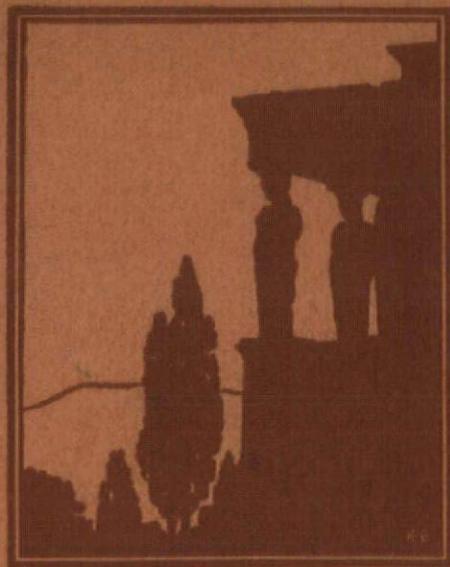


# ARCHITECTURE

*September 1932*



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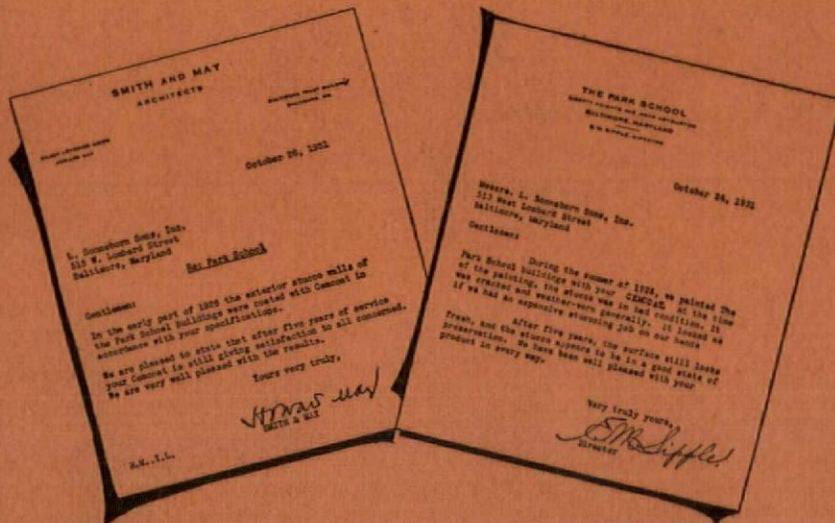
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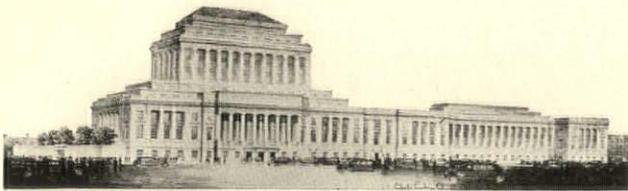
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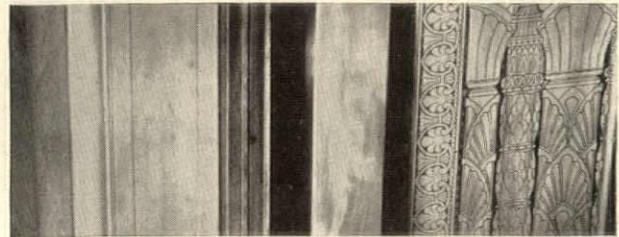
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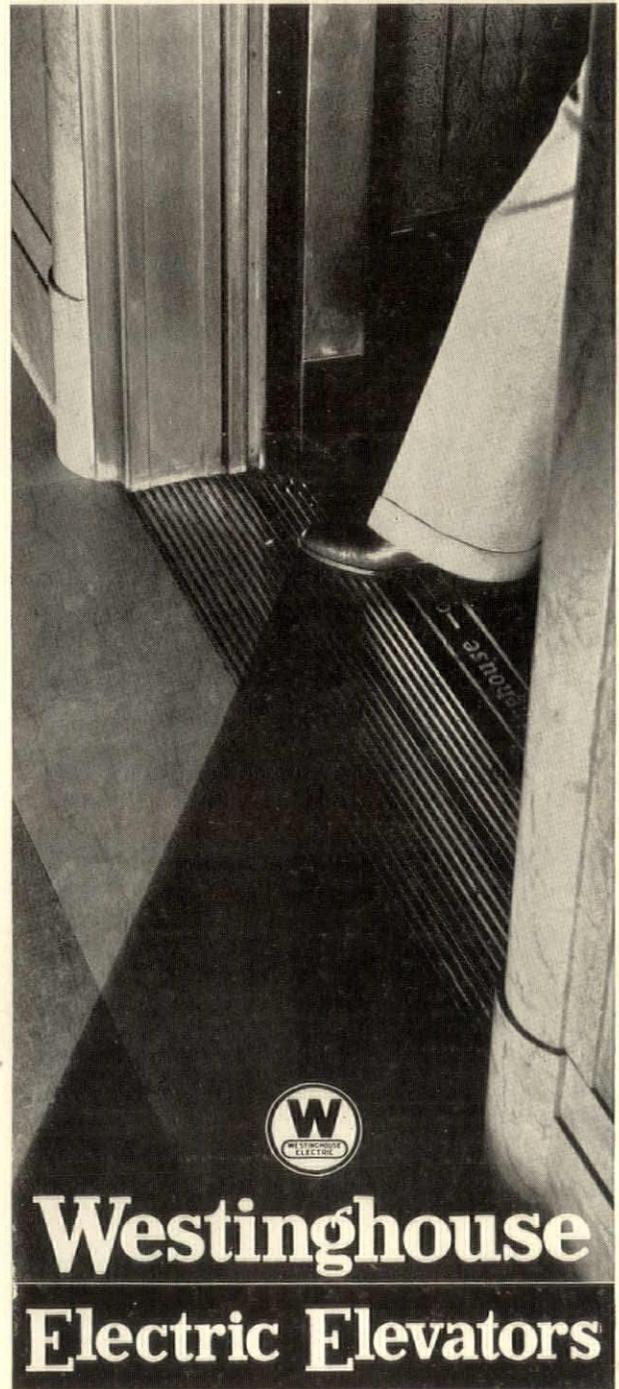
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**CHARLES SCRIBNER'S SONS, New York**

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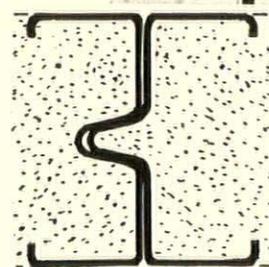
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# THE BULLETIN - BOARD

## ARCHITECTURAL LEAGUE EXHIBITION

THE forty-eighth annual exhibition of the Architectural League will be held in the 57th Street Galleries, Friday, February 17, to Saturday, March 11. The date for the reception of exhibits is February 6; for the submission of photographs, November 1. This advance submission of exhibits by photographs may be in any color or finish, but not less than 7 by 10 inches. To facilitate recording and handling, they must be in duplicate or each photograph *must* be so clearly marked by name or number that the League may hold the Exhibit photographs and notify the exhibitors of what has been accepted. In the exhibition itself, photographs will be 16 by 20 inches and 24 by 30 inches only, either horizontal or vertical. Passepartouts are to be 1/2-inch wide, except that the bottom may be wider, not to exceed 1 inch, for purposes of lettering. Arthur Loomis Harmon is chairman of the Exhibition Committee.

## A NEW MEMORIAL FELLOWSHIP

TO promote advanced study in the fine arts, the Kate Neal Kinley Memorial Fellowship has been established at the University of Illinois in memory of the wife of a former president of the university. The value of the Fellowship is \$1,000, to be used by the recipient toward the expenses of a year's advanced study in America or abroad. The Fellowship is open to graduates of the College of Fine and Applied Arts, University of Illinois, and to graduates of similar institutions of equal educational standing whose principal or major studies have been in music, art, or architecture. The first appointment is being made this year.

Miss Dorothy DeLancy of Lancaster, Ohio, has been appointed by the Board of Trustees of the University of Illinois as the first Kate Neal Kinley Memorial Fellow, and Miss Evelyn Swarthout of Lawrence, Kan., has been named as alternate.

## N. Y. U. GRADUATE SCHOOL

THE Department of Architecture, School of Fine Arts, New York University, announces the result of a competition for the selection of the student of unusual ability to pursue graduate work leading to a degree of

Master of Architecture during the academic year 1932-33. The competition called for the design of a swimming pool building on the grounds of a wealthy country club.

The Jury, consisting of James Gamble Rogers, Kenneth Murchison, Burnham Hoyt, Will Rice Amon, and Albert C. Schweizer, awarded first place to Emanuel Weisfeld of Brooklyn, N. Y.; first alternate to Peter Copeland of New York City.

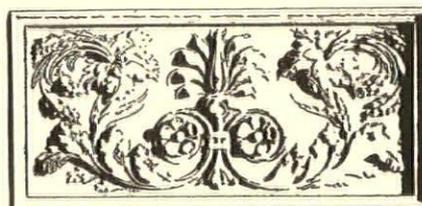
## JOHN GALEN HOWARD MEMORIAL FELLOWSHIP

DONALD P. SMITH, the first holder of the John Galen Howard Memorial Fellowship is now in Europe. A fund sustaining this Fellowship was begun several years ago by the alumni of the School of Architecture, University of California. On Professor Howard's death in 1931, the Fellowship was given his name as part of a memorial to one who had been largely responsible for the origin and development of this School of Architecture.

Mr. Smith, born in Modesto, Calif., in 1908, was graduated in 1931 with highest honors. During the past year he has served as a Teaching Fellow in Architecture, and was awarded his Master of Arts degree in June.

## SMALL-HOUSE COMPETITION

HOUSE BEAUTIFUL will hold its sixth annual competition this year, divided as last year into two general classifications: houses of from six to twelve rooms, inclusive, east of the Mississippi, and houses of the same size west of the Mississippi. There are three prizes in each case: \$500, \$300, and \$200. In addition, a special prize of \$300 is offered for the best house of from five to seven rooms, built either east or west of Mississippi, and costing less than \$10,000. Details as to the submission of photographs and plans may be had from *House Beautiful*, 8 Arlington Street, Boston, Mass.



## BURNHAM AND A CENTURY OF PROGRESS

ELECTION of Daniel H. Burnham, Chicago architect, as vice-president and member of the architectural commission of A Century of Progress was announced recently by Rufus C. Dawes, president of the exposition.

Since 1929, Mr. Burnham has acted as director of works of the exposition, and has had direct charge of construction activities. Election as vice-president will permit a broadening of his activities with the exposition.

## MILTON B. MEDARY MEMORIAL SCHOLARSHIP

THE Milton B. Medary Memorial Scholarship for graduate study in architecture has been awarded by the American Institute of Architects for 1932-33 to Frederick S. Webster of the Department of Architecture of Syracuse University, it is announced by Charles Butler of New York, chairman of the Committee of Award. Other members of this Committee were Ellis F. Lawrence of Portland, Ore., and Ely Jacques Kahn of New York City.

Architectural schools in all parts of the country were represented in the competition. The following received honorable mention:

Richard E. Collins, Catholic University of America, Washington, D. C.; Miss Annalouise Eckhardt, Washington University, St. Louis, Mo.; James A. Mitchell, Carnegie Institute of Technology, Pittsburgh, Pa.; Edward S. Okubo, University of Southern California, Los Angeles; Henry L. Wailes, Alabama Polytechnic Institute, Auburn.

The scholarship, awarded for the first time this year, was founded by the Georgia Marble Company in honor of the late Milton B. Medary of Philadelphia.

## QUALIFICATIONS FOR COMPETENT CHURCH ARCHITECTS

THE Bureau of Architecture of the Methodist Episcopal Church is interested in assembling a list of architects to be suggested for consideration for church work. A request addressed to the director of this bureau, Rev. E. M. Conover, 1701 Arch Street, Philadelphia, or 740 Rush Street, Chicago, will secure a blank that may be

(Continued on page 8)

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# THE BULLETIN - BOARD *Continued*

used by architects, who wish their names on a such a list, in representing their qualifications for modern church planning and designing. Ten cents should be enclosed with the request for the blank, and only architects who have practised at least five years should apply.

Among the questions on the application blank are the following:

1. Names and locations of churches for which you have rendered the architectural service.

2. What questions or unusual conditions were encountered in any case where the results in completed buildings were not, in your opinion, of the best?

3. Enclose photograph and copy of the preliminary plans or working drawings of what you consider your best church accomplishment.

4. What religious ideals do you undertake to express in church architecture?

5. Are you a member of the American Institute of Architects?

6. Of what church are you a member?

7. In what active church work have you participated?

8. Mention activities you have engaged in or studies made to indicate your knowledge of the programme, activities, and objectives of the modern Protestant church?

9. Data regarding your architectural education and your travels.

Mr. Conover makes it clear that the Methodist Episcopal Bureau has no authority to appoint architects (although the Methodist Episcopal Church is a connected organization rather than a group of independent organizations) for local churches, but his office is called upon to recommend architects. This denomination has 25,000 church buildings in the U. S. A. and many in forty foreign countries. This does not include the Methodist Episcopal Church South nor other Methodist groups. Mr. Conover says that not five per cent of the Methodist Episcopal Church buildings are suited to the programme of work to which the church is now committed.

## *SURVEYS OF HISTORICAL MONUMENTS BY UNEMPLOYED DRAFTSMEN*

KNOWN for a century as Washington's headquarters, but now shown to have been the headquarters of the rival generals, Lee and Gates, the Miller House at North White Plains, N. Y., will be meas-

ured and drawn by unemployed architects, to make restoration possible in case of destruction.

Along with the Miller House, the dingy frame tenement in the heart of White Plains called the Jacob Purdy House, and hailed to-day as the actual headquarters occupied by the first president at the time of the Battle of White Plains, and again in 1778, may also be guaranteed against oblivion.

Architectural draftsmen, under the auspices of the Westchester County Park Commission, which is financing the enterprise at the suggestion of the Architects Emergency Committee for the Region of New York, will make drawings of the Miller House and of others of historical interest in the county, including probably the Purdy House.

## *OIL BURNER CONVENTION*

THE tenth annual convention and show of the oil burner industry will be held in Chicago at the Hotel Stevens during the week of June 11 in conjunction with the opening of the Century of Progress Exposition.

## *ARCHITECTS' EMERGENCY COMMITTEE AWARDS*

THE competition for a small library instituted by the Architects' Emergency Committee in the New York metropolitan district was won by Leon H. Hoag, of East Orange. Second prize went to Paul Trapani, Bronx; third prize to Carl J. Jensen, Brooklyn. Thirty-three awards in all, amounting to about one thousand dollars, were made by the Committee's jury under the chairmanship of Chester H. Aldrich.

## *DONALD OMAR DUNN,* *1892-1932*

DONALD OMAR DUNN, architect, of Cleveland, Ohio, died on June 17, last—a distinguished architect and a man who had won for himself an unusually large circle of social and professional friends. His death was the result of a heart attack while he was suffering from influenza at the Lakeside Hospital.

Mr. Dunn was born in New York City, was graduated from the Massachusetts Institute of Technology in 1916, and went to Cleveland the following year to enter active practice. After serving in the offices of Franz Warner, and Hubbell & Benes, he joined the firm of Walker & Weeks, of which he be-

came a junior partner. In 1926 he became associated with Munroe Walker Copper, Jr., establishing the firm of Dunn & Copper, a firm which has produced outstanding architectural work in northern Ohio, particularly in the Shaker Heights district. Mr. Dunn was a member of the Frieze and Cornice Honorary Architectural Society and the American Institute of Architects.

## *HENRY B. KECKELEY,* *1889-1932*

HENRY B. KECKELEY, architect, of New York City, died July 18, at the Neurological Hospital where he had been a patient for more than two months.

Mr. Keckeley was born in Charleston, S. C., studied at Union College and Cornell University, and served in the army during the war. His early work was done in the office of Cass Gilbert, and later in those of Raymond Hood and Schultze & Weaver. Mr. Keckeley is credited with the design, while with Warren & Wetmore, of the overhead roadways which border Grand Central Terminal on Vanderbilt Avenue and Depew Place, which work he also supervised.

## *PERSONAL*

Announcement is made by the firm of Pruitt & Brown, 342 Madison Avenue, New York City, architects, of the opening of a Charlottesville, Va., branch office for effective handling of contracts recently awarded the firm in the South. Louis I. Scribner of Charlottesville will be in charge of the new office with headquarters in the National Bank Building.

Thomas K. Hendryx, architect, announces the removal of his offices to the I. O. O. F. Building, Bradford, Pa.

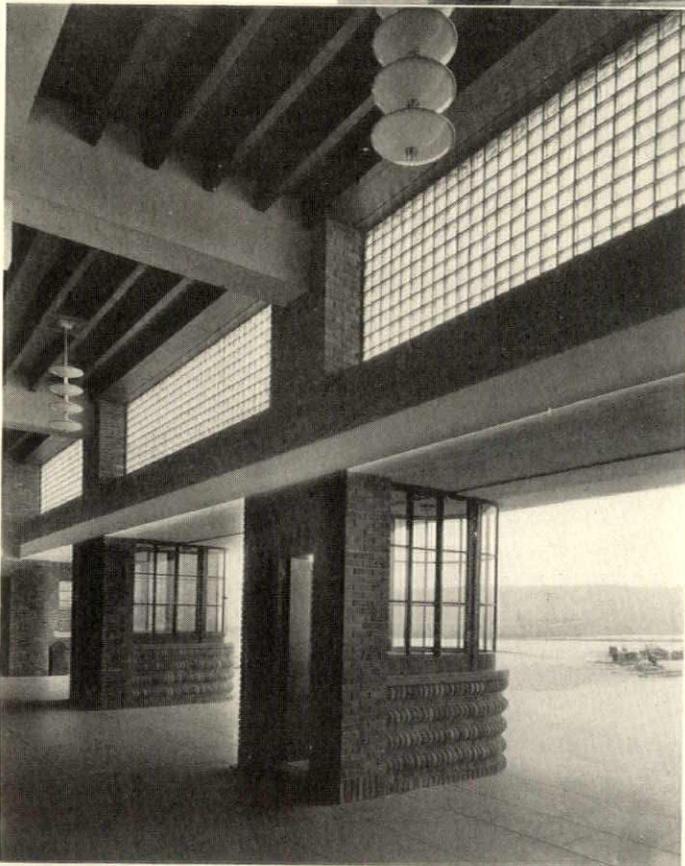
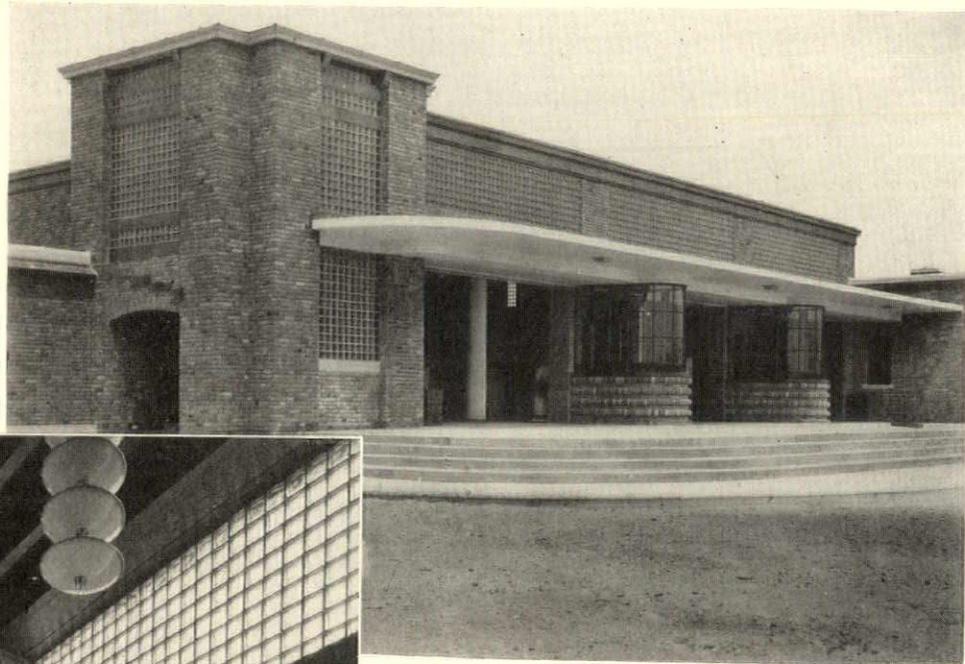
M. Micknovitz, architect, who has recently moved his office to 1700 Fountain Square Building, Cincinnati, Ohio, requests that manufacturers' catalogues be sent to him at the new address.

Thomas C. Stapleton and Leo I. Valker, both for many years associated with Andrew J. Thomas, have established their own office and will practise under the firm name of Stapleton & Valker, architects, at 2 West 46th Street, New York City.

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# ARCHITECTURE

REG. U. S. PAT. OFFICE

THE PROFESSIONAL ARCHITECTURAL MONTHLY

VOL. LXVI, NO. 3

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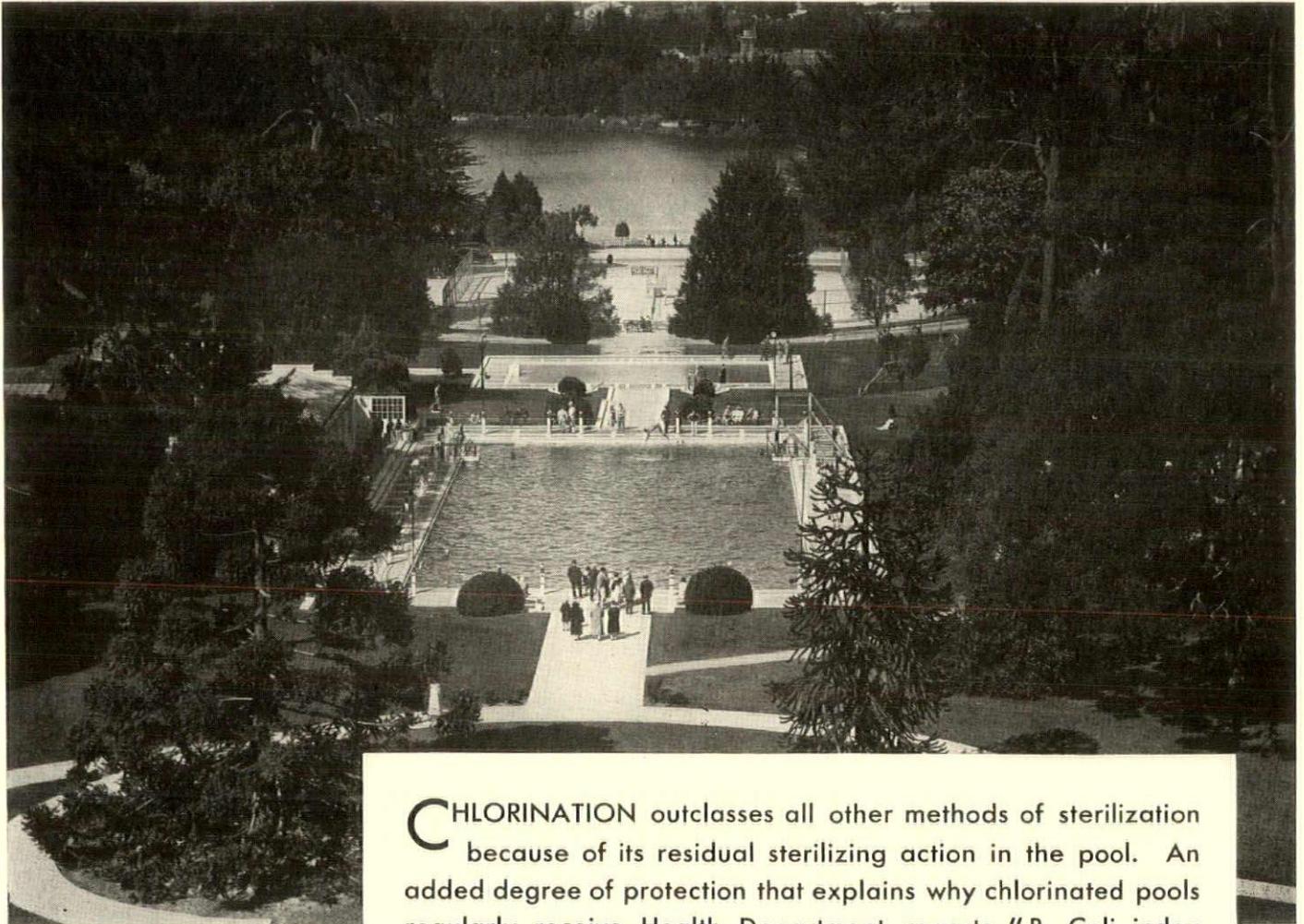
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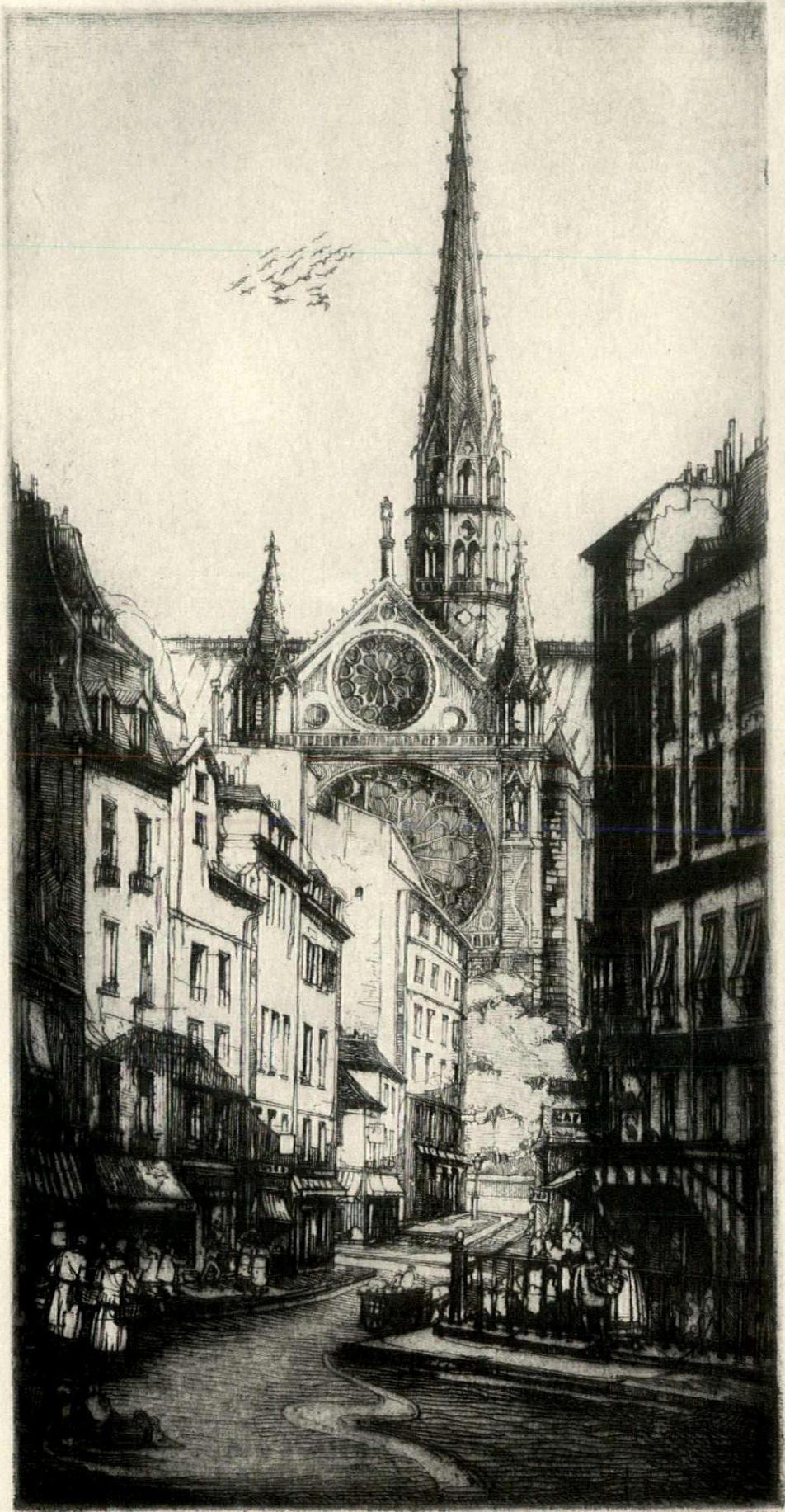
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NOTRE DAME,  
PARIS

*From the etching  
by  
Philip H. Giddens*

# ARCHITECTURE

❖ VOLUME LXVI

SEPTEMBER 1932

NUMBER 3 ❖

## New Products of 1932

*By the Editor*

THE education of an architect, contrary to the belief of some, does not end when he receives his degree from an architectural school. The education of an architect never ends. Possibly it might be divided into two parallel lines: a slowly increasing consciousness of form and color—design in general; and second, a rapidly increasing acquaintance with the tools of the profession. With the first of these we are not here concerned.

Up to within the last fifty years or so, as we now look back, it must have been a comparatively simple matter for an architect to know the materials with which he worked. With a sure grasp of masonry, wood construction, roofs, walls, doors and windows, he was practically equipped to cope with the problems that came his way.

Today the situation has changed so widely that it may be regarded as a fair question whether any one man can assimilate the whole fund of technical knowledge that would seem to be required in architectural practice. If the time does come, or if it has already come, when one mind cannot spread itself efficiently over this growing field, a development along the lines of specialization and delegated responsibilities would seem to be the inevitable development.

The fruits of invention and more skillful manufacture have unquestionably come more rapidly to the front in the recent period of economic depression. When a factory is working overtime to fill its orders its research department is likely to be neglected, or put to work in production. When the orders begin to slacken, all the ingenuity of the organization is brought to play to devise better materials, more efficient manufacturing processes, new uses for old materials, and new accessories.

If it was difficult for the architect to acquaint himself with the new materials and methods of his craft a few years ago, it is vastly more so

today, with the flood of new invention that is upon us.

We wrote, a month or so ago, to about eleven hundred manufacturers connected with the building industry, asking them to tell us, in fifty words or so, of any new product or method or service first made available, or to be made available, in the calendar year 1932. The net results of that letter appear on the following pages. Naturally the presentation cannot be complete. Some manufacturers of new products may be unknown to us, other information reached us too late to be included. It has been our effort to give, as nearly as may be, the basic facts, without sales talk or the use of unnecessary superlatives, showing, where desirable, an illustration. It has seemed advisable to group these items according to the A. I. A. System of Filing. This allocation to the various divisions of the system has been done necessarily by the Editorial Department on the basis of the facts at hand. It is quite possible that this allocation may be debatable in some instances, or even mistaken, but it will at least serve to give the reader a more orderly presentation.

The stream of new materials brings its details to the attention of the architect all too slowly and uncertainly. He learns of some items in the advertising pages of his professional journals; he becomes acquainted with a few others through seeing them used in the work of fellow practitioners. Familiarity with, and confidence in, many of these new things must inevitably come to the architect slowly or not at all. It is with the purpose of bridging this gap in the diffusion of architectural knowledge that this effort of ours is made. We hold no brief for any of the items here set forth; some of them may never reach a wide use before they are displaced by better things; a few, perhaps, may be permanent and important contributions to the science of building. Here are 1932's new ideas.

1. Preparation of Site
2. Excavation
3. Masonry Materials

**GOLDEN** Gate Tan Portland Cement, unadulterated, its tan color being basic and permanent. Facilitates mixing stucco on the job. Water-proof. Can be used alone as a color or as a base for other colors. In same price range as gray cements. Pacific Portland Cement Company, San Francisco.

**CEL** Sealed Aggregate is an improved burned clay aggregate for making strong light-weight concrete. The round pellets have a tough, dark-brown sur-



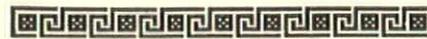
face shell, while the firm interior is filled with air cells. Concrete made from this new product, with natural sand for the fine aggregate, is said to possess a most unusual combination of workability, strength, and light weight, together with highly efficient insulating qualities. W. F. MacGlashan Associates, Alhambra, Calif.

**COLDURA A** is a non-fading, non-slip colored floor hardener, for use wherever non-slip colored floors are specified or desired. Through the selection of materials and subsequent manufacturing process, Coldura A results in a balanced compound insuring positive evenness of color texture, protection against slippery floors, dust-proof and durable surfaces. It is a dry powder composed of colored oxides and non-slip aggregates and is used integrally. L. Sonneborn Sons, Inc., New York City.

**HARCOL** is a quality, dust-proof, colored, metallic hardener which insures floors of even color, texture, and maximum hardness. It is not just rou-



*The arrangement of these items conforms to A Filing System for information on Building Materials and Appliances as devised by The American Institute of Architects*



tine mixing metallic filings with color, that guarantees the durability or character. For Harcol the manufacturers have selected a metallic hardener that is extremely fine and uniformly graded, free from foreign metals, oils, grease, and corrosive substances. L. Sonneborn Sons, Inc., New York City.

**GRANDEUR** Face Brick for interior or exterior use—a distinct innovation in decorative quality, resulting from a patented process. Manganese grays, buffs, tans, graded browns, desert grays; available with or without salt glaze. Particularly adaptable to church, library, school, and public work, and for half-timber nogging. The Finzer Brothers Clay Company, Sugar-creek, Ohio.

**NEW Hanley Glazed Flatter Tile-Brick**—a dry-pressed face brick, size 8" x 2 1/4" x 3 7/8", glazed on flat-bed side. Laid on edge with exposed glazed surface 8" x 3 7/8". Minimum size variation, better absorption and stronger bond, quicker laying, water-proof joints, wavy wall effect eliminated. Ideal for double-faced partitions when laid back to back. No cutting required for steel window frames. Used either for exterior or interior walls. Hanley Company, Bradford, Pa.

**NEW Hanley Glazed Limestone Face Brick.** Exactly matching limestone in color, this is a dry-pressed face brick biscuit with shade 962 dull-finish glaze burned on exposed surfaces. Has a vitreous surface—stain resisting. Practically no size variation. Low priced. Recently developed and now being used on exterior walls of U. S. Federal Post-Office Building in Altoona, Pa. Hanley Company, Bradford, Pa.

**NEW Hanley Packing-house Floor Brick** measures 8" x 4" x 1 1/2", is extremely dense because of finely ground shale raw material. Top surface smooth to resist acid, bottom surface grooved. Not affected by temperature variation and is resistant to acids, chemicals, salts, fats, and oils. Durable for heavy trucking and unusual wear. Absorption, 1/2 to 1 per cent. Compression strength, 9454 lbs. per sq. in. Hanley Company, Bradford, Pa.

**LACLEDE Mullite**, a new refractory material, combining for the first time super-refractory qualities with low cost. A fire brick which will stand rapid temperature changes, and is highly refractory. Laclede Mullite is non-spalling, non-shrinking, will resist coal slag and oil impingement, and will lay up perfectly because it is made on power presses and burned in tunnel kilns. Laclede-Christy Clay Products Company, St. Louis, Mo.

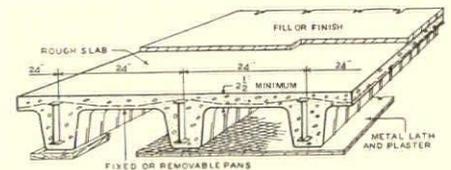


#### 4. Concrete and Monolithic Construction

**DOUGLAS Fir Plywood Form Lumber** offers many significant advantages: panel sizes up to 4' by 8'; speed in carpentry; smooth, unblemished surfaces, saving rubbing or plastering; split-proofness and warp-resistance; ideal for reverse molds; ease of stripping; 5/8" thickness for use as combined lumber and liner; 1/4" thickness for use as liner only; adaptability of 1/4" thickness for curved forms, such as columns and entrances; 7 to 10 re-uses. Douglas Fir Plywood Manufacturers, Seattle, Wash.

**GYPSTEEL Floor Arch** consists of a composite steel and gypsum beam spanning the distance and carrying the load between the main steel beams, combined with reinforced gypsum units spanning between composite beams. Beams projecting below the floor are fire-proofed in usual manner with pre-cast units. Spans up to 8' with Class A rating. Structural Gypsum Corporation, Linden, N. J.

**PORETE-FILL**, a new low-cost fire and sound proof floor system of remarkably light weight of only 25 lbs. per sq. ft. Consists of light-weight



joists on 24-inch centres; standard sheet metal forms are set up between and light-weight concrete, 50 lbs. per cu. ft., poured around the joists. All the steel is embedded and protected by concrete. Porete Mfg. Company, North Arlington, N. J.

**WARNER Vermiculite Flooring** (product of Warner Laboratories) is a dry, non-metallic mineral compound.

All colors. Mixed with water, is laid like cement, setting in approximately four hours. Ranges from resilient to granite hardness. Fire-proof, vermin-proof; impervious to elements, commercial acids, temperature; a non-conductor. Chemical Corporation of America, Minneapolis, Minn.

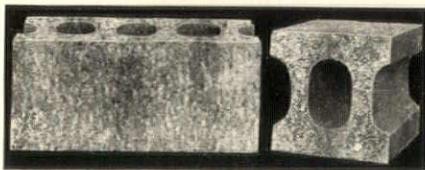
**PRECAST** Nailable Roof Slab, to meet the demand for an all-mineral structural roof slab where a nailable base for slate, tile, or metal is required. Size, 32" x 18"; either 2" or 2½" thick; weight, about 20 lbs. per sq. ft. Slabs can be made up to 7' long. Slabcrete Corporation, Camden, N. J., and the Nailcrete Corporation, New York City.

**GYPSTEEL** Plank is a solid slab of factory-cast gypsum, 2" thick and 15" wide, bound and reinforced with

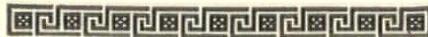


channel-like sections of galvanized copper-bearing steel, tongued and grooved like wood plank. Erected with random joints. Maximum spans, floors 4', roofs 6'. Structural Gypsum Corporation, Linden, N. J.

**NAILCRETE** Nailable Cinder Block, the Nailcrete product developed for block use, using asbestos in combination

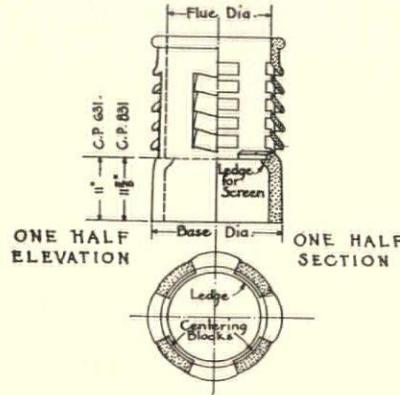


with cement, sand, and/or cinders. Steam-treated to avoid change of shape in moulding. "Certificated" blocks, approved by Underwriters, now available. The Nailcrete Corporation, New York City.



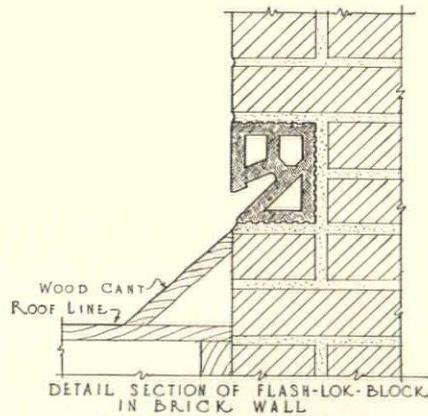
5. Brickwork

**ATLANTIC** Chimney Pot for use in conjunction with household incinerators. Provides ledge for chimney screen in order to prevent light waste materials from being blown up and out



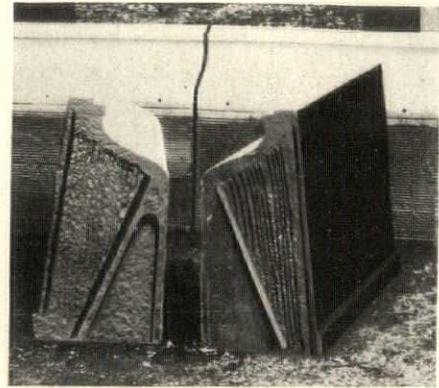
of flue. Large louvres induce maximum draft. Available in large range of Atlantic colors. Atlantic Terra Cotta Company, New York City.

**FLASH-LOK-BLOCK**, of vitrified clay, salt-glazed. Impervious to moisture, substantial enough to carry any load they might be subjected to.



Length, 8"; each block displacing two bricks in the wall. Mitred blocks for inside or outside corner. Similar Flash-Lok forms of galvanized iron for poured walls. W. S. Dickey Clay Mfg. Company, Kansas City, Mo.

**WATER** Bar for terra-cotta copings and other exposed courses. A thin copper strip projects from one



piece and fits into a slot on the adjoining piece, making the joints really waterproof. Federal Seaboard Terra Cotta Company, New York City.



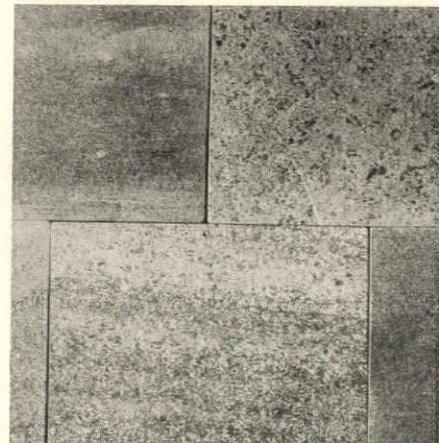
6. Foundations

7. Waterproofing and Dampproofing

8. Stone Work

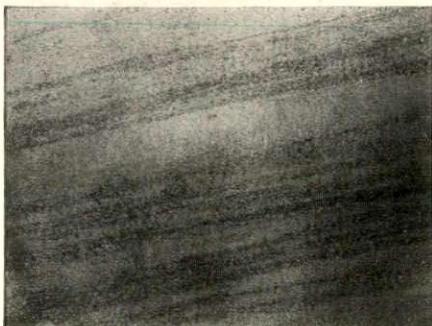
**VIRGINIA** Serpentine Black, a true serpentine stone found in unlimited supply near Schuyler, Va. It is very hard and very sound, almost a pure black with a very faint greenish tint, containing a limited number of fine white veins. Alberene Stone Company, New York City.

**ILCO** Antique" Indiana Limestone. An attractive wall facing, recommended with dull hone finish for interiors and double carborundum surface for exterior. Carries a texture pattern



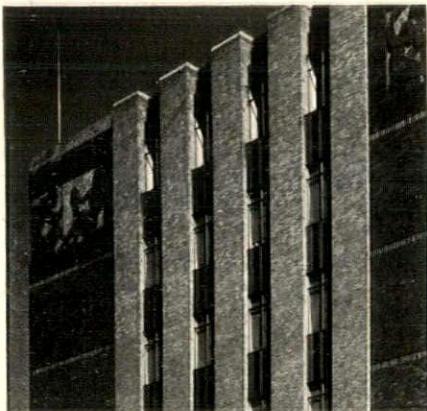
of unusual interest, something different, yet restrained. Colors range from silver gray to cream buff and may be selected within limits. Indiana Limestone Company, Bedford, Ind.

**I**LCO Select Cream Vein Indiana Limestone. A special grade whose characteristic effect is obtained by placing



the stone in the wall on the natural bed, a requirement not observed with any other grade of Indiana Limestone ashlar. Should be fine-carborundum or dull-hone finished, when it shows an interesting homogeneous banding and very light veining. Indiana Limestone Company, Bedford, Ind.

**P**YRAMID Slate Spandrels, affording the architect a natural, everlasting material of deep black even color, resisting all thermal variations. Inexpensive, yet extremely rich in appearance, easy to carve or sand-blast when decorative treatment is desired. Illustration shows Cardozo Building, St. Paul,



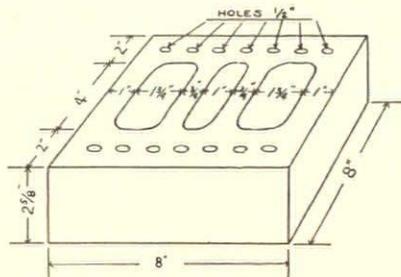
by Ellerbe & Co., architects. The Structural Slate Company, Pen Argyl, Pa.



9. Architectural Terra Cotta

10. Block Construction

**D**U-BRICK" Double Brick Unit. Permanent masonry construction at no greater cost than first-class frame construction is said to be made possible



with the use of this kiln-burned, hollow-brick unit. Offers the insulation and fire-proof advantages of hollow tile; has the external appearance of face brick; effects savings in labor, in time, and in the amount of mortar required. The Metropolitan Paving Brick Company, Canton, Ohio.



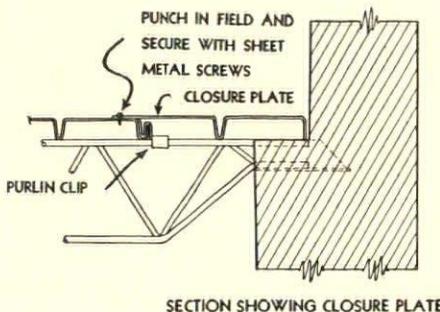
11. Paving, Curbs, Gutters, Vault Lights, etc.

**R**EDSTONE is red slate rock crushed to just the right size of granule for walks and drives. One ton covers 180 sq. ft. of surface 1 1/2" deep. Rake it on and the job is done. Will not crush into fines or cut tires or shoes. Resilient under foot. Washington County, New York, only source of supply in America. F. C. Sheldon Slate Company, Granville, N. Y.



12. Roofing, Sheet Metal and Skylights

**M**ILCOR Steel Roof Decks. Formed with ribs 1 1/2" deep, spaced on 6" and 9" centres; furnished in 18" width

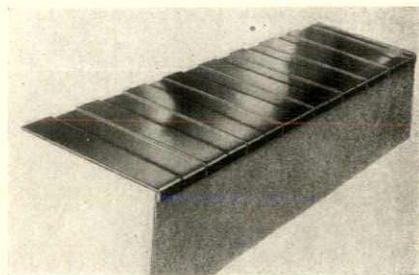


of plate. Ribs depressed at one end to permit easy nesting at lap, where plates are clip-locked to purlin. Milcor Steel Company, Milwaukee, Wis.

**T**ILE SHAKES. A new type of shingle tile especially adapted to Colonial architecture. Made in three different widths: 6", 7", and 8"; length, 18"; and 1 1/8" in thickness, having the grain and roughness of a split wooden shake. Blended colors of brown and green give, both in texture and color, an accurate simulation of old weathered roofs of wooden shakes. Ludowici-Celadon Company, Chicago.

**T**HE "Gothic" Eternit Asbestos Shingle has a rugged rocklike texture, random widths, heavy butts, and mellow colors. Shingle is 12" wide by 16" high, and tapered with approximately 3/16" butts. Double sets of nail holes permit laying irregular courses. The Ruberoid Company, New York City.

**C**HENEY Type 12 Interlocking Thru-Wall Flashing. Copper flashing combined with a strong, durable



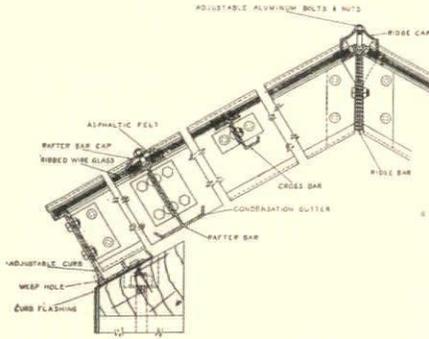
flexible counterflashing face. Allows the use of a felt-base flashing and eliminates all soldering or nailing. Standard strips 40" long and in wall widths up to 34". The Cheney Company, Winchester, Mass.

**M**ILCOR Counter-flashing Receiver, due to its design and construction, interlocks securely with the mortar or cement in which it is embedded. After



flashing is inserted the upper lip is hammered down, providing an effective seal. Furnished in copper or other metals. Milcor Steel Company, Milwaukee, Wis.

**M**ILCOR Super Extruded Aluminum Skylights. Structural shapes provide for bolts, condensation gutters, strength and rigidity, without cross



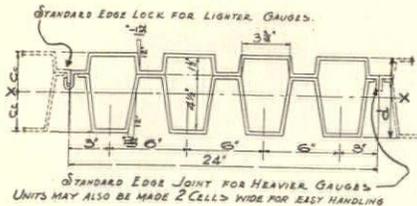
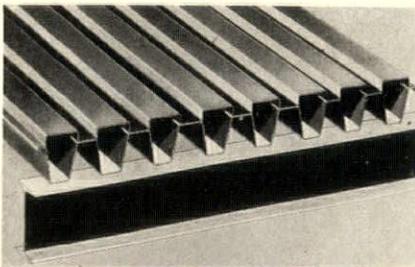
trusses. Easily assembled and dismantled. No painting of inside or outside. Curb flashing is part of equipment. Milcor Steel Company, Milwaukee, Wis.

**V**ENTILIGHTER for skylights in art galleries, motor-operated and controlled by photo-electric cells to maintain constancy of natural illumination. Cell is located in gallery wall and a rheostat adjusts the foot-candles of illumination desired; electric motor equipment opens and closes the Ventilights, responding to the desired intensity of light. Simon Ventilighter Co., Inc., New York City.



13. Structural Steel and Iron

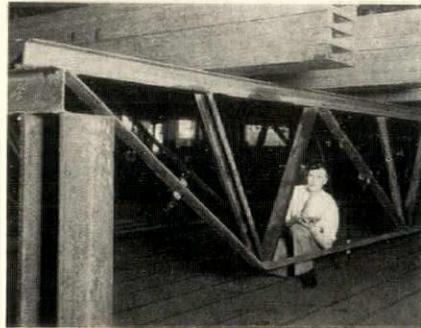
**R**OBERTSON Keystone Beam Steel Floor. A cellular floor structure in the form of keystone-shaped beams, made by pre-forming two steel plates



and welding them together above the plane of the neutral axis. It is light in weight; provides the maximum load-carrying efficiency of the steel; elimi-

nates expensive electrical duct systems (each cell being a potential electrical conduit or raceway); speeds up construction; has a high salvage value; provides flexibility for alterations in case of occupancy changes; cuts down amount of forms and structural steel necessary for construction. H. H. Robertson Company, Pittsburgh, Pa.

**N**EW Welded Truss Design, developed by J. E. Webster. An expansion of the king-post principle, with about one-third saving in weight by de-

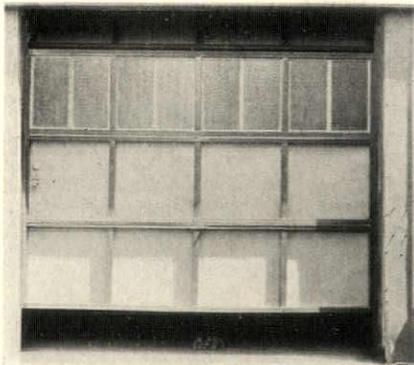


signing the truss so that all members have uniform stress. Diagonal tension members and bottom chord (also in tension) are made from steel straps. Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa.



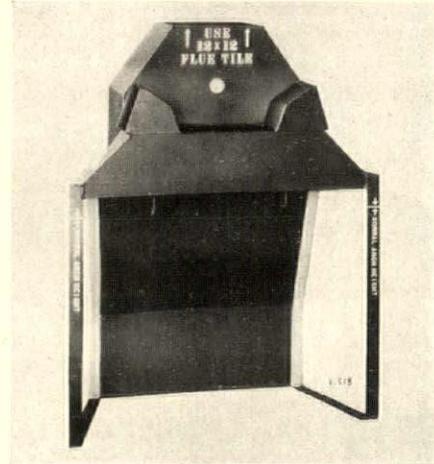
14. Miscellaneous Steel and Iron

**F**LOAT OVER" Steel Door, for garage and warehouse use. All-steel construction, sliding overhead from vertical to horizontal position under the ceiling.



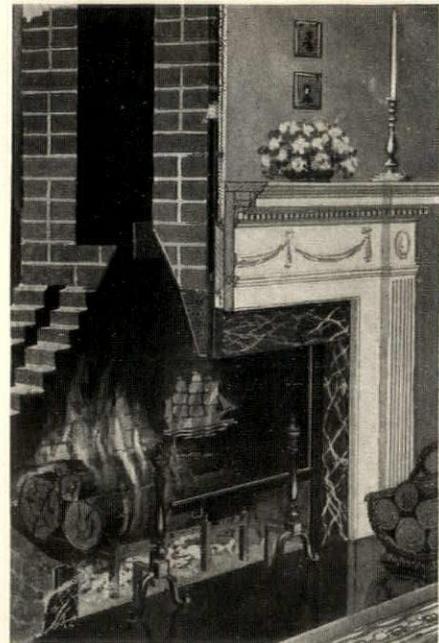
Frames of galvanized cold-rolled copper-bearing tubing, the panels of galvanized sheets. Inexpensive, durable, fire-proof, and without warp or sag. Cornell Iron Works, Inc., Long Island City, N. Y.

**B**ENNETT Fireplace Unit—a fireplace which draws fresh air from out-of-doors into concealed heating



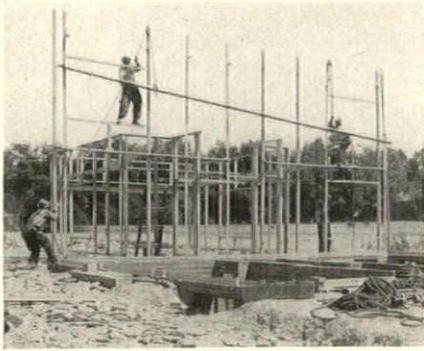
chambers, and floods the room with this heated fresh air. Creating even room temperatures, guaranteed not to smoke, it is said to be three times as efficient as the ordinary fireplace. Verner Incinerator Company, Milwaukee, Wis.

**A** NEW Spark-Screen for Fireplaces. This device operates on the principle of the double-hung window, dis-



appearing into a pocket above the fire-opening. It features complete fire protection; replaceable parts; a screen that can be decorated; low cost. Easy movement with a touch of finger or poker. Fyr-Slyd-Screen, New York City.

**P**ORCELAIN-ENAMEL House, constructed of junior I-beams and



porcelain-enamel shingles, backed with pre-fabricated Ferro-Clad—two sheets of 24-ga. steel on either side of 3/4-inch thickness of Celotex. Wood nailers bolted to I-beams hold Ferro-Clad. Insulation, 4 inches of mineral wool. Bar-joint floors with oak finish. Ferro Enamel Corporation, Cleveland, Ohio.

**STEEL and Enamel Construction,** suitable for gas-station or other work when dismantling may become neces-



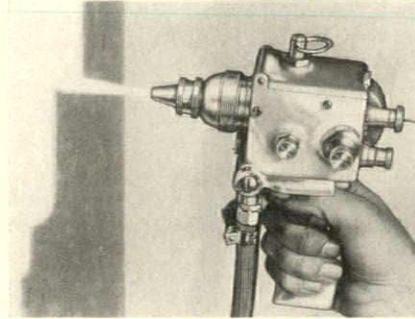
sary. Standard units with verticals and caps, and horizontals, are of stainless steel; panel plates of vitreous enamel in colors. The E. F. Hauserman Company, Cleveland, Ohio.

**RAWL-ANCHOR,** a one-piece, heavy-duty, double-expanding masonry anchor for bolts. It departs from usual construction in that a double inverted cone body of aluminum is employed as the expanding factor, which, it is said, gives it the greatest holding power of any bolt anchor. The Rawlplug Company, Inc., New York City.

**SHUR-LOC Window Guard:** portable steel grille for beneath upper window sash, working like collapsible window screen. Expansion bars locked with key. No bolts, screws, nails; no damage to paint or woodwork. Keep out intruders; keep children from falling out. Shur-loc Window Guard Corporation, New York City.

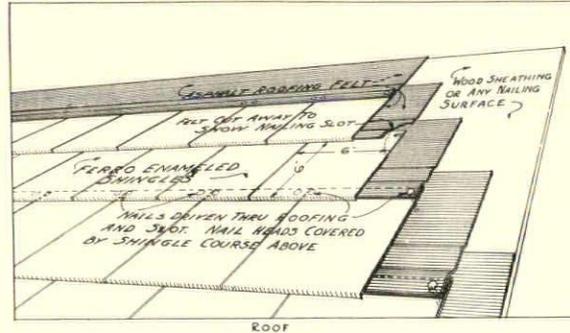
### 15. Ornamental Metal Work and Physical Properties of Metals

**METALLIZER.** Any metal that can be drawn into wire form can be fed into the Metallizer where it is melted and sprayed under high pressure



upon any object—stone, brick, wood, metal, cement, glass—bonding firmly with these materials. Branches now located to service the entire country. Metallizing Company of America, Los Angeles.

**PORCELAIN-ENAMEL Shingle,** made of a form of glass fused upon metal. Coating is in three applications,



sprayed on and fired. The shingle is claimed to be rust-proof, fire-proof, and unfadable in all colors. Can be cleaned with soap and water. Being used on roof and side walls of exhibition house in South Euclid, Ohio. Ferro Enamel Corporation, Cleveland, Ohio.

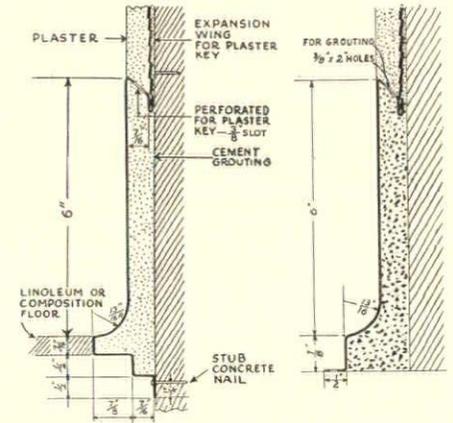


### 16. Fire-Resisting Doors, Windows and Trim

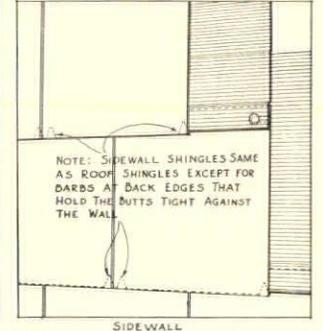
**THORN Metal Casements,** as improved, contain five important new features: 1. Flexible metal weatherstripping, shop applied. 2. Insect-proof screen application. 3. Geared operation neatly applied entirely to the casement

frame, defying wind pressure. 4. Automatic latching without opening screen; and 5. Double glazing that is inexpensive, for cold climates and air conditioning. J. S. Thorn Company, Philadelphia, Pa.

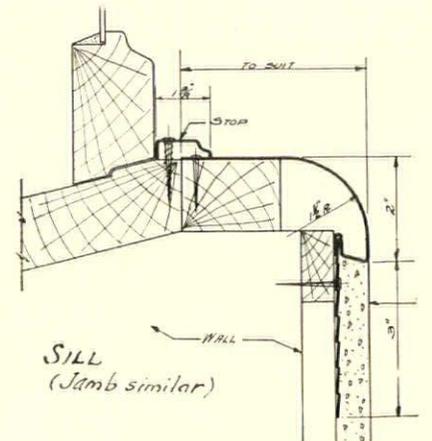
**MILCOR Metal Base with Expansion Wing.** Provides a positive bond between plaster wall and base, eliminating possibility of cleavage cracks here.



Expanded metal wing at top is attached firmly to wall. Four different base types and sizes. Milcor Steel Company, Milwaukee, Wis.

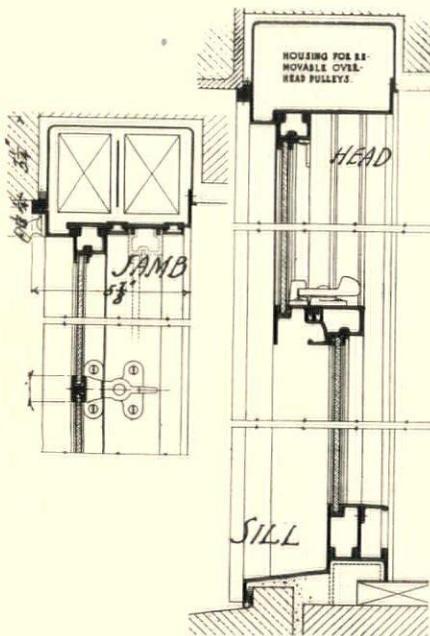


**MILCOR Curved Metal Window Trim and Stool.** Provides sanitation, fire safety, and attractive appear-



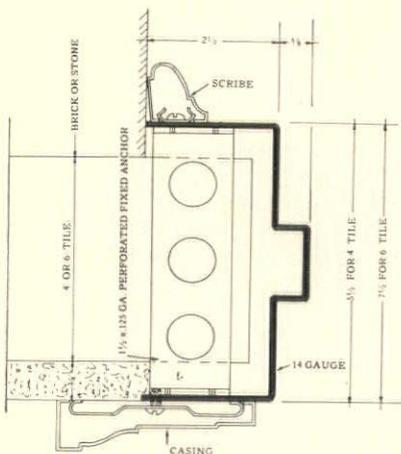
ance, with expansion wing protecting against cracks and cleavage. Two sizes: 3/4" and 1 1/2" radius. Stools, flat, rounded, or splayed. Stool lengths, from 2' up, in multiples of 6", or to order. Milcor Steel Company, Milwaukee, Wis.

**KAWNEER** "Sealair" Weight-hung Window. Interlocking weathering at top, sides, sill, and meeting-rail. Weathering members prevent sticking and rattling and afford smooth operation. Joints coped and welded. Sash may be removed without disturbing jamb proper. Sections increased propor-



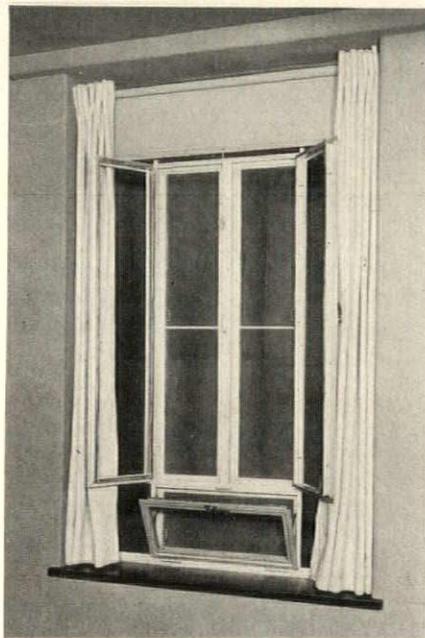
tionately for large windows. May be equipped with special automatic locking. The Kawneer Company, Niles, Mich.

**HOLLOW-METAL** Interior Doors now in stock sizes, for jobs on which quantity does not warrant special



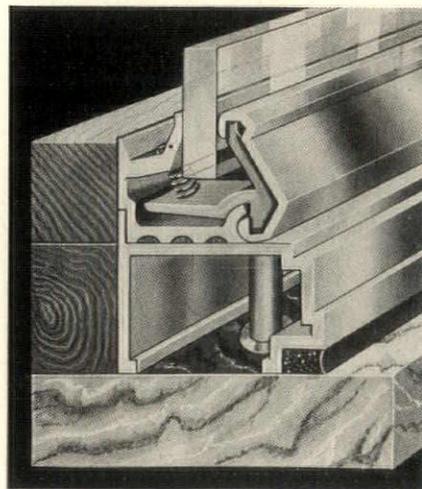
designs. One and two panel, with or without glass, 2' 8", 3', and 3' 4" by 7'; standard Underwriters' construction; combination buck and jamb. Illustration shows one of many applications. Art Metal Construction Company, Jamestown, N. Y.

**BAYLEY** In-swinging Casement, for hospitals, apartments, office buildings, hotels. Acts as windshield ventilator. Washed from inside. Integral



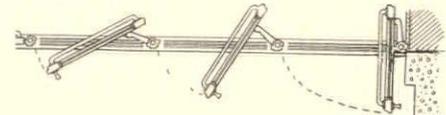
screens. Spring bronze weather-striping. Lower centre panel hinged at bottom, upper centre leaves side-hinged, allowing adjustment of draperies. The William Bayley Company, Springfield, Ohio.

**IMPROVED** Extruded Store Front Mouldings. These sections, of aluminum and bronze, have been designed to



harmonize with the adjacent work, and include such special items as concealed awning boxes, awning hoods, etc. Sash has a new fulcrum principle which insures a safe and positive grip on any thickness of glass. Mouldings have caulking provision where necessary. Davis Extruded Sash Company, Lincoln, Neb.

**ELLISON** Balanced Doors, for exterior of office and public buildings. Easily opens against high wind pressure. Door automatically counterbalances wind



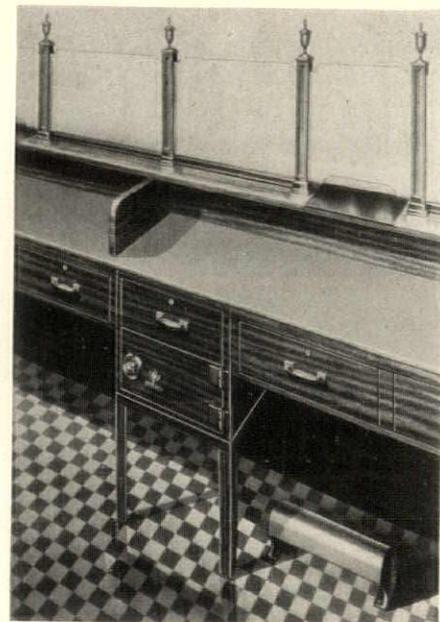
pressure. Uses any standard lock, pull, push bar, and flush bolt. Hardware consists of inconspicuous top and bottom arms connected by ball-bearing pivoted shaft. Door closer of spring-and-liquid type. Ellison Bronze Company, Inc., Jamestown, N. Y.



17. Special Doors and Windows

18. Vaults and Safes

**THE** Tellers' Safety Locker provides protection against holdup attack and the mysterious disappearance of money. When equipped with electrical



control, all lockers in the bank or office can be immediately closed and dead-locked from any one of many control stations. Provides cashiers and tellers with protection balanced with their responsibility. Diebold Safe and Lock Company, Canton, Ohio.

**DIEBOLD** Receding Door Safes save one-third the floor space required for swinging-door safes. The doors, when open, are entirely out of the way. They make it possible to bring certified fire protection to records where they are used in locations too small for swinging-



door safes—corners, beside columns, between doors, under counters, etc. Diebold Safe and Lock Company, Canton, Ohio.

**DIEBOLD** Electric Rekordesk Safe is the last word in convenience; one button opens it, another closes it. It is designed to bring certified two-hour fire protection to vertical card records where they are used, twenty-four hours a day. It saves about half the floor space required for using a card desk by day and a safe or vault for night fire protection. Diebold Safe and Lock Company, Canton, Ohio.



19. Carpentry

**PHEMALOID** Compound Lumber, a cross-laminated product of wood electrically processed with a new phenol-formaldehyde colloidal resin, which binder is water-proof, fire resistant, proof against mold and fungi. Size of panels limited only by shipping limitations. Pre-finished with same resin in combination with fabric, or finished on job with paint or varnish made with this resin. Haskelite Mfg. Corporation, Chicago.

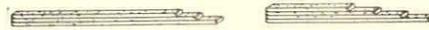
**ENTERLOCKING** System of ready-cut lumber, particularly adapted to dwelling construction.



Joist header and stud plate in 2" x 4" to 2" x 12"; lengths, 10' to 20'; self-centring; dovetailed on 16" centres.



Joists for floors and ceilings in 2" x 4" to 2" x 12"; nine lengths, 9' 4" to 20'; multiples of 16" dovetailed.

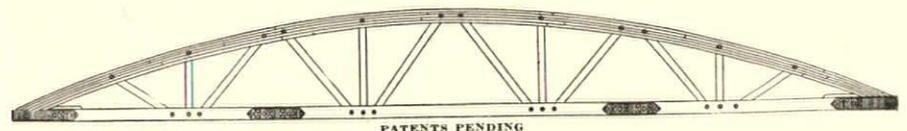


Studs for walls and partitions in 2" x 4" and 2" x 6" for 8', 9', and 10' ceiling heights. Door and window headers in 2" x 4" and 2" x 6"; four lengths, 4' to 8', multiples of 16".

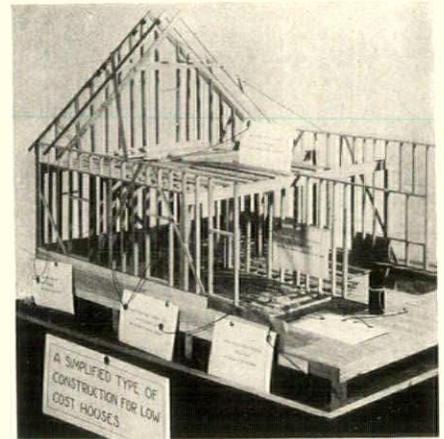


Gable studs in 2" x 4"; nine lengths, 7' 3/4" to 6' 10 1/2" for 7:12 pitch. Braced bridging; compound bevel fits all widths joist or stud up to 12" on 16" centres. Long-Bell Lumber Company, Longview, Wash.

**WADDINGTON** Wood Bowstring Trusses have a parabolic upper chord built of laminated members, well spiked at close intervals, with solid sections in the lower chord, fillers, and web members. Ornamental Waddington steel U straps are used at the ends to take the thrust, and ornamental steel plates at all splices. Spans are 30' to 150'. Height at centre one-eighth of length of truss. American Roof Truss Company, Chicago.

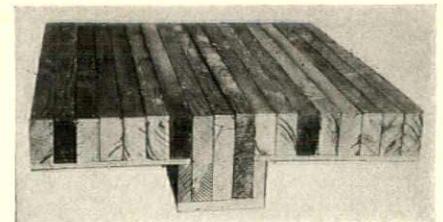


**A SIMPLIFIED** method of framing low-cost residences supports the floors at 8' to 10' intervals by deep double joists carried on piers or posts,



or for second floors on triple studs in walls and partitions; floors of 2" matched plank and finished floor. Results in slightly increased footage, decreased labor cost, and shallower floor construction. National Lumber Mfrs. Association, Washington, D. C.

**LAMINATED** Floor Decks for dwellings, of 2" and 3" pieces, from 3" to 5" in depth, afford excellent fire resistance, modelled after old-time heavy

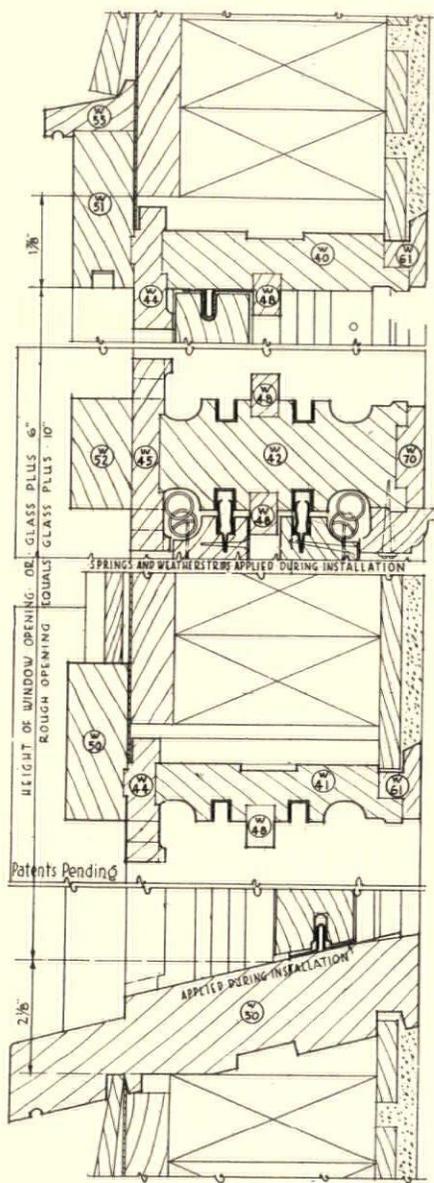


timber construction. A 3" depth spans 12' under residence loading, a 4" depth 16'. Subfloors eliminated and depth greatly reduced. Deeper occasional lamination for greater spans or under partitions; for wiring space steal part of lamination. National Lumber Mfrs. Association, Washington, D. C.

**HANDMADE** Wooden Shingles ("Blue Jay" brand)—an old, old idea, but now made available for restoration and period work. Hand split (not sawn) and shaved, clear, all-heart cypress. James Lumber Company, Boston, Mass.

PATENTS PENDING

**SILENTITE**, a new double-hung wood window in which the weight of the sashes is balanced by coiled springs inserted in the edges of the sash, thus effecting great reduction in the width of casings and mullions. Complete, double, metal-to-metal weather-stripping built-in at the factory; all parts of sash



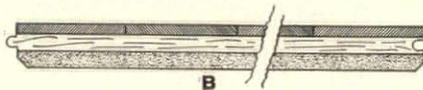
and frame are pre-fit. Pre-fit screens and storm sash (with new type ventilator) are included with this unit. The Curtis Companies, Clinton, Iowa.

**UPLYCO** Prefinished Flooring, Patented. (Illustration A.) Built up with water-resistant glue, using oak face exposure, prefinished at factory. Ply-



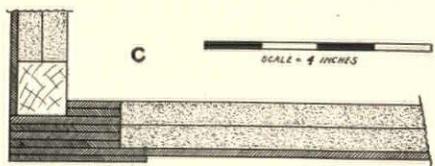
wood construction reduces shrink, swell, warp, and wind to a minimum, eliminating the unsightly and unsanitary cracks between boards. Uplyco is un-splittable, avoiding loose, squeaky floors. Prefinishing at factory results in a better finish and largely reduces the time and cost of laying. United Penwood Sales Corporation, New Albany, Ind.

**UPLYCO** Insulated Prefinished Flooring, Patented. (Illustration B.) Similar to above but with insulating fibre board back to facilitate temperature and sound control. Its physical char-



acteristics are same as the above. Designed especially for steel-frame, factory-fabricated buildings, with a minimum of erection cost. Can be made with segmental faces, in large sections up to 24' wide and 16' long. Adapted to laying in mastic, conventional nailing, or screwing through from the bottom. United Plywood Sales Corporation, New Albany, Ind.

**SOUND-PROOF** Telephone Booth, patented. (Illustration C.) Interior consists of double layer of acoustic fibre board, with necessary reinforcing at



corners to provide structural strength. Exterior is hard fibre board, flush or panelled, that can be finished natural, enamelled in colors, or the flush design overlaid with wood veneers. Can be made in complete booths or designed to build into residences. Allen A. Wilkinson Lumber Company, Indianapolis, Ind.

**ACOUSTI** Plywood Radio Cabinets, patented. (Illustration D.) Interior lined with layer of acoustic fibre board—usually with exterior veneer and centre of hard fibre board. Panels are framed as in usual cabinet construction. Exhaustive tests have demon-

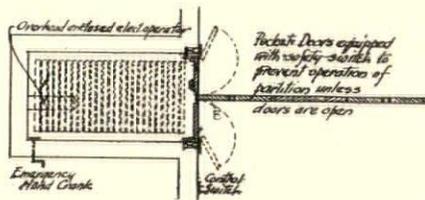


strated the acoustic value of this construction, which mellows the lower tones and reduces the shrillness of the upper tones. This same material is available for house panelling where temperature control is desired or for of-

fice partitions, where sound transmission must be kept at a minimum. United Plywood Sales Corporation, New Albany, Ind.

**TEGO** Plywood Panels, built up with Tego Gluefilm, avoiding disadvantages of wet glue process. Veneers and core joined under pressure and heat. Panels not subject to decay, mildew, fungi, or other attack; nor to twist and warp. Even thin veneers show no staining. Tego Gluefilm, Inc., Terra Haute, Ind.

**FOLDER-WAY** No. 888 Automatic Electric Partition represents a notable improvement in folding partitions. Among the superior points of merit: a



turn of the key switch—and the partition operates without further attention; all manual effort eliminated; all operating equipment concealed; automatic locking and unlocking; remote control; silent, sound-proof, and fool-proof. Richards-Wilcox Mfg. Company, Aurora, Ill.

**PANELPECK**, an effect giving aged appearance of pecky cypress. The aging of the wood is produced by treating the Tidewater Red Cypress chemically, with stain and/or lacquer. Available cut to exact sizes for panelling and special uses for interior woodwork. Florida Louisiana Red Cypress Company, Jacksonville, Fla.

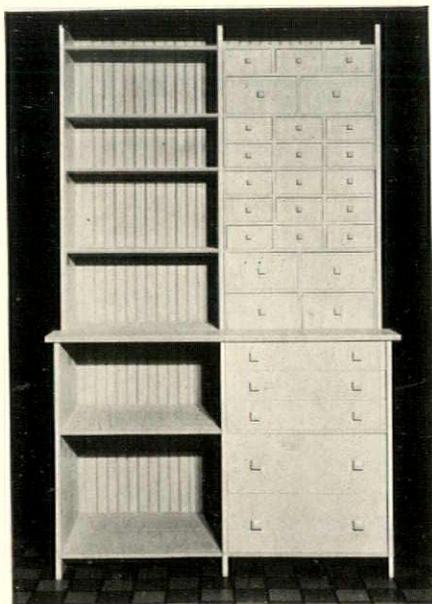


**DUREZ** resin bonded plywood gives absolutely water-proof glue lines of unusual strength. The shear strength determination of 400 pounds is obtained on the dry basis and is unaffected when the wood is wet. These glue lines are unaffected by fungus or bacterial growth and are therefore permanent. General Plastics, Inc., North Tonawanda, N. Y.

**INSULITE Hardboard.** For the hundreds of uses for which products of its nature are indicated. This new product,  $\frac{3}{16}$ " thick, is adapted also for concrete form work. Due to its light color, it is useful for panelling, window decorating, homecraft work, toys, shelving, automobile and truck body construction, etc. The Insulite Company, Minneapolis, Minn.

**CONVERTA" Partition**—removable and interchangeable wood and glass units. No nails; tie-rod connected; receives conduit wire; easily altered without destruction of parts or finish; adaptable to ceiling height variations; stocked in American walnut, mahogany, quartered oak, and birch. Waldbas, Inc., Long Island City, N. Y.

**U-NITE-IT Shelving and Cabinets.** Economical form of knocked-down, packaged, standardized parts from which almost limitless number of cabinets can be made. Only fixed dimensions, height and width of sections and distance between shelves. Shelf and vertical parts fit together with unique U-Nite-It spring joint (patent pending). Pigeonhole, large and small drawer, and door parts also available in packages. Long-Bell Lumber Sales Corporation, Kansas City, Mo.



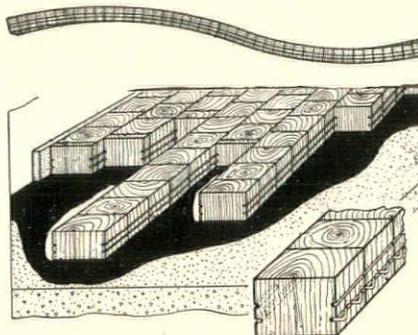
**IMPROVED Hamlin's Evanston Sound-proof Door and Folding Partition.** Composed of two sections with  $\frac{7}{8}$ " space between occupied by insulating material plus mechanism whose function it is to hermetically seal the four cracks about the door. The internal insulator now is asbestos mill-board and sheet steel. Irving Hamlin, Evanston, Ill.

**MASONITE Cushioned Flooring.** An all-wood flooring made with an in-built shock absorber—more comfort, less noise. Comes in reversible squares



of t. & g. construction providing interlocking joints. Squares, 6", 9", and 12"; borders, 3", 6", and 12" wide and 47" long. Surface of Presdwood resists wear and shows no indentations. Masonite Corporation, Chicago.

**KREOLOTE Flexible-strip End-grain Southern Yellow Pine Wood Block Flooring.** Virtually an edge-grain wood plank with end grain wood blocks run-



ning the full depth of the plank. Each strip bound together with metal splines. Treated with colorless, odorless preservative. Lay over concrete, flat wood, laminated, or steel sub-base. The Jenison-Wright Company, Toledo, Ohio.

**THE Ferox Process** is now being used in the manufacture of all Celotex cane fibre products. Individual fibres, in the wet state, before compression, are coated with a chemical complex, toxic to fungi, termites and other cellulose-destroying organisms. Chemical com-

plex is insoluble in water, non-volatile, odorless, permanent, and does not alter physical properties of the product. The Celotex Company, Chicago.

**INSULITE Wall Board.** A light, structural insulation material,  $\frac{5}{16}$ " thick, with dual surface finish of heavy kraft paper, one side white, the other side oatmeal finish. This new wall board is excellently adapted for remodelling and modernizing work, and, in addition to serving as an efficient wall board, confers the benefit of insulation and sound deadening. The Insulite Company, Minneapolis, Minn.

**INSULITE Fire-proofed Wall Board.** This new product,  $\frac{5}{16}$ " thick, combines every advantage of an efficient wall board with insulation, sound deadening, and is fire-proofed. When properly erected, the wall of Insulite Fire-proofed Wall Board presents an unbroken fire-resistant front. The Insulite Company, Minneapolis, Minn.

**ARMSTRONG'S Temlock Insulating Panels** provide a new product for wall and ceiling finish. Series 100, four sizes, 16" x 32" to 24" x 32", has quarter-inch bevel on four sides, long edges shiplapped. Series 200, 6" x 12" to 24" x 24", bevelled  $\frac{1}{4}$ " all sides, not shiplapped. Both available in regular texture or sanded finish. Armstrong Cork and Insulation Company, Lancaster, Pa.



## 20. Furring and Lathing

**INSULITE Lath.** An insulating plaster base that lays up quickly and simply. Available in units 18" x 48" with long edges shiplapped and each piece comes equipped with three metal locks spaced on each unit so that the locks, when the wall is erected, come midway between the supports. Does not yield and spring back as a result of the pressure of the plasterer's trowel. The Insulite Company, Minneapolis, Minn.

## 21. Plastering

**BEST BROTHERS Fast Finish Keene's Cement** assures the same hard, durable finish as regular Keene's Cement, with a remarkable saving in time and labor. "Fast Finish" will set up fast enough for finish trowelling without waiting. The plasterer need not leave the scaffolding before the job is completely finished. Best Brothers Keene's Cement Company, Medicine Lodge, Kan.

22. Marble, Slate, Soapstone, Structural Glass, Terrazzo

**VITROLITE** in new colors. In addition to the established plain colors, a new process enables Vitrolite to be produced in a number of agate colors. Orchid agate and jade agate consist of agate effects on a white ground—particularly effective for bathrooms and kitchens. Emerald agate, walnut agate, and golden agate in four shades, have a black background. The Vitrolite Company, Chicago.

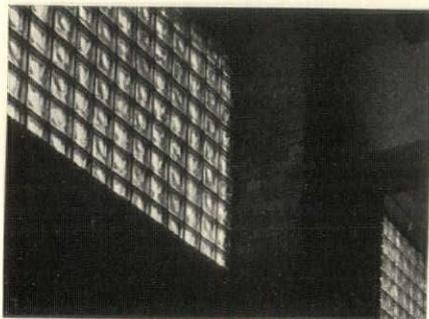
**TONGUE-AND-GROOVE Terrazzo**, combining the advantages of ordinary terrazzo with the pleasing tread and resiliency of wood or linoleum. Applied



in patented brass strip, nailed to wood underflooring, in tile patterns, 1" thick. Information from National Terrazzo Assn., Portland Cement Assn., or from strip manufacturer, A. C. Horn Company, Long Island City, N. Y.

**VITROLITE** counter and table tops have been improved by cementing Vitrolite with a special asphaltum cement to an under slab of Presdwon and trimming the edges with a stainless steel rim. This prevents the chipping of edges and makes the top virtually noiseless. The Vitrolite Company, Chicago.

**VACUUM Glass Block**, a translucent wall material for inside or outside use. Standard sizes,  $9\frac{3}{4}'' \times 5'' \times 2\frac{1}{2}''$ ,



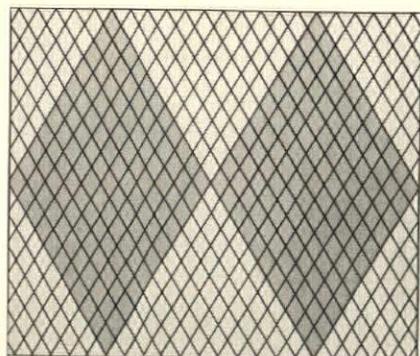
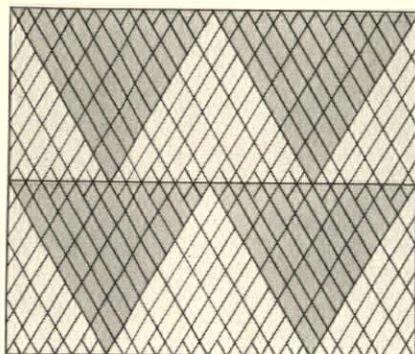
and half block,  $5'' \times 5'' \times 2\frac{1}{2}''$ . Standard colors are white and soft green, clear and pebble finish. Coefficient of thermal conductivity, .08 B.t.u. Structural Glass Corporation, New York City.



23. Floor and Wall Tile and Accessories

**NEW Hanley Red Quarry Tile.** Sets a new standard for length of wear in quarry tile. Guaranteed average absorption of  $\frac{1}{2}$  of 1 per cent results in 50 per cent more wear. New shallow bottom scoring will save about 5 per cent in the cost of laying and absolutely eliminates hollow floors. Made in all sizes. Hanley Company, Bradford, Pa.

**RHOMBOID and Diamond Shapes** in ceramic mosaic tiles make it possible to create designs that cannot be made with standard square and oblong units. Diamond is  $1\frac{1}{16}'' \times 1\frac{3}{4}''$  over all; rhomboid is  $2\frac{3}{16}''$  and  $1\frac{1}{16}''$  along edges. The Mosaic Tile Company, Zanesville, Ohio.



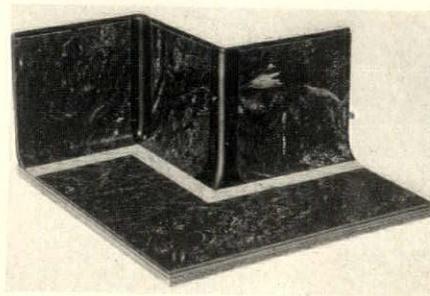
**ARMSTRONG'S New Corkoustic,** Type B, has a sound-absorption coefficient of 61 per cent in the  $1\frac{1}{2}$ -inch thickness at a frequency of 512, as determined by the U. S. Bureau of Standards. Naturally colored rich brown, it can be painted with Armstrong's Acoustic Paint without reducing efficiency. Armstrong Cork and Insulation Company, Lancaster, Pa.

**ARMSTRONG'S new Corkoustic,** Type C, in the  $1\frac{1}{2}$ -inch thickness, has a sound-absorption coefficient of 61 per cent at a frequency of 512 (U. S. Bureau of Standards). This new product has the light color of natural cork and an attractive texture. It possesses a high light-reflection factor. Armstrong Cork and Insulation Company, Lancaster, Pa.

**ARMSTRONG'S Rubber Tile.** Twenty marbled colors plus plain black are offered. The scientifically selected color range makes for a true harmony of colors in this addition to the resilient tile floor line of the company. The line is thoroughly tried and tested. Armstrong Cork and Insulation Company, Lancaster, Pa.

**ARMSTRONG'S Ceramacoustic** is a new fire-proof acoustic tile of inorganic matter. In the  $1\frac{1}{2}$ -inch thickness it has a sound-absorption coefficient of 82 per cent at a frequency of 512. Left unpainted, it has a high light-reflection value. It has bevelled edges and can be painted to secure a decorative effect. Armstrong Cork and Insulation Company, Lancaster, Pa.

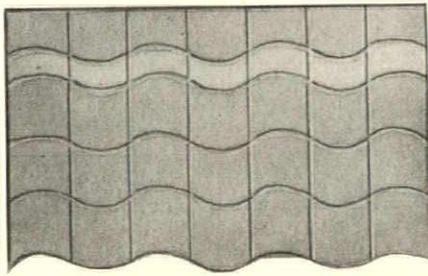
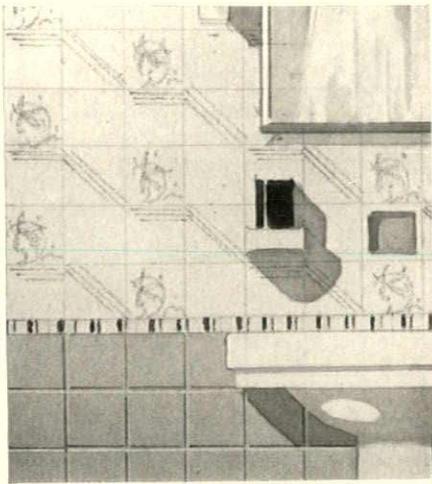
**ARMSTRONG'S New Linoleum** Cove and Base: metal-backed linoleum cove and base strips 6' long with an



inconspicuous metal cap molding and corners. It provides a smooth, sanitary joining between linoleum floor and wall. Heights,  $4\frac{1}{2}''$  and  $6''$ . Colors, brown, black, and black marble. Armstrong Cork and Insulation Company, Lancaster, Pa.

**MUTETILE**, an acoustical tile with absorption of 94 per cent in the middle register and 53 per cent at pitch 128 d.v. Attractive, subject to repainting at will, over 70 per cent light reflecting, fire-proof, non-corrosive, spring suspended, high thermal efficiency. Acoustical Corporation of America, New York City.

**MURATILE** is a new decorative wall tile that has many possibilities for distinctive treatments. Designs and



color tones available for tiling the entire wall to ceiling. Special designs may easily be made. The Mosaic Tile Company, Zanesville, Ohio.



#### 24. Plastic Flooring

#### 25. Paint, Painting and Finishing

**H**HEAT-RESISTING Aluminum Vehicle V-683 is a perfected heat-resisting aluminum vehicle designed for use on interior and exterior metal surfaces. Although there is no aluminum vehicle which combines both heat and weather resistance to an equally satisfactory degree, we have formulated this vehicle especially so that when used for exterior work it will be weather resistant, as well as heat resistant to a very appreciable extent. When used inside will withstand higher temperatures than when used outside. Use for interior and exterior metal surfaces such as condensers, scrubbers, boiler breachings, boiler fronts, furnaces, stacks. L. Sonneborn Sons, Inc., New York City.

**B**BRUCE Floor Finish differs from varnish and shellac in that it penetrates into the wood and seals the cells against

dirt and grime, having a tendency to toughen the fibres. It wears down only as the wood wears. Gives a natural wood color, but oil stain may be added. E. L. Bruce Company, Memphis, Tenn.

**F**FLOORLIFE No. 59 is a preservative and finish suitable for all kinds of wood floors. Composed of treated gums and oils so that it produces an extremely hard film. Particularly recommended because: (1) It is paler in color than other varnishes offered for the same purpose; (2) Has better penetrating properties; (3) Imparts decorative gloss finish; (4) Imparts non-slippery surface, is water-proof, and will not scratch white. L. Sonneborn Sons, Inc., New York City.

**G**GLIDDENSPAR, a bakelite and synthetic-base varnish. This product is claimed to have more resistance to extreme exposure, water, and acid conditions than any other varnish made, to possess more filling properties than any other product, and is recommended for all exterior surfaces, as well as on those places on the interior of homes subject to water and exposure, such as windowsills. The Glidden Company, Cleveland, Ohio.

**A**ARMSTRONG'S Linogloss, a new water-emulsion type wax, is recommended by the company for Linotile, linoleum, asphalt-type tile, rubber tile, etc. Linogloss dries with a dull lustre and takes a high gloss with light polishing. Repeated applications build up a durable finish on residential and commercial floors. Armstrong Cork and Insulation Company, Lancaster, Pa.

**S**PEEDWAX, a new water-base colloidal wax for the maintenance of linoleums, hardwood, cork, rubber, asphalt tile, and mosaic floors. Dries with a pleasing lustre in fifteen minutes after application without rubbing or polishing. Speedwax is approved by Congoleum-Nairn, Inc., Johns-Manville Co., Kleistone Rubber Company, American Rubber Products Co., for their products. Speedwax Sales Corporation, Newark, N. J.

**W**ARNER Liquid Stone Wall Coating (product of Warner Laboratories). A dry, non-metallic mineral compound, mixed with water and sprayed or brushed on walls and ceilings. Hardens quickly, forming permanent granite-like coating not affected by temperature, elements, commercial acids, and oils; fire-proof, vermin-proof. Will not scale nor chip. Snow white, or all colors. Chemical Corporation of America, Minneapolis, Minn.

**Q**. D. RIPOLIN, a recent addition to the line of Ripolin enamels. Quick-Drying Ripolin sets up dust-free inside of twelve hours and hard enough to recoat

in twenty-four hours. It possesses an ease of brushing unknown heretofore to enamels of this type. It has extreme whiteness and retains its depth of gloss throughout its many years of life, inside and out. Made in Gloss and Semi-Gloss, White. The Glidden Company, Cleveland, Ohio.

**A**RMSTRONG'S Acoustical Paint does not impair acoustical efficiency of sound-absorbing materials. This washable and durable oil-base paint is available in ivory, white, buff, and special colors. It may be brushed or sprayed at the factory or on the job. Armstrong Cork and Insulation Company, Lancaster, Pa.

**B**ASE-COAT, a scientifically correct primer. Base-Coat is a new development in the house paint line, which, when used as a first-coater, insures a satisfactory job for the years that follow. It is unusually water-proof, maintains its elasticity at all times, and both its vehicle and pigment insure close adhesion to the surface at all times. The Glidden Company, Cleveland, Ohio.

**D**URAWALL Washable Interior Finish is now made in flat as well as the former eggshell gloss. It consists of two parts, body and reducer, which when mixed and applied to interior wall or ceiling surfaces, according to directions, stops suction, seals the wall, and produces, without primers, a tough leather-like finish from which nearly all spots and stains can be removed with soap and water without damage to the surface. John Lucas & Company, Inc., Philadelphia, Pa.

**E**MPIRE Wall Primer is a pigmented sealer that primes and seals at the same time, thus eliminating one painting operation. It stops suction, has a tendency to neutralize free lime in plaster, and builds up a solid foundation for finishing paint coats. John Lucas & Company, Inc., Philadelphia, Pa.

**S**ILVER King Ready-Mixed Aluminum Paint is a perfectly balanced mixture ready for use. Specially designed vehicle, combined with aluminum particles of extreme fineness, form, by molecular attraction, a perfect sheath of metal protection—water-proof, fume, acid, and alkali resistant. Suitable for any surface, exterior or interior—100 per cent leafing, 25 per cent additional coverage, and extreme durability are claimed. The Billings-Chapin Co., Cleveland, Ohio.

**S**PEED-WALL, a semi-gloss finish that dries in four hours. A new type of wall finish embodying quick-drying properties without sacrificing any of the easy working and flowing qualities essential to a perfect job. It dries with a beautiful semi-gloss and is satisfactory

for woodwork and furniture and for wall decorations. The Glidden Company, Cleveland, Ohio.

**S**OGG is a paint composed of Gilsonite and oxidizing oils. Differs from other asphalt paints in that it: Dries by absorption of oxygen, does not "bleed," comes in colors, stands temperatures 400° to 700° F., and requires no pre-treatment of surface when applied to galvanized iron, zinc, or tin. Mitchell-Rand Mfg. Company, New York City.

**B**URNOT Fire Retardant Paint is a high-grade linseed oil paint and a fire retardant which will effectually resist the spread of flame. Burnot is obtainable in paints and stains for both interior and exterior finishes in a variety of attractive colors. Particularly applicable for the painting of shingle roofs, the interior and exterior of houses, etc. Lundy Corporation, New York City.



## 26. Glass and Glazing

**I**MPROVED Window Glass, having a degree of surface flatness hitherto considered unattainable in any window glass. A recently perfected flattening process is responsible for this improvement in surface appearance. Naturally, the improved glass gives a clearer, sharper picture when you look through it. Libby-Owens-Ford Glass Company, Toledo, Ohio.

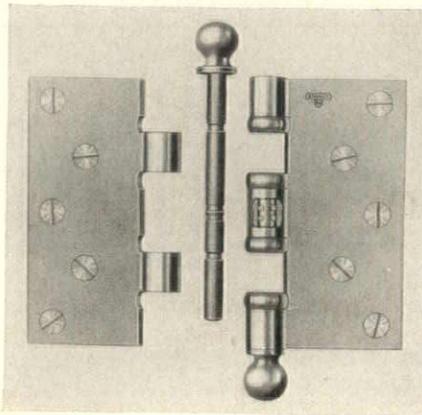
**C**ARRARA Structural Plate Glass in several different colors is now being produced with the ground and polished surfaces characteristic of polished plate glass. These glasses assure the purchaser of being able to complete his decorative scheme and to be sure of having true reflections from the polished surfaces. Flesh Tinted Plate Glass; Flesh Tinted Plate Glass Mirrors; Water White Plate Glass; and Water White Plate Glass Mirrors. Pittsburgh Plate Glass Company, Pittsburgh, Pa.

**X**-RAY Lead Glass has a lead coefficient of .32 plus or minus .02, as determined by the United States Bureau of Standards. This is an exceptionally high value. Has a delicate canary yellow color and is highly transparent to visible light, while its X-ray cut-off is exceptionally high, as indicated above. Pittsburgh Plate Glass Company, Pittsburgh, Pa.



## 27. Hardware

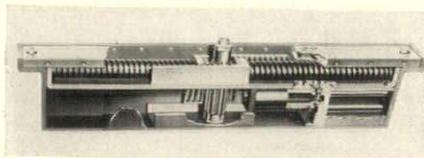
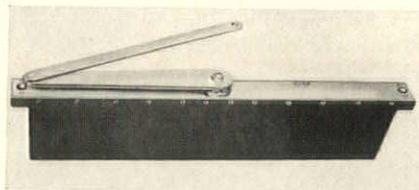
**B**ALL-BEARING Butt Hinges with Non-rising Pin. Two rows of inwardly projecting beads in the bushing (which fastens the bearings permanently



to the centre knuckle) engage with grooves in the pin. A slight pressure on the top of the pin forces it down into position. The pin can be easily removed but is non-rising under action of the door. The Stanley Works, New Britain, Conn.

**T**RIPLE-WEIGHT Ball-bearing Hinges, for penitentiaries, jails, etc. Wrought steel, 3/8" thick, size 5" x 6" or wider. Can be furnished of machine steel carbonized. Two concealed ball bearings, each containing sixteen 3/16" hardened steel balls. Case-hardened pin, grooved for lubricant. Ends of barrel are welded, making it impossible to extract pin. Can be assembled for any application. The Stanley Works, New Britain, Conn.

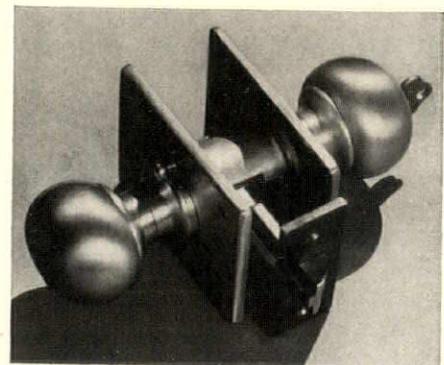
**Y**ALE Concealed Door Closer. A door-closing mechanism silently closing a door, yet concealed from view, by being mortised at proper fulcrum position into the top rail of a metal or wood door. It accomplishes what has been heretofore possible with a visible overhead door closer, without the checking mechanism being visible. The Yale & Towne Mfg. Company, Stamford, Conn.



**E**SPAGNOLETTE Bolt, No. 1053 1/2, for doors on large garages and industrial buildings. Improvement over existing types in that the bottom rod drops into strike set in the floor. Can be furnished for doors of any height. The Stanley Works, New Britain, Conn.

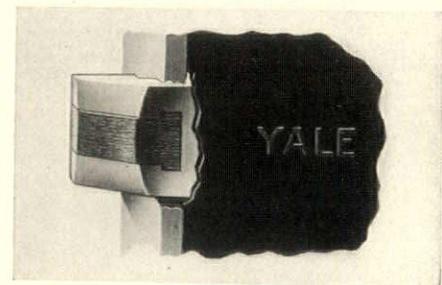
**S**URFACE Bolt with Concealed Guide, No. 365, made in sizes 4, 6, 9, 12, and 18 inches, of wrought brass, with cadmium-plated steel back-plate. Designed so that it does not mar the surface when operated. Especially recommended for French doors and casement sash, as it can be applied on stiles as narrow as 1/2 inch. The Stanley Works, New Britain, Conn.

**N**EW Unit Ry-Lock. Strongly built, designed to meet the locking requirements of all types of buildings. Two-hole installation. Pick-proof lock-



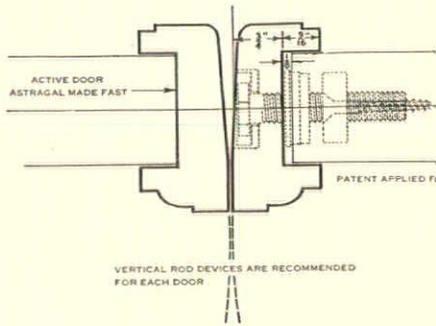
ing mechanism. Pin tumbler cylinders, instantly accessible. Reversible as to hand; adjustable as to thickness of door. Interior parts of steel heavily rust-proofed. Exterior trim cast or wrought brass and bronze. Stock and special designs. Ry-Lock Company, Ltd., San Leandro, Calif.

**S**ELF-LUBRICATING Latch Bolt for Locks. Friction of latch bolt against lock strike is eliminated by the insertion of a piece of oil-impregnated



hardwood in the latch bolt head of all Yale pin tumbler cylinder locks. Easy retraction of latch bolt is thus obtained. Tests have proven long life and permanent satisfaction. The Yale & Towne Mfg. Company, Stamford, Conn.

**VON DUPRIN Astragal Compensator** permits adjustment of a swelling or shrinking door to normal position with a wrench. Useful and fuel-saving on



panic-bolt doors and others where independent action of each door is necessary. Janitor attention replaces skilled labor. Vonnegut Hardware Company, Indianapolis, Ind.

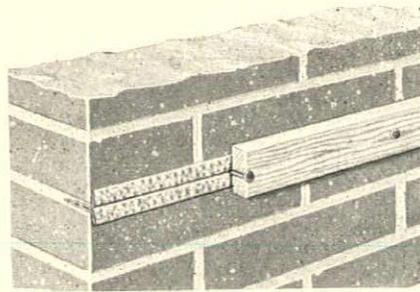
**THE Newton Pivot Check** is the original checking pivot specifically designed for lavatory stall doors. It closes and checks or opens and checks the door, bringing it quietly to the at-rest position. It eliminates all noise and does not contribute in any way to the wear and tear on partitions or frontals. C. H. Newton & Company, Boston, Mass.

**STANLEY "Swing-up" Door Hardware**, for garage and similar type doors up to 9' wide and 8' high, 1 3/8" to 2 1/4" thick. Also furnished for 16-foot opening. Doors swing up into open position through use of coil springs, resting when open on tracks. Hardware con-



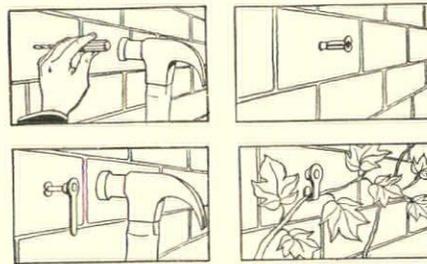
verts swinging or folding doors into a one-piece overhead-operating door, without extra construction. The Stanley Works, New Britain, Conn.

**MILCOR Continuous Nailing Strip.** The innumerable irregularly staggered bosses grip the nails or other fasteners driven in. An obvious improvement on lath in the joints or other



wall-weakening strips. Lengths as desired up to 8'. Usual depth of nailing pocket, 1 1/2". Milcor Steel Company, Milwaukee, Wis.

**VYN-TACH Hooks for masonry.** Easily hand-bent hooks on nails which are driven into expanding sockets. Holes for sockets drilled by special drill

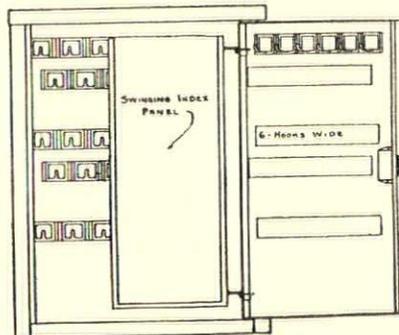


and hammer. Sold in boxes of 25 hooks, 25 shells, 1 drill point, 1 drill holder. Star Expansion Bolt Company, New York City.

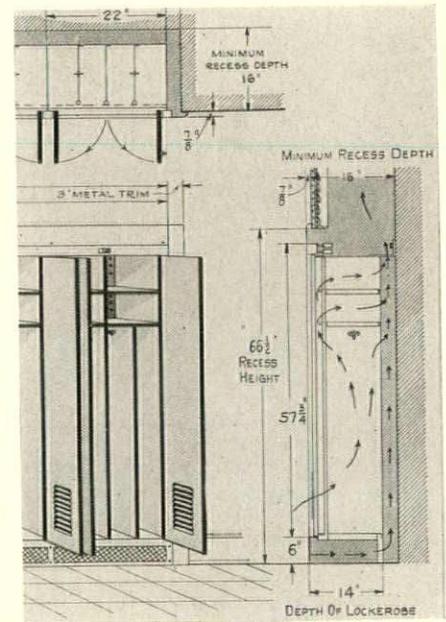


28. Furnishings

**TELKEE Wall Cabinet**, for the storage and protection of reserve pattern keys from which accurate duplicates are made. The locks of a building are worthless unless the original keys are easily accessible for use or for duplication—a duplicate from a duplicate may not work. Swinging index panel; key lock. Thayer Telkee Corporation, Los Angeles, Calif.

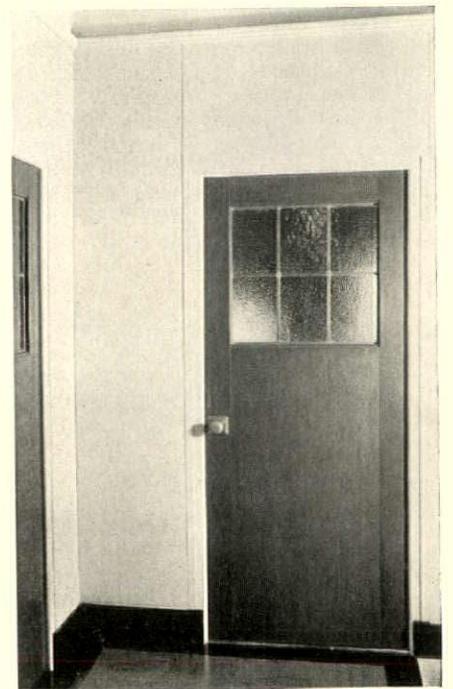


**LOCKEROBE**—a complete steel L assembly, accommodating 8 to 52 pupils, with single locking control. Recessed or non-recessed, ventilated or



not. Standard colors: School Furniture Brown and Olive Green. Saves floor space, reduces cubic contents of buildings. With or without blackboards. All parts interchangeable. Fred Medart Mfg. Company, St. Louis, Mo.

**HAUSERMAN Movable Steel Partitions**—a horizontal assembly or finished interchangeable units, glazed or solid, sound insulated, 3" thick. Ac-



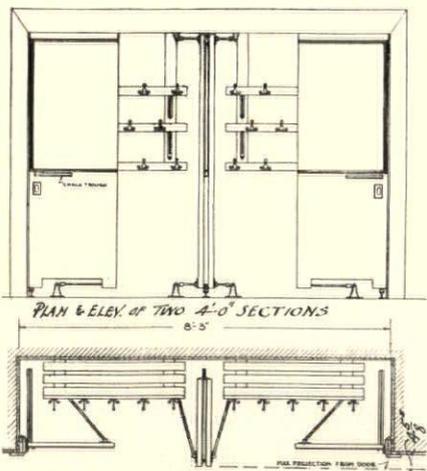
cessible chaseway in hinged base. All material salvagable. Finish in colors, rough or smooth, or photographically duplicating wood grains. The E. F. Hauserman Company, Cleveland, Ohio.

**CLEMCO** Achievement Desk is equipped with "Clemcoid" top made by patented formula. Top is molded in one piece and covers edges and



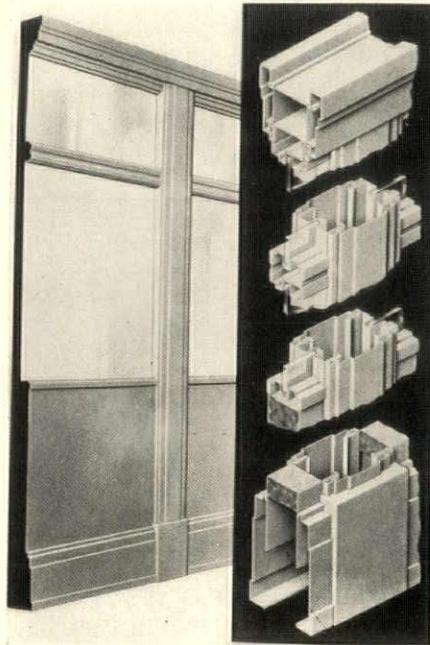
bed top. Has a firm yet soft texture which is restful to the touch. It reduces glare, resists cigarette and cigar burns and acid marks. Will not scuff or crack. Drawers operate on noiseless ball-bearing rollers. The Clemetsen Company, Chicago.

**TYPE H** School Wardrobe. Entire weight of doors taken on overhead rollers; side fixture arms keep doors in alignment; doors hinged together, giving strict alignment for blackboard; locked from central control; blackboard



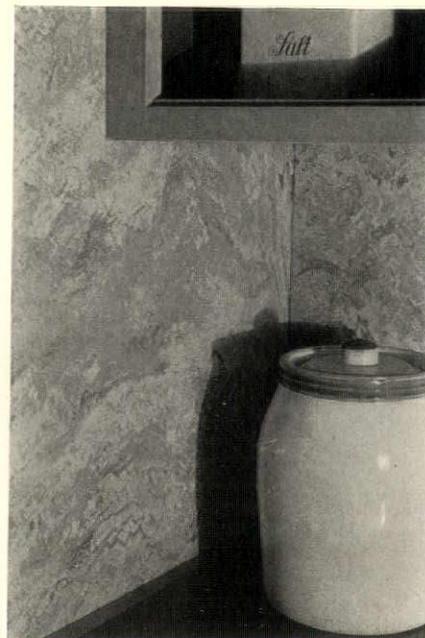
writing protected when doors are open; decreased amount of floor space required. The J. G. Wilson Corporation, Norfolk, Va.

**SYNCRO-FIT** Construction Method of Portable Sound-insulated Partitions, also applicable to display cabinets, interior trim, and other construction requiring walls and posts. With less than two dozen standardized



rolled sections practically any combination of partition or wainscot, 1 3/4" thick, or 3/8" laminated or single sheet construction is obtainable. The Mills Company, Cleveland, Ohio.

**SEALEX** Wall Covering. This unique and exclusive wall material is ideal for new construction and for renovating older buildings. Made with either a fabric or burlap backing, architects recommend it for residential and commercial work. Its beauty is permanent, stain-proof, non-fading. It is easy to apply and keep clean. Congoleum-Nairn, Inc., New York City.



**PATRICIAN** Book Shelving, of sectional construction in steel, enamel baked on and lacquered. Available in three styles: back-to-back, single face, and for recessing. In three lengths: 66", 78", and 90". In various colors. Sections, 10" x 36". Also 15" deep for store shelving. All-Steel-Equip Company, Inc., Aurora, Ill.

**AUSTRAL** Multi-Unit School Wardrobe, featured by accuracy, great strength and durability. Constructed of heavy-gauge steel, assembled on the job as a unit. Thoroughly ventilated, conserves space; metal doors finished in a neutral color. The Austral Window Company, New York City.

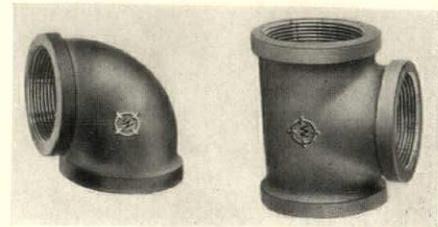
**STAINLESS** Steel Plymetl—a stiff plywood panel to which is firmly cemented monel metal or stainless steel face and a copper-bearing zinc-coated steel back. Edges turned and soldered in factory. Adapted for counters, table tops, wall panelling in restaurants, hospitals, etc. Haskelite Mfg. Corporation, Chicago.

**A** NEW group of designs that rounds out the Salubra line—faithful recreations and adaptations of the choicest examples of eighteenth and early nineteenth century wall decorations, particularly suited to the American Colonial home. True period colorings. Like all Salubra—"oil paint-by-the-roll"—they are guaranteed fadeless, washable, sanitary. Frederic Blank & Company, New York City.



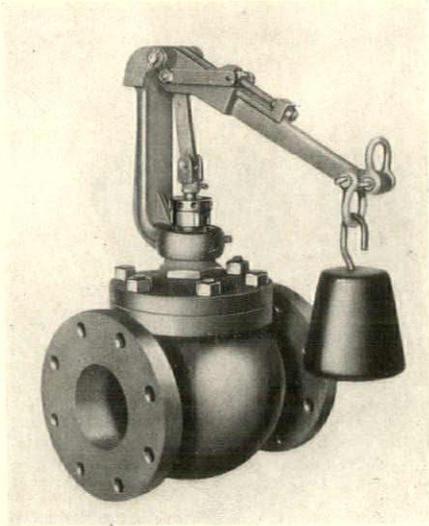
29. Plumbing

**WALWORTH** Company offers a complete line of flat-band red brass fittings. Sizes range from 1/8" to 8". The flat-band fittings afford greater



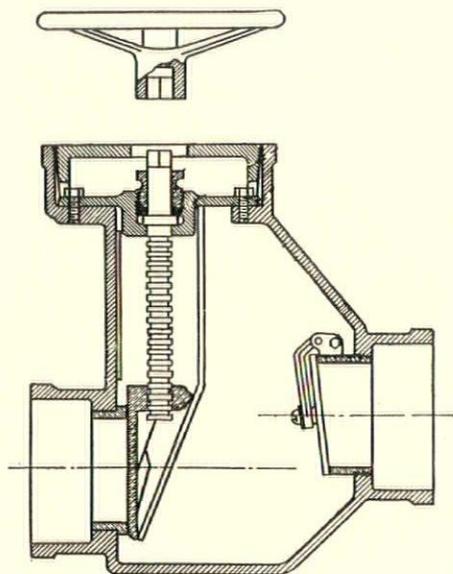
purchase for a wrench and tend also to eliminate scarring of the fittings. For use with brass pipe throughout the building construction field. Walworth Company, Boston, Mass.

**ATLAS** Lever-operated Control Valves are equipped with parabolic-type gradual opening bevel seats—capable of being adjusted for any maximum



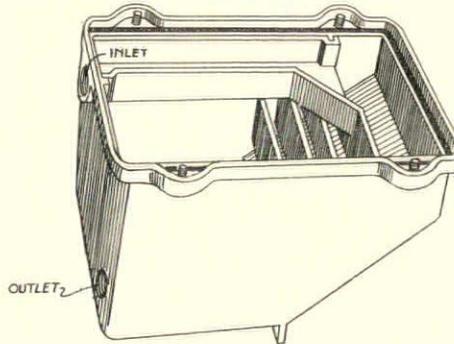
port opening that the load determines, and providing a progressive increment of port opening proportionate to the travel of the controlling mechanism. For use in connection with air, gas, oil, water, or steam. Atlas Valve Company, Newark, N. J.

**BOOSEY** Drainage Control Valve. Gorged street sewers may back-flow through the basement drainage lines. This fitting has automatic self-closing valve, adjusted to hang open or



closed, and hand-operated gate with non-rising stem. Norman Boosey Mfg. Company, Detroit, Mich.

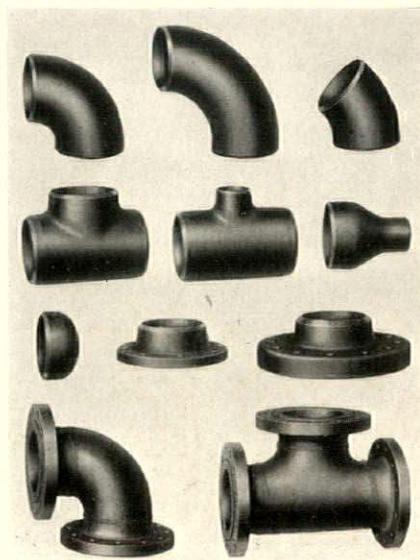
**BOOSEY** Grease Separator. Waste from fixture is discharged into a removable scupper above water line of trap seal. Flow reduced, grease guided upwards by skimmer deflectors into



grease storage section. Furnished with or without water cooler or removable grease retainer. Norman Boosey Mfg. Company, Detroit, Mich.

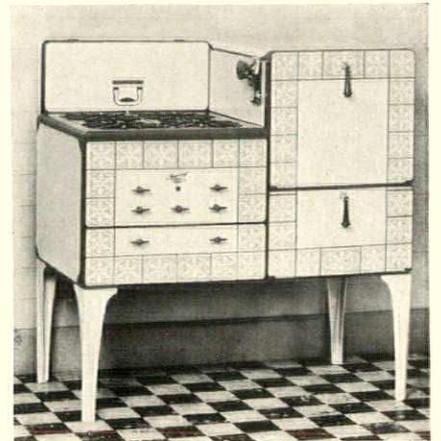
**COMBINATION** Lead Bend and Brass Ferrule. No joint to be wiped. Smooth on the inner face and lapped in direction of flow. Bonded inside as well as out. Made in standard weight and heavy weight lead. Withstands 100-lb. water pressure test. Meets building code requirements. National Lead Company, New York City.

**TAYLOR** Forge Fittings for Welding are available in a complete line, which includes standard-radius and long-radius elbows, full-branch and reducing tees, reducing nipples, welding



caps and welding neck flanges. Particularly important is the fact that all items are seamless. Elbows have tangents, locating the weld in the straight pipe rather than on the curve, and permitting rapid and accurate lining up preparatory to welding. Selectively reinforced by thickening in the regions of maximum stress, without encroaching on the inside diameter, and all ends are machine-tool bevelled. Taylor Forge & Pipe Works, Chicago.

**ARTYLE** Magic Chef Gas Stove. Though only 38" wide, it has ample capacity for a large family. Has a folding cover for cooking top which,



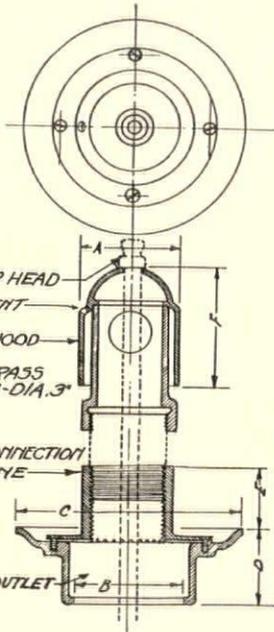
when range is in use, folds at rear. Smooth, rounded, sanitary oven linings. Red Wheel Lorain oven control. Right or left oven. American Stove Company, Cleveland, Ohio.

**KOHLER** "Protek" Powder-Paste, that will not etch or injure the high glaze of Kohler enamel, but will protect such surfaces from mars and scratches while building is under way. For use in applying a thick coating of ordinary newspapers over enamelled surfaces. Mixed by adding water and stirring.



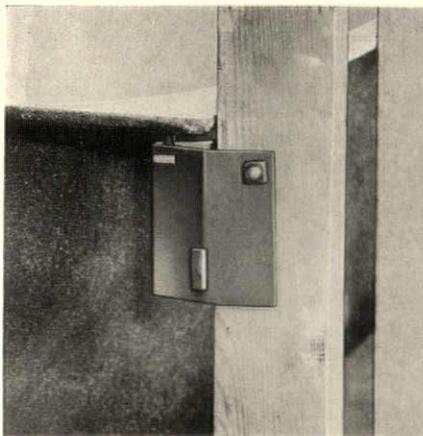
Applied with common paint brush. Hard covering that withstands all common abuses. Removed by soaking with water and peeling off. Kohler Company, Kohler, Wis.

**BOOSEY** Yard Fountain Drain. Body of drain cast iron, painted or galvanized, with flange anchor and hub outlet with 3-inch threaded extension to



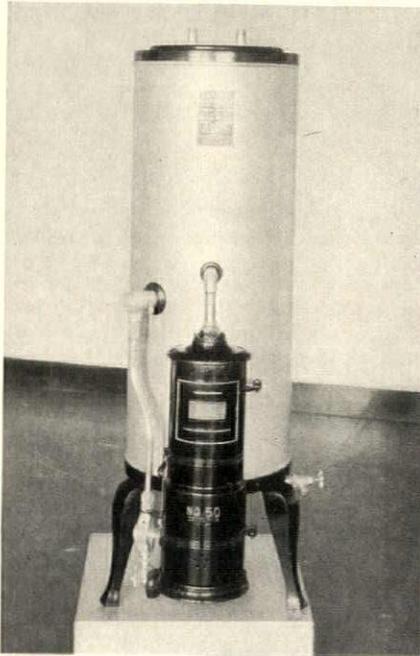
floor line. Extension from floor line to overflow head may be galvanized or brass pipe fitted with cast-iron or bronze overflow head with opening in top for water-supply pipe and brass spray head. Norman Boosey Mfg. Company, Detroit, Mich.

**KOHLER** "Avertor" Bath Bracket. A simple, practical device that supports the built-in bathtub and ties it to the walls, preventing tubs from pulling away from plaster or tile. Made of tough, stamped metal, and each capable



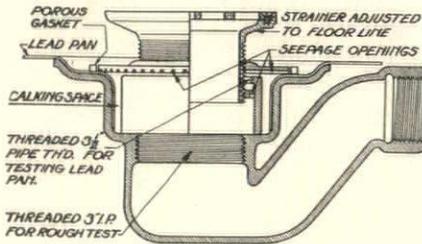
of supporting more than 750 pounds. Enables the plumbing contractor to level and "set" baths easily, quickly, and accurately. Kohler Company, Kohler, Wis.

**THE** Whitehead Automatic Storage Water Heater. A monel metal tank guaranteed to last for twenty years without rusting or corroding is an exclusive feature of a new hot-water heater produced by this company. The tank has been tested to withstand a 400-lb. pressure test and will deliver rust-free hot water, even in region where alkalies and other corrosive agents in the water are

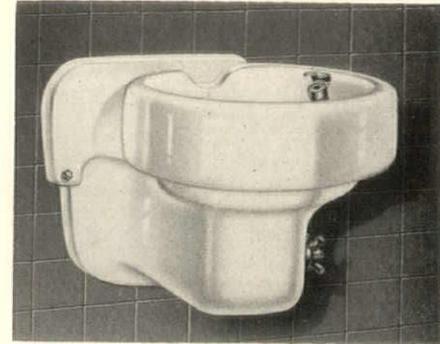


ordinarily destructive of most metals. The action of the heater is automatic and is equipped with a safety pilot and a device to prevent overheating. Whitehead Metal Products Company of New York, Inc., New York City.

**BOOSEY** Seepage Shower Drain. The lead pan connects to the trap by caulking into raglet around waste inlet. Where intermittent use of drains may evaporate trap seal the drain may be equipped with automatic back-pressure valve. Norman Boosey Mfg. Company, Detroit, Mich.

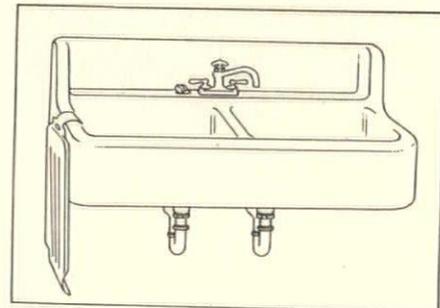


**CENTURY** Drinking Fountains, 6-69 and 6-70. Fountains to be used in connection with mechanically cooled,



circulating drinking-water systems. They eliminate the possibility of condensation dripping to the floor because the trap housing is completely closed with a removable metal plate, and all pipe connections are insulated. Century Brass Works, Inc., Belleville, Ill.

**KOHLER** "Dalcross" Ledge Sink with two compartments. A new low-priced ledge sink which provides not



only the usual drainboard area, but also an additional closed compartment under the drainboard. Chromium-plated metal drainboard fits either compartment or hangs at side, out of the way. Three-inch ledge. Kohler Company, Kohler, Wis.

**LADY** Luxury Vanadoir," a combination dressing-table, lavatory and mirror, for boudoir, bathroom, ladies' dressing-rooms. Faucet and drain handles on front of apron. Wired for



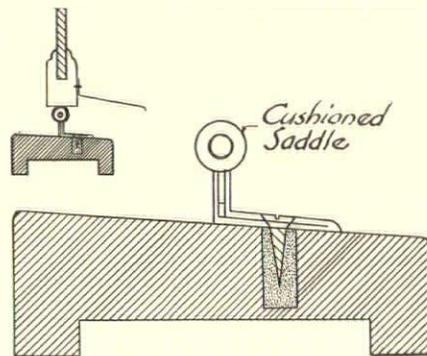
electric lighting and accessories. Cabinet of steel in several color combinations. Excelso Products Corporation, Buffalo, N. Y.

**RUSSELL** Integral Trap Lavatory, eliminating all unsightly brass, cumbersome brackets, and housings from beneath the slab. Lavatory, 24" x 21"; bowl, 19½" x 12½". Extended shelf utilizes waste space between fixture



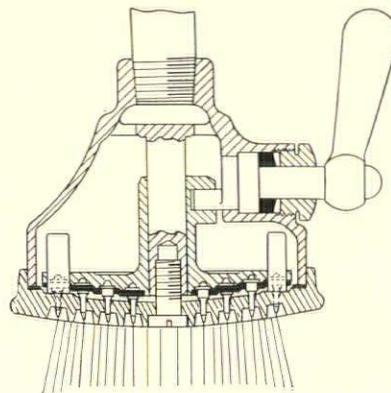
and wall. Trap has cleanout plug at bottom of the vitreous china. The Trenton Potteries Company, Trenton, N. J.

**PEERLESS** Watertight Saddle for shower doors. Made from drawn brass, having a deep slotted section to accommodate a specially molded piece of rubber. Acts as a cushion seal against



bottom of door and prevents water from leaking under the door. Standard equipment on all Peerless Shower Doors; chromium or nickel plate in highly polished or satin finish. Peerless Shower Door Company, Brooklyn, N. Y.

**MUELLER** Positive-cleaning Shower Head. Has fifty-four stainless steel tapered pins in a plate operated by



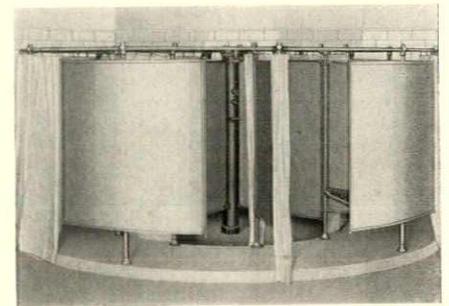
yoke and lever handle. Keeps holes free and permits shower streams ranging from rain to stinging needle. Pins not rigid, so float to centre, producing even, unbroken streams. Mueller Company, Decatur, Ill.

**THE** monel metal "Straitline" kitchen sink has been placed on the market as a companion product to more expensive models introduced by this company within the past year. Designed primarily to meet the needs of the lower-cost field, it is available as a self-supporting fixture or as a cabinet sink without splashback or apron. It is made of the



same metal as the more expensive models but its price range is about half. The International Nickel Company, Inc., New York City.

**BRADLEY** Shower-Dressing Room Combination is a self-contained circular unit having five shower compartments and ten dressing-rooms. Re-



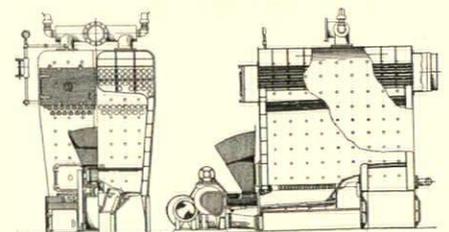
quires only three plumbing connections: two supplies and one drain. Ideal for schools, clubs, gymnasiums, institutions, and industry. Popular for women's quarters. Bradley Washfountain Company, Milwaukee, Wis.



### 30. Heating and Ventilating

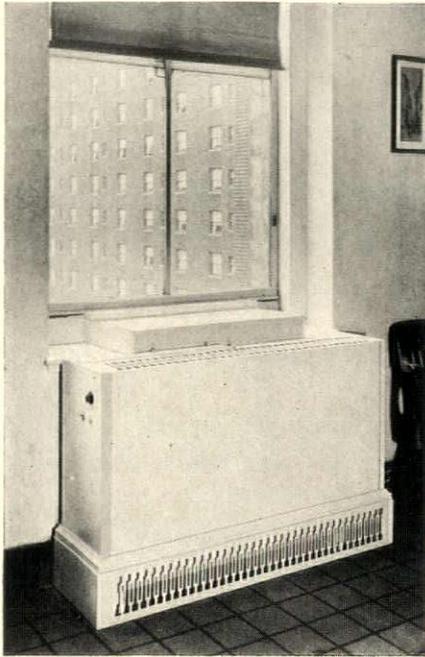
(For Electric Heating see under "31. Electrical Work")

**THE** Spencer Stoker-Boiler Unit is a development of Spencer engineers in co-operation with engineers of the Riley Stoker Corporation. Except for the fire doors and ash-pit doors, an all-steel



boiler with heavy plates. Combustion chamber entirely surrounded by water walls to take up the radiant heat. Provides for the most efficient and smokeless combustion of high volatile heat fuels, and meets the requirements of all municipal or other ordinances. Spencer Heater Company, Williamsport, Pa.

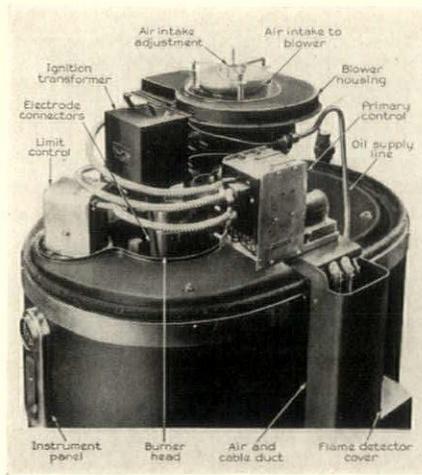
**MAXIM** Silencer and Campbell Air Conditioner, accomplishing any one or all of the seven elements of air conditioning: elimination of noise, ventilation, air cleaning, humidification, heating, de-humidification, and cooling.



Air drawn from outside in controllable amounts. Campbell Metal Window Radiator and Standard Sanitary Corporation, New York City.

**AUTOMATIC** Gas-fired Heating and Air Conditioning System for winter use. Completely automatic, compact design, all controls furnished as standard equipment, all controls inside of casing, exceptional quietness of operation, beautiful enough to install anywhere, unit shipped ready to install, burners are patented special two-stage type, greater air volume provided at lower temperatures, unit approved by American Gas Association. Surface Combustion Corporation, Toledo, Ohio.

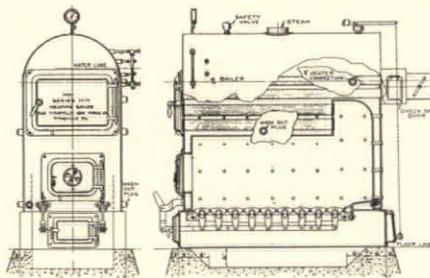
**GENERAL** Electric new oil furnace comprises a co-ordinated boiler, burner, and control, designed and manufactured as one unit. It will automatically maintain an even temperature in the home in winter, and will heat water for domestic use the year round, without



manual supervision. It is, according to the manufacturers, quiet, clean, and presenting a finished appearance which permits the furnace room to be transformed into another living-room. General Electric Company, Schenectady, N. Y.

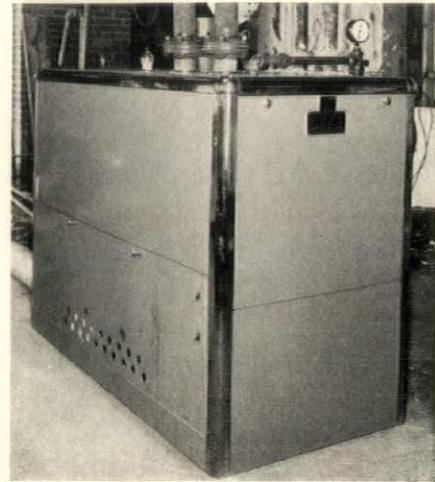
**ON THE LEVEL** Perkheater permits placing boiler for heating one or more floors on same level as ground-floor radiators, doing away with necessity of cellar. Principle of coffee percolator, utilizing same force to cause a constant circulation of hot water in radiators. A simple accompanying part of the boiler. For bungalows, greenhouses, conservatories. No moving parts. No electric current. Hitchings & Company, Elizabeth, N. J.

**TITUSVILLE** Welded Steel Boiler, for residential service. Electrically welded into a single, self-contained unit. Rounded type crown sheet prevents sediment from lodging over firebox. Completely covered with a heavy cellular asbestos insulation with aluminum-finished steel jacket. Three-pass heat travel assures full delivery of the fuel heat to the spacious water jacket; ex-



tra large combustion chamber. Made in twelve sizes for all types of residences; maximum width only 34 1/4 inches. Titusville Iron Works Company, Titusville, Pa.

**ELECTROL** Automatic Boiler, a complete oil-burning and steam-making unit. Features are: fire-tube boiler of high efficiency, low heat loss, insulated against noise, employs induced draft,

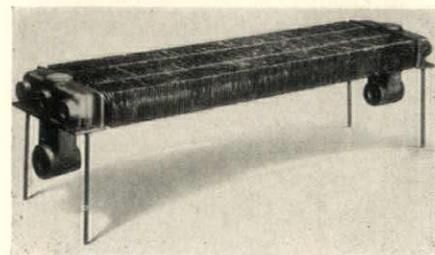


low water line, clean operation, provides domestic hot water quickly and economically, mechanical atomization, electric ignition, high-voltage controls, safety controls of Electrol design, quick steaming. Electrol, Inc., New York City.

**FITZGIBBONS** "Oil-Eighty Automatic" Boiler. Fitzgibbons copper-steel tubular construction combined with an enamelled steel insulated casing, both adapted for rotary or gun type oil burning. Larger combustion volume; many small tubes to extract high proportion of heat units; low draft resistance. Fitzgibbons Boiler Company, Inc., New York City.

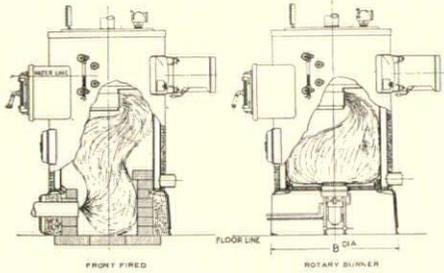
**MCDONNELL** 37 Safety Feeder for boilers under 2500 ft. Automatically controls the boiler water level, completing the convenience of automatic firing and protecting the boiler against cracking or burning. Proof against sticking with lime or scale. Low-water cutoff switch or cutoff and pressure control can be combined with it. McDonnell & Miller, Chicago.

**CONVECTOFIN**, a heating element with headers of one-piece cast construction connected by finned tubes. Enclosed in a steel cabinet. Cabinet has



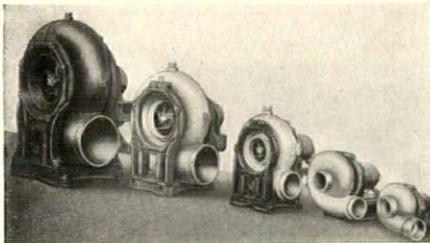
an inlet and outlet air grille. Piping connection can be made entirely within the space of the cabinet. Many combinations and designs of cabinets and heating elements are available. Commodore Heaters Corporation, New York City.

**KEWANEE Round Type R Heating Boiler**, built of steel welded in one piece, with base complete. Two-pass



tube arrangement, for oil or gas (also a similar type for coal). Fitted with domestic hot-water heater. Two sizes: 860 and 1090 ft. of water radiation, or for domestic supply only. Kewanee Boiler Company, Kewanee, Ill.

**DURIRON Acid-proof Exhaust Fans**, for ventilation of laboratory hoods and wherever corrosive fumes are encountered. All parts contacting fumes



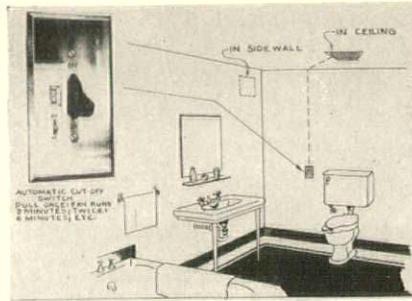
are acid-proof. One-piece housing—no joints to leak. Impeller removable without disturbing pipe connections; dynamically balanced, mounted directly on motor shaft. Direction of discharge variable. The Duriron Company, Inc., Dayton, Ohio.

**THE "Ventor,"** made in four distinct types, is a new fan development for supplying forced draft to plastered range canopies or recesses. For venting through 3-inch or larger conductors to flues or directly outside. Capacities: 100 to 600 c.f.m. Provides efficient "over the range" ventilation at very low cost. Universal Blower Company, Birmingham, Mich.

**THE Range Canopy Ventor**—a range canopy with an electric ventilator—is ideal for providing kitchen ventilation

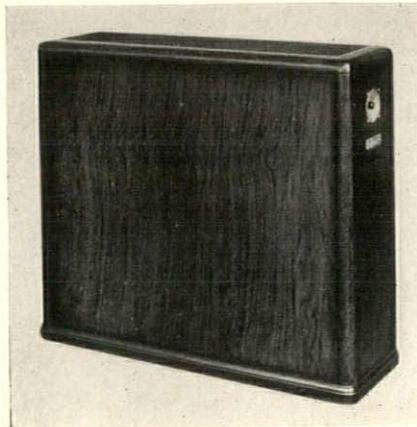
in existing residences. May be vented into furnace or incinerator flues, or directly outside. Protects the walls and removes heat and cooking odors at their source. Enamelled finish, in various sizes. Universal Blower Company, Birmingham, Mich.

**THE Bath-O-Ventor**, primarily a bathroom ventilator, has a variety of uses—for inside rooms; first-floor lavatories; shower-rooms, etc. Designed for



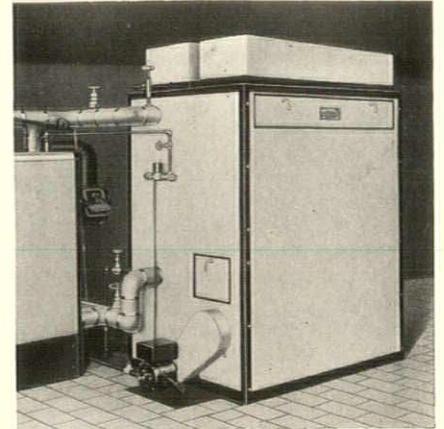
venting through pipes or ducts. Free capacity of 600 c.f.m. Controlled by automatic cutoff interval switch. Outside automatic damper optional. Universal Blower Company, Birmingham, Mich.

**SIROCCO Conditioner, Series "O."** For cooling and heating restaurants, shops, hospitals, offices, etc., connected



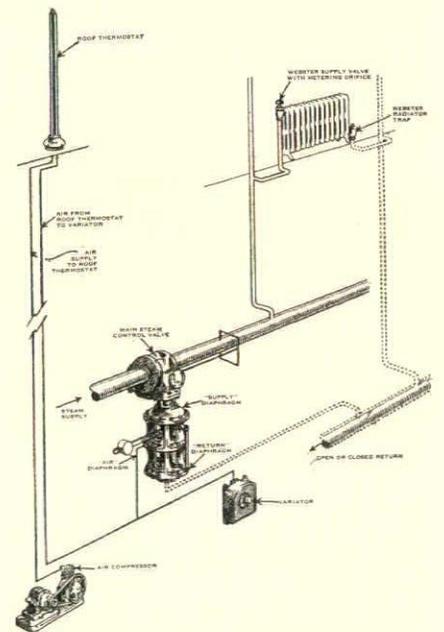
to hot-water boiler for heat in winter—uses ice-cooled or refrigerated water for summer cooling. Equipped with a three-speed switch, high, medium, and low speed—heat automatically controlled by means of a thermostat. American Blower Corporation, Detroit, Mich.

**SIROCCO Conditioner, Series "R."** For controlling the temperature, humidity, motion, and cleanliness of air within the home. Connected to hot-water boiler for heat in winter—uses tap, ice-cooled, or refrigerated water for



summer cooling. Equipped with a Si-rocco electrical control for regulation of temperature and humidity. American Blower Corporation, Detroit, Mich.

**WEBSTER Moderator Control**—a central control for improved Webster systems of steam heating. An outdoor or roof thermostat automatically



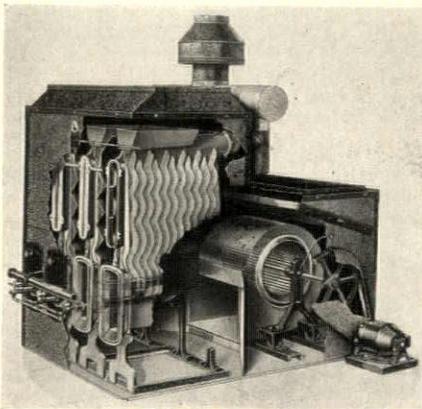
varies steam supply to each radiator in accordance with outside temperature. A Variator provides supplementary manual control for heating-up, etc. Results include substantial reduction in steam or fuel consumption and increased comfort because excesses of overheating and underheating are prevented. Warren Webster & Company, Camden, N. J.

**CONTROL-AIRE Humidifier**—a compact (12" x 17") portable unit which needs only to be filled with water and connected to any electric outlet. Evaporates 1 gal. of water in 2½ hours. Contains heating element to heat water

while vaporizing it. Automatic cut-off when water is exhausted. Hexcel Radiator Company, Milwaukee, Wis.

**H**ESS Air Conditioner is a combined blower, air filter, humidifier, and air washer in one cabinet with enamel finish, for use in conjunction with furnace, hot water, or steam in residences, etc., up to 40,000 cu. ft. Provides a positive circulation of clean, humidified air for year-round comfort. Water consumption consistent with humidity requirements, without waste. Filter removes about 95 per cent of the dust and dirt in the air. Hess Warming and Ventilating Company, Chicago.

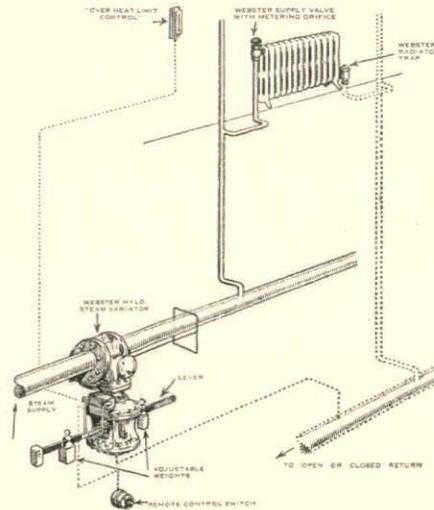
**B**RYANT Air Conditioning Unit—gas-fired. Large-capacity, low-speed blower provides air circulation. Removable filters are placed in blower box for cleaning air. Cast-iron sections, de-



signed to provide large area of heat-absorbing surface. Bryant's gas-actuated controls, automatic humidifier, and quiet, spring-mounted motor are standard equipment. The Bryant Mfg. Company, Cleveland, Ohio.

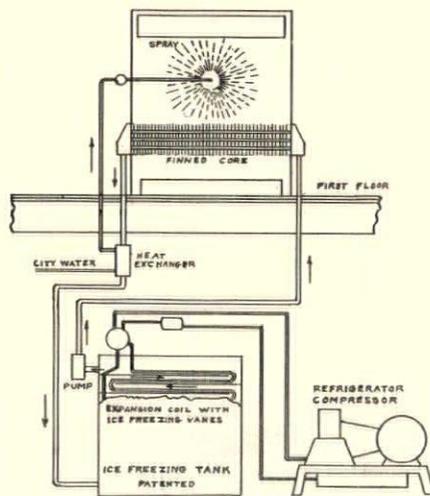
**P**ROGRAM Furnace Control, built to meet the new conditions imposed on the warm-air heating industry by the close control needed on installations employing air conditioning, and involves the use of fans for moving the air, filters for cleaning and, in some cases, air washing and humidification equipment. Can be set to provide a sequence of fan operation in accordance with demands of room and heating plant temperature. Minneapolis Honeywell Regulator Company, Minneapolis, Minn.

**W**EBSTER Hylo Steam Variator Control—a central control for improved Webster systems of steam heating. Includes a manually adjusted valve permitting continuous steam delivery to radiators from about 30 per cent to maximum. During mild weather when less than 30 per cent delivery is re-



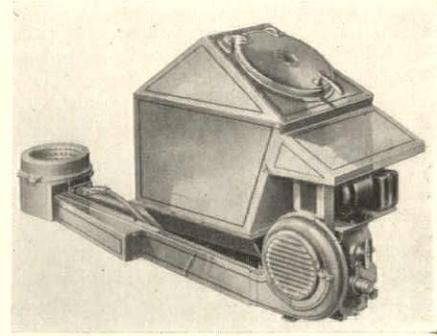
quired (or should adjusting weights be incorrectly set) an automatic Overheat Limit Control prevents overheating. Permits regulation of steam to demand with resultant economies and comfort. Warren Webster & Company, Camden, N. J.

**T**HE Zephyr 75 Air Conditioning System. Provides room heating, replacing one radiator; correct humidity in space up to 40,000 cu. ft.; pure



washed air the year 'round; constant forced circulation of air; room cooling and dehumidifying in summer with one-ton refrigerating machine (capacity for cooling, 4000 to 6000 cu. ft.). Air-Control Systems, Inc., Chicago.

**I**RON Fireman Automatic Coal Burner for residences. Bituminous model for hot-water and steam boilers and warm-air furnaces. Two-feed gear case. Maximum coal feed per hour, 26 to 30 lbs. Capacity of direct steam radiation, 450 to 675 sq. ft.; direct hot-water



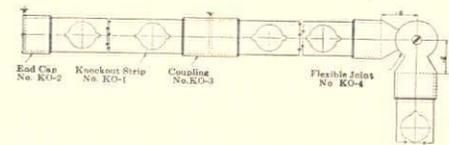
radiation, 720 to 1080 sq. ft.; leader pipe, 800 to 1200 sq. in.; boiler horsepower, 4½ to 7. Governed by automatic controls. Burns small-size, low-cost coal. Iron Fireman Mfg. Company, Portland, Ore.

**S**PENCER Rotary Ash Receiver consists of six standard ash cans on revolving sturdy steel frame, sunk in water-tight steel tank, level with the basement floor, out of sight and out of the way. Eliminates dust from shoveling ashes into exposed cans. Installed with any kind of heating plant using solid fuels. Spencer Heater Company, Williamsport, Pa.



### 31. Electrical Work

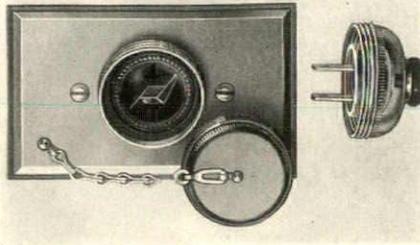
**P**ERMAFLECTOR Knock-out Strip, 1 3/4" square in section, to provide a time and money saving method of installing the wiring of a show window. Avoids the "tailor-made" disadvantages



by enabling quick fabrication on the job by the electrician. Applicable to case lighting, cove lighting, and similar problems requiring close centering of lamps and reflectors. Pittsburgh Reflector Company, Pittsburgh, Pa.

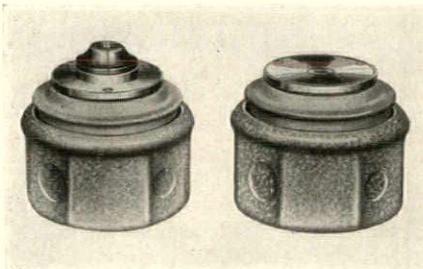
**F**AN Hanger Outlet, simple and easy to install. It fits standard 4-inch square boxes and has the strength of a four-point suspension capable of sustaining a weight many times greater than that of a fan. The Bakelite receptacle with heavy metal plate presents a most attractive appearance. The Arrow-Hart & Hegeman Electric Company, Hartford, Conn.

**OUTDOOR Flush Receptacle.** Provides a permanent place for outdoor lighting connections or appliances. Saves the nuisance of temporary wiring



from the inside. Desirable for holiday lighting of trees, lawn parties, veranda lights, garage, or outdoor appliances. Designed to withstand the weather, and when not in use a metal cap screws over the receptacle opening. The Arrow-Hart & Hegeman Electric Company, Hartford, Conn.

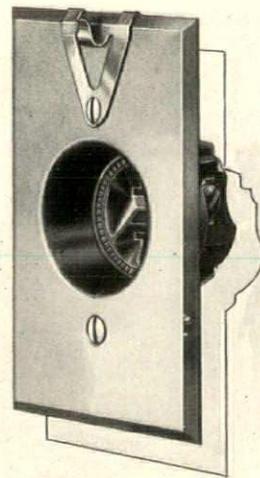
**FA** new improved floor box consists of a galvanized drawn steel box, a cadmium-plated adjusting ring, and a three-inch diameter brass-finish plate and receptacle if required. The adjusting ring



is held in position by a round rubber gasket which holds the ring in any desired position during installation. This assures a perfectly level setting of the finish plate with the finished floor. Frank Adam Electric Company, St. Louis, Mo.

**TYPE "C" Switches** for gas-filled lamps, specially built to handle the smashing initial current surge of cold Type "C" gas-filled lamps. The special current-carrying parts are much heavier than for ordinary switches to successfully carry this abnormal load, frequently seventeen times greater than for ordinary lamps. Switch base and insulation is Bakelite. The Arrow-Hart & Hegeman Electric Company, Hartford, Conn.

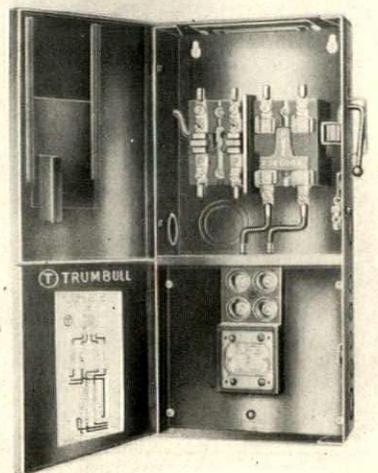
**CLOCK Hanger Outlet.** This device gets rid of unsightly cords running from clocks to receptacles. It gives both mechanical support and electrical connection. The receptacle part is recessed, so that the plug cap is sunk flush



with the wall. This allows the clock to hang flat over the outlet with all wiring and receptacle wholly concealed. The Arrow-Hart & Hegeman Electric Company, Hartford, Conn.

**DOUBLE Break Switch,** of unit construction, is intended for use on feeder switchboards and panel-boards, or as an individual externally operated switch. It is of the knife-blade contact type, double break, quick make and quick break, assuring minimum arcing. The fused door is interlocked with a switch handle, making it full safety type. It has new patented fuse terminals, assuring minimum contact heating. Frank Adams Electric Company, St. Louis, Mo.

**THIS** new Sequence Meter Service and Range Switch was developed in conformity with the latest requirements of the National Electric Code. It presents the new sequence "S.M.F." symbolizing the scheme of wiring, switch, meter, fuses. Consists of a cab-

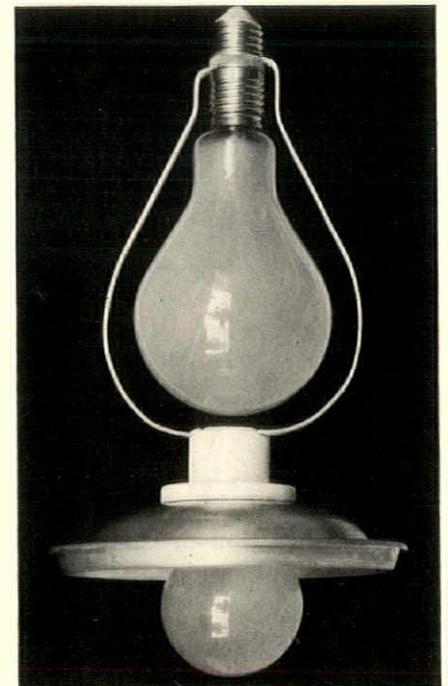


inet having an upper and lower compartment, each with a separate cover. Upper compartment contains the fusible main switch, and the lower compartment the fusible range circuit and 2, 4, or 6 branch lighting circuits. The Trumbull Electric Mfg. Company, Plainville, Conn.

**SAUTER Time Switch** of new type used with the Minneapolis-Honeywell Control for oil-burner operation in private homes where the oil burner operates on pressure during the day and by thermostat in the evening. Cuts in thermostat in the evening and off in the morning. R. W. Cramer & Company, Inc., New York City.

**TRUMBULL "Range Panels,"** manufactured for flush mounting, finished in gray, as would be the most acceptable for installation in the kitchen of a home or apartment. It is also made for surface mounting, finished in black for installation in the basement; both types are manufactured with a fusible range circuit and 2, 4, or 6 branch lighting circuits. Blown fuses cannot be replaced without first disconnecting the circuit. The Trumbull Electric Mfg. Company, Plainville, Conn.

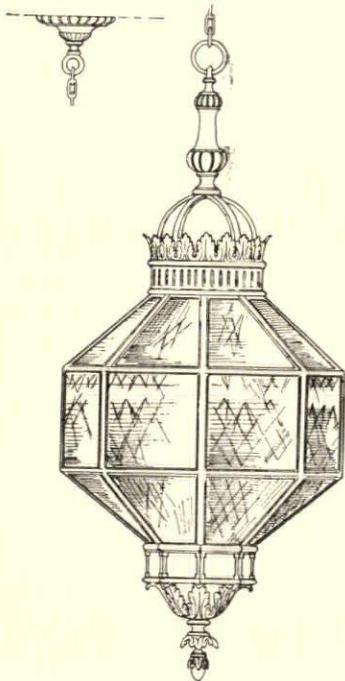
**THE** Violite Dual-purpose Luminaires make it possible to obtain a combination of general interior illumination plus ultra-violet irradiation. Adapter consists of a socket for a 200-watt ballast lamp and an aluminum reflector and socket for a type G-1 Ultra-violet Glow-lamp. Latter is in series with



ballast lamp which acts as a ballast resistance. Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa.

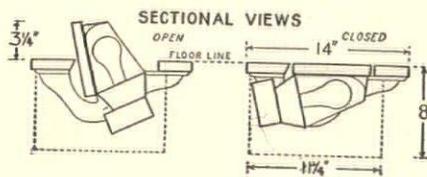
**AB** "De-ion" Circuit Breaker has several advantages over fuses and carbon circuit breakers. Nothing to be replaced or renewed. Reclosed as easily as a switch. Opens a short circuit without flash or undue noise. Interchangeable tripping units for capacities from 55 to 225 amperes. Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa.

**H**OLOPHANE semi-direct lighting unit, for monumental interiors, for large lamps with the characteristic



Holophane distribution and unusually wide spread on ceiling. Consists of internal reflector surrounded by twenty-five lenses assembled in an octagonal polyhedron with metal framework suitable for treatment in any architectural period. Holophane Company, Inc., New York City.

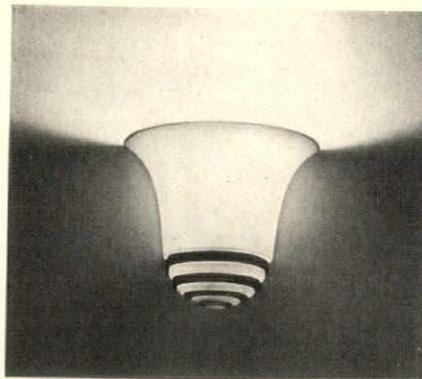
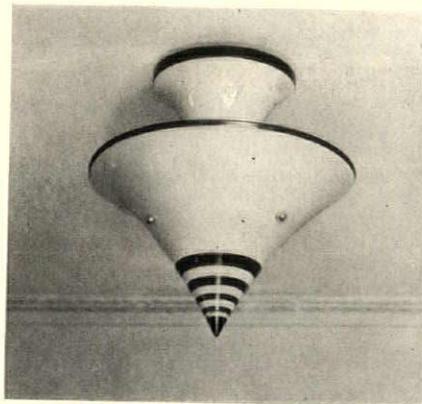
**K**LIEGL Disappearing Footlights may be closed down flush with the stage floor, leaving an unobstructed platform. Furnished completely assembled, and wired, in standard 5-foot



lengths; lamp receptacles and other electrical parts are a self-contained unit completely encased, well ventilated in an all-metal fireproof housing, having pivoted supports on the ends, and a suitable hardwood floor panel attached. Kliegl Brothers, New York City.

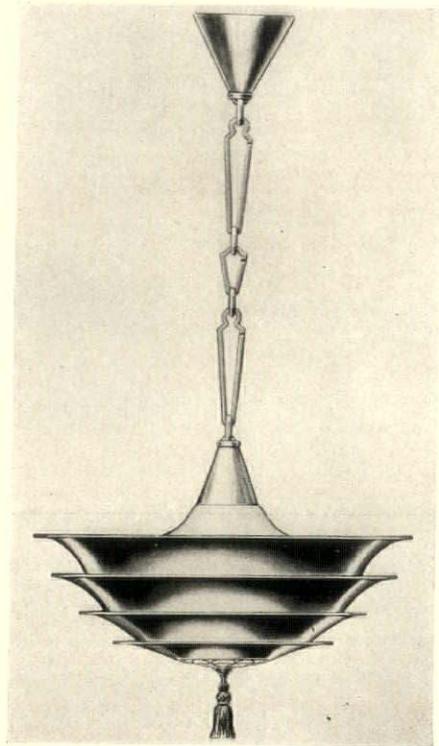
**K**LIEGL Program Lights provide local illumination by pressing a button, enabling theatre patrons to read their programmes when the house is dark. Each is a self-contained unit: aluminum face-plate, push-button, light-guarded miniature lamp socket, and battery holder (or a low-voltage terminal block) fitting into a recess in back of the chair. Kliegl Brothers, New York City.

**L**IGHTING Fixtures of Porcelain. Illustrations show ceiling light and wall bracket, of white porcelain. The porcelain is translucent, passing about 15 per cent of the light and reflecting a



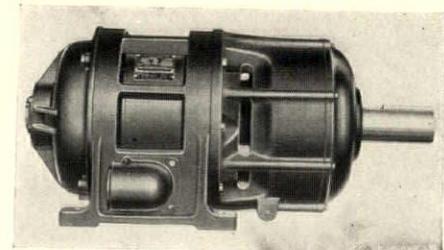
high percentage. Fixtures have the finish and quality of fine table porcelain, and are not expensive. Designed by Walter von Nessen. Nessen Studio, New York City.

**L**OUVERLUX," an indirect lighting fixture, embodies a globe for reflecting and diffusing the light and a series of louvers to direct the remaining



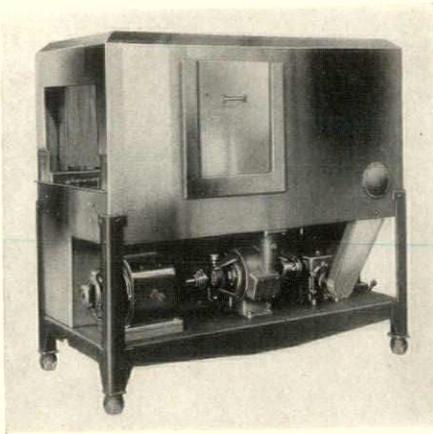
light toward the ceiling. Furnished either with chain or tubing. Dust-proof and bug-proof globe. Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa.

**A**LINE of General Electric gear-motors, readily adaptable for application to machinery of widely various designs. Underlying principle consists of a normal speed motor in combination with a built-in, internal-helical plane-



tary-gear speed-reducer. Since this permits a wide choice of speeds on the output shaft, it is possible to adapt a gear-motor to almost every type of low-speed drive. Compact construction, high efficiency, full horsepower rating of the motor at the output shaft, economy of installation and operation because of the self-contained unit; available in either flanged or vertical mountings. General Electric Company, Schenectady, N. Y.

**C**OLT Autosan Dishwashing Machines are announced in four new models. Distinctive features are: 1.



The new type Colt Autosan pump, fitted with special front plates to make possible inside inspection and cleaning. 2. A new type of spray arm, radically different in inside design from the standard type of spray arm and operating on an "intercepting" principle. 3. Every possible bend has been eliminated from manifold and feed lines, cutting down resistance and increasing power. Colt Patent Fire Arms Mfg. Company, Hartford, Conn.

**STANLEY** Automatic or Controlled Operation of Doors, through use of photo-electric cell. Speeds restaurant service, movement of goods in shipping-

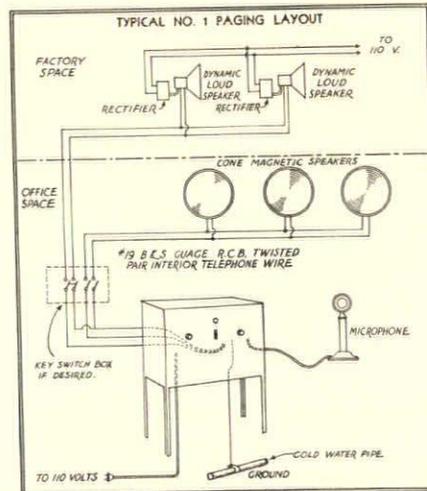


room, takes human element out of fire-door closing, acts as mechanical porter, assists in temperature and humidity control. For swinging, sliding, or folding doors. The Stanley Works, New Britain, Conn.

**TELECHIME**, an electrical-musical device to replace the unseemly din of door bell or buzzer, providing instead a mellow chime signal—a different one each time. In addition, by a remote-control keyboard, a diversity of calls can be played. Separate push buttons about the house give distinctive calls. General Kontrolar Company, Inc., Dayton, Ohio.

**A** NEW, visual, executive code-calling system for offices, stores, hospitals, etc., consists of a small, compact case, usually located near the telephone operator, with provision for flashing silent, visual code signals on ten-point lamp annunciators placed at suitable locations throughout the building. The capacity of the system ranges from ten to two hundred separate calls and as many as two hundred calls can be flashed within eight seconds. Signal flashes until the executive answers at the nearest telephone. The use of coded feature reduces the number of lamps on the annunciators. Auth Electrical Specialty Company, Inc., New York City.

**STROMBERG-CARLSON** direct paging system, consisting of close-speaking microphone, amplifying equipment, and loudspeakers for factories,



stores, hotels, schools, airports, etc. With the microphone at the telephone switchboard or door, the operator or the watchman can reach any one in the building with any message. May be used where buzzers, bells, and telephones would be a fire hazard, as there are no contact sparks at loudspeaker positions. Stromberg-Carlson Telephone Mfg. Company, Rochester, N. Y.

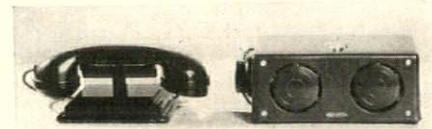
**T**HE new Dictograph Interior Telephones show extensive design changes. Cabinets follow the modern trend in design, and have been reduced to almost half the former size. Light-



weight handsets are now optional equipment on all types of instruments. The loud-speaker and microphone of the master set are built into an attractive turret. The mechanical improvements provide finer transmission and simpler installation and service of equipment. Dictograph Products Company, Inc., New York City.

**A** NEW and modern return call signal system for hotels, Y. M. C. A.'s, clubs, dormitories, etc. It not only enables the office to call rooms and vice versa, but also indicates to the sender at either end that the call is going through and when it is answered. By a single motion the office or room can send a call which will continue without further attention until acknowledged. It will indicate all calls which remain unanswered. Calls can be canceled prior to acknowledgment. Has visible indications which indicate intermittently. The room station on a single gang plate, has an audible indication which indicates intermittently. Auth Electrical Specialty Company, Inc., New York City.

**T**HE new Junior Dictograph consists of a loud-speaking instrument and several desk sets. It takes care of interior communication requirements of the home, professional and smaller busi-



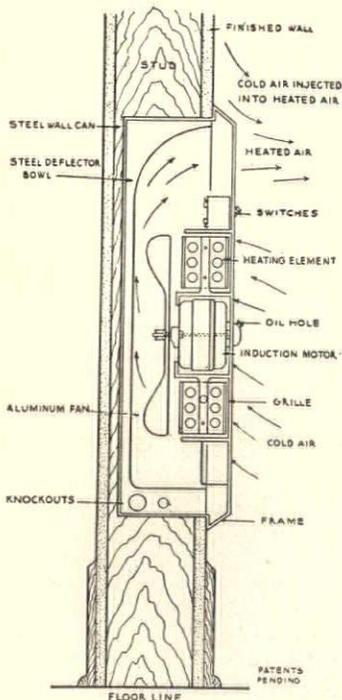
ness offices. The appearance and compact design of the instruments harmonize with the finest environment. They require less space on the desk top than that taken up by a letterhead and cost less than a portable typewriter. Dictograph Products Company, Inc., New York City.

**T**ELEKTOR offers to modest homes the convenience of complete remote



control for a radio receiver, record-changing phonograph, and remote loudspeakers. Push-button control boxes, portable or flush in the wall. System can start with a Telektor-type radio receiver alone, and expand at will. Wiring in walls, where used, is of intercommunicating telephone cable, to baseboard outlets on standard switch boxes. Stromberg-Carlson Telephone Mfg. Company, Rochester, N. Y.

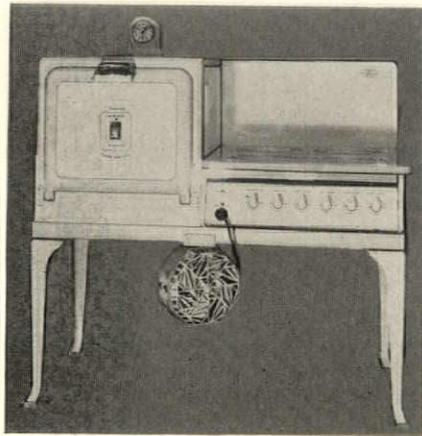
**H**OFFMAN Thermador: an electric heating unit, available as wall insert (illustrated) or portable. Fan-



circulated warmth. For heaters of 2000 watts capacity or larger, thermostatic control. Fan used for cooling in summer

time. Easy accessibility, easy installation. Various finishes. Hoffman Specialty Company of California, Ltd., Pasadena, Calif.

**H**OFFMAN Kitchen Electric Heater. Fan type, used as cool fan in summer or hot fan in winter, with swivel



joint for directing air. Plugs into range receptacle. Rating, 1650 watts, 115 volts, A. C. Clamped on by two heavy thumb screws. Hoffman Specialty Company of California, Ltd., Pasadena, Calif.

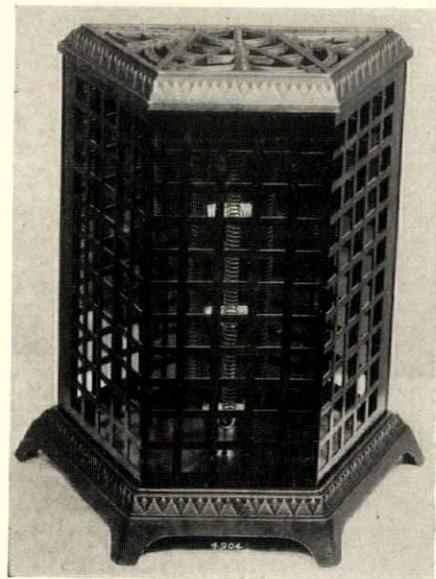
**R**ADIANT Electric Screens, a new form of low-temperature panel heating. Based upon the knowledge that 40 to 50 per cent of body heat is radiated toward cold walls. Such



screens, placed around or near desks or chairs maintain a comfort range in mild weather without other heat. Reinforce regular heat in extremely cold weather. Illustration shows one of 750 watts—larger than ordinarily needed. Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa.

**W**ESTINGHOUSE Electrical Water Heater in two types, automatic single-heater tank, and adapt-o-matic two-heater tank, finished to harmonize with other household equipment. Adjustable thermostat gives range of 130° to 180°. In 10, 30, 50, and 80 gallon capacities. Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa.

**H**OFFMAN Convection Radiant Portable Heater—1650 watts, 110 volts, A. C. or D. C. Has three chromium reflectors and flue with 9 sq. ft.



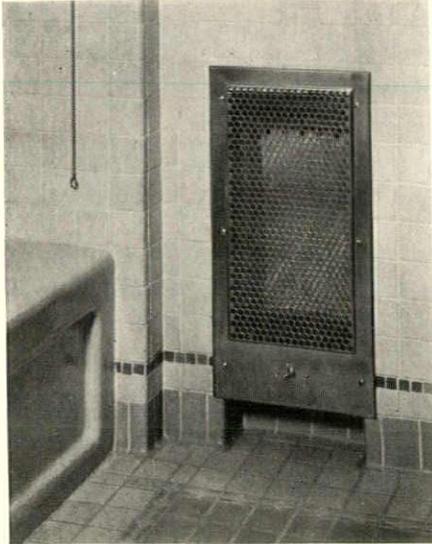
of convection surface, 240-degree spread of heat, and 150-feet-per-minute velocity at top—a radiant heater which will comfortably heat four people. Hoffman Specialty Company of California, Ltd., Pasadena, Calif.

**P**PROMETHEUS Electrically Heated Food Conveyor, of medium size with enclosed chassis. This conveyor is used extensively in hospitals and has many new and exclusive features, in-



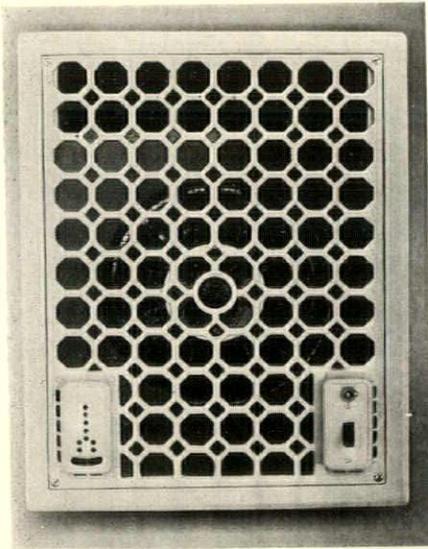
cluding a disappearing door and a heated meat draw. The Prometheus Electric Corporation, New York City.

**FA Air Heater**—a new flush wall-type heater, 1500-watt capacity, especially designed to create air circulation for quick heating. Front of heater is of neat perforated metal design; finish,



chromium plated or other finish to match surrounding woodwork. Frank Adam Electric Company, St. Louis, Mo.

**HOFFMAN Thermador Master Duty Wall-Insert Electric Heaters**—5000 watts or less, 230 volts, A.C. Fits between 14-inch studding. Fan used

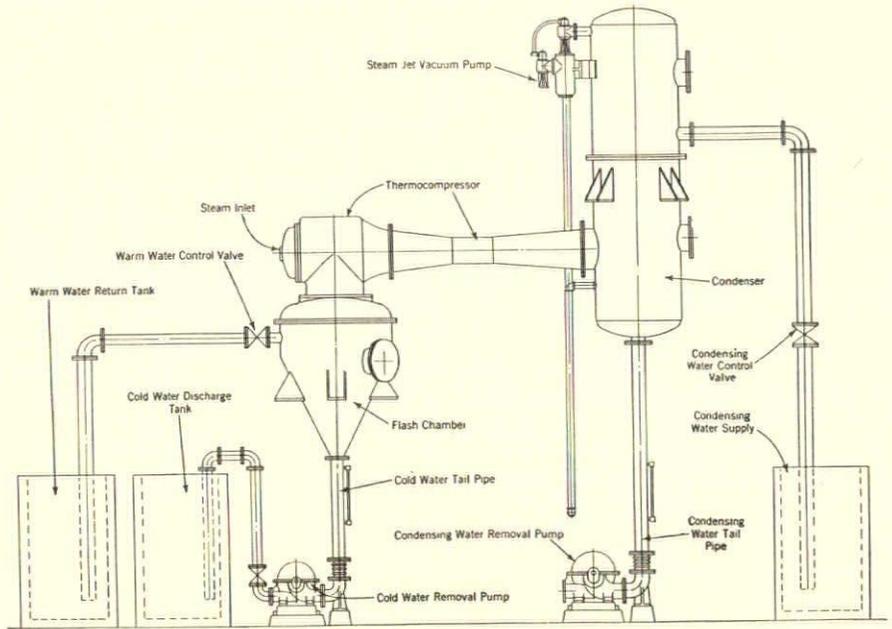


alone for summer; hot air in winter. Thermostat built on heater, no extra wiring. Surface can be decorated with ordinary paint. Hoffman Specialty Company of California, Ltd., Pasadena, Calif.



32. Refrigeration

**FOSTER WHEELER Vacuum Refrigeration System**—steam-operated “flash evaporation” for continuous supply of cold water in manufacturing



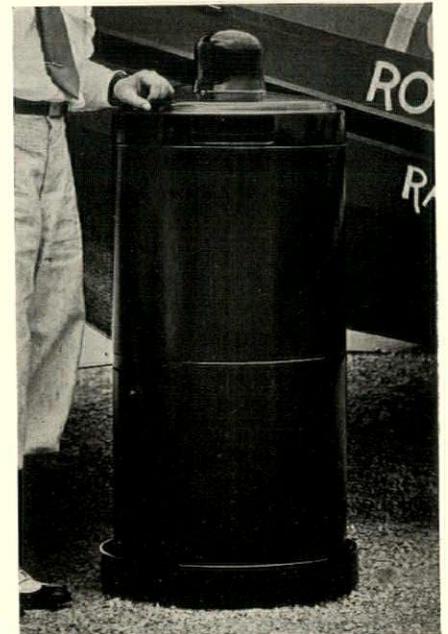
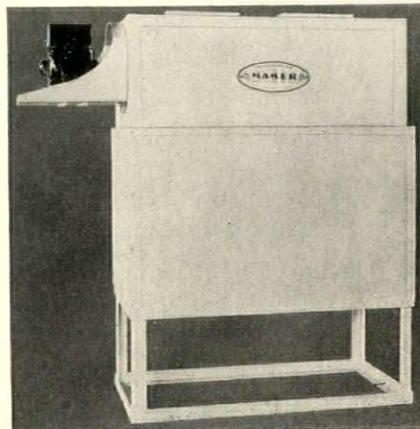
type coil, with orifices at one end to assure even distribution of both refrigerant and air, hence full efficiency. Made in several sizes. Baker Ice Machine Company, Inc., Omaha, Neb.

**MODINE Ice-fan Room Cooler.** Fully encased unit with 30-watt motor, ice storage, and blower. Furnishes ice-cooled air and removes excess humidity by condensation. Plugs into

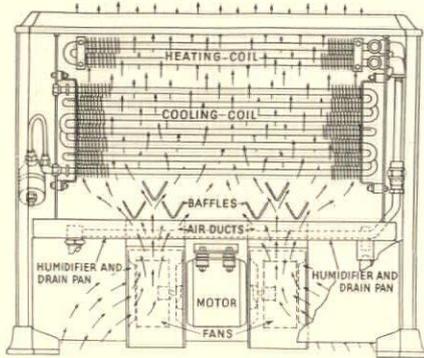
processes, air cooling, de-humidifying, etc. Water to be cooled is piped into a high vacuum chamber; change of pressure evaporates a portion taking heat from remainder. Foster Wheeler Corporation, New York City.

nearest electric outlet. One pound of ice per sq. ft. of floor space per 8-hr. day will appreciably lower temperature and humidity. Modine Mfg. Company, Racine, Wis.

**BAKER Fan Cooling Unit.** Used for rapid cooling of air and products in insulated rooms and particularly adapted for refrigerants or brine below the frost point. Employs a special header

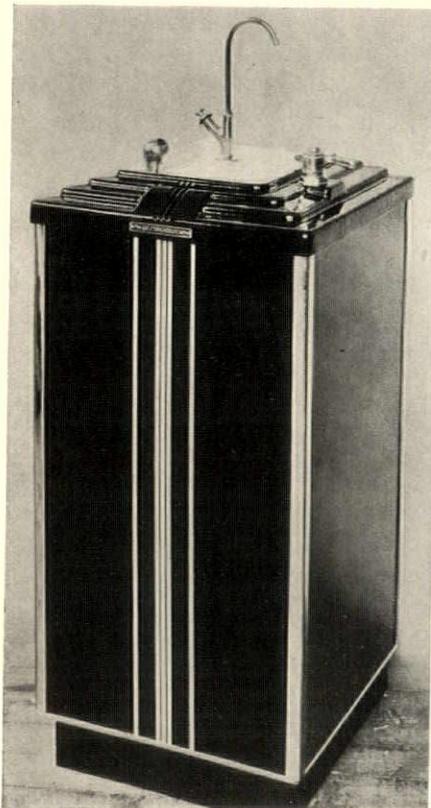


**FRIGIDAIRE** Refrigerated Air Systems. Frigidaire air conditioners are of the unit type and especially desirable for installations in homes, offices, hotels, hospitals, or retail establishments where



flexibility is necessary. Conditioners are available in three sizes: horizontal (see illustration), vertical, and suspension or cube. Condensers are in two sizes, 1½ horsepower and 3 horsepower. Frigidaire Corporation, Dayton, Ohio.

**A** NEW modern water cooler of rich, black micarta, with chromium-plated brass and inlaid strips of aluminum. Made in both the pressure and bottle type with quiet motor and compressor. Some models provide storage

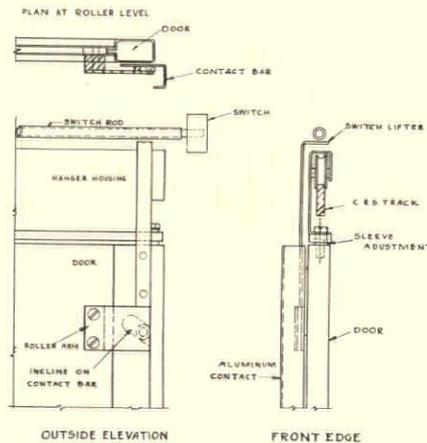


space for beverages and fruit, conveniently placed under lock and key, making it ideal for private offices, hospitals, clubs, etc. Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa.



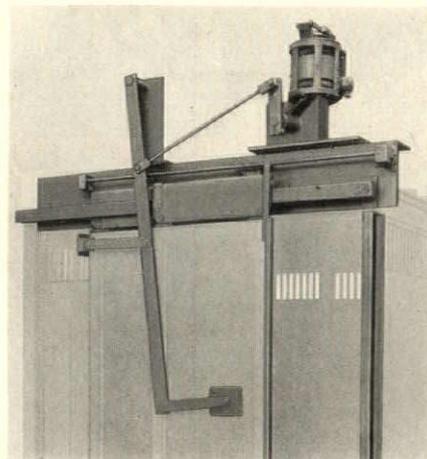
### 33. Elevators, Dumb-waiters and Accessories

**WARNER** Elevator Door Safety, a simple mechanical switch connected to a vertical contact bar of aluminum on the front edge of the door.



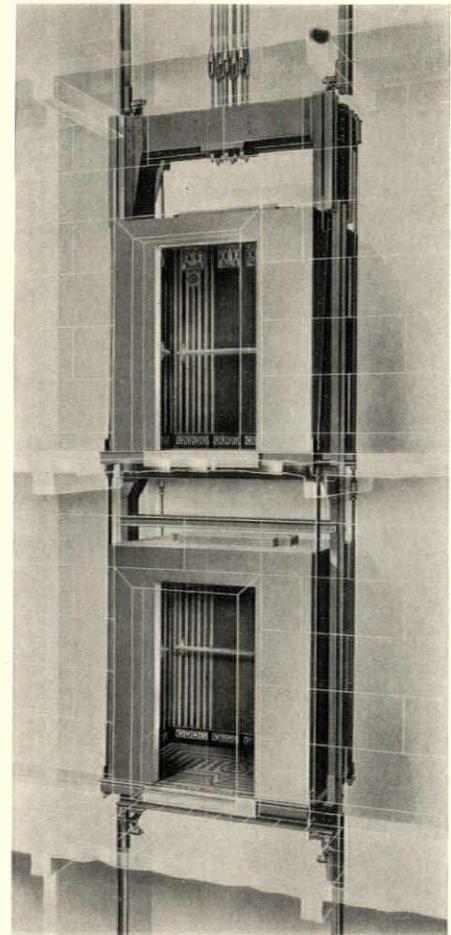
Impact of this light bar with the body causes no injury, and reverses the door so promptly that impact of the heavy car and enclosure door is avoided. The Warner Elevator Mfg. Company, Cincinnati, Ohio.

**WARNER** Electric Car Door Operator. An electric motor and shaft with vertical worm gearing mounted on



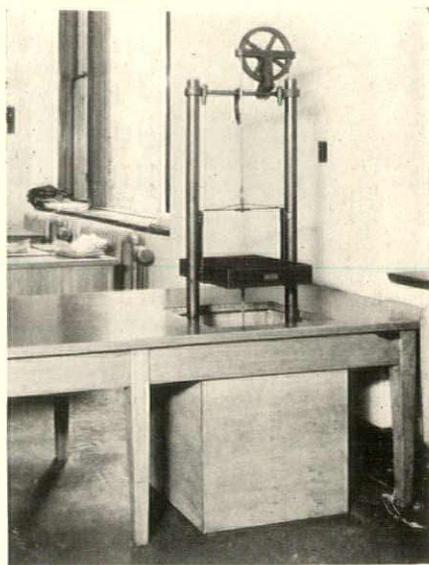
the car. Connected by a full 180 degrees of crank motion to the arms. This harmonic motion gives a simple graduated movement. Automatic switches limit the throw of this crank to 180 degrees and the speed of the motor is regulated by resistance that can be altered. The Warner Elevator Mfg. Company, Cincinnati, Ohio.

**DOUBLE-DECK** Elevators, such as those installed in the Cities Service Building, New York, call for an attendant in each compartment, but all operation, except initial starting, is taken



out of the attendants' hands but is under immediate control if required. When the upper compartment is at one of the odd-numbered floors the lower one opens upon an even-numbered floor. A double ramp at the ground level leads the passenger up or down to the car reaching the floor he seeks. Otis Elevator Company, New York City.

**SEDGWICK** Correspondence Lift, designed to meet the present-day demand for an efficient and economical "between-floor service" in the handling of mail, telegrams, vouchers, checks, etc.

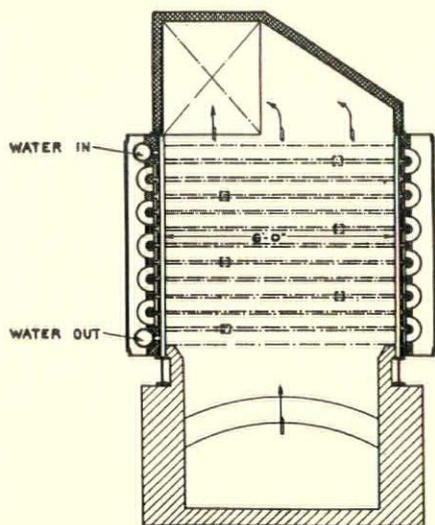


Equipment entirely of metal and carrier is available in various styles to meet individual needs. Frame need not be enclosed as here shown. Sedgwick Machine Works, New York City.



34. Power Plant

**ECONOMIZER** Type Water Heater—utilizing waste heat from boiler, incinerator, or other source of hot gases.



Heater has cast-iron rings shrunk on steel tubes, protecting against external corrosion. Protected inside by non-ferrous tubes drawn inside the steel tubes and Van Stoned over ends. Re-

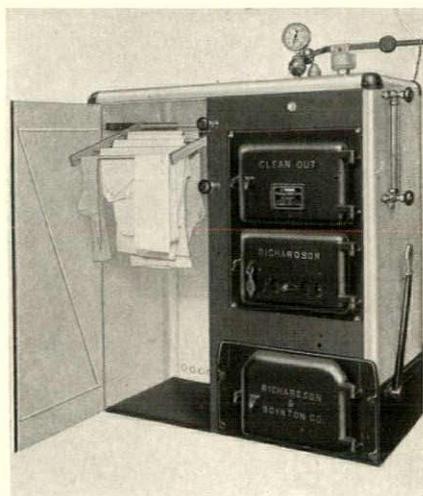
turn bends made of brass or non-ferrous alloys. Foster Wheeler Corporation, New York City.



35. Equipment

**SELOC** Glass Blackboards—plate glass with which is incorporated in the molten state a fine abrasive throughout. Can never wear smooth nor lose its velvety tooth. Available in lengths up to 8' and widths 3', 3½', 4'. Weight and first cost, same as slate. Easy to erase and wash. N. Y. Silicate Book Slate Company, New York City.

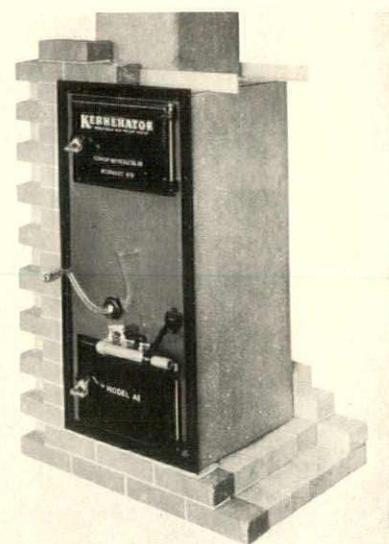
**THERMO-DRYER**, a steel, dust-proof clothes-drying cabinet built as a unit with any standard R. & B.



boilers and furnaces. Most useful for drying small articles frequently washed, and on rainy washdays. Richardson & Boynton Company, New York City.

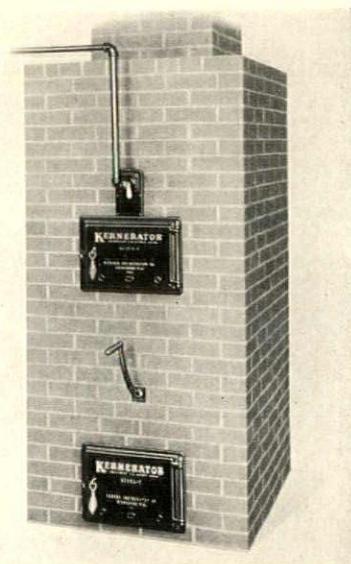
**MICROTOMIC** Van Dyke Drawing Pencil. The new Eberhard Faber chemical process has resolved the smooth flakes of crystalline graphite into particles of near-atomic minuteness. The mixture of this refined graphite with clay results in the eighteen degrees of the pencil; stronger, longer wearing, more accurately graded and smoother—even in the hardest degrees. Eberhard Faber Pencil Company, Brooklyn, N.Y.

**THE A-1** Kernerator—to meet the demand for a self-contained completely assembled flue-fed incinerator, which can be bricked in as received. It is a steel-encased, compact unit



which occupies hardly more space than the ordinary chimney breast. Frequently installed as a basement-fed unit where a hopper door cannot be installed in the flue upstairs. Kerner Incinerator Company, Milwaukee, Wis.

**MODEL T** Kernerator. As a result of the discovery of a new and revolutionary principle of incineration, Kernerator engineers have developed a flue-



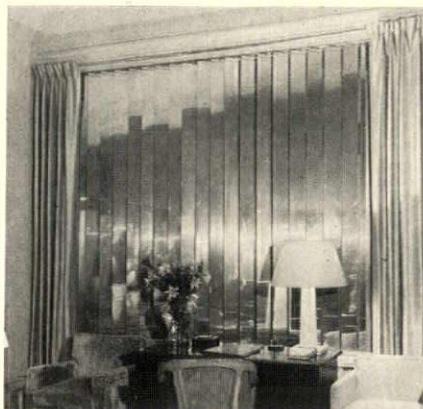
fed incinerator within the reach of the owners of small, inexpensive residences. The cost of the completed unit, including the masonry, will not exceed \$80. Kerner Incinerator Company, Milwaukee, Wis.

**THE S5** Kernerator Hopper Door. An incinerator hopper door of generous proportions, practically flush with



the wall, self-closing and silent in operation. Finished in all-polished aluminum castings or with painted trim and aluminum door (as in illustration). Kerner Incinerator Company, Milwaukee, Wis.

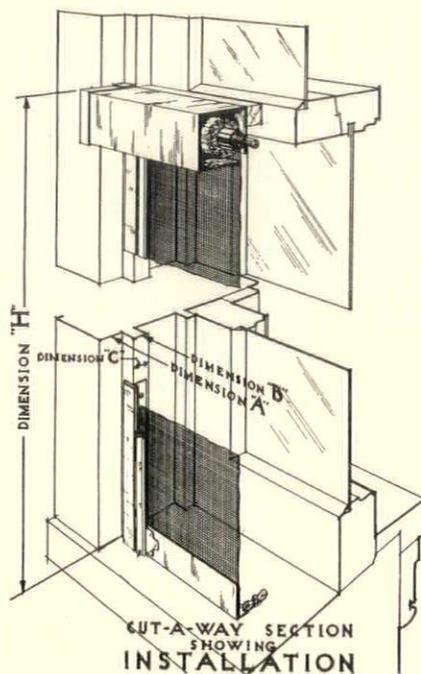
**VENTILIGHTER**, a vertical window blind, made of aluminum or other material. Vanes may be folded back against the side jambs, and, since



they are simply suspended from an overhead track, the whole action is very much like a draw curtain. Vanes respond as a unit when tilted at required angles, each half controlled independently. Simon Ventilighter Co., Inc., New York City.

**AWNBEST** Fire-resistant Awning Fabrics are woven of yarns spun almost entirely of asbestos fibres. The makers guarantee that lighted matches, cigar and cigarette butts, or sparks, will burn out on top of these awnings without starting a fire or burning a hole in the fabric. Mildew resistant and water repellent. Awnbest Corporation, Passaic, N. J.

**A** NEW half-length Rolscreen for installation on the outside of double-hung windows. Installed in a few minutes



by attaching mountings for supporting guides and housing, onto the blind stops. Rolscreen Model 50 is neat, does not detract from window appearance, does not reduce light or ventilating area, and incorporates all of the exclusive Rolscreen patented features. No screen storage; a convenience in window washing, watering flower-boxes and operating awnings. Rolscreen Company, Pella, Iowa.

**COLUMBIA** Residential Venetian Blind for a maximum area of 65 sq. ft. Slats are  $1\frac{3}{4}$ " x  $\frac{1}{8}$ ". Thirteen



standard colors. Fully operated. Patented snap-lock bracket, enabling installation or removal without the use of tools. Columbia Mills, New York City.

**AWNINGS** of Asbestos. An asbestos fabric that was perfected in 1932, especially for awnings, has introduced a new texture for that product—a pronounced twill. It presents a surface of asbestos and has an interior reinforcement of cotton, combining fire resistance and great strength. The mineral surface is practically immune from weather deterioration and it cannot be ignited by sparks, cigarettes, etc. General Asbestos and Rubber Division of Raybestos - Manhattan, Inc., North Charleston, S. C.



### 36. Construction Plant

### 37. Insulation

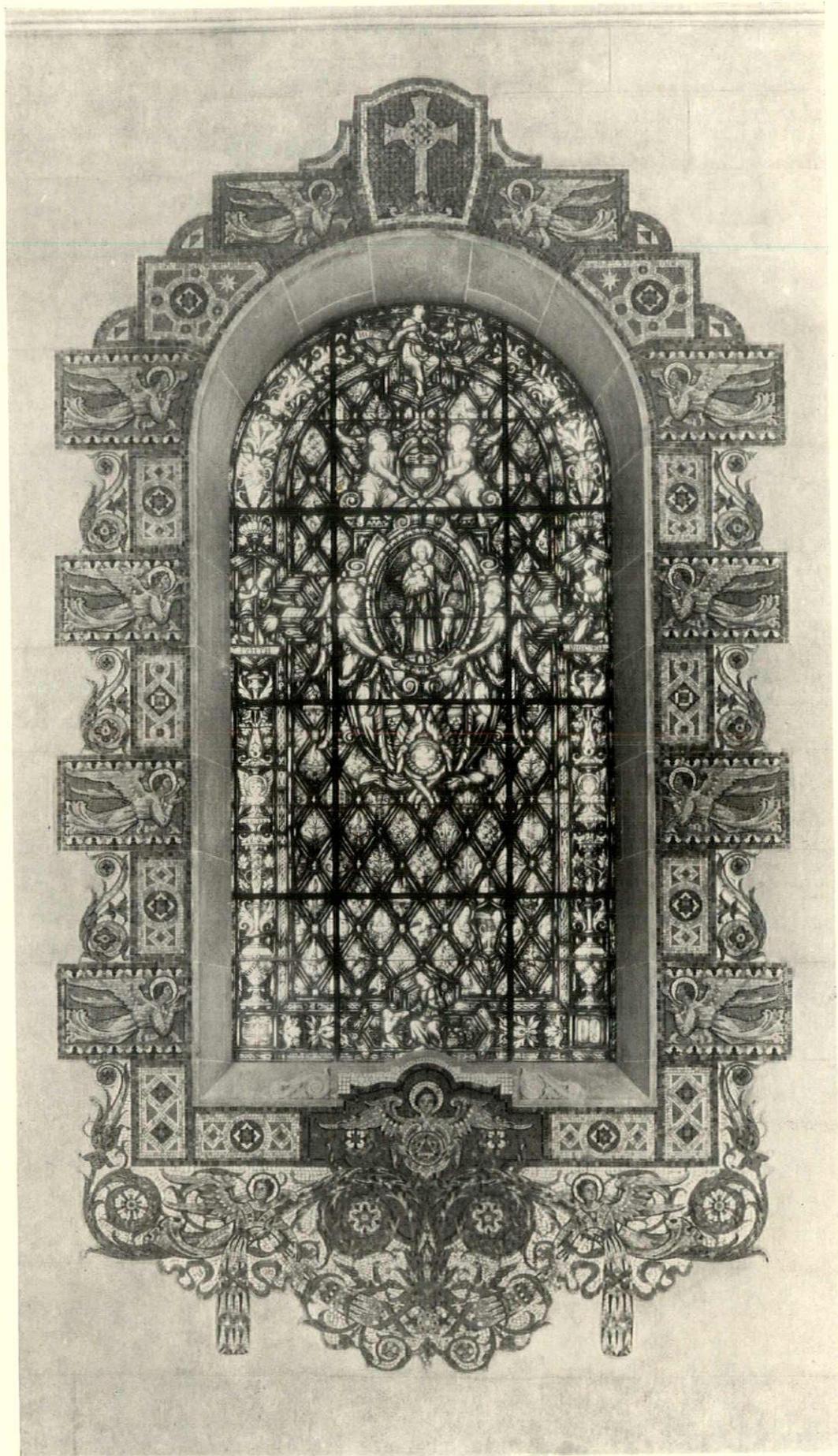
**CANEC**, an insulating board (also lath and tile),  $\frac{1}{2}$ " x 4' x 6' to 12', made from Hawaiian cane bagasse. One surface satin-like finish, the other a burlap finish. Coefficient of thermal conductivity, .33 B.t.u. Modulus of rupture, over 500. Plaster bond, over 1600 lbs. resistance per sq. ft. with  $\frac{1}{2}$ " coat. Hawaiian Cane Products, Ltd., San Francisco.

**ARMSTRONG'S** Super-Service Cork-board. Fifteen per cent greater insulating efficiency than standard cork-board is assured by elimination of air and moisture infiltration. It is double coated at factory with special mastic compound. B.t.u. rating by U. S. Bureau of Standards .269. Armstrong Cork and Insulation Company, Lancaster, Pa.



### Unclassified

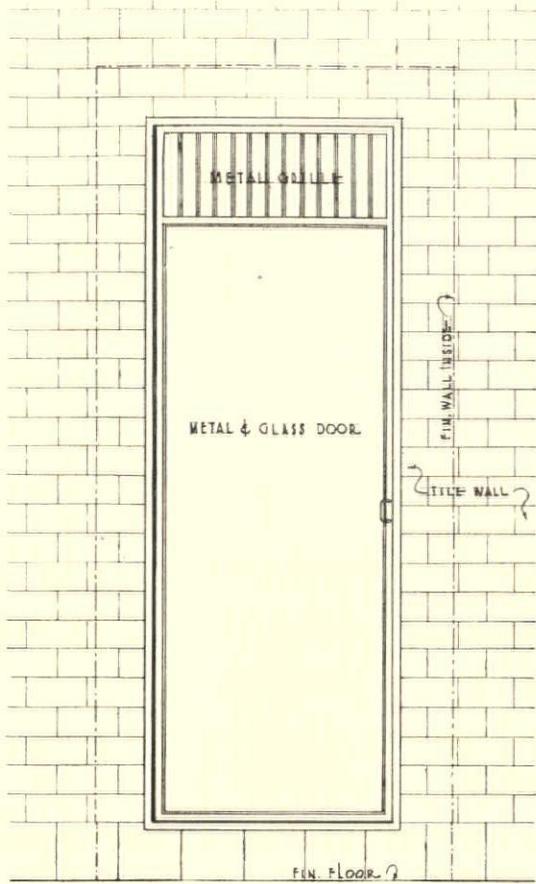
**VERMICULITE**, derivative of mica, hitherto regarded as a natural waste product, is now, through the application of certain binders, converted to scores of practical uses. Unusual thermal resistance; fire, acid, vermin, rust, and sound proof. High non-conductivity. Mastic, plastic, ceramic. Low cost. Adapted, among scores of applications, to synthetic board, roofing, flooring, tiling, paints. Chemical Corporation of America, Minneapolis, Minn.



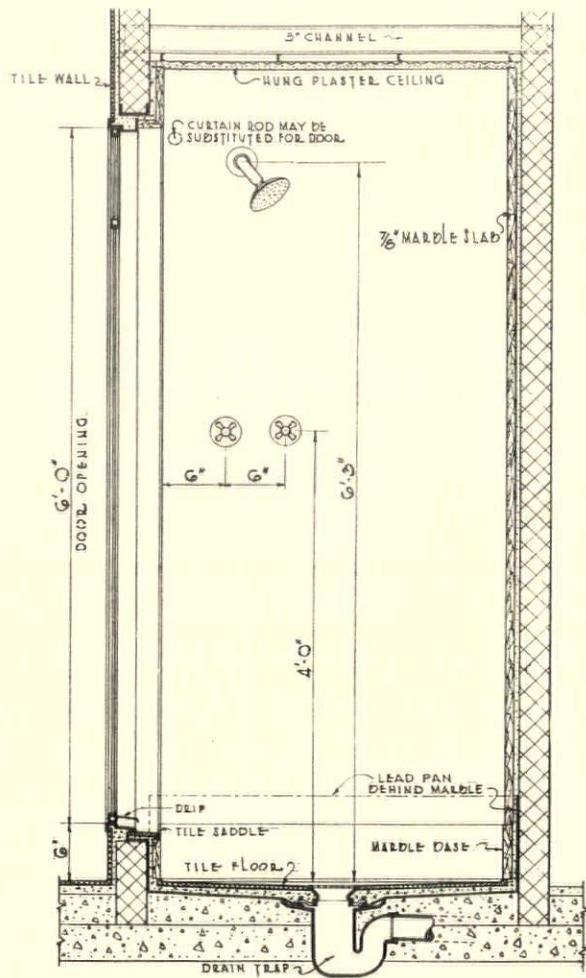
CHANCEL  
WINDOW,  
UNITARIAN  
CHURCH,  
GERMANTOWN,  
PA.

*This memorial window, built for Mr. and Mrs. Cyrus H. K. Curtis, is developed in a combination of mosaic and stained glass, uniting two ancient crafts*

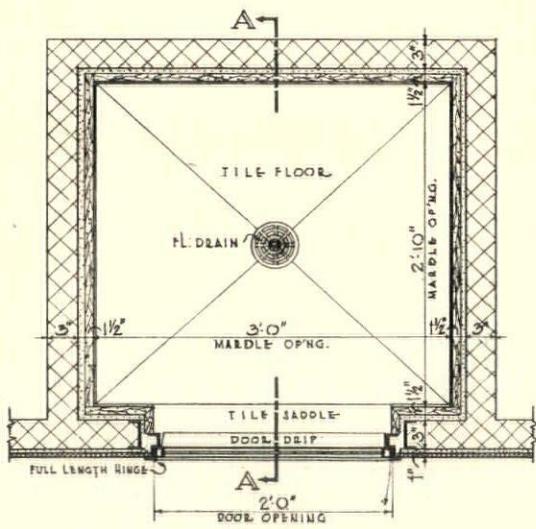
*Edmund B. Gilchrist, architect  
The D'Ascenzo Studios, craftsmen*



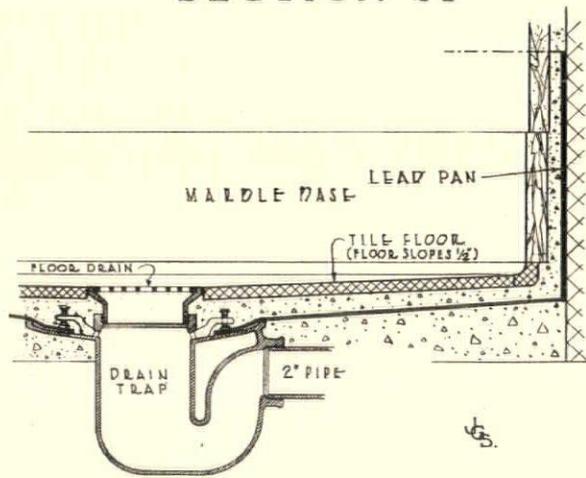
ELEVATION



SECTION A



PLAN



DETAIL

DETAIL OF SHOWER BATH

A SERIES OF WORKING DRAWINGS  
BY JACK G. STEWART

SCALE 1" = 1'-0"

PLATE NO 28

## BOOK REVIEWS

ACADEMY ARCHITECTURE AND ARCHITECTURAL REVIEW. Vol. 62, 1931. Edited by A. E. MARTIN-KAYE. 224 pages, 9½ by 7½ inches. Illustrations from photographs and drawings. Printed in Great Britain. London: 1932: B. T. Batsford, Ltd. 10s. net.

The sixty-second annual review of British architecture, a publication founded in 1889, which puts into the permanent record the more notable buildings designed by our English professional brethren. A complete file of *Academy Architecture* over the years would form a condensed and closely typical review of architectural progress in England.

THE PROMOTION OF COMMERCIAL BUILDINGS. By CHARLES H. LENCH. Introduction by BENJAMIN F. BETTS. 253 pages, 6 by 9 inches. New York: 1932: Architectural Economics Press. \$10.

Whether he realizes it or not, the architect is becoming more deeply involved year by year with the financial set-up of the buildings he designs. More and more frequently it is his knowledge of economic factors which brings to an architect his practice in commercial work. The author, being an architect, realizes what the architect should know and what, on the other hand, is irrelevant in this broad subject.

DYNAMARHYTHMIC DESIGN. A Book of Structural Pattern. By EDWARD B. EDWARDS. 122 pages, 7½ by 10½ inches. Illustrations from line drawings. New York: 1932: The Century Co. \$3.50.

The author, who, with Rutherford Boyd and others, worked very closely with Jay Hambidge in the development of his theories regarding dynamic symmetry, applies in this book the principles involved in the creation of new patterns. The work parallels very closely the investigations of Mr. Boyd, some of the results of which were published in *ARCHITECTURE* in August, 1929, and in April, 1930.

MODERN ARCHITECTS. By ALFRED H. BARR, JR., HENRY-RUSSELL HITCHCOCK, JR., PHILIP JOHNSON, and LEWIS MUMFORD. 109 pages, 7½ by 10 inches. Illustrations from photographs and drawings. New York: 1932: W. W. Norton & Company, Inc. \$3.

A volume setting forth illustrations and comment upon material presented in the recent exhibition of the so-called "International Architecture" at the Museum of Modern Art, New York City, and later in other museums throughout the country. The title is justified by the fact that the authors, while holding that the manifestations observed in the exhibition constitute an international movement, ascribe to various individual architects the contributions of

thought and impulse following along approximately parallel lines. The exhibition and this volume are based upon the assumption that the architectural convictions of the past forty years or more may shortly come to an end.

THE FROZEN FOUNTAIN. Being Essays on Architecture and the Art of Design in Space. By CLAUDE BRAGDON. 125 pages, 7½ by 10¼ inches. Illustrations from line drawings. New York: 1932: Alfred A. Knopf, Inc. \$3.75.

Mr. Bragdon's essays on matters architectural and otherwise, some of which have appeared in the professional journals and general magazines, are here brought together in a beautifully designed book. As the author says, the book deals largely with matters about which he has already written, and sometimes it even represents these matters merely in a different form of words. Nevertheless, each one of Mr. Bragdon's books is a definite and welcome contribution as an expression of his steadily developing and steadily clarifying thought on the fundamental philosophy of design.

AN AUTOBIOGRAPHY: FRANK LLOYD WRIGHT. 395 pages, 7¼ by 9¼ inches. Illustrations from photographs and a drawing. New York: 1932: Longmans, Green & Co. \$6.

If Frank Lloyd Wright had not decided to be an architect he might have become as well known as a writer, as a poet, as a musician, or in almost any other activity to which he might have devoted his tremendous energies. If there is one fault in the book it is that belonging to any autobiography written when a man looks backward—the unconscious rationalization of events long gone by with conclusions and philosophies that must necessarily have been cumulative, reaching their final form in the present. Nevertheless, this is an intimate life story of one whom most of us yearn to know better.

ARCHITECTURAL GRAPHIC STANDARDS. By CHARLES GEORGE RAMSEY and HAROLD REEVE SLEEPER. Foreword by FREDERICK L. ACKERMAN. 233 pages, 9¼ by 11½ inches. Illustrations from line drawings. New York: 1932: John Wiley & Sons, Inc. \$6.

Here is a marvellously comprehensive compendium of information for the draftsman in graphic form. It is compiled from various sources, all of them dependable, and represents approved practice in architectural detailing. The index is unusually elaborate. It is difficult to see why any architectural office should shoulder the burden of time and effort required in assembling from other scattered sources the wide information herein provided.

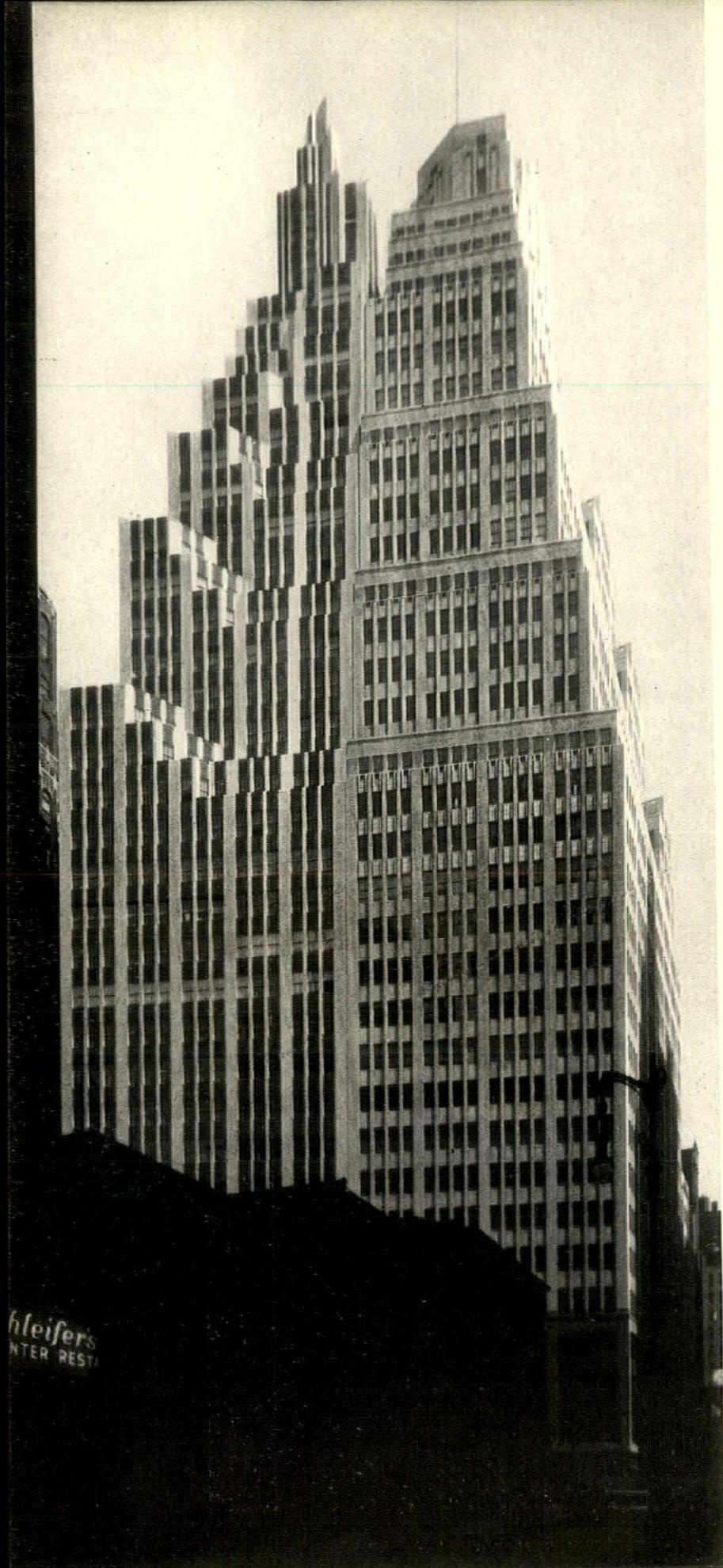


*Photographs by Sigurd Fischer*

*Two buildings on Broadway at 38th and 39th Streets as seen from Bryant Park*

A GROUP OF NEW YORK OFFICE BUILDINGS

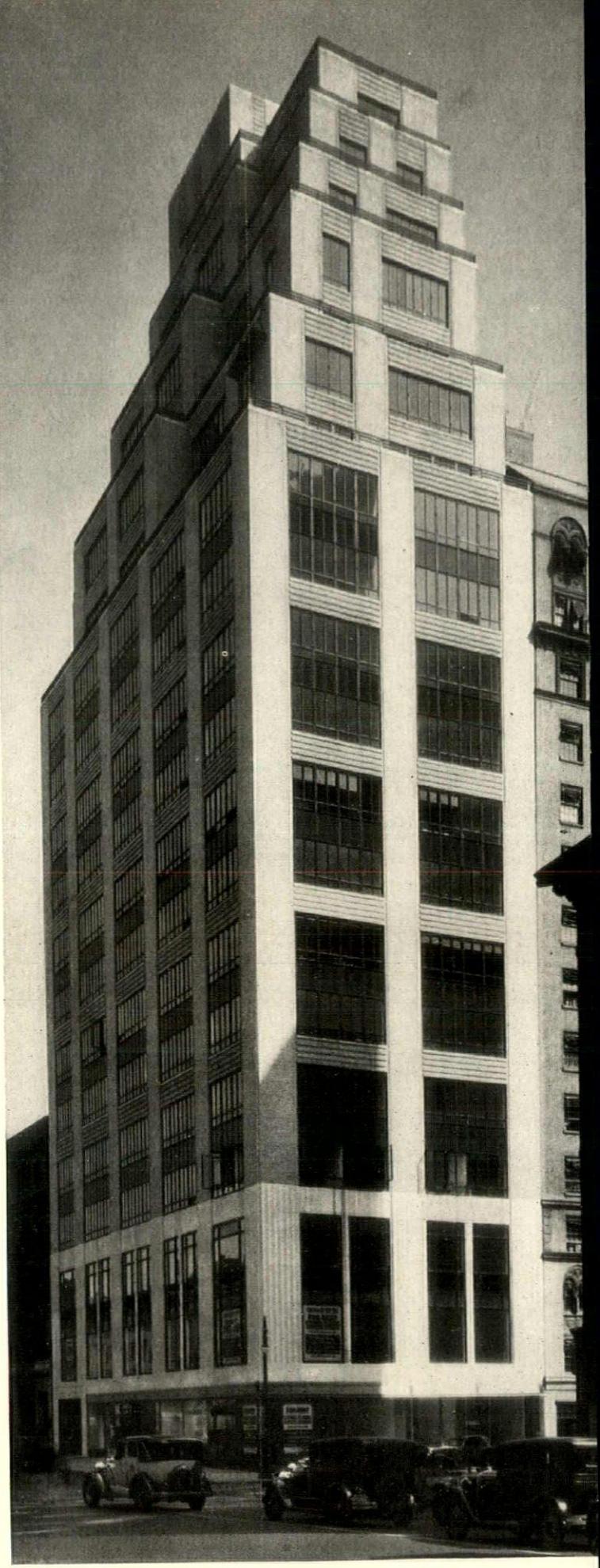
THE FIRM OF ELY JACQUES KAHN, ARCHITECTS



158

*The block on Broadway between 38th and 39th Streets, as seen looking east*

*The Firm of Ely Jacques Kahn, architects*



*Building at the southeast corner of Lexington Avenue and 57th Street*

*On the facing page, detail at the top of the building at southeast corner of Broadway and 39th Street*





*Entrance detail, Building at Broadway and 38th Street*

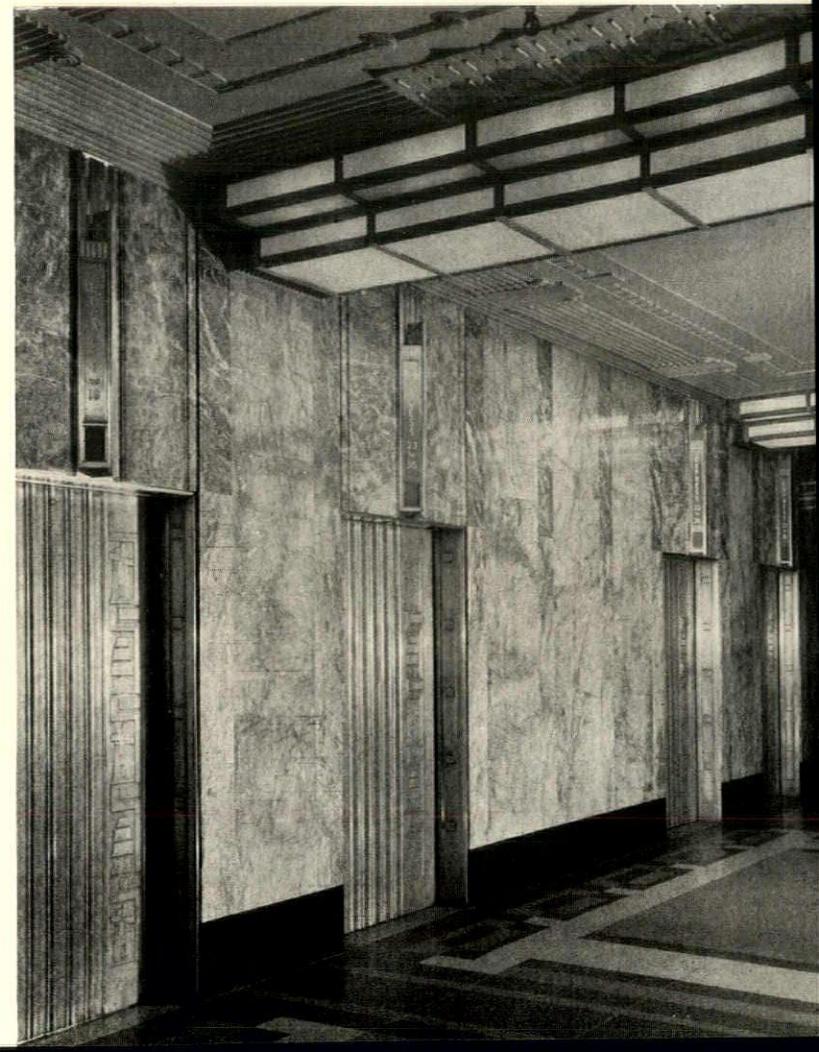
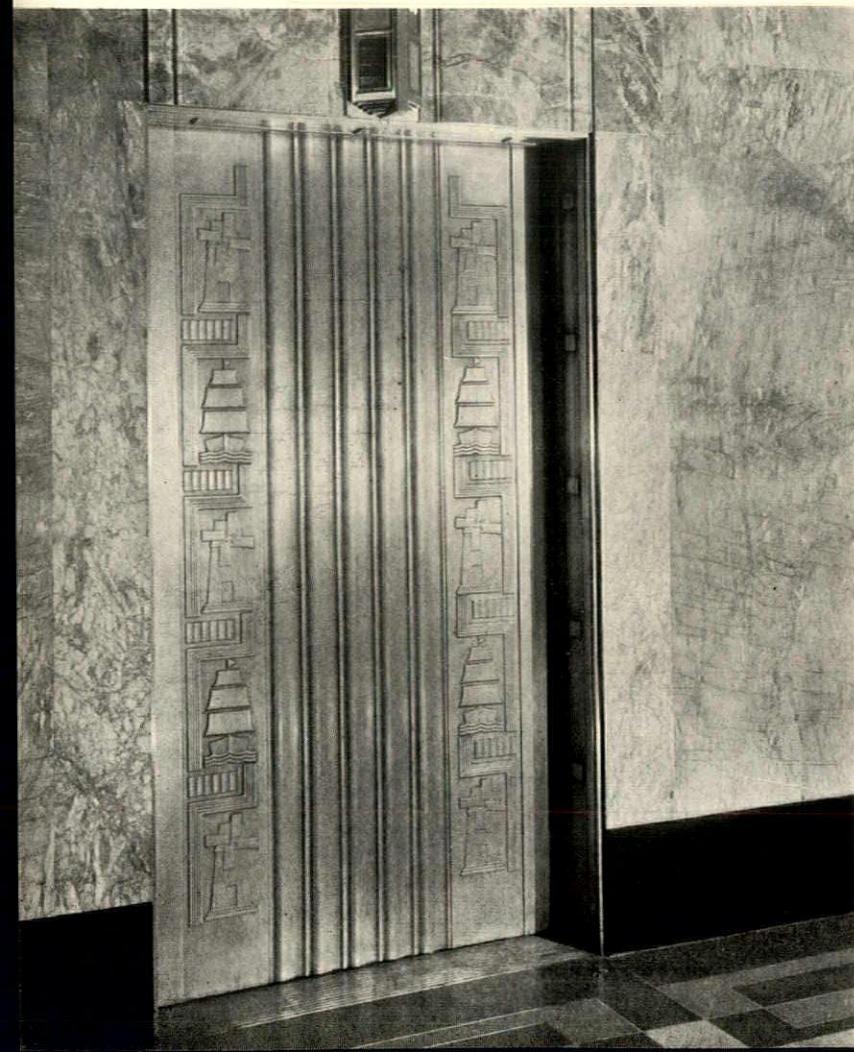


*Detail at base of Building at Broadway and 39th Street*

*The Firm of Ely Jacques Kahn, architects*

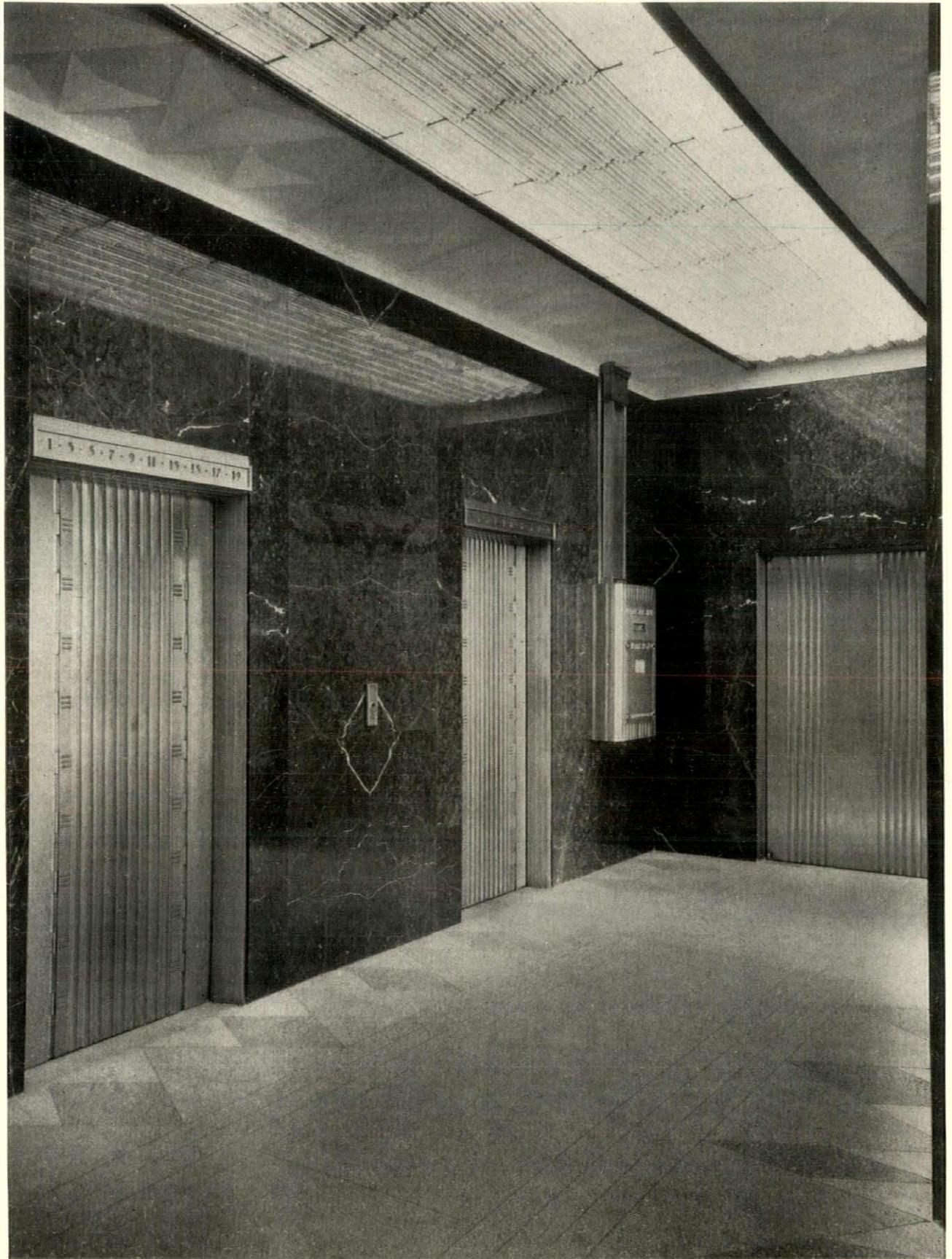
*Elevator doors, main lobby, Building at Broadway and 38th Street*

*Detail in main lobby, Building at Broadway and 38th Street*





*Main lobby, Building at Broadway and 39th Street  
The Firm of Ely Jacques Kahn, architects*



*Detail of main lobby, Building at Lexington Avenue and 57th Street  
The Firm of Ely Jacques Kahn, architects*

# Some Pitfalls in Supervision

By *W. F. Bartels*

## XXIII. ELECTRICAL WORK *CONTINUED*

**C**ONDUITS encasing wire of the ordinary variety should never be run where there is a chance of dampness penetrating the conduit, such as under a basement floor. A special type of lead-sheathed wire comes for this type of work, and the superintendent should not hesitate to demand it. It also goes without saying that conduits should be so laid as not to get water in them, and if by some accident this should occur, they should be dried out before any wire is drawn through them. Plugs should be put in the ends of pipes to prevent dirt from entering them in the course of the work.

Convenience conduits must not be forgotten; that is, conduits for telephone wires, annunciator, bells, alarms, etc. The telephone companies gladly furnish information as to the best location for telephones if the architect will show them his plans. Then too, the telephone conduit can help in the matter of bringing the wires in where the architect desires them in order not to destroy any architectural effects he desires to obtain. Conduit work costs so little at the time of construction as compared with the ugly effects of wires strung at random after work has been completed, that it is ridiculous economy to leave out provision for them.

In the matter of public buildings, such as hospitals, etc., the superintendent must pay particular attention to all local requirements and be sure that any demands for separate conduits for halls, fire stairs, etc., are met.

It is a well-known fact that several discounts are struck off the list price of electrical supplies. It is only equitable, in the case of extra work, or if the work is done on a time-and-material basis, to see that the owner is not charged the list price for the articles actually purchased at a discount.

At the conclusion of the job the superintendent should see to it that the owner is furnished with all the necessary certificates by the contractor. Particularly is this so with the city permit and the Board of Fire Underwriters Certificate. The latter is most important. While the city permit conveys the legal right to use the system, it is important to get the Board of Fire Underwriters Certificate because this organization is responsible for the payment of money in case of a loss.

The Electrical Code states that "a run of conduit . . . shall contain not more than the equivalent of four quarter bends, including those at the outlet or fitting." This provi-

sion is made for the purpose of preventing the wire covering from being damaged by being pulled around too many bends. There is another provision in the code which limits the size and numbers of wires in conduits of certain sizes. Once, while making an inspection I saw two men pulling like Trojans on the ends of a bundle of wires. "Why all the exertion?" I mildly inquired. "We wanted a little workout and so didn't use enough soapstone," they replied. This statement might have been true enough in itself, but was not the cause of the trouble. There were more wires than were allowable in a conduit of this size, and on doing a little checking I found that there were six bends in the pipe, all being at least a quarter turn.

All wiring must be soldered, particularly where the branch circuit wires connect with the fixture wires. These are first twisted together, then soldered, and while still hot are wound with rubber tape. Then they are further protected with the ordinary friction tape. An expert can tell, even through the tape, whether or not the wires are soldered; but if the superintendent has any doubt whether or not the wires are soldered, he should remove the tape to satisfy himself that a proper connection has been made. It might be mentioned here that the plaster should finish tight against the fixture outlet box. So, too, the collar of the receptacle box should come out flush with the baseboard or the plaster line. If this is not done there is always the chance of a spark getting up in the ceiling and perhaps starting a fire. "Tin cans" should not be allowed in any work. These are of stamped metal in violation of code requirements, having conduits sticking in them but not fastened. Their use is more frequently attempted in cheap reinforced concrete work than elsewhere. All switch boxes should be stuffed with a piece of burlap or similar material to keep the dirt and plaster out of them while the construction is going on.

On a large job it is well for the superintendent to get the permanent switchboard up as soon as possible in order to save as much temporary wiring as possible. The latter is a costly

item. The switchboard room should be arranged so that there is plenty of room for men to move about without the possibility of touching live parts and being "frozen" to them. Great care should be exercised, because the highly charged bars seldom give their victims a second chance. It should be required to have all panel boards clearly labelled, and a chart furnished to the owner upon the completion of the board. All railings must be properly installed where called for, particularly where they are used as guards for the protection from machinery and live electrical work.

Care should be used in checking the installation of fixtures. The best height for switches is generally 4 feet above the floor to the centre of the box. Convenience outlets should be the same height, and should be of the duplex type. Their original installation cost is a negligible amount above that of the single type, and it avoids the trashy look of having two- and three-way adapters projecting from every outlet. The type of sidewall brackets should be previously determined so that they may be located at the proper height. This height is advisedly 5 feet 6 inches to the light bulb. The latter may not appear important on first thought, but when one considers that the bulbs may turn down, *i.e.*, have the fixture above them, it will be seen in such a case that if the outlet were 5 feet 6 inches the fixture would appear to be too low. If the fixture turns upward instead it might give the room a stilted appearance, and the outlet may better be lower than 5 feet 6 inches. In the case of gooseneck type of fixtures over medicine cabinets in bathrooms, it is necessary to make sure that the door of the cabinet will clear the fixture. So also, where there are high doors in foyers, it is well to be certain that hanging fixtures will not be so low as to interfere with the door. Radio outlets are now obtainable with dual outlets—one for power and the other for a polarized plug for the antennæ and ground. They are a great convenience, particularly with the modern midget sets, allowing the latter to be moved from room to room wherever there is an outlet. All plates and other finished parts should receive a coat of vaseline as soon as they are installed, to prevent paint and varnish from adhering.

Then again, a more liberal supply of base-plug outlets will eliminate a good deal of loose wire about the living-room in particular. The kitchen should have at least one double outlet where most convenient for service. Unless these

items are taken care of, all sorts of makeshift contrivances will be invented. A case is on record where a beautiful and costly rug was seared by a wire run under it across the room to a percolator. The fuse was too large and the wires too small: the rubber insulation was soon burned off, and a damaged rug resulted.

A floor outlet should be left in the dining-room slightly off the centre, because a central pedestal of the table may occupy the exact centre. From this outlet a flexible cord can be run to the underside of the table, where a modern flat adapter allows the toaster to work at the same time that the coffee is being percolated. Then, too, a plug on or near the mantel must not be forgotten for the electric clock, and a small light of perhaps 6 volts should be provided to allow modern decorative effects to be utilized in ornaments on the mantelshelf or a candle on the cupboard. The standard flexible cord being 8 feet long, it is advisable to have the base plugs not more than 15 feet apart.

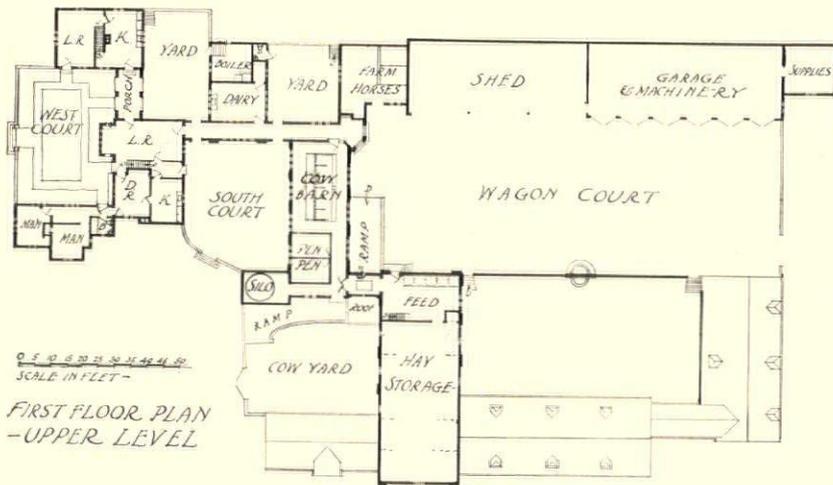


With the electric refrigerator, dish-washing machine, ironer, mangle, washing machine, oil burner, and vacuum cleaner as accepted amenities, and the electric range fast gaining in popularity, it oftentimes may pay to put in a separate wiring system for power. Such a scheme has many features to justify it. First of all, many towns may have a special rate for such service. This will bring these maximum-comfort products to the owner at a minimum price. When a fuse is blown it will not be necessary to grope with a candle or flashlight while a new fuse is being inserted. Then, too, when the refrigerator clicks on there will be no dimming of lights, as is often the case when the lights are on the same circuit.

If the owner is paying for current consumption as, during the construction, he generally does, it behooves the superintendent to see that the contractors pay for their share, or else have a separate meter provided for them. The amount used for drills, grinders, floor scrapers, etc., on the ordinary job will be considerable, while on the large jobs it runs into real money. Lighting, too, is an item, and often left-hand bulbs are used to reduce the number which are lost. If this is not effective, then wire guard cages should be obtained, or lock sockets, the latter necessitating breaking the bulb before the socket can be removed.



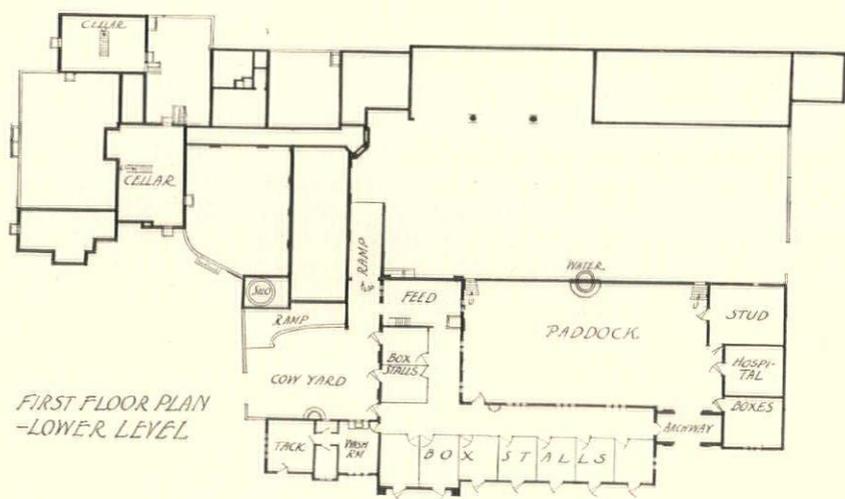
Photographs by Tebbs & Knell



FIRST FLOOR PLAN  
-UPPER LEVEL

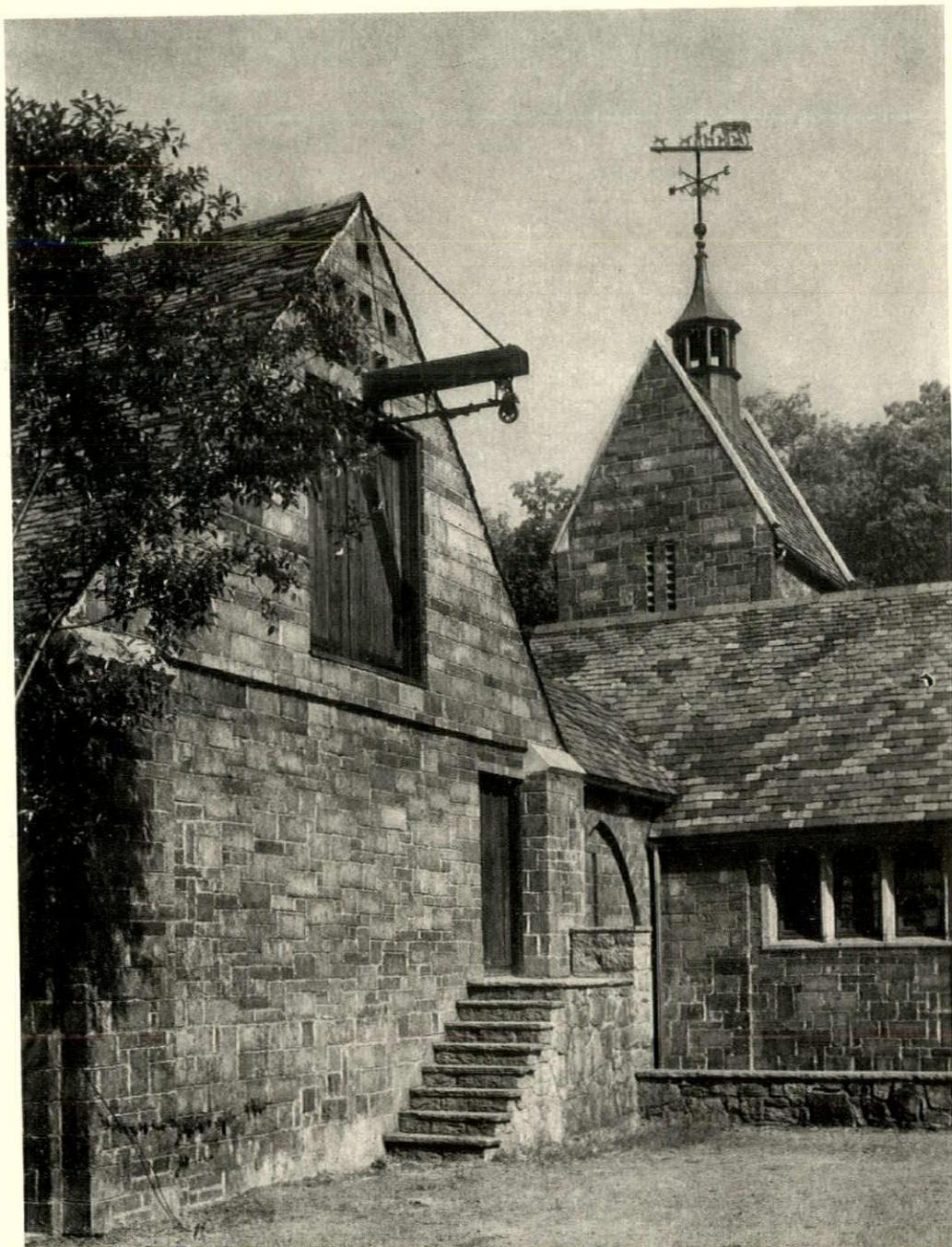
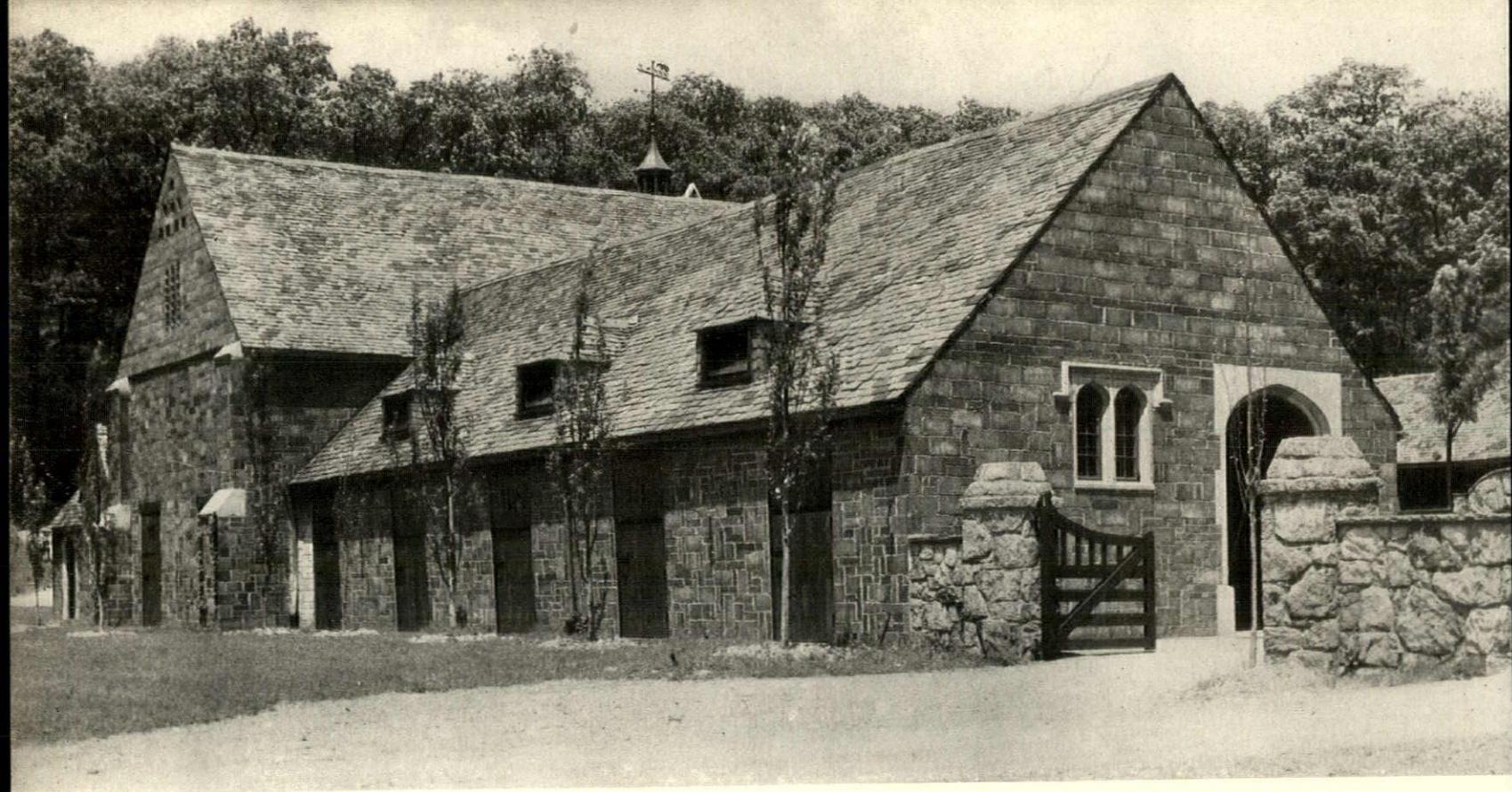
FARM GROUP  
FOR  
JOHN W. LAWRENCE  
PITTSBURGH, PA.

ALFRED HOPKINS  
ARCHITECT



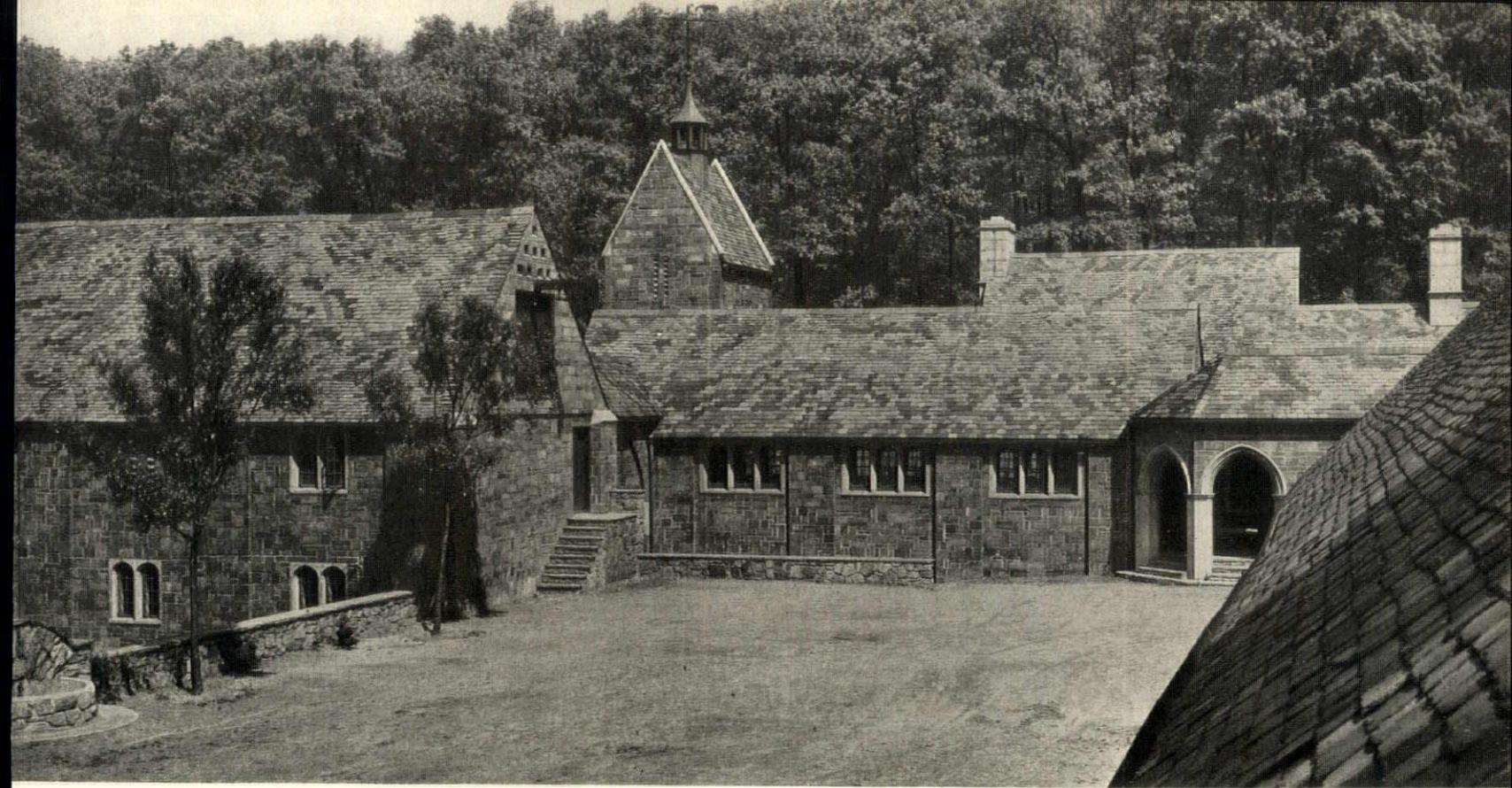
FIRST FLOOR PLAN  
-LOWER LEVEL

The photograph at the top of the page shows the group as seen from the east—the top of the plan as here shown. The two houses at the right, connected by the loggia, are employees' quarters



*Cinder block has been used for the walls, trimmed with cast stone, a still further variation being given by the field-stone court walls. The cinder block are in several shades of gray, surface treated, and in several heights. The doors and gate are of oak, roughly finished and dark in color*

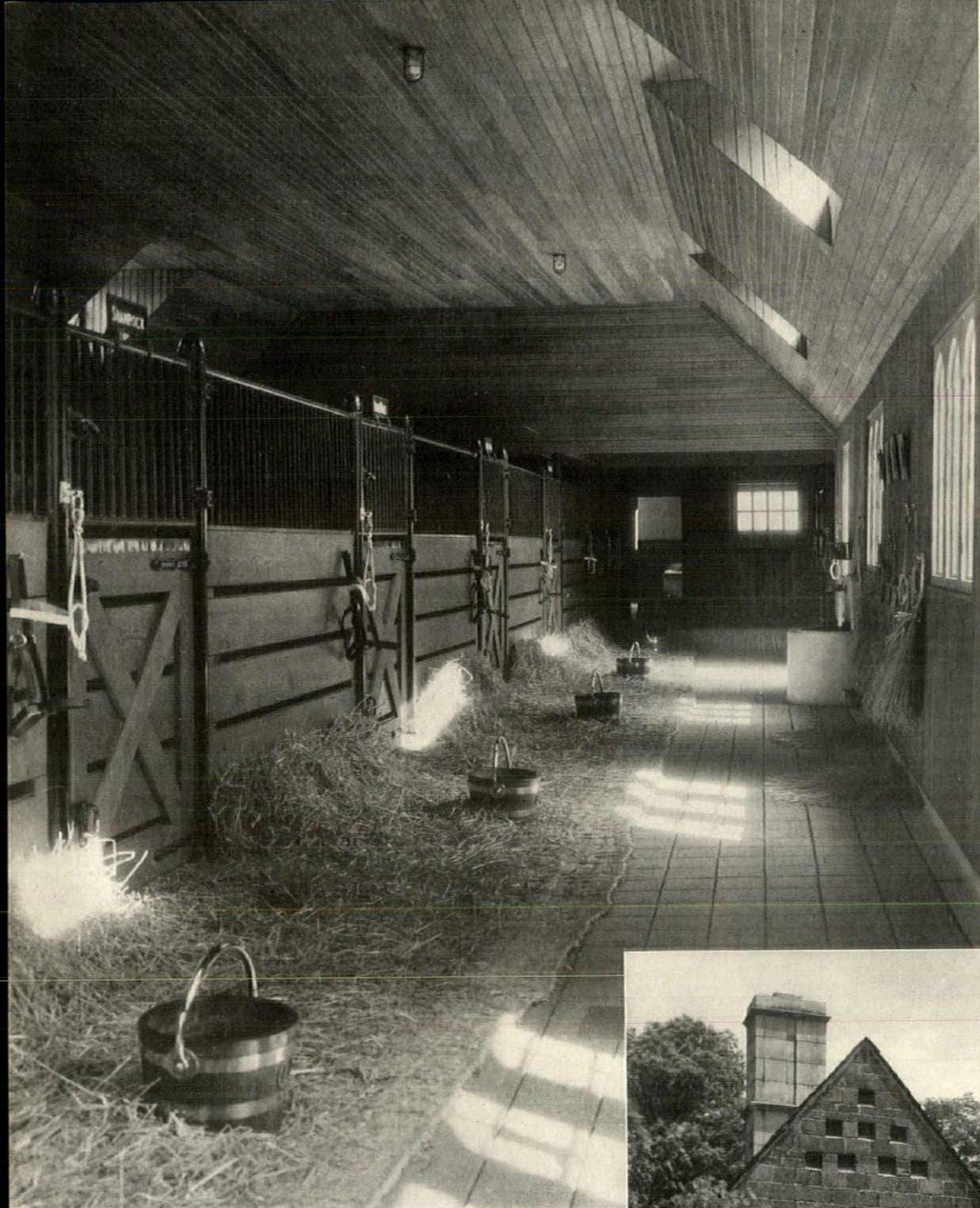
*A corner of the wagon court with one end of the feed barn in the foreground. Behind the low wall at right is one of the two ramps*



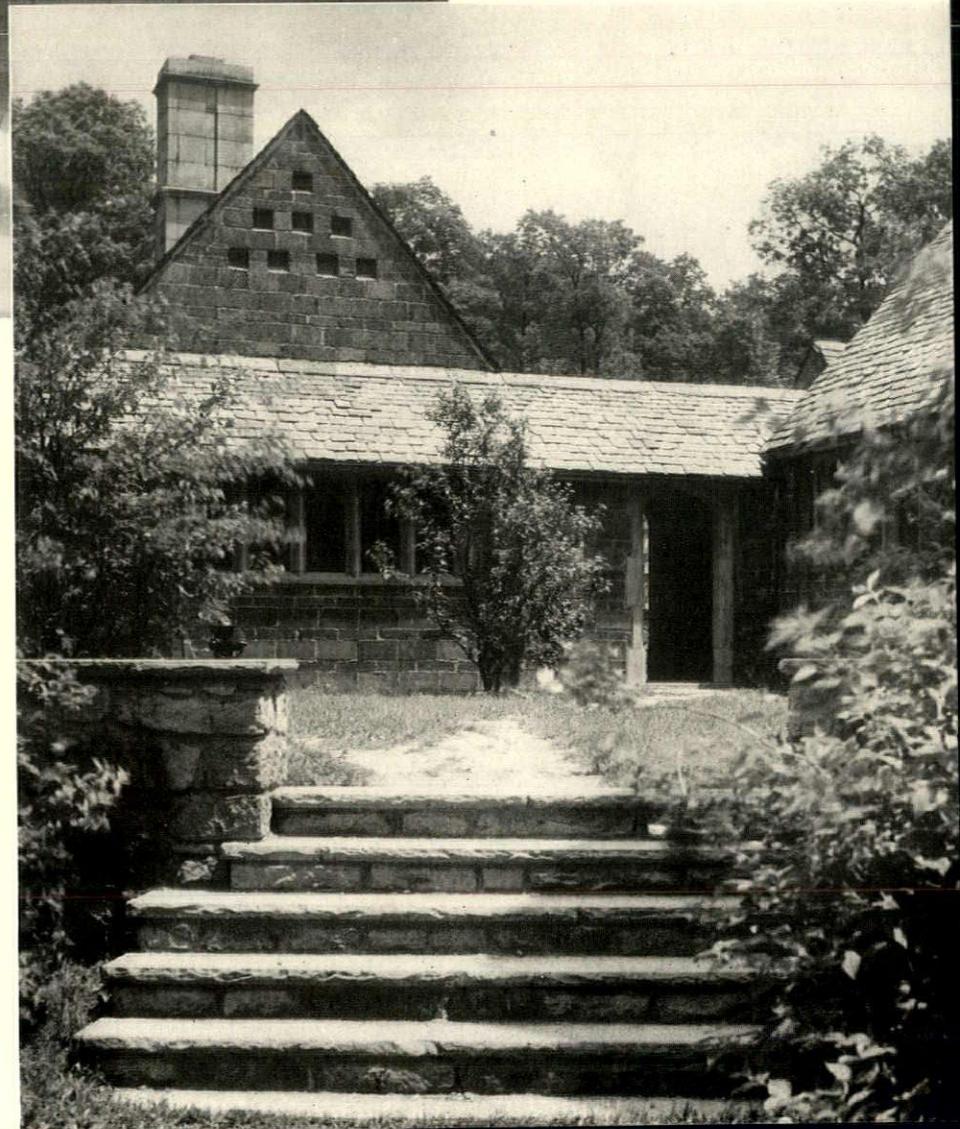
*The wagon court, with the cow barn in the middle, its adjoining silo beyond. The roofs are of slate in grays, greens, and purple*



*The silo in its rectangular tower at left. Changes in level gave the architect opportunities of which full advantage has been taken*



*Passageway in the horse stable. Stall floors are of wood blocks; sheathing and stall work of oak*

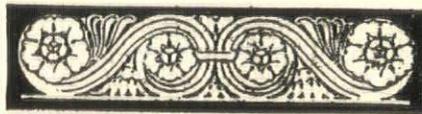


*The shifts in block heights, the slate roof, and the cast-stone chimneys and trim give a rather close approximation of the Cotswold district flavor*

*Friday, July 1.*—The new Fourth Wing of the United States Senate Office Building, now under construction, is to have a refrigeration and air-conditioning system costing \$150,000. Like the installation in the Halls of Congress and the Executive Office Building, the system will provide on the hottest days of summer a temperature of seventy-five degrees and relative humidity of 50 per cent. The refrigerating unit to cool and dehumidify the air uses the new refrigerant, dichloro-difluoro-methane, a gas which is colorless, odorless, non-combustible, and non-toxic.

*Saturday, July 2.*—Ely Kahn has been rapping the Beaux-Arts students for their carelessness and lack of real study in competition work. Possibly he might with advantage take a few juries apart for a little serious talk. For instance: The Architects' Emergency Committee of New York held a competition recently for a small library in a suburban village. The programme explained that the available lot measured seventy-five by seventy-five feet, facing the Village Green. In almost any solution the building would work out nearly fifty feet in length, which means an exceedingly limited space at the side with the possibility of a neighboring building abutting the building line. It would seem rather obvious, therefore, that for a pleasant outlook and assured light, the main reading-room should occupy the front, or as much of it as possible. The jury, consisting of such eminent men as Chester H. Aldrich, Louis Ayres, Archibald M. Brown, Eric Gugler, Frederic R. King, and George A. Licht, awarded first prize to a design which put its main reading-room along the side, and faced the Village Green with a few small toilets. Query: Is there a way to make competition juries read the programme?

*Sunday, July 3.*—Arthur Hawley Scribner, president of Charles Scribner's Sons since 1928, passed quietly away in his sleep early this morning. He was seventy-three years old, and, since his graduation from Princeton in 1881, had devoted his energies to the publishing firm established by his father. Working hand in hand with his older brother, Charles, for many years he gave his especial attention to the manufacturing end of the book business, the building and maintenance of the great list of titles bearing the Scribner imprint. Meticulous and painstaking in every minor detail, his close supervision of book design and making, and his judgment as to sizes of successive editions, has for well over half a century been a constant and dependable force in the business. Mr. Scribner was undoubtedly one of the best-loved men in the publishing world, and always took an active part in its co-operative affairs. His business and the welfare of his col-



## The Editor's Diary



lege were always his chief interests. At Princeton he was one of the founders of the Ivy Club and for several years its president. He presided for a period over the Grolier Club of New York, and from 1927 until 1929 was president of the Princeton Club of New York. If Mr. Arthur Scribner ever in his life had an enemy, his associates never knew it; suave, kindly, patient, and efficient, he walked through life in great contentment with his work and passed out of it in the painless, peaceful manner that seems a fitting end to work well done.

*Monday, July 4.*—Walt Whitman was a good deal of a modernist. In one of his editorials in *The Brooklyn Daily Times*, of June 5, 1857, he said:

"The Savings Bank in Bleecker street just east of Broadway is Grecian, of the most ornamental and florid order. It is a wonderful and lovely edifice. But the surroundings (the Greeks always had reference to these) are enough to spoil it—let alone the discordance in the idea of a Greek temple (very likely of Venus) for a modern Savings Bank!

"Such considerations as these make one laugh at the architecture of the New York Custom House, with its white sides and its mighty fluted pillars. . . . Iron and glass are going to enter more largely into the composition of buildings. So far, iron used in large edifices is a perfect success—for instance the huge store on the northeast corner of Broome street and Broadway—also several other downtown stores.

"We must not conclude this article without an allusion to the Crystal Palace, an edifice certainly unsurpassed anywhere for beauty and all the other requisites of a perfect edifice. At present, few persons pay any attention to architecture in its higher planes, its philosophy, its reference to all the other things, few have any profound idea of beauty in a building. We suppose it

must be for that reason that the New York City Crystal Palace is not universally confessed to be what it certainly is—an original, esthetic, perfectly proportioned American edifice—one of the few that put modern times not beneath old times, but on an equality with the best of them."

*Tuesday, July 5.*—Alexander B. Trowbridge, as a member of a new Cathedral Council of thirty men, a consultative body limited to the Washington Cathedral, has gone abroad to study certain phases of cathedral architecture.

*Wednesday, July 6.*—The considerable extension of the Federal Building programme seems to be just in the offing. Unquestionably here is, under normal conditions, one way of starting the wheels turning so that the building trades and the many manufacturers dependent thereon may have something to do. Here is one large fly in the ointment: a post-office, let us say, is to be built with an appropriation of \$100,000 in Fayetteville, Ind. Some one gets the job of designing it, the working drawings finally go out for bids, and, due to the desperate hunger of the bidder, and the law which says that the lowest bidder must have the job, the contract is finally signed at, say, \$60,000. Thereafter starts an almost endless series of losses. The contractor loses money. Each sub-contractor loses money. The material men sell their goods at less than cost. Apparently the larger the Federal Building programme, the more people lose money. If the programme could be undertaken on a large enough scale to fill the deep hole in the building industry, prices and bidding would right themselves to normal. Under the present conditions it is manifestly impossible to create a building programme of sufficient extent to fill this hole. The only hope, apparently, is that the movement toward filling the hole, thus started, may induce enough further outside building activity to bring the almost forgotten habit of doing business at a profit back among us.

*Thursday, July 7.*—Lunched with William F. Lockhardt who gave me an ingenious little instrument by which one turns a few disks and establishes the proper measure for concrete of a desired quality. The instrument takes into account the strength desired, the sand and coarse aggregate, the consistency desired, and it will tell you on the basis of these the relative quantities of cement, sand, stone, and water to be used on the water-cement ratio basis.

*Saturday, July 9.*—Sidney K. Wolf told the American Philosophical Society in Philadelphia recently that, since the present age owes much of its noise to the engineer, the engineer should find

ways to ameliorate conditions in our squalor of noises. The architect's part of the job, he says, is to supply sound-proof buildings.

*Monday, July 11.*—One among many of the indications of our rapidly increasing technological skill lies in the fact that a comparatively few years ago four and a half pounds of coal were required an hour to maintain a kilowatt of electric energy. Today we maintain the same amount of energy with a coal consumption of one and three-tenths pounds.

*Tuesday, July 12.*—Ezra Winter is painting for Rockefeller Centre, to hang in the International Music Hall, what is possibly the largest mural painting ever attempted. His studio above the Grand Central Station was far too small, so he is working with a corps of assistants in a building out in Long Island City, erected for the purpose of indoor tennis. In an adjoining set of tennis courts Winter is working also upon the seven murals, twenty-eight feet high and sixteen feet wide, for Fred Hiron's George Rogers Clark Memorial at Vincennes, Ind.

*Wednesday, July 13.*—David Coyle, speaking before a luncheon of the American Statistical Association today, brought out a particularly interesting question as to whither we are aimed. The time is obviously in sight when, through technological development, a comparatively small part of our population will be able to make all the things that the whole population needs. At least, they will be able to transform into finished products all of our natural resource allotments and utilize all of our available energy in so doing. The question then is what are the rest of the people going to do? Rather obviously they are going to occupy themselves in tasks that are not concerned with the necessities, but rather with what we might call cultural desires. Under this broad heading we might include anything from grand opera to professional baseball, if you care to go that far.

The connection of all this with building is that probably we are going to build the necessary elements of a building by machinery with the labor of a very few men and in a very short time. Is it not likely, therefore, that, having done this, we shall turn back in some way to operation through the handicrafts in making our buildings beautiful? If the individual country homeowner of 1950 is able to order his house delivered on the site in the following week, is it not likely that on this bare skeleton of standardized elements he will afterwards lavish some of the time and energy of craftsmen in establishing for his home an individuality? It is an

interesting speculation—that the machine, having carried us far away from handicrafts, may in itself bring us directly back to them.

*Thursday, July 14.*—R. W. Sexton, whose name is frequently seen as an author in the architectural journals, was telling me today of a plan which seems to have great possibilities. He proposes to establish a Bureau of Architectural Relations, which would be a sort of clearing-house for information to the public on matters concerned with architecture and the allied arts. The Bureau would be able to supply lecturers from the profession on particular phases of the subject, and would also supply syndicated or special newspaper articles, signed or approved by well-known architects, painters, sculptors, and landscape architects. If such a bureau were to become a real clearing-house for such services, it is likely that the dissemination of the right sort of information to the public would be greatly facilitated.

*Friday, July 15.*—There is a tremendous amount of talk these days about prefabrication of houses. Apparently we are on the verge of a whole new series of efforts through which it will be possible to produce in unlimited quantities standardized sections with which a house may be erected in a minimum of time. It is the old story, however, of technological progress outrunning our system of distribution. Tomorrow we shall be able to make the houses at lower costs than ever before, and in one one-hundredth, perhaps, of the time, but there is no immediate prospect of a market. Those who should have these houses are out of a job and cannot buy them. The interdependence of productive ability and purchasing ability is becoming more and more evident. We can make more easily than ever before the things that we want, but since it is taking less and less man hours to produce these things, we are facing a growth in the number of persons unable to find work enough to earn money to buy what we produce.

*Monday, July 18.*—Arthur J. Horton, whose firm controls a large number of apartments in Brooklyn, has figured out how each dollar of the tenant's rent is spent:

Taxes.....	\$.18
Water.....	.01
Insurance.....	.02
Heating.....	.10
Electricity.....	.04
Elevator maintenance.....	.01
Management.....	.04
Superintendent.....	.09
Repairs and decorating.....	.05
Vacancies and bad collections.....	.15
First mortgage interest.....	.25
Equity.....	.06

*Tuesday, July 19.*—Western Electric and Bell Telephone engineers have finally worked out a cure for the apartment-house roof which bristles with private antennas. A system has been devised by which as many as three thousand radio-receiving sets may be operated independently on the same antenna without any interference. Incidentally, the receiving system is protected from man-made static, those interferences which the ordinary lead-in wire commonly picks up from such sources as elevator motors and other electrical devices. Every receiving set, too, is electrically isolated so that it cannot put any noise back into the system.

*Wednesday, July 20.*—William Dewey Foster, architect, who is even better known in the profession as editor of *The Tuileries Brochures*, dropped in for a farewell on his way to the steamer which is to carry him to the island of Majorca, where he may spend six months measuring everything that interests him architecturally.

*Thursday, July 21.*—The Rockefeller Centre is going to have a sort of international flavor about it. President Hoover has signed a bill authorizing the entrance under bond of foreign goods to be exhibited in the Centre without prepayment of customs duty. It is expected that the British, French, Italian, and German units on the Fifth Avenue frontage will afford us an opportunity to see what these countries are making. Any goods sold while on exhibit will, of course, call for the payment of duty, and any articles remaining on display for two years will be subject to the regular customs charges. Rockefeller Centre becomes in this way something of a "free port."

*Friday, July 22.*—Detroit and Westchester County architects are both making concentrated efforts to establish in the minds of their respective communities the desirability and the procedure in modernization. The Detroit architects have gone so far as to take an obsolete dwelling and bring it up to par in construction and equipment. It is being used for exhibition purposes, with an architect constantly on the job to answer questions. Needless to say, these questions, for the most part, are variations of "What would this cost?"—a question which architects generally are woefully incapable of answering with any degree of accuracy.

Westchester County architects, cooperating with the real-estate men, builders, material men, contractors, and others, have published a check list as an incentive to the owner of any but the most up-to-date residence in finding things that should, or might, be done to increase the efficiency and value of his home.

THE SEVENTY-FIRST IN A SERIES OF COLLECTIONS  
OF PHOTOGRAPHS ILLUSTRATING VARIOUS MINOR  
ARCHITECTURAL DETAILS

# ARCHITECTURE'S PORTFOLIO OF MARQUISES

❖ 1926  
DORMER WINDOWS  
SHUTTERS AND BLINDS

❖ 1927  
ENGLISH PANELLING  
GEORGIAN STAIRWAYS  
STONE MASONRY TEXTURES  
ENGLISH CHIMNEYS  
FANLIGHTS AND OVERDOORS  
TEXTURES OF BRICKWORK  
IRON RAILINGS  
DOOR HARDWARE  
PALLADIAN MOTIVES  
GABLE ENDS  
COLONIAL TOP-RAILINGS  
CIRCULAR AND OVAL WINDOWS

❖ 1928  
BUILT-IN BOOKCASES  
CHIMNEY TOPS  
DOOR HOODS  
BAY WINDOWS  
CUPOLAS  
GARDEN GATES  
STAIR ENDS  
BALCONIES  
GARDEN WALLS  
ARCADES  
PLASTER CEILINGS  
CORNICES OF WOOD

❖ 1929  
DOORWAY LIGHTING  
ENGLISH FIREPLACES  
GATE-POST TOPS  
GARDEN STEPS  
RAIN LEADER HEADS  
GARDEN POOLS  
QUOINS  
INTERIOR PAVING  
BELT COURSES  
KEYSTONES  
AIDS TO FENESTRATION  
BALUSTRADES

❖ 1930  
SPANDRELS  
CHANCEL FURNITURE  
BUSINESS BUILDING ENTRANCES  
GARDEN SHELTERS  
ELEVATOR DOORS  
ENTRANCE PORCHES  
PATIOS  
TREILLAGE  
FLAGPOLE HOLDERS  
CASEMENT WINDOWS  
FENCES OF WOOD  
GOTHIC DOORWAYS

❖ 1931  
BANKING-ROOM CHECK DESKS  
SECOND-STORY PORCHES  
TOWER CLOCKS  
ALTARS  
GARAGE DOORS  
MAIL-CHUTE BOXES  
WEATHER-VANES  
BANK ENTRANCES  
URNES  
WINDOW GRILLES  
CHINA CUPBOARDS  
PARAPETS

❖ 1932  
RADIATOR ENCLOSURES  
INTERIOR CLOCKS  
OUTSIDE STAIRWAYS  
LEADED GLASS MEDALLIONS  
EXTERIOR DOORS OF WOOD  
METAL FENCES  
HANGING SIGNS  
WOOD CEILINGS

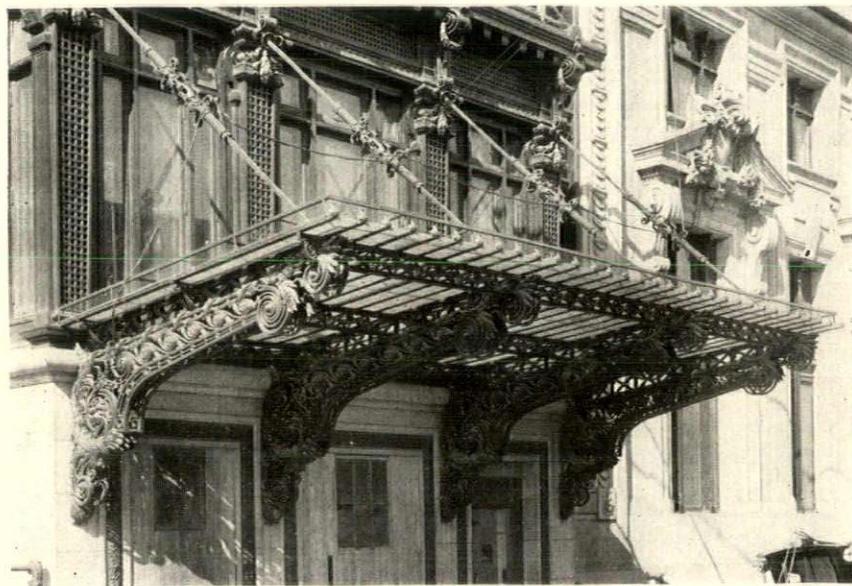


*Subjects of Previous Portfolios Are Listed at Left*

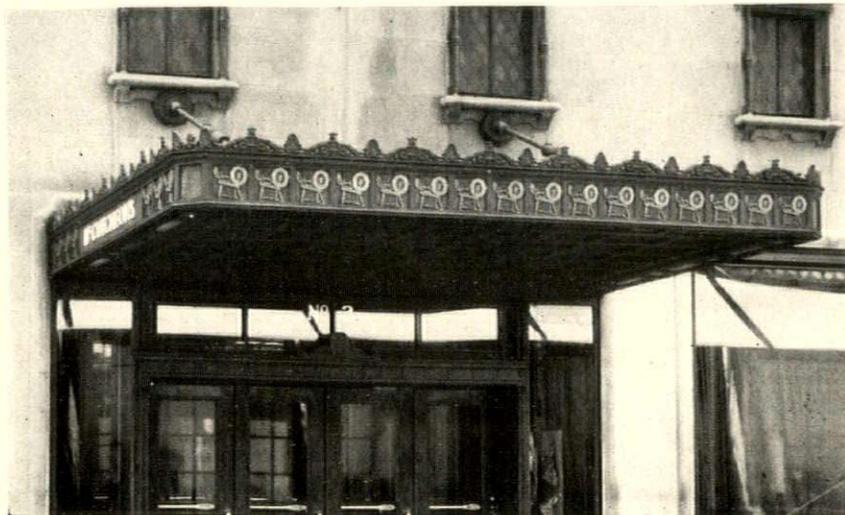
*Forthcoming Portfolios will be devoted to the following subjects: Wall Sheathing (October), French Stonework (November), Over-mantel Treatments (December), Bank Screens (January), Interior Doors (February), and Metal Stair Railings (March). Photographs showing interesting examples under any of these headings will be welcomed by the Editor, though it should be noted that these respective issues are made up about six weeks in advance of publication date.*



*Schultze & Weaver*



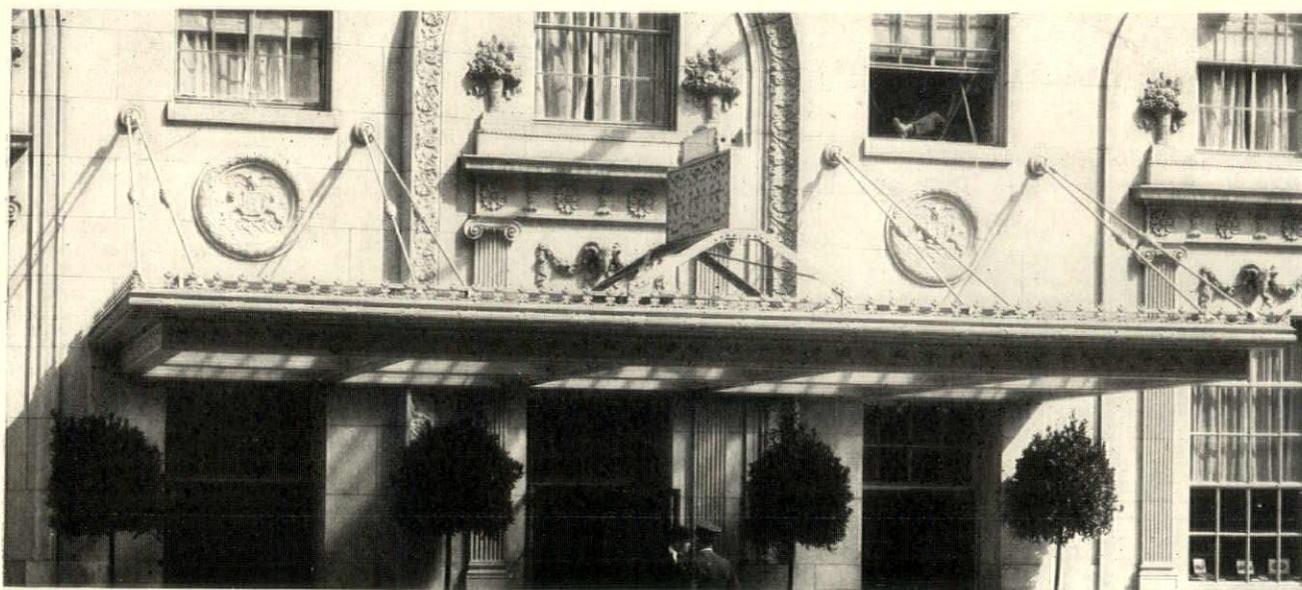
*Warren & Wetmore*



*Cross & Cross*

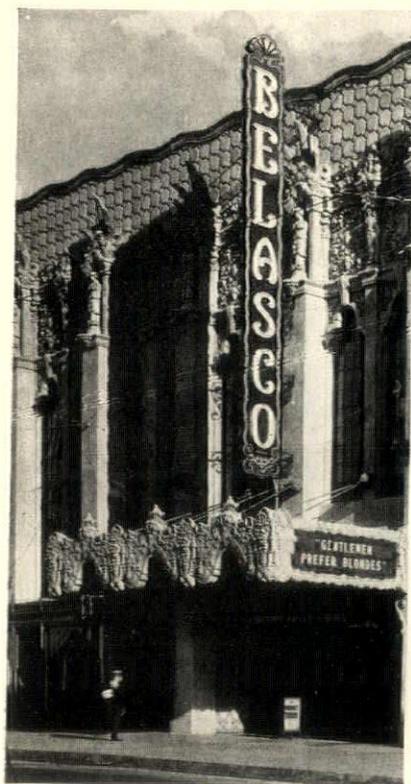


*Walker & Eisen*

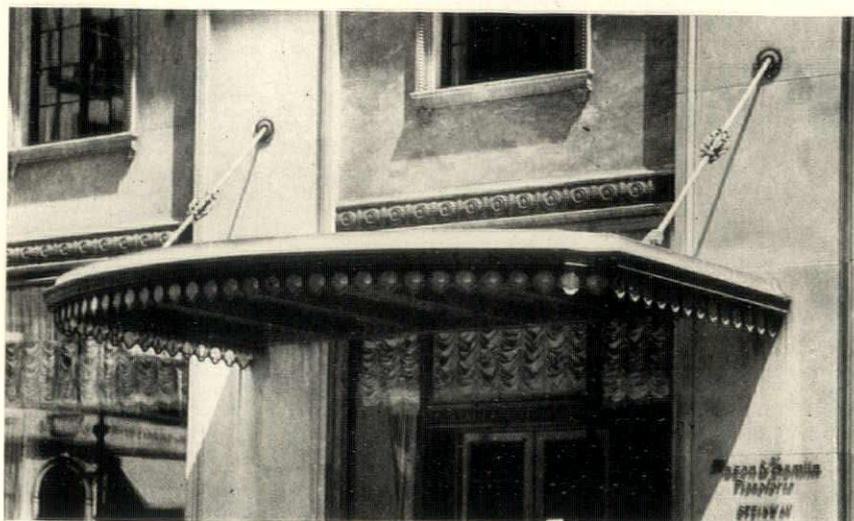


*Warren & Wetmore*

*Executed by Republic  
Structural Iron Works*



*Morgan, Walls & Clements*



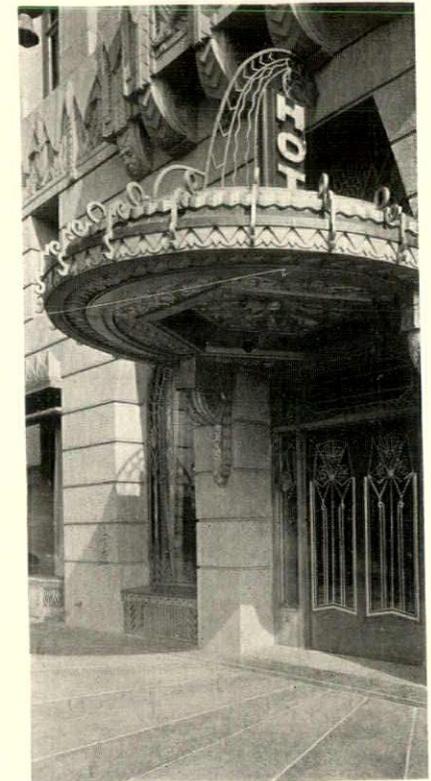
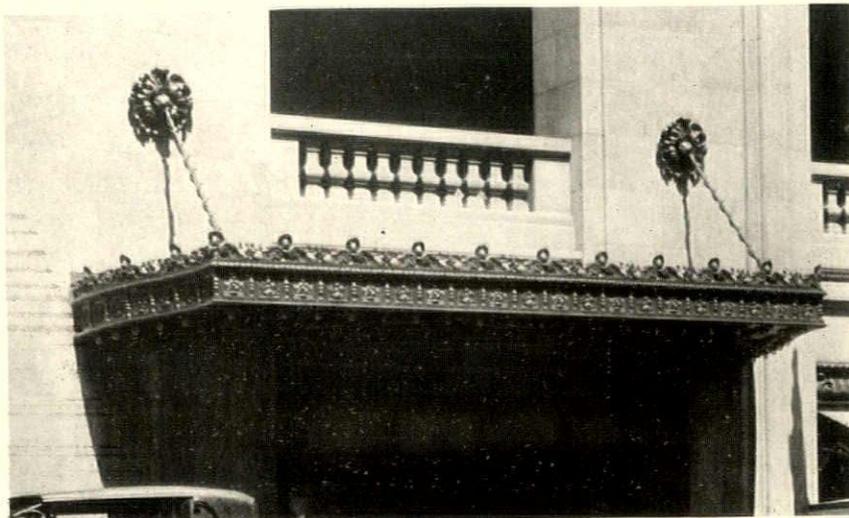
*Warren & Wetmore*



*J. E. R. Carpenter*



*F. P. Platt & Bro.*



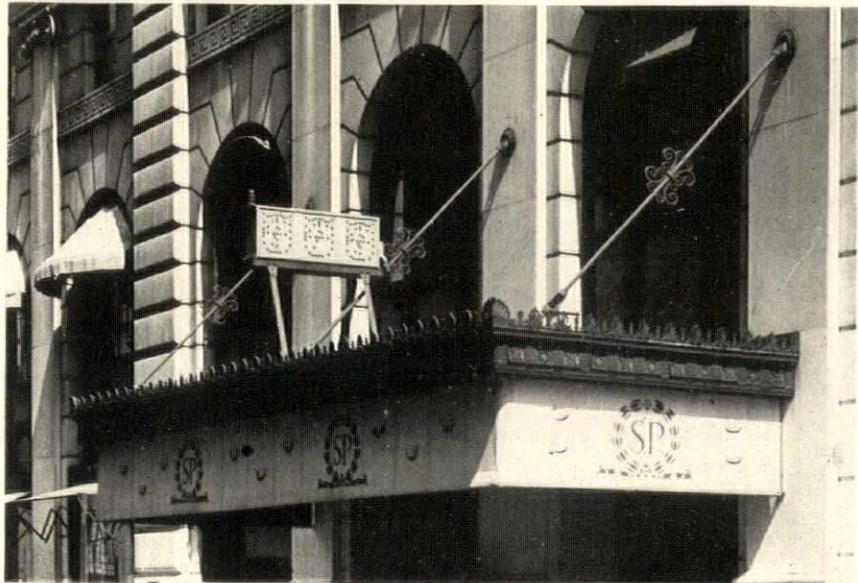
*Schilling & Schilling*

*Warren & Wetmore*



*Schultze & Weaver*

*McKim, Mead  
& White*



*Claude Beelman*



*J. Schofield*



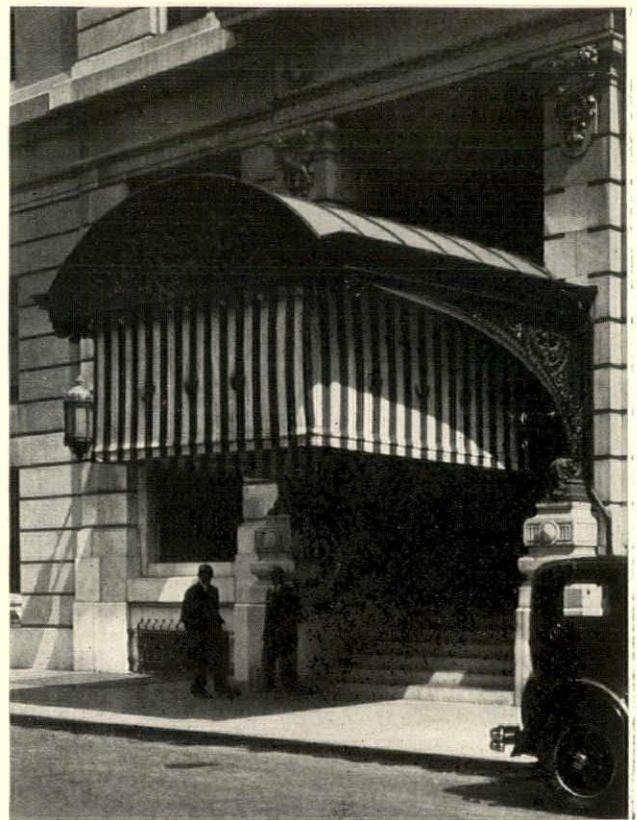
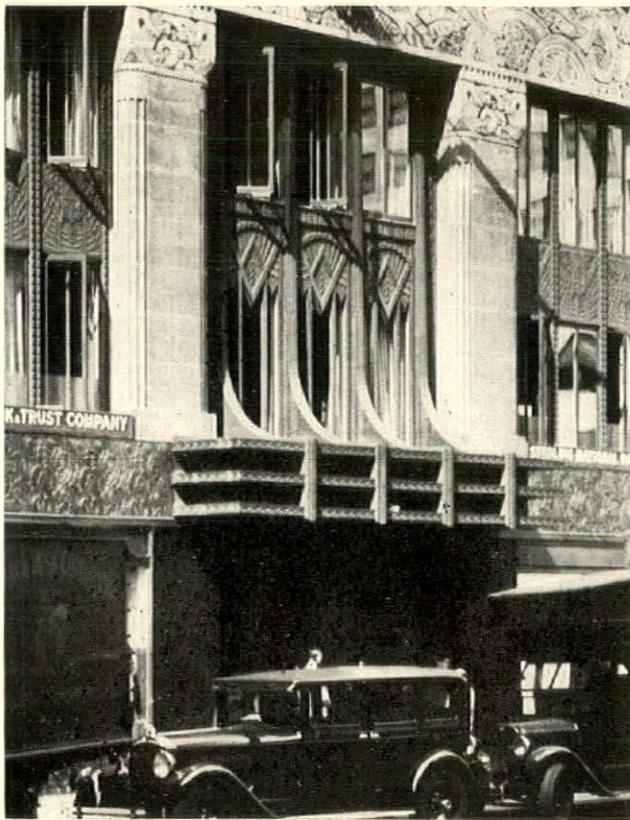
*Shreve, Lamb & Harmon*



*On Fifth Avenue, New York*

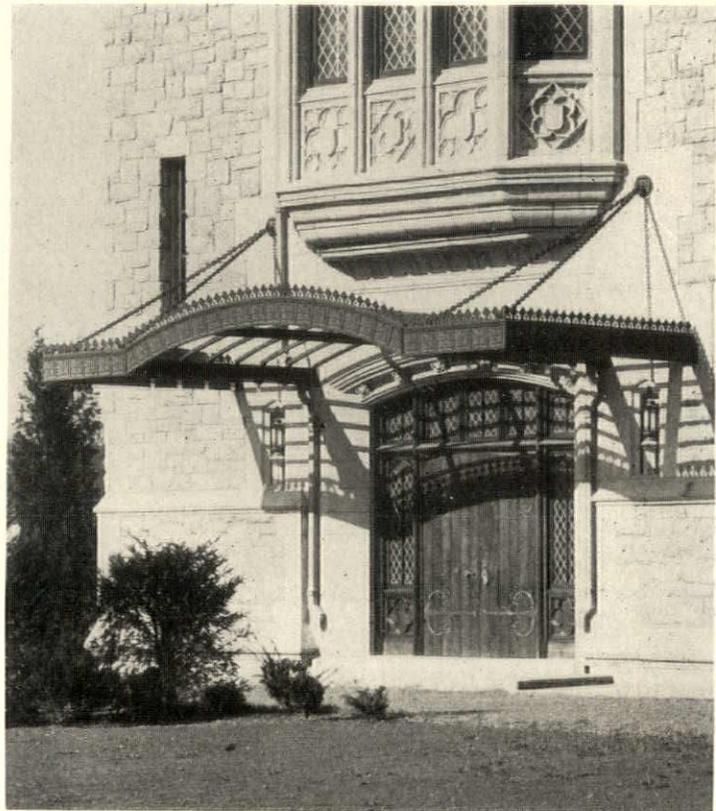
*Sloan & Robertson*

*H. J. Hardenbergh*





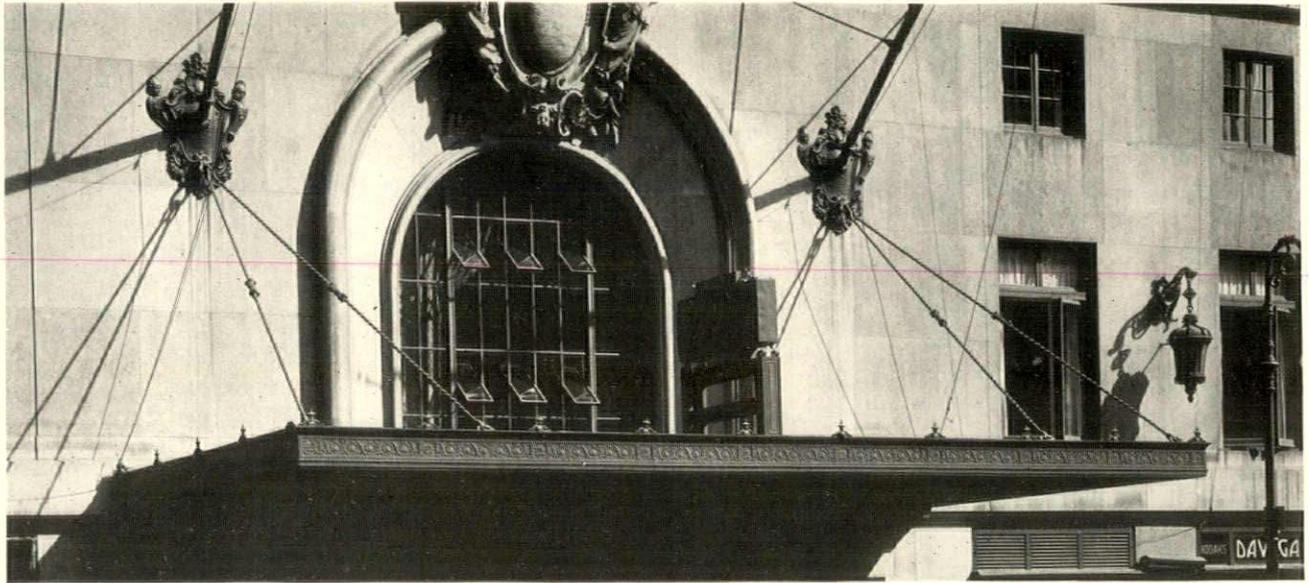
*On Fifth Avenue, New York*



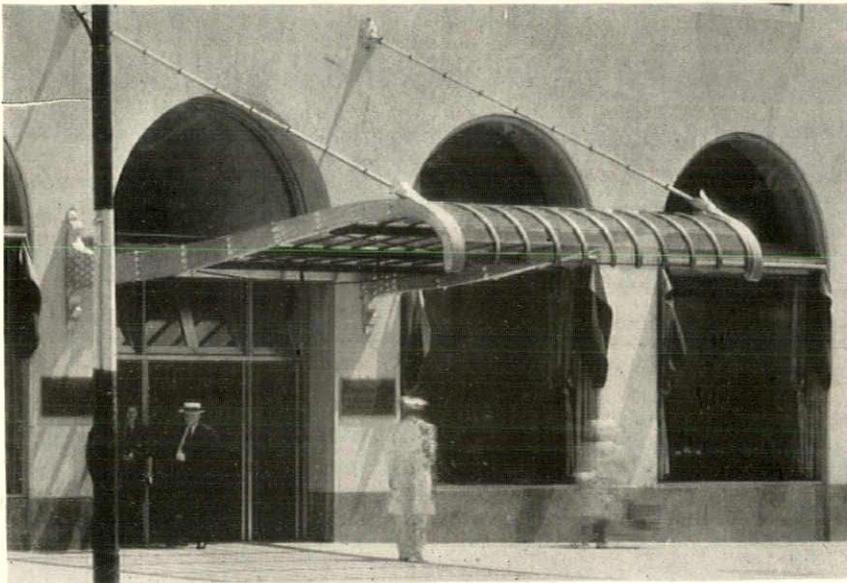
*Tooker & Marsh*

*On East 80th Street, New York Fred Wesley Wentworth*





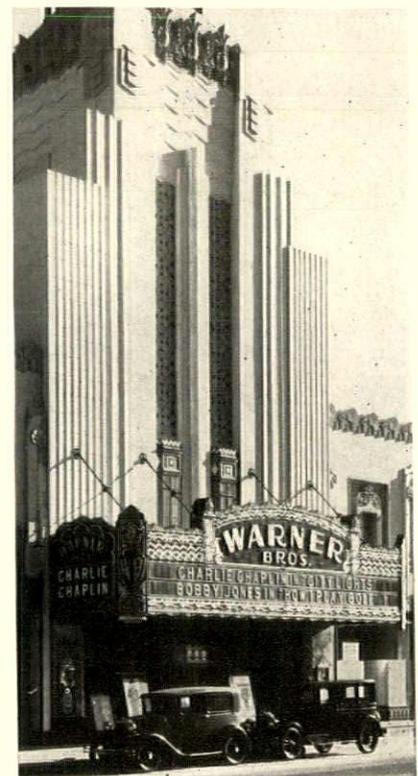
*Warren & Wetmore*



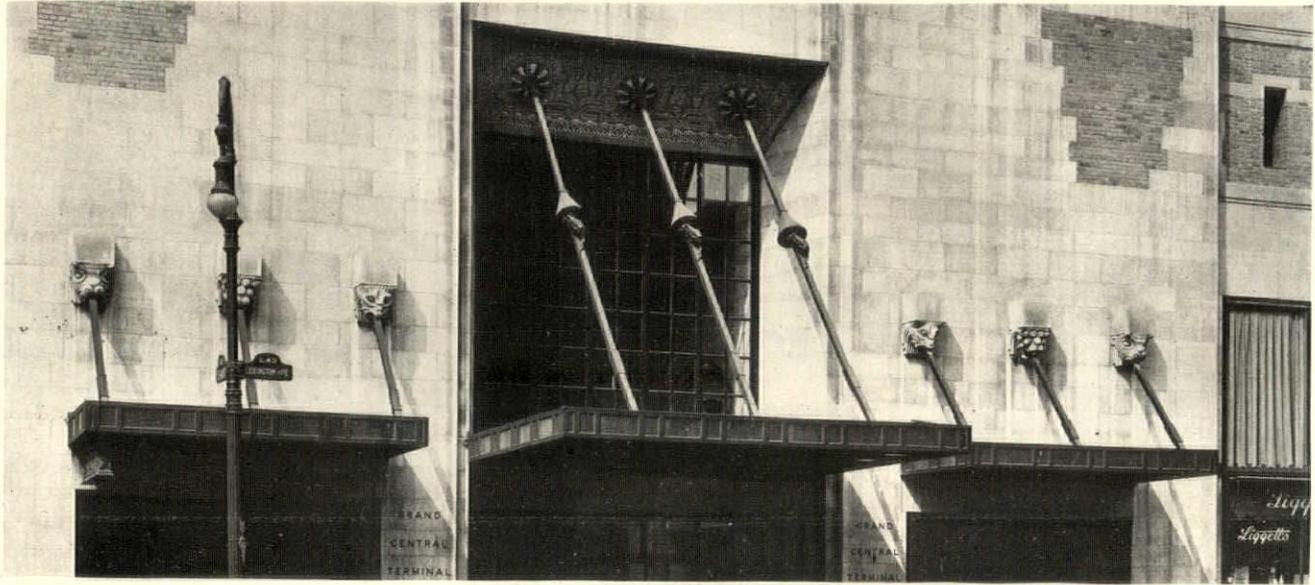
*Frederick G. Frost*



*Charles E. Birge*



*B. Marcus Priteca*



*Sloan & Robertson*

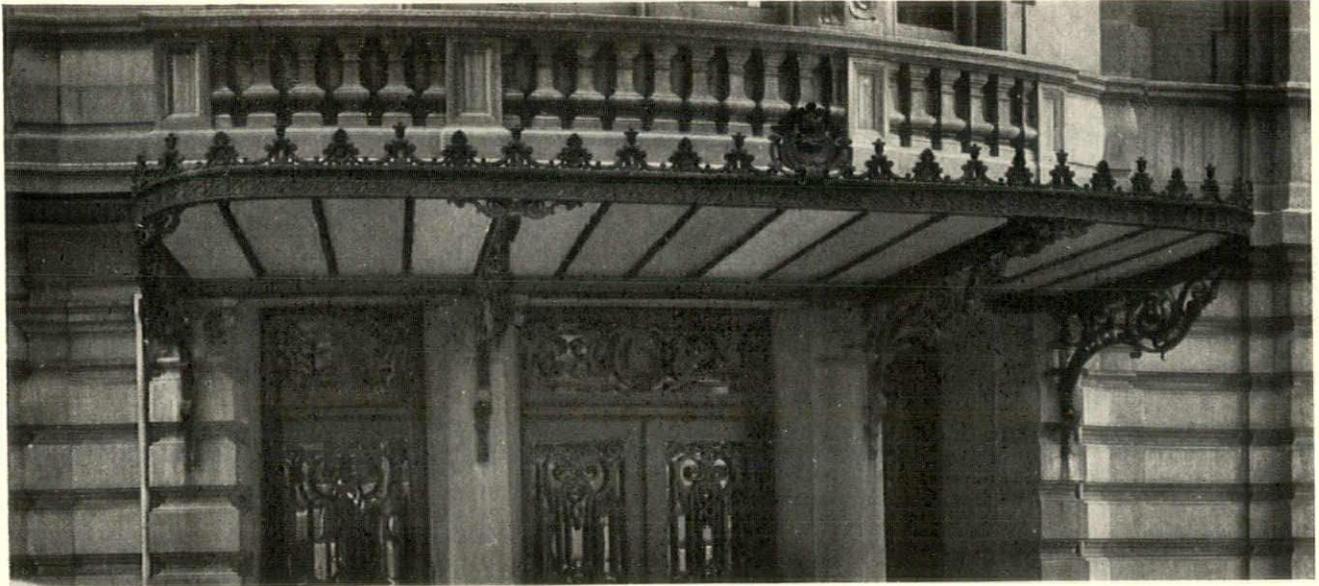
*F. Edward Jones*



*On East 77th Street,  
New York*

*Sugarman & Berger*

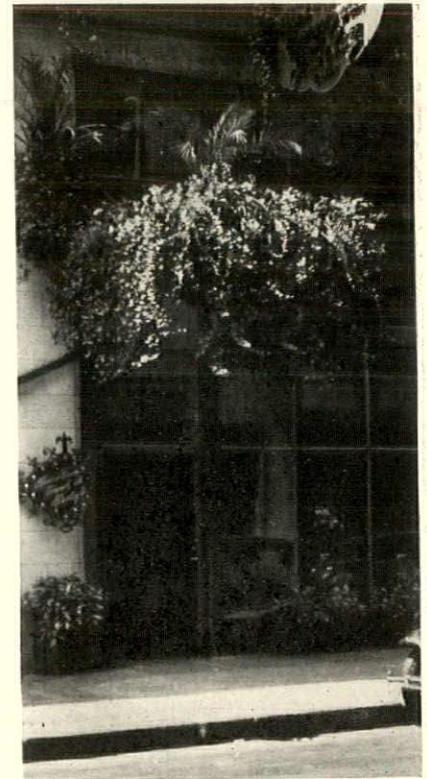




*On Fifth Avenue, New York*

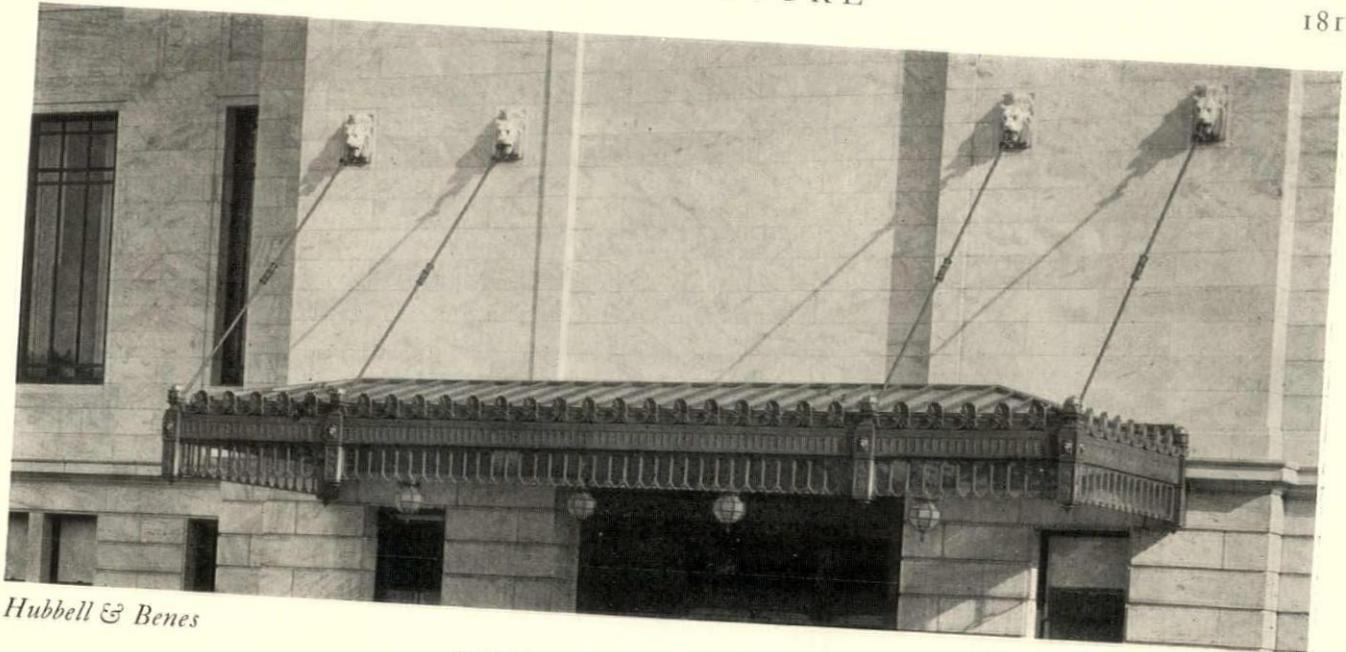


*Emery Roth*



*On a florist's shop*

*The Firm of  
Ely Jacques Kahn*



*Hubbell & Benes*



*Warren & Wetmore*



*On East 89th Street,  
New York*



*Arthur P. Hess*



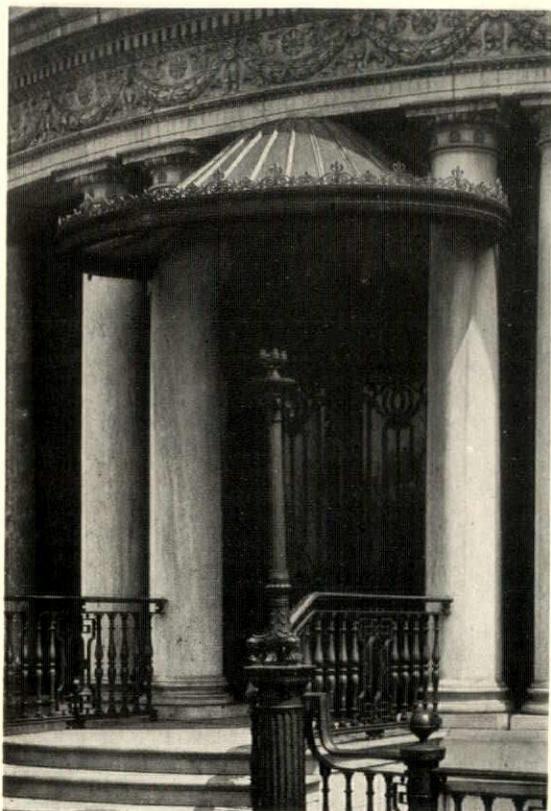
*Frank Ashburton Moore*



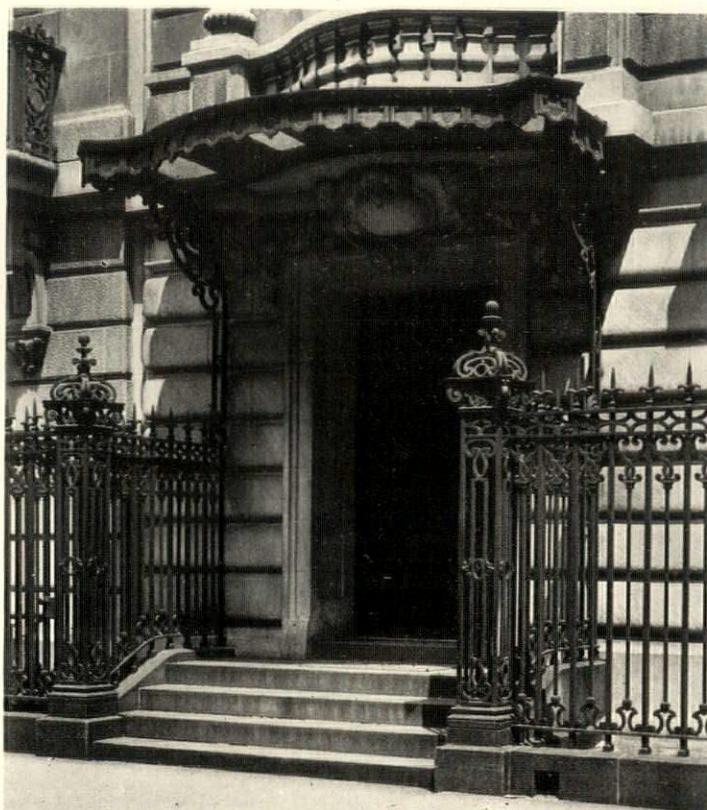
*On East 67th Street, New York*

*Rouse & Goldstone     Starrett & Van Vleck*



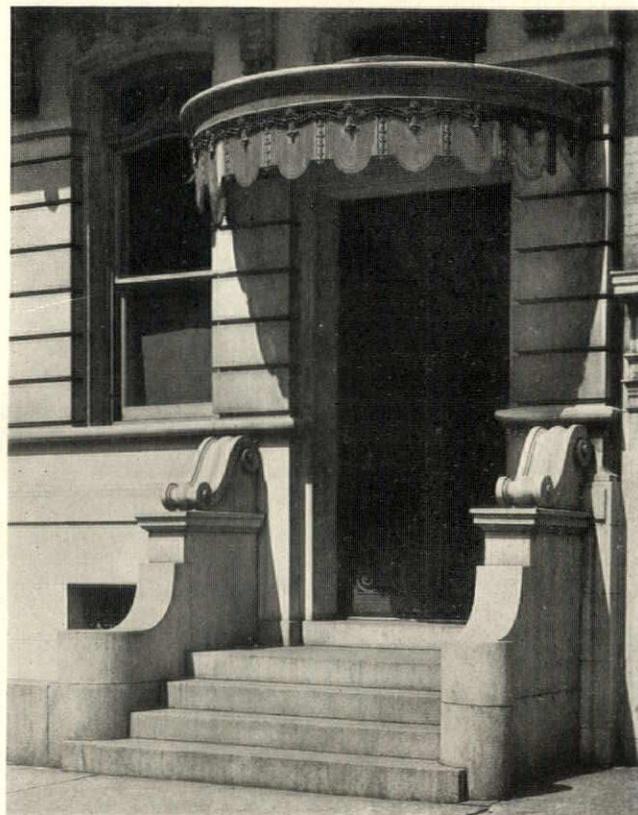
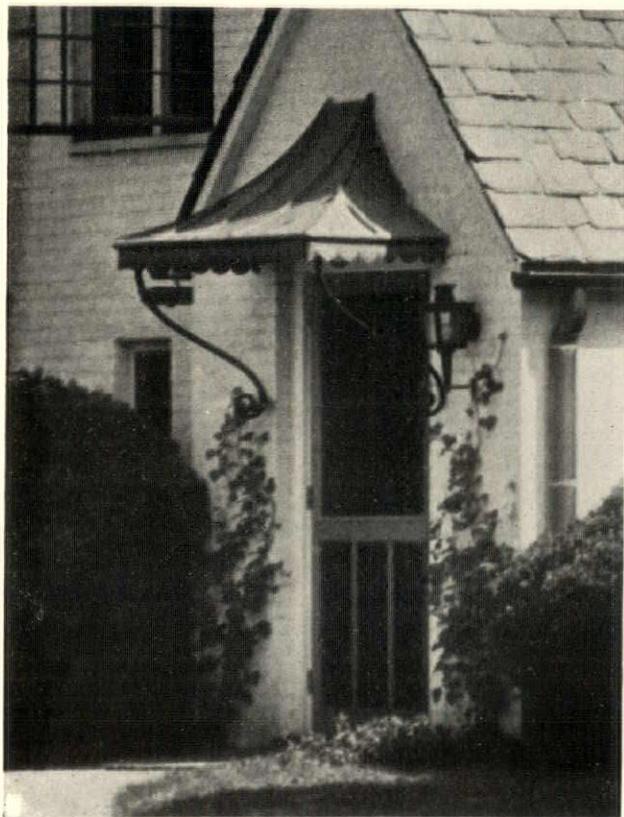


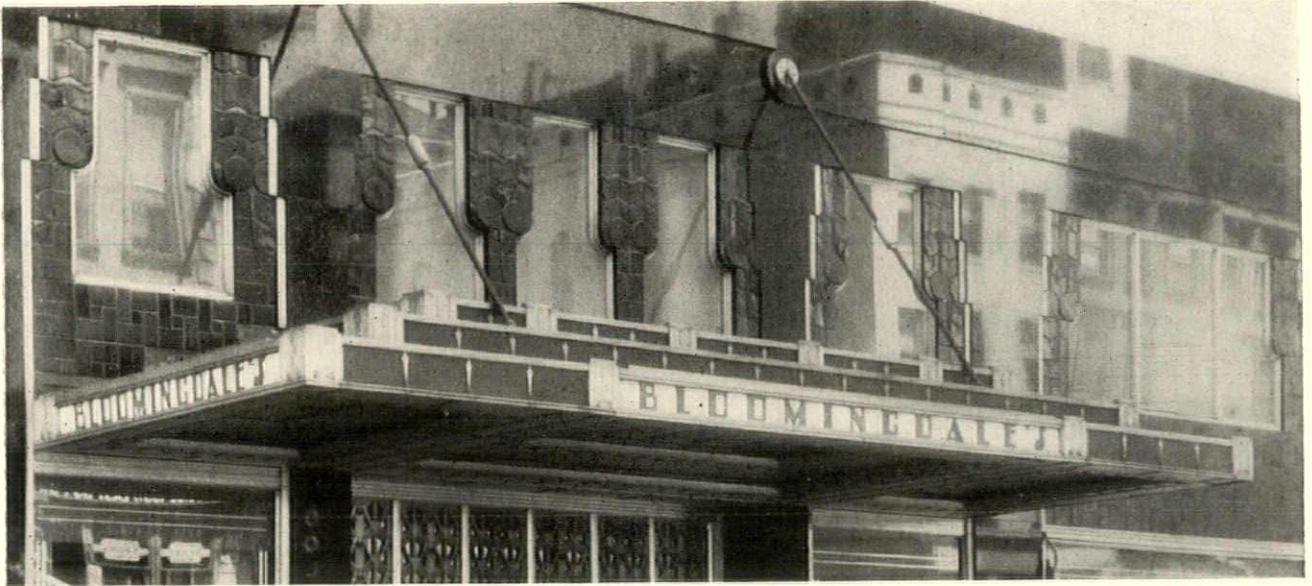
*On Fifth Avenue, New York*



*On East 75th Street, New York*

*Roger H. Bullard On East 63d Street, New York*

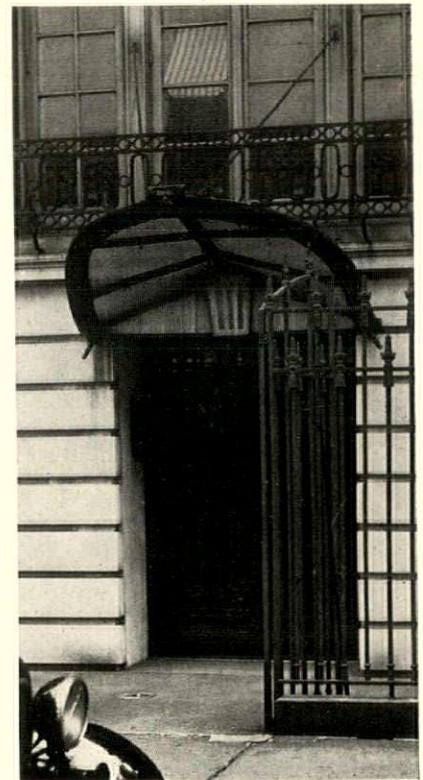
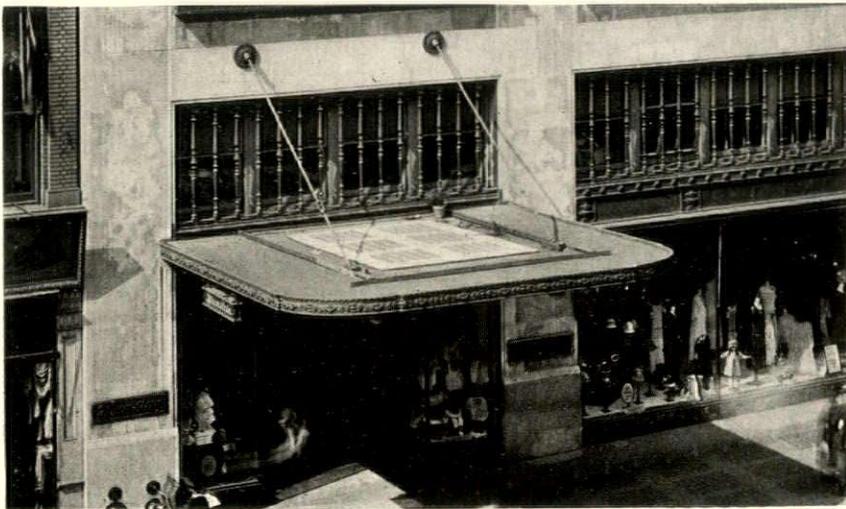




*Starrett & Van Vleck*

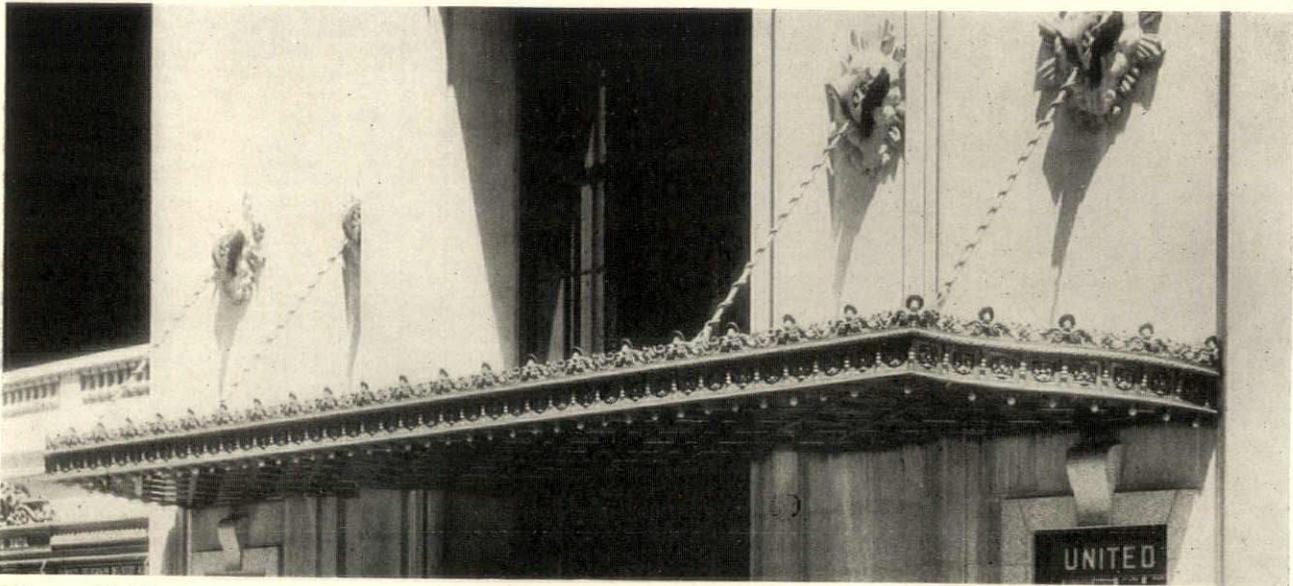


*Dorr & Gibbs*



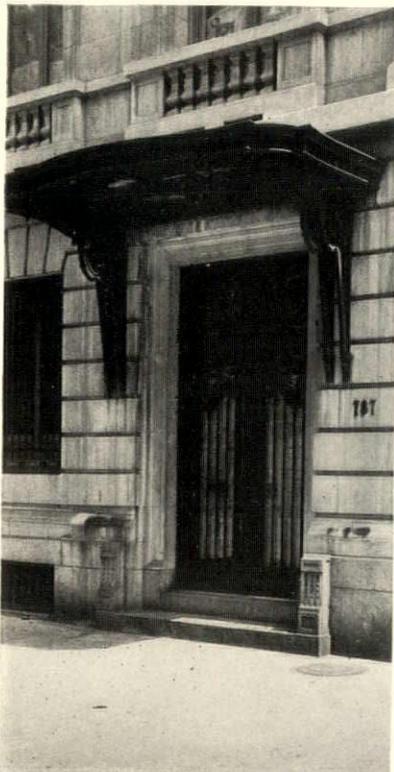
*On East 62d Street,  
New York*

*Kohn & Butler*



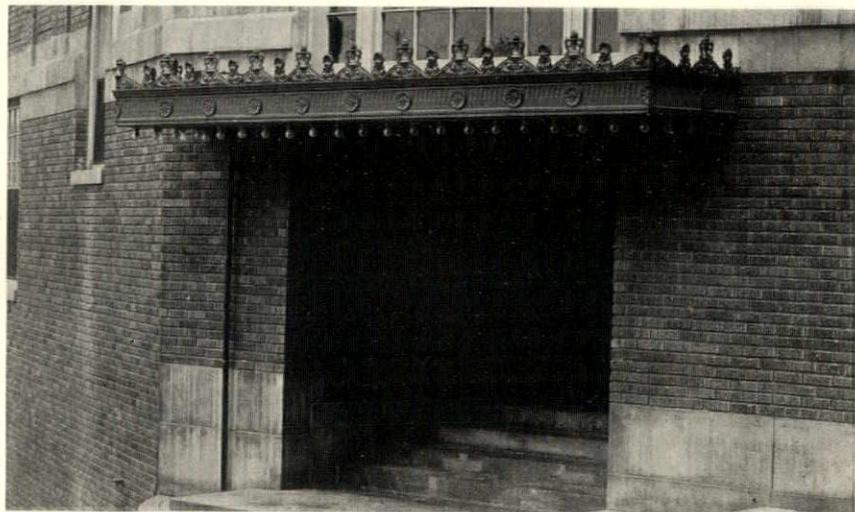
*Warren & Wetmore*

*Eric F. Reeves*



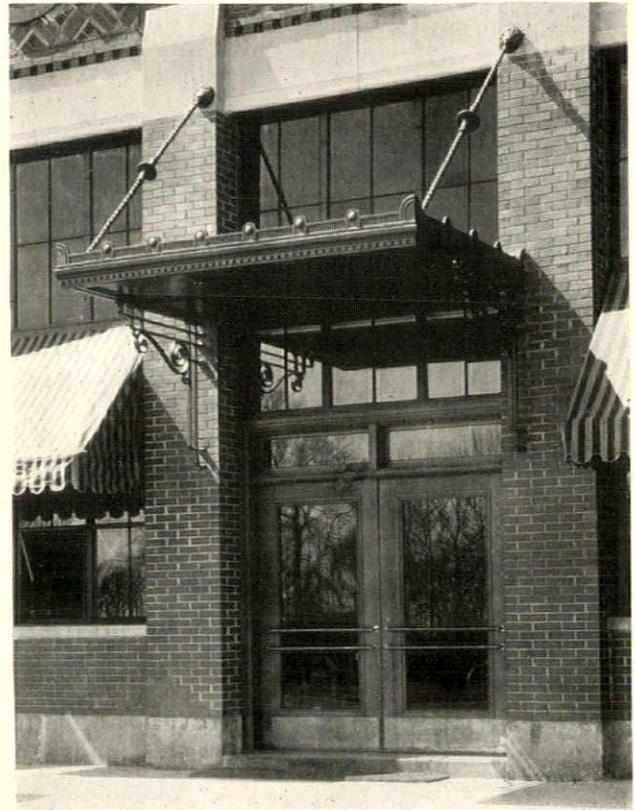
*On Park Avenue,  
New York*

*Ritter & Shay*





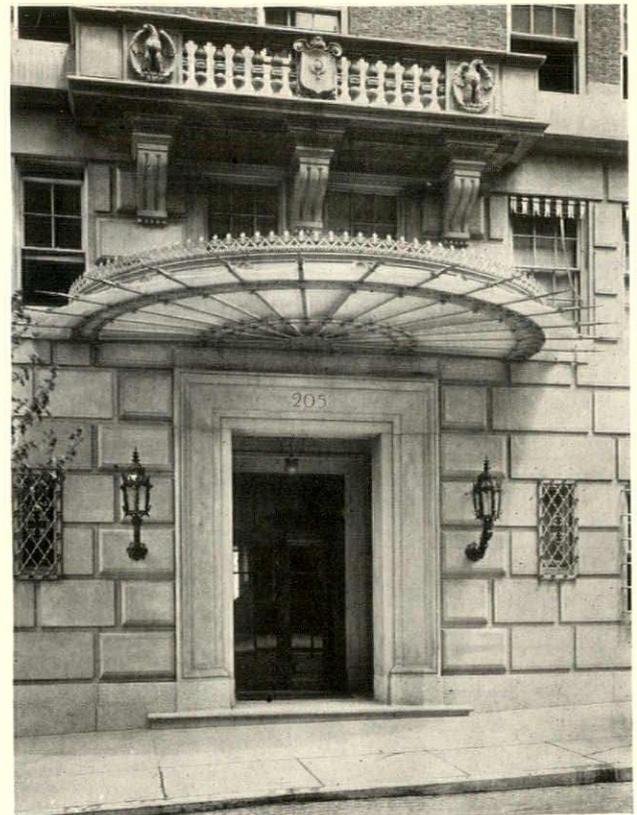
*Holabird & Root*



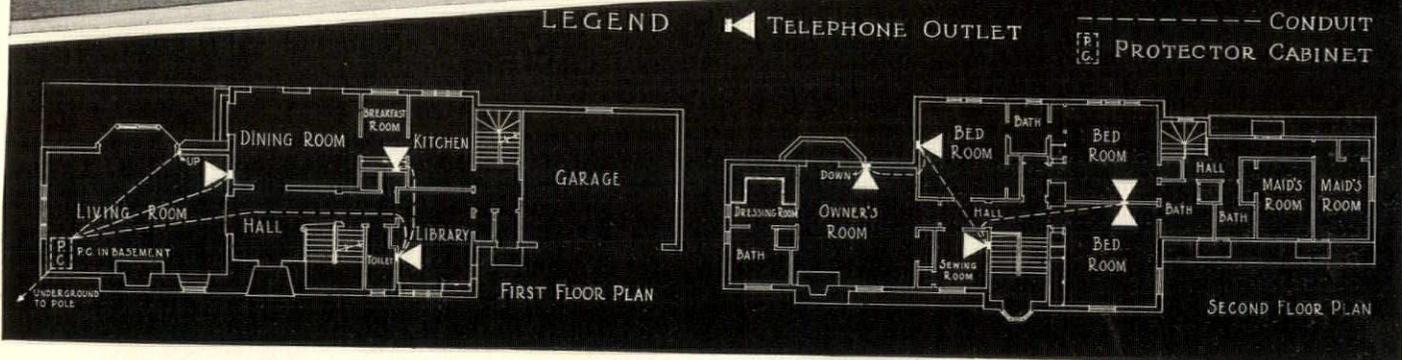
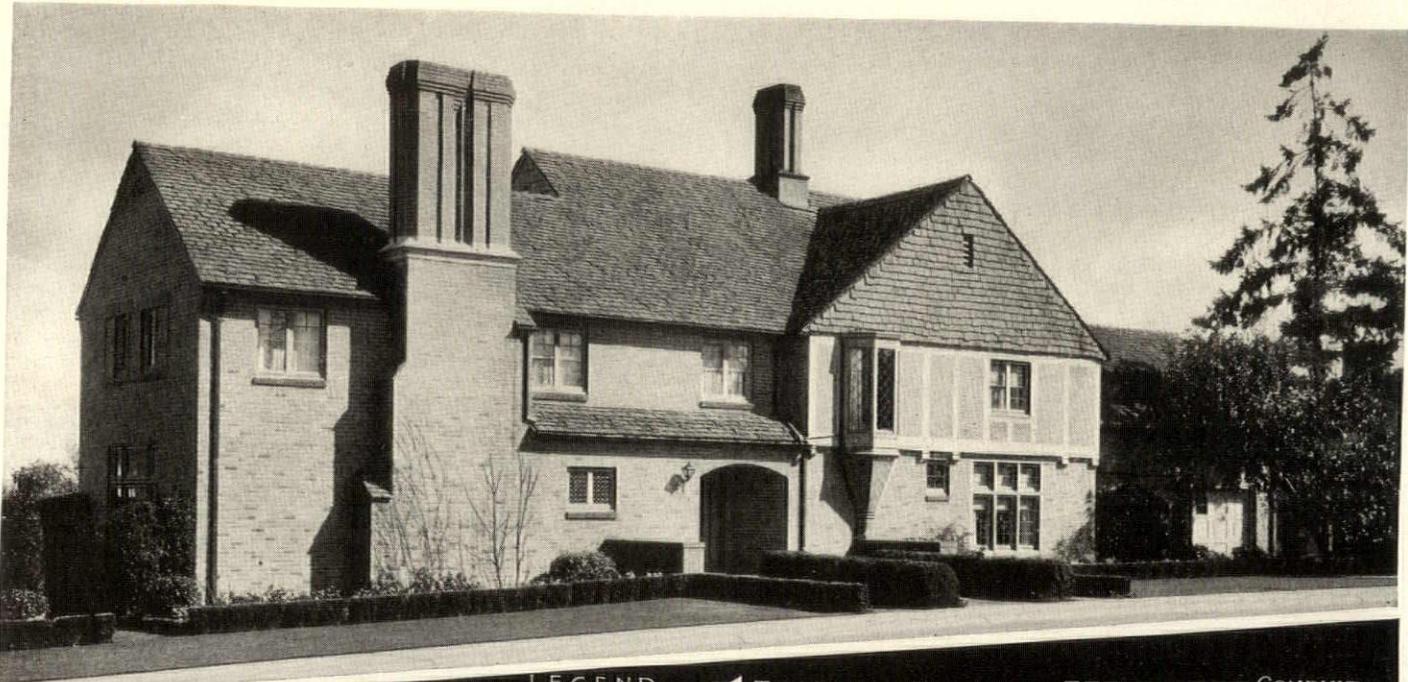
*Albert Kahn*

*A shop in Rouen*

*Charles A. Platt*



# CONSIDER TOMORROW'S TELEPHONE NEEDS IN PLANNING FOR TODAY'S



The residence of William H. St. Clair, 1666 Shenandoah Drive, Broadmoor, Seattle, Washington, is equipped for telephone convenience with built-in conduit serving eight outlets. WILLIAM J. BAIN and LIONEL H. PRIES, Architects, Seattle.

THE telephone needs of any given residence change with the years—and the occupants. Proper planning in advance assures telephone arrangements that are flexible enough to meet almost any demands that may be made.

By specifying telephone conduit within walls and floors, outlets can be located at strategic points throughout the house. Then there are sure to be *enough*, and the owner can use any

or all, exactly as they're needed. In addition, wiring is concealed and there is greater freedom from most types of service interruptions.

Let the local telephone company help you choose the right type of telephone equipment and installation for your residence projects. They'll do it gladly, without charge. Just call the Business Office and ask for "Architects' and Builders' Service."





# ARCHITECTURE'S SERVICE BUREAU FOR ARCHITECTS



ARCHITECTS AND EVERY ONE INTERESTED WILL FIND HERE THE LATEST AND MOST UP-TO-DATE INFORMATION ON BUILDING EQUIPMENT AND ACTIVITIES IN THE INDUSTRY. THESE PUBLICATIONS MAY BE HAD BY ADDRESSING ARCHITECTURE'S SERVICE BUREAU FOR ARCHITECTS, 507 FIFTH AVENUE, NEW YORK. OUR SERVICE BUREAU WILL OBTAIN ANY OTHER CATALOGUES OR DATA YOU REQUIRE.

C. C.

The Ruud Manufacturing Co., of Pittsburgh, Pa., claims for the Customer Control Burner that it is the "only water heater that will convert the vast tank-heater market to automatic hot-water service." A recent broadside lists ten pertinent questions concerning automatic hot water, and C. C. equipment in particular, and gives the answers. Low cost and maximum efficiency of operation give the owner control of his hot-water service and his gas bill.

#### PHEMALOID COMPOUND LUMBER

Maybe it was to the "Phemaloid Compound Lumberman" that the humorist sent his client who wanted just a small order of lumber, "enough for a bridge for his violin"—because the pamphlet from the Haskelite Manufacturing Corp., of 120 South La-Salle Street, Chicago, producers of Phemaloid Compound Lumber, tells us that you can get a panel "as large as a house," or "as small as a postage stamp." It is easy to visualize a myriad of applications of this electrically processed panel, with its water-proof, fire-resistant, antiseptic binder, and cross-laminated of real wood.

#### HORN T. & G. STRIPS

The A. C. Horn Company, of Long Island City, N. Y., offers descriptive literature on Horn T. & G. Strips—Tongued and Grooved Terrazzo or Granolithic. It is claimed as the only method for applying a thin flexible veneer of standard terrazzo or cement topping over wood or concrete and producing a "hard-soft" floor. The folder presents the various applications.

#### ELECTROL

Electrol Incorporated of New York City offers descriptive literature showing the result assured by the Electrol Quiet All-Electric Oil Burner. It refers finally to an impressive list of satisfied owners and includes specification directions.

#### ATSCO ROLLER SCREEN

A booklet recently issued by the Automatic Tension Screen Co., Inc., of Los Angeles, Calif., contains such complete file information as will facilitate early planning for screens by architects. General specifications and sectional drawings in full size detail are included.

#### WIRE CLOTH

Catalog No. 32 from the Newark Wire Cloth Company, of Newark, N. J., is a compact handbook dealing with the selecting and testing of wire cloth products. Architects will be glad to learn that this company markets a particularly fine mesh—160,000 square openings per square inch. This handbook should prove to be of much practical use.

#### LINOWALL

Hot off the griddle—the Armstrong Cork Co., of Lancaster, Pa., announces as ready for the market at once its latest development, Linowall, a wall

covering providing the desirable qualities of linoleum combined with special designs and colorings particularly suited to wall use. Send for details.

#### AIR-COOLING

Air-Control Systems, Inc., of Chicago, 2240 Racine Avenue, announces a new and patented device, a refrigerating system for space cooling which brings the initial cost of the refrigerating equipment within reach of stores, offices, and home owners. Air-Control adds this 1932 problem-answer to its 1931 announcement of "Zephyr 75," the silent, compact air washer.

#### DRY AIR FILTER

A bulletin describing the new Coppus Annis "Dry" Air Filter for ventilating systems is now being distributed by the Coppus Engineering Corp., Worcester, Mass., manufacturers of blowers and steam turbines. In addition to installation diagram and other illustrations are reference tables and technical data of importance to the ventilating engineer and contractor.

#### CARNEGIE STEEL SHEET PILING

Insert A is off the press for inclusion in your copy of Carnegie Steel Sheet Piling Catalogue. It contains interesting illustrations of several recent piling installations, and includes revised pages 37 and 38. From the Carnegie Steel Company, Pittsburgh, Pa.

#### ATLANTIC TERRA COTTA

The June issue of *Atlantic Terra Cotta* is a graphic record of worthy installations of Atlantic Terra Cotta, showing the versatility of use of this modern, yet age-old building material. You should be on the mailing list of this trade publication.

#### VALVE COMPARISON

The Ohio Injector Co., of Wadsworth, Ohio, has prepared for your file a valve comparison chart. Copies sent on request.

#### GARAGE-DOOR HARDWARE

Word comes from the Thompson Mfg. Co., of Los Angeles, of newly perfected garage-door hardware providing a balanced mechanism. It is suitable for old doors or new. Literature will be sent on request.

#### GYPSUM LATH

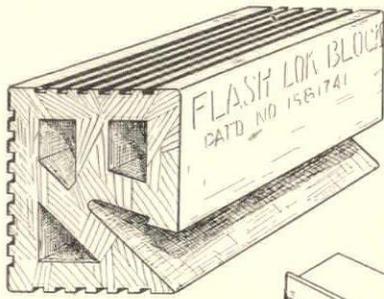
The Gypsum Association, 211 West Wacker Drive, Chicago, has issued a booklet, "Facts About Gypsum Lath," to promote a clearer understanding of Gypsum Lath advantages. Copy is yours for the asking.

#### VENTILATING FANS

The L. J. Wing Mfg. Co., of 154 West 14th Street, New York City, sends a folder, Bulletin No. F-5, describing in detail Wing-Simplex Safety Ventilating Fans. Capacities and dimensional tables are included, as well as typical installations.

(Continued on page 16)

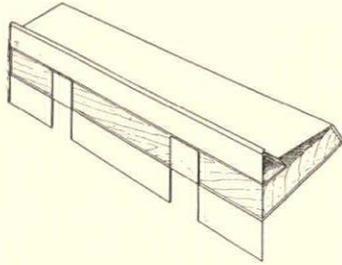
# PROTECT YOUR ROOF WITH FLASH-LOK



MAKES  
THE  
PERFECT  
FLASHING  
EASILY  
INSTALLED

Experience shows us that about 95% of the roofing leaks can be traced directly, or indirectly, to the flashings.

FLASH-LOK BLOCKS and FLASH-LOK FORMS are designed to receive and securely hold in place any and all types of roof flashings and counter flashings in common use in the roof construction of today.



Manufactured by

W. S. DICKEY CLAY MANUFACTURING CO.  
Birmingham, Ala. Macomb, Ill. San Antonio, Tex.  
Kansas City, Mo. San Francisco, Calif.

# THE CUTLER MAIL CHUTE

TO INSURE standard, dependable equipment installed promptly at moderate cost, the Cutler Mail Chute should be specified by name. If desired, approximate estimates will be furnished in advance.

If preferred, a stated sum may be allowed to cover this item.

Full information, details, specifications and estimates on request.

**CUTLER MAIL CHUTE CO.**

General Offices and Factory  
ROCHESTER, NEW YORK



The latest product of our studio is this life-size statue of St. Francis of Assisi, hammered entirely out of copper, free hand from drawing, thereby not only saving the cost of a model but also unnecessary weight.

Designed and executed for the  
THIRD ORDER VILLA  
Garrison, N. Y.

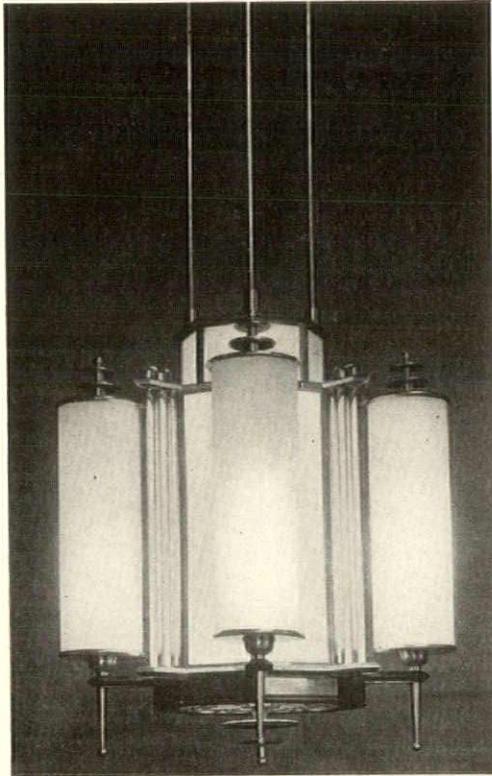
by

**FERRO STUDIO, INC.**

228 E. 150th Street, New York City

# NESSEN STUDIO INC

LIGHTING FIXTURES AND DECORATIVE METAL WORK  
211 EAST 49TH STREET NEW YORK



HANGING  
FIXTURE  
New York Trust Co.  
Walker & Gillette  
Architects

**WE ARE EQUIPPED** to furnish the best methods of reproduction from making the original copy to engraving and printing the finished job.

Our latest addition to the field of Graphic Arts is **BECK GRAVURE**. This process retains all tones and details of the original from richest blacks to the most delicate tints. It is especially adapted to direct mail and other forms of pictorial and architectural advertising. Our booklet, "Beck Gravure," will be sent upon request.

*The editorial pages in this issue of Architecture were printed from half-tone plates made by the Beck Engraving Company.*

## THE BECK ENGRAVING COMPANY



NEW YORK . . . . . 305 E. 45th St.  
PHILADELPHIA . . . . . 7th & Sansom Sts.  
SPRINGFIELD, MASS. . . . . 10 Broadway

(Continued from page 14)

### GATE VALVE

The Kennedy Valve Mfg. Co., of Elmira, N. Y., has placed on the market a new line of Rising Stem Bronze Gate Valves for 125-pound steam pressure and 175-pound water pressure. Information will be sent on request to the company direct or through this bureau.

### WINDOW GUARD

A new home protection device announced by the Shur-Loc Window Guard Corp., associated with Accurate Metal Weather Strip Co., of New York City, is said to do away with all bolts, screws, nails, or rivets. The guard is placed directly below the upper sash, permitting upper sash to open a few inches for ventilation, and in no way interfering with the operation of the lower sash. The guard is held securely and can only be removed on unlocking.

### AIR CIRCUIT-BREAKERS

The Roller-Smith Co., of 233 Broadway, New York City, has just published Catalogue No. 5, covering air circuit-breakers, standard, industrial, and enclosed types.

### BOILER WATER FEEDERS

The Watts Regulator Co. of Lawrence, Mass., has issued a folder on its new line of Boiler Water Feeders. Boilers with their equipment are in no danger of water running low. The water level is automatically kept above the danger line. They produce a feeder for all types of oil, gas, or coal fired boilers. The Watts Regulator Co. guarantees all its products against defects in material and workmanship.

### FOR ELEVATOR SERVICE

General Electric offers for your file a folder on single-speed induction motors for elevator service, squirrel-cage motors, known as Type KE. The folder includes ratings and dimensional tables. The motor design embodies such essential characteristics as low-starting current, quiet operation, and strength to withstand frequent starts and stops.

### "AS NEW AS TOMORROW"

Is the recommendation of the Aluminum Industries, Inc., of Cincinnati, Ohio, on Permite Resalum, an aluminum paint for preservative purposes. Send for a working sample.

### "MODEL T" KERNERATOR

The Kerner Incinerator Co., of Milwaukee, Wis., describes in its just published A. I. A. File Folder its new "Model T" which has been especially designed for small houses. Installation drawings and specifications are included.

### NEMANCO THRESHOLDS

The motto of the Newman Mfg. Co., of Cincinnati, Ohio, is "Everything from a kick plate to a \$500,000.00 installation." Their most lately received folder enumerates many of the styles and illustrates both kick plates and thresholds.

### LOK-CROWNER

The Lok-Crowners are the latest development of the Rawplug Co., Inc., of New York City. An outstanding use of the Lok-Crowner, the new device that locks, seals, and conceals bolts, screws, and nuts, is to be seen in the interior of the Observation Room on the top floor of the Empire State Building. The manufacturers advise that samples will be furnished on request to those interested.

**SOLVING THE PARKING PROBLEM**

The Turner Elevator Co., of Kansas City, has a new solution for this problem which is becoming more complex with the production of each new car. It has obtained a patent on its newly developed Circular Elevator Garage. Equipment includes a rotatable platform with loading, locking, and unloading devices mounted thereon. These devices are electrically driven and controlled by push buttons. Around the elevator hatchway on each floor is space for ten cars with direct right of way to the elevator. The company claims minimum ground space and maximum storage capacity, perfect accessibility, and prompt delivery for its new garage.

**CINMANCO**

Folders from the Cincinnati Mfg. Co., Gest and Evans Streets, Cincinnati, illustrate the scope of the company's activities in metal craftsmanship from tablets to screens. Cinmanco All-Metal Screens are "made-to-order" for any type of window or door regardless of shape or size.

**HAYDITE BUILDING UNITS**

The Haydite Manufacturers Association of Kansas City has published a reference catalogue for architects and engineers supplying information on Haydite Building Units, Concrete and Pre-Cast Products. It features the Haydite system of "Multiple-Utility," masonry construction that reduces costs and saves dead loads. A description of the general properties of Haydite, photographs showing its various uses, full construction details, and suggested specifications are given. The subject of fire-resistance, thermal and sound insulation as pertaining to Haydite are discussed.

**AERO**

Is a nation-wide service for better protection against fire. The American District Telegraph Co., 155 Sixth Avenue, New York City, renderers of this Central Station Fire Alarm Service in all the large cities, has just published a new and practical book on Aero. Some of the interesting sub-titles are: "Science Finds a Remedy," "Insurance Plus," "The First Five Minutes." Operation, adaptability, and reliability are dwelt on. Send for copy.

**YORK BOOSTER COMPRESSOR**

The York Ice Machinery Corp., of York, Pa., has published a new and complete bulletin on their Booster Compressor. It will be of special interest to those architects who are co-operating on plants for the production of quick frozen foods, oil refineries, and automobile and airplane plants. The new compressor is semi-enclosed, vertical, and single-acting.

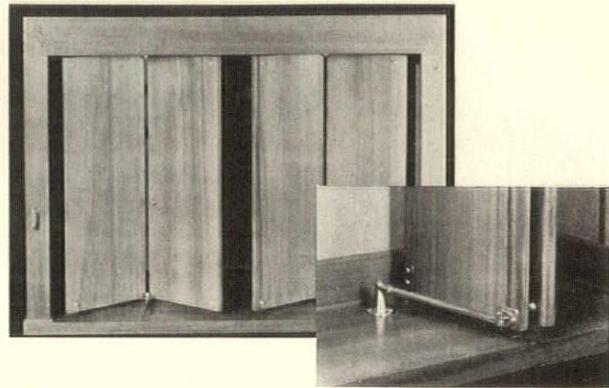
**PERSONALS**

Mr. Ray A. Lackner has been appointed branch manager at Pittsburgh for the E. I. Hauserman Company, of Cleveland, manufacturers of Hauserman Movable Steel Partitions.

Inland Steel Co., of Chicago, has opened offices at 1118 Fisher Building, Detroit. Mr. J. H. Fitch, Jr., is manager in charge.

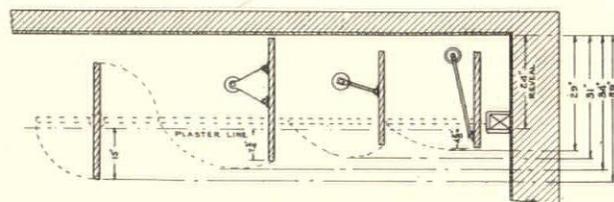
The Mills Company, of Cleveland, manufacturers of portable and stationary partitions, announces the appointment of R. E. Arnold, 84 State Street, Boston, as New England representative.

**SANE ECONOMY IN SCHOOL BUILDINGS...**



**WILSON'S Type H SCHOOL WARDROBE GIVES . . .**

- 1—MAXIMUM STORAGE SPACE WITH MINIMUM ROOM AREA.
- 2—TRUE ALIGNMENT OF DOORS AT ALL TIMES.
- 3—PROTECTION TO WRITING ON BLACKBOARD AREA.

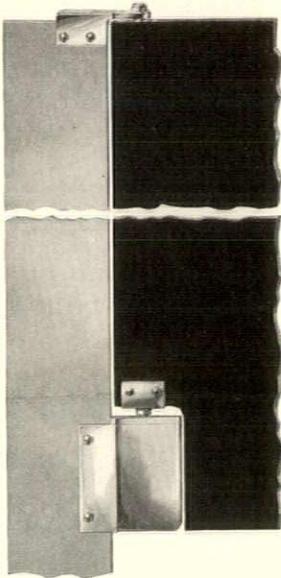


Center Pivot Type Single Pivot Type Double Pivot Type Type H

Comparative Space Requirement for Swing of Wardrobe Doors

**The J. G. WILSON CORPORATION**  
**NORFOLK VIRGINIA**

# NEWTON PIVOT CHECK



For  
SINGLE SWING  
LAVATORY STALL  
DOORS

# 100  
Self-Closing

# 101  
Self-Opening

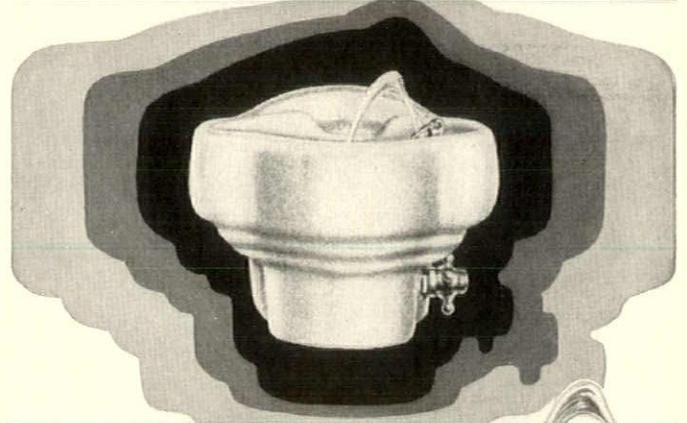
SEND FOR DRAWINGS  
AND  
APPLICATION DETAILS

Smooth, quiet, positive operation eliminates all noise and all possibility of damage to frontals, partitions or doors.

On exhibit at Architects Samples Corporation,  
101 Park Avenue, New York.

**C. H. NEWTON & CO.**  
247 ATLANTIC AVE. — BOSTON, MASS.

# MAKE SANITATION SURE



# BY SPECIFYING No. 2605

● In this fountain, projector is located above overflow line of receptor to meet American Public Health Association regulations—and its patented Halsey Taylor features further guarantee sanitation.

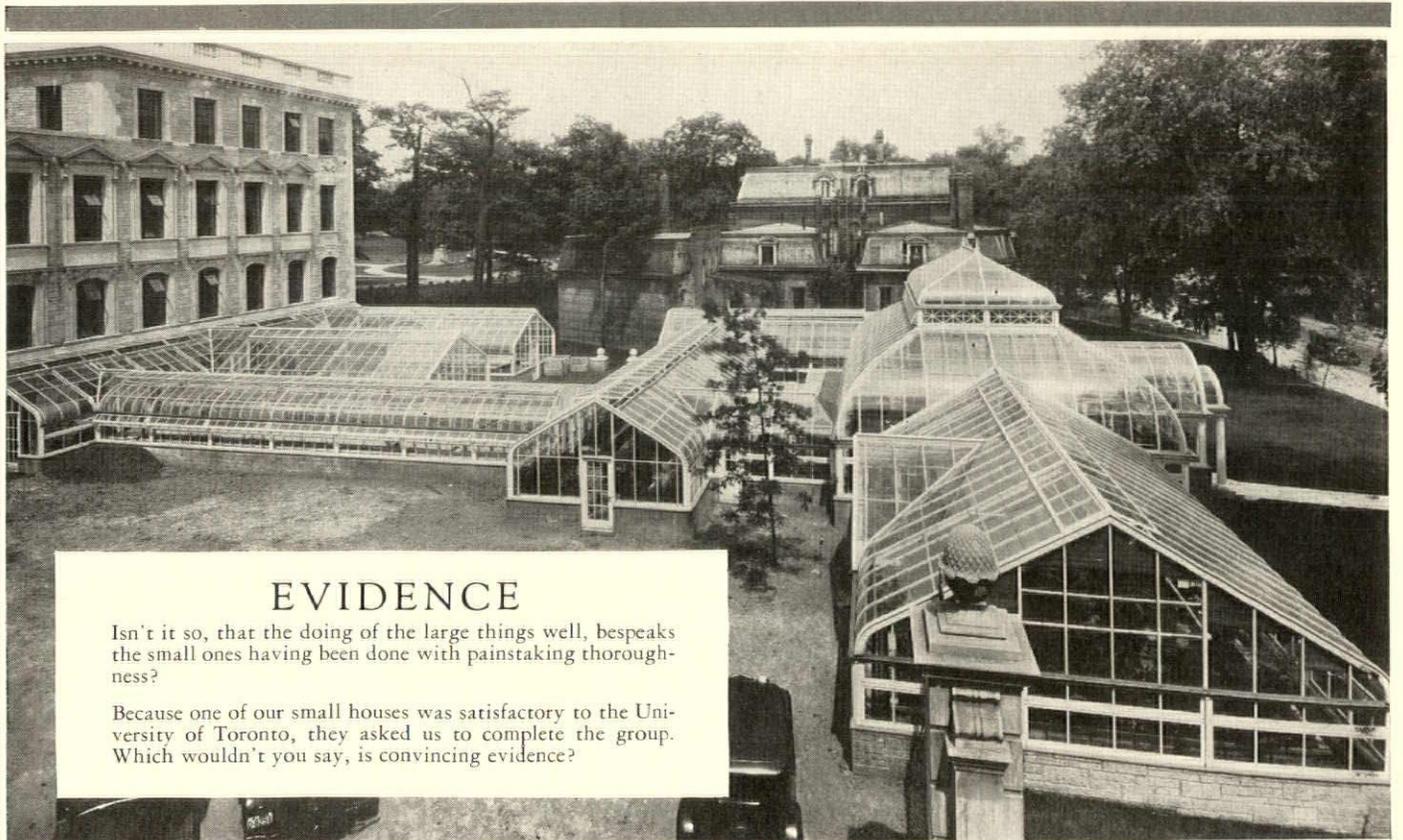


**Distinctive Two-Stream Projector Above Overflow**

The Halsey W. Taylor Co. • Warren, O.

The stream always uniform, never too high, or never too low; ever sanitary!

**HALSEY TAYLOR**  
DRINKING FOUNTAINS



## EVIDENCE

Isn't it so, that the doing of the large things well, bespeaks the small ones having been done with painstaking thoroughness?

Because one of our small houses was satisfactory to the University of Toronto, they asked us to complete the group. Which wouldn't you say, is convincing evidence?

**LORD & BURNHAM Co.**

IRVINGTON, N. Y.  
NEW YORK  
PHILADELPHIA

CHICAGO  
CLEVELAND  
ST. CATHARINES

BOSTON  
TORONTO

**FOR FOUR GENERATIONS ... BUILDERS OF GREENHOUSES**

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## WHAT TO SPECIFY

## WHERE TO BUY

IF YOU ARE INTERESTED IN OBTAINING THE CATALOGUES OF ANY OF THE ADVERTISERS IN THIS ISSUE OF ARCHITECTURE (AS LISTED BELOW) LET ARCHITECTURE'S SERVICE BUREAU SEND THEM TO YOU. ANY ADDITIONAL DATA CONCERNING THE INDUSTRY THAT THE READERS OF ARCHITECTURE REQUIRE WILL GLADLY BE COMPILED FOR THEM BY OUR SERVICE BUREAU.

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# The October ARCHITECTURE

*Presents for your use*

Today's Craftsmanship in Tile

by EUGENE CLUTE

This article bears out our contention that the craftsman of today need make no apologies to that of any other age.

New Dormitories at  
Princeton University

Designed and executed by that master of the collegiate adaptation, CHARLES Z. KLAUDER.

The Drama of Building  
Photographic studies of concrete.

Colonial House at Scarsdale

by LITCHFIELD

Stone Tile House in Los Angeles

by PRICE

and

Stewart, Bartels, Observer, Portfolio



# ARCHITECTURE

CHARLES SCRIBNER'S SONS

597 Fifth Avenue, New York City



Audley, near Berryville, Va., was inherited by the son of Nellie Custis Lewis, adopted daughter of Washington. Here she came to spend her latter days.

## When Old-Time Audley Was Built Bricks Were Bricks In Old Virginia

HAVING said which you reply: If bricks were bricks, then why was Audley painted?

To which I answer with a tolerable amount of feeling, those smart Yankee salesmen came down here in Virginia and sold their paint to a lot of our unsuspecting folks. Some of them what you might call tolerable hard-headed thinking folks at that.

When I get to turning it over in my mind, seems like boiling those salesmen in oil, was about the right punishment for causing the covering up of the bricks in so many of our fine old homes.

Audley for instance, where Nellie Custis Lewis spent her last days, is one of the few examples in Virginia of the true Southern brick Colonial farm house. Charming in its simplicity, while still reflecting a feeling of plentiful living and a right smart lot of contentments.

Built it was of slave-made bricks. All of them I'll wager made there on the grounds. Soft colorful Virginia hand-

made brick they were, painstakingly laid with just the right width joints. A fine piece of work in every way.

And then, there swooped down from the North, the paint plague. And Audley fell. Admittedly pleasing as its painted effect may be, one can but regret the loss of that hidden beauty that is so surely back of that paint.

Reckon, however, you are right. There are a lot of drabish-yellowish no account brick that have been, and are being made in Virginia, that it is sure enough a kindness to paint.

Furthermore, am not being so bold as to argue against the way some architects use ordinary low cost common brick, and then paint them. It does give a fairish likeable effect. There's a sure enough texture—a word which however, suspect has been used so kind o' careless like, it's a bit shiny at the elbows.

One thing certain, none of you send down here for our Old Virginia brick,

unless you want to sure enough solve your problem of getting not alone color and texture, but at once secure a time-toned effect. *Bricks that are born old.*

Seems like try as you will, there's no other brick that has all those attributes. There are a lot of reasons for it. Most of those reasons came to us by way of Mr. Jefferson, who has the reputation of being a more than passably good brick maker.

Whether it's making our hand-mades or mould-mades, we pretty much follow his methods. Even go so far as to call the squarish header size "Jeffersons."

In our next chat am going to keep that promise about Serpentine walls.

HENRY GARDEN  
*Brick Maker for*  
OLD VIRGINIA BRICK CO.  
*with Mr. Jefferson as a Guide.*

OLD VIRGINIA  BRICK

Old Virginia Brick Company  
Salem, Virginia