; George Fred Keck, architect, Chicago; Dr. George Löf, director, Industrial Research Institute, Denver; George V. Parmelee, A.S.H.V.E. Research Laboratories; Dr. Paul A. Siple, climatologist, military geographer for U. S. Army General Staff; and Dr. Maria Telkes, Dept. of Metallurgy, M.I.T.

Professor Anderson and three other members of the M.I.T. faculty are directing the program. The others are Albert G. H. Dietz, associate professor

(Continued on page 202)

YOU CAN BE **SURE**.. IF IT'S
Westinghouse



BUS DUCT-first for full secondary power

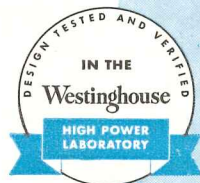
Much more carrying capacity can be packed into a smaller space with Bus Duct than with conduit and wire. It's not only compact and neat appearing but more flexible, too.

You need only to bolt each prefabricated section together. Operations can be expanded at any time without expensive rewiring... and with minimum time and labor costs. Power supply is always convenient to machines. Plug-in openings every 12 inches on alternate sides eliminate long cable runs. Installations can be made either horizontally or vertically.

Note the application above. Low Impedance Duct is used for long feeder lines where mini-

mum voltage drop is important... Plug-in Duct is used for an area having a scattered load. Together, they represent an unbeatable combination, first for full secondary power.

Experienced Westinghouse Field Engineers are available to help you plan your secondary power distribution system. For full particulars, phone your nearby Westinghouse Representative or write for Bus Duct Booklet B-4271, Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pennsylvania. J-30030

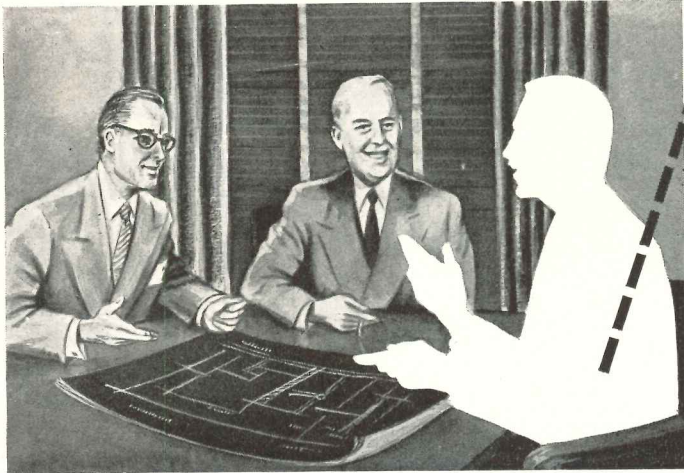
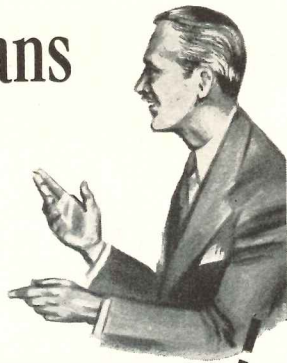


Westinghouse



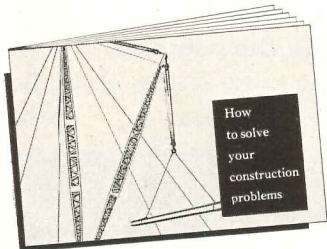
BUS DUCT

Your architectural plans are in competent hands



when M-C & S enters the building picture!

In working closely with architects and engineers for scores of years, Merritt-Chapman & Scott long ago learned the importance of giving full attention to every detail. M-C & S's extensive experience in many construction fields is the best assurance that your assignment will be completed as designed, on time. All M-C & S project managers are performance-proved; facilities are unrivaled. And, as illustrated by the new brochure offered below, no project is "out-of-our-line."



New booklet presents a factual record of M-C & S's ability to solve the most challenging construction problems.

Your copy will be sent immediately upon request to Dept. AR.

MERRITT-CHAPMAN & SCOTT

C O R P O R A T I O N

Founded in 1860 . . . now in our 90th year

GENERAL OFFICES

17 Battery Place, New York 4, N.Y.

CLEVELAND • BOSTON • NEW LONDON



THE RECORD REPORTS

(Continued from page 200)

of Building Engineering and Construction; August L. Hesselschwerdt Jr., assistant professor of mechanical engineering; and Hoyt C. Hottel, professor of Fuel Engineering.

Carnegie's New Course Tries Design Approach to English

A new system of teaching English to architecture students which will call on their "natural abilities in design" will be tried at Carnegie Institute of Technology beginning next month.

The new program, to be developed by English Instructor Earle R. Swank in conjunction with the architecture faculty, will be in line with the school's institute-wide Carnegie Plan of education.

Mr. Swank has explained that under the new system, the construction of sentences and paragraphs "will be attacked as design problems."

"The philosophy behind the design of a good building is fundamentally similar to that behind the construction of a good paragraph. We will try to help our students see this similarity, and learn how to take advantage of it."

In the new program, students will have morning English classes three times a week. In addition, Mr. Swank will sit in architecture design drafting rooms, where he will criticize and coach students in more effective expression of their ideas.

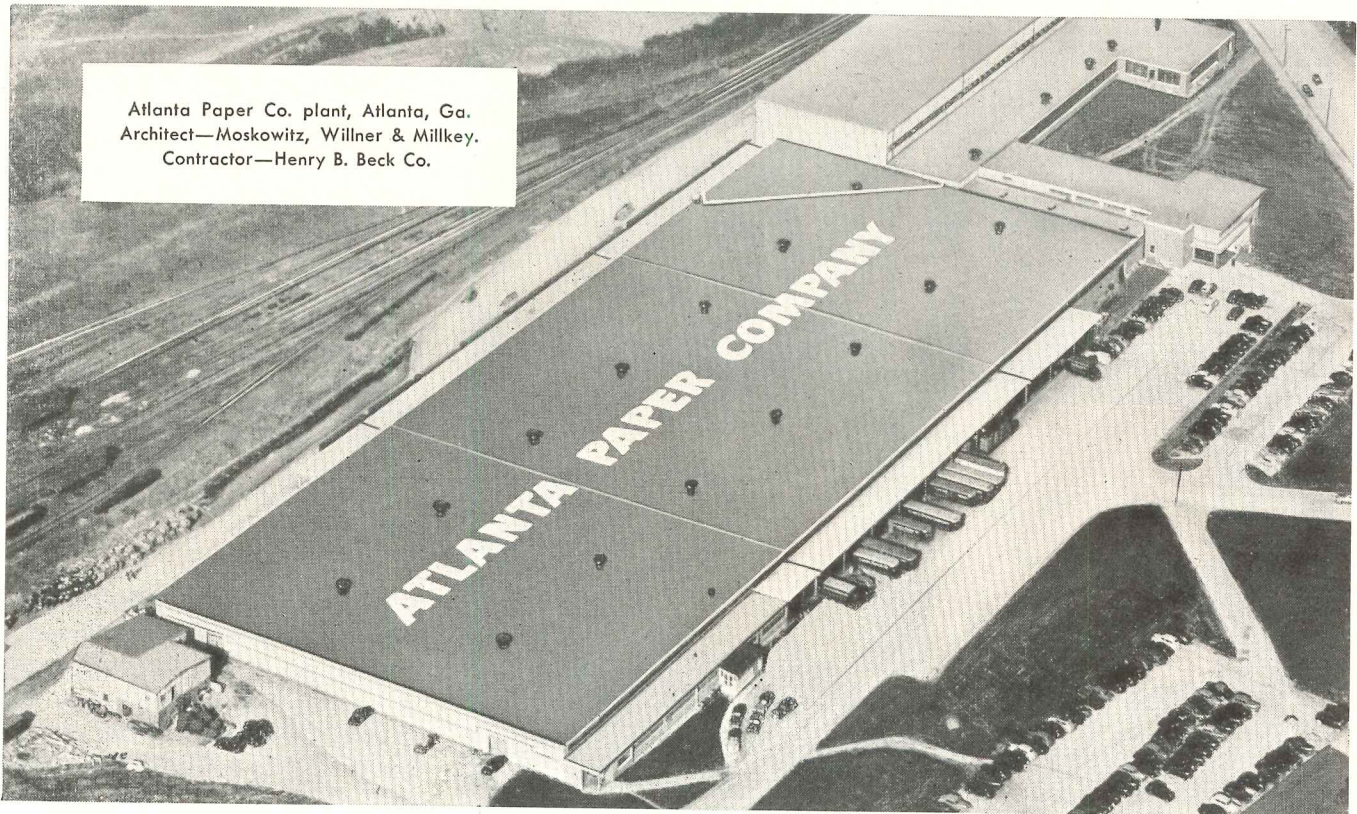
The new system will be made possible by a \$2500 grant from the Wherrett Memorial Fund of the Pittsburgh Foundation.

The grant was given recently for a "demonstration project in architectural education," according to a letter from Stanton Belfour, director and secretary of the Foundation.

If the experiment is successful, it will be adopted as a permanent part of the Carnegie Architecture Department curriculum.

Prof. John Knox Shear, head of Carnegie's Architecture Department, said recently: "One of the aims of the Carnegie Plan is to help our students develop what it takes to give society professional service in their jobs and in civic and political life. How well a man can serve society depends in large measure on how well he can express himself. This experiment is an attempt to make good writing and speaking an integral part of architectural education."

Atlanta Paper Co. plant, Atlanta, Ga.
 Architect—Moskowitz, Willner & Millkey.
 Contractor—Henry B. Beck Co.



"We are 100% sold on all the advantages offered by Kaylo Roof Tile"

— ATLANTA PAPER CO.

The Atlanta Paper Company specified Kaylo Insulating Roof Tile for the 214,000-sq. ft. roof area of its new manufacturing plant. President Arthur L. Harris tells why:

"Kaylo Tile gives us a roof which insulates, won't burn or rot, is lightweight, yet strong.

"Of primary importance to us is the fact that our Kaylo Roof Deck resists water and moisture damage under the high humidity conditions which accompany our manufacturing operations.

"We are 100% sold on all the advantages offered by Kaylo Roof Tile."

Many industrial and commercial firms have found the answer to their roofing needs in Kaylo Insulating Roof Tile—providing a combination of advantages offered by no other single roof-deck material.

KAYLO®

INSULATING ROOF TILE
OWENS-ILLINOIS GLASS COMPANY
 Kaylo Division • Toledo 1, Ohio

SALES OFFICES:

Atlanta • Boston • Buffalo • Chicago • Cincinnati • Dallas • Minneapolis
 New York • Philadelphia • Pittsburgh • St. Louis • Toledo • Washington

WHAT IS KAYLO ROOF TILE?

Kaylo Insulating Roof Tile is made of a lightweight, inorganic material—reinforced with welded wire mesh to provide structural strength more than adequate for typical roof loads.

Each 23-lb. tile is a dimensionally uniform 18" x 36"—can be sawed, cut and nailed with standard tools.

Kaylo Tile is easily laid on steel sub-purlins or nailed to wood joists—on either pitched or flat roofs.

The Kaylo deck may then be covered with any conventional roofing material.

Send Coupon for
 Kaylo Roof Tile Sample
 and Literature



OWENS-ILLINOIS GLASS COMPANY
 Kaylo Division, Dept. N-22, Toledo 1, Ohio

Gentlemen: Please send me a Kaylo Roof Tile sample and literature.

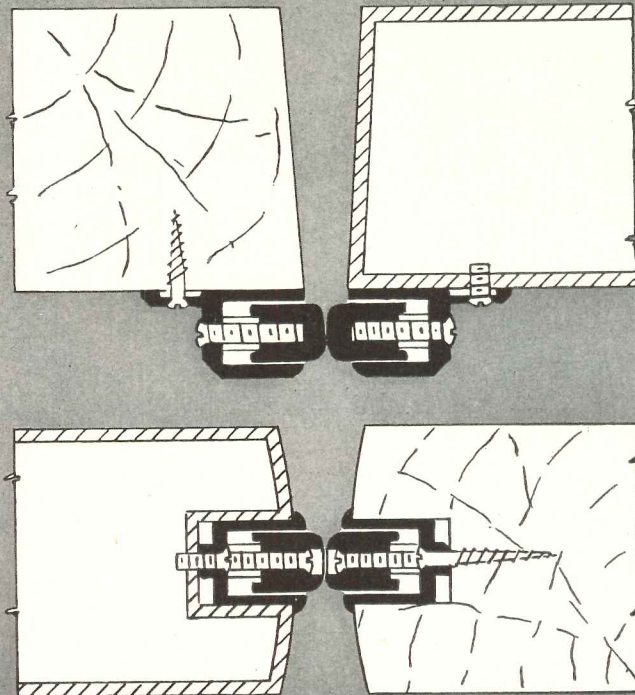
NAME.....

FIRM.....

ADDRESS.....

CITY..... STATE.....

MICHAELS Astragals



Write today for information and prices on Michaels Adjustable Astragals. Made of extruded bronze, aluminum or nickel, they are simple, practical, rugged, easily installed and adjusted, and available in several styles. Two are shown above. Type A (top illustration) may be applied to either wood or hollow metal bevel doors. Also used as a stop bead. Type E (lower illustration) is for bullnose hollow metal or wood double doors. Both types may be used at the bottom of doors. Michaels Astragals help keep doors closed tightly . . . eliminate drafts and air currents . . . keep out dirt and dust. Write for details. Astragals are only one of many items in the Michaels line. So whatever building product you need, if it's made of metal, we may have it or can make it.

MICHAELS PRODUCTS

Bank Screens and Partitions
Welded Bronze Doors
Elevator Doors
Store Fronts
Lettering
Check Desks (standing and wall)
Lamp Standards
Marqueses
Tables and Signs
Name Plates

Astragals (adjustable)
Stair Railings (cast and wrought)
Wrought and Cast Radiator Grilles
Grilles and Wickets
Kick and Push Plates
Push Bars
Cast Thresholds
Extruded Thresholds
MI-CO Parking Meters
Museum Trophy Cases

The MICHAELS ARTS BRONZE CO., INC., 234 Scott St., Covington, Ky.

THE RECORD REPORTS

CANADA

(Continued from page 16)

and industrial construction, drops in commercial and engineering construction. The figures follow:

Residential: 1950 — \$54,189,700; 1949, \$48,167,600.

Commercial: 1950 — \$29,042,100; 1949, \$30,312,000.

Industrial: 1950 — \$9,696,000; 1949, \$4,109,000.

Engineering: 1950 — \$19,036,300; 1949, \$23,364,100.

Lumber Shortage Threatens Current House Building Boom

Many a prospective home owner, long sitting on the sidelines waiting for prices to come down, has grown tired of waiting and is buying a house. Add those other people who are building because they feel the end of rent controls is near — and you've got the present boom in house construction. It has sent housing loans skyrocketing to \$31 million for May — an increase of 167 per cent over the same month last year.

However, there's a cloud that threatens this silver lining — a lumber shortage. Last March restrictions were removed, and lumber exports to the United States began to climb, supplying a tremendous American demand. Prices of some types of lumber have nearly doubled. Some predict that the situation will pass once the big summer building rush is over, but W. J. LeClair of Ottawa, secretary-manager of the Canadian Lumbermen's Association points out that the developing Canadian shortage is part of a world-wide lumber scarcity.

One thing is sure — if the tight supply continues, it will affect many proposed housing projects, and may slow up completions.

Labor Wage Demands Hold Promise of Higher Costs

Another round of wage increases is underway, in spite of employer determination to hold the line.

Recently Ottawa plumbers won an hourly rate increase, and more than 500 Toronto AFL plasterers secured two dollars an hour (up ten cents). AFL carpenters in Hamilton also won a ten cents

(Continued on page 206)



TUDOR PLAZA

Tudor Plaza, one of the newest additions to the quiet, tree-studded Delaware Avenue section of Buffalo, N. Y., stands 9 stories high, and has facilities for 68 families. The attractive, fire-retardant building is co-operatively owned, and its apartment units vary in size from 1½ to 9 rooms, including two spacious penthouse apartments. The structure also has a 65-car detached garage.

Tudor Plaza has an abundance of windows, and a neat-looking facing of rustic brick, beneath which stands a steel framework of Bethlehem Structural Shapes.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

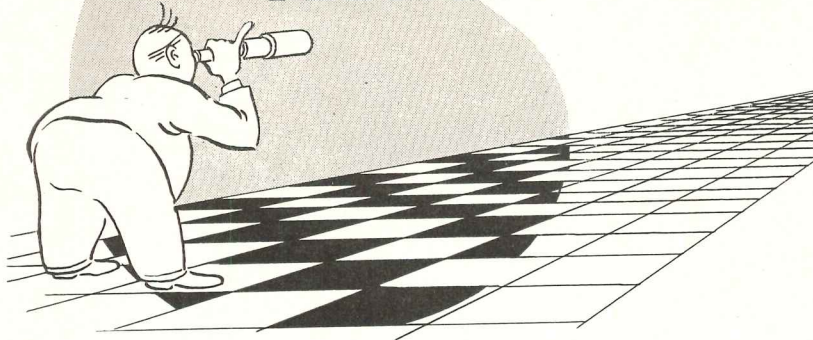
On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation
Export Distributor: Bethlehem Steel Export Corporation

Architect:
 Backus, Crane & Love, Buffalo
Consultant:
 Green & James, Buffalo
Contractor:
 Boehm Construction Co., Inc., Buffalo
Steel Fabricator and Erector:
 R. S. McMannus Steel Construction
 Co., Inc., Buffalo

Bethlehem
**STRUCTURAL
 SHAPES**



SEVEN MILLION FEET OF PROOF!



One of the world's largest retailers is using over seven million feet of WRIGHT RUBBER TILE in its own stores.

When one of the world's largest users of flooring buys over seven million feet of *any one kind* of flooring—that's important news for every architect, every retailer and every commercial building owner.

With over a billion dollars worth of purchases to make every year, this firm can't afford to be wrong. With extensive laboratory facilities and over a hundred large stores, they can find out more about flooring in a few months than smaller organizations could ever discover.

They know about how long it wears, how easy it is to maintain and how its beauty attracts shoppers. When you consider that they have bought over *seven million feet* of WRIGHTFLOR for use in their own stores, you know they are convinced that WRIGHTFLOR is an outstanding floor covering for commercial installations.

Find out about this superior floor covering. Send for a free sample, architects specifications, detailed information on WRIGHTFLOR, today.

WRIGHT MANUFACTURING COMPANY
5204 POST OAK ROAD • HOUSTON 5, TEXAS



FLOORS OF DISTINCTION

- ◆ WRIGHTEX — Soft Rubber Tile
- ◆ WRIGHTFLOR — Hard Surface Rubber Tile
- ◆ WRIGHT-ON-TOP Compression Cove Base

THE RECORD REPORTS

CANADA

(Continued from page 204)

an hour increase, plus extra vacation pay.

Building trades across Canada, watching the breakthroughs, are agitating for more money. Before a conciliation board in Toronto at present is a demand by the AFL bricklayers' union for 20 cents more an hour, bringing their rate to two dollars. Waiting their turn to appear are carpenters, cement finishers, reinforcing steel rodmen and hoisting engineers.

Plumbers in Toronto and painters in Regina are threatening strike action if their wage demands are not met.

Clearly, the stability in costs achieved by the construction industry in 1949 has been lost, and the present round of wage increases is bound to affect construction costs on a national scale.

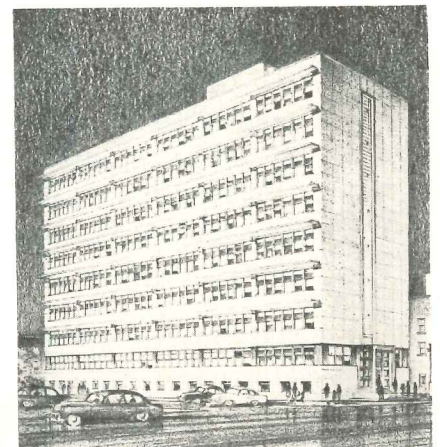
Canadian Capital Moving to Toronto — A Model, That Is

Canada's capital is moving to Toronto. A model of the future Ottawa is to be shown visitors to this year's Canadian National Exhibition in Toronto.

The exhibit there is only one stop of a trans-Canada tour that has seen the 60-panel model set up in cities and towns across the country. According to Walter Bowker, in charge of the display, it has sparked new interest in town planning; and local officials study the model with their own town's problems in mind.

(Continued on page 208)

Royal Edward Laurentian Hospital, Montreal, will have special unit (photo below) for tuberculosis patients when funds are raised for building program. McDougall, Smith & Fleming, Architects



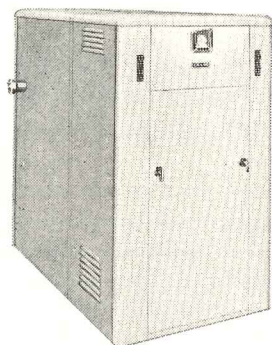
CRANE

baseboard radiant heating



Uniform room comfort, with Crane Baseboard Panels. Shown: Type "RC" Panel

for any home, new or remodeled



*Crane 16 Oil Fired Boiler
ideal for use with
Crane Baseboard Panels*

Even modest homes can now have the best in heating—uniform from floor to ceiling—with Crane Baseboard Panels. Ideal for modernizing. Complete planning freedom . . . valuable wall space and space below windows may be utilized.

Two types: "R" Panels for radiant heating; "RC", radiant and convection. Crane supplies the *complete heating system* . . . for hot water or steam . . . coal, coke, oil, or gas. Consult your Crane Branch or Crane Wholesaler.

CRANE

CRANE CO., GENERAL OFFICES:
836 S. MICHIGAN AVE., CHICAGO 5
PLUMBING AND HEATING •
VALVES • FITTINGS • PIPE

CANADA

(Continued from page 206)



It takes less than a minute, from start to finish, to "Ramset" a steel fastener through steel or wood into steel, concrete, other hard building materials.

That's why the RAMSET FASTENING SYSTEM cuts costs from 50% to 90%. Time savings are equally valuable. A good workman can "Ramset" at least 40 fastenings per hour, as opposed to 3 or 4 per hour by ordinary methods.

The 65 sizes and types of RAMSET FASTENERS meet practically every usual or unusual requirement for strength and holding power. All are steel, plated to resist rust and corrosion.

RAMSET distributors and dealers are located nationwide, at your service to help you reduce fastening costs and finish your projects faster. Ask us for specific information.

STEMCO CORPORATION
12117 Berea Road • Cleveland 11, Ohio

Member of Producers' Council

Ramset
FASTENING SYSTEM

**SAVES TIME ... CUTS COSTS
ON WORK LIKE THIS:**

Fastening:

- Electrical equipment, lighting, services.
- Heating, piping, air conditioning.
- Sprinkler systems.
- Metal or composition roofs and walls.
- False and acoustical ceilings.
- Framework, brackets or supports.
- Metal doors, windows, partitions.
- Furring strips for plaster.
- Carpet nailing strips.

RAMSET FASTENING SYSTEM is applicable to every building structure, from a residence to a bridge.

ASK FOR DEMONSTRATION AND DETAILS!

Stemco Corporation, 12117 Berea Road, Cleveland 11, Ohio AR-8
Please give us details on RAMSET FASTENING SYSTEM.

Name _____
Company _____
Street _____
City _____ Zone _____ State _____

British Columbia Joins in Federal-Provincial Housing

British Columbia is now officially teamed with Ottawa in the federal government housing scheme reported in previous issues of the RECORD.

Ottawa and British Columbia will split costs of housing projects with the exception of municipal services. As yet only North Vancouver, Surrey and Vancouver City have shown interest.

Any municipality in Canada wanting to take part in such a housing project will have to submit a detailed housing survey. In an attempt to create a standard survey form, University of Toronto researchers have chosen Brantford, Ont., as a test area, are checking it off door to door. The resulting picture of housing requirements in this "average" town will likely form the basis of future survey questionnaires.

3661 Engineers, 160 Architects Are June 1950 Crop in Canada

Graduated from Canadian universities in June were 3661 engineering students, 160 architects.

Engineering graduates were divided in specialties as follows: 872, electrical; 805, mechanical; and 758, civil engineering.

For some months past, employers have been in touch with National Employment Service officers at the universities, and job placement was well advanced by graduation day.

"Miracle Mile" Proposal Is Debated by Edmonton

That old tradition of Western friendliness took a beating recently when Edmonton City Council called a special meeting. Up for discussion was a scheme for a \$25 million civic center, with areas for shopping, professional and business offices, an auditorium and an 1800-car parking lot, to be erected on four city blocks in the heart of town.

Already dubbed the "Miracle Mile," the plan is backed by the First New Amsterdam Corp. of New York.

The fur began to fly when L. E. Detwiler, on behalf of the corporation, requested a 99-year tax-free lease, in

(Continued on page 210)

You get more freedom
for design with low-cost
KENTILE

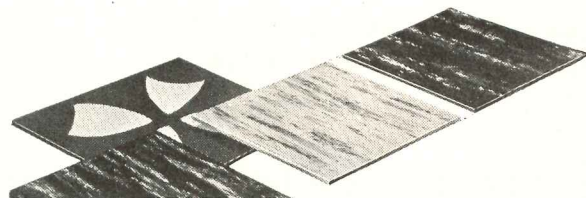


MANY FLOORING MATERIALS limit your opportunities for varied design effects—and are not suitable for low-cost non-basement construction.

But Kentile meets your every need. It enables you to create "custom" flooring effects at low cost with decorative ThemeTile* and Kenserts. Kentile is ideal for radiant-heated homes . . . the *only* type of flooring possible in basementless houses because it can be laid on concrete in direct contact with the earth.

Save your clients money with economical, easy-to-install Kentile. Builders (and *their* clients) like its lustrous beauty. They know, too, that it means years of super-service and easy upkeep . . . because of the reliable Kentile name . . . because of national advertising campaigns in leading magazines.

Examples of ThemeTile are the circular inserts shown in the floor above and available in different color combinations. Other ThemeTile include such decorative designs as: Pitcher, Sprinkler, Spoon and Fork, Kettle, Frog, Ivy, Daisy. Factory-made, these inserts come pre-assembled and their installation involves no extra labor.

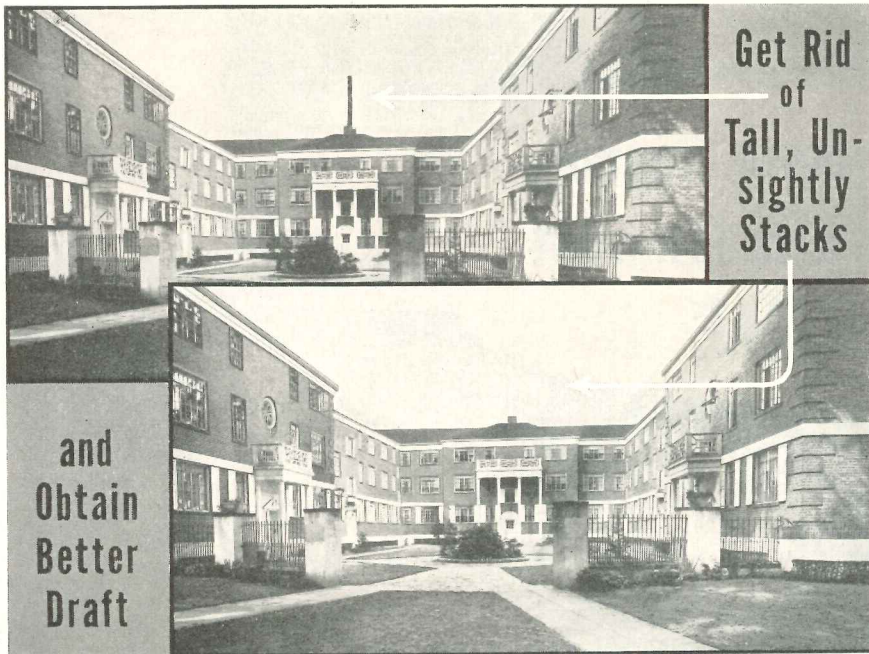


KENTILE®

The Asphalt Tile of Enduring Beauty



DAVID E. KENNEDY, INC., 58 Second Ave., Brooklyn 15, N. Y. • 350 Fifth Ave., New York 1, N. Y. • 705 Architects Bldg., 17th and Sansom St., Philadelphia 3, Pa. • 1211 NBC Bldg., Cleveland 14, Ohio • 225 Moore St., S.E., Atlanta 2, Ga. • Kansas City Merchandise Mart Inc., 2201-5 Grand Ave., Kansas City 8, Mo. • 1440 11th St., Denver 4, Colo. • 4532 South Kolin Ave., Chicago 32, Ill. • 1113 Vine St., Houston 1, Texas • 4501 Santa Fe Ave., Los Angeles 58, Calif. • 95 Market St., Oakland 4, Calif. • 452 Statler Bldg., Boston 16, Mass.

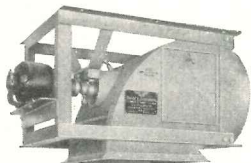


Get Rid
of
Tall, Un-
sightly
Stacks

and
Obtain
Better
Draft

with Wing Draft Inducers

The illustrations above show in striking fashion the difference in the appearance of the same building after removal of the unsightly stack. With Wing Draft Inducers it is no longer necessary to mar the appearance of otherwise well designed buildings with stacks of this type. By utilizing a low chimney, together with a Wing Draft Inducer, proper draft is assured—substantial savings in building costs are registered.



Wing Draft Inducers are suitable for use with oil, gas, stokered, or hand-fired boilers, moderate sized high pressure steam plants and industrial furnaces. Write today for a copy of Bulletin I-10.

Adequate draft is assured regardless of weather conditions or high surrounding buildings. The trim lines of the architect's design can be retained intact . . . without sacrificing furnace efficiency . . . soot, smoke, and obnoxious gases are reduced or eliminated.

Wing Draft Inducers are available with manual controls, or they may be tied in with the controls of the combustion system for completely automatic operation. Their use assures positive, uniform, adequate draft for low pressure heating plants . . . thorough and complete combustion with high CO₂ content.

L. J. Wing Mfg. Co. 151 Vreeland Mills Road, Linden, N. J.

Factories: Newark, N. J. and Montreal, Canada



Wing

DRAFT INDUCERS

THE RECORD REPORTS

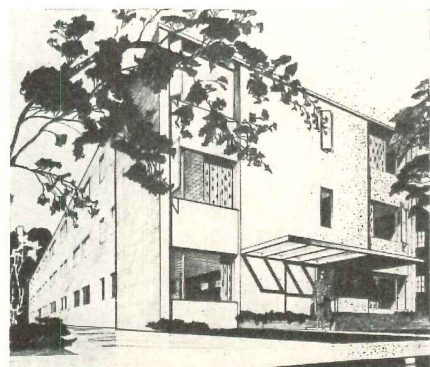
CANADA

(Continued from page 208)

exchange for \$50,000 yearly ground rent and a share of the profits—if, as and when.

Some local businessmen think it's a great idea. Others opposing the plan claim that Edmonton stands to lose \$99 million over the 99-year period. However, according to Detwiler, the city's income will be \$300,000 a year for 40 years; then about \$1 million a year for the final 59 years.

The City Council, unable to come to an agreement, has scheduled another meeting. In the meantime, Edmonton is doing a lot of adding, subtracting and arguing. It may take a miracle to get Edmonton to agree to "Miracle Mile."



Work is under way on three-story apartment building (photo of rendering above), Mimico, Ont. Brick facing will be used on structure, 39 ft by 139, containing 22 apartment suites. Architect is L. E. Venchiarutti of Toronto, Ontario

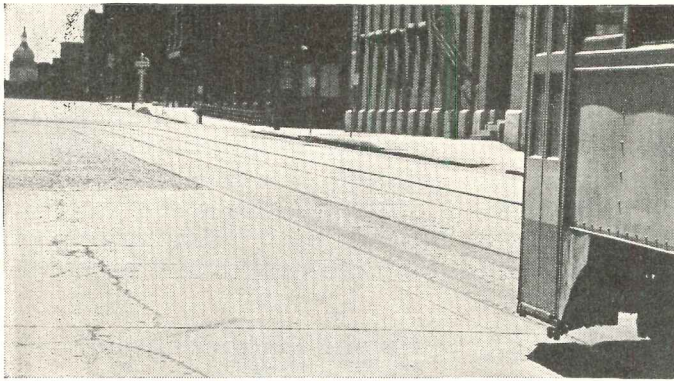
Lumbermen See Danger in Building Code Revisions

There are definite dangers to the lumber industry in the modernizing of the National Building Code in the opinion of *Timber of Canada*.

In an editorial, the magazine notes that in discussing changes to the Code, people may raise the old bogey of the fire hazard of wood construction. *Timber* explains that 75 per cent of all United States houses are frame, and there are proportionately fewer fires in frame houses than in those of masonry construction.

In the case of annexation, such cities as Ottawa and Toronto may impose

(Continued on page 212)



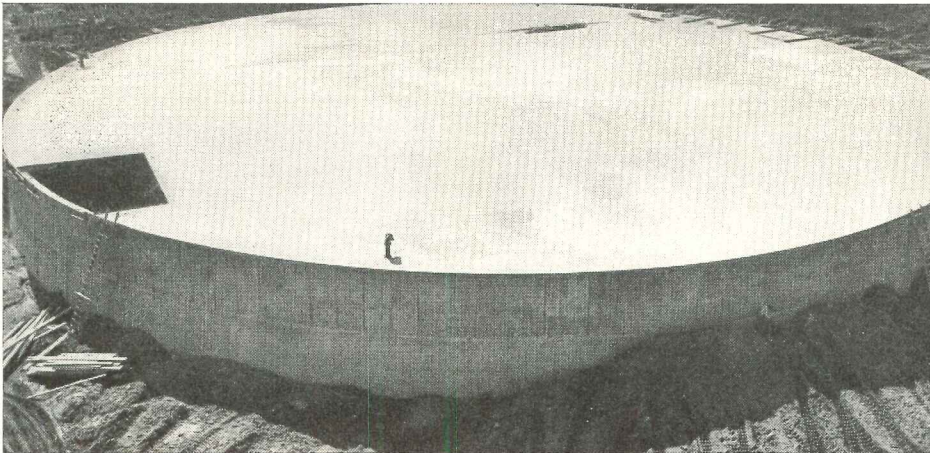
Ten Years Ago...

this test paving was laid in Minneapolis—the first commercial use of Atlas Duraplastic air-entraining cement. Badly scaled background section was made with regular cement. Foreground concrete was laid at the same time with Duraplastic cement. Here are both sections, photographed ten years later, after ten severe winters, heavy applications of de-icing salts and many freezing-thawing cycles—convincing proof of Duraplastic concrete's lasting durability. Longitudinal structural crack shows some raveling. Note perfect transverse joint.



Today... A typical report says:

"DURAPLASTIC*... highly resistant to the effects of freezing and thawing"



7,000,000-gallon Water Reservoir, South Bend, Ind. Contractor: Thomas L. Hickey, Inc.; Duraplastic ready-mixed concrete, Kuert Concrete, Inc., both of South Bend.

The contractor on this 4000-cu. yd. concrete reservoir built exclusively with Atlas Duraplastic air-entraining portland cement reports:

"...walls have a pleasing appearance with smooth texture and no 'honey-comb' spots or streaks. We particularly like Duraplastic for structural concrete, especially if it is exposed to the weather. Duraplastic concrete is highly resistant to the effects of freezing and thawing..."

This report is typical. For Atlas Duraplastic air-entraining portland cement has proved its advantages in a wide variety of structural and mass jobs; foundations, walls, columns, and floors. It's ideal for slip-form, gunite and other uses. It requires less mixing water for a given slump; gives a more plastic, uniform mix; places and finishes easily.

Atlas Duraplastic complies with ASTM and Federal Specifications,

sells at the same price as regular cement, calls for no unusual changes in procedure.

Send for free new booklet, "A Decade of Atlas Duraplastic Air-Entraining Portland Cement." Write to Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York 17, N. Y.

Offices: Albany, Birmingham, Boston, Chicago, Dayton, Kansas City, Minneapolis, New York, Philadelphia, Pittsburgh, St. Louis, Waco.

*"Duraplastic" is the registered trade mark of the air-entraining portland cement manufactured by Universal Atlas Cement Company.

AR-D-107

ATLAS DURAPLASTIC

AIR-ENTRAINING PORTLAND CEMENT

MAKES BETTER CONCRETE AT NO EXTRA COST

TRADE MARK REG.
U. A. C. CO.

new building regulations on neighboring communities — regulations detrimental to the lumber industry, the magazine warns, urging lumbermen to be alert to uphold their interests.

“Better Homes” Shows Seen In Several Major Centers

Vancouver, Edmonton, Winnipeg, Toronto and Montreal have all played

host to full-scale “Better Homes” exhibitions in recent months.

All the shows displayed new materials and ideas to members of the building trade as well as a house-hungry public.

In Toronto, for example, 60,000 visitors studied a Central Mortgage & Housing Corp. exhibit on sound house construction and ABC's of the National Housing Act. Among the many time- and space-saving items that drew crowds

were an accordion-pleated door, windows with screens and sash built in, brick with air core spaces, a radio-activated garage door which operates from a car transmitter, and pastel bathroom fixtures in the latest design.

Something really exciting was a combination door, wardrobe, cupboard and dressing room which revolves at a touch.

Medical Center Proposed For Laval University Site

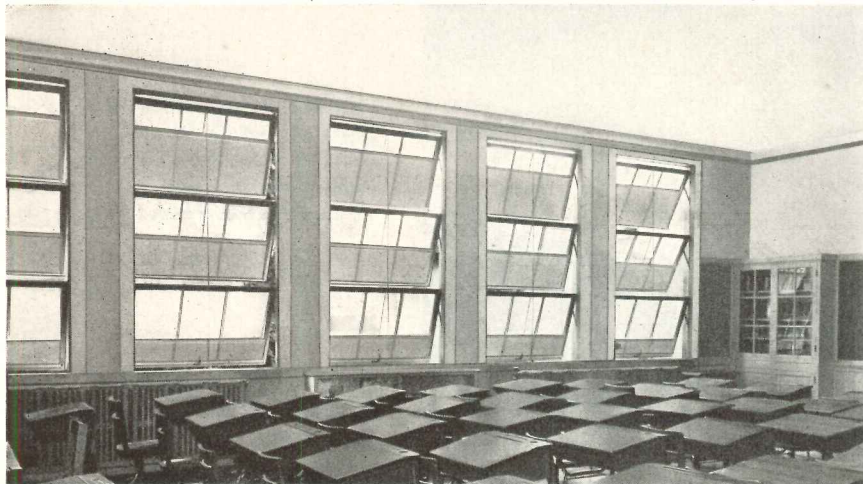
Pictured below is a model of proposed medical center to be erected for Laval University, at the new location near Quebec City.

Designed by Lucien Mainguy, architect, of Sillery, P. Q., the project involves construction of 10 units, all connected by underground passageways.

The buildings will include the Faculty of Medicine, an analysis and research laboratory, university hospital, conva-

Dalmo

**better control of VENTILATION
better control of LIGHT
AUTOMATIC MULTIPLE WINDOWS
Wood Projected Awning Type**



St. Matthew's Parochial School, San Mateo, California • Minton & Smith, Architects

**DALMO WOOD
WINDOW HARDWARE
For the Nation's Schools**

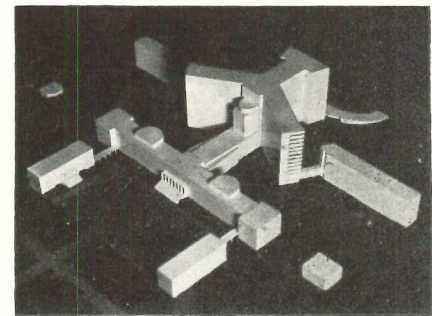
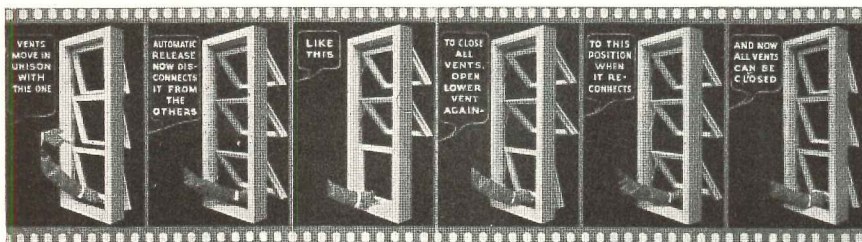
Dalmo Windows give full control of ventilation from 1% to 100% of the window opening. The angle of the open sash directs air currents upwards, eliminating drafts. The air diffuses from the ceiling and circulates evenly through the room. The open sash sheds rain, deflects wind and allows controlled ventilation under all weather conditions.

Dalmo Windows allow the use of venetian blinds or ordinary shades. The sash can be operated without disturbing blind or shade. Ordinary shades may be attached to the sash itself to control daylight illumination and give uniform light distribution without interfering with ventilation.



1304 Wilshire Boulevard, Los Angeles 17, California
Eastern Sales Office: Thorntown, Indiana

Movie showing operation of Dalmo Automatic Multiple Awning Type Window



Model shows the 10 projected buildings of the proposed medical center for Laval University, at the new Quebec City site. First to be built will be School of Medicine. Lucien Mainguy, Architect

lescent home, nursing home, morgue, dental school, school of pharmacy, nuns' residence and a hospital entrance.

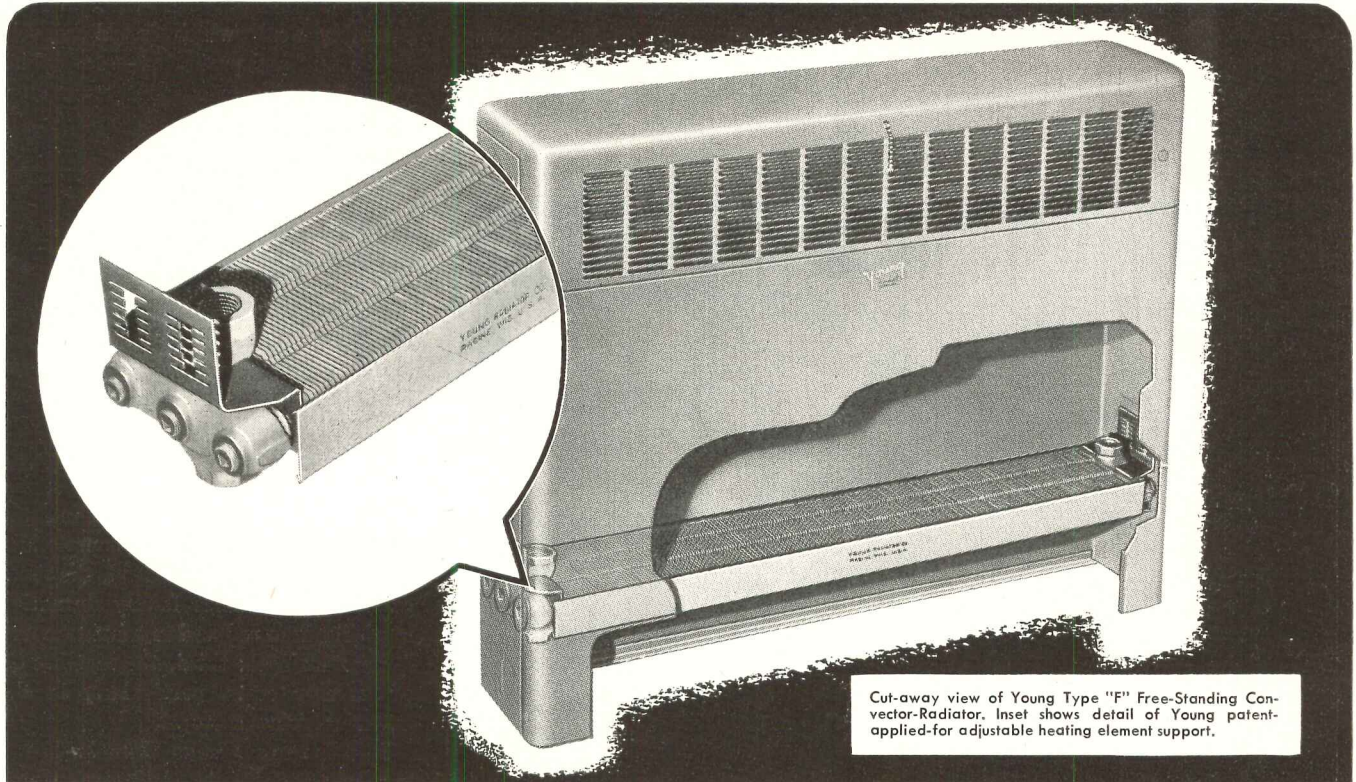
Completed cost is estimated at \$19 million. The School of Medicine will be first to be built. It will be four stories in height, with a frontage of 525 ft. Next to be constructed will be the hospital, 12 stories high and providing for 800 beds. Construction will commence this year.

The School of Nursing will accommodate 300 nurses.

All construction will be reinforced concrete, except the hospital, which will be a combination of concrete and struc-

(Continued on page 214)

Save on Installation Costs with **YOUNG CONVECTOR-RADIATORS**



Cut-away view of Young Type "F" Free-Standing Convector-Radiator. Inset shows detail of Young patent-applied-for adjustable heating element support.

Once again Young Engineering saves you money. A new heating element support cuts installation time and permits quick pitching adjustments. Its rigidity permits shipping core in position . . . another time saver. An additional Young innovation, unit packaging, also speeds handling on the job. Each sturdy carton is clearly marked for quick identification and protects units in handling. The Young Convector-Radiator Line includes a style and size for any hot water and two-pipe steam system. Mail the coupon below for further helpful information.

YOUNG

Heat Transfer Products for Automotive and Industrial Applications.



Heating, Cooling, and Air Conditioning Products for Home and Industry.

YOUNG RADIATOR COMPANY
DEPT. 610-H, RACINE, WISCONSIN

Plants at Racine, Wisconsin and Mattoon, Illinois
Sales and Engineering Offices in All Principal Cities

**LEARN HOW YOUNG CONVECTOR-RADIATORS
CAN CUT CORNERS ON HEATING BUDGETS**

YOUNG RADIATOR COMPANY
Dept. 610-H
Racine, Wisconsin

Rush me full details about the Young
Convector-Radiator Line, without obligation.



Name _____

Address _____

City _____ Zone _____ State _____

tural steel. Walls will be limestone, and steam heating will be provided from central heating plant (not visible in photo).

Low-Priced Housing Urged to Counter Public Competition

Builders must build a cheap, well-constructed house — or face a growing demand for public housing.

So warned George Prudham, M.P. for Edmonton West and a building contractor, in a talk before the annual meeting of the Ontario branch, National Association of Master Plumbers and Heating Contractors.

Methods will have to be streamlined and costs pared, Mr. Prudham said. Biggest hurdle to cheaper housing, he believes, is the scarcity of serviced land,

which is pushing prices of available property to new highs.

To bring ownership within reach of the lower-income group, Mr. Prudham feels that federal and provincial governments could aid builders through land-assembly deals which would be self-liquidating and profitable — and which would provide serviced land much more cheaply.

WEATHER STRIPS FOR SLIDING DOORS

EVERY architect with his ear to the ground is aware of the nationwide demand for exterior sliding doors. Pretentious homes, modest houses, business places, institutions, everywhere the insistence is for sliding doors. Perhaps, not so generally recognized is the part played by "ACCURATE" in making the sliding door a practical adjunct, by developing weather-strip design and equipment to make sliding doors function better. Architects are now in a position to prepare plans with complete assurance. "ACCURATE" weather-stripped doors ride smoothly, with least effort, close and seal tightly and never fail in the performance of their duty. You can depend upon "ACCURATE" precision right down to the last screw head. Write for working drawings, or ASK FOR ILLUSTRATED FOLDER

ACCURATE
TRADE MARK
REG. U.S. PAT. OFF.

PHOTO N. Y. TIMES

ACCURATE METAL WEATHER STRIP CO., Inc.
215 EAST 26th STREET, NEW YORK 10, N. Y.

1949 Housing Developments Here and Abroad Compared

The latest issue of *Housing Progress Abroad*, a Central Mortgage & Housing Corp. publication, surveys the 1949 housing developments in the United Kingdom, the United States, Australia, New Zealand, South Africa and Sweden.

Three aspects of Canadian housing progress stood out in 1949: first, the record number of dwelling completions in the year — 91,000; second, the moderate decline in net family formation resulting from reduced immigration and fewer marriages; third, the leveling off of building costs, particularly in the materials prices sector.

In all three trends Canada has a parallel in the United States, where house-building activity in 1949 was at an all-time high with over a million new non-farm dwellings started during the year; marriages declined by 15 per cent from 1948 to 1949; and costs appeared to be leveling off, with materials prices declining a little and wage rates of building workers rising by only a small amount.

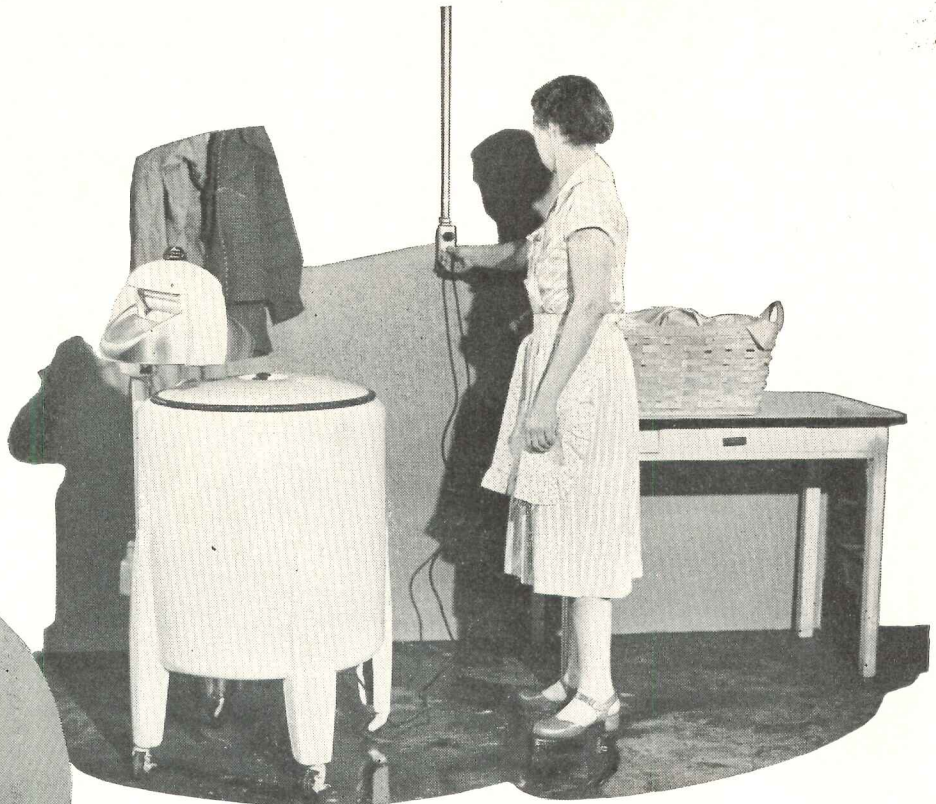
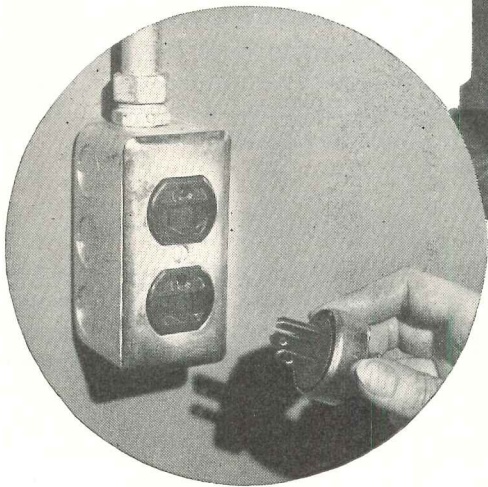
In Great Britain and Sweden the parallel holds with respect to declining net family formation and the stability of building costs in 1949; but owing to government action to reduce capital investment, housing completions in both Great Britain and Sweden were lower in 1949 than in 1948.

The situation was somewhat different in Australia and New Zealand. In these two countries as in Canada and the United States, house-building activity was at record levels in 1949. Although marriages were down somewhat in Australia and little changed in New Zealand, net family formation in both countries was on the increase because immigration was considerably higher in 1949 than in 1948. And costs continued to rise

(Continued on page 216)

NOW...added safety for every home

The combination of three prong plugs and receptacles, and ELECTRUNITE E.M.T.'s strong rigid steel walls provide grounded protection for life and property plus the value of a "pull-in pull-out" wiring system.



... with grounded raceways of rigid steel **ELECTRUNITE E.M.T.** (Electrical Metallic Tubing)

In the home, as in the factory, the advantages of grounded rigid steel wiring raceways are unquestionable. Freedom from injurious stray current . . . protection against fires caused by short circuits . . . flexibility of "pull-in pull-out" wiring circuits . . . *all* mean greater value and safety to your clients.

Now, easy-to-install Republic ELECTRUNITE E.M.T. and appropriate outlets make it practical for you to specify *grounded rigid steel raceways* for *every* home regardless of size or cost.

Because lightweight, galvanized, threadless ELECTRUNITE E.M.T. eliminates old-fashioned thread-cutting, reduces worker fatigue, and is easier to install, it is setting new raceway cost standards for the electrical industry. For the complete story about this modern rigid steel raceway, write, wire or phone today!

REPUBLIC STEEL CORPORATION
STEEL AND TUBES DIVISION • CLEVELAND 8, OHIO
Export Department: Chrysler Building, New York 17, N. Y.

SEE SWEET'S FILE

or write us for detailed information on these Republic Steel Building Products:

Pipe—Sheets—Roofing

Enduro Stainless Steel

Toncan Enameling Iron

Electrunite E.M.T.

Fretz-Moon Rigid Steel Conduit

Taylor Roofing Ternes

Berger Lockers, Bins, Shelving

Berger Cabinets for Kitchens

Truscon Steel Windows, Doors,

Joists and other Building Products

Republic
ELECTRUNITE E.M.T.



LIGHTWEIGHT THREADLESS RIGID STEEL RACEWAY

significantly, particularly costs of imported materials on which both Australia and New Zealand are heavily dependent.

In South Africa, a substantial decline in immigration occurred in 1949, contributing to a reduction in net family formation. There was some increase in housebuilding activity, while construction costs rose only moderately.

On the whole, the survey indicates

that the housing boom continued in most parts of the world except in countries where, for reasons of foreign exchange conservation, housing activity was curtailed by government action. Reflecting the world improvement in the supply of building materials and building labor, construction costs in most countries leveled off or rose only moderately, a distinct change from the trend of earlier postwar years.

Peeling Paint a Problem, Home Owners Are Warned

Home owners who insist on high-quality oil paints often get a rude shock, warns Robert F. Leggett. The paint may do a strip-tease in a season or two.

Mr. Leggett, director of the National Research Council's Division of Building Research, recently told a Parliamentary committee that modern paints are not as porous as the old ones used to be. They seal the outer surface and do not allow the water vapor that forms beneath them to escape. The vapor forms blisters and the blisters peel off.

This paint problem is only one matter being studied in connection with the revision of the National Building Code now underway.

Paint manufacturers agreed with Mr. Leggett, but one noted that he had overlooked some other pertinent factors. People now insist on self-washing paints which tend to blister. And lumber used in present construction is of poorer quality than that used in the past, and doesn't hold paint as well.

Aid Sent Disaster Areas

A check for \$7370 has been sent on behalf of the Canadian Construction Association to Eb. Claydon, chairman of a construction industry fund set up in Winnipeg to aid flood victims.

In addition \$2500 was forwarded to the burned-out cities of Rimouski and Cabano in Quebec.

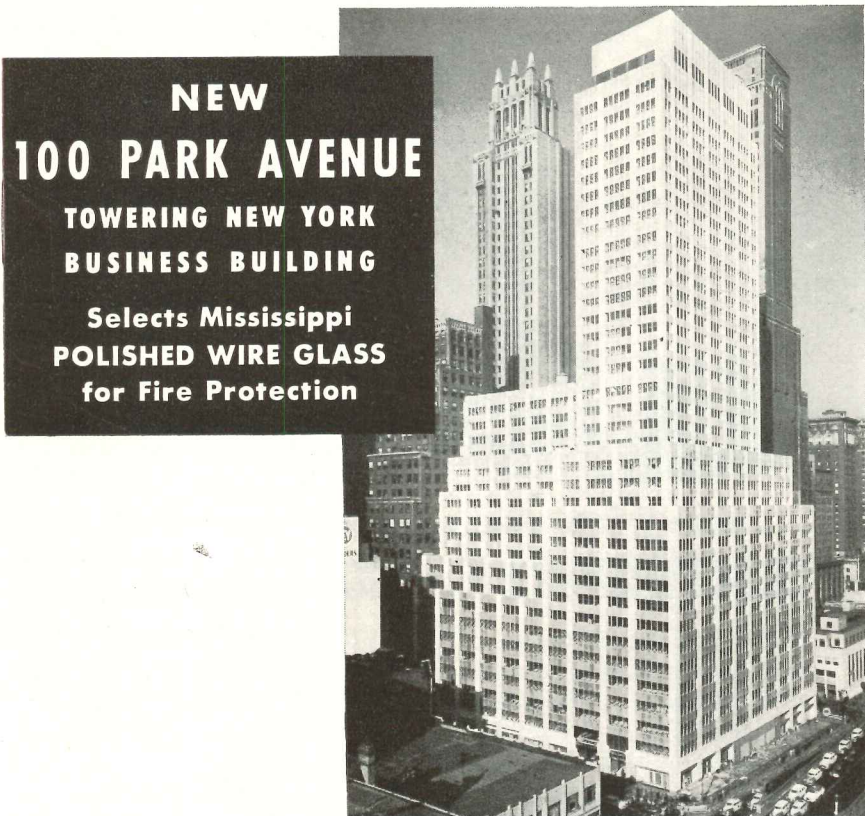
Robert Drummond, president of the C.C.A., pledged continuing support to these worthy causes. Of the total sum disbursed, he explained, \$6370 was the balance of the Construction Soldier Comforts Fund which was raised during the war years by the industry.

Thorncrest Village Pool Rates Follow Thermometer

Thorncrest Village, Canada's unique planned community at Islington, Ont., has had a reputation for doing things the new and different way ever since it began.

Latest news is a novel rate scale for use of the local swimming pool. The pool is free to the 153 members — but at certain times guests must pay.

As the mercury soars, so do the rates. Between 70 and 80 degrees, the charge is 25 cents; from 80 to 90 it is 50 cents. And once the thermometer climbs over 90, there's no room for friends, sorry!



**NEW
100 PARK AVENUE**
TOWERING NEW YORK
BUSINESS BUILDING
Selects Mississippi
POLISHED WIRE GLASS
for Fire Protection

Kahn & Jacobs Architects George A. Fuller Co. General Contractor Pittsburgh Plate Glass Co. Glazing Contractor



20,000 sq. ft. of Polished Wire Glass by Mississippi are glazed in openings in exterior walls as a safeguard in this ultra-modern skyscraper.

Constant fire protection at minimum cost, combined with maximum daylight illumination, characterize Mississippi Wire Glass... the original solid wire glass upon which the Underwriter's Standard was based in 1899... the Standard today by which all others are judged.

For safer openings in corridor and room partitions, exterior walls, fire escapes and vertical shafts, specify the approved fire retardant that for over 50 years has been the choice of thousands of architects, engineers and builders everywhere.

Send for Catalog No. 50
See Sweet's Architectural File
for further details. Samples
on request.



This Seal
Identifies Mississippi
Wire Glass

MISSISSIPPI Glass COMPANY
SAINT LOUIS 7, MO.
NEW YORK • CHICAGO • FULLERTON, CAL.

WORLD'S LARGEST MANUFACTURER OF ROLLED, FIGURED AND WIRED GLASS



He's on your staff but not your payroll

It was a tough heating problem. But the architect who faced it knew of a proved source of engineering aid on heating. And the Bryant distributor brought in the answer.

Yes, Bryant distributors welcome such opportunities. Complete and thorough factory engineering assistance is at their call. Thus, thinking of the industry's largest staff of gas heating engineers becomes an extra Bryant service for architects from coast to coast.

Other plus factors of the Bryant program are the opportunity of getting most everything in gas heating equipment from a single source . . . a near-by distributor with adequate warehouse stock . . . a nationally famous brand name that clients recognize for its quality.

If you are one of those architects who like to get *more* than just the product when you write it into your specifications . . . *check with Bryant!*



Let the pup be furnace man
... and water boy, too!

bryant

AUTOMATIC HEATING

The most complete line of gas heating equipment in the nation

Bryant Heater, Dept. 235,
17825 St. Clair, Cleveland, Ohio

() Send me the new booklet that tells
the Bryant story. () Have your distributor call on me.



Name _____

Company _____

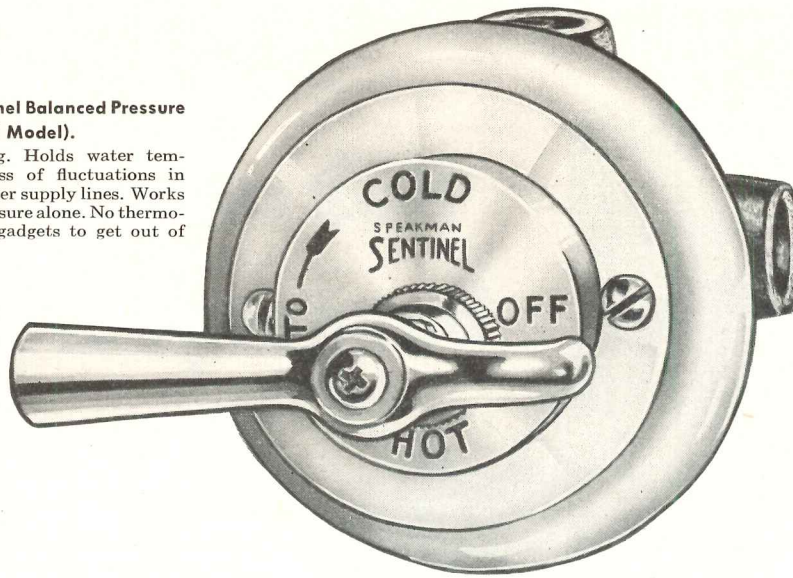
Address _____

City _____ State _____

TRADITIONALLY
THE BEST IN BRASS

**S-1735 SPEAKMAN Sentinel Balanced Pressure
Mixing Valve (Concealed Model).**

A triumph of engineering. Holds water temperatures steady regardless of fluctuations in pressures in hot or cold water supply lines. Works automatically on water pressure alone. No thermostats, rockers, springs or gadgets to get out of order.



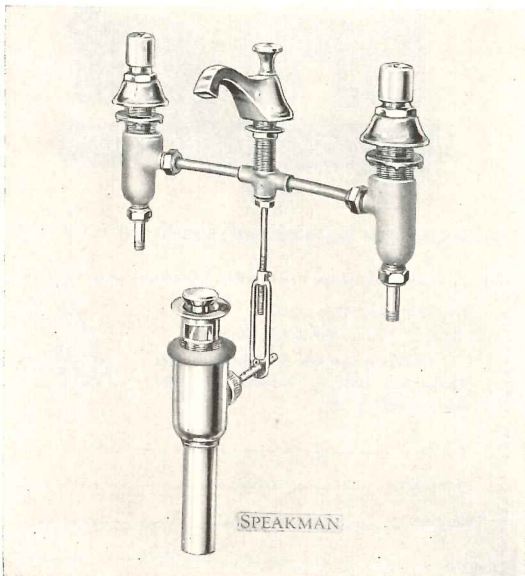
The Real News

in showers... is this combination...

New **Bathing Comfort!**

New **Water-Saving Economy!**

New **Low Maintenance!**



OTHER OUTSTANDING SPEAKMAN PRODUCTS

◀ **Self-Closing Metering Lavatory Fixture (S-4150)**

This self-closing, metering fixture cuts water waste and reduces maintenance costs. Water volume may be regulated from a "dash" to 1½ gallons per operation. Permits washing in tempered water. Non-hammering and non-dripping. Non-clogging by-pass. Operating unit renewable.

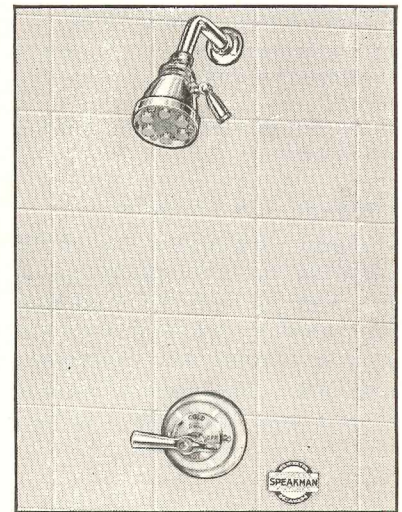
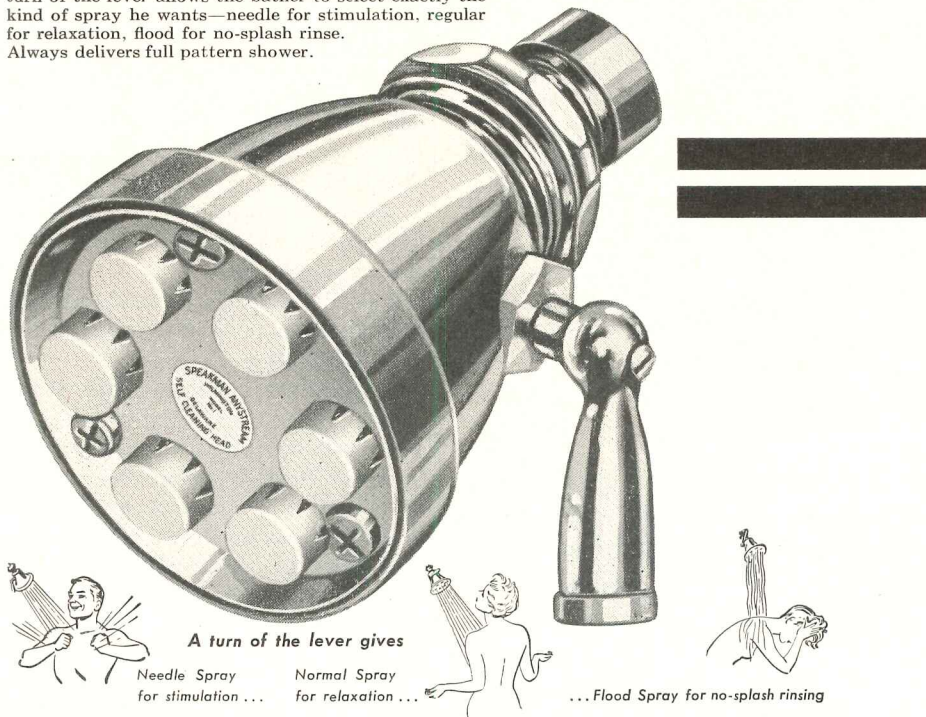
Si-Flo Quiet Operating Flush Valve (K-9000 BSP) ▶

The flush valve that whispers—never SHOUTS. Easiest to install—easiest to maintain. All wearing parts contained in single piston unit which may be removed and replaced in 5 minutes or less. Self-cleaning by-pass. Adjustable connection (½" + or -) between valve and stop makes installation easy and compensates for slight variations in regular roughing-in of 4¼". A type for every use in apartments, hotels, schools, theatres and homes.



S-2250 Model 1 SPEAKMAN Anystream Self-Cleaning Shower Head.

America's most famous aid to better shower bathing. A turn of the lever allows the bather to select exactly the kind of spray he wants—needle for stimulation, regular for relaxation, flood for no-splash rinse. Always delivers full pattern shower.



S-1700 Complete SPEAKMAN Built-In Sentinel Shower.

Pipe size $\frac{1}{2}$ inch. Combines the Sentinel Balanced Pressure Mixing Valve and the Anystream Shower Head to provide America's outstanding, modern shower bath. Other concealed and exposed models available for every type of installation.

SENTINEL-ANYSTREAM

The Shower that has no equal . . .

Together—or used independently—the Sentinel Balanced Pressure Mixing Valve and the Anystream Self-Cleaning Shower Head offer exclusive features not to be found in any other shower. Here are the exclusive features that make Speakman Sentinel-Anystream Showers outstanding:

THE ANYSTREAM SHOWER HEAD—

1. Anystream Shower Heads take care of more bathers per gallon of water. Users report water savings up to 50%. This is an important feature during periods of peak demand on hot water. Provides full-pattern shower even on low water pressure.
2. Type of spray—From stimulating, stinging needle spray, or relaxing, smooth normal spray, to non-splash flood spray for rinsing, the Anystream delivers what the user wants. A turn of the lever sets the spray as desired. And, when turned off, there's no annoying after-drip.
3. *Self-Cleaning—won't clog.* In flood position all dirt and sediment is immediately flushed out. Precision-built for long wear. Integral ball joint with concealed volume control (Model 1). Heads for use in public places may be supplied with Allen set screw to discourage malicious removal.

THE SPEAKMAN SENTINEL BALANCED PRESSURE MIXING VALVE

Here's the answer to the problem of what to do about fluctuating water pressure that causes sudden surges of steaming hot or icy cold water in the shower bath. With the Sentinel, the bather sets the temperature where he wants it—and the Speakman Sentinel Mixing Valve *holds* it there. Here are the outstanding features of this valve.

1. Holds discharge temperatures even.
2. Operation not affected by pressure variations in supply lines.
3. All wearing parts renewable from face of valve.
4. No thermostats, rockers or springs to get out of order—a simple f-l-o-a-t-i-n-g piston does the work. Minimum maintenance.



See SWEET'S Architectural File for condensed catalog, or write for complete information on these products.

In Our 81st Year
SPEAKMAN

SHOWERS AND FIXTURES

SPEAKMAN COMPANY, WILMINGTON, DELAWARE

(Continued from page 157)

corrugated steel or any other material can be nailed on.

Construction Features

Footings. Adjustable steel footings placed on top of the ground are used with both the steel and wood frames. The normal method of digging holes for posts or footings was considered unsatisfactory. The height of the footing is adjustable in 3/16-in. increments

through a range of 3 in., since it is assumed that the sites will be leveled by bulldozers. If it is impossible to level the site this way, the upper tube section of the footing (see photo) can be separated from the lower tube and a wood post inserted between them cut to the proper length.

Frame. The frame consists of steel or wood bents, 8 ft on center, connected with purlins and girts. Bents are as-

sembled in the field with wedge-pin connectors. This connector is a button-head bolt, slotted to receive a plate which is held in place with a small pin driven through the bolt and a diagonal slot in the plate. After the connector is in place, the plate is driven with a hammer, the diagonal slot providing the wedging action.

Steel and wood purlins and girts use hook fasteners to secure them to bents and to each other.

Diagonal bracing of the frame is accomplished with factory assembled, scissors type braces which are unfolded and hooked to the four corners of the area to be braced. A center cam action lever straightens out the brace, bringing the frame parts to a true rectangle.

The structure may be guyed at each bent to withstand higher winds than the specified design load. Guying also substantially increases the roof loading capacity.

Roof. Corrugated steel sheets are laid at 2-ft centers on purlins with a 1-in. space between them. A capping strip using a cam action fastener which clamps to purlins from the underside is placed over the joint (see photo bottom 157).

Walls and Floors. Each bay of the *Tropic Zone* wall consists of an upper shutter, a lower shutter and a fixed wall panel. Both the wall panel and the shutters are composed of metal sheets of the same profile as the roof sheets.

Metal wall sheets for the *Temperate Zone* are identical with the roof sheets. Wood window frames are shipped knocked down and are assembled between girts with wedge-pin connectors.

Interior walls and ceilings can be finished and insulated with 4 by 8 ft wood framed panels finished with hardboard. Ceiling panels are 1/2-in. rigid insulation board, with edges protected by a light metal channel.

Floor beams on 8 ft centers are dropped into slots in the footings. Floor panels are 1/2-in. plywood, 16 in. wide and 8 ft long with a steel Z joist riveted to one side; they may be insulated.

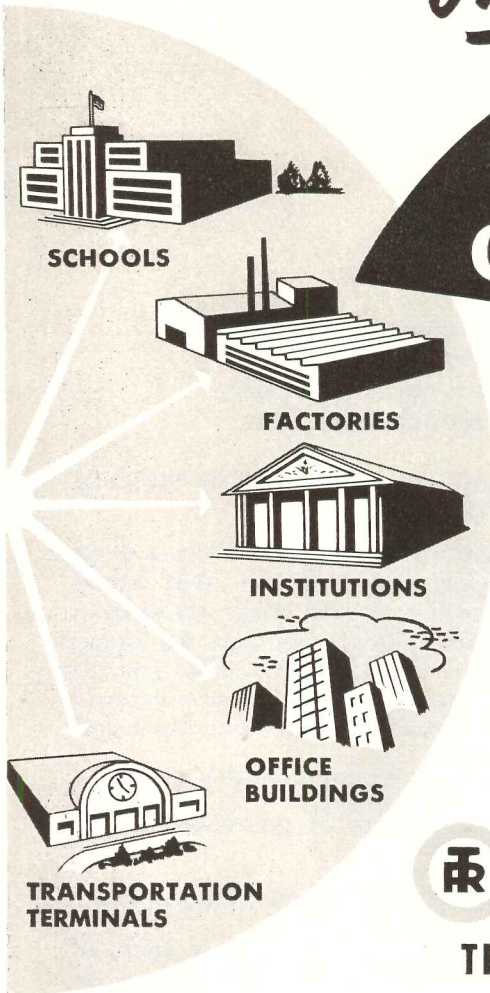
Frigid Zone floor, walls and ceiling are stressed skin plywood panels insulated with mineral wool. The entire enclosure is suspended inside the frame, avoiding problems of heat loss through frame members and to the ground. All panels are fastened to the frame with wedge type hooks. The weather tight joints used between panels are shown in lower drawing on page 157.

HOW TO KEEP A BUILDING

on time

SPECIFY TIME CONTROL BY

Cincinnati



Since 1896, The Cincinnati Time Recorder Company has pioneered in the development of time control and signaling equipment.

Today, whether your problem is time control for a single process or an entire building, Cincinnati offers a complete line of Master Control and Program Instruments — plus the services of skilled engineers to help you select the right equipment for the job.

We'll be pleased to send you complete information on Cincinnati time control equipment. Write Department AR-8.



THE CINCINNATI TIME RECORDER CO.

CINCINNATI 14, OHIO



Specify CTR to sound bells, buzzers, horns; maintain correct and uniform time on every clock and recorder; open or close electrical circuits at predetermined periods



Large windows flood this laundry with Filtered Daylight, yet incoming sun heat is reduced by Aklo Glass. Better daylighting—more comfortable interior. Welfare Island Laundry, designed and constructed under the supervision of the Department of Public Works, City of New York.

How FILTERED DAYLIGHT improves working conditions

Windows can do more for you than just bring in daylight. They can *filter* that daylight to give you the most desirable portions of the sun's visible rays. Plants all over the country are using Blue Ridge Frosted Aklo* Glass for:

1. Better Seeing—This blue-green glass transmits that portion of the spectrum most restful to the eyes. Frosted Aklo Glass provides more uniformly diffused daylight, with subdued brightness. This means less eye fatigue, happier personnel, improved quality of work and reduced danger of accidents.

2. Greater Comfort—Aklo Glass absorbs a high majority of the heat-loaded infrared rays of the sun and reradiates much of this heat externally. Thus, interiors are cooler, workers are more comfortable.

3. Better Temperature Control—Aklo's reduction of sun heat permits more accurate control of indoor temperatures and humidities. It effectively reduces load on air-conditioning equipment.

Aklo is made by the Blue Ridge Glass Corporation of Kingsport, Tennessee, and sold by Libbey-Owens-Ford glass distributors. To see for yourself how Frosted Aklo Glass reduces glare and sun heat, ask your distributor for a Radiometer demonstration. *®

Free Book on Reduction of Sun Glare and Heat

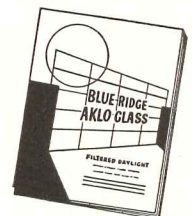
Blue Ridge Sales Division
 Libbey-Owens-Ford Glass Company
 9085 Nicholas Building, Toledo 3, Ohio

Please send me a copy of your book on glare and heat reduction, "Filtered Daylight".

Name _____

Company _____

Address _____



BLUE RIDGE AKLO GLASS

Heat Absorbing • Glare Reducing • Figured and Wire Glass



(Continued from page 160)

it is desirable to use a blower rather than a propeller type of fan, since the noise of a propeller fan can be very disturbing to nearby tenants. Many buildings have been forced to quiet cooling tower fans with sound traps (at some loss in efficiency) to end their neighbors' complaints.

As with water tanks on the roofs of skyscrapers, many architects have de-

ecided to conceal the tower rather than show it. A cooling tower cannot be completely enclosed, however, since it requires outdoor air to operate. An arrangement of baffles must be designed so that the tower receives the required amount of air, while concealing the tower from public view.

Smaller buildings such as store groups, lesser public buildings, etc. which can afford a small loss of space, generally utilize cooling towers, or evaporative condensers depending on their refrigeration and other requirements. Where provision must be made for future air-

conditioning, the most satisfactory solution is generally the installation of a large inside cooling tower, with sufficient capacity to carry the future load. The difference in cost between two differently sized cooling towers is not great compared to the fixed costs of ductwork, electrical work, and piping connections. For jobs where a small amount of air-conditioning is to be installed at first, a cooling tower may be specified which can be progressively added to by increasing the number of sections later.

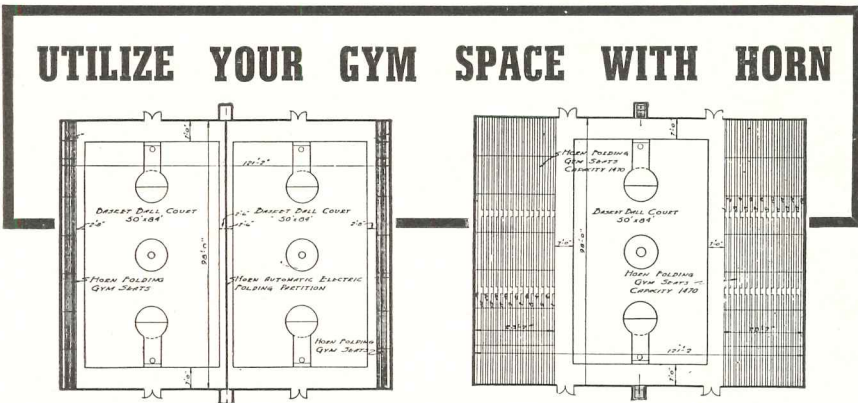
An air washer is the most satisfactory method of conserving cooling water, in locations where a cooling tower of large capacity is required but the headroom is limited. Air washers are limited to quite large installations serving upwards of 40 tons of refrigeration or more.

Whether to use an inside or an outside cooling tower depends on the economics of piping and ductwork, the loss of space versus the additional roof load.

When air-conditioning is to be installed in an existing building the problem is considerably more complicated. If a roof cooling tower is decided upon, the weight of the tower on existing columns and their footings must be considered. Piping may be difficult to run through areas leased to tenants, and appearance will not allow it to be run on the exterior of the building. If a cooling tower cannot be placed on the roof, indoor equipment will have to be the answer. The ductwork for the exhaust air from cooling towers or evaporative condensers should exhaust sufficiently away from tenant's windows so that no nuisance is created. For large installations, a duct should be constructed, if possible, to carry the exhaust well above the windows.

One of the toughest problems of air-conditioning with indoor equipment is how to run the ductwork to the exterior. If the equipment is quite large, the intake and exhaust ducts may require the sacrifice of whole windows. Otherwise, new holes in the side of the building may have to be cut to accommodate incoming and outgoing air. Smaller installations may have the ducts going out the top of a window.

When water conservation equipment must be added to refrigeration machinery which has been in service for a number of years, such as is now required in New York, the existing compressors and motors should be carefully checked for capacity. As pointed out previously, the addition of a cooling tower or an evaporative condenser reduces the efficiency of the cycle.

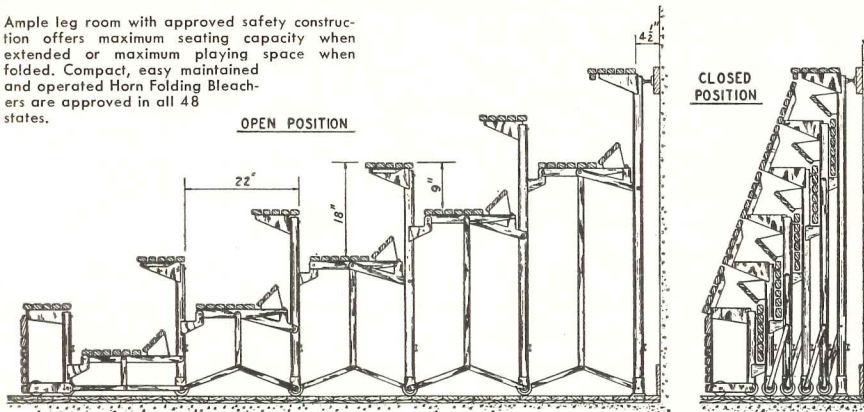


Two regulation basketball courts separated by a Horn Automatic Electric Folding Partition. Horn Folding Bleachers in folded position.

HORN FOLDING BLEACHERS extended increases the seating capacity for the BIG GAME! Horn Folding Bleachers will meet your requirements.

HORN FOLDING BLEACHERS

Ample leg room with approved safety construction offers maximum seating capacity when extended or maximum playing space when folded. Compact, easy maintained and operated Horn Folding Bleachers are approved in all 48 states.



ROWS	FLOOR SPACE			ROWS	FLOOR SPACE		
	IN USE	*CLOSED	**HEIGHT		IN USE	*CLOSED	**HEIGHT
3	4' 9"	1' 8 ³ / ₄ "	3' 0"	12	21' 3"	4' 3 ¹ / ₂ "	9' 9"
4	6' 7"	2' 0 ¹ / ₂ "	3' 9"	13	23' 1"	4' 6 ¹ / ₂ "	11' 3"
5	8' 5"	2' 3 ¹ / ₂ "	4' 6"	14	24' 11"	4' 9 ¹ / ₂ "	12' 0"
6	10' 3"	2' 6 ¹ / ₂ "	5' 3"	15	26' 9"	5' 1 ¹ / ₂ "	12' 9"
7	12' 1"	2' 10 ¹ / ₂ "	6' 0"	16	28' 7"	5' 4 ¹ / ₂ "	13' 6"
8	13' 11"	3' 1 ⁵ / ₈ "	6' 9"	17	30' 5"	5' 8"	14' 3"
9	15' 9"	3' 5"	7' 6"	18	32' 3"	5' 11 ³ / ₈ "	15' 0"
10	17' 7"	3' 8 ³ / ₄ "	8' 3"	19	34' 1"	6' 2 ³ / ₈ "	15' 9"
11	19' 5"	3' 11 ³ / ₄ "	9' 0"	20	35' 11"	6' 6 ³ / ₈ "	15' 9"

*Dimension includes 4 1/2 in. space between top seat and wall.
 **Height in open position same as closed. For Bleachers higher than 20 Rows write for complete details and dimensions.



HORN BROTHERS COMPANY
 DIVISION OF HORN INDUSTRIES FORT DODGE, IOWA, U.S.A.

RIC·WIL PREFERRED

For Fast Installation . . . For Long, Trouble-free Life



FILLMORE GARDEN APTS., ARLINGTON, VA.

Architect: Arthur L. Anderson, Washington, D. C.
Engineer: Wm. Bornstein & Son, Inc., Sam Salzburg, Wash., D. C.
General Contractor: Banks and Lee, Washington, D. C.
Heating Contractor: Wm. Bornstein & Son, Inc., Wash., D. C.

Photo by Fairchild Aerial Surveys, Inc.

When fast, economical installation, high-performance operation, and long trouble-free life are determining factors in the selection of insulated piping for central heating distribution systems, the natural preference is Ric-wil. There is sound reasoning behind this—important to architects, engineers, contractors, and owners alike.

There is no substitute for the forty years of Ric-wil experience and research devoted exclusively to insulated piping systems. This "know-how" plus the Ric-wil engineering, production and advisory staffs provide (1) insulated piping with every known component for maximum strength and thermal efficiency, and (2) design and engineering assistance to insure fast, accurate installation.

The Ric-wil representative nearest you will be glad to give you full information on Ric-wil Piping as applied to your problem. If you prefer, write to Dept. 9-PA, Cleveland, Ohio, for detailed technical information.



RIC·WIL

INSULATED PIPING SYSTEMS

OVERHEAD

THE RIC-WIL COMPANY · CLEVELAND, O.

UNDERGROUND

FOR FORTY YEARS THE GREATEST NAME IN INSULATED PIPING SYSTEMS

Effective uses of *Glass*

MAGNIFICENT 18-story, 1100-room Shamrock Hotel of Houston, Texas, is an architectural triumph. Here, Pittsburgh Products contributed importantly. For in its construction were used 11,000 panes of Pennvernon, the quality window glass; forty-four Herculite doors; 6,000 square feet of clear Polished Plate Glass for the exterior of the first floor; large quantities of Plate Glass for vanity and furniture tops; approximately 10,000 square feet of quality mirrors on vanities and doors, Alumilited Pittco De Luxe store front metal, and 1,550 gallons of Pittsburgh Wallhide and Waterspar paints. Architect: Wyatt C. Hedrick, Houston, Texas.



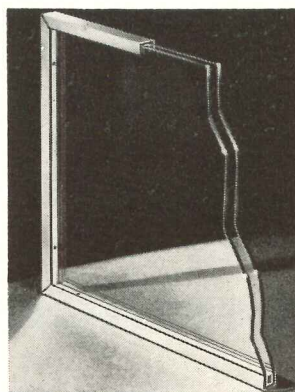
PROFIT-WISE merchants insist upon "open vision" store fronts. They know that is the way to show off their merchandise to the best advantage. This showroom in Sherman Oaks, California, is a representative example of how a large expanse of Pittsburgh Polished Plate Glass can help the architect achieve a design of distinction — eye-catching and sales-winning. Architects: Conklin & Coleman, North Hollywood, Calif.



in contemporary architecture



EFFICIENT INSULATING properties of Twindow (the window with built-in insulation) are convincingly demonstrated by this photograph. In this home in Duluth, Minnesota, single-pane Plate Glass was temporarily installed in the right hand panel. Note the icy formation. On the other hand, the Twindow unit, installed at left, is clear, without condensation. Shortly after this picture was taken, a second Twindow unit was used to replace the single-pane window. Architect: H. S. Starin, Duluth, Minn.



THIS CUTAWAY shows the construction of a Twindow unit with two panes of Pittsburgh Plate Glass. The hermetically-sealed air space between the panes provides effective insulation which minimizes drafts, cuts heat losses through windows, reduces condensation. Insulation is even more efficient when three or more panes are used. There are forty-five standard sizes available, adaptable either for wood or steel sash.

HOME INTERIORS assume greater charm, when you design them with large expanses of Plate Glass structural mirrors. Around the fireplace in the living room, as shown here, is a popular application. Why not give your homes the magic of mirrors? Pittsburgh mirrors are available in clear plate, blue, green or flesh tint, with gold, silver or gun-metal backing. Photographed at the Manor House, New York.



DESIGN IT BETTER WITH—

Pittsburgh Glass



Your Sweet's Catalog File contains a complete listing and descriptions of Pittsburgh Plate Glass Company products.

PAINTS · GLASS · CHEMICALS · BRUSHES · PLASTICS

PITTSBURGH PLATE GLASS COMPANY

PRODUCTS
(Continued from page 162)

speakers to make them more visible at night. Models are available with either cast-in hangers on junction boxes, or with simple aluminum baskets to hold speakers. Various types are available with any or all of the following items: roadway and post down lights, illuminated plastic junction box cover, red indicator lights to signal concessions,

and speaker toggle switches and volume control. Cables are of stranded steel for safety from theft, or of neoprene covered coiled cords.

A special low-cost model is in natural finish aluminum, with cast-in hangers and straight speaker cords. Radio Corp. of America, Camden, N. J.

- *Autocrat In-A-Car Speakers* come in both heavy pressed steel or die-cast aluminum. Steel units are enamel finished, aluminum units have a natural finish. All junction boxes are of cast aluminum. Inside parts are plated for

rust prevention. Straight cords are supplied with standard models. Extra accessories available include: coiled cords, post down guide lights, concession signal lights, baked-on hammer finishes, and basket cradles. Autocrat, Inc., 2227 Hepburn Ave., Dayton 6, Ohio.

Teller Windows For Drive-in Banks

Several types of manufactured window units for drive-in banks are available on the market. All are made of bullet-proof construction, and employ various methods of operating the deposit receiver to assure safety in money transactions. Two-way communication systems are provided in most cases. Some of the models available include:

- *The Mosler-Duplex Auto-Teller Windows.* The units incorporate a deposit receiver, package or payroll receiver, two-way speaker, and a self-locking gun port. The deposit unit employs double steel doors, interlocked so that only one can be opened at a time. Both are operated from within by hand levers. The outer door, when opened, moves down and serves as a shelf on which the customer may slide his deposit into the compartment. The windows are furnished in several designs, including bay and flush types, and a curved glass design. They may be obtained in a painted finish, or in aluminum or bronze plate. The manufacturers claim the unit may be installed in any style, shape or size of window desired. A kiosk-like *Curb Teller* is also available for sidewalk installation. Duplex Electric Co., 71-73 Grand St., N. Y.

- *The Diebold Drive-up Counters.* Most of these models are equipped with a revolving drum "Rotary Tray" deposit receiver. A single opening in the drum is rotated by the teller towards the customer to receive the deposit, then returned for teller's transactions. Standard models have either curved or flat construction, and are equipped with deposit tray, communication system and customer call buzzer. Package receivers are optional, and can be mounted below the window. Deluxe models are of the curved type, and have Rotary Tray or hopper type deposit receivers, package receivers and counter cash and storage drawers. An extendable drawer-type deposit receiver is available at extra cost. All units are finished in gray and stainless steel, and are made to suit wall thicknesses. The deluxe model requires a



**HERE'S AID TO ARCHITECTS
and ENGINEERS in
planning SOUND SYSTEMS!**

ARCHITECTS and their engineers are invited to make full use of the experience of RCA Sound System engineers and the great RCA research and engineering laboratories, in planning and engineering sound systems.

You can get practical help on sound systems for every type of building: Schools . . . Hospitals . . . Hotels . . .

Factories and Offices . . . Churches . . . Department Stores . . . Airports and Terminals . . . Warehouses and Garages . . . Auditoriums . . . Recreational Centers . . . Institutions . . . Stadiums.

Call on RCA Sound System engineers while your plans are still in formative stage. *No obligation, of course.*

SOUND PRODUCTS
RADIO CORPORATION of AMERICA
ENGINEERING PRODUCTS DEPARTMENT, CAMDEN, N. J.

3-H

Please have one of your sound system engineers call on us.

NAME _____

FIRM _____

STREET _____

CITY _____ STATE _____

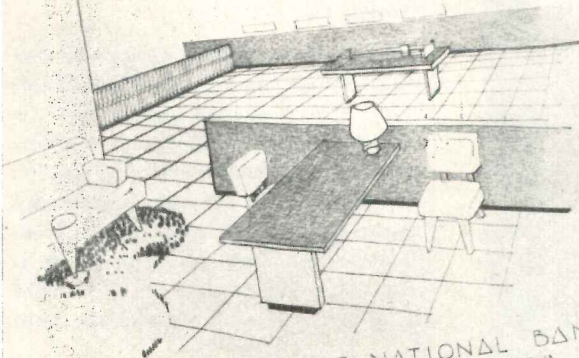
(Continued on page 228)

**All 4
Call for
CONSOWELD**

WORK AND SERVICE CENTERS in offices, banks, stores, restaurants, factories, schools, hospitals, hotels and homes are more efficient, sanitary and attractive when covered with CONSOWELD, a thermo-setting plastic laminate. More economical, too, for care-free CONSOWELD never needs painting or resurfacing!

Colorful CONSOWELD (over 40 colors and patterns for latitude aplenty in your color-scheming!) is resistant to heat, moisture, abrasion, alkalis and acids. Important horizontal and vertical surfaces in commercial, industrial, institutional and residential building and modernization call for the enduring, functional beauty of CONSOWELD.

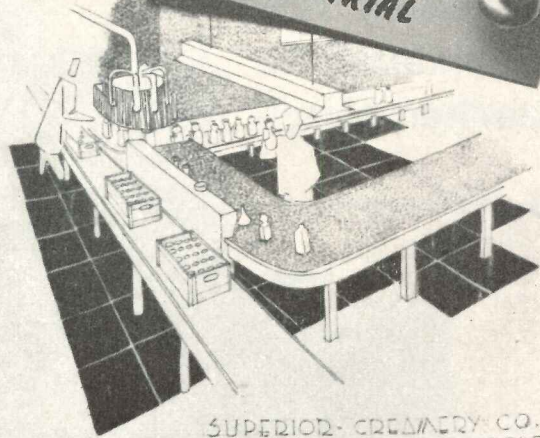
COMMERCIAL



FIRST NATIONAL BANK
CUSTOMER ROOM

CONSOWELD SURFACES

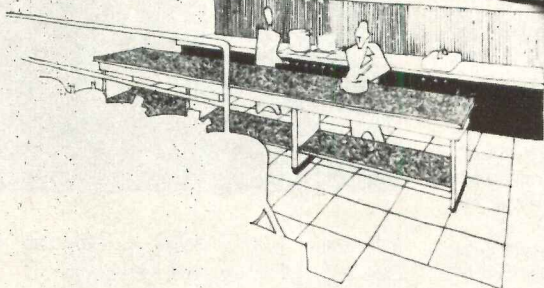
INDUSTRIAL



SUPERIOR CREAMERY CO.
QUALITY CONTROL DEPARTMENT

CONSOWELD SURFACES

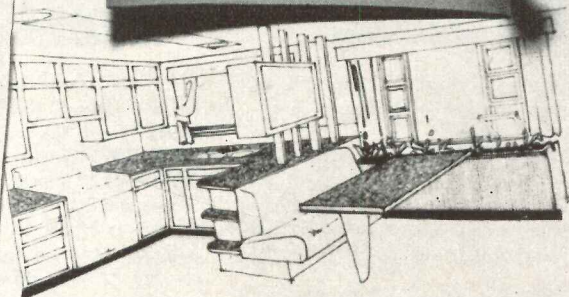
INSTITUTIONAL



BRECKENRIDGE MEMORIAL HOSPITAL
FOOD PREPARATION CENTER

CONSOWELD SURFACES

RESIDENTIAL



ALTERATIONS TO THE RESIDENCE
OF MRS. & MRS. J. HENRY JONES

CONSOWELD SURFACES

Write for FREE Color-Ring
and Useful Literature



CONSOWELD
decorative laminates

PLASTICS DIVISION
CONSOLIDATED WATER POWER & PAPER COMPANY
WISCONSIN RAPIDS 11, WISCONSIN

PRODUCTS
(Continued from page 226)

wall opening 47 $\frac{1}{8}$ in. high by 60 $\frac{1}{2}$ in. wide. Diebold, Inc., 1586 Fifth St., S. W., Canton 2, Ohio.

Car Heaters For Drive-in Theaters

National In-Car Heaters are designed to provide electric heat for cool nights, extending the playing-season of a drive-

in theater. The units are 5 by 4 $\frac{1}{2}$ by 4 in., housed in an aluminum alloy case. The case is said to remain cool while in operation. A hook is provided for hanging on the car window. The unit is finished with a maroon lid and gray crackle case.

The heating element is a tubular type, of weather-proofed sheathed steel. A quiet running induction motor and an aluminum fan are used to distribute heat. Heaters come with coiled cords, and are completely grounded. Switch, intake louver and outlet grill are guarded

for protection. National Heaters, Inc., 1647 Victory Blvd., Glendale 1, Calif.

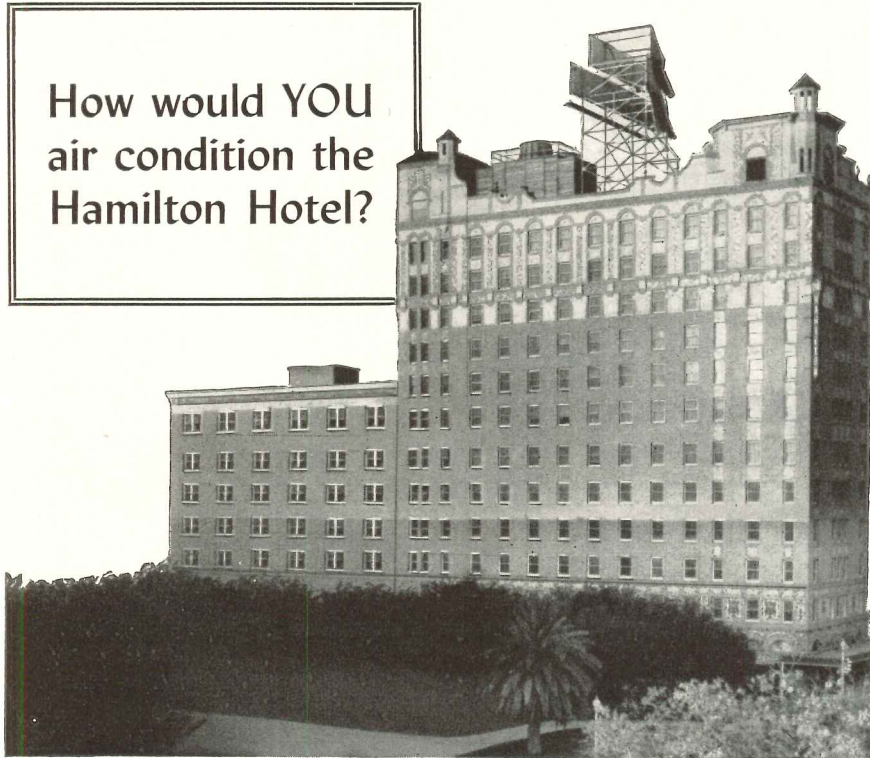
- The *Mobiletone Deluxe Heater-Speaker Unit* combines both in-car speaker and heater in a single housing. The case is of anodized aluminum, with a ceramic housing for the heating portion. It is claimed that the unit can be placed on car upholstery in any position without fear of burning. The heating element is a G.E. Calrod unit. Each heater element is patron-controlled by a switch on the exterior of the case. The motor is said to be noiseless. A three-conductor heavy duty coiled cable is used.

The speaker unit is a 4 in. G.E. unit with volume control. A parking light, located in the junction box, can be adjusted to a small spot or a flood. Theatrecraft Manufacturing Corp., 1878 E. 18th St., Cleveland, Ohio.

Steam Cooker

Designed for small restaurants, diet kitchens and cafeterias, the *Markel Forge Steam Cooker*, counter model ST-G, is claimed to provide maximum cooking speed with minimum fuel consumption. The cooker is gas operated and generates its own steam. A pre-set pressure of 5 to 15 lb is maintained. Gas connection is arranged so that gas line can be brought in through side or bottom of the unit.

How would YOU air condition the Hamilton Hotel?



The Hamilton Hotel in Laredo, Texas had air conditioning in a few rooms—wanted to add more.

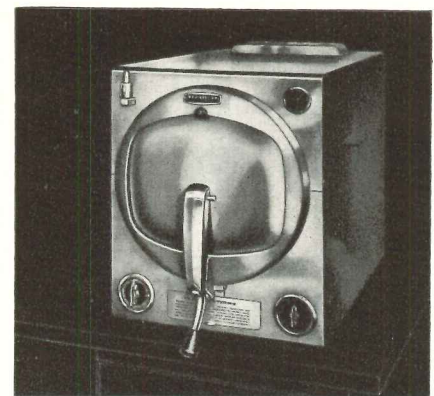
The architect, after careful study, recommended usAIRco's ductless Modu-aire system because it would avoid the headaches and expense involved in a duct system. Everyone is delighted with the results.

175 Modu-aire units are connected by small copper tubing which conducts chilled water from the central refrigeration system to each room. Every Modu-aire unit has a simple dial control to regulate temperature and humidity.

For the Hamilton Hotel, in searing-hot Laredo, Texas, usAIRco Modu-aire has really "beat the heat". Management reports booking summer conventions and additional hot weather tourist business.

For building owners and builders usAIRco Modu-aire has the flexibility and economy so important in air conditioning. It's a complete heating and cooling system—providing truly luxurious air conditioning.

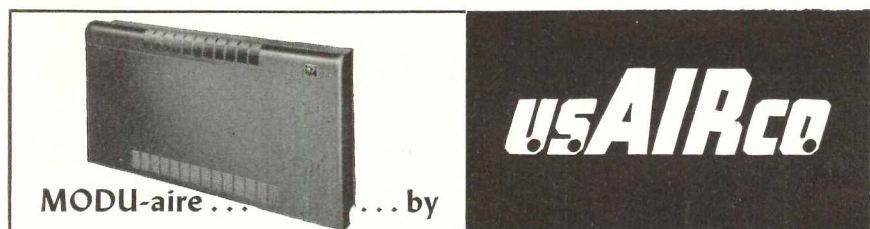
Write us before you draw up your next specifications. United States Air Conditioning Corporation, Minneapolis 14, Minnesota.



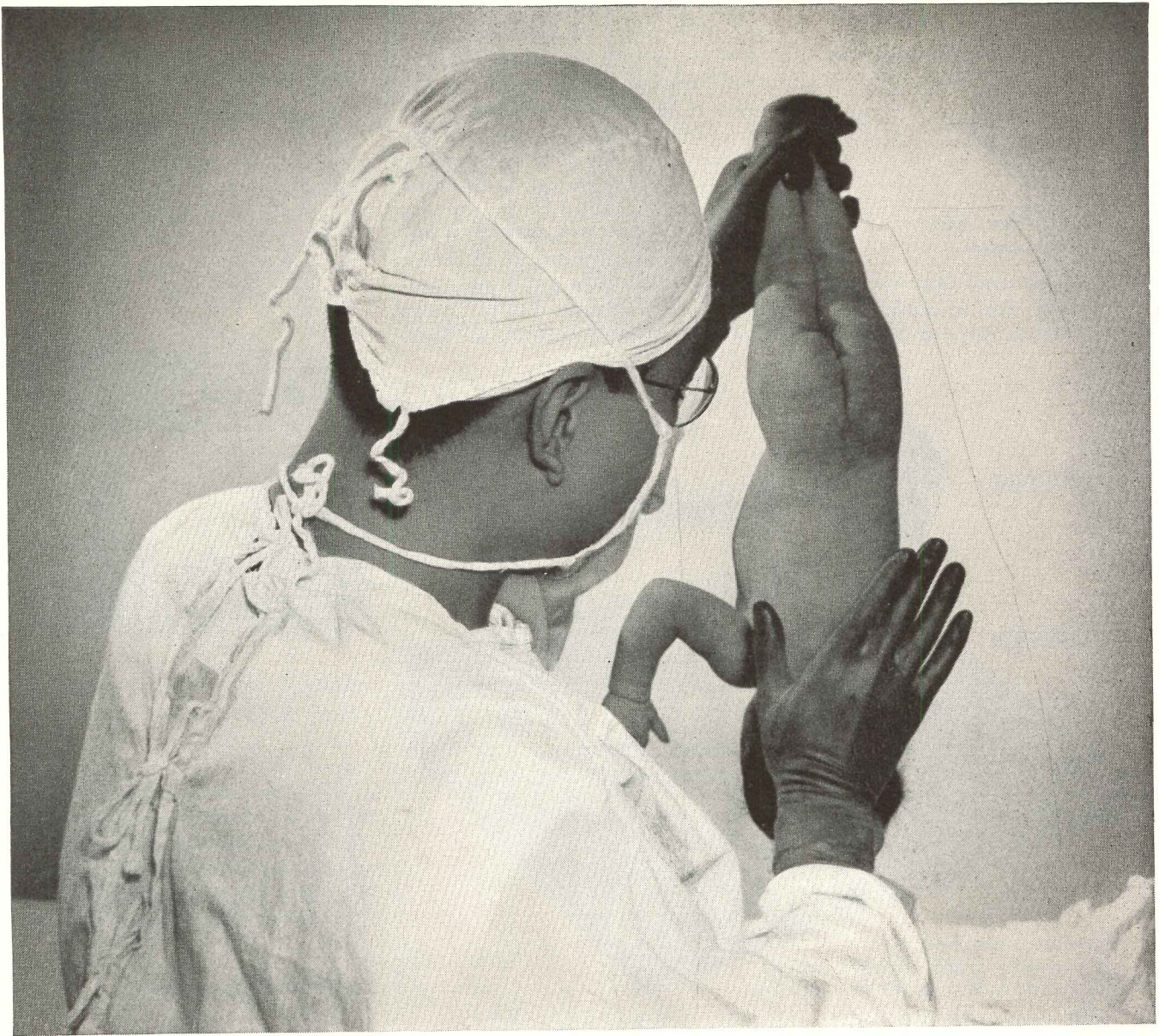
Compact steam cooker is planned for use in small cafes and restaurants

Provision is made for bolting cooker to counter if desired. The unit is constructed of anodized aluminum, has a capacity of three cafeteria pans. It comes equipped with safety valve, blow-out plug, low water cut-off, automatic air vent, automatic steam vent and timer. The necessary water is put in

(Continued on page 230)



Engineers and manufacturers of air conditioning, refrigeration, unit heaters, coils and ventilating equipment



It happened at night . . .

In a hospital almost anything can happen at night . . . at any time. For births, accidents, emergency operations may demand attention at any hour. Thus dependable lighting in hospitals is extremely vital. And this means more than number, brilliance and location of lights. Provision should be made to offset the danger of failure of normal current supply.

Lighting failures are of frequent occurrence. For storms, fires, floods,

collisions or other accidents beyond the control of ever-vigilant utility companies give little or no warning and are a serious menace to electric power lines.

You can safeguard the buildings you design against such power failure. Exide Emergency Lighting provides safe, sure, modern protection to hospitals, schools, theaters, stores and other buildings. *Instantly and automatically* it takes over the light-

ing load when other sources fail. It can be supplied in units or systems to meet any requirement.

THE ELECTRIC STORAGE BATTERY CO.
Philadelphia 32
Exide Batteries of Canada, Limited, Toronto

Exide

EMERGENCY LIGHTING

"Exide" Reg. Trade-mark U.S. Pat. Off.

1888 . . . DEPENDABLE BATTERIES FOR 62 YEARS . . . 1950

PRODUCTS

(Continued from page 228)

through the door with any utensil available. Market Forge Co., 25 Garvey St., Everett 49, Mass.

Attraction Signs For Drive-in Theaters

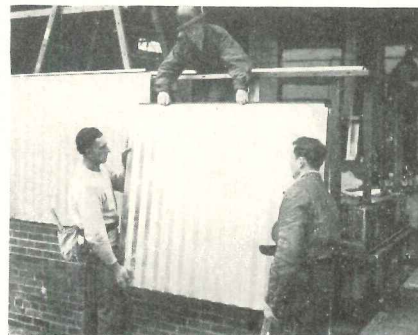
Poblocki and Sons' drive-in attraction and name signs are available in 21 standard designs and a great range of

prices. Signs are constructed of paint-lok sheet metal, aluminum, stainless steel or porcelain enamel, and can be double or single faced or V type. Various kinds of illumination and flashing effects are supplied. Signs are pre-fabricated and come with transformers, wiring, tube supports, tubing and housings; completely wired. Lamps and support poles are not furnished. Attraction sign faces are double strength white opal glass. Colors of neon tubing and backgrounds are optional. Special designs are made on order. Poblocki and Sons,

2159 S. Kinnickinnic Ave., Milwaukee 7, Wis.

Steel Curtain Walls

Republic stainless steel curtain walls consist of a sandwich make up of steel pans enclosing lightweight insulation. The exterior sheet is corrosion-resistant stainless steel, the interior sheet is carbon steel. Panels weigh from 6 to 10 lb per sq ft, depending upon thickness and type of insulation used.

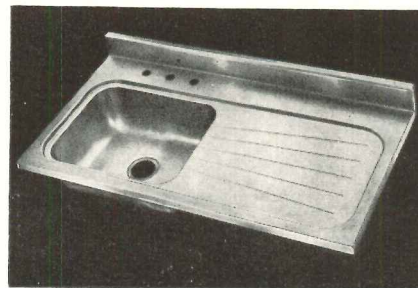


Stainless steel panels provide lightweight units for curtain walls

The panels are shop fabricated. They are attached to building structural skeletons by continuous angles. Provision for vertical and horizontal adjustment has been provided for alignment. Republic Steel Corp., Republic Bldg., Cleveland, Ohio.

Stainless Steel Sink

The Legion Stainless Sink, made for use with custom kitchen counter installations, is die stamped of stainless steel. Bowls are joined to the tops with



Kitchen sink unit is fabricated of die-stamped steel for custom-built counters

a special lock type joint. Tops are pitched and grooved, and have a raised rim and apertures for plumbing fixtures.

(Continued on page 232)

WITH
Premium Quality

BETTER Colors

BETTER Wear

BETTER Floors

AZPHLEX ASPHALT TILE

There are four good reasons why Azphlex grease-resistant asphalt tile offers such remarkable qualities:

- 1 **Tremolite Talc**, its mineral filler, is highly stable, and totally resistant to alkalis, acids and other chemicals. It is fine-grained and microscopically fibrous.
- 2 **Asbestos Fiber** used in Azphlex is of the Chrysotile variety, noted for its fine texture, flexibility, strength and resistance to fire.
- 3 **Thermoplastic Binder** is a polystyrene—a scientifically proportioned composition of low molecular weight—which is plasticized with aromatic, petroleum-derived oils and is unaffected by moisture, acids, alkalis, oxidation, etc. Uniformity and perfect blending are assured because the binder is cooked at high temperature in large batches.
- 4 **Color Pigments** used in Azphlex are permanent and alkali resistant.

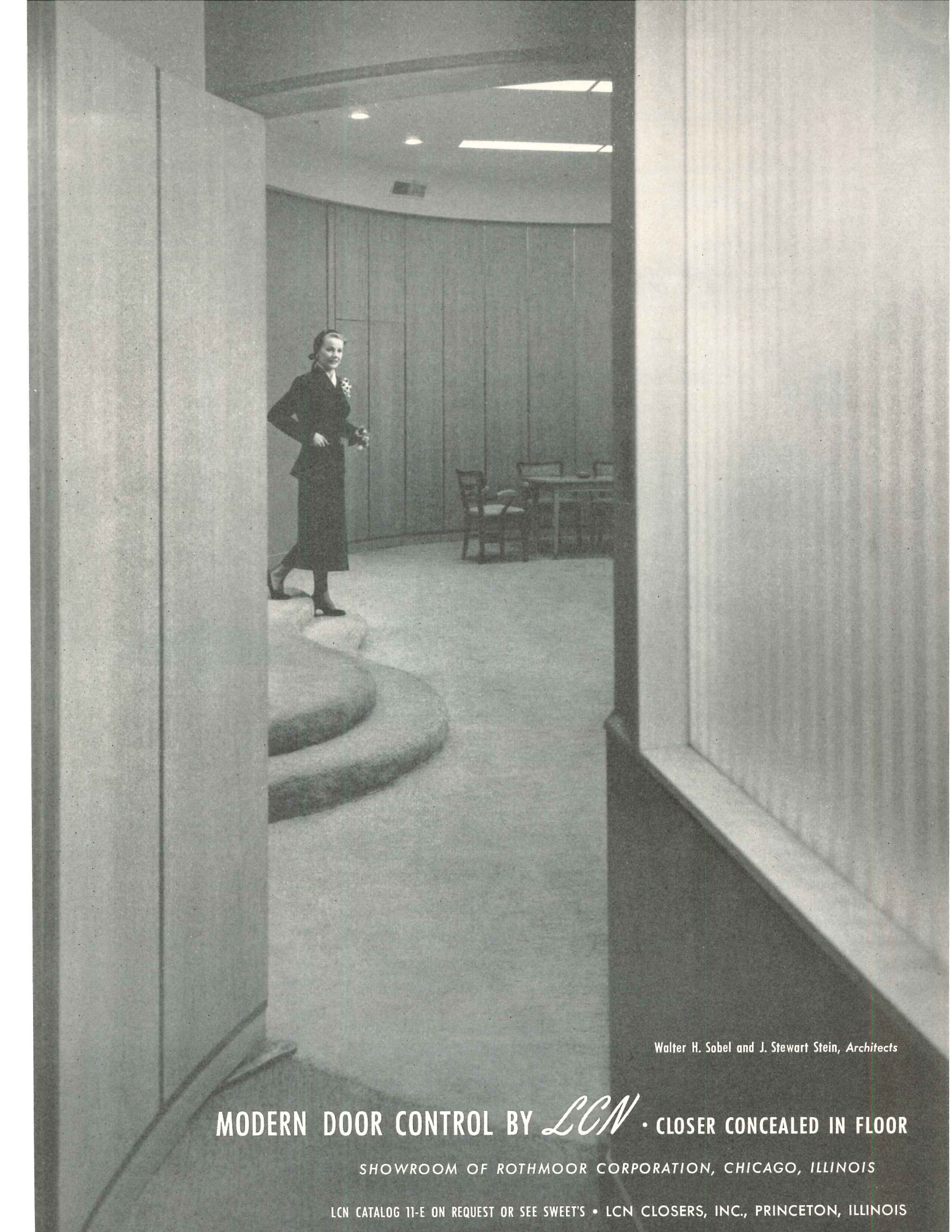


When you specify grease-resistant, premium-quality Azphlex Asphalt Tile—you can know that you're giving your clients better, longer-lasting floors at lower cost. Get full information and sample tiles from your AZROCK-AZPHLEX Dealer, or write to Dept. C.

UVALDE ROCK ASPHALT CO.

Makers of AZROCK and AZPHLEX Asphalt Tile

FROST BANK BLDG. • SAN ANTONIO, TEXAS



Walter H. Sobel and J. Stewart Stein, Architects

MODERN DOOR CONTROL BY *LCN* • CLOSER CONCEALED IN FLOOR

SHOWROOM OF ROTHMOOR CORPORATION, CHICAGO, ILLINOIS

LCN CATALOG 11-E ON REQUEST OR SEE SWEET'S • LCN CLOSERS, INC., PRINCETON, ILLINOIS

PRODUCTS

(Continued from page 230)

The sinks are made in lengths ranging from 39 to 72 in. Legion Stainless Sink Corp., 40th Ave. and 21st St., Long Island City 1, N. Y.

Color in Kitchen Units

St. Charles Custom-Built Steel Kitchens feature an extensive line of kitchen counters, cabinets and fittings in a

choice of 10 baked-enamel-finish colors. These colors include four pastels, four deep tones, gray and white. Units are available in a large number of sizes, made in graduations of 3 in. widths. While sizes are standard, the units are not pre-fabricated and stocked, but each one is made and finished as part of a particular kitchen. When required, units of special dimensions can be furnished.

Standard designs include wall units, base units, sink fronts, full height units and fillers. Tops may be of linoleum, vinyl, stainless steel or maple. Special

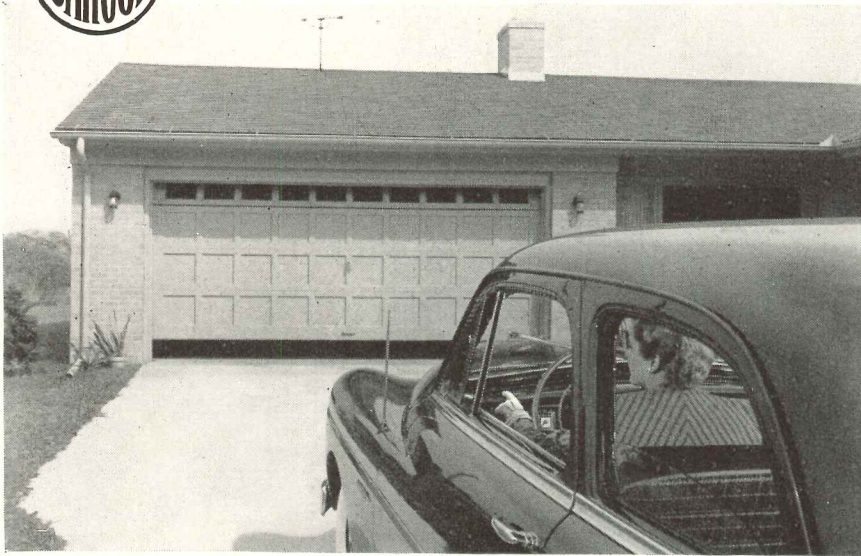
purpose units and accessories are available for most kitchen storage and work needs. St. Charles Mfg. Co., St. Charles, Ill.

Adjustable Ceiling Fixture

An indirect lighting fixture, designed by Harry Gitlin, employs a system of concealed pulleys and counterbalance to permit simple vertical adjustment for varying conditions and uses. A leather covered handle is fixed to the lamp shield for raising or lowering fixture. Finish is in brushed brass. The support-



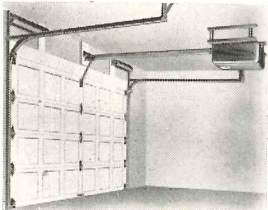
◀ **LOOK FOR THIS MARK OF QUALITY**



Touch a Button...to Open the Door

The magic of radio brings you this modern convenience! With BARBER-COLMAN RADIO CONTROL, you can open or close your garage doors by simply touching a button in your car. The car can be moving, or standing still, anywhere (and in any position) within approximately 75 feet of the garage. The equipment operates on FCC-assigned

frequencies, hence can use maximum power in the transmitter and a minimum of tubes in the receiver. Barber-Colman, a pioneer in the radio control field, is a reliable source of practical equipment, with over 20 years experience in this specialized field. *Ask your Barcol representative for a working demonstration of the amazing Radio Control.*



ELECTRIC DOOR OPERATORS

Soundly engineered and ruggedly built for dependable and durable performance — Barcol Electric Door Operators are made in a variety of models for swinging, sliding, overhead, and steel rolling doors, and for sliding gates. They can be actuated by any of various switches, by electric eye, or by Radio Control. *Get a demonstration!*

SALES AND SERVICE REPRESENTATIVES IN PRINCIPAL CITIES

BARBER-COLMAN COMPANY

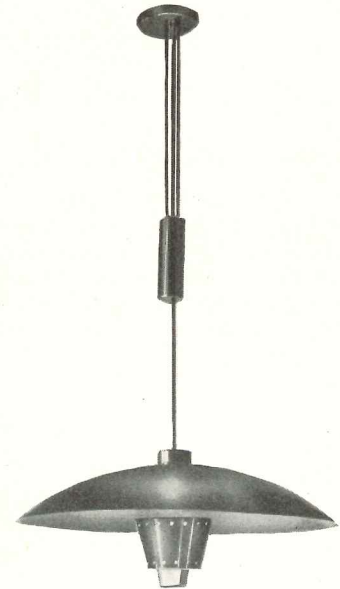
102 MILL STREET • ROCKFORD, ILLINOIS

The Only Manufacturer of All Three...

GARAGE DOORS

ELECTRIC OPERATORS

RADIO CONTROL



Ceiling fixture has pulley device and handle for adjusting height

ing wire is of reinforced rubber, and is available in black or gray. Ledlin Lighting, Inc., 49 Elizabeth St., New York 13, N. Y.

Venetian Blinds

Flexalum blinds employ an aluminum alloy for slats that are claimed to be extremely lightweight, flexible, and resistant to chemicals, heat, moisture and salt spray. A special plastic finish is said to prevent fading, chipping, peeling or cracking. Fourteen colors are available.

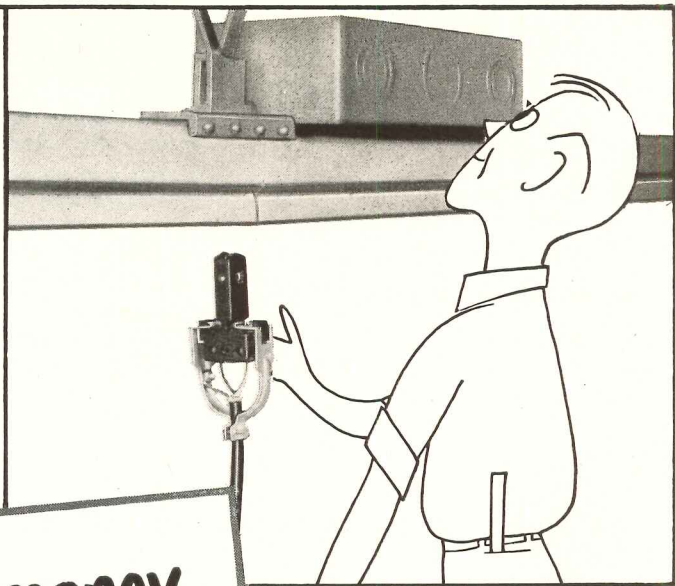
Tapes are made of vinyl plastic. They are claimed to have great strength and wearing qualities. Cleaning may be done with a damp cloth. Colors may match or contrast with those of slats. The blinds are similar in design and operation to conventional venetian blinds. Hunter Douglas Corp., 150 Broadway, New York 7, N. Y.

(Continued on page 234)



"Quick-install-ability"
saves initial cost

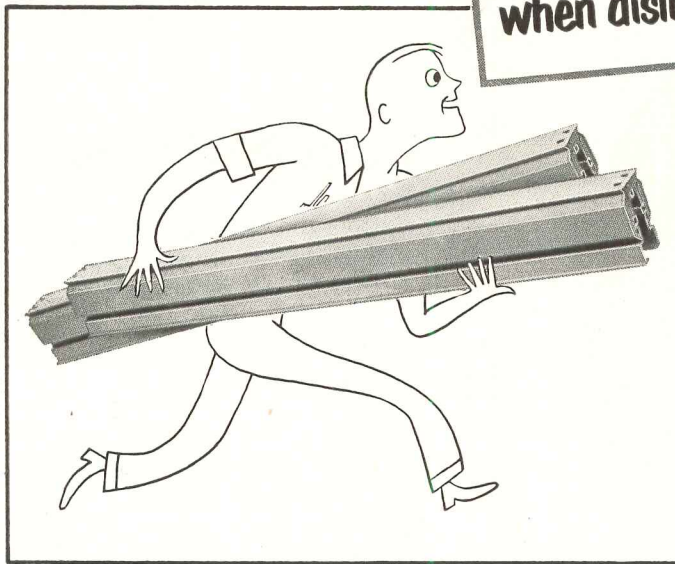
LTG FLEX-A-POWER busways are pre-fabricated housings which are easily coupled in any arrangement and in runs of any required length. Time for installing is much less than for wiring and conduit.



"Plug-in-ability"
saves time relocating machines

Take-off plugs or trolley can be inserted anywhere (no drop-out section needed for trolley). You can add or relocate loads without rewiring expense and without long extensions.

**Save money
these 3 ways
when distributing power**



"Take-apart-ability" saves material expense

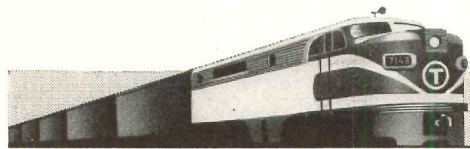
Whenever a major relocation of outlets is required, the entire FLEX-A-POWER system can be dismantled, removed to another location and re-installed with practically 100% re-use of materials.



Sealed Power Corp.
saves with **Flex-a-Power**

LTG FLEX-A-POWER, one of six forms of FLEX-A-POWER for various services from main breakers to individual loads, is designed for light-duty lighting, small tools, appliances. Write for Bulletin TEC-3, THE TRUMBULL ELECTRIC MANUFACTURING COMPANY, Plainville, Conn.

TRUMBULL T ELECTRIC



TRUMBULL'S TRAIN OF NEW PRODUCTS

PRODUCTS

(Continued from page 232)

Corner Elbow For Electrical Conduit

The *Gedney Pull-in Elbow* features a removable side cover on the side to facilitate the installation of wires. The unit makes sharp right angle turns possible for straddling beams or other locations requiring a snug corner fit, without

forcing or damaging the wires. With the cover removed, wires may be pulled straight in either direction. The cover is screwed in place on completion of wiring. The elbow is available in 1/2, 3/4 and 1 in. sizes. Gedney Electric Co., 1270 Sixth Ave., New York, N. Y.

New Armchair

Designed as a reading and conversation chair, this is the first of a series of new pieces designed by Alvin Lustig, graphic and architectural designer. The seat and back are of moulded plywood



New upholstered chair is formed of moulded plywood and foam rubber

covered with foam rubber and upholstered. Legs are solid steel rod. It is available in leather as well as two-tone upholstery combinations. Legs may be black or white lacquer, or plated in brass or chrome. Paramount Furniture Manufacturing Co., Los Angeles 46, Calif.

Sectional Furniture

A new series of sectional seating units designed by George Nelson is equipped with attachable cantilevered arms and table components. The attachments are held in place by a special tubing construction. The arm attachment is foam rubber on wood, spring mounted so that it may be tilted upward or leveled. It is also available in a permanently level or inclined position.



Seating units have attachable arm and table units, permit many arrangements

There are three table attachments: round, oblong, and a one-drawer end table. Tops are of white formica, said to be liquor, stain and burn proof.

The seating units come, with backs, in
(Continued on page 236)

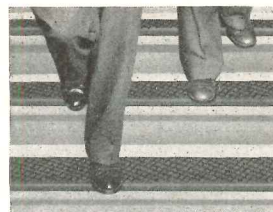


UNPROTECTED STAIRS CAN BE A hazard FOR UP TRAFFIC!

Specify FERALUN* Safety Treads In At Least 4" Widths to Prevent Slipping and Wear

As the illustrations show, UP traffic needs the underfoot "grip" of abrasive particles embedded in a tread *at least 4" wide*. DOWN traffic needs the same safety feature on the tread nosings as well.

Feralun treads are made to provide full protection from this "double traffic" all stairways must serve. They always have abrasive granules in the nosings—for the *down* traffic, and should be wide enough (at least 4") to protect the *up* traffic as well. *Note action photos showing points of foot contact which are also points of slipping and wear.*



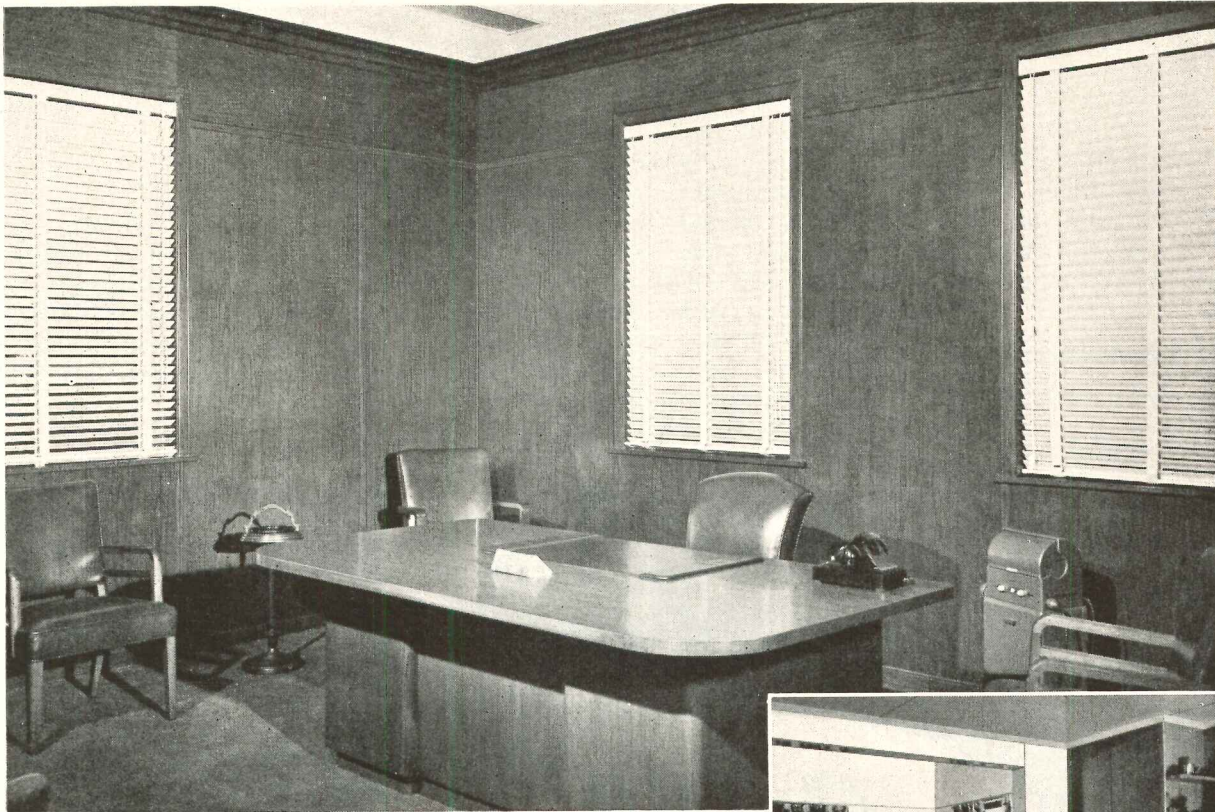
Not only do these sturdy cast iron abrasive treads give underfoot safety *up and down*, but they also give protection from wear as well. Installations of Feralun treads are still giving maintenance-free safety after more than a quarter century of continuous use.

For full information on Feralun and other underfoot safety products, see Sweet's File, Architectural, Sec. 13a/10, or write to:

AMERICAN ABRASIVE METALS CO.
463 Coit Street • Irvington, New Jersey

USE FERALUN TREADS AND BE SAFE... "UP AND DOWN"

*Reg. U. S. Pat. Off.



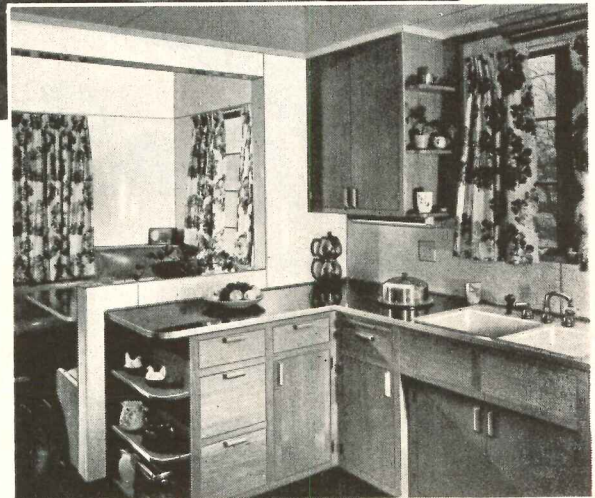
Luxurious Mahogany Wood Pattern Marlite lends an atmosphere of impressive elegance to this modern executive office.

time-tested Marlite is the answer!

For 20 years architects have specified Marlite wall and ceiling panels, for modern, practical interiors. Homes, institutions, stores . . . no matter what type of project, on old walls or new, Marlite's gleaming surface assures lasting client satisfaction. Beautiful? Yes! Quickly installed? Sure! But the *biggest* advantage is the lasting economy, the maintenance-free durability of the genuine Marlite baked plastic finish. Dirt is sealed *out*; the rich colors are sealed *in* to stay!

63 colors and patterns make your job easier. Panels are 4' wide in 4', 5', 6', 8' and 12' lengths. New Marsh Color Matched Aluminum Mouldings blend perfectly, or form a pleasing contrast with any Marlite color.

See our catalog in Sweet's File, Architectural.



Marlite's practical beauty makes housekeeping easier in kitchens, baths, dens, utility rooms, and studies.



WRITE TODAY FOR FREE FOLDER showing actual samples of Marlite in Wood, Marble, Plain, Horizontaline, and Tile patterns; illustrating many Marlite interiors. Marsh Wall Products, Inc., Dept. 805, Dover, Ohio, Subsidiary of Masonite Corporation.



OFFICE BUILDINGS • HOMES • HOTELS • HOSPITALS • THEATRES • AUTO SHOWROOMS • SERVICE STATIONS • STORES • TOURIST COURTS

PRODUCTS

(Continued from page 234)

25, 50 and 75 in. widths. A 25 in. ottoman is also available. All are the same height and depths. Seats are covered with foam rubber. Legs are satin-finish metal. Herman Miller Furniture Co., Zeeland, Mich.

Window Air-Conditioning Unit

The *Coolair* window model air-condi-

tioner features one-motor operation with a special spin-spray cone, which is said to give a maximum flow of cooled air at minimum electrical and water consumption. The unit draws outside air through a spray, cleans, filters, humidifies and cools it, then delivers it into the interior. Fiber glass filters are also said to remove disagreeable odors. Completely packaged, the unit is designed to fit a 30 in. double hung window. Filler pieces are available for wider windows. The unit operates on 115 volt, 60 cycle A.C. household current. Each is supplied with

an automatic float valve, 25 ft of copper tubing, saddle valve and 6 ft of electric cord, switch and plug. Thermostats are available. Belmetals Mfg. Co., Belmont, Calif.

Multi-Use Floor Lamp

The *Hosmer 3-Way Swing Lamp* employs a two-jointed, telescoping arm to produce a lamp adaptable to many uses: as a torchiere for indirect lighting; as a reading or bridge lamp; as a directional lamp to spotlight pictures or other features. The telescoping arm makes the

Jewelry

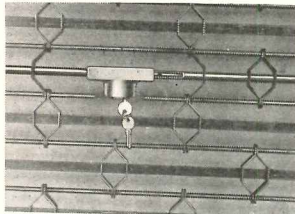
Warehouse

Freight

New Safety
plus air conditioning
with **MECCO Grilles**

A NEW MECCO PRODUCT . . . MECCO Rolling Grilles are engineered and built with the experience of scores of years in the fabrication of all types of doors for all types of buildings and projects. A combination of beauty and strength makes these new MECCO Grilles ideal for any application requiring locked off areas without disturbing light and air flow.

WHERE TO SPECIFY . . . For restricted areas in factories, warehouses, public buildings, schools, hospitals and other institutions . . . for store fronts and sections of stores . . . for recreational centers, stadiums, bowling alleys, race tracks and playgrounds . . . for entrances to parks, estates and prohibited areas both governmental and private.



SEND FOR FREE ESTIMATE OF YOUR REQUIREMENTS for new MECCO Rolling Grilles are available in sizes and types to meet your individual requirements. Complete data is available to you without obligation of any kind . . . write today.

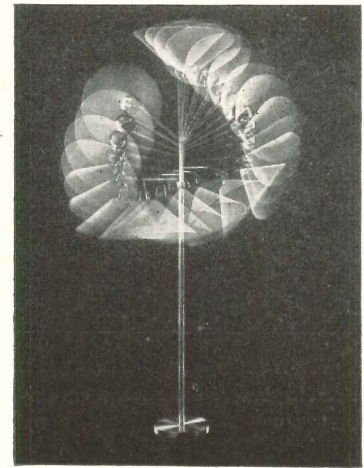
Larger Elevation Cylinder Locking Device



doors

- ALL TYPES ROLLING DOORS
- ROLLING GRILLES
- ROLLING DOORS TO SPECS.
- KALAMEIN FIRE DOORS
- TIN IRON CLAD DOORS

THE MOESCHL-EDWARDS CORRUGATING CO., INC.
P. O. BOX 1115, CINCINNATI, OHIO



Floor lamp adjusts to a great variety of positions for general and special uses

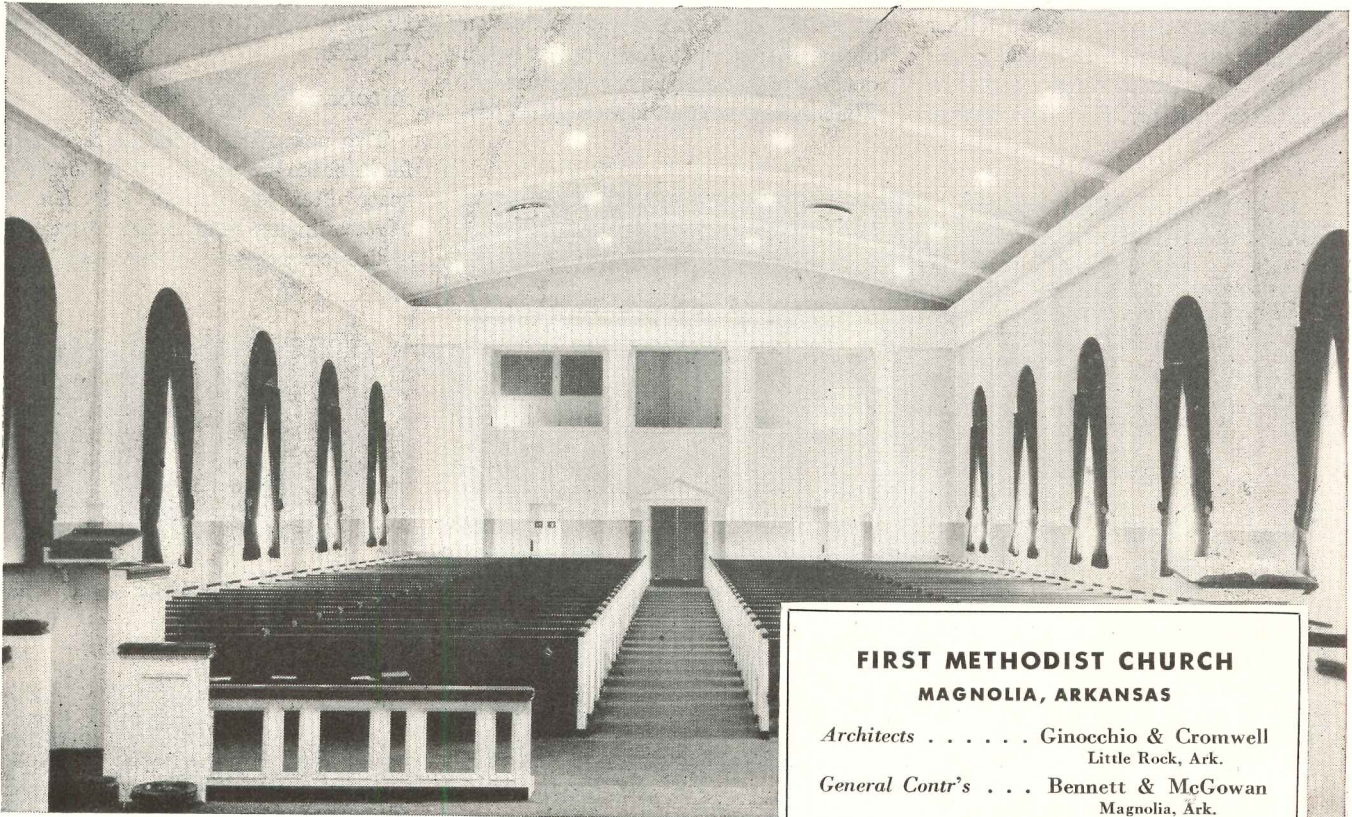
floor lamp adjustable in height from 5 to 7 ft. Both joints rotate clockwise and counter-clockwise, also permit both or either arm to swing at any angle between horizontal and vertical. Spring friction permits joints to be positioned without tightening of wing nuts, etc. All wiring is concealed; a special device prevents wiring from becoming twisted. The lamp is available in copper, brushed brass or brushed cadmium finish, with shades in colored cloth or aluminum "acorn spin." A three-way switch permits 50, 100 or 150 watt illumination. Table and pin-up models are also available with all the features of the floor lamp except telescoping. Hosmer Lamps, 1422 Grant Ave., San Francisco, Calif.

Laminated Building Panel

The *Kaylo Laminated Panel* offers a lightweight material for curtain walls or other non-loadbearing sections. It is said to require no painting, plastering or other finishing, but may be painted with alkaline-resistant paints

(Continued on page 238)

See How Gold Bond Products Work Together For You!



FIRST METHODIST CHURCH MAGNOLIA, ARKANSAS

Architects Ginochio & Cromwell
Little Rock, Ark.

General Contr's . . . Bennett & McGowan
Magnolia, Ark.

Plast. Contr's E. J. Brown
Magnolia, Ark.

GOLD BOND PRODUCTS USED:

METAL LATH AND ACCESSORIES
REGULAR GYPSUM PLASTER
MOULDING PLASTER
GAUGING PLASTER
FINISH LIME
ACOUSTICAL PLASTER

You'll build or
remodel better with
Gold Bond

THAT'S Gold Bond Acoustical plaster on the ceiling of this fine new church in Magnolia, Arkansas. This new light-weight product insures perfect audibility in churches, auditoriums, theaters, etc.—wherever sound control is an important factor. It is adaptable to any curved or irregular surface and is applied by regular plasterers. And it adds very little to overall costs.

All the other Gold Bond products listed at right were used in this church job. You'll find these and the rest of Gold Bond's 150 building products fully described in Sweet's. Specify them exclusively. That way you eliminate divided responsibility by letting National Gypsum fully guarantee the performance of all these materials.

NATIONAL GYPSUM COMPANY, BUFFALO 2, NEW YORK

Gypsum lath, plaster, lime, sheathing, metal lath, sound control products, wall paint, rock wool insulation, fireproof wallboards and decorative insulation boards.

PRODUCTS

(Continued from page 236)

if desired. The panels are composed of a 1 5/8 in. core of calcium-silicate insulating material, faced with 1/8 in. cement-asbestos boards. They come in 4 by 8 ft sizes, weighing 200 lb.

The material may be used for either exterior or interior walls. It is claimed to have good structural strength, and to be resistant to moisture, flame and fungus.

The calcium-silicate material is also being used as cores in panels faced with wood veneer, plastics and metals. Kaylo Div., Owens-Illinois Glass Co., Toledo 1, Ohio.

Integral Trim For Steel Casement Window

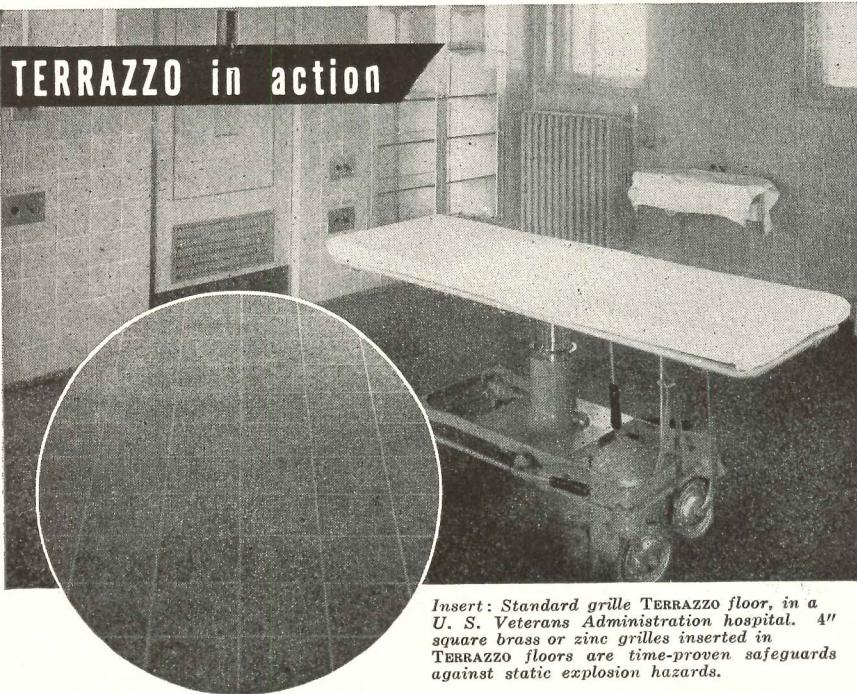
The new *Fenestra* residence steel casement windows include complete outside and inside metal trim for simplification of installation. Only the simplest rough opening preparation is said to be needed. The inside of the unit is recessed to pro-

vide a pocket for blinds or roller shades.

Casement window, screen and storm sash have Bonderized, prime painted frames, bronze-lacquered hardware and screen cloth. Trim is galvanized and Bonderized. Head and jamb sections are 18 gage, sill 16 gage, galvanized steel. Outside sill and inside stool project 3/8 in. beyond jamb members for appearance and weathering. Detroit Steel Products Co., 3113 Griffin St., Detroit 11, Mich.

Kitchen Equipment

Two new space-saving storage units for kitchens provide compact storage in space often left unused. The *Kitchen Maid* swinging shelf cabinet base unit utilizes corner space for housing of pots,



TERRAZZO in action

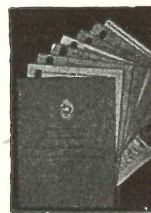
Insert: Standard grille TERRAZZO floor, in a U. S. Veterans Administration hospital. 4" square brass or zinc grilles inserted in TERRAZZO floors are time-proven safeguards against static explosion hazards.

The operating room floor that never needs an operation:

Terrazzo

■ Hospital floors never need "surgery" when the architect specifies TERRAZZO. Installed for permanence, punishment and performance, TERRAZZO improves with age and thrives on use. Wherever "lifetime" floors are needed, easy-to-keep-clean TERRAZZO is not only just what the doctor ordered—it's what the management welcomes for minimum upkeep.

■ Versatile as an architect's imagination, TERRAZZO provides color, design, and pattern tailored to individual need. Specify TERRAZZO and enjoy low first cost, low maintenance cost, and healthy longevity.



Write for free AIA Kit, the complete reference work about TERRAZZO.

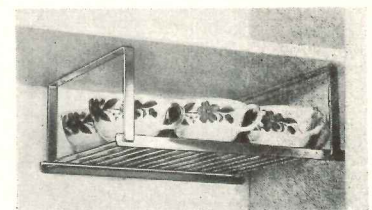


THE NATIONAL TERRAZZO AND MOSAIC ASSOCIATION, INC.

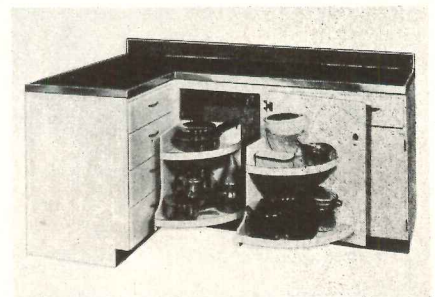
711 Fourteenth St. N.W.

Dept. H

Washington 5, D. C.



Handy cup rack fits under cabinet shelf



Kitchen cabinet has swing-out shelves to utilize often wasted corner space

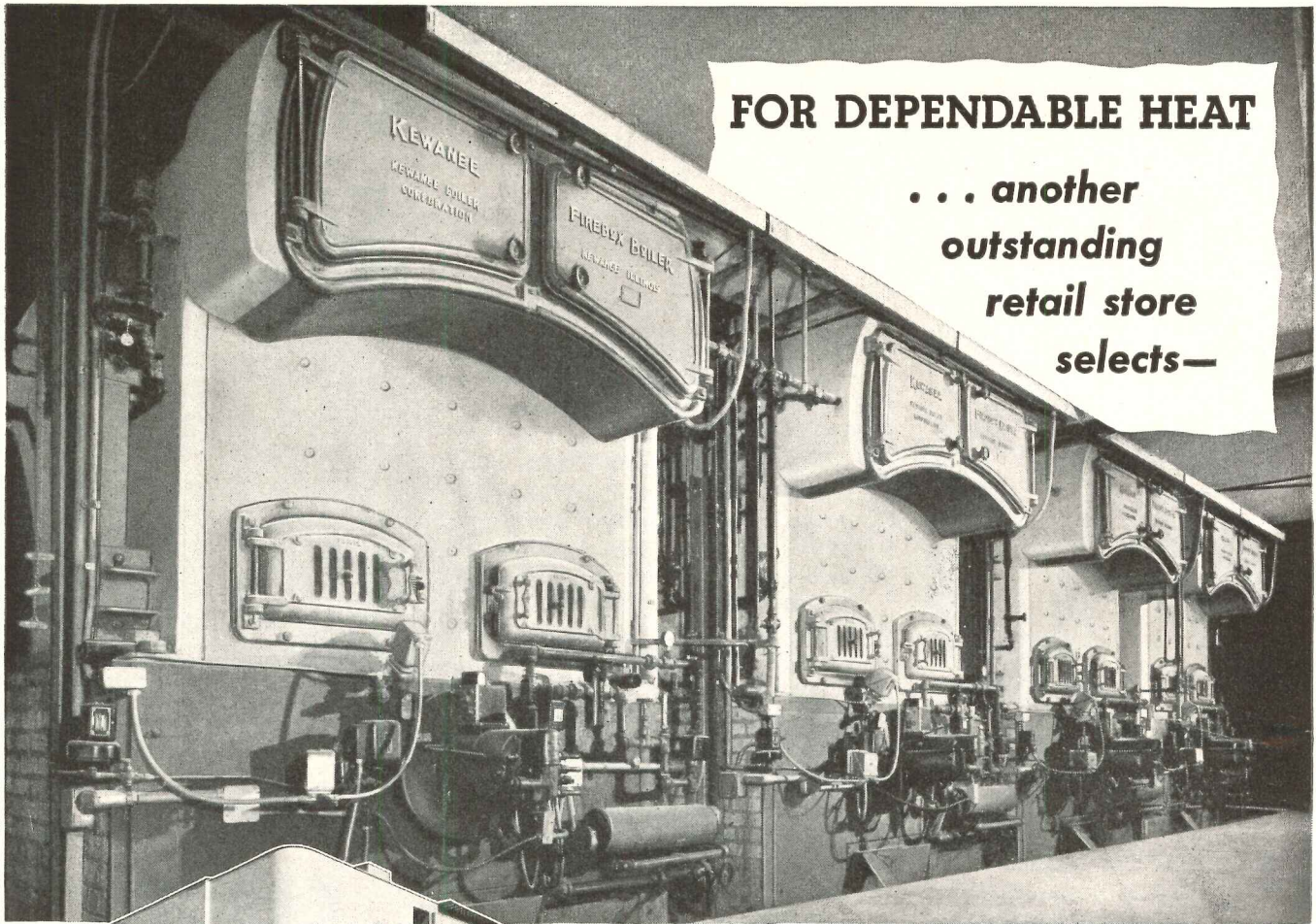
pans and the like. Contents are brought out into the open, where they are more easily reached.

An aluminum cup shelf is designed to be fixed to the under surface of cabinet shelves, and provides safe, compact storage for eight cups. Kitchen Maid Corp., Andrews, Ind.

Record Changer For Custom Installation

The *Lincoln Automatic Turnover Record Changer*, designed for custom and built-in phonograph installations, will play one or both sides of 7, 10 and 12 in. records of 33 1/3, 45 and 78 rpm speeds.

(Continued on page 240)



FOR DEPENDABLE HEAT

**... another
outstanding
retail store
selects—**



WIEBOLDT'S DEPARTMENT STORE, Evanston, Illinois
Holabird & Root & Burgee, Architects and Engineers
Northwestern Heating and Plumbing Co., Heating Contractors

KEWANEE

STEEL BOILERS

Pictured above is the boiler room of the new Wieboldt's Department Store in Evanston, Illinois, which is equipped with four oil burning KEWANEE Steel Boilers producing 23,320,000 Btu hourly and having a total heating capacity of 97,160 sq. ft. steam.

Today's new, higher standards of comfort demand more efficient heating systems; just as advanced ideas in convenience to customers have resulted in new designs and planning for modern department stores.

This outstanding building is typical of the finer modern business structures which have chosen Kewanee Boilers for dependable, economical heat.



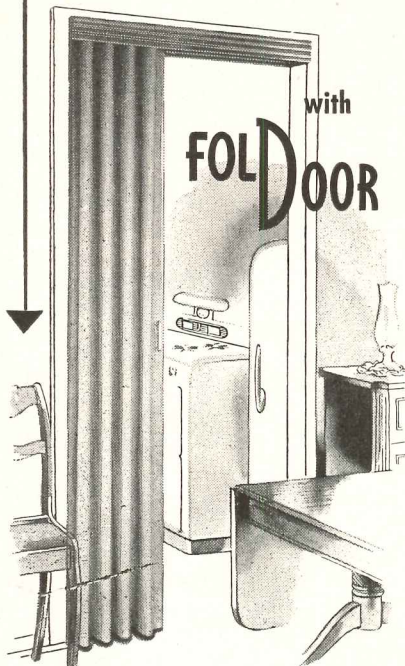
KEWANEE BOILER CORPORATION

BOILERMAKERS 80 YEARS KEWANEE, ILLINOIS
 Branches in 60 Cities—Eastern District Office: 40 West 40th Street, New York City 18
 Division of AMERICAN RADIATOR & Standard Sanitary CORPORATION

Serving home and industry

AMERICAN-STANDARD • AMERICAN BLOWER • CHURCH SEATS • DETROIT LUBRICATOR • KEWANEE BOILERS • ROSS HEATER • TONAWANDA IRON

**SAVE SPACE +
ADD FLEXIBILITY
+ ADD BEAUTY**



**"Swing" is old fashioned!
The "pleat's" the thing in doors!**

America's NEW pleat-type door closure with the cornice that gives it a "finished look."

folDoor is the answer to SPACE SAVING, to an unheard of FLEXIBILITY of room-arrangements, to new, up-to-the-minute BEAUTY.

folDoor is the best looking door closure you ever saw. Folds into beautiful pleats into an unbelievably small space, can be operated by a child . . . and open or closed, retains its beautiful pleated lines to add charm to any room.

Built on a rugged, rust-resistant steel frame, folDoor comes in a wide choice of beautiful, colored plastic fabrics to harmonize with any color scheme and is topped off with an attractive, formed cornice that gives it a "finished look."

folDoor is the IDEAL closure for CLOSETS, ROOMS, ALCOVES, and can be used to excellent advantage for PARTITIONS . . . fits into all homes, modern as well as period . . . just the thing for stores, schools, offices and institutions.

Available in STOCK and MADE TO ORDER sizes. Write for descriptive literature and specifications.

Excellent Installing Distributor Territory Still Open. Write for Information.



HOLCOMB & HOKE MFG. CO., INC.

1551 Van Buren Street, Indianapolis, Indiana

Architectural Engineering

PRODUCTS

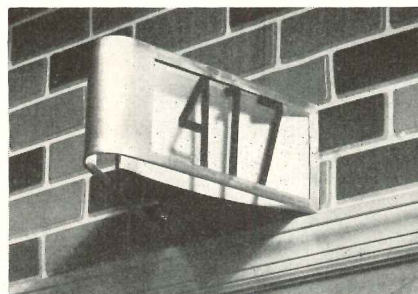
(Continued from page 238)

It will accommodate 20 shellac or 22 long playing records at one loading. Various sized records of the same speed can be intermixed

The machine operates on a vacuumatic principle, records being picked up by means of a rubber suction cup which transfers each record from the record table to the turntable individually. The usual pile of records is eliminated, keeping the tone arm at a constant height. Previously played records are deposited in a sliding record receiver below the turntable. The unit measures 26 in. long, 13½ in. wide and 15½ in. high. An 8 in. clearance is required above deck, 7¾ in. below. It is equipped with a high-fidelity, turnover type, replaceable-needle crystal pick-up. Liberty Music Shop, 450 Madison Ave., New York, N. Y.

Illuminated House Numbers

Reflecto-Lite is designed to provide easy visibility of house numbers from both sides, day and night. A lighting system employs a 7½ watt bulb which also directs light downward for the entrance. The unit is finished in satin

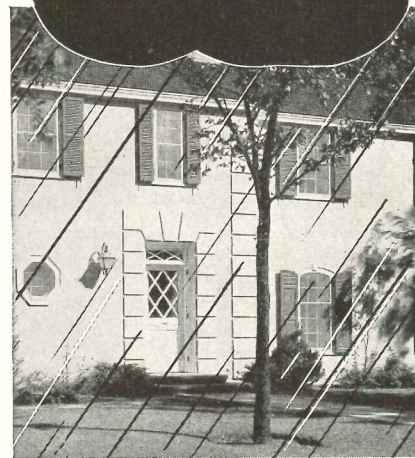


Trim house numbers are designed for good visibility both day and night

aluminum, with red, blue or black numbers. Numbers are easily changed, and may be combined with letters. Unbreakable materials are used throughout. Overall dimensions are: 5½ in. high, 11 in. long, and 8 in. wide. Reflecto-Lite, Inc., 26 E. Clinton Ave., Oaklyn 6, N. J.

(Continued on page 242)

**PREVENT
EXPENSIVE
WATER
DAMAGE**



HAROLD SPITZNAGEL
SIOUX FALLS, S. D.

Specify

CABOT'S

WATERPROOFINGS

to protect exterior masonry surfaces from unsightly efflorescence and the expensive damage caused by water seepage followed by freezing and thawing. Cabot's Waterproofings penetrate deep into voids and pores of masonry walls . . . provide a long lasting moisture resistant seal. Walls treated as much as twenty years ago with Cabot's Waterproofings are still moisture-proof today.

Use Cabot's Clear Cement Waterproofing for Cement, Stucco, Cast Stone and all light colored masonry.

Use Cabot's Clear Brick Waterproofing for Red Brick and Dark Colored Masonry.

Write Today for samples of Cabot's Waterproofings and complete information.

Samuel Cabot, Inc.

849 Oliver Bldg., Boston 9, Mass.



"HEY, ISN'T THAT A JOHNS-MANVILLE SMOOTH-SURFACED BUILT-UP ROOF?"

"YEH, LOOK AT THESE FELTS. THEY'RE NOT ONLY ROTPROOF AND WEATHERPROOF, BUT FIREPROOF!"

"THAT'S THE ROOF WITH ASBESTILE* FLASHINGS FOR ADDED PROTECTION!"



Yes—it's a Flexstone* Roof

Each ply is a flexible covering of stone!

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

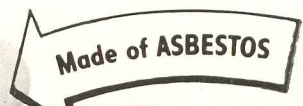
Flexstone Built-Up Roofs won't dry out from the sun . . . need no periodic coating. They're *smooth-surfaced*, too—permit thorough drainage, make any damage easy to locate and repair. They are engineered to each job . . . applied only by *J-M Approved Roofers*. J-M Asbestos felts are perforated to make application easier, give a smoother job, conform better to roof decks.

For your added protection, the Johns-Manville Asbestile* System of Flashing insures proper treatment of all critical areas. Asbestile is a heavy-bodied plastic cement designed for use with asbestos flashing felts to give thorough watertightness. As it sets, Asbestile becomes hard and forms an integral part of the wall itself.

Send for brochure BU-51A. Contains complete specifications for Flexstone Roofs and the Asbestile Flashing System. Johns-Manville, Box 290, New York 16, N.Y.



*Reg. U. S. Pat. Off.

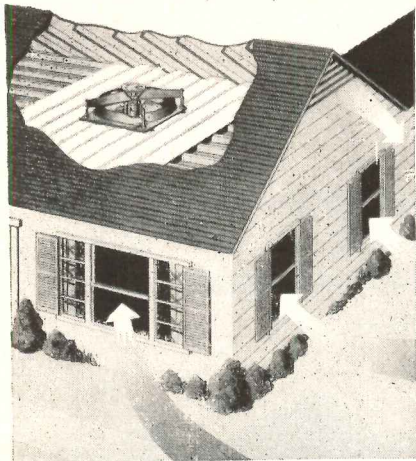


Johns-Manville **FLEXSTONE** Built-Up Roofs

ASBESTOS CORRUGATED TRANSITE* • ACOUSTICAL CEILINGS

DECORATIVE FLOORS • MOVABLE WALLS • ETC.

LOW-COST HOME COOLING IS HERE!



Easily installed attic unit gives cool comfort in hottest weather

No investment can give home owners as much comfort and pleasure as a Hunter Attic Fan. This modern convenience is now being used in thousands of houses and apartments throughout the nation. Low in initial cost and with no upkeep expense, the Hunter Attic Fan is practical for homes in all price ranges.

Installation of Hunter's new, compact package fan is simple and inexpensive. Fan, motor, suction box and shutter are all in one unit that requires only a ceiling opening in hallway and 17" clearance in attic. Four models, ranging from 4700 CFM to 9500 CFM, to fit any home size and climate. Quiet, powerful, dependable. Manufactured by Hunter, exclusive fan makers for 64 years.



Hunter Fan and Ventilating Company
396 South Front Street,
Memphis, Tenn.

Send copy of "How to Cool for Comfort" to:

Name _____

Address _____

City & State _____

Hunter Package Attic Fans

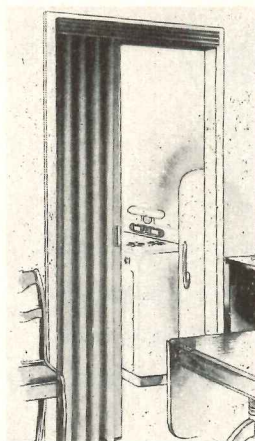
Architectural Engineering

PRODUCTS

(Continued from page 240)

Folding Door

A new "accordion-fold" sliding door, called *folDoor*, is mounted on an overhead track concealed by a formed cornice. The doors are covered in plastic fabric, available in a wide range of colors. The frame is said to be rugged and



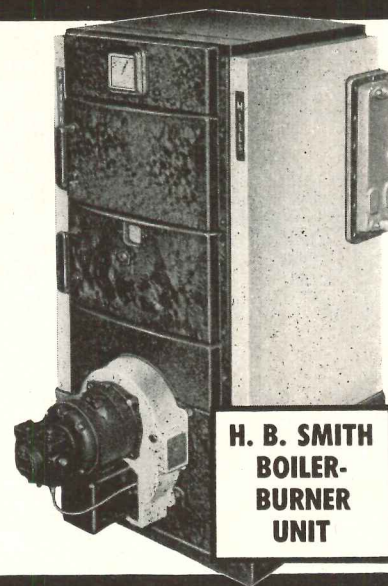
New plastic-covered folding door comes with cornice-covered tracks

rust resistant. Door handles can be attached at conventional heights. The door is said to be easy to operate. It is made in both stock and made to order sizes for closets, alcoves, partitions, etc. Holcomb & Hoke Mfg. Co., Inc., 1545 Van Buren St., Indianapolis 7, Ind.

Switch Box

A new switch box, the *G.E. Levelock*, is designed for faster installation. It has a locking mechanism that wedges the side plates tightly in position. This feature is said to allow the unit to take extra severe abuse without dislodging the side plates, either when being mounted or during scribing for lath or wallboard cutouts. Four contact points on the side plates are claimed to allow steady, even mounting of the box with no rocking or tilting. The box is easily ganged with other boxes. General Electric Co., Construction Materials Dept., Bridgeport, Conn.

HOW TO MAKE A CLIENT HAPPY



**H. B. SMITH
BOILER-
BURNER
UNIT**

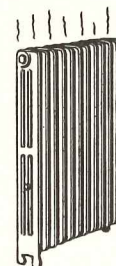
... and REDUCE HEATING COSTS!

The Smith-Mills "100" Boiler-Burner—a complete heating plant for the average home—comes in four efficient models for steam or hot water systems.

The client for whose home you recommend this compact unit will enjoy sunny warmth and 24-hour hot water.



LOTS OF HEAT!



LOTS OF HOT WATER!

The completely automatic oil burner, built right into the boiler, will give trouble-free service. Tank or tankless domestic water heater.

Here's low-cost comfort and convenience, ready right now! Complete data in Sweet's Architectural Catalog.

H. B. *Smith*
CAST IRON BOILERS
THE H. B. SMITH CO., INC.
WESTFIELD, MASS.
Most complete line in the world of cast iron boilers for heating

marble

Enhances other fine materials



The essential and permanent beauty of Marble is immediately transferred to other fine materials. Copper, brass, bronze, aluminum, stainless steel, glass and other similar materials are richer, more modern, because of their association with Marble.

And the ease with which Marble is maintained or cleaned provides the long-term, low-cost factor so important in modern construction.

The Southern New England Telephone Co.
New Haven, Connecticut

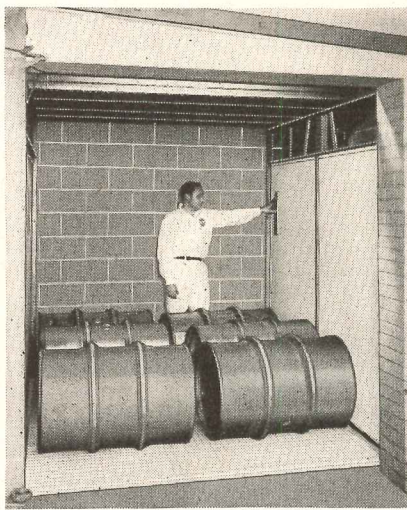
Douglas Orr, Architect
Elevator Cabs and Doors by the W. S. Tyler Co.

Write for latest literature on foreign and domestic Marbles.

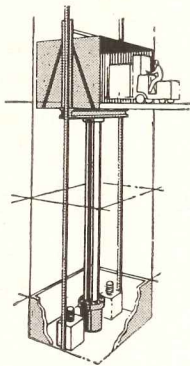


**Marble Institute
of America, inc.**

108 FORSTER AVENUE, MOUNT VERNON, N. Y.



NEW ELEVATOR ADVANTAGES



- NO PENTHOUSE REQUIRED
- ECONOMICAL TO INSTALL AND USE
- NO LOAD-BEARING WALLS REQUIRED
- QUIET, SMOOTH OPERATION
- ACCURATE LEVELING AT LANDINGS

GLOBE OiLift ELEVATORS

New economy for your clients... less installation cost... lower maintenance cost, when you specify Globe OiLift Elevators. Advanced design features eliminate penthouse, load bearing walls. Many extra values for greater safety, quietness, service. Passenger or freight elevators. Oil Hydraulic, electric operation. Hold down or automatic push button control.

Mail coupon today for elevator catalogue. Suggestions and estimates on request.

GLOBE HOIST COMPANY

Des Moines 6, Iowa Philadelphia 18, Pa.

MAIL COUPON NOW



GLOBE HOIST CO.
1000 E. Mermaid Lane
Philadelphia 18, Pa.

Please send new illustrated Catalog A850 showing all details on OiLift Elevators and Sidewalk Elevators.

Name
Street
City State

Architectural Engineering

LITERATURE

(Continued from page 172)

and drill heads. 20 pp., illus. U.S. Expansion Bolt Co., 627 State St., York, Pa.

Underfloor Electric Raceways

National Electric Nephocoduct Underfloor Electrical Distribution Systems. Catalog describes the steel underfloor raceway system for new construction and building modernization. Suggested specifications and typical floor plan layout are shown. Drawings, specifications and photographs give the component parts of the system: steel duct, hand-hole and junction boxes, duct saddle supports, elbows, outlets and service fittings. Photographs are included of typical installations in various stages of completion. 36 pp., illus. National Electric Products Corp., Chamber of Commerce Bldg., Pittsburgh 19, Pa.*

Marble

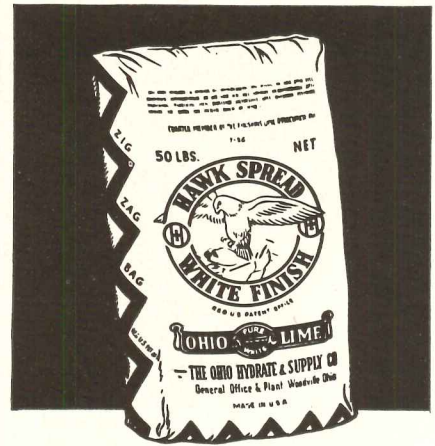
(1) *Marble Forecast*; (2) *Marble For The Home*. The first booklet is the 1950-51 edition of an annual publication on domestic and foreign marbles. The following data is provided in concise form: a listing of types of marble, together with source and availability; a tabulation of color ranges of each variety; classification of each variety as to soundness; and a listing of all members of the Marble Institute.

The second booklet gives features of marble for use in homes. Photographs show applications as fireplaces, tables, floors, walls, stair treads, in bathrooms, sills, counter tops, etc. 8 pp., 12 pp., illus. Marble Institute of America, Inc., 108 Forster Ave., Mount Vernon, N. Y.*

Residences

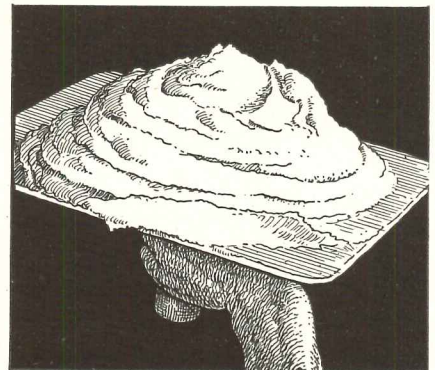
The Producers' Council Building Products Technical Information Bulletin, Residential Issue (Number 57). Catalog gives a good amount of information on various products connected with house building that are manufactured by members of the Producers' Council. All are illustrated. Many include details and technical information. A series of addressed cards are included which list

(Continued on page 246)



Good Plasterers Know...

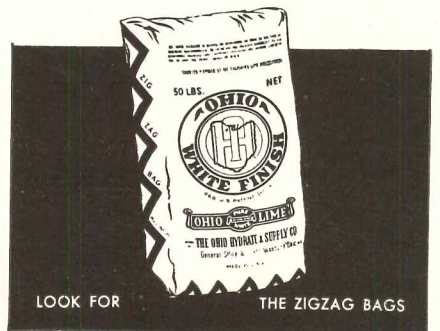
... that to do their work best they must have a finishing lime that's easy to work, smooth, and far spreading.



That's why the plasterer's hawk, above, carries Hawk Spread (or its twin brand: Ohio White Finish), wherever quality plaster is demanded.

You too may rely on Ohio Hydrate's brands of finishing lime, scientifically processed from hand picked, kiln burned rock, always of uniform good quality, 99½% pure.

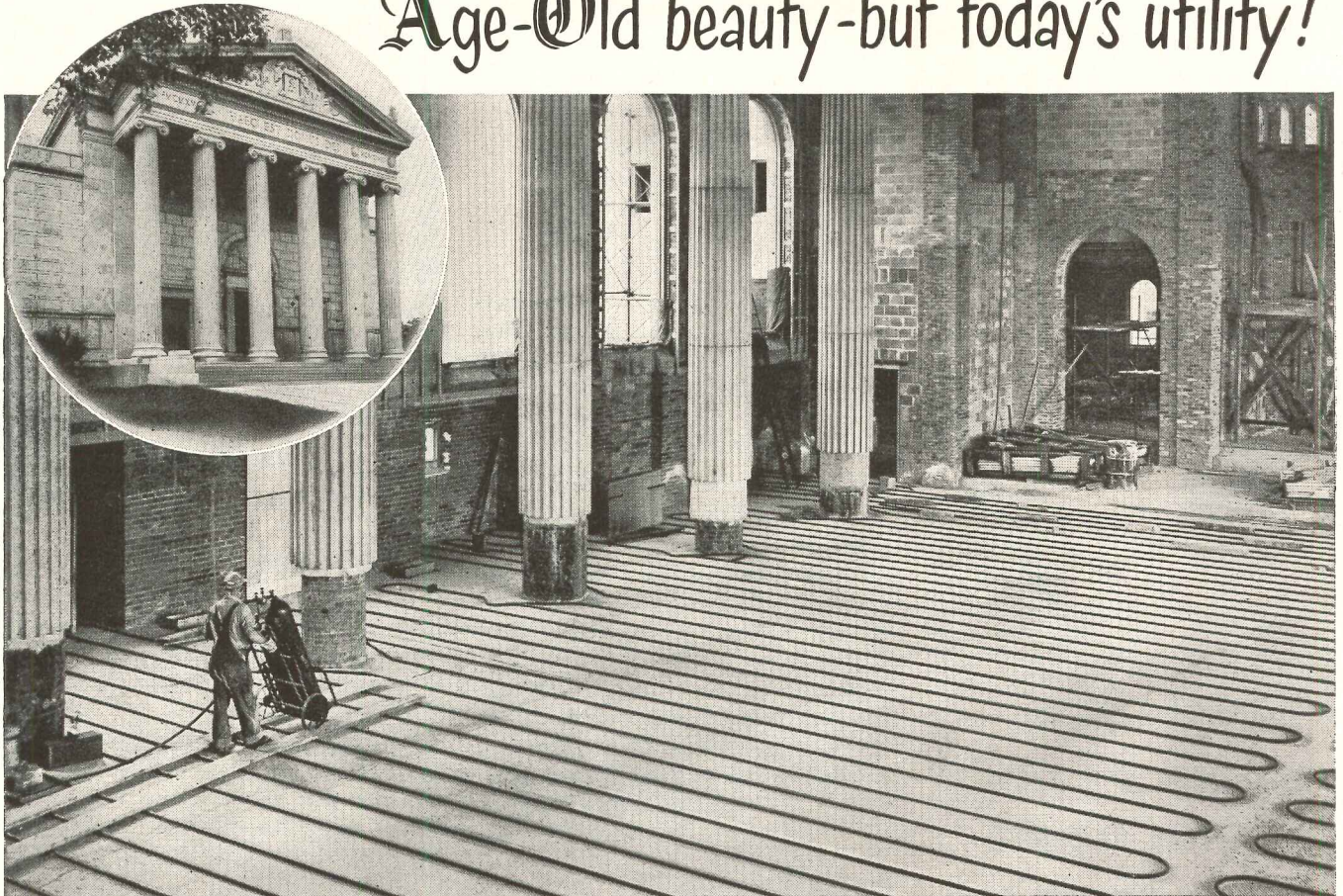
The OHIO HYDRATE & SUPPLY Co.
WOODVILLE, OHIO



LOOK FOR

THE ZIGZAG BAGS

Age-Old beauty-but today's utility!

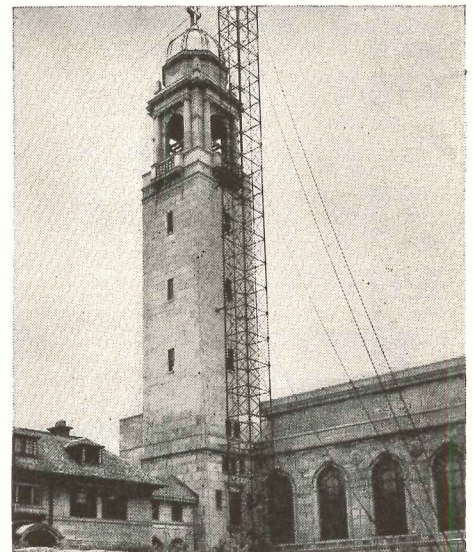


For radiant heated churches, steel pipe is first choice

The inspiration of religion upon the lives of men has been reflected down the centuries, in the beauty and perfection of our houses of worship. Be it a cathedral or a "little brown church in the vale" the traditions of architectural purity have been carried on by succeeding generations.

In the preservation of this age-old beauty, even concessions to the use of modern conveniences and facilities can be harmoniously achieved. Among heating systems, for example, none is more adaptable for this purpose than modern *radiant* heating. Comfortable warmth from concealed sources helps to maintain the simple, dignified atmosphere. Large areas can be heated uniformly. Decorating and cleaning costs are minimized.

Just as radiant heating blends comfort with beauty, so steel pipe blends durability with economy. That's why steel pipe is first choice for radiant systems in churches, public buildings, plants and warehouses as well as homes. It is natural that it should be so. For more than 60 years steel pipe has a record of proved performance in conventional steam and hot water heating systems.

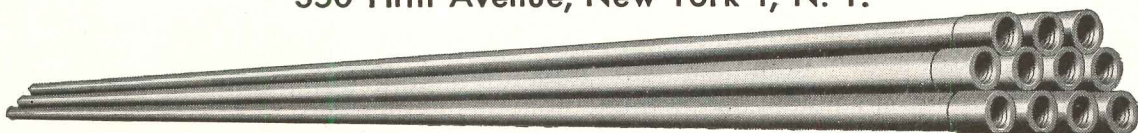


Partial view of side and bell tower, while under construction, of St. Ann's Church, Cleveland, O. Radiant heating, with steel pipe will provide complete comfort without marring interior beauty.

COMMITTEE ON STEEL PIPE RESEARCH

AMERICAN IRON AND STEEL INSTITUTE

350 Fifth Avenue, New York 1, N. Y.



Every Building Needs

PLAN-KEEPER

Throughout the life of any building there is a continuing need to refer to construction plans. The availability of this important data saves inconvenience, time and money when additions, alterations or repairs are made.



PLAN-KEEPER IS THE ANSWER

Here is a new device—simple, inexpensive, and easy to install—which keeps valuable plans always available and insures their preservation. The PLAN-KEEPER, made of non-corrosive aluminum, is an insect proof tube which can be built into a wall with only the attractive cap showing. A model is available which can be easily installed in any suitable corner of a completed structure. It comes in two models and two lengths (30" and 36"), and costs only \$10.00 to \$12.00.

Let Us Send You Complete Information

about this remarkable new PLAN-KEEPER, which architects tell us is the answer to a long recognized need. Many Plan-Keepers have already been installed and are proving their value to architects, owners and managers.

Architects - Builders WRITE TODAY

for free illustrated folders showing complete details of the device, installation data and some buildings in which PLAN-KEEPERS have been installed. Address

MANN METAL
Products Company
St. Petersburg, Florida

Architectural Engineering

LITERATURE

(Continued from page 244)

literature available on the products covered in the bulletin. 68 pp., illus. The Producers' Council, Inc., 815 15th St., N. W., Washington 5, D. C.

Framing for Metal Racks

Racks You Can Build With Unistrut (Catalog No. 600). Features and component parts of the framing members are described. Drawings give various sizes available in the metal channel and basic fittings, with notes on loads. Many photographs are included, giving typical applications for many types of storage facilities. Notes are also given on the erection of the metal framing structures. 24 pp., illus. Unistrut Products Co., 1013 W. Washington Blvd., Chicago 7, Ill

Electrical Raceways

How To Lay Out and Estimate G. E. Fiberduct Raceways. Reprints of articles from *Electrical South* magazine give a discussion of underfloor electrical ducts, and step-by-step procedure for working out a layout. Information is included on when and where to use the systems, how to make a materials take-off, and installation procedure. Formulae are given for estimating and figuring materials. The booklet contains many photographs, diagrams, and a short set of specifications. 10 pp., illus. General Electric Co., Construction Materials Dept., Advertising Div., Bridgeport 2, Conn.*

Insulation Fasteners

Stic-Klip Application Bulletin No. 2: The Insulation of Heating, Ventilating, Air Conditioning and Industrial Processing Equipment. Discusses features and uses of the clips, with data on insulation clearance, clip selection, application, spacing, and design considerations. Insulation applications are covered for ducts, apparatus and fan casings, breeching, flues, convex and conical surfaces. All items are illustrated with sketches and diagrams. 14 pp., illus. Stic-Klip Manufacturing Co., 50 Regent St., Cambridge 40, Mass.

(Continued on page 248)

ONLY ROTARY
GIVES YOU

Rota-Flow

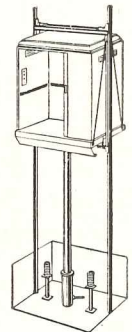
For quieter, smoother
lower-cost
elevator service

Rota-Flow, revolutionary new hydraulic power transmission system, moves Rotary Oilraulic Elevators on a continuous, pulsation-free column of oil.

Rota-Flow eliminates vibration and "pumping" noise and operates with greater efficiency than any other hydraulic power unit. Automatic floor-leveling within 1/4" guaranteed, regardless of load size or rate of speed.

Rotary Oilraulic Elevators Cut Construction Costs

For 2, 3 or 4-story operation, Oilraulic Elevators save up to 25% on installed costs. No costly penthouse or heavy, load-bearing shaftway structure needed to support car and load, counterweight and hoisting machinery. Oilraulic Elevators are not pulled up, but are "pushed up" from below by powerful Rotary hydraulic jacks. Rota-Flow power unit can be located within 50 feet of elevator.



Write for Catalog 304

Compare the Oilraulic with any other elevator. Call on Rotary's coast-to-coast field organization for facts and figures. For catalog, write
ROTARY LIFT CO.
1108 Kentucky, Memphis, Tenn.



Rotary
Oilraulic
Elevators
PASSENGER AND FREIGHT

Florida Beautifies its State Capital with Architectural Concrete



THESE THREE distinctive state government buildings in the new Capitol Center at Tallahassee demonstrate the versatility of architectural concrete. They combine impressive beauty with rugged strength, economy and durability.

Architectural concrete is equally adaptable to schools, hospitals, theaters, apartments, stores, factories and office buildings. It fulfills every construction requirement—firesafety, fine appearance, low upkeep expense, long life. It delivers dependable, **low-annual-cost** service year after year.

Architectural concrete is economical because both the structural and ornamental parts (molded to express any design or period desired) can easily be cast in a single operation.

By applying the tested and proven principles of quality concrete construction, architects can design architectural concrete buildings with every assurance of lasting satisfaction to client, taxpayer, investor and designer alike.

For helpful information in obtaining quality concrete structures write today for free, 70-page booklet, "*Design and Control of Concrete Mixtures.*" Distributed only in the United States and Canada.

PORTLAND CEMENT ASSOCIATION

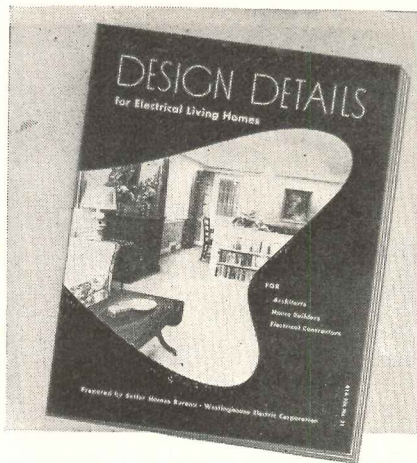
Dept. 8-8, 33 W. Grand Ave., Chicago 10, Ill.

A national organization to improve and extend the uses of portland cement and concrete...through scientific research and engineering field work



These three architectural concrete buildings, Florida Supreme Court (top), Industrial Commission (above) and State Road Department (below) are located in Capitol Center, Tallahassee. Architects and engineers: Yonge and Hart and James Gamble Rogers II, associated architects. Respective contractors, top to bottom: J. A. Jones Construction Company, Henry C. Beck Company, Southern Builders, Inc.





A New Book for Architects

The increasing use of electricity throughout the home emphasizes the importance of electrical planning.

To help with your planning, those electrical features that have won wide public approval have been incorporated in this "Design Details" book.

It fills a real need for construction details on valance, cornice, cove, soffit, pinhole spot, under-cabinet and other unusual lighting effects. Kitchen and laundry plans are also shown, as well as essentials of modern wiring. Photographs of actual installations illustrate these planning ideas. Architectural details are accurate and complete.

YOU CAN BE SURE... IF IT'S

Westinghouse

FREE

Better Homes Bureau
Westinghouse Electric Corporation
P. O. Box 868, Dept AR-8
Pittsburgh 30, Pa.

Please send me a copy of your new book, Design Details for Electrical Living Homes, B-4671.

Name _____

Street _____

City _____ State _____

G-10113-A-1

Architectural Engineering

LITERATURE
(Continued from page 246)

LITERATURE REQUESTED

The following individuals and firms request manufacturers' literature:

David D. Beach, Naval Architect, 23 Buckingham Court, Maywood, N. J.

Walter P. Blum, Architect, 4801 Lemmon Ave., Dallas, Tex.

Floyd L. Cranmer, Jr., 108 N. 34 St., Philadelphia 4, Pa.

Duryea & Elkins, Architects, 910½ Westheimer, Houston 6, Tex.

Major Benjamin Gray CE, USAR, Chief, Planning and Engineering Section, 411th Engineer Brigade, Corps of Engineers, USAR, 529 West 42nd St., New York, N. Y.

Ernest F. Jones, Heating Engineer, 750 Glencoe Rd., Glencoe, Ill.

Clifford J. Lane, Architect and Engineer, Melba Bldg., Dallas 1, Tex.

Cecil A. Martin, Architect, 503 Karbach Block, Omaha 2, Nebraska

Gordon D. Orr, Jr., 553 E. Main St., Meriden, Conn.

Milton J. Prassas, Registered Architect, 1737 Harvard St., Northwest, Washington, D. C.

Marvin G. Probst, Graham, Anderson, Probst & White, Architects, Room 772, 612 South Flower St., Los Angeles 17, Calif.

Roger Ranvio, 1254 Broadway St., San Francisco, Calif.

Gustav W. Rohrs, student, 259 St. Paul St., Brookline, Mass.

James H. Sadler, Draftsman, Box 26, Northfork, W. Va.

Schuman & Lichtenstein, Architects, 369 Lexington Ave., New York, N. Y. Attn. Mr. Hubert.

Christopher C. Thompson, Architect, 481 Eglinton Ave., W., Toronto, Canada.

George A. Tuttle, Jr., Monterey Rd., Great Barrington, Mass.

August E. Waegemann, Pacific Bldg., 851 Market St., Rm. 758, San Francisco, Calif.

Charles Wagner, Architect, 417 W. Church Ave., Knoxville, Tenn.

John A. Weyl, student, 706 Oakland Ave., Ann Arbor, Mich.

Where **WOOD**
is indicated and
PERMANENCE
demanded

Specify

treatment with
DU PONT
COPPERIZED CZC

You'll think of wood as a *different* structural material after it's pressure-treated with Du Pont Copperized CZC. And here's why. Copperized CZC gives long-lasting protection against termites, fire and decay *without changing* the inherent structural characteristics of wood.

This salt-type wood preservative makes lumber and timber unpalatable to termites . . . kills decay-causing fungi . . . gives a high degree of fire retardance. Copperized CZC does all this while leaving wood clean, paintable, odorless and safe to handle. Sound reasons why you should specify pressure-treatment with Du Pont Copperized CZC.

Full technical details on Copperized CZC available for the asking. Write: E. I. du Pont de Nemours & Co. (Inc.), Grasselli Chemicals Dept., Wilmington 98, Delaware.



DU PONT

REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY



HANDSOME IS
AND
HANDSOME DOES

Gene Boyle's Restaurant, Clifton, N. J. • Architects: Shulman & Gurtman, Paterson, N. J. • Contractor: B. B. Rider Corp., Passaic, N. J.

...when you specify **kno-draft** adjustable air diffusers

Handsome is . . . the way Kno-Draft *Adjustable* Air Diffusers integrate with *any* decorative theme . . . as soft contrasts in their natural aluminum or, as in the picture above, blended by painting to match the ceiling.

And handsome does . . . a superlatively efficient job of distributing the air to meet *any* desired pattern of flow . . . assuring equalized temperature and volume—*without draft*—throughout

the conditioned area.

With Kno-Draft Air Diffusers, both air volume and direction can be adjusted and controlled *after installation*—an important feature. There are models and sizes for every need.

KNO-DRAFT DATA BOOK: Complete specifications, engineering and installation data on Kno-Draft *Adjustable* Air Diffusers. To get your copy, simply fill in and mail the coupon. No obligation, of course.



W. B. CONNOR ENGINEERING CORP.

114 East 32nd Street, New York 16, N. Y.

Air Diffusion • Air Purification • Air Recovery

In Canada: Douglas Engineering Co., Ltd.,
190 Murray Street, Montreal 3, P. Q.

W. B. CONNOR ENGINEERING CORP.
Dept. E-80, 114 East 32nd Street, New York 16, N. Y.

Please send me, without obligation, my copy of the Kno-Draft Air Diffuser Data Book.

Name

Position

Company

Street

City.....Zone.....State.....

For your clients

THE ULTIMATE

HOW YOU CAN OFFSET THE COST OF *All-Year* AIR CONDITIONING



ROBERT H. WACHENDORF, builder and developer, is cooperating with Servel, Inc., and The Cincinnati Gas and Electric Company in the construction of the Meadow Ridge Year Around Model Home in Amberly Village, Cincinnati, shown below.

Many conventional features of a house no longer have functional value when you design it around Servel *All-Year* Air Conditioning. You can leave out porches, fireplaces, screens, double-hung windows, etc., in your preliminary plans. Generally, you'll save enough to make up the cost of the Servel system. And you'll find clients feel they're making a wonderful exchange. For the things they give up provide pleasure only part of the time. Servel brings them comfort 365 days of the year!



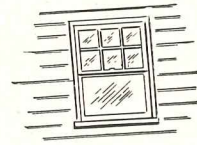
NO FIREPLACE



NO PORCH



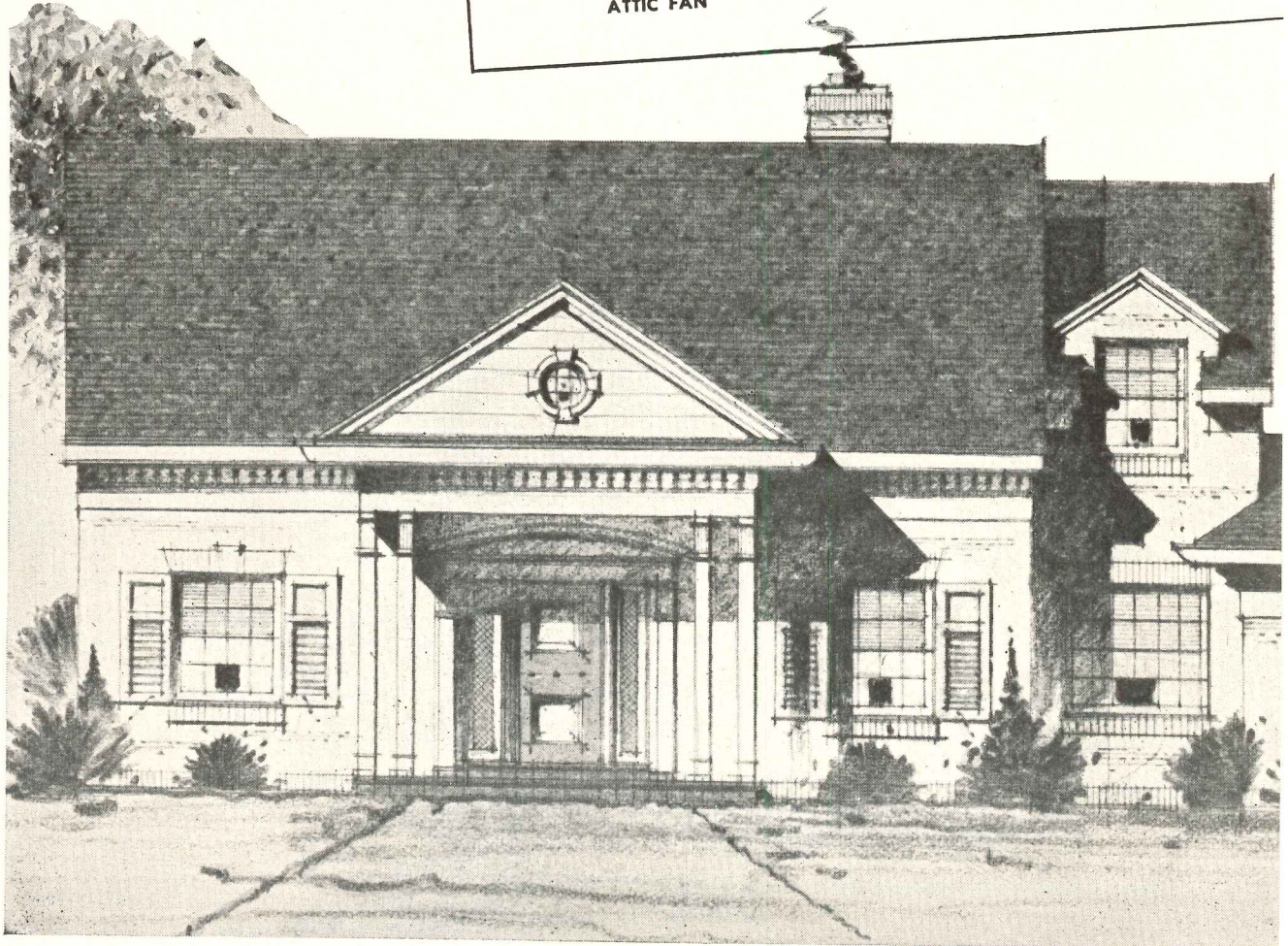
NO
ATTIC FAN



LOWER-COST
WINDOW CONSTRUCTION



NO
SCREENS



N ALL-YEAR AIR CONDITIONING ...AT LITTLE OR NO EXTRA COST!

For little more than the cost of a quality heating plant, you can now offer your new home clients the all-year comforts of Servel *All-Year* Air Conditioning.

You can offer them homes which will always be ideally comfortable, no matter how hot or cold, how wet or dry, the weather outdoors.

The new Servel *All-Year* Air Conditioner cools the air or heats it. It squeezes out wilting humidity in summer, adds just enough moisture to the air for comfort in winter. It filters out dust and irritating pollen, circulates air evenly, without drafts through every room in the house.

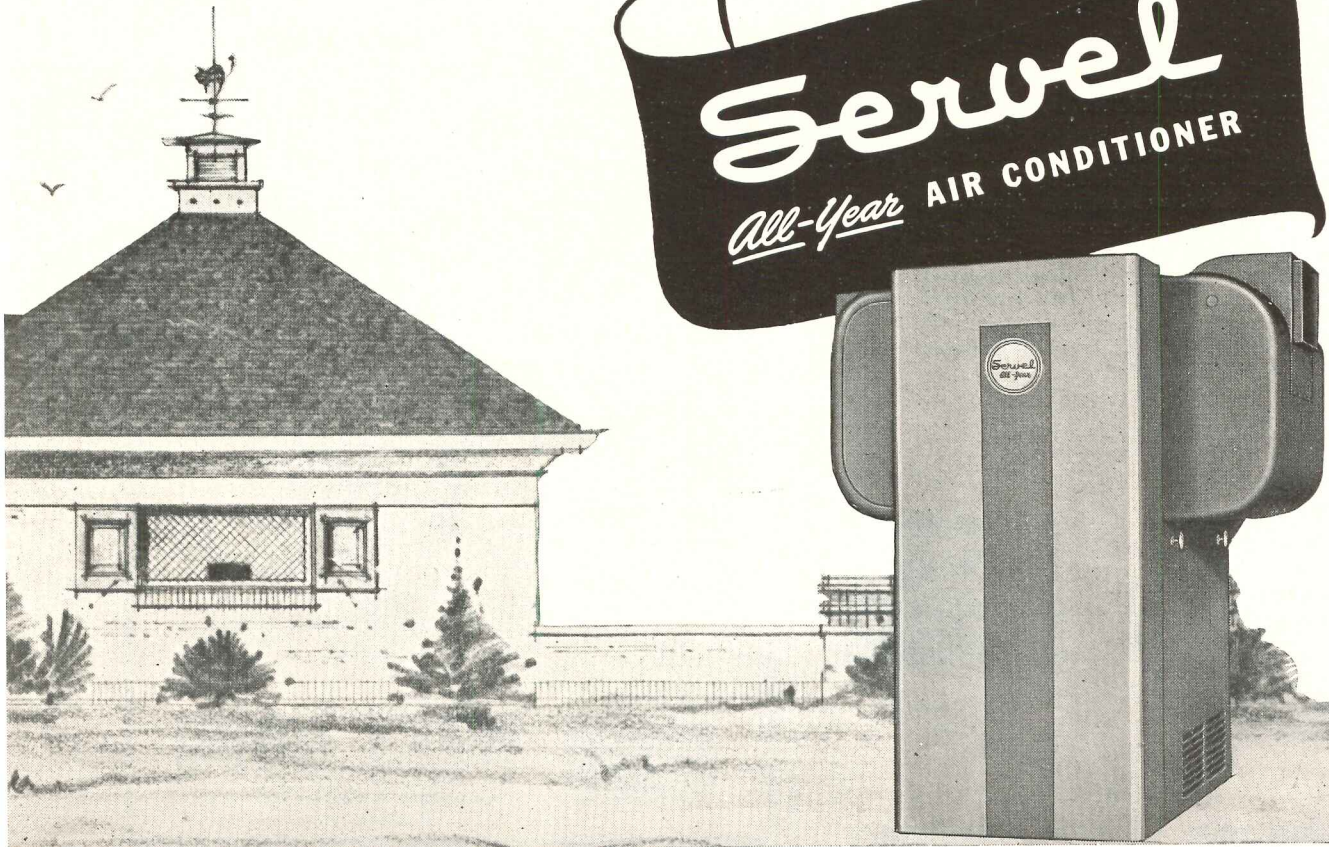
The whole operation is automatic. Your client just sets the Servel Selectrol—and forgets it. From then on, the Servel unit switches

automatically from cooling to heating and back again, as needed, to maintain the chosen temperature.

A Servel air conditioned home needs no porch, no fireplace, no attic fan. Outside doors and windows may be kept closed. Glass may be fixed, permitting use of a simple wood frame. Screens are not necessary. If you plan your homes around Servel *All-Year* Air Conditioning, you'll find that these and other possible savings permit you to include the Servel unit for little or no extra cost.

The Servel *All-Year* Air Conditioner can be easily adapted to any size, style, type, or shape of home your client wants. Ask your local Gas Company for all the particulars, or write to Servel, Inc., 8008 Morton Avenue, Evansville, Indiana.

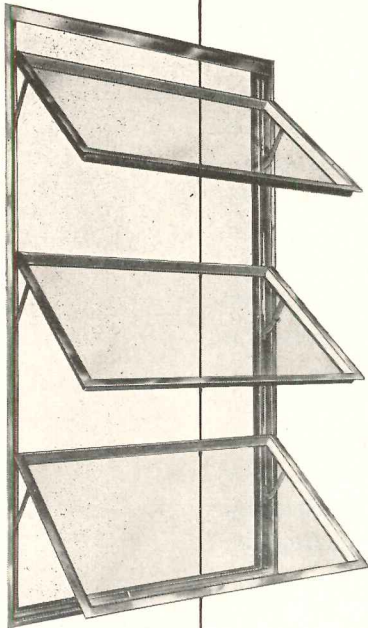
*Architect: Luigi Marioni,
1518 Beacon Street, Cincinnati*



NOW IN ALUMINUM

DONOVAN MULTIPLE OPERATING WINDOWS

- AWNING TYPE
- PROJECTED



1. Opening lower vent automatically opens vents above, moving them in unison.

2. Automatic concealed release allows lower vent to be closed independently.

3. Returning lower vent to position of open upper vents permits readjustment or closing.

4. Locking lower vent, when upper vents are closed, automatically locks entire window.

A PERFECT COMBINATION... Quality-built Donovan-Universal Aluminum Windows *plus* the exclusive operating features of Donovan-Universal Automatic Multiple Operating Hardware. Now available in both awning and projected types, providing draft-free ventilation and controlled daylighting. This popular Operating Hardware has been specified by leading architects for more than 15,000 installations. Individually operated awning, projected and casement type Donovan-Universal Aluminum Windows are also available.

Write for full details and the name of your nearest Donovan-Universal representative. Backed by 30 years of experience in the window business, our engineers are ready to serve you.

UNIVERSAL WINDOW COMPANY

950 PARKER STREET • BERKELEY 10, CALIFORNIA

STOP HEAT LOSS with KORK-PAK...The INSULATING VAPOR SEAL



- NON-EXTRUDING
- WATERPROOF
- GREATER RESILIENCY
- LOW MATERIAL COST

Install KORK-PAK

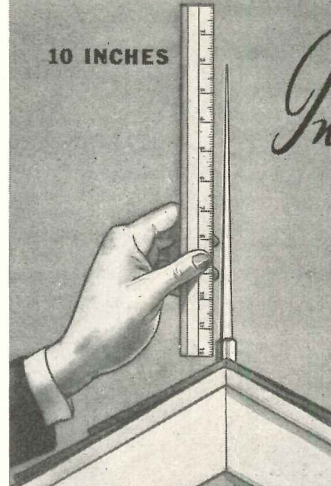
at the slab-footing joint to prevent heat loss through concrete floor slabs in basementless houses and structures on grade—get maximum joint filling efficiency PLUS the highest insulating factor of any similar material. KORK-PAK's low cost and easy handling make it ideal for many applications such as Sill Vapor Seal, Glass Building Block Seal, Joint Filler, etc., in every type of construction.



Write for complete details, illustrated circular and samples

SERVICISED PRODUCTS CORP.
6051 W. 65th ST., CHICAGO 38, ILL.

10 INCHES



Inconspicuous LIGHTNING PROTECTION

Adds to the safety of
Suburban residences
.. Churches .. Schools
.. Power plant stacks
.. Farm buildings

The West Dodd System of Lightning Protection is inconspicuous. Leaves nothing to mar the architectural beauty of any building. When installed by factory trained experts it provides almost 100% protection from lightning. West Dodd Systems are manufactured in accordance with Underwriters' Laboratories and American Institute of Electrical Engineers standards.

FREE estimating and engineering service to architects on request. Write for complete information.



WEST DODD
LIGHTNING CONDUCTOR CORP.
Goshen, Indiana



600 Fifth Avenue, New York City

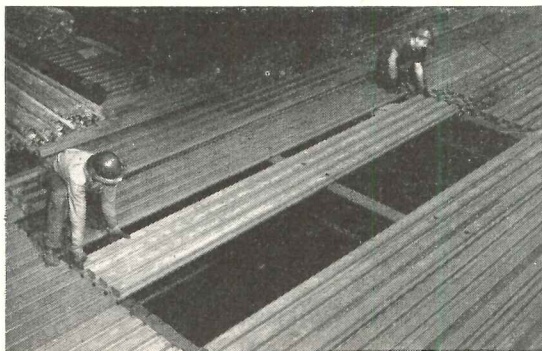
Architects: Carson & Lundin

Mechanical Engineers: Jaros, Baum & Bolles

Electrical Engineers: Smith & Silverman

Builders: Turner Construction Co.

Electrical Contractors: J. Livingston & Co.



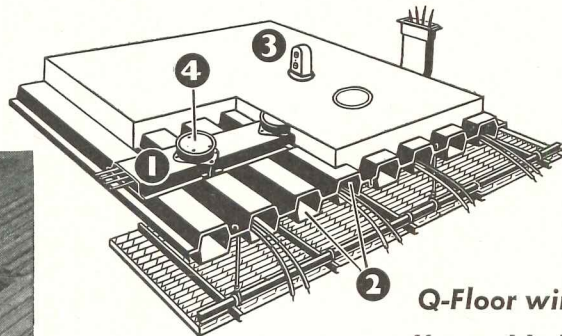
Raceways go in as the Q-Floor is laid, because—with G-E Q-Floor wiring—the floor is the raceway system. Each floor cell is a complete raceway, ready to receive wire, ready for electrical changes any time during the life of the building.

Planned TODAY for TOMORROW'S Electrical Loads with G-E Q-Floor Wiring

This new building at 600 Fifth Ave., New York City, now under construction by the Massachusetts Mutual Life Insurance Co. is another to join the ever-growing list of modern office buildings which were planned, during the blueprint stage, for future electrical flexibility.

By specifying a General Electric Q-Floor wiring system, provision has been made for increased power loads and unforeseen changes in office layout throughout the entire life of the building. If changes are necessary, tenants won't be disturbed nor vital building facilities disrupted, because the Q-Floor raceway network places additional power or communication outlets within six inches of any point on the floor. To add a new outlet a small hole is drilled through the top of the raceway cell. Then the outlet is wired and set into place—that's all there is to it! Outlets can be removed just as easily when they are no longer needed.

For complete information on wiring installations for new commercial, industrial, or institutional buildings, contact your nearest G-E district office or H. H. Robertson office. Or write to Section C12-85, Construction Materials Department, General Electric Company, Bridgeport 2, Connecticut.



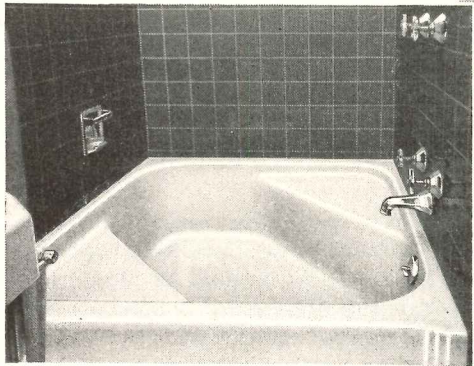
Q-Floor wiring system
offers added electrical flexibility

- 1 Header duct—at right angles to Q-Floor—carries wire from load center to cells.
- 2 Cells serve as raceways for power, signal, and telephone systems.
- 3 Floor outlets are installed by drilling Q-Floor cells at any point.
- 4 Junction units in header duct permit easy access to wiring at any time.

You can put your confidence in—
GENERAL  **ELECTRIC**

Smartly styled, expertly engineered, **AMERICAN-Standard Heating**

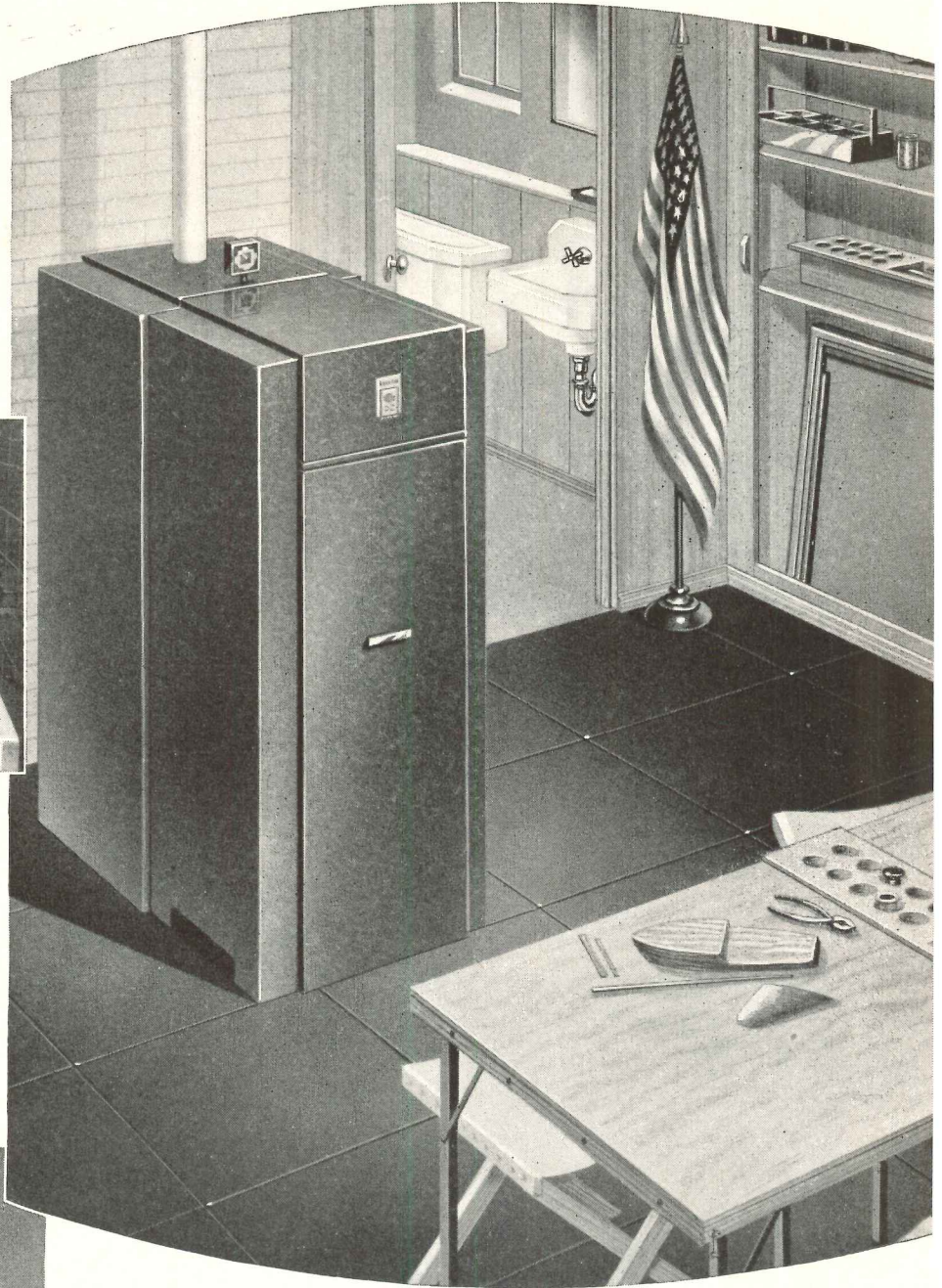
THE TRIM, COMPACT ARCOLINER WET BASE BOILER actually adds to the appearance of this room while it furnishes clean, fully-automatic heating for the entire house. The Arcoliner's handsome Forge Red jacket, with smart hammered effect, will blend with the color scheme of almost any room. The jacket is easy to clean, safely cool to the touch. Jacket extension conceals all controls. Note handy basement wash-up room with its genuine vitreous china Marledge Lavatory and Cadet Water Closet.



COLORFUL, HANDSOMELY DESIGNED NEO-ANGLE BATHS maintain the luxurious atmosphere of the new Guest Ranch Hotel of Cheyenne, Wyoming. These durably constructed, rigid cast iron baths are heavily coated with acid-resisting enamel that will retain its luster permanently, make cleaning easy. Neo-Angle Baths are roomier than most, yet they occupy space only about four feet square. They're available for recess and corner installations . . . in white and many colors.



HERE'S THE SANISTAND, A NEW URINAL FOR WOMEN'S REST ROOMS. It offers women the same convenience and sanitation the standing urinal does for men . . . makes rest rooms cleaner, neater and more pleasant . . . reduces the cost and time of rest room maintenance. Test installations prove that the Sanistand is popular with women. Out of 5,029 questionnaires filled in by users, nearly 90% show prompt acceptance of this new fixture. It is as easy to install as a water closet and can be placed in a regular rest room compartment. For complete information about the Sanistand, write for our Better Rest Room Guide.



sturdily constructed

Equipment and Plumbing Fixtures...

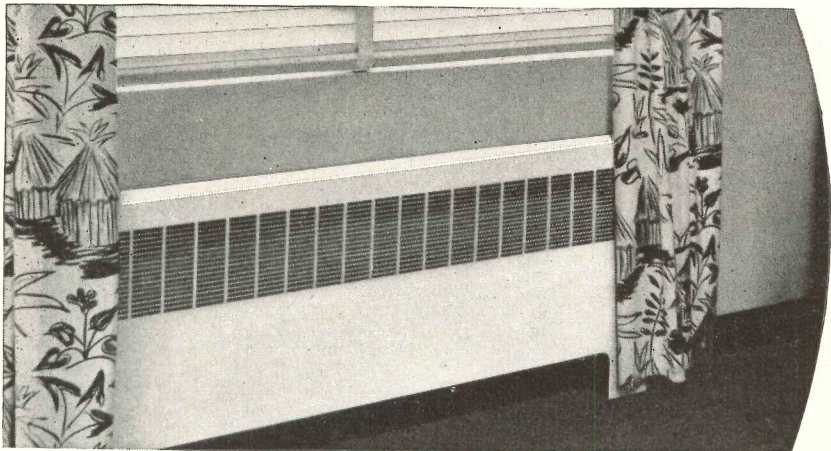
the right products for any job

■ The variety of products in the American-Standard line offers the widest flexibility in designing and styling . . . whether you're designing houses, hotels, schools, hospitals, or large industrial buildings. There are plumbing fixtures to fit every architectural plan or decorative scheme. And there's a wide variety of equipment for radiator heating, warm air heating and winter air conditioning —for every kind of fuel.

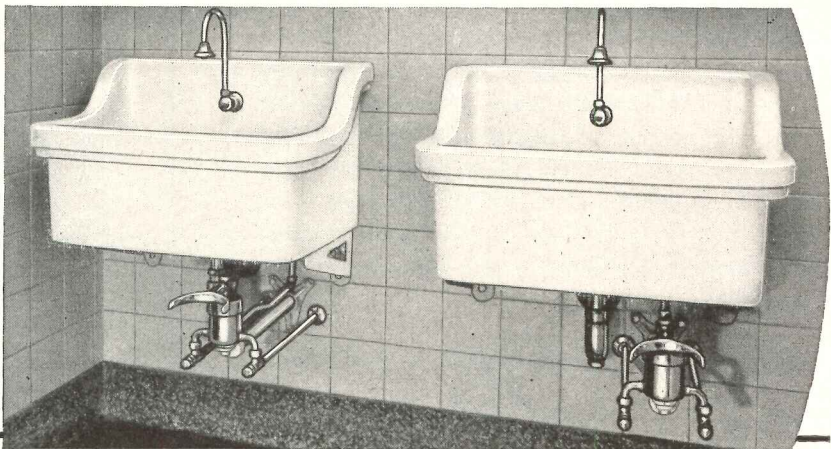
As for *quality*, American-Standard products are second to none. The flawless performance and operating economy of these handsome products will delight your clients.

No wonder American-Standard Heating Equipment and Plumbing Fixtures are being used on today's finest construction jobs!

Ask your Heating and Plumbing Contractor for details about the complete American-Standard line. He'll gladly help you select the products best suited to your needs. **American Radiator & Standard Sanitary Corporation**, P. O. Box 1226, Pittsburgh 30, Pennsylvania.



THE MODERN FURNISHINGS of the tastefully decorated bedrooms of Queens Court, St. Simon's Island, Ga., are complemented by handsome American-Standard Convectors and Enclosures. These heating outlets are attractive additions to any room, and they assure even and abundant heat. They're available in a wide range of heights and widths to fit any requirement.



THE GENUINE VITREOUS CHINA CONSTRUCTION of these Surgeons' Scrub-up Sinks in the St. Clare Hospital of Schenectady, N. Y., means a smooth, non-absorbent surface which is easy to keep clean, will withstand hard service. The sinks are equipped with knee-action mixing valves. All fittings are non-tarnishing Chromard. York and Sawyer, Architects, New York City.

*Look for
this*



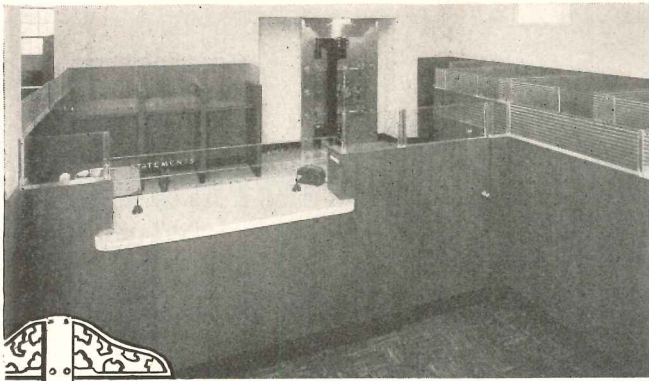
*Mark
of Merit*

AMERICAN-Standard

First in heating . . . first in plumbing

Serving home and industry

AMERICAN-STANDARD • AMERICAN BLOWER • CHURCH SEATS • DETROIT LUBRICATOR • KEWANEE BOILERS • ROSS HEATER • TONAWANDA IRON



Santa Ana, Calif., Branch of the Security-First National Bank

Points West, Points East . . .
Architects Everywhere specify

PARKWOOD *Genuwood*
PERMANENTLY FINISHED LAMINATED PLASTIC



Conference Room, John Hancock Branch, First National Bank, Boston

The use of handsome, enduring Parkwood Genuwood made from genuine wood veneers, in these two banks on opposite coasts proves simply that good taste and sound judgement are not a matter of locale. Architects the nation over select Parkwood Genuwood and Parkwood Decorative for their inherent beauty and lasting quality wherever these two elements — plus toughness — are essential.

FOR BEAUTY AND DUTY — SPECIFY

PARKWOOD *Decorative*

Beauty that's "skin deep" may be deep enough, but it is much more penetrating in Parkwood Decorative's wide selection of genuine wood veneers and new 3-dimensional patterns (Parkwood Pebble-Tex and Stardust) in a broad range of handsome colors.

Duty is exemplified in beautiful laminated plastic table tops which wear indefinitely and are virtually impervious to alcohol, fruit juices, cigaret burns and the usual cleaning chemicals.

Write for our Kodachrome Brochure

Parkwood Corporation
31 Water St., Wakefield, Massachusetts

STOP that **WATER**
with FORMULA # 640

A clear liquid sealer which penetrates deeply into masonry surfaces.

The hydrocarbon solvent in Formula No. 640 evaporates, leaving the pores filled with a balanced formula of seven different waxes and resins.

For complete specifications and a description of our other products—cement hardener, floor mastic, rubberized enamel, foundation coating, plaster bond, etc.—see our catalog in Sweet's Architectural File 9a/8 under "Waterproofing and Dampproofing."

WRITE OUR ENGINEERING DEPARTMENT for office test kit, technical data, or regarding any special problem

J. Wilbur Haynes, Engineer



HAYNES PRODUCTS CO.

4007 FARNAM STREET • OMAHA 3, NEBRASKA

Catalog No. 50-A

Wakefield.
Over-ALL Lighting

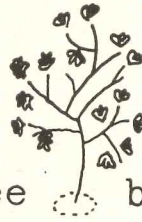


DISTRIBUTION
CURVES
WORKING DRAWINGS
DESIGN DATA
COMPUTATION METHODS

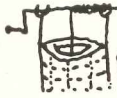
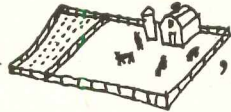
The factors that produce effective lighting for schools, offices, drafting rooms and stores are illustrated and described in this 40-page catalog of the complete Wakefield line of fluorescent and incandescent fixtures. Write for your copy.

THE F. W. *Wakefield* BRASS COMPANY
VERMILION, OHIO

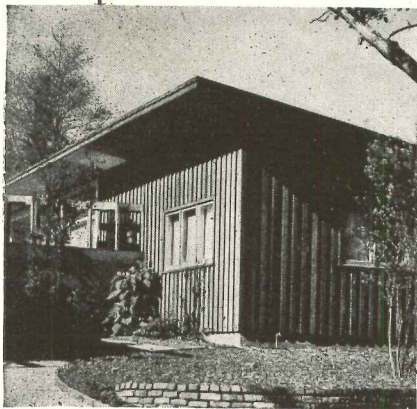
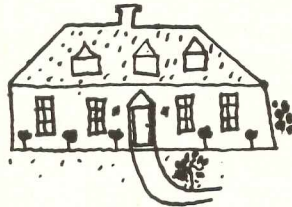
GOOD DEEDS...



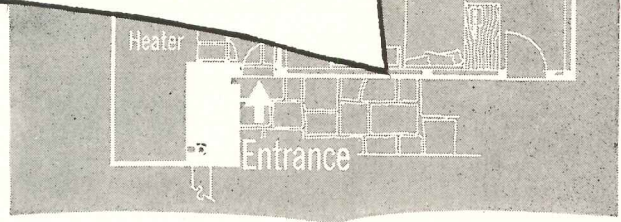
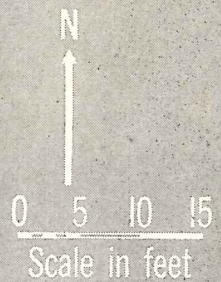
Beginning at a maple tree being the southeast corner of an adjoining farm, thence south to a stake and stones, thence due east to a well, standing west of a small brook and due east again to an ivy-covered brick wall... is the Owner-Builder's land containing 103 acres, five of which are designated



for the Owner-Builder's house and landscaped gardens.



Your best prospects... House & Garden's owner-builders, some 400,000 families of taste and means who are interested in better building materials. Important to you because they specify what goes into their houses... and have the power to specify *your* product.



House & Garden



NEW ALL-ALUMINUM
KAWNEER FLUSH DOORS!

UNEQUALED

**IN HANDSOME, MODERN APPEARANCE
IN RUGGED, INTEGRATED CONSTRUCTION**



For Stores, Shops, Institutions, Schools, Hospitals, Hotels, Theatres, Restaurants, Apartment Buildings, Offices, Factories, etc.

Striking in their simplicity of styling and their lustrous alumilited finish, Kawneer All-Aluminum Flush Doors will add a unique and modern keynote to any interior or exterior. They combine good taste in design with the strong, eye-appeal of gracefully-fluted aluminum.

Their remarkable rigidity and durability are based on a new exclusive Kawneer method of construction (Patent Pending) which locks the two door faces to the interior framework, thus forming a rugged integral unit which assures long-term service and minimum maintenance.

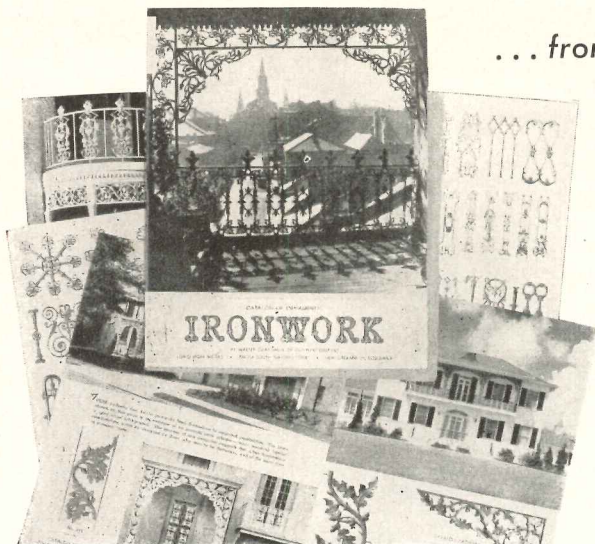
Precision-made and correctly balanced, Kawneer Flush Doors will operate smoothly year after year. Their ease of operation is further increased by their unusual light weight—for example, the 3 foot by 7 foot size weighs only about 50 pounds without hardware.

In addition to the Standard Style shown at right above, Flush Doors can be ordered with one or more

lights of glass or louvers. Single-acting or double-acting doors are available as single units or in pairs. Hardware is installed at the factory to assure accurate fitting.

For detailed information, write The Kawneer Company, Dept. AR 49, 1105 North Front St., Niles, Mich., or Dept. AR 49, 930 Dwight Way, Berkeley, Cal.

THE
Kawneer
 COMPANY
ARCHITECTURAL METAL PRODUCTS
 Store Front Metals
 Aluminum Roll-Type Awnings • Modern Entrances
 Aluminum Facing Materials • Flush Doors



... from the beautiful, original lacework
of historic OLD NEW ORLEANS

WE PRESENT A COMPLETE PICTORIAL CATALOG OF
**ORNAMENTAL
CAST IRONWORK**

Every known pattern to be found among historic Vieux Carre (New Orleans) buildings and ante-bellum homes are faithfully reproduced by LORIO master craftsmen...cast in the finest quality iron obtainable.

LORIO IRONWORK installations can be seen on homes, hospitals, university buildings, doctors' clinics and other types of buildings... in the very finest of modern or traditional architectural taste.

WE OFFER A COMPLETE SERVICE IN
PRODUCING CUSTOM-MADE PATTERNS
FROM YOUR OWN DESIGNS... OR
SPECIAL CASTINGS OF ANY KIND.

Send for this handsome NEW 48-PAGE CATALOG

Available, for the asking, to architects and builders who are interested in—

- AUTHENTIC HISTORIC PATTERNS
- CREATIVE REPRODUCTIONS OF NEW DESIGNS
- HIGHEST QUALITY OF MATERIALS AND WORKMANSHIP
- EXCELLENCE IN ARCHITECTURAL TASTE

All of the famous New Orleans designs and many new ones are illustrated in this 1950 LORIO Catalog. And beautiful, large, photographic reproductions of various installations throughout the United States are shown.

LORIO IRON WORKS

738-756 South Gayoso Street • New Orleans 19, Louisiana



SPECIFIED FOR THE WESTERN
SAVING FUND SOCIETY BUILDING

STANDARD ELECTRIC TIMING SYSTEM

Naturally enough, a complete STANDARD Electric system governs the broad range of activities in Philadelphia's great Western Saving Fund Society Building.

Harberson, Hough, Livingston & Larson, of Philadelphia, architects for the Western Saving Fund Building, specified STANDARD Electric. Architects everywhere recognize the dependability of STANDARD engineered timing and signalling systems for schools, hospitals, public buildings, business and industry.

STANDARD

THE STANDARD ELECTRIC TIME CO.

81 LOGAN STREET

SPRINGFIELD, MASSACHUSETTS

**Get
Accurate
Results**

with the right shape
for the job!



Specify nationally-distributed CHROMTRIM metal mouldings and be sure the mechanic will carry out your plans perfectly... with more than 200 stock shapes quickly available, including price tag mouldings for stores.

- in **aluminum**—a choice of rolled and extruded shapes
- in **stainless steel**—most shapes have tough stainless steel cladding over *easy-to-cut* non-corrosive aluminum core
- **wider, thinner** flanges for easier nailing and greater contour smoothness on wallboard and linoleum

Individually wrapped in red-striped jackets to protect the finish and to *identify genuine CHROMTRIM*. Adds beauty in product design, too. Special shapes made to your order.

WRITE FOR NEW 1950 CATALOG,
OR SEE CATALOG 14b/3 IN SWEET'S

Chromtrim

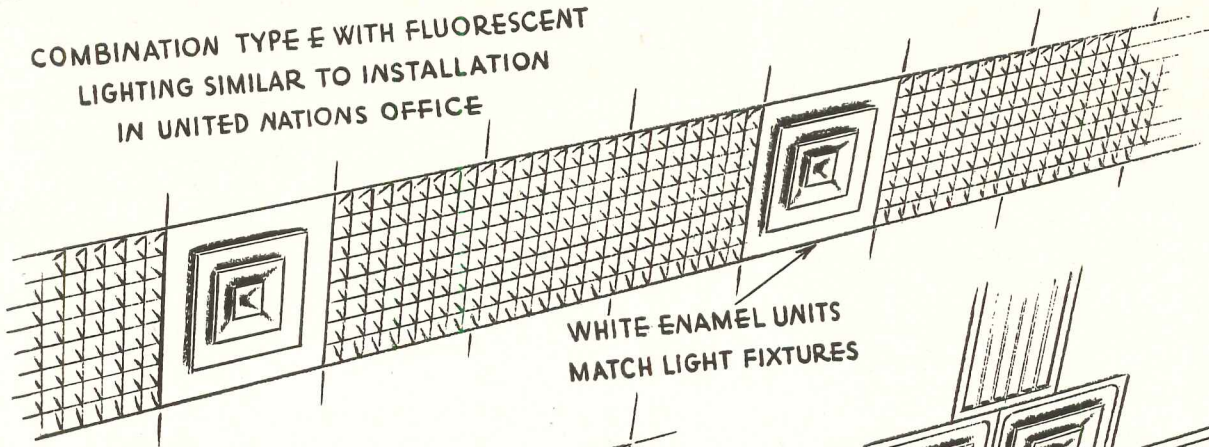
Easy to Buy.. Easy to Apply



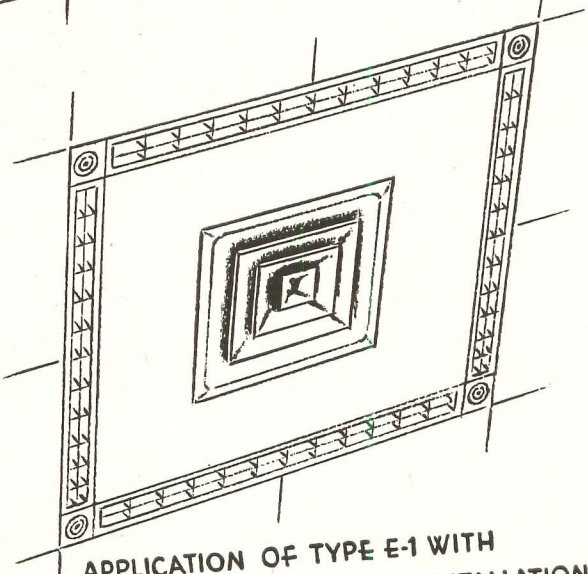
R. D. WERNER CO., Inc., Dept. A R, 295 Fifth Ave., New York 16, N. Y.
In Canada: R. D. WERNER CO., Ltd., Oshawa, Ont.

ideas for using ANEMOSTAT AIR DIFFUSERS

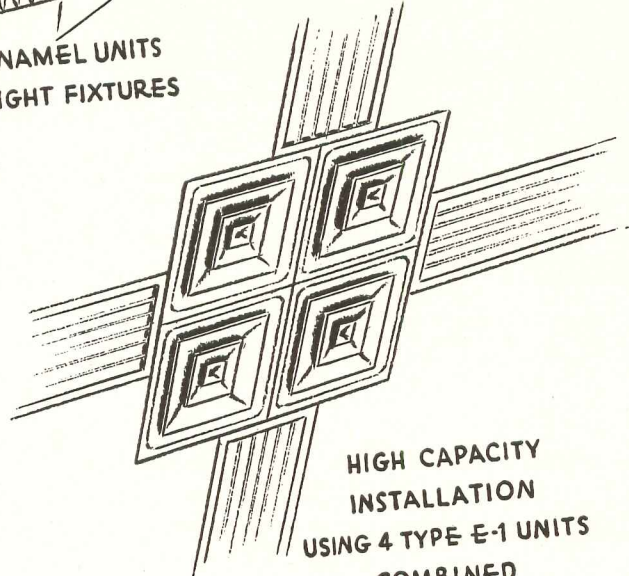
COMBINATION TYPE E WITH FLUORESCENT LIGHTING SIMILAR TO INSTALLATION IN UNITED NATIONS OFFICE



WHITE ENAMEL UNITS MATCH LIGHT FIXTURES



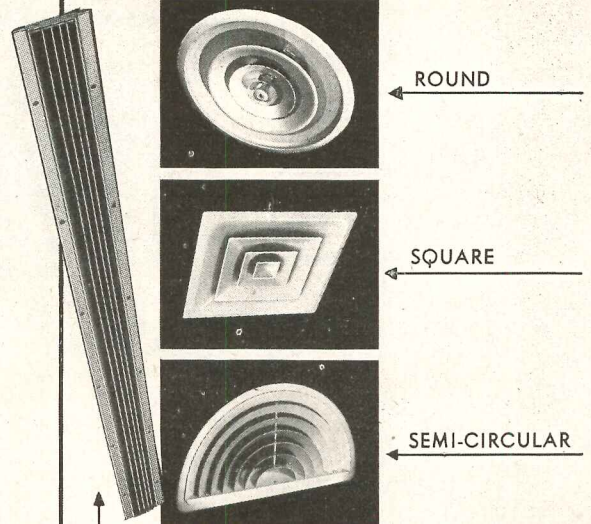
APPLICATION OF TYPE E-1 WITH LIGHTING FOR COMMERCIAL INSTALLATION



HIGH CAPACITY INSTALLATION USING 4 TYPE E-1 UNITS COMBINED WITH FLUORESCENT LIGHTING

Anemostat Air Diffusers offer unlimited design possibilities. They can be used in regular, acoustical and egg crate ceilings . . . combined with all types of lighting fixtures . . . in commercial, industrial and home applications. Anemostat Air Diffusers provide uniform diffusion throughout the entire conditioned area. They eliminate harmful drafts, stale air pockets and equalize temperature and humidity. New Selection Manual contains complete application and specification data. Write for your copy.

ANEMOSTAT offers maximum design possibilities because only Anemostat Air Diffusers come in all these shapes



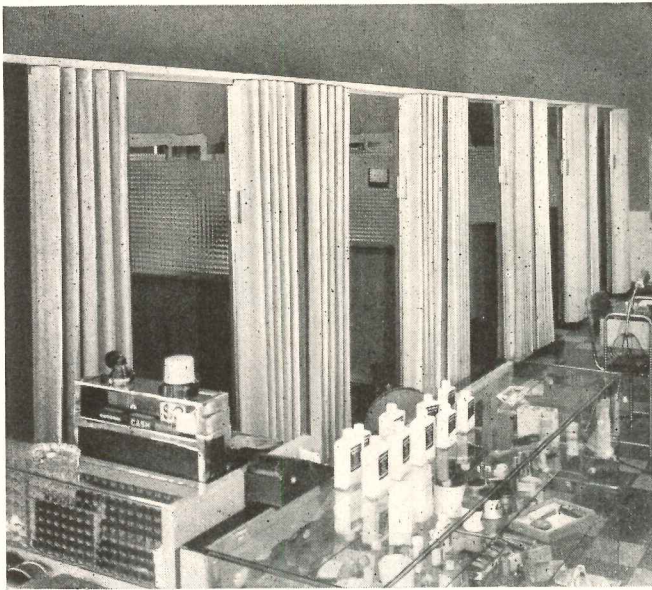
ROUND

SQUARE

SEMI-CIRCULAR

"No air conditioning system is better than its air distribution"

ANEMOSTAT®
DRAFTLESS *Aspirating* AIR DIFFUSERS



Beauty's not the half of it ... with "MODERNFOLD" doors

Of course, "Modernfold" accordion-type doors are beautiful! Their colorful, distinctive vinyl covering is fire-resistant, will not crack, peel or fade. This alone was good reason for the architect to choose them for this beauty parlor. *But that's not all!*

they save space! Here, too, is more room for placing furniture... for improving and balancing decoration. That's because "Modernfold" doors don't swing... they fold to save the space swinging doors waste.

they insure privacy! The shop's customers need never fear invasion of privacy—for "Modernfold" doors are solid, sturdy closures, thanks to a rigid steel frame. And, incidentally, this assures smooth, dependable service for years and years.

in application after application. This is, of course, only one example of how "Modernfold" doors solved an architect's problem. They provide infinitely greater scope in planning for all kinds of commercial and residential building. Many times, for instance, a "Modernfold" door acts as a movable wall to create two rooms out of one.

Why not see if "Modernfold" doors can aid you either as a closure or a partition? You'll be surprised how little they cost. For full details look up our installing distributor in your classified telephone book under "doors"... or mail coupon.

Sold and Serviced Nationally

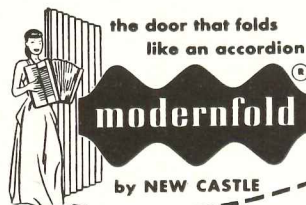
See our catalog in Sweet's

NEW CASTLE PRODUCTS

New Castle, Indiana

In Canada:

Modernfold Door Company of
Canada, Limited, Montreal



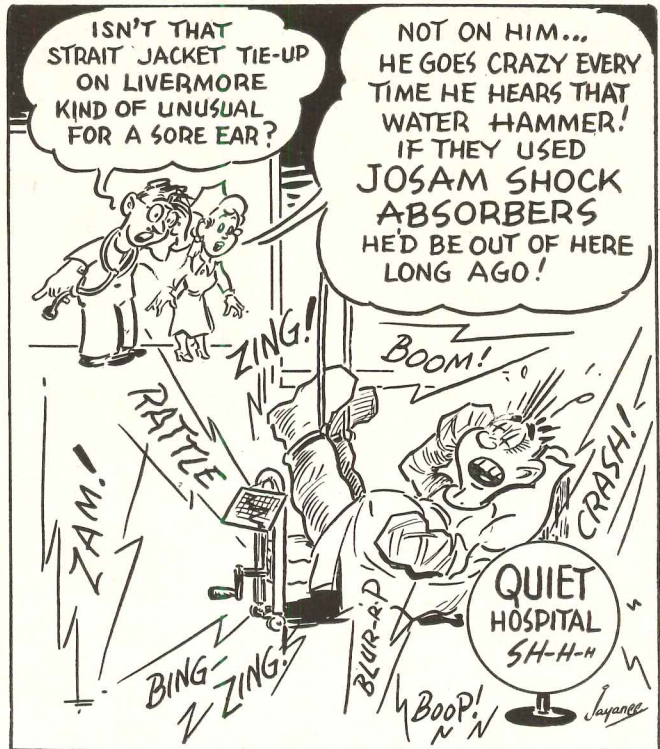
New Castle Products
P. O. Box 813
New Castle, Indiana

Gentlemen:
Send information on "Modernfold" doors.

Name.....

Address.....

City.....State.....



Why suffer a "shock" every time a faucet is closed, or a water closet is flushed. You can "cure" disturbing, destructive water hammer in any pipe lines by specifying Josam Shock Absorbers.



Josam Manufacturing Company
302 JOSAM BUILDING CLEVELAND 13, OHIO

BEAUTY — STRENGTH — DURABILITY



Lorenzo Hamilton, Architect

EXTRUDED ALUMILITED ALUMINUM STORE FRONT METALS



Extrudalene Factory Assembled Entrances
Narrow Stile Aluminum Hollow Metal Doors
Furnished in fine ALUMILITED finish

Send for A.I.A. Building Products Literature Competition award winning catalog

THE ALUMILINE CORPORATION

339 ELDERT STREET

BROOKLYN 27, N. Y.

GOOD NEWS!

Kwikset Locks to be distributed by Kwikset Sales and Service Company

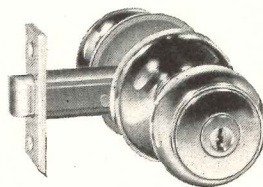
BEGINNING IMMEDIATELY YOU WILL ENJOY

DIRECT SALES AND SERVICE WITH

- ★...one standard of quality
- ★...one reliable source of supply
- ★...one responsibility

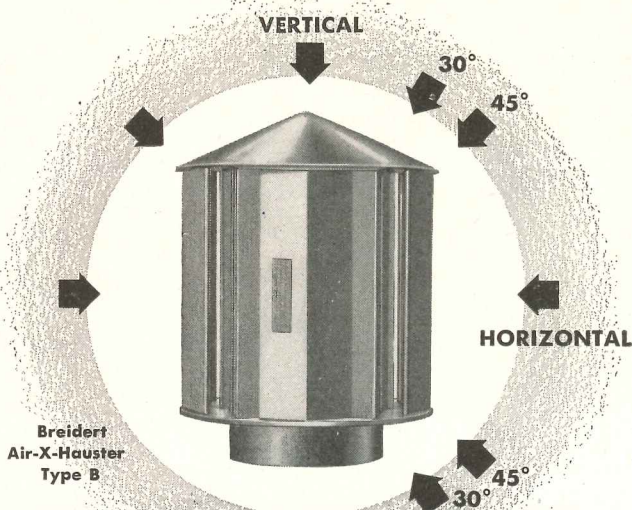
KWIKSET PROMISES... To architects... Advanced engineering and authentic styling in the field of residential locks... To jobbers... Best possible service plus sound, friendly relationships... To builders... Ease of installation, nation-wide distribution... To the trade in general... Augmented manufacturing facilities, highest quality in our price class, precision-fabrication and advanced styling.

IN SUMMARY, with KWIKSET you will enjoy satisfactory service and pleasant relationships with plus values in every KWIKSET lock you buy!



This is the famous and popular KWIKSET 5-pin tumbler lock with die-cast parts and wrought bronze or brass knob and trim—a plus value.

First Ventilator with Certified Capacity Ratings!

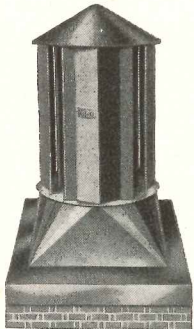


Breidert Air-X-Hausters

PATENT NO. 2269428

The Revolutionary Improvement in Roof Ventilators and Chimney Tops

Only the Breidert Air-X-Hauster offers certified capacity ratings based on tests * made with wind blowing in *all* directions as shown above. Only such tests can guarantee the capacities a ventilator will deliver under actual operating conditions! No matter which way the wind blows, barring interior negative pressures, the Breidert provides safe, sure ventilation.



For Chimney Tops... the Breidert Air-X-Hauster stops down-draft, exhausts smoke and fumes, completely overcomes sluggishness caused by down-draft. Thousands of Breiderts are in use all over the country.

For Vent Flues... the Breidert succeeds when conventional ventilators fail because it completely eliminates back-draft where no interior negative pressure exists. Positive flue action is assured regardless of wind direction. The Breidert is more compact and neat in appearance.

For Roof Ventilating... the Breidert is unsurpassed in efficiency, economy and appearance for use on residences, commercial and industrial buildings of all types. Stationary... no moving parts... nothing to jam or get out of order.

Send for **FREE**
ENGINEERING DATA BOOK...

USE the coupon for complete information on the Breidert Air-X-Hauster, including certified capacity ratings.

*By Smith, Emery & Co. of San Francisco, Pacific Coast Branch of the Pittsburgh Testing Laboratory.

THE G. C. BREIDERT CO.

3129 San Fernando Road
Los Angeles 65, California



The G. C. BREIDERT Co., Dept. AR
3129 San Fernando Road
Los Angeles 65, California

Please send Engineering Data Book. No charge or obligation.

Name.....
Street.....
City..... Zone..... State.....

SPECIFY SPOT SASH CORD FOR LIFETIME SERVICE

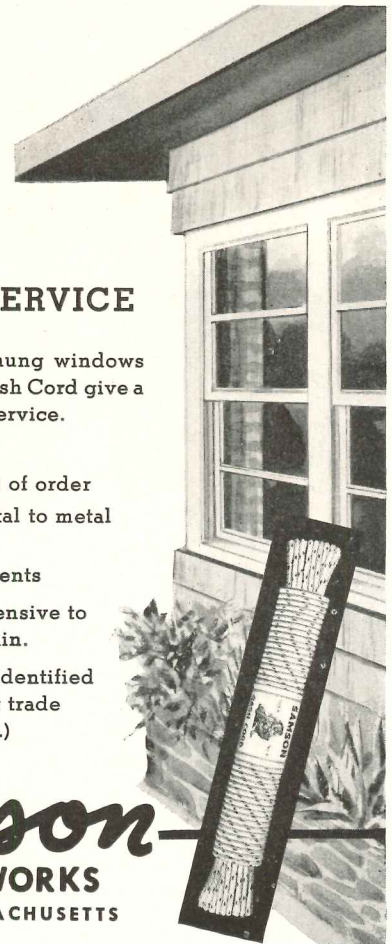
Weight and pulley hung windows using time-tested Spot Sash Cord give a lifetime of trouble-free service.

- No adjustments
- Nothing to get out of order
- No noise from metal to metal contact
- No early replacements

Spot Sash Cord is inexpensive to install... easy to maintain.

Specify Spot Sash Cord... identified by the colored spots, our trade mark (Reg. U. S. Pat. Off.)

Samson
CORDAGE WORKS
BOSTON 10, MASSACHUSETTS



This FREE BOOKLET ...just off the press, brings You NEWLY-APPROVED RLM SPECIFICATIONS

covering industrial lighting units utilizing the
NEW, LONGER-LENGTH SLIMLINE
Fluorescent Lamps...



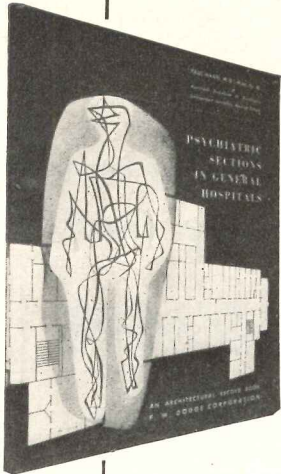
also IMPORTANT REVISIONS of RLM Specifications

Everyone who buys, sells and specifies lighting equipment should have a copy of this up-to-date, officially-revised RLM Specifications Booklet. It brings you 44 pages replete with new and revised specifications for 18 different fluorescent and incandescent industrial lighting units which carry the RLM Label. Especially important are Specifications No. 28 to 31, because they bring you complete data on 4 new Industrial RLM Units that have been approved for most efficient utilization of the new 72" and 96"

Slimline T-12 Lamps, the most powerful fluorescent light source! You will find this booklet invaluable in helping you measure construction and performance factors vital to lighting efficiency, economy and ease of maintenance. Take steps now to get UP-TO-DATE on the latest in lighting! Send for your complimentary copy of the REVISED RLM SPECIFICATIONS BOOKLET... no cost or obligation, of course. Address: RLM Standards Institute, 326 W. Madison Street, Suite 827, Chicago 6, Illinois.



5083



An Architectural Guide to the Principles of Psychiatric Construction.....

PSYCHIATRIC SECTIONS IN GENERAL HOSPITALS

By Paul Haun, M. D.

IT IS A STARTLING FACT that psychiatric disabilities accounted for 38% of all Selective Service rejections in World War Two; and neuro-psychiatric conditions were responsible for 37% of the medical discharges.

Today, according to the Veteran's Administration, more than half of the beneficiaries under hospital treatment are receiving care for mental and emotional illnesses.

These amazing statistics should have great significance to architects. For—while it is true that hospitals offering psychiatric treatment have tripled in the past twelve years—the need for more and better facilities is evident.

Environment All-Important

Actually, no modern hospital is complete without a psychiatric unit. The problem, however, is a complicated one because in the design and construction of such a unit every aspect of the environment must be strictly controlled. As Dr. Haun's book points out, "Attention is concentrated on what can be done for the patient diagnostically and therapeutically, not on providing a certain number of beds."

That fact is fundamental in the orientation of architects engaged in hospital work. It means that they should

gain some appreciation of the problems peculiar to psychiatric treatment.

All the architect need know, however, is elaborately detailed in "Psychiatric Sections In General Hospitals." Here are specific, reason-why instructions covering everything from shafts and stacks to hydrotherapy suites.

Typical Hospitalization Outlined

The reader is given an account of a typical hospitalization in which a patient's movements are traced from his admission to his discharge.

This device is effective in dramatizing the importance of proper design and proper emphasis.

Then follows an itemized list of facilities necessary to meet the requirements of an adequate psychiatric unit.

V. A. Hospital Rated

An entire section of the book is devoted to an analysis and rating of hospitals recently designed for the Veterans Administration, which now offer psychiatric treatment. Basic planning principles are discussed at length—weak points cited and improvements suggested.

Dr. Haun, of course, is eminently qualified to do that job because in addition to holding an assistant professorship on psychiatry at Georgetown U.,

he is Chief of the Hospital Construction Unit of the Veteran's Administration's Psychiatry and Neurology Division and consultant to the State of Maryland which has recently launched an extensive new psychiatric building program.

Floor Plans Included

The final part of Dr. Haun's book consists of actual floor plans for a hypothetical general hospital of about 200 beds containing a psychiatric section for both sexes. These plans illustrating an ideal unit were contributed by architects Charles Butler and Addison Erdman.

"Psychiatric Sections In General Hospitals" is by all odds the most provocative work on specialized architecture since the publication of "Hospital Planning." It is a non-technical book for technical men; one that gives, for the first time, clear and reasoned specifications on a branch of architecture that has leaped from obscurity to prominence in a few short years.

Mail Coupon Today

Because of the specialized nature of this material, "Psychiatric Sections In General Hospitals" will not be readily available at most book stores. So use the coupon below to send for your copy today. Price \$4.00, including postage.

DO YOU KNOW?

How many square feet per patient should be provided for in the solarium?

Why are two twelve-bed nursing units more durable than one twenty-four bed unit?

What is the preferred location for the utility room?

Why is a centrally located nourishment kitchen inadvisable?

Where is the proper location for the shock treatment room? For the hydrotherapy suite?

These are typical of the questions answered in "Psychiatric Sections In General Hospitals"—a unique book that every architect interested in hospital construction should read.

BOOK DEPARTMENT, ARCHITECTURAL RECORD

119 WEST 40TH STREET • NEW YORK 18, N. Y.

• Enclosed is \$_____ for _____ copy(s) of "Psychiatric Sections In General Hospitals" by Paul Haun, M.D., at the price of \$4.00 per copy. (For N. Y. C. add 2% sales tax.)

Name _____

Address _____

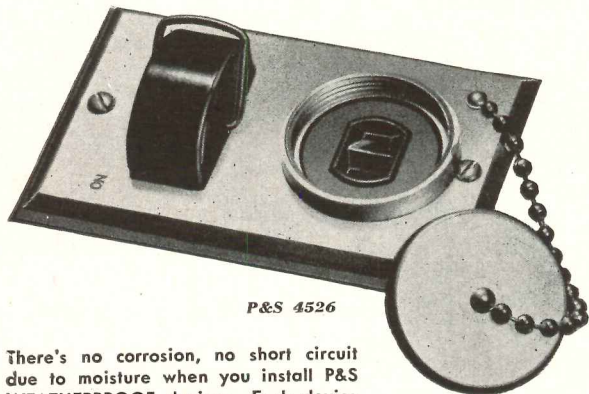
City _____ Zone _____ State _____



keep
out
moisture

with **P&S WEATHERPROOF**
switches and receptacles

Wherever the presence of moisture demands special attention — in industrial buildings, garages, creameries, distilleries, breweries, residences, loading platforms — specify the P&S WEATHERPROOF line, the complete line of weatherproof wiring devices. P&S WEATHERPROOF switches, outlets and combination devices are designed to keep out moisture, to give long, dependable service. And like other P&S devices, they are easy to install. Your clients will appreciate the P&S WEATHERPROOF line!



P&S 4526

There's no corrosion, no short circuit due to moisture when you install P&S WEATHERPROOF devices. Each device is sealed with cover and plate gaskets . . . switches T-rated for Type C lamp loads . . . outlets have constant-tension contacts, gripping both sides of the plug cap blades. The P&S WEATHERPROOF device shown here combines an outlet and a single pole 10 amp, T-rated switch. This typical P&S WEATHERPROOF device has Underwriters' approval, meets or exceeds all Federal and R.E.A. specifications. It is another example of P&S quality, dependability and easy installation — three reasons why P&S devices have been the choice of electricians and architects for over sixty years! Write today for details about the complete P&S WEATHERPROOF line.

PASS & SEYMOUR, Inc.
12 Boyd Ave., Syracuse 9, N. Y.


Maker of the famous P&S-Despard Line



you can
see that

Trinity White
is the whitest
white cement!

You'll get fine results with this extra white cement. It's true Portland Cement made to ASTM and Federal Specifications. If your dealer does not have it, write the office nearest you: Trinity Portland Cement Division, General Portland Cement Co., 111 West Monroe St., Chicago; Republic Bank Bldg., Dallas; 816 W. 5th St., Los Angeles.

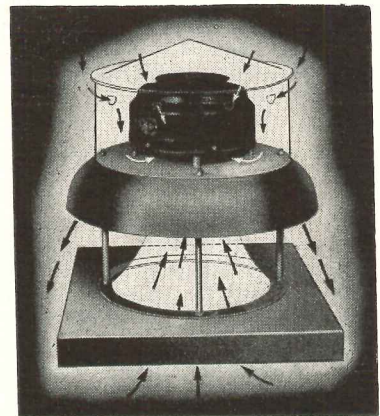
as white  as snow

Motor is OUT of airstream.

Positive air expulsion using squirrel-cage fan.

Negative air flow through motor hood prevents formation of explosive or corrosive fumes.

Heaviest construction of any similar device. SPECIAL metals for unusual conditions.



NEW Rugged!
GALLAHER
Air Van
POWER EXHAUSTERS

Streamlined inlet design
ELIMINATES turbulence—
aids quiet operation.

Pat. 2188741 Pat. Pend.

RATING CERTIFIED by independent testing agency under direction of a nationally recognized authority.

The
GALLAHER
Company

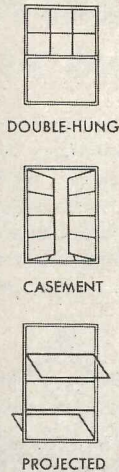
For full information contact your Gallaher representative or write: The Gallaher Co., Dept. R, 4108 Dodge Street, Omaha 3, Nebr.

OMAHA, NEBR. OWATONNA, MINN.

**Insist
on this
Seal...**



**when you specify
ALUMINUM
WINDOWS**

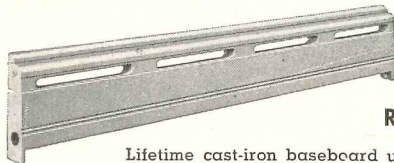


This seal assures windows that, when tested by the independent Pittsburgh Testing Laboratory, meet the A.W.M.A. quality specifications for materials, construction, strength of sections, and minimum air infiltration requirements.

For complete specs covering "Quality-Approved" aluminum windows—double-hung, casement and projected—and names of approved manufacturers, consult Sweet's or write to Dept. R.

ALUMINUM WINDOW MANUFACTURERS ASSOCIATION
74 Trinity Place, New York 6, New York

**2 BURNHAM PRODUCTS THAT
PROVIDE LOWER-COST,
SPACE-SAVING,
RADIANT HEATING SYSTEMS!**

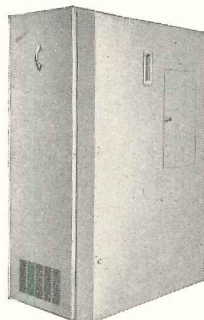


**BURNHAM'S
BASE-RAY***
Radiant Baseboards

Lifetime cast-iron baseboard units. Provide radiant heat at ankle height. Fins are part of casting—cannot come loose. No "false front" or grilles to become dented. Easy to install, accessible, leave floor space entirely free. Specify them!

**THE
PACEMAKER OIL-FIRED
BOILER**

Lowest priced cast-iron oil-fired quality boiler on the market. Complies with ASME code. Economical in cost because it's shipped assembled—simple to install. Specify it! Team it with BASE-RAY for lowest cost, mid-century radiant heating installations.



Why specify ordinary heating? Get all the details of this famous team and other Burnham products. Write for Catalog 81 TODAY.

Burnham Corporation

"PIONEERS OF RADIANT BASEBOARD HEATING"

IRVINGTON, N. Y.

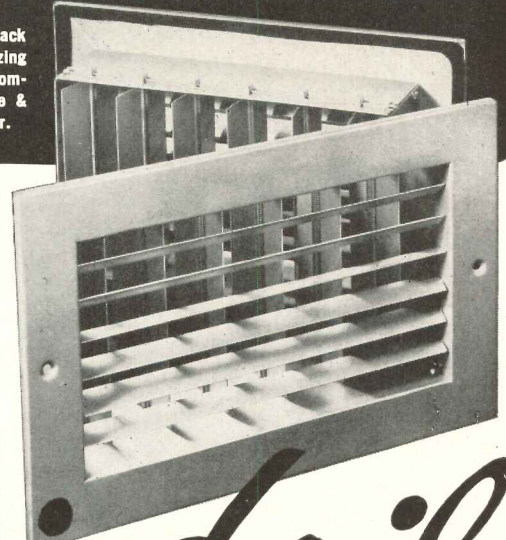
*Reg. U. S. Pat. Off.

COSTS 30% LESS

INSTALLS FOR 50% LESS

**COMBINATION GRILLE
& VOLUME CONTROLLER**

• Front & back views of amazing new AF-325 Combination Grille & Vol. Controller.



Airfoil
AIR CONDITIONING OUTLETS

AIRFOIL scoops the air conditioning outlet world with new advance design—compact AF-325. Handles air volume and distribution with one unit. Split rear louvers control volume... combined with front AIRFOIL louvers give draft-free 4-way distribution.

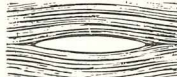
ONE UNIT TO PURCHASE

Exclusive design holds cost at 30% less than combined costs of a volume controller and grille. Less parts—non-freeze louver action—easy adjustment—compact—rugged.

**ONE UNIT TO HANDLE
AND INSTALL**

Workmen save valuable time handling one compact unit. There are less screws to place—less parts to fumble—less weight to carry. System adjusts in 1/10 normal time.

**SOLID-SECTION
AIRFOIL LOUVER**



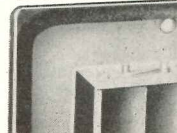
• Louver knives air in wind tunnel tests. Turbulence has been almost eliminated, giving noiseless control of air.

**TWIN REAR
LOUVERS**



• More flexibility—greater and easier air control—faster, surer adjustment are certain.

**EXTRA
STRENGTH FRAME**



• Special concealed support eliminates all mullions. Heavy gasket seals to duct—prevents dust streamers.

CHECK TYPE OF GRILLE ON WHICH INFORMATION IS DESIRED

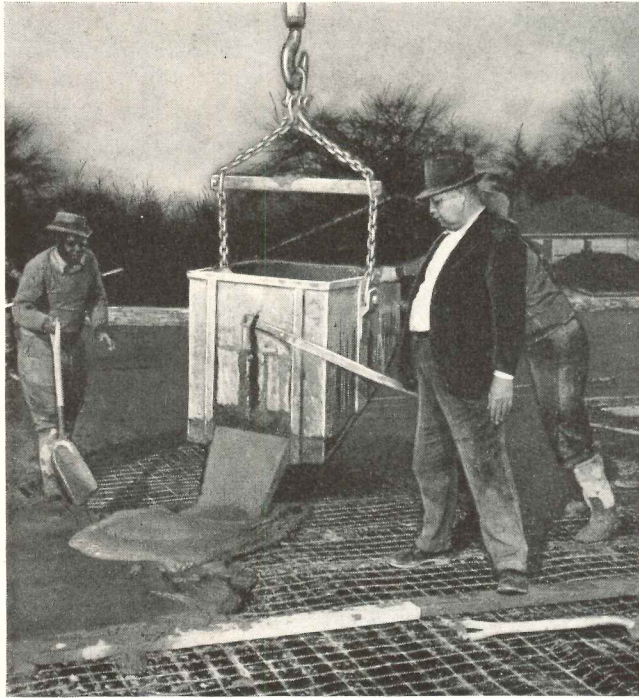
- Air conditioning outlets
- Return air grilles and registers
- Volume controllers
- Perforated metal & ornamental grilles
- Door ventilators
- Special made-to-order grilles

TITUS MANUFACTURING CORP.
Waterloo, Iowa

RUSH me complete information including prices, discounts and delivery on the AF-325 plus above checked items.

NAME.....
ADDRESS.....
CITY..... STATE.....

NOW—LIGHTWEIGHT ROOFS THAT COMBINE INSULATION AND STRUCTURAL STRENGTH



ZONOLITE* CONCRETE CUTS COST... SAVES TIME

With one product—one application, Zonolite Concrete Aggregate combines both insulation and structural strength... achieving great savings in construction time, plus frequent economies in the use of structural steel.

More and more architects are specifying Zonolite concrete for roof deck construction... Another Roof Insulated with



Above: The ultramodern American Stove Company in St. Louis has a monolithically poured Zonolite concrete roof... specified by Harris Armstrong, architect, for its lightness, strength and fire protection.

ZONOLITE COMPANY
135 S. LaSalle St., Chicago 3, Ill.

At Lumber or Building
Material Dealers



Member of the
Vermiculite Institute

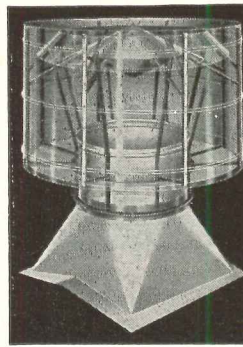
Zonolite Company, Dept. AR-80
135 S. LaSalle St., Chicago 3, Ill.
Please send me at once a copy of your booklet "Zonolite Insulation and Lightweight Aggregates."

Name.....

Address.....

City..... Zone..... State.....

*Zonolite is a registered trademark



The Burt Free-Flow Gravity Ventilator. It can be converted into the Free-Flow Fan Ventilator by the addition of fan barrel section between head and base.

BURT'S COMPLETE LINE INCLUDES EQUIPMENT FOR EVERY VENTILATING NEED

No one type of ventilator is efficient for all installations. That's why Burt Ventilators include gravity, fan and continuous ridge types in many sizes. That's why Burt's half century of experience and the active help you can expect from Burt engineers are important considerations in selecting your ventilating equipment.

THE BURT MFG. CO.

ROOF VENTILATORS • OIL FILTERS
EXHAUST HEADS

48 E. South Street, Akron 11, Ohio, U.S.A.

SEND
FOR CATALOGS

Burt Engineers
are glad to
help on plans

NOW! ASSURANCE OF HIGHEST QUALITY LIGHTNING PROTECTION EQUIPMENT with IPC STRAN-MARK Cable



When you install STRAN-MARK (protection against inferior cable) your customer has assurance of highest quality lightning protection equipment... and DOUBLE protection. Protection not only against loss of life

and property but protection of investment on installation.

Available in aluminum or copper for concealed or semi-concealed installations... for all types of buildings. Our staff of experts are at your service on any installation problem.

For further information refer to IPC 1950
SWEET'S CATALOG FILE, or write direct
for literature on the world's most complete
line of Lightning Protection Equipment.

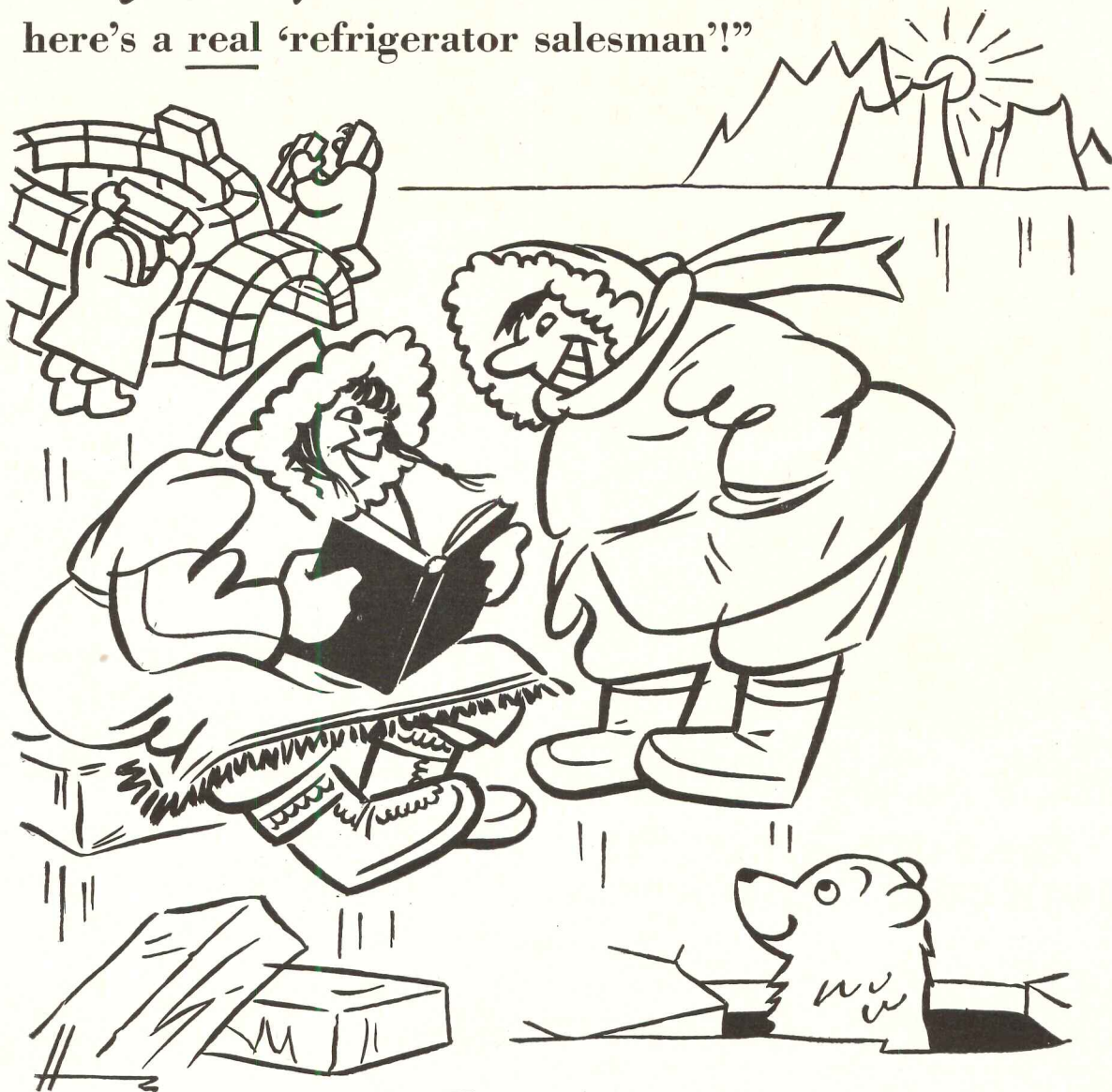


INDEPENDENT PROTECTION COMPANY

Dept. G, Box 537

GOSHEN, INDIANA

*“Great gobs of blubber, Nanook—
here’s a real ‘refrigerator salesman!’”*



THE crack salesman who sold refrigerators to the Eskimos has a counterpart in Home Owners' Catalogs.

Matter of fact, Home Owners' Catalogs excels the proverbial refrigerator salesman! Can *any* salesman deliver your "sales presentation" to two thousand verified home-planners a week . . . live prospects who *must* buy somebody's building materials and equipment? Can *any* salesman call on hundreds of known home-planners every day . . . and charge you only ten cents per "sales call?"

Yes: Home Owners' Catalogs!

Better hire the F. W. Dodge Corporation's crack "salesman" *now*, Mr. Building Products Manufacturer! Your consumer sales literature in the next edition of Home Owners' Catalogs will bring you an igloo full of profits!

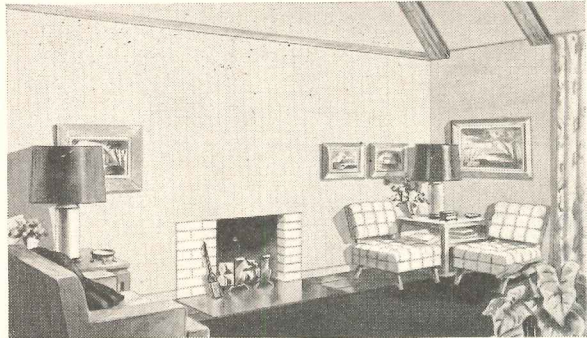


Home Owners' CATALOGS

119 West 40th Street, New York 18, N. Y.

F. W. Dodge Corporation's Consumer Catalog Distribution Service

In Earthquake and Tornado districts ...



... HOME OWNERS INSIST ON
DRY WALL CONSTRUCTION

"San Antonio is (a district) where dry wall is a must because of the earth heaval problem with which they are faced there. Up until about six years ago, they used wood boards, over which they stripped canvas and then papered, but when dry wall construction, as we know it today, became available on the market, they turned to that method of providing interior finish."

That is the statement of Mr. Carl G. Lans, Director of the Technical Service Department of the NAHB. This is supported by letters from many an owner of a home built with Homasote Dry Walls. These homes have survived tornados and even tidal waves.

For 32 years Homasote has been used for Dry Wall Construction—in millions of dollars of private homes. Since 1936 its use has been supported by intensive research costing more than \$500,000.

Dry Wall Construction—with Homasote Big Sheets—offers many major advantages... The average wall is covered with a single sheet; batten strips and unsightly wall joints are eliminated. In a single material you provide lasting insulation value and great structural strength.

Dry Wall Construction—with Homasote Big Sheets—means walls that are permanently crackproof, ideal for paper or paint, lending themselves to modern decorating effects, modern mouldings and trim.

Let us send you performance data and illustrated literature on Homasote and allied products.



... in Big Sheets up to 8' x 14'

Oldest and strongest insulating and building board on the market

SEND FOR ILLUSTRATED LITERATURE

HOMASOTE COMPANY • DEPT. 75, Trenton 3, New Jersey

Send me literature as checked:

- | | |
|------------------------------------------|--------------------------------------------------------|
| Standard Homasote (Big Sheets) () | Wood-textured Homasote (Panels) () |
| Striated Homasote (Tiles and Panels) () | The Nova-Shingle and the Nova-Speed Shingling Clip () |
| The Nova Roller Door () | |

Name _____ (Please print in pencil)

Address _____

City & Zone _____ State _____

EVERY hospital should have Cutler Mail Chute Equipment.

It not only saves time for the staff and personnel, but its convenience is also much appreciated by patients.

Leading Architects specify Cutler Mail Chutes for Hospital Buildings, Nurses' Homes and Interns' Dormitories.



NAVAL HOSPITAL AT HOUSTON • EQUIPPED WITH THREE CUTLER MAIL CHUTES
Architects—Messrs. Finn, Cummings & Taylor

ESTABLISHED 1883

Cutler Mail Chute Co
ROCHESTER 7, N. Y.

Need a Chimney? **Specify VAN-PACKER**
PACKAGED CHIMNEY

VAN-PACKER gives your client a better chimney at lower cost.

1. Costs 20% to 50% less than brick.
2. Proven better draft... Quicker starting draft.
3. Built to last as long as the house.

U. L. tested and approved for all fuels. FHA acceptance.

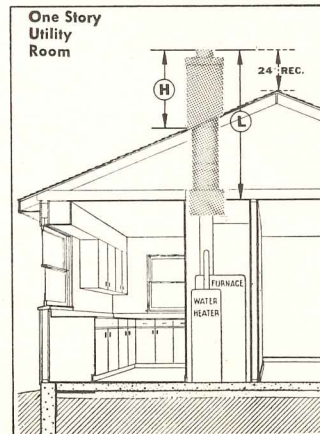


VAN-PACKER gives you freedom of design.

1. Hang chimney from ceiling or floor and use valuable space underneath.
2. Locate heating unit independent of fire-place flue.

Write today for full descriptive literature on chimney and other types of installations.

VAN-PACKER CORPORATION
Rm. 1749, 126 West Adams St.
Chicago 3, Illinois



Typical VAN PACKER CHIMNEY INSTALLATION

Architectural Record

serves the largest
audience of

architects and
engineers

ever assembled

by a

technical

magazine*

**The Pivot Paper for all
Building Product Advertising is
Architectural Record.** Here's why:

When you want to reach architects and engineers, one vertical paper reaches them most economically — Architectural Record ● When you want to reach builders, contractors, sub-contractors or owners, there are vertical papers which reach them most economically ● The combination of Architectural Record and other leading vertical magazines will give you more effective coverage of all these groups, at less cost per reader, than will any horizontal magazine ● For details, send for new booklet, "How to Determine Which Is the Pivot Paper in the Architectural Field" ● Also see Standard Rate & Data Service for facts on the Record and the market it serves.

Published by



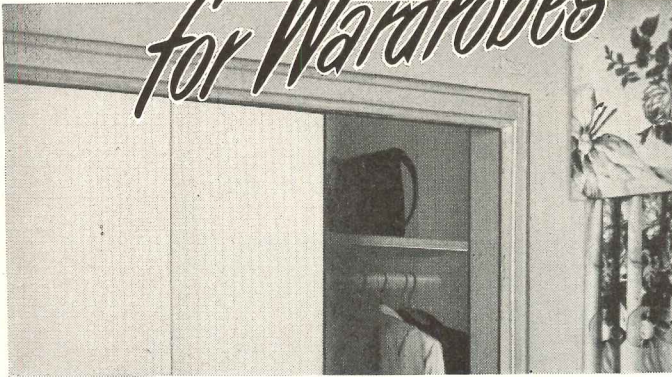
119 WEST 40TH ST
NEW YORK 18, N. Y
LONGACRE 3-0700

Bluebonnet Plant, Corn Products Refining Company, Corpus Christi, Texas — first presented to architects and engineers in Architectural Record
Industrial engineers and builders: The H. K. Ferguson Company
Project architect: Frank L. Whitney
Photographer: Elwood M. Payne

HAR-VEY ^{ROLLING-DOOR} HARDWARE

introduces an Economical

*New Hanger
for Wardrobes*



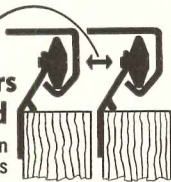
**Exclusive new features that save
time, trouble, and money!**



Quick, simplified installation

Doors are hung from the outside, can be easily slipped in place after shelving is installed.

**Space between doors
can be varied**
-- no limit on
number of doors



**Less Headspace
is required**

Track can be used for Trim

in cabinets and show-cases,
because open side of track faces in,
smooth side faces out



Exterior view:
Hardware is mostly
concealed.

Economically designed for lower cost!

Quality-made of 100% rustproof materials
with extruded aluminum track

This new Har-Vey Hardware* is ideal for cabinets,
wardrobes and similar installations. Learn all
the advantages today -- mail this coupon now.

*On display at Booth 34 N. C. H. A. Exposition

Address: Hardware Division T

METAL PRODUCTS CORPORATION

807 N. W. 20th St. Miami, Florida



Please send me free folder on your new Wardrobe Hardware

NAME _____
COMPANY _____
STREET _____
CITY _____ STATE _____
YOUR DEALER'S NAME _____ T

EMPLOYMENT OPPORTUNITIES AVAILABLE

Advertising rates on request

Positions Open

WELL-ESTABLISHED SCHOOL of Architecture in North Central state is in need of the following: Associate Professor to teach in the area of advanced design, history and interior design. Assistant Professor to teach in the area of design in color, delineation and graphics. The above positions require teaching experience and the degree of Master of Architecture; salary shall be commensurate with ability and experience and is higher than the average. Living quarters, while not guaranteed, are available. Box 503, *Architectural Record*, 119 W. 40th Street, New York 18.

ARCHITECTURAL DESIGNER: Overseas assignment with an American oil company in South America. Must have degree and over five years' experience design and preparation of complete architectural drawings for new construction and alterations of small offices, industrial buildings, and residences. Must prepare isometrical and perspective drawings for presentation of architectural projects. This is a regular staff job, offering retirement plan and other benefits. Write giving age, education, marital status, and detailed experience resume. Box 308-A, Radio City Station, New York 19, New York.

WANTED: Store layout draftsman. Experience in planning counter, case and other display fixture arrangements by national merchandising organization. Architectural knowledge essential. Address applications, listing qualifications, to Box 504, *Architectural Record*, 119 W. 40th St., New York 18.

Positions Sought

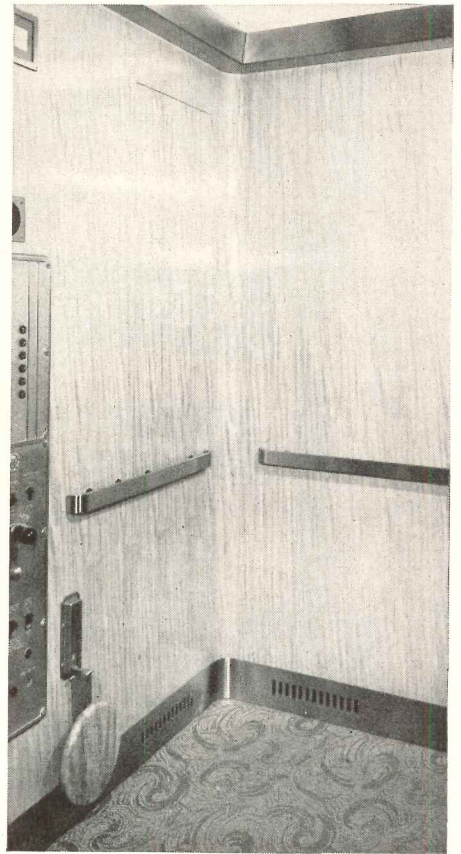
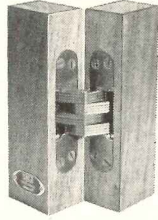
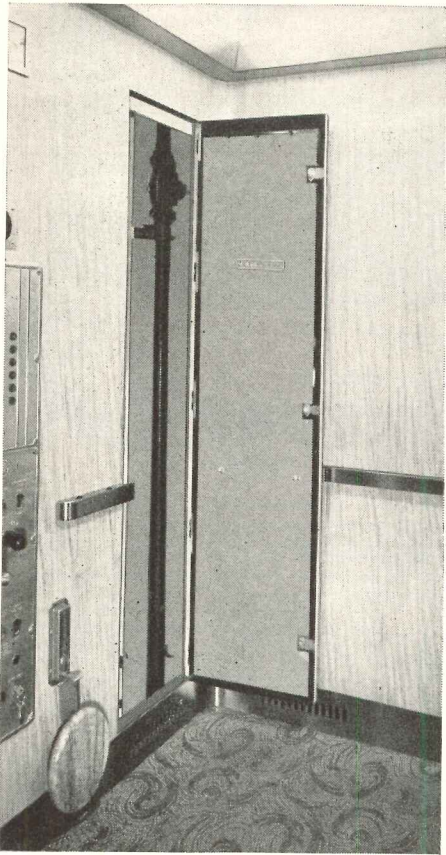
AVAILABLE AUGUST FIRST: Owners representative or Architects Clerk of the Works. 15 years' experience as Architects Clerk of the Works, Owners Representative and as Chief Building Inspector for construction with the United States Government. Can also handle Project Engineers Position. Box 505, *Architectural Record*, 119 W. 40th St., New York 18.

ARCHITECT DRAFTSMAN: Good design ideas, accurate drafting. Over one year office experience. Two degrees: Princeton for histories and aesthetic theory (A.B.); Carnegie Tech for structures and design (B.Arch.). Wartime Naval Officer, pleasant personality, age 29. Prefer young progressive office in growing center. Box 506, *Architectural Record*, 119 W. 40th St., New York 18.

RECEPTIONIST, OFFICE ASSISTANT: Woman of pleasing personality and rounded experience in architectural offices available in New York City or Newark. Box 507, *Architectural Record*, 119 W. 40th St., New York 18.

PRACTICING ARCHITECT: In Georgia; registered three states; 27 years varied experience; executive with personnel and public speaking experience. Desires connection or position with large Architect-Engineer, Contractor, or Material Manufacturer in South having, or in position to obtain, war contracts. Box 508, *Architectural Record*, 119 W. 40th St., New York 18.

HOW SOSS HINGES HELP *Otis* STREAMLINE AN ELEVATOR



For over 16 years Otis has been using SOSS INVISIBLE HINGES to give their elevators a streamlined, harmonious, gracefully modern appearance. Otis also considers the SOSS HINGE a definite safety factor as it has no protruding hinge butt to bruise people, tear clothes, etc., when elevators are crowded.

You, like Otis, will find SOSS HINGES ideal for creating unique, streamlined, luxurious, distinctively modern interiors.

There's a weight-rated SOSS HINGE, for every type of installation. They're perfect in every respect for secret panels, cupboards, and doors of all kinds. Your clients, too, will like this "hinge that hides itself."

Write for FREE CATALOGUE that gives complete details, blueprint templates, and the many uses of this modern hinge to—

SOSS MANUFACTURING COMPANY
21769 HOOVER ROAD DETROIT 13, MICHIGAN

SOSS
INVISIBLE
HINGES

*Throughout the
AIR CONDITIONING
Industry—*

AEROFIN FIN-TYPE
HEAT-TRANSFER UNITS
do the job Better,
Faster, Cheaper

AEROFIN CORPORATION
410 South Geddes St., Syracuse 1, N. Y.

GLOBE SPRINKLERS

FIREMEN EVERY 10 FEET

They make Fire fight Fire. Imagine a FIRE-fighting system put into action by FIRE itself . . . discharging water when and where FIRE starts. The GLOBE Automatic Sprinkler System has long been doing this in thousands of plants.

GLOBE AUTOMATIC SPRINKLER CO.
NEW YORK . . . CHICAGO . . . PHILADELPHIA
Offices in nearly all principal cities

THEY PAY FOR THEMSELVES

Prevent Basement Flooding
With a

PENBERTHY Automatic ELECTRIC SUMP PUMP

Made in 7 Sizes

Wherever sewers are inadequate, too shallow, or non-existent . . . or where seepage water is a problem, a Penberthy Automatic Electric Sump Pump should be installed. Water entering the sump operates the float switch, starting the pump automatically. The water is pumped out without attention or bother . . . and the basement is kept free of water at all times. Penberthy Automatic Electric Sump Pumps are made of copper and bronze throughout . . . corrosion proof . . . exceptionally dependable. Specify Penberthy and your client will get the best. See description in Sweet's Architectural File.

PENBERTHY INJECTOR CO.
Detroit 2, Mich. • Established 1886
CANADIAN PLANT — WINDSOR, ONTARIO

CONSTRUCTED OF COPPER AND BRONZE THROUGHOUT

TUNE UP ENGINE

YOU GET FOUR IMPORTANT ADVANTAGES WITH Kent-Moore

MONOXIVENT
EXHAUST ELIMINATING FIXTURES

If you were to sit down and write out a description of the "perfect" exhaust eliminating system for a service department, chances are you'd end up with a word picture of the Kent-Moore J 2980 MONOXIVENT Set. It's designed for use with any underfloor system, and its four important advantages are: **LOW INSTALLATION COST**—Readily installed in upturned "Y" section of main duct. No individual "T's" or branch duct required. **CONCEALED HOSE ASSEMBLY**—Asbestos packed flexible stainless steel tube and special tailpipe adapter slide down under floor for safe keeping when not in use. No storage problem, no unsightly hoses hanging from overhead. **QUICK, CONVENIENT USE**—Just lift the floor cover-plate and MONOXIVENT is ready for use . . . quickly, easily attached, detached and stowed. **LONG LIFE, LOW COST OPERATION**—Fully protected against damage, can't get lost or "borrowed". Minimum frictional losses assures efficient, economical operation. Complete installation data furnished upon request . . . write for it today!

J 2980
MONOXIVENT

KENT-MOORE ORGANIZATION, INC.
GENERAL MOTORS BUILDING • DETROIT 2, MICHIGAN
Engineers and Manufacturers of Special Automotive Service Tools and Equipment Sales and Service Engineering Representatives in Principal Cities Coast-to-Coast

SAVE TOWEL AND MAINTENANCE COSTS

With Modern, Faster-Drying Sani-Dri
Eliminates Need for Towels!
PROVIDES CLEANER, MORE SANITARY WASHROOMS

• New, faster-drying Sani-Dri gives you 24-hour hand or face-drying service with a stream of hot air. New heating element and faster-flow nozzle dries hands or face *25% faster than ever before!* Sani-Driers have carried the Underwriter's Seal of Approval for 18 years. They have given efficient drying service in every civilized country in every climatic condition!

SAVES 85% OF WASHROOM COSTS
Sani-Dri pays for itself out of savings! No buying or stocking of towels. No unsanitary litter . . . no fire hazard . . . no paper-clogged soil pipes . . . no servicing of empty towel cabinets. Sani-Dri gives years of continuous automatic drying service!

WRITE FOR LITERATURE

Distributors in Principal Cities
THE CHICAGO HARDWARE FOUNDRY CO.
"Dependable Since 1897"
8850 Commonwealth Ave.
NORTH CHICAGO, ILLINOIS

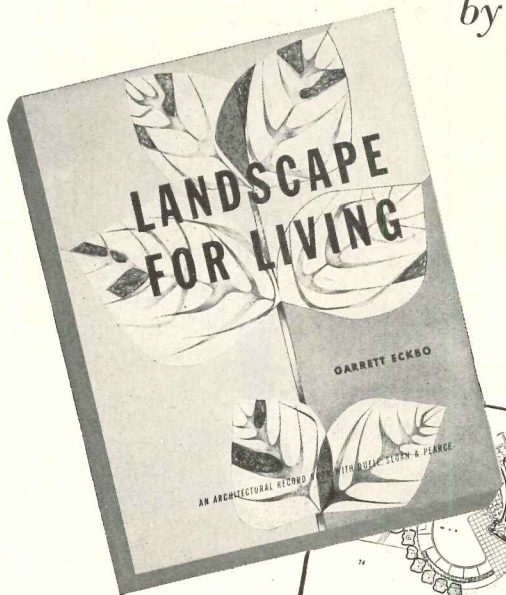
Hollow

Metal

See Our Catalog in Sweet's

JAMESTOWN METAL CORPORATION
104 BLACKSTONE AVENUE JAMESTOWN, N. Y.

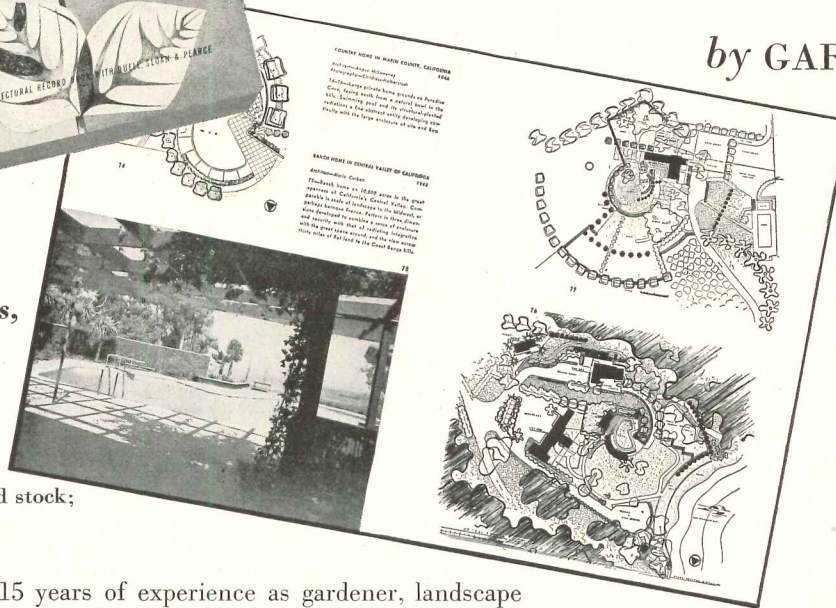
NOW! *A brilliant and practical book
by a recognized authority on landscape design*



Landscape for Living

by GARRETT ECKBO

400 illustrations,
including photographs,
site plans, drawings,
sketches;
fully indexed;
bibliography.
Size 8 x 10 $\frac{3}{4}$;
288 pages, heavy coated stock;
stiff cloth binding.



Partial Contents

What Is Landscape Design?
From Art to Planning
Space and People
The Principles of Design
Materials
Basic Elements
of The Landscape:
Earth- Rock- Water
Plants and Planting
Specific Site Conditions

DRAWING from 15 years of experience as gardener, landscape architect, and teacher, Garrett Eckbo has written a book that practitioners and students will want both for reference and for enjoyable reading—a refreshing book whose enthusiasm for outdoor planning is contagious enough to provide a real lift.

Planned with insight and craftsmanship, *Landscape for Living* outlines the major problems in the field of landscape design and offers specific solutions.

This ground-breaking text establishes a foundation for understanding landscapes: traces its history; explains its functions; analyses developments; details principles of design and planning.

Entire sections are devoted to such basic and practical considerations as *materials, plants and planting, structural elements, site conditions, parks, gardens, public buildings, group housing.*

PRACTICE AND THEORY. Garrett Eckbo is a teacher (University of Southern California) and an active practitioner of landscape design (member of the firm of Eckbo, Royston and Williams). His book reflects his mastery of both theory and practice; and both, as the author points out, are essential to the highest standard of professional work.

The fundamental thesis of the book is that landscape design is a problem in the unified organization of specific units of outdoor space. This organization, when done well, is more than a collection of elements, features, pictures or plants; each unit can develop an over-all integrated character. Unfortunately, however, much present day landscaping—in the words of the author—is “hack work, mechanical in form and sterile in content . . . superficial, sensational, tricky.”

Material Presented Graphically

Landscape For Living devotes page after page to photographs, diagrams and textual analysis of actual gardens, parks and public buildings. Problems are explained and solutions given.

Seldom has any subject, particularly landscaping, been treated as comprehensively in a single volume. No detail is too small, no concept too large, for Mr. Eckbo's instructive and engrossing book. It is almost certainly destined to be accepted as the definitive work on landscaping.

Mail Coupon TODAY!

To be among the first to own a copy of *Landscape For Living* simply fill out and mail the coupon below. Enclose your check or money-order for \$10.00, and the volume will be sent to you postage-paid; or, if you prefer, we'll bill you later. In either event, be sure to mail the coupon today.

Book Department, Architectural Record
119 West 40th Street, New York 18, New York

Please: send me _____ copies of Garrett Eckbo's new 288-page book *Landscape For Living* at \$10. per copy.

Name _____

Address _____

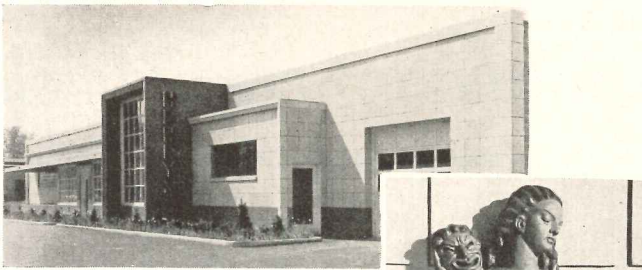
City _____

Zone _____

State _____

Save Postage costs:

Enclose \$10. (\$10.20 for N. Y. C. delivery)
and the book will be sent postpaid.



For
severe
surfaces
... or for
decorative sculpture



ENDURO-ASHLAR
ARCHITECTURAL TERRA COTTA
meets your most exacting requirements!

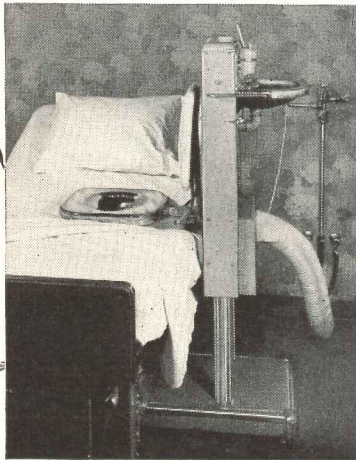
Write for facts. Construction detail, data, color samples, estimates, advice on preliminary sketches, will be furnished without charge.

FEDERAL SEABOARD TERRA COTTA CORP.



10 EAST 40th STREET, NEW YORK 16, N. Y.
PLANTS AT PERTH AMBOY AND SOUTH AMBOY, N. J.

*for the
special
attention of
HOSPITAL
ARCHITECTS*



NOW is the time to make
the **LAVOILET**

a part of your planning

The bedpan . . . for generations the most unwelcomed, unwanted, uncivilized piece of equipment in the hospital . . . is on the way out! It will have no place in tomorrow's hospitals. *It has no place in today's planning.* The LAVOILET eliminates the bedpan. It is a blessing to patients, nurses and doctors. It saves space and money . . . reduces bathroom requirements.

Write for the complete story of the LAVOILET
AMERICAN HOSPITAL SUPPLY CORPORATION
EVANSTON • ILLINOIS



FOR CONCRETE, STUCCO,
AND MASONRY

SPECIFY
the Paint that meets
**GOVERNMENT
SPECIFICATIONS**

TT-P-21, TYPE II, CLASS A

FOR WALLS

- Durable, Cement-like Finish
- Will Not Peel, Chip, or Crack
- Made by a Cement Company
- Lasts 4 Times Longer
- 12 Harmonizing Colors—
plus Black and White

FOR CONCRETE FLOORS

- Bounces Off Wear
- Unaffected by
Cleaning Compounds
- Luxurious Finish
- 8 Beautiful Colors plus Black and White



Write for color chip folders

BEST for Masonry Surfaces

MEDUSA PAINTS

REG. U. S. PAT. OFF.

MEDUSA PRODUCTS DIVISION
of MEDUSA PORTLAND CEMENT CO.
1015-5 Midland Building • Cleveland 15, Ohio



TIM-TRUSS BOWSTRING

...for finest construction and true economy

One-piece glued laminated chords of the Tim-Truss provide a permanently stable, fire retardant bowstring truss with span of from 40 to over 150 feet.

Attractive Appearance. Open, streamlined, with minimum number of web members; creates handsome wide span areas. Ceilings are not necessary.

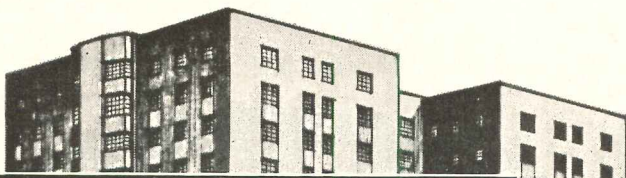
Adaptable. For single or multiple span buildings. Provides arched, peaked or partially flat roof lines without special build-ups.

No Maintenance. Chords are made of kiln dried material; "stays put" without shrinking, checking, twisting or warping.

For additional information on the Tim-Truss, see the Timber Structures office nearest you, or write for catalog, "Timber Members".

TIMBER STRUCTURES, INC.

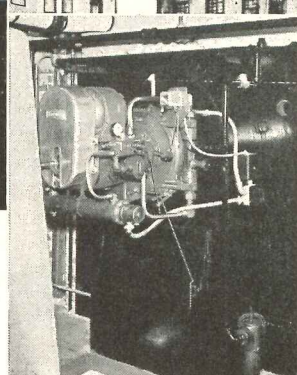
P. O. Box 3782-A, Portland 8, Oregon
Offices in Boise, Idaho; Eugene, Oregon; Lawrenceville, N. J.;
Chicago; Dallas; Kansas City; New York; Seattle; Spokane.
TIMBER STRUCTURES, INC. OF CALIFORNIA—Oakland, Sacramento, Santa Rosa
TIMBER STRUCTURES OF CANADA, LTD.—Peterborough, Ontario
Local Representatives Coast to Coast



Seattle's New
Nettleton Apartments
—Equipped with Dependable
ENTERPRISE BURNERS

Completely modern throughout, the 14-story Nettleton twin-building apartments rely on two Full Automatic Enterprise Oil Burners for year-round heating and hot water requirements. Thoroughly efficient and dependable, quality Enterprise Burners are providing money-saving, trouble-free service to thousands of buildings of every type throughout the world. For the finest in oil and combination oil-gas burners, specify Enterprise—the choice of heating experts.

Installed by A. Wilcox Company, Seattle.



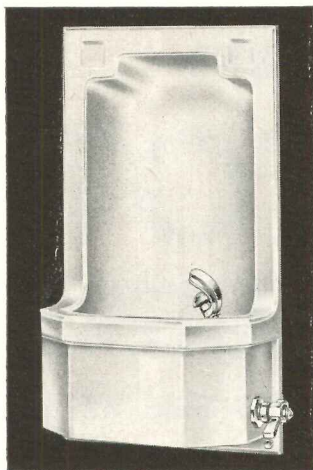
One of the two Enterprise Burners at the Nettleton Apts. Size J2-P, full automatic, modulating control.

Architect: E. W. Morrison
Consulting Engineer: E. L. Weber
General Contractor:
Nettleton-Baldwin-Anderson, Inc.
Mechanical Contractor:
University Plumbing & Heating Co.



BURNER DIVISION OF ENTERPRISE ENGINE & FOUNDRY COMPANY
18th & FLORIDA STS., SAN FRANCISCO 10, CALIFORNIA
Distributors in Principal Cities

**Enterprise
Oil Burners**

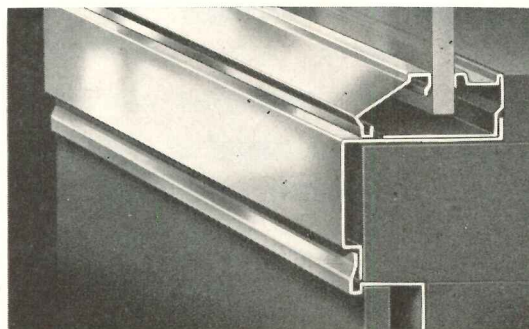


**Always
Specify
HAWS
for Highest Quality**

A complete line of fountains, electric water coolers, faucets, filters and accessories. • Individual or multiple installations. • A reputation for reliability since 1909. • Check in Sweet's or write for complete HAWS catalog.

HAWS DRINKING FAUCET CO.

1441 FOURTH STREET (Since 1909) BERKELEY 10, CALIFORNIA
Agents and Sales Representatives in All Principal Cities



Get All 3
✓ CLASSIC
STYLING



✓ SOUND
CONSTRUCTION

✓ MODERN
SELLEVISION

with



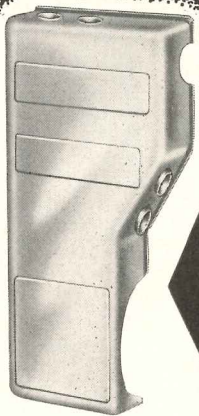
STAINLESS STEEL
ANODIZED ALUMINUM

BRASCO MANUFACTURING Co.
HARVEY • (CHICAGO SUBURB) • ILLINOIS

Another Reason

ARCHITECTS AND BUILDERS CHOOSE

MOR-SUN FURNACES

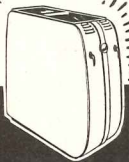


Here is a picture of a MOR-SUN stamping . . . one-half of a Utility model heat exchanger. A 7" draw in a heavy gauge sheet, typical of 100% die stamped MOR-SUN furnace parts!

What does this mean? Just this — it means the highest quality, because only PREMIUM STEEL — DEEP DRAWING STOCK — can be used for die stamping! Low quality steel can be sheared, braked and welded — but it can't be stamped! MOR-SUN die stamped furnaces are better — because they're made of better steel. Specify MOR-SUN — and make a friend for life.



MOR-SUN DIE-STAMPED FURNACES FOR GAS and OIL

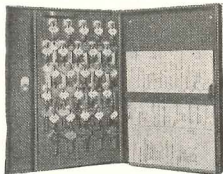


MORRISON STEEL PRODUCTS, INC.
Furnace Division • BUFFALO 7, N.Y.



MOORE KEY CONTROL*
OFTEN PAYS FOR ITSELF
IN LESS THAN 2 YEARS!

You owe it to your client to investigate this modern system of key control. It saves money year in and year out by eliminating expensive repairs and replacement of locks and keys. What's more, it guarantees security, convenience and privacy. No wonder more architects every year now specify Moore Key Control for use throughout schools, institutions, hospitals, hotels . . . in all factories and buildings where keys are used.



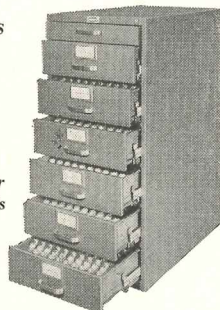
COMPLETE SYSTEMS FOR EVERY NEED

Wall cabinets of every size from \$27.45 up



Section of a typical control panel

Drawer file cabinets



*TELKEE
TRADE MARKS ®

Mail Coupon today for Free Booklet

P. O. MOORE, INC., Dept. C-2
300 Fourth Ave., New York 10, N. Y.

Please send me special architect's manual for my A.I.A. file on MOORE KEY CONTROL.

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

NEW LOW GLAZING COSTS!
NEW HIGH GLAZING QUALITY!

SPECIFY
TREMGLAZE
MASTIC GLAZING COMPOUND
IN COLORS

Requires No Painting

Aluminum Windows
Steel or Wood Windows

• Specify Tremglaze Aluminum color. It bonds to aluminum, requires no painting — ever. Proven on actual jobs for over ten years. Meets Aluminum Window Manufacturers Association standards.

• Specify Tremglaze yet pay no more for completed window installations than with a putty job. Save on the paint contract; specify — "Paint first — then Tremglaze". Put paint on the window where it belongs — Tremglaze requires no paint. Save on cost of cleaning glass also.

NC-102

Consult your local Tremco Representative or write to:
THE **TREMCO** MANUFACTURING CO.
CLEVELAND 4 • TORONTO

SINCE 1888

MATOT
DUMB WAITERS

ELECTRIC AND HAND OPERATED

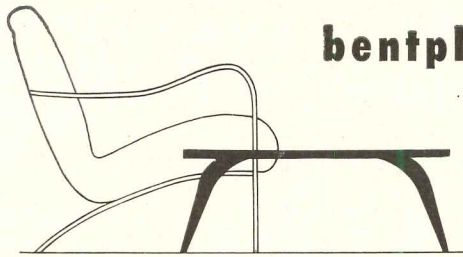
FOR

HOTELS • RESTAURANTS
INSTITUTIONS • CLUBS



OR WRITE TO . . .

D. A. MATOT, INC.
1533 W. ALTGELD STREET • CHICAGO 14, ILLINOIS



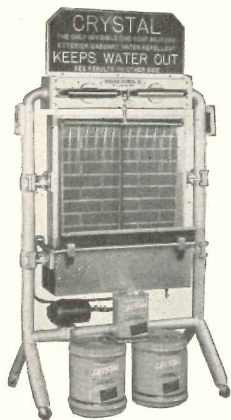
bentply... AT LUXURIOUS BAHIA MAR

The striking simplicity of durable Thonet lounge furniture has added warmth and charm to this beautiful interior. Write for illustrations and detailed information on Thonet Bentply and Bentwood furniture.

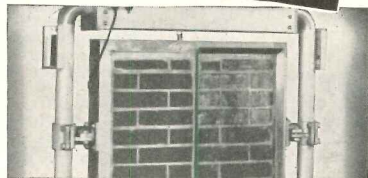
THONET INDUSTRIES INC., DEPT. N-8 ONE PARK AVENUE, N. Y. 16, N. Y. • SALES OFFICES: NEW YORK • CHICAGO • STATESVILLE, N. C.



Bahia Mar Lounge, Ft. Lauderdale, Fla. Thonet Arm Chair 4002, Sectional Settee 4002-6002-4002 and Occasional Tables.



**SEE HOW CRYSTAL
STOPS WATER
ABSORPTION**



This photo shows continuous streams of water being directed from the top onto two brick panels, one of which has been treated with CRYSTAL.

This is the other side of the panels. The CRYSTAL-treated panel is on the left.

What A Difference! After 2000 hours of continuous exposure to water, the CRYSTAL-treated panel is completely free of the water-logged appearance and efflorescence so evident in the untreated panel.

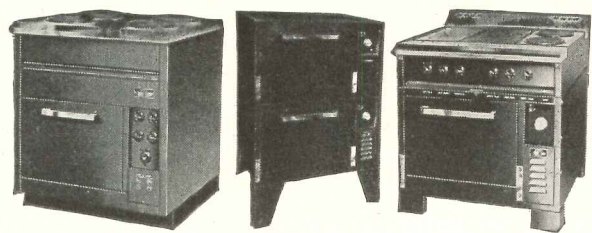
This is an object lesson in what invisible CRYSTAL, with its amazing pore-coating action, can mean to the beauty and soundness of your buildings for a period, as accelerated weathering tests have proven, of many years with just *one* application.

Waterproof man-made masonry and most natural stones with CRYSTAL.

Send for your free copy of "Exterior Masonry Waterproofing Manual".

WURDACK CHEMICAL COMPANY
4952 Fyler Ave. St. Louis 9, Mo.

ELECTRIC KITCHEN EQUIPMENT TAILORED TO FIT YOUR KITCHEN PLANS



436 RANGE

621-02 OVEN

621 RANGE

Here's flexibility in kitchen planning with easily adaptable, economical production line models to fit your plans for "built-ins", extra service features and exterior surface finishes to fit the surroundings you plan.

Fully automatic Akron Engineered Electric Ranges and Ovens are the finest the market affords and can be easily adapted to conform with your specifications for modern efficient kitchen arrangement and appearance.

Write today for Akron's big, new catalog illustrating planned kitchens with Akron equipment. There's a wealth of ideas for you in the designing of kitchens for fine homes and institutions.

AKRON
ASSOCIATED PRODUCTS, INC.

2nd National Building, Akron, Ohio
20 South Ontario Street, Toledo, Ohio

Symbols "a", "b", and "e" indicate that catalogs of firms so marked are available in Sweet's Files as follows:


- a—Sweet's File, Architectural, 1950
b—Sweet's File for Builders, 1950
e—Sweet's File, Engineering, 1950

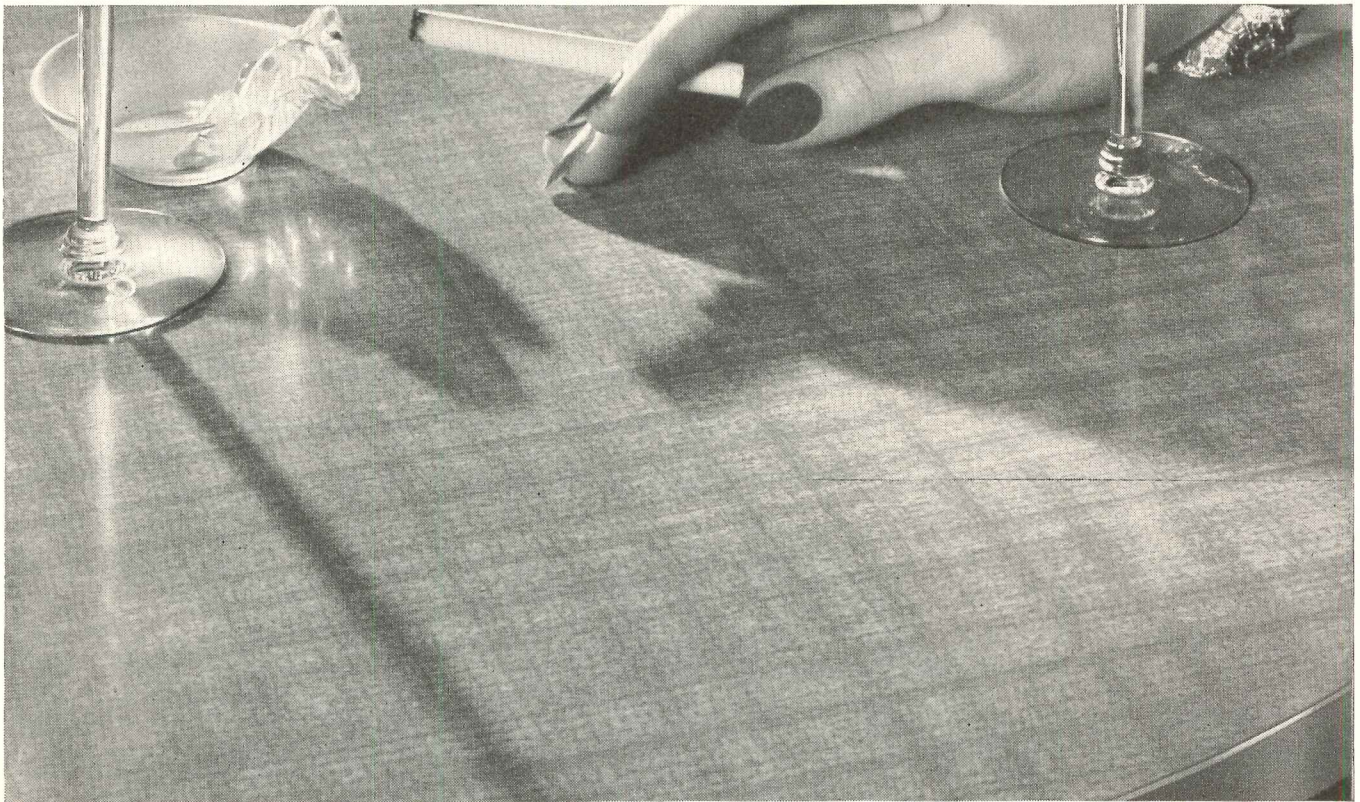
INDEX TO ADVERTISEMENTS

a Accurate Metal Weatherstrip Co., Inc.	214
abe Adam, Frank Electric Co.	81
Aerofin Corporation	273
Air Devices, Inc.	50
Alan Wood Steel Co.	178
abe Allied Chemical & Dye Corp.	52
ab Allmetal Weatherstrip Co.	92
a Alumilene Corporation	262
abe Aluminum Window Manufacturers Assn.	267
a American Air Filter Co., Inc.	94-95
ae American Abrasive Metals Co.	234
ae American Blow Corporation	88
a American Brass Company	73
a American Hospital Supply Corp.	276
ab American-Olean Tile Company	89
American Radiator & Standard Sanitary Corp.	254-255
American Steel & Wire Company	191
ab American Telephone & Telegraph Co.	58
a Anaconda Copper Mining Co.	73
a Anemostat Corp. of America	261
Architectural Record	271
Art Metal Company	21
ab Associated Plywood Mills, Inc.	48
Associated Products, Inc.	279
ae Barber-Colman Company	232
abe Barratt Division	52
ab Bell & Gossett Company	83
ab Bell Telephone System	58
a Bethlehem Steel Company	66-205
Bigelow Rugs & Carpets	60
Blue Ridge Sales Division	221
Books	265-275
a Brasco Manufacturing Co.	277
Breiderl, G. C. Co.	264
ab Bruce, E. L. Co.	91
ab Bryant Heater Dept.	217
Built Dog Electric Products Co.	41
Burnham Corporation	267
ae Burt Mfg. Co.	268
Byers, A. M. Co.	4
ab Cabot, Samuel, Inc.	240
a Cambridge Tile Mfg. Co.	97
ae Carrier Corporation	72
ab Ceco Steel Products Corporation	17
Certain-lead Products Corporation	27
Chicago Hardware Foundry Co.	274
Cincinnati Time Recorder Co.	220
Committee on Steel Pipe Research	245
Connor, W. B. Engineering Corp.	249
a Consolidated Water Power & Paper Division	227
b Crane Co.	207
Crane Fulview Glass Door Co.	22
Crucible Steel Company of America	49
a Cutter Mail Chute Co.	270
a Dalmo-Continental, Inc.	212
a Day-Brite Lighting, Inc.	38
abe Detroit Steel Products Company	80-187
Dicks-Pantius Co.	30
Dodge, F. W. Corporation	269
Dravo Corporation	180
ae DuPont, E. I. deNemours & Co.	248
Eastman Kodak Company	185
Edwards Company, Inc.	170-171
Electric Storage Battery Co.	229
Employment Opportunities	272
Enterprise Engine & Foundry Co.	277
a Fedders-Quigan Corporation	85
Federal Seaboard Terra Cotta Corp.	276
a Fitzgibbons Boiler Company	164
abe Flinkote Company	2nd Cover-71
Fremont Rubber Company	177
ab Frigidaire Division	64
Gallaher Company	266
a General Electric Co.—Wiring	253
ab General Motors	64
a General Portland Cement Co.	266
Globe Automatic Sprinkler Co.	273
ae Globe Hoist Company	244
Governair Corporation	196
ae Grasselli Chemicals Dept.	248
ae Grinnell Company, Inc.	46
Guth, Edwin F. Co.	44-45
Hager, C. & Sons Hinge Mfg. Co.	32
a Haws Drinking Faucet Co.	277
Hayes Furnace Mfg. & Supply Co.	74
a Haynes Products Co.	256
ab Heatilator, Inc.	199
a Herring-Hall-Marvin Safe Co.	18
Higgins Incorporated	84
a Hilliard Chemical Co.	78
Holcomb & Holke Mfg. Co., Inc.	240
ab Homasote Company	270
Home Owners' Catalogs	269
a Horn, A. C. Company, Inc.	69
a Horn Brothers Company	222
House & Garden	257
abe Hunter Fan & Ventilating Co., Inc.	242
a Imperial Brass Mfg. Co.	14
Independent Protection Co.	268
Infra Insulation, Inc.	13
ae Inland Steel Company	194
ab Inland Steel Products Co.	166
ab Insulite Division	43
ae International-Van Kannel Revolving Doors	182
a Jackson & Church Co.	3rd Cover
a Jamestown Metal Corp.	274
Jenkins Bros.	189
ae Johns-Manville	241
Johnson, John A. & Sons, Inc.	6-7
Jolec Corporation	25
ae Josam Manufacturing Co.	262
a Kawneer Company	258-259
ae Kaylo Division	203
a Kennedy, David E., Inc.	209
Kent-Moore Organization, Inc.	274
ab Kewanee Boiler Corp.	239
Keystone Steel & Wire Co.	282
Kohler Co.	68
a Kwikset Locks, Inc.	8-263
a L.C.N. Closers, Inc.	231
abe Libbey-Owens-Ford Glass Co.	179-221
Litecontrol Corporation	168
Lone Star Cement Corporation	1
Lorio Iron Works	260
ab Louisville Cement Company, Inc.	51
a Macomber, Incorporated	90
ae Mahon, R. C. Company	29
Mann Metal Products Co.	246
ae Maple Flooring Manufacturers Assoc.	70
a Marble Institute of America, Inc.	243
ae Marsh Wall Products, Inc.	235
Masland Duralather Co.	87
a Mastic Tile Corporation of America	37
a Matot, D. A., Inc.	278
a Medart, Fred Products, Inc.	31
a Medusa Portland Cement Co.	276
ab Mengel Company	67
Merritt-Chapman & Scott Corp.	202
abe Mesker Brothers	76-77
a Metal Products Corporation	272
ab Metal Tile Products, Inc.	186
Michaels Art Bronze Co.	204
ae Mills Company	193
Minneapolis-Honeywell Regulator Co.	98
ab Minnesota & Ontario Paper Co.	43
ae Mississippi Glass Company	216
ae Moeschl-Edwards Corrugating Co., Inc.	236
ae Moore, P. O., Inc.	278
Morrison Steel Products, Inc.	278
a Mosler Safe Co.	2-3
ae National Electric Products Corporation	65
a National Gypsum Company	237
a National Terrazzo & Mosaic Assoc.	238
e Nelson, Herman Division	94-95
a New Castle Products	262
Ohio Hydrate & Supply Co.	244
ae Otis Elevator Company	192
ae Owens-Corning Fiberglas Corp.	19
ae Owens-Illinois Glass Co.	203
a Parkwood Corporation	256
Pass & Seymour, Inc.	266
a Penberthy Injector Co.	274
abe Pittsburgh Plate Glass Company	195-224-225
abe Pittsburgh Steel Products Co.	47
a Portland Cement Association	247
Powder Power Tool Corporation	190
Powers Regulator Co.	96
a Pryne & Co., Inc.	188
RLM Standards Institute	264
Radio Corporation of America	226
a Republic Steel Corporation	56-215
abe Revere Copper & Brass, Inc.	42
ae Reynolds Metals Company	20-61-86
ab Richmond Radiator Company	61
ae Ric-Wil Company	223
a Roberts Co.	55
ae Robertson, H. H. Company	40
a Robertson Manufacturing Company	82
a Raddis-Plywood Corp.	281
a Rohm & Haas Company	197
a Rotary Lift Co.	246
ab Russell, F. C. Co.	82
ae Rust-Oleum Corporation	59
Samson Cordage Works	264
a Sanymetal Products Co., Inc.	79
a Schieber Mfg. Co.	92
a Schlage Lock Company	39
a Seaport Metals Co.	176
a Sedgwick Machine Works	200
ab Servel, Inc.	250-251
Service Products Corp.	252
ae Sloan Valve Company	4th Cover
a Smith, H. B. Company, Inc.	242
Solar Air-Flu, Inc.	198
Soss Manufacturing Co.	273
Spanjer Brothers Inc.	24
a Speakman Company	218-219
Square D Company	173
Standard Electric Time Company	260
a Steel & Tubes Division	215
ae Stemco Corporation	208
abe Stran-Steel Division	67
Sunbeam Lighting Co.	181
a Symmons Engineering Company	78
Thonet Industries	279
a Tile Council of America	57
abe Tile-Tex Division	71
ae Timber Structures, Inc.	276
ae Titus Mfg. Corp.	267
abe Trane Company	33 to 36
a Tremco Mfg. Co.	278
a Trinity Portland Cement Division	266
ae Trumbull Electric Mfg. Co.	233
abe Truscon Steel Company	56
a Tuttle & Bailey, Inc.	53-54
United States Air Conditioning Corp.	228
ae United States Steel Corporation Subsidiaries	191-211
a Universal Atlas Cement Company	211
a Universal Bleacher Company	74
a Universal Corporation	174
Universal Window Company	252
a Uvalde Rock Asphalt Co.	230
Van-Packer Corporation	270
a Van Range, John Co.	75
Viking Corporation	183
ae Wakefield, F. W. Brass Co.	256
ab Waylite Co.	184
ae Webster, Warren & Company	23
a Werner, R. D. Co., Inc.	260
West Dodd Lightning Conductor Corp.	252
abe Westinghouse Electric Corp.	93-201-248
Westwood Manufacturing Co.	163
Weyerhaeuser Sales Company	175
ae Wheeling Corrugating Co.	62-63
ae Wing, L. J. Mfg. Co.	210
a Wright Manufacturing Co.	206
Wurdack Chemical Company	279
a Young Radiator Company	213
abe Zonolite Company	268

NEW YORK—H. Judd Payne, Publishing Director; Robert F. Marshall, Business Manager; Tom Tredwell, Advertising Mgr.; Benton B. Orwig, Creative Service Manager; M. A. Murphy, Advertising Production Manager, 119 West 40th Street; BOSTON—Harry M. Horn, Jr., 855 Park Square Bldg.; CHICAGO—C. B. Riemersma, Robert T. Franden, John M. Cogan, 700 Merchandise Mart; CLEVELAND—John C. Jackson, David K. Bortz, 321 Hanna Bldg.; DALLAS—O. O. Paulsell, 412 Construction Bldg.; LOS ANGELES—Bob Weltstein, 672 South Lafayette Park Place; PHILADELPHIA—Tom Tredwell, 1321 Arch St.; PORTLAND—Bob Weltstein, 907 Terminal Sales Bldg.; SAN FRANCISCO—Bob Weltstein, 1003 TWA Bldg., 240 Stockton St.

A New Product
GE *TEXTOLITE

Manufactured by an old firm, GENERAL  ELECTRIC
Distributed by an old friend, **Roddiscraft**



Architects have been specifying General Electric equipment and Roddiscraft products for many years. These two now team up to bring you General Electric Textolite—a quality plastics laminate surfacing material—a beauty with brawn.

Yes—General Electric Textolite wears like iron—cleans like glass. Colorful as a rainbow, too

—you have a wide choice of solid colors and patterns to carry out decorative schemes, in homes, stores, restaurants, clubs, cocktail lounges—wherever a surfacing material is needed.

Call your nearest Roddiscraft warehouse for sample books—and color charts.

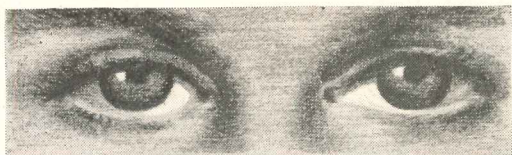
*Reg. U. S. Pat. Off.

Roddiscraft WAREHOUSES FROM COAST TO COAST

Cambridge 39, Mass. • Charlotte, N. C. • Chicago 32, Ill.
Cincinnati 2, Ohio • Dallas 10, Texas • Detroit 14, Mich.
Kansas City 3, Kan. • L. I. City, N. Y. • Los Angeles 11, Calif.
Louisville 10, Ky. • Marshfield, Wis. • Milwaukee 8, Wis.
New York 55, N. Y. • Philadelphia, Pa. • Port Newark 5, N. J.
St. Louis 10, Mo. • San Antonio, Texas • San Francisco 24, Cal.

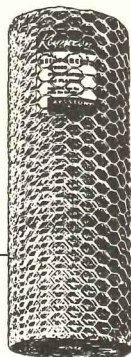
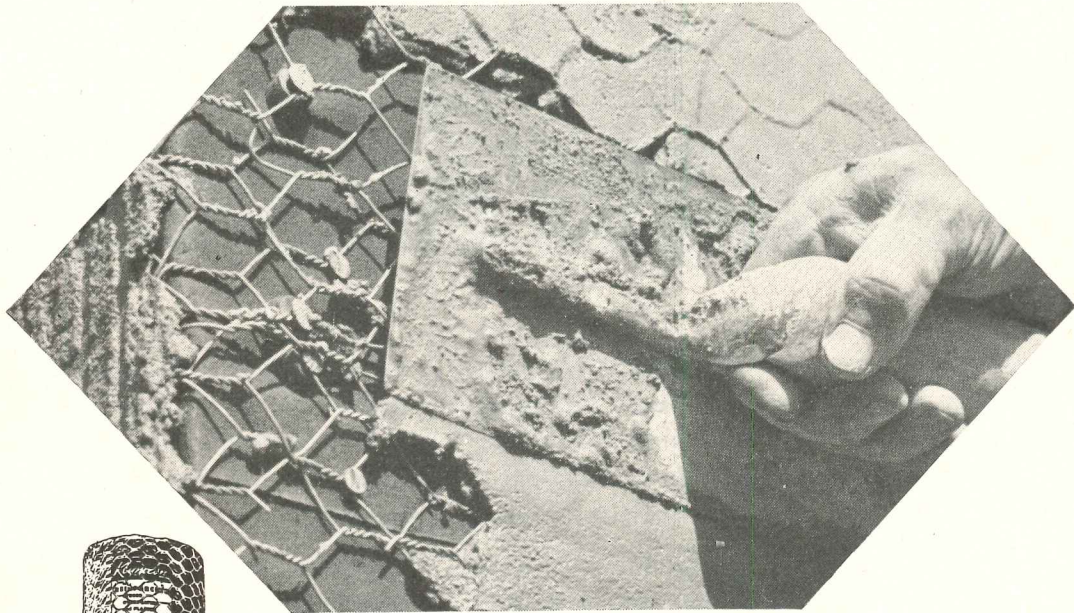
Roddiscraft

RODDIS PLYWOOD CORPORATION
MARSHFIELD, WISCONSIN



Eye appeal for clients with sharp pencils

There's a challenge, that many architects enjoy, in designing homes that "look like more than they cost." And the Keystone System of Stucco Application is one sure way of meeting the challenge successfully *in any price bracket*. The structural versatility and durability made possible by the Keystone System of Stucco Application set new standards for exterior finishes. For interiors, too, Keymesh offers design and construction advantages worthy of your consideration. Let us send you the booklet, "Specifications for Beautiful, Durable Stucco." Write Keystone Steel & Wire Company, Peoria 7, Illinois.



**KEYSTONE SYSTEM OF
STUCCO APPLICATION
WITH KEYMESH**



new way to

Make Homes
More Salable...yet
Cut Costs!



"Custom-Flooring" with Texfloor*



**SO EASY . . .
SO SALABLE!**

Give your model house the newest decorator look . . . room-to-room color coordination with sparkling floors of attractive, long-wearing Texfloor.

Tell your prospects the story of Texfloor —how it saves them work and money. They'll see for themselves how Texfloor makes homes more beautiful!

Let home buyers custom-design their own floors selecting the colors and patterns they want from your Texfloor "Custom-Flooring" samples.

Texfloor

**GIVES EVERY ROOM
A GUEST ROOM LOOK!**

FREE TEXFLOOR SAMPLES! Send for further information and **FREE SAMPLES** of TEXFLOOR today. Write Dept. AR-4, Sloane-Blabon Corporation, 295 Fifth Ave., New York 16, N.Y.

*Trade-mark

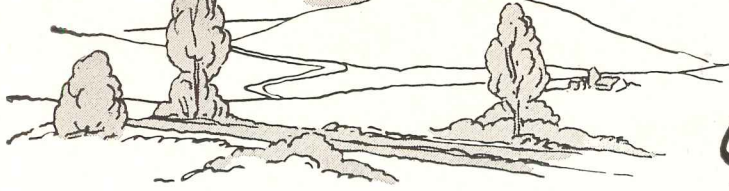
. . . the linoleum with the textured look!

What a selling story for your prospects . . . *custom-designed* floors of Texfloor—the most luxurious linoleum ever made! It means colorful, individualized interiors. It means work-saving . . . for Texfloor is easy to keep clean and sparkling. It means money-saving . . . for with the wall-to-wall beauty of Texfloor, homebuyers can save the cost of room-size rugs.

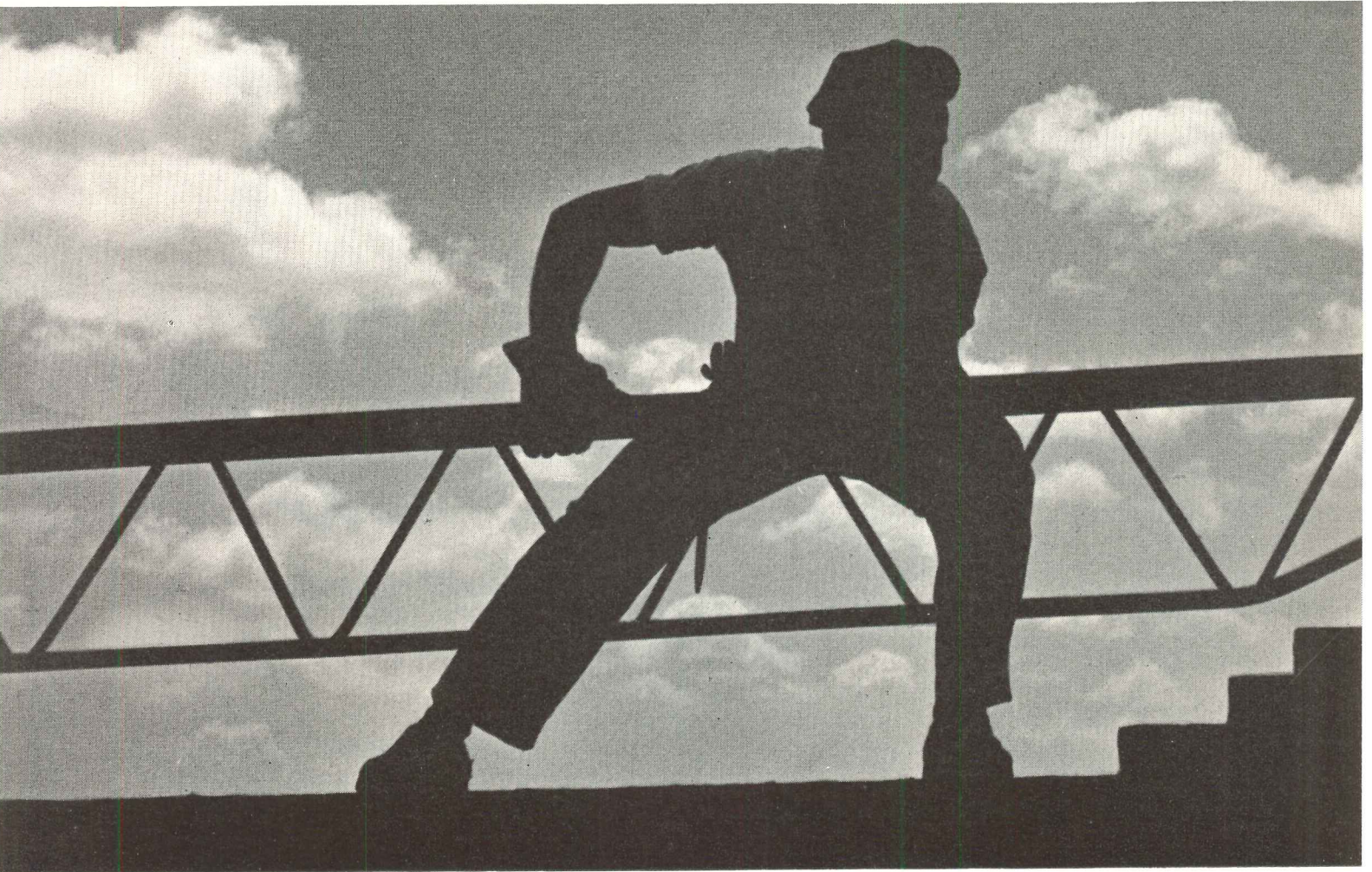
Best of all, quick and easy-to-install Texfloor costs up to 30 per cent less, installed, than ordinary flooring. Check Texfloor now. See how you can offer this extra, and cut costs doing it!



SLOANE-BLABON CORPORATION
295 FIFTH AVENUE, NEW YORK 16, N. Y.



Countryside **Today...**



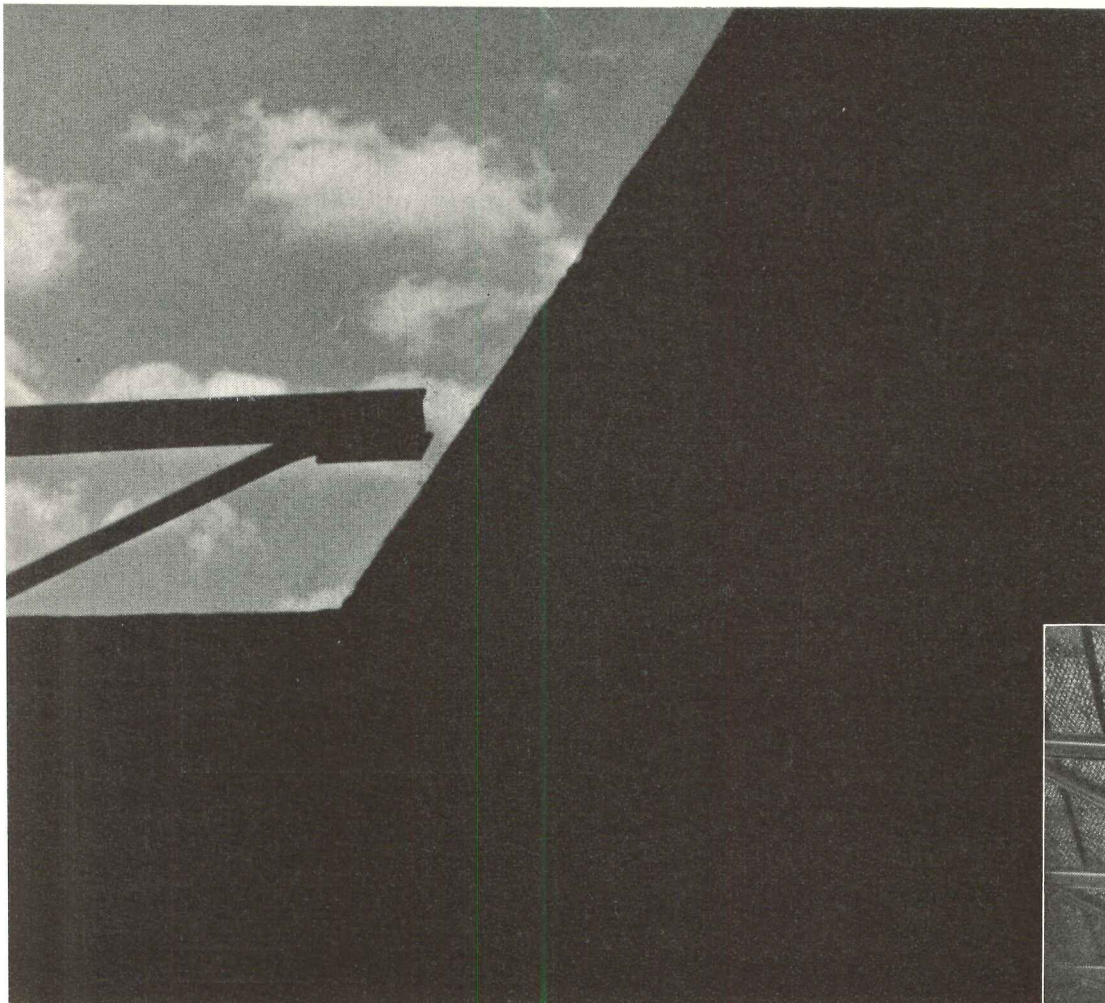
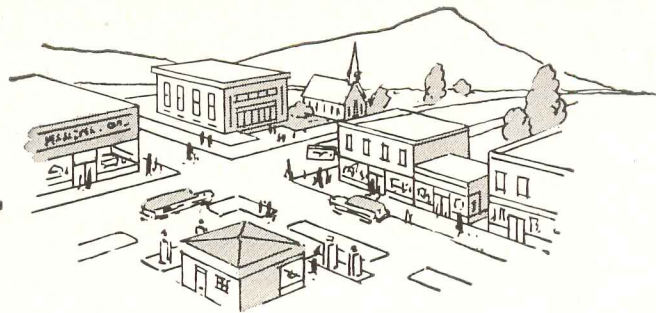
When *Speed* is the Need... Use **CECO**

One day you pass a new development in the making, ground is broken, home foundations are in. Then, in just a short, short time, where once there was open countryside, a whole community, spick-and-span new, "has sprung up overnight." Chances are the stores, the school, the theatre... yes, most of the light occupancy buildings... were constructed with Open-Web Steel Joists. For that is the fastest way ever to build. There's no temporary formwork necessary... nothing to take down later on. Open-Web Steel Joists are self-centering... are placed on the wall structure and right away rib lath can be laid and concrete poured to form the floor. And while all this is going on, other building

**CECO
STEEL**

In construction products **CECO ENGINEERING**

a *Community* **Tomorrow**



Economical — Ceco Open-Web Steel Joists are self-centering. The form work for the concrete slab—usually metal rib lath or steeltex—rests directly on the steel joists without other support from the underside.



Open-Web Steel Joists

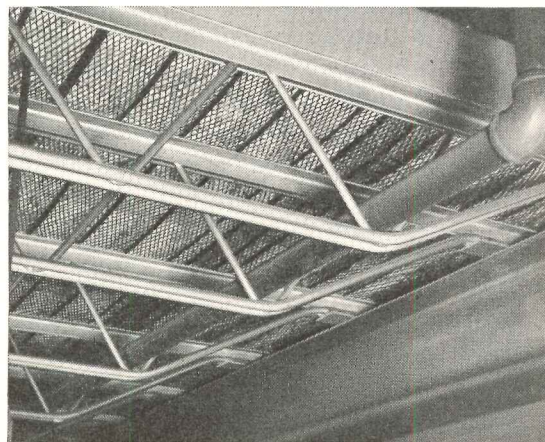
trades can be on the job doing their special work such as installing steel windows, electric wiring, plumbing and heating. So, when speed gets the call, specify CECO OPEN-WEB STEEL JOISTS. They are fabricated to exact size in the factory, come to the job tagged, ready to install... provide low cost fire resistive buildings. Ceco assures you fast service from five plants: Birmingham, Chicago, Houston, New York and Wheeling, W. Va.

CECO STEEL PRODUCTS CORPORATION

General Offices: 5601 West 26th Street, Chicago 50, Illinois

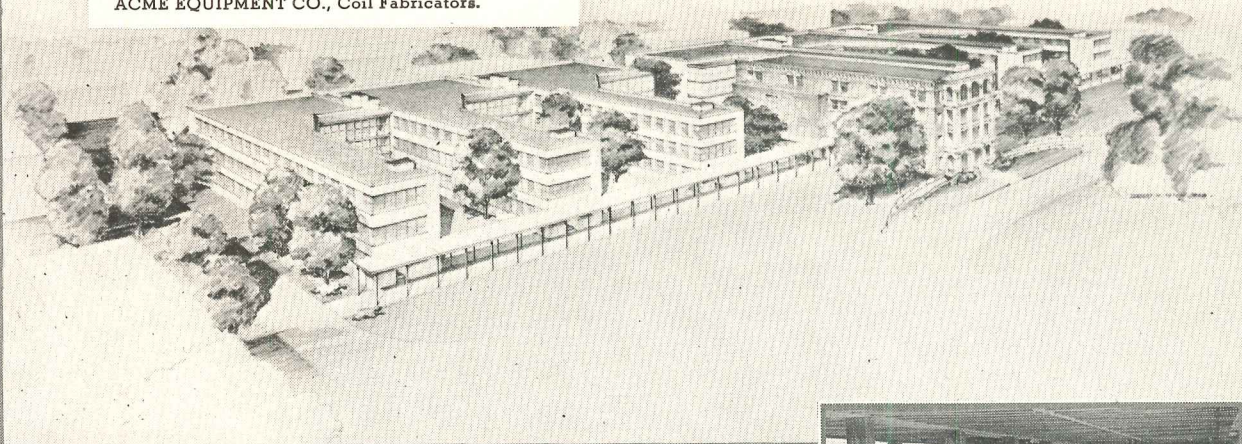
Offices, warehouses and fabricating plants in principal cities

Conceals Conduits — Ceco Open-Web Steel Joists provide a ready means of concealing ducts, wiring and piping. Space is saved by direct attachment of ceilings to joists. Time and materials are saved, too.



makes the big difference

TERRELL STATE HOSPITAL Terrell, Texas
 TATUM, ALEXANDER & QUADE, Architects
 LANDAUER & GUERRERO, Consulting Mechanical
 Engineers.
 BEALS PLUMBING AND HEATING CO., Mechanical
 Contractors
 ACME EQUIPMENT CO., Coil Fabricators.

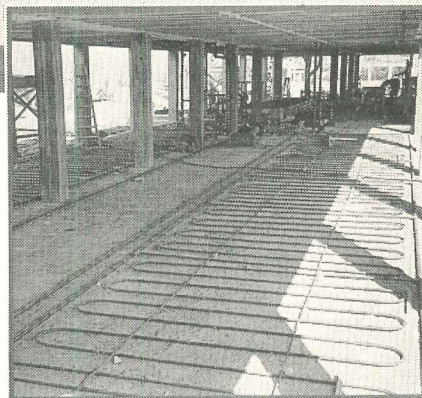


A PROJECT FOR THE TEXAS STATE BOARD FOR HOSPITALS AND SPECIAL SCHOOLS

Built under the U. S. Public Health Service Program

RADIANT HEATED with

BYERS WROUGHT IRON PIPE



The \$2,000,000 four-wing addition to the Terrell State Hospital for the mentally ill is completely modern in all respects—including the heating. All three floors are equipped with radiant heating. This is not only ideal from a comfort standpoint, but it also eliminates exposed heating units that might invite tampering or cause injuries.

The specifiers followed sound, proven practice in safeguarding the heating installation against premature failure and excessive maintenance, by specifying genuine wrought iron pipe for the coils. Wrought iron is serving in the oldest installations in the country, and its durability is further confirmed by previous records of long life in skating rinks — where installation methods are identical, and corrosive conditions even more severe.

The protection of wrought iron was also provided for three other vital services—steam supply lines; steam return lines; and interior

down-spouts. Corrosion is always a threat in such lines, wrought iron has demonstrated its superior resistance by decades of trouble-free service.

The U. S. Public Health Service hospital program is doing a wonderful work in safeguarding the

WHY WROUGHT IRON LASTS

Wrought iron's longer life comes from its unique nature. Tiny fibers of glass-like silicate slag, threaded through the body of high-quality iron, halt and disperse corrosive attack. The fibers also anchor the initial protective scale, which shields the underlying metal.

health of hundreds of communities. In any such construction, it is important to safeguard *pocket-books* as well, by the use of durable materials that require minimum maintenance.

You will find some helpful information on the use of wrought iron in radiant heating in our bulletin, "WROUGHT IRON FOR RADIANT HEATING INSTALLATIONS." We will be glad to send you a copy.

A. M. Byers Co., Pittsburgh, Pa. Established 1864. Boston, New York, Philadelphia, Washington, Atlanta, Chicago, St. Louis, Houston, Salt Lake City, San Francisco. Export Division: New York, N. Y.

CORROSION COSTS YOU MORE THAN WROUGHT IRON

BYERS
 GENUINE WROUGHT IRON
 TUBULAR AND HOT ROLLED PRODUCTS
 ELECTRIC FURNACE QUALITY ALLOY AND STAINLESS STEEL PRODUCTS