Chechel

LIBRARY OF THE MINNEAPOLIS COLLEGE OF ART & DESIGN

MARCH 1930

PENCIL POINTS

A JOURNAL FOR THE DRAFTING ROOM

35 CENTS A COPY
21,000 COPIES OF
THIS ISSUE PRINTED

Famous Quarries— Yours to Choose From

Famous Quarries of Indiana Limestone Company

DARK HOLLOW P. M. & B.

Hoosier Doyle

Walsh Eureka

PEERLESS

THE proven quarries of the Indiana Limestone district are yours to choose from when you specify Indiana Limestone Company stone. You'll never find Indiana Limestone Company representatives trying to limit you in your search for just the right color of stone. We have an almost unlimited variety to offer you, far more than anyone else.

In fairness to yourself and your client, why make your selection where there is less opportunity to find exactly what you want?

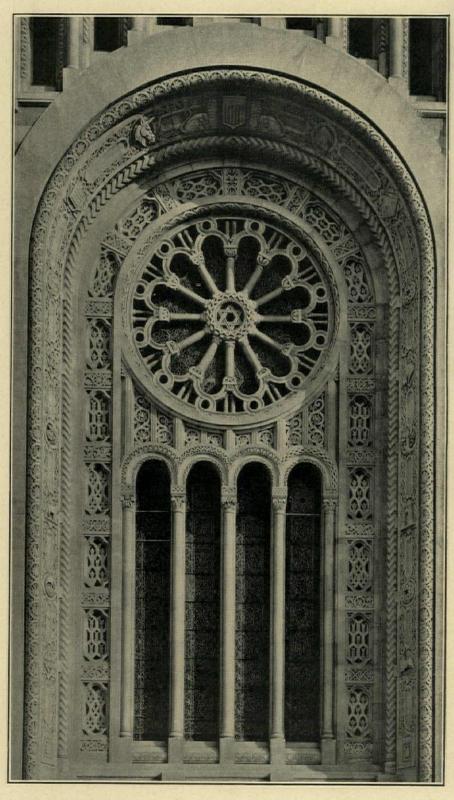
The buildings constructed of Indiana Limestone are the best "samples" from among which to find exactly the stone you're looking for. Look these over — then ask where the stone that interests you came from. Nine times out of ten it will be from a quarry now part of Indiana Limestone Company.

Along with this largest variety of stone, Indiana Limestone Company offers you the highest standard of service ever developed in the stone industry. You have every requisite for the successful completion of your project in these two factors—stone and service. Why take a chance with any but the best?

To make identification of Indiana Limestone Company stone easy, we are now marking every piece

ILCO

At right, Detail, Temple Emanu-El, New York City. Kohn, Butler & Stein, Architects. Mayers, Murray & Phillip, Associates. Cauldwell-Wingate Company, Builders. Variegated Indiana Limestone from University and Dark Hollow Quarries.



INDIANA LIMESTONE COMPANY

General Offices: Bedford, Indiana

Executive Offices: Tribune Tower, Chicago

Pencil Points, published monthly by The Pencil Points Press, Inc., at 258 Atlantic St., Stamford, Conn. Publication office Stamford, Conn. Editorial and Advertising Offices 419 Fourth Avenue, New York, N. Y. Yearly subscription \$3.00, single copies 35 cents. Application for entry as second class matter at the Post Office at Stamford, Conn., is pending. Volume XI No. 3. Dated March, 1930

Color but not Polychrome

There are many supplementary uses of color in Atlantic Terra Cotta, only distantly related to Polychrome.

For example, several shades of one color can be used to give variation. This variation may be random or of gradual even shading, dark at the base, growing lighter as the building ascends.

Low relief modeling can be clearly defined by using a dark color in the background.

The vertical lines of a building can be accented by spandrels of black, green or bronze color.

The vertical lines can be modified by spandrels that repeat the color of the piers.

The possibilities are as wide as the color range, and there are hundreds of colors in Atlantic Terra Cotta.



Atlantic Terra Cotta Company 19 West 44th Street, New York

> Atlanta Terra Cotta Company Atlanta, Georgia



No MATCH

Wind-driven rain and hail, freezing as they fall, find unsuspected leak-spots in many trusted roofs.

But there is one roof that laughs at sleet, wind, fire, ice, rain, sun and other roof-wrecking agents. It is the ATP Roof—made of materials that actually improve under conditions ruinous to other roofs. Water preserves pitch—heat makes it self-welding, sealing up all cuts and cracks. Fire, the elements and mechanical wear are helpless against ATP slag, tile or gravel armor.

With or without bond, ATP Roofs are all made of exactly the same materials. The bond is optional. Dollar for dollar over periods of 25 to 40 years, ATP-type roofs consistently outwear any other type of roofing known to man.

AMERICAN TAR PRODUCTS COMPANY · Koppers Building, Pittsburgh
Division of The Koppers Company

New England Division: TAR PRODUCTS CORPORATION, Providence, R. I.

Plants at Chicago, St. Louis, Birmingham, Milwaukee, Kearny, N. J., Youngstown, Ohio, Providence, R. I. and Follansbee, W. Va.

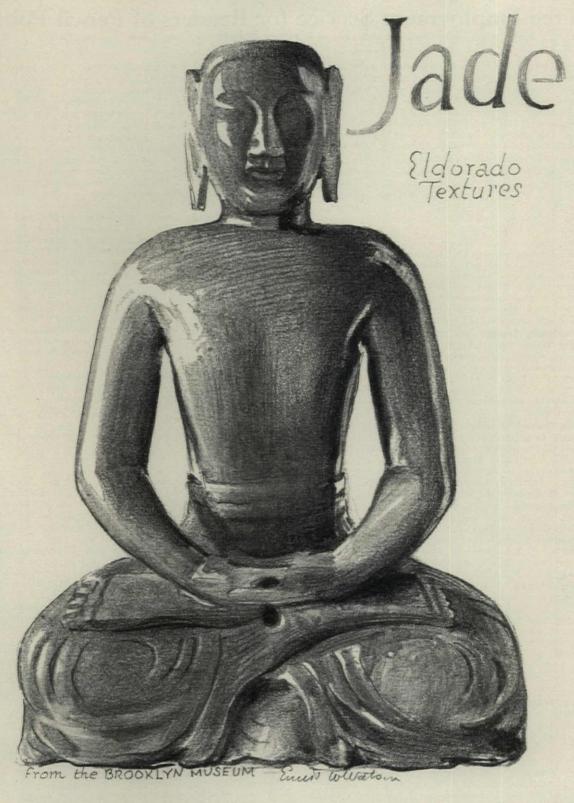
*ATP

COAL-TAR PITCH and FELT

ROOF



Roofed with ATP
EMPIRE BUILDING, Milwaukee, Wisconsin.
Architect: Kirchoff and Rose.
General Contractor: Lundoff-Bicknell Company.
Roofing Contractor: F. J. A. Christenson Roofing Company



It will be noted that in this drawing and several others of the Eldorado Texture Series of 1930, the "direct" method of handling the pencil has not been employed. In the direct method, the strokes are laid down with vigor and there is no effort made to cover up or hide the pattern of pencil lines. Indeed, in the rendering of many textures, this characteristic "stroke technique" is helpful in suggesting the material, and charming in itself.

But in drawing this jade, a quite different method had to be used. Prominent stroke technique would defeat the

aim of this study. A smooth self-effacing technique was the only means of expressing the subtle severity of the Buddha's surface texture. Pencils rather sharply pointed, with a sparing use of the paper stump (for rubbing in a tone), are the basis of the handling here employed.

Watch Pencil Points each month for the Eldorado Texture reproductions by Ernest W. Watson. Send for samples of Eldorado, "The Master Drawing Pencil," to Joseph Dixon Crucible Co., Pencil Dept. 167-J, Jersey City, New Jersey.

A Free Employment Service for Readers of Pencil Points

Replies to box numbers should be addressed care of PENCIL POINTS, 419 Fourth Avenue, New York, N. Y.

Wanted: Instructor in Architectural Engineering to divide his time between teaching and drafting work in the office of the Supervising Architect of one of the large Eastern Colleges. Salary \$2,400 for School year of 11 months. Subjects to teach will be Building Construction, including Reinforced Concrete and Structural Steel. Address Educational Department, The Engineering Agency, Inc., 53 W. Jackson Boulevard, Chicago, Illinois. (Adv.)

Wanted: Draftsman to assist landscape architect. experience and salary. L. Lundquist, Peckskill, N. Y.

Wanted: A competent draftsman who has had experience in getting out working drawings. Not necessarily a designer but one who is familiar with every phase of a building. Must be especially well experienced. Box No. 300, care of PENCIL POINTS.

Wanted: Architectural draftsmen experienced in the preparation of working drawings and details for general work in Central New York State. Also architectural superintendent to supervise construction of high class residences in northern New Jersey and Westchester County. Reply by letter stating experience, training, remuneration desired and time applicant will be available to Bagg and Newhirls 258 Canadas Street Utica. N. V. Newkirk, 258 Genesee Street, Utica, N. Y.

Architecturally Trained Men Wanted for Sales and Promotional Work: Manufacturer of steel building products is desirous of obtaining the services of four (4) men who have a thorough training in architecture. These men are to be used in sales and promotion work of a specialized product, and should be capable of talking convincingly to architects and contractors. Box No. 311, care of PENCIL POINTS.

Position Wanted: Draftsman, nine years' experience, general work in architects' offices. Capable of handling job through to completion from sketches, working drawings and full size details; capable of working in conjunction with engineers on structural and mechanical trades of building. Married, age 26. Salary \$65.00 per week. Stephen M. Bednar, 313 Munson Ave., McKees Rocks, Pa. Position Wanted: Architectral draftsman, 35 years old, married, twelve years' experience, schools, court houses, hospitals, prepare complete plans including design, working drawings, specialized structural engineer, also mechanical plans. Five years chief draftsman, available immediately. Salary \$65.00 per wek. Prefer Central West. A. R. Barnes, 720 Taylor St., Topeka, Kansas.

Position Wanted: Young man, 22 years of age, desires position as draftsman. Can trace and work on small plans. Homes a specialty. Three years' experience in Chicago. Desire permanent connection. Any location. Details on request. Salary no object. Connection is important. E. Charles Johnson, 213 No. Maple, Creston, Iowa.

Architect wishes to share his well appointed office with another architect or engineer. Location 46th Street and 5th Avenue, New York, N. Y. Box No. 301, care of

Position Wanted: Architectural draftsman, seven years' experience on office buildings, theatres, apartments, commercial, residential and other buildings. Living in Chicago but willing to go out of town. Available immediately. Salary \$60.00 a week. Box No. 302, care of PENCIL POINTS.

Position Wanted: Young woman who has studied architectural and mechanical drafting. Experienced in mechanical tracing and architectural perspective rendering. Architect's office preferred. Box No. 303, care of

Position Wanted: Architectural designer-draftsman, ten years' experience, good at renderings in pencil and wash, would like connection with office to specialize in renderings. Box No. 304, care of PENCIL POINTS.

Position Wanted: Thoroughly trained designer, long office experience, accustomed to responsibility. Eighteen years' experience in studies, general drawings, details and supervision. Familiar with all types of construction. Beaux Arts Institute and Fontainebleau School of Fine Arts training. Age, 35. Interested in securing connection with future. Box No. 305, care of Pencil Points.

Spare Time Work Wanted: Senior architectural student at Columbia University and practical draftsman desires spare time employment at architectural drafting. J. Krendel, 8 West 40th Street, New York, N. Y. Position Wanted: Structural engineer, four years with leading Detroit architect, handling either steel or reinforced concrete design, seeks connection with architect in South. Ex-officer Corps of Engineers, U. S. Army. \$100.00 per week. Box No. 306, care of Pencil Points.

Position Wanted: Registered architect, State of New Jersey, twenty years' architectural experience. Pratt Institute graduate, familiar all phases architectural practice; experienced all classes of buildings, as draftsman, checker, specification writer and executive capacity. Conscientions worker. Wishes to make connection with reputable architectural or contractor's office. Box No. 307, care of Pencil Points.

Position Wanted: Young man, three years' experience almost every type of building, desires location in Southwest in architect's office where he will have opportunity to study architecture of Spanish and Mediterranean influence. Excellent tracer, good at working up details with senior draftsman, also making black and white drawings for publication. Hard working and ambitious. Box No. 308, care of PENCIL POINTS.

Services Available: The services of Henri C. Heps, R.A., 70 East 45th Street, New York City, are now available in connection with the following:—Specification writing—architectural superintendence. The preparation of working drawings and details of general drafting room super-

Position Wanted: Student of architecture wants position in reputable architect's office. Has had four years' experience and at present member of Boston Architectural Club. Best references. 19 years of age. Box No. 309, care of PENCIL POINTS.

Position Wanted: Position wanted as stenographer and draftsman in architect's office, Brooklyn or New York, by woman graduate architect. Box No. 310, care of PENCIL POINTS.

Position Wanted: Graduate of architectural school, 24 Position Wanted: Graduate of architectural school, 24 years old, Japanese. Knowledge of Occidental and Oriental building. Would like position in architect's office. Will go anywhere. Salary secondary. References. Samples of work. Box No. 312, care of Pencil Points. Position Wanted: Registered architect desires position with architect or industrial company. Experienced in industrial architecture, perspective, layout of plans, steel frames and concrete work. References and experience in detail furnished on request. C. W. Nitschke, 1808 S. State St. Syracuse. N. Y. St., Syracuse, N. Y.

Wanted: Architectural delineation in any medium, ranging from quick-time sketches in pencil and color to show drawings. Prices furnished on request. Box No. 313, care of Pencil Points.

Position Wanted: Civil and construction engineer. College graduate. Eighteen years' experience in all types of construction. Subway work preferred. Best references. Box No. 314, care of Pencil Points.

Position Wanted: Young lady would like position as secreroutine in architect. Thoroughly familiar with all office routine in architect's office. Seven years' experience. Lucille Hammond, 217 East 69th Street, New York, N. Y. Telephone, Rhinelander 5756.

Part Time Work: Part time work desired by licensed New Jersey architect. Will go anywhere within twenty-five miles of New York City. Can take job through from sketches, specifications and superintendence. Fifteen years' experience. Room 11—310 Main St., Orange, N. J. Position Wanted: Architectural graduate, 31 years of age, eleven years' experience as draftsman and designer in all classes of buildings. Highest references. Salary open. Box No. 315, care of Pencil Points.

Position Wanted: Young man, 28 years of age, married, desires to connect with reputable concern of architects. Has had ten years' practical experience on apartment houses, apartment hotels, loft and office buildings. Can handle jobs from sketches to complete working plans. Willing to take evening work. Salary open. Box No. 316, care of Pencil Points.

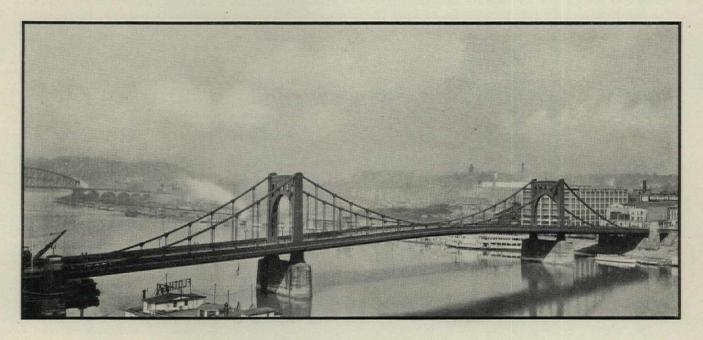
Position Wanted: Young man, 20 years old, three years' architectural experience in employ of architect. Pratt Institute evening student. Will submit drawings. Excellent references. Box No. 317, care of Pencil Points.

(Other items on pages 102, 103, and 104, Advertising Section)

STRUCTURAL STEEL CREATED THE SKYSCRAPER

The Sixth Street Bridge over the Allegheny River at Pittsburgh was selected by a national jury for the 1929 award in the competition established by the American Institute of Steel Construction, Inc. These awards are made annually for the most beautiful steel bridge completed during the preceding year. They are in response to the growing interest of architects and engineers in the aesthetic design of bridges.

Among other things, the judges said: "A very difficult situation has been met with restful and attractive design and by a frank use of the structural adaptability of steel." . . . "In a singularly clear way it expresses the construction of the bridge without unnecessary ornament." . . . "It demonstrates that bridges of steel fully satisfy the requirements of beauty without undue cost in fabricating and building."



STEEL LENDS COURAGE TO DESIGN

STRENGTH... safety... security... these spell Steel! They are factors determined not only through experience, but by careful test and analysis at every step in manu-

facture. And because steel is also so adaptable, so versatile, it offers full artistic expression in the design and construction of bridges large or small.

Steel bridges and buildings can be erected more



speedily, with less regard for weather and with greater economy than when any other material is used. They can be kept secure, or can be modernized, reinforced, altered

and even removed faster and more economically.

A Technical Service Bureau is at the disposal of architects, engineers, owners and others who have need of information concerning steel.

AMERICAN INSTITUTE OF STEEL CONSTRUCTION, INC.

The co-operative non-profit service organization of the structural steel industry of the United States and Canada. Correspondence is invited. 200 Madison Avenue, New York City. District offices in New York, Worcester, Philadelphia, Birmingham, Cleveland, Chicago, Milwaukee, St. Louis, Topeka, Dallas and San Francisco. The Institute publishes twelve booklets,

STEEL

INSURES STRENGTH

AND SECURITY

one on practically every type of steel structure, and provides also in one volume, "The Standard Specification for Structural Steel for Buildings," "The Standard Specification for Fireproofing Structural Steel Buildings," and "The Code of Standard Practice." Any or all of these may be had without charge, simply by addressing the Institute at any of its offices.

PUBLICATIONS

OF INTEREST TO THE SPECIFICATION WRITER

Publications mentioned here will be sent free unless otherwise noted, upon request, to readers of Pencil Points by the firm issuing them. When writing for these items please mention Pencil Points.

Peervent Heating and Ventilating Units.—New publication, superseding issue of February, 1928, deals especially with the heating and ventilating of schools. Complete descriptive and engineering data covering construction and operation of the Peervent system suitable for libraries, hospitals, churches, theatres, banks, factories, etc. Laying out and installation suggestions, tables of capacities, detail drawings, etc. 30 pp. Standard filing size. Peerless Unit Ventilation Co., Inc., Bridgeport, Conn.

Glass Specifications.—A.I.A. File No. 26-a-3-5-6. Attractive new brochure with useful specification data for architects and engineers shows this line of plain and wired figured rolled glass, polished wire glass and polished plate glass for partitions, doors, transoms, windows and skylights of industrial and commercial buildings. 16 pp. Standard filing size. Blue Ridge Glass Corp., Kingsport, Tenn.

Window Shades.—A.I.A. File No. 28-e. Looseleaf catalog with samples of cloth, specifications and much other useful information on the subject of window shades, shade cloth and shade rollers. Profusely illustrated. 28 pp. 8½ x 11. The Columbia Mills, Inc., 225 Fifth Ave., New York, N. Y.

Published by the same firm, "Window Shade Rollers." Illustrated catalog covering this line of wood and metal shade rollers and accessories. Suggestions for measuring and hanging shades are included. 24 pp. Standard filing size.

"Columbia Venetian Blinds." A.I.A. File No. 28-g. A manual for architects with detail drawings, specifications and descriptive data covering this type of window blind for business offices, libraries, banks, hotels, etc. 8 pp. 8½ x 11.

Steel Mouldings.—A.I.A. File No. 15. Catalog No. 30. Revised and enlarged edition of 1930. A practical and handy reference book showing an extensive line of steel mouldings, including numerous new modernistic patterns, together with reproductions of interesting ornamental iron work with short specifications, revised details in large scale, a larger range of architectural bronze sections and iron workers' sundries. 78 pp. Standard filing size. J. G. Braun Co., 537 W. 35th St., New York, N. Y.

Manual of Reproduction Processes.—New booklet prepared especially for the information of architects, engineers and draftsmen on the subject of reproductions. Contains specimens of nine different processes and eighteen different prints or reproductions. Charles Bruning Co., Inc., 96 Reade St., New York, N. Y.

Porcelain Steel Kitchens.—A.I.A. File No. 35-c-12. Filing folder with series of detail sheets and plate illustrations showing individual units and assembled porcelain steel kitchen cabinets. Useful reference document for architects and draftsmen. Standard filing size. Emerson-Brantingham Corporation, Rockford, Ill.

New Artistry in Radiator Concealment.—Handsome new brochure with color plates describing and illustrating numerous styles of radiator cabinets suitable for residences, apartments, hotels, offices, etc. Brief technical data is included. 20 pp. Standard filing size. Tuttle & Bailey Mfg. Co., 441 Lexington Ave., New York, N. Y.

Estate Type Kernerator.—Illustrated bulletin showing solution of waste disposal problem on estates, country homes, summer homes, winter homes, lake homes, shore residences and similar types through the use of this type of incinerator equipment. Typical layouts. 8 pp. 8½ x 11. Kerner Incinerator Co., 1225 North Water St., Milwaukee, Wis.

Architects' Handbook of Ideal Gas Boilers.—A.I.A. File No. 29-f-4. A useful reference book for architects and specification writers on the subject of gas boilers suitable for all steam, vapor and hot water systems. Complete descriptive and engineering data including specifications, blue print dimension drawings, tables of ratings, etc. Also contains data on gas boilers for hot water supply systems. 20 pp. Standard filing size. American Gas Products Corp., 376 Lafayette St., New York, N. Y.

Excelso Indirect Water Heaters.—A.I.A. File No. 29-d. New illustrated reference book for architects and engineers on the subject of indirect heating. Complete information on this type of heater together with diagrams and installing directions, tables of capacities and sizes, etc. 16 pp. Standard filing size. Excelso Products Corporation, 65 Clyde Ave., Buffalo, N. Y.

Composition Ornaments Moderne.—Attractive new publication presents a variety of illustrations showing the modern trend in composition wood carving, also a few examples of combinations made possible with this material. 12 pp. Architectural Decorating Co., 1600 S. Jefferson St., Chicago, Ill.

The Double Spiral Auto Ramp.—A.I.A. File No. 35-m-3. Illustrated bulletin explaining the principle of the double spiral and the semi-spiral types of auto ramp construction. Floor plans, sectional views. 8 pp. 8½ x 11. Auto Ramps Corporation, Builders Exchange Bldg., Richmond, Va.

Speed Heater Data Book.—A.I.A. File No. 30-d-11. New looseleaf publication with complete working data for architects and engineers on this type of suspended electric blower-type steam heater for industrial and commercial applications. Dimension and installation drawings, piping and wiring diagrams, capacity tables. 34 pp. Standard filing size. B. F. Sturtevant Co., Hyde Park, Boston, Mass.

Published by the same firm, "The Speed Heater." New document for architects and specification writers setting forth the advantages of the Speed heater system of heating for industrial plants, workshops, garages, offices, gymnasiums, etc. 16 pp. 9½ x 11.

Fabric-Koted.—A.I.A. File No. 7-a-1. New folder with descriptive information and detail drawings covering this asphalt-impregnated fabric for dampproofing spandrels and for all other dampproofing and waterproofing work. 4 pp. 8½ x 11. Fabric-Koted Co., 286 E. 137th St., New York, N. Y.

Sanacoustic Sound-Absorbing Tile.—A.I.A. File No. 39-5. New illustrated bulletin devoted to Johns-Manville sanacoustic tile, a sound absorbing finish for various types of buildings. Detail drawings. 8 pp. $8\frac{1}{2} \times 11$. Johns-Manville Corporation, 292 Madison Ave., New York, N. Y.

Perforated Metal Grilles.—A.I.A. File No. 30-e. New publication showing standard and special designs of grilles together with dimension tables giving the necessary information as to the daylight opening of the various styles and sizes of grilles. 36 pp. Standard filing size. Hendrick Manufacturing Co., 60 Dundall St., Carbondale, Pa.

The Testimony of Science and Service.—New publication contains a brief description with the results of service tests on various sheet metals as conducted by the American Society for Testing Materials. 16 pp. Standard filing size. American Sheet and Tin Plate Co., Frick Bldg., Pittsburgh, Pa.

Published by the same firm, "Better Buildings." Illustrated booklet with much useful information relative to the uses of formed metal roofing and siding materials for industrial and rural construction. 32 pp. 8½ x 11.

Gypsteel Pre-Cast Long Span Roofs.—A.I.A. File No. 4-k-1. New folder contains specifications and details of design and construction for Gypsteel pre-cast long span roofs. Tables of safe total loads, blue print details. 8½ x 11. Structural Gypsum Corporation, Linden, N. J.

Published by the same firm, "Gypsteel Pre-Cast Short-Span Roofs." A.I.A. File No. 4-k-1. New specification folder with blue print details covering subject indicated. Standard filing size.

Design Standards for Oxweld Steel and Wrought Iron Piping.—Valuable handbook, the first of a series for architects, engineers and draftsmen on the oxy-acetylene process of welding, presents complete information on the fundamental designs used in oxwelding steel pipe as well as wrought iron pipe. It includes line welds, welded flanges, welded fittings and welded headers. Data tables, specifications. 68 pp. The Linde Air Products Co., 30 E. 42nd St., New York, N. Y.

Aluminum Ventilating Awning.—A.I.A. File No. 28-G. Bulletin with descriptive data and details of construction and application covering the Wilson type No. 8 aluminum ventilating awning for homes, apartments, hotels, office buildings, hospitals, schools, etc. 6 pp. 8½ x 11. The J. G. Wilson Corporation, 11 East 38th St., New York, N. Y.

Austral Windows in School Buildings.—A.I.A. File No. 27-c-1. Catalog No. 28. Attractive new publication contains much useful information for architects and drafting rooms on Austral window hardware for both wood and rolled steel construction. Complete set of specifications and detail drawings are included together with more than three hundred illustrations of school buildings equipped with this type of window. 128 pp. Standard filing size. Austral Window Co., 101 Park Ave., New York, N. Y. Leonard Thermostatic Water Mixing Valves.—Looseleaf

Leonard Thermostatic Water Mixing Valves.—Looseleaf catalog illustrates and describes in detail numerous models of this line of water mixing valves for a wide variety of uses. Roughing-in dimensions, piping diagrams, charts. 50 pp. Standard filing size. Leonard-Rooke Co., 486 Broad St., Providence, R. I.



• That roofs of Imperial Tiles impart marked distinction to tall buildings is well exemplified by the Smith-Young Tower, San Antonio, Texas. The lower stories are of cream white terra cotta; the upper of cream gray brick. The roof is of light green glazed interlocking shingle tiles and gives a sparkling finishing color. Imperial Tiles were chosen by the architects, Atlee B. and Robert M. Ayres, because of their uniform coloring and perfect glazing.

LUDOWICI-CELADON COMPANY

Makers of IMPERIAL Roofing Tiles

ANNOUNCING

Andersen MASTER FRAMES with the

Locked Sill-Joint

ANDERSEN Master Window and Door Frames are new—produced to meet the requirements of modern architects and builders who have vision and who build honestly.

These super-frames are amazingly efficient—they are time-and-labor-saving, and they are adaptable to any wall construction. They are designed for a rapidly advancing civilization, and are made to endure the weather of a hundred tomorrows!

To architects, these new frames offer desirable features which can be secured in no other frames—either custom made or "stock." For instance, consider materials: all parts of Andersen Master Frames are made of clear genuine White Pine—a quality feature made possible only by an annual purchase of twenty-six million feet

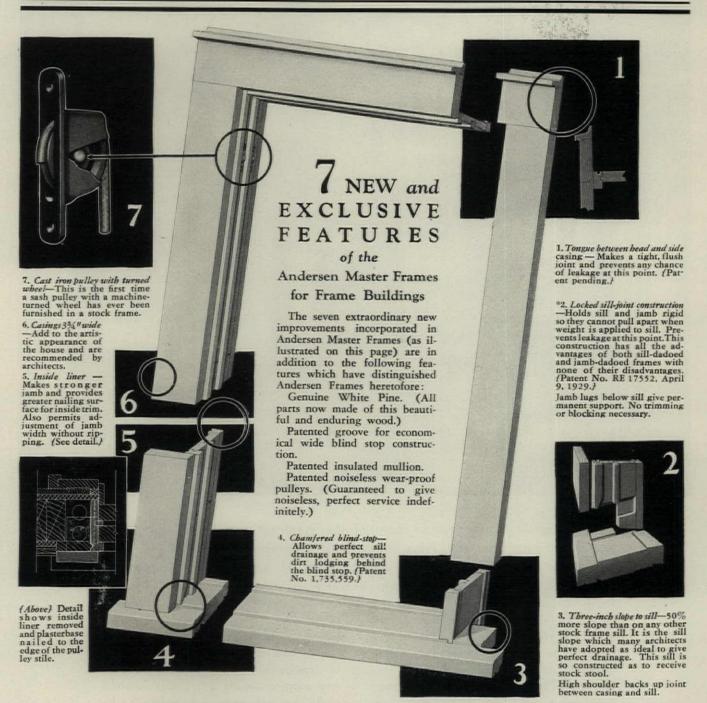
of this supreme frame wood; all double-hung Andersen Frames are equipped with the patented Andersen noiseless pulley. And consider design: the locked sill-joint, the chamfered blind stop, the provisions for weathertight installation—all patented features.

In no other frame can you get such excellence of material and design—yet these super-frames are conveniently available to you, with quality guaranteed, at stock frame prices!

On the page opposite, the features of the new Andersen Master Frame for frame construction are illustrated and described in detail.



A Revolutionary Development



The features illustrated above have been adapted to the entire line of Master Frames—standard double-hung frames with sub-sill, frames for brick veneer and masonry, casement and cellar frames. Call any Andersen Dealer for a demonstration of the Andersen Master Frames.

You will get genuine satisfaction from the appearance and "feel" of the superbly milled clear White Pine. Write to us for complete catalog with details and specifications for the use of your drafting room.

ANDERSEN FRAME CORPORATION, BAYPORT, MINN.

FRINK Reflectors in the Reception Hall of the Westinghouse Lighting Institute



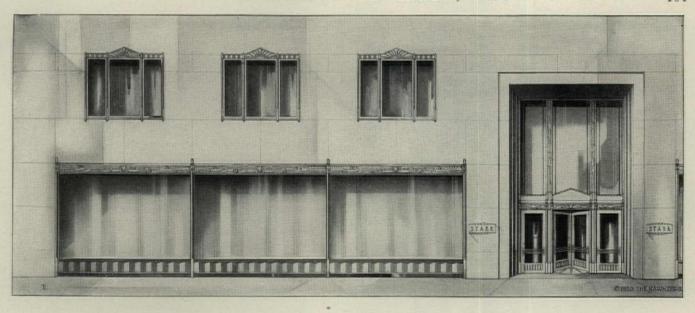
Illumination in this reception room of the Westinghouse Lamp Company's exhibit comes from the Frink illuminated pilasters... The "Solite" glass is evenly illuminated by two vertical rows of Linolite Lamps, particularly well suited for this work because of their continuous filament.

At the Grand Central Palace in New York City the Westinghouse Lamp Company presents an exhibition of the modern uses of light and some amazing glimpses into its future possibilities. In the Reception Hall, where one's first impression is quite naturally received, Frink reflectors and fittings play the graceful, introductory role to the modernity in illumination shortly

to be seen. This important Frink contribution strikes the true note of the exhibit . . . the ever-increasing combination of science with art to create beautiful and practical results . . . Our research staff and engineers are available for consultation on any of your problems. . . Perhaps their advice will assist you as it has many others.

THE FRINK CORPORATION

367 LEXINGTON AVENUE . NEW YORK CITY







Sash B-1 and Corner Bar B-2 of "B" construction (Full Size). Sufficiently sturdy and graceful for the largest and finest store fronts.

CUSTOM-BUILT STORE FRONTS

BRONZE, ALUMINUM ALLOY OR COPPER

For excellence of workmanship, true reproduction of design and sound construction we advocate the fabrication of store fronts at our factory. A corps of skilled workmen trained by an institution with twenty-five years' experience in store front building is your assurance of satisfaction. "B" Construction designed along modern lines is now available in the metals mentioned above. Send for Circular on "B" Construction and Full Size Details.



THE KAWNEER COMPANY

manufacturers of

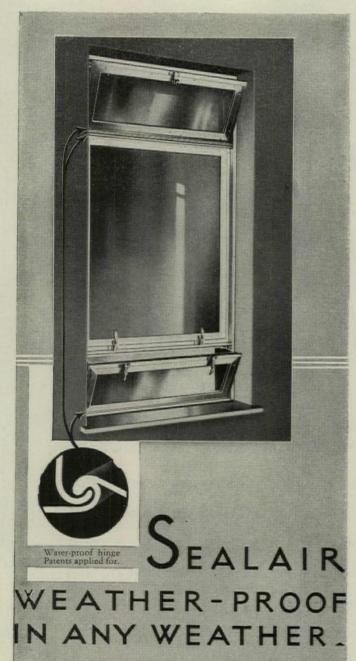
BRONZE STORE FRONTS, WINDOWS AND DOORS

SEE OUR CATALOG IN THE 1930 SWEET'S

NILES, MICHIGAN Subsidiary BERKELEY, CALIFORNIA

BRANCH OFFICES IN

Atlanta, Ga. Cleveland, O. Detroit, Mich. Milwaukee, Wis. Omaha, Nebr. Baltimore, Md. Cincinnati, O. Boston, Mass. Charlotte, N. C. Buffalo, N. Y. Chicago, Ill. Memphis, Tenn. Milwaukee, Wis. Omaha, Nebr. New Orleans, La. Philadelphia, Pa. New York, N. Y. Pittsburgh, Pa. Utica, N. Y.



When closed, the asbestos-insulated union between sash and frame excludes wind, rain and snow. Even when opened, Sealair affords protection from drafts. The tilt of the sashes diverts the inflow of air, causing it to circulate freely to all parts of the room ... All sashes can be washed from the inside ... Furnished in bronze, aluminum alloy or steel.

Send for complete description, specifications and F. S. details.

Kawneer COMPANY

Niles, Mich. Subsidiary: Berkeley, Calif.

ALSO WEIGHT-HUNG WINDOWS (Light and Heavy) AND CASEMENTS

A FREE EMPLOYMENT SERVICE READERS OF PENCIL POINTS

(Other items on pages 94, 103, and 104, Advertising Section)

Position Wanted: Architectural draftsman experienced on apartment houses, dwellings, public garages, stores and alterations. Can design steel. Wishes to associate with an architect or a builder to draw plans and to assist in construction of buildings. Box No. 318, care of Pencil

Position Wanted: Junior draftsman, Columbia student, 20 years old, ambitious, excellent references, desires position in architect's office. Box No. 319, care of Pencil POINTS

Points.

Position Wanted: Boy, 18, desires position with opportunity to learn architectural drawing. Three years' High School education. No experience. Wages secondary. Harry Goldberg, 724 Cauldwell Ave., New York, N. Y. Position Wanted: Architectural draftsman desires position in architect's office. Three and one half years' varied experience including store, alteration, hospital, reinforced concrete. Box No. 320, care of Pencil Points.

Position Wanted: Young man, 17, recent Stuyvesant High School graduate desires position in architect's office as

School graduate, desires position in architect's office as beginner. Will undertake night course at N.Y.U. in September. Can trace. Good references. New York City. Box No. 321, care of Pencil Points.

Position Wanted: Registered architect in New Jersey and New York wishes position any place. Thorough knowledge in every type of structure and construction. Well versed in design, planning, steel, detailing and supervision. Fifteen years' practical experience. Herbert Lilien, 234 Highland Avenue, Newark, N. J.

Position Wanted: Young man, 20 years old, desires position in architect's office in connection with office buildings are apartment between well. Two years architectural

ings or apartment house work. Two years architectural-structural drafting and tracing experience. Evening stu-dent at City College and Polytechnic Institute. Leslie Wax, 228 Pennsylvania Avenue, Brooklyn, N. Y. Position Wanted: Draftsman, 29 years old, wishes posi-

tion in New York City. College graduate. Six years' general experience on residences and public buildings. Can handle work from sketches to finished working drawings. Best references. \$60.00 per week. Box No. 322, care of Pencil Points.

Spare Time Work Wanted: Practicing architect with

Spare Time Work Wanted: Practicing architect with unusual European and American experience seeks work for spare time. Box No. 323, care of Pencil Points.

Position Wanted: Landscape architect, ten years' experience in design, planting and supervision wants permanent connection with good live office. Box No. 324, care of Pencil Points.

Position Wanted: Young man, N. Y. U. Student, wishes position in architect's office. Moderate salary. Box No. 325, care of PENCIL POINTS.

Position Wanted: Architectural draftsman, College grad-uate, twelve years' experience on fireproof and non-fireproof apartment houses, hotels, commercial buildings, figures steel, acquainted with new multiple dwelling law, desires position in New York City. Box No. 326, care of PENCIL POINTS.

Position Wanted: Young man desires position in archi-

rect's office. Neat worker, good tracer, etc. Two and one-half years' experience. Columbia student. Age 21. Box No. 327, care of Pencil Points.

Position Wanted: Architectural evening student would like to start as beginner in architect's office. Has had a year and a half architectural training. Salary secondary. Box No. 328, care of Pencil Points.

Position Wanted: Draftsman, seven years' experience

with well-known architects. Mostly country house work, scale sketches, working drawings, details and full size. Salary \$50-\$55 per week. Box No. 329, care of Pencil POINTS.

Position Wanted: Architect, thoroughly experienced in modern chain store design through long association with a leading syndicate, seeks connection with a similar progressive organization on either a salary or fee basis. Registered architect in New York, New Jersey and Florida. Box No. 330, care of Pencil Points.

Position Wanted: Located in Grand Central Zone desires

overtime work writing specifications for country houses. Samples of work gladly submitted. Box No. 331, care of PENCIL POINTS.

Position Wanted: Graduate of Tulane University School of Architecture, 1928, good experience, desirous of locating in good architect's office. Best references and full information furnished on request. Box No. 332, care of PENCIL POINTS.

A FREE EMPLOYMENT SERVICE FOR READERS OF PENCIL POINTS

(Other items on pages 94, 102, and 104, Advertising Section)

Wanted: Man about thirty of character and vision, prompt, industrious and of good address, with architecprompt, industrious and of good address, with architectural training and experience, adaptable to assuming designing and drafting for a nationally known manufacturer of high quality product embodying esthetic and practical values. Capable of developing responsibility for future possibilities. Must live in or convenient to New York. Reply fully own handwriting, stating age, religion, martial results of the product of the pr ried or single, training, experience and salary. Box No. 333, care of Pencil Points.

Position Wanted: Young draftsman, 26 years of age, willing worker, wishes permanent connection. Architectural School graduate. Three years' experience on residences, schools, general details and little church work. Consider office any part of country. References. Samples of work, etc. Available immediately. Box No. 334, care of PENCIL POINTS.

Position Wanted: Young man, 22 years old, junior draftsman, five years' experience in architects' offices, desires position in architect's or builder's office, moderate salary. Neat and willing worker. Box No. 335, care of Pencil POINTS.

Position Wanted: Architectural draftsman, 25 years of age, ten years' experience in New York City all types of work from designing layouts to finished plans. Best of references. Box No. 336, care of Pencil Points.

Position Wanted: Architectural draftsman, 45 years of age, College graduate, twenty-five years practical experience in Europe and America. Registered New York and New Jersey. Box No. 337, care of Pencil Points.

Wanted: Well-known company with national distribution has opening for man about thirty-five years old with architectural training and sales ability. Work chiefly in New York territory. Must be a clear thinker who can successfully render service by giving to architects and large customers constructive advice on products we manufacture. Must have aleasent personnility and test. Wide facture. Must have pleasant personality and tact. Wide acquaintance among architects desirable. Box No. 338, care of PENCIL POINTS.

Position Wanted: Young man, 24 years of age, Baltimore draftsman, would like to make connection with New York frantsman, would like to make connection with New York firm. Graduate of architectural night school and present Beaux Arts student. Neat draftsman. Six years' experience. References. Box No. 339, care of Pencil Points. Position Wanted: Senior draftsman, ten years' general experience on residence, apartment, hospital and commercial buildings. Work from sketches to finished plans and details. Last five yea 340, care of Pencil Points. Last five years in Westchester.

Position Wanted: Secretary, stenographer, book and record keeper and general assistant in architect's or interior decorator's office. Four years' experience in New York architect's office. Present salary secondary to possibilities for future. Box No. 341, care of Pencil Points.

Position Wanted: Junior draftsman, two years' experience. Willing to do all-round work for architect or builder. Box No. 342, care of PENCIL POINTS.

Position Wanted: Young man, evening architectural stu-

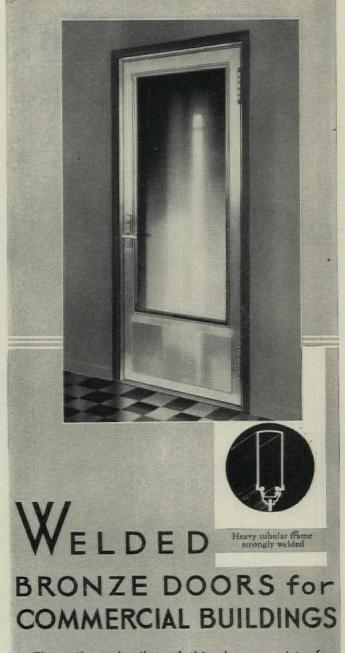
dent at New York University, would like a position in a New York architect's office as beginner. Box No. 343, care of PENCIL POINTS.

Position Wanted: Young lady, 26 years of age, desires position as secretary where her experience of ten years with an engineer and three years with architect will be valuable. High School graduate. New York City only. Can read plans. Box No. 344, care of Pencil Points.

Position Wanted: Stenographer-secretary desires position in New York. Has had good architectural and other experience. References. Box No. 345, care of Pencil Points.

Position Wanted: Young man, graduate of the University of Pennsylvania, School of Architecture (1916) and who has also studied in Europe, seeks responsible position in architect's office. Well rounded out experience. Capable of assuming duties as office manager. Box No. 346, care of Pencil Points.

Position Wanted: Capable and hard-working young man wishes to locate in architect's office as field representative. Can take full charge of any building operation and handle all sub-contractors. Can do some estimating and will prove valuable in this line. Box No. 348, care of Pencil Points.



The rails and stiles of this door consist of heavy tubular members, the joints of which are strongly welded. The inner edge of the frame is trimmed with shapely mouldings used for securing the center panel. With necessary hardware furnished and applied the complete ensemble presents a unit appropriate for use in the finest commercial buildings.

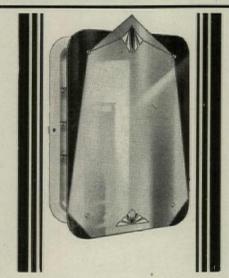
Send for complete description and F. S. details.



Niles, Mich. Subsidiary: Berkeley, Calif.

ALSO SHOWER STALLS AND SHOW CASE DOORS

This Year It'll be Corcoran Cabinets



... that will stand out above all the rest—surpassing architects' expectations and creating profits for those who tie up with Corcoran.

Distribution almost the world over during their first year is conclusive evidence of their superiority. Corcoran Cabinets have met with instant acceptance wherever introduced because they are the original and only one-piece steel bathroom cabinets. No cracks—No seams—No welded joints—No raw edges. A few most desirable territories are still open—mail the coupon today.

Sold only through Jobbers

The CORCORAN MFG. CO. CINCINNATI, OHIO

Complete stocks now being carried in Chicago, New York, Philadelphia, Boston and Los Angeles; communicate with Corcoran offices at 1820 McCormick Bldg., Chicago; 1228 Locust St., Philadelphia; II West	OUR CA	TALOGI ILED IN EET'S	5
42nd St., New York; Beaudette & Boylston St., Boston; and Hamilton West Pico Boulevard, Los Angeles.			

TAATT	TITTE	MAY	TTOO	. 7
MAII	THIS	(())	100	~

Gentlemen:

We are in	terested	in Co	rcoran	One-Piece	Steel	Bathroom
Cabinets.	Kindly	send	catalog	and full	details	8.

Name .																			*	•	
Address																					
City																					

THE MART

(Continued from page 232, Editorial Section)

P. W. Hutton, Technical Dept., Crane Technical High School, 2245 Jackson Blvd., Chicago, Illinois, has the following copies of Pencil Points for sale: June through December, 1920; all but February of 1921; 1922 complete; January through June, 1923.

Prof. J. E. Smay, School of Architecture, University of Oklahoma, Norman, Oklahoma, will pay reasonable price for the following: White Pine Monographs, Vol. 2, Nos. 1, 3, 4, and 6; Vol. 3, Nos. 1 and 4; Bulletin of the Beaux-Arts Institute of Design, January, February, and March, 1925; and January, 1921, Pencil Points.

John Taylor Arms, Greenfield Hill, Fairfield, Conn., would like to secure a September, 1923, issue of Pencil Points.

PERSONALS

WILLIAM H. HUMPHREY has recently opened an office for the practice of architecture at Greeley Avenue, Chappaqua, New York.

LUCIUS R. WHITE, JR., has moved his offices to the Court Square Building, Baltimore, Md.

A. J. Daidone has moved his offices to 189 Montague Street, Brooklyn, N. Y. He was formerly at 342 Madison Avenue, New York.

JOHN KNOX BALLANTINE, JR., ARCHITECT, has moved from Berkeley, California, to 137 Harlan Place, San Francisco, Calif.

P. DESMOND SALVA, ARCHITECT AND BUILDER, has opened offices at 34 Merchants Row, Room 34, Boston, Mass.

MICHAEL S. DIAMOND has removed his architectural offices from the Title Guarantee & Trust Co. Bldg. to the St. George Theatre Bldg., 25 Hyatt Street, St. George, Staten Island, New York.

Young Architect going to Europe, intending to do Italy and France quite economically in small European car, would like to meet one person of similar congenial tastes and wishes before sailing on April 25th. Beaucoup water color sketches. Address Sherwood T. Allen, 11 West 95th Street, New York. Telephone Kingsbridge 0700.

A FREE EMPLOYMENT SERVICE FOR READERS OF PENCIL POINTS

(Other items on pages 94, 102, and 103)

Position Wanted: Designer-draftsman, seven years' experience. Plans and elevations and renderings. Beaux Arts Student. Will only consider permanent position. Box No. 347, care of Pencil Points.

Position Wanted: Architectural draftsman, 30, desires position in architectural or construction office as draftsman or estimator or as superintendent on the job. Ten years' experience. I.C.S. training and at present studying C.T.C. course of Chicago. H. F. Krueger, Renn Addition, Jefferson City, Mo.

Position Wanted: Five Senior Architectural students of the Victoria University of Manchester, England, are desirous of finding employment in New York offices for a period of six months, commencing in April next. The purpose of their intended visit is to make themselves acquainted with modern American design, office practice and construction. Would architects who are willing to assist these students in their enthusiasm and admiration for American work kindly communicate with J. T. Cahill, D. E. E. Gibson, J. A. Miller, M. B. Tetlow, G. P. Whyman, at the above address.

"The PRESIDENT is on

the

offices are quiet ... and comfortable

For modern top-floor FORTY-SEVENTH FLOOR"

ODERN business executives require quiet and comfort. That is why so many locate their offices in topfloor suites. Here they are sure of quiet. And they know they will be comfortable . . . if the roof is adequately insulated.

So today's finest office buildings are protected at the roof by cork insulationan ample thickness of Armstrong's Corkboard laid right on the roof deck, under the roofing. Heat leakage, in or out, is reduced to a negligible minimum. Topfloor offices are equally comfortable in August and December.

There is considerable saving in fuel bills, too. No longer the great outdoors to be heated. Cork is a barrier that effectually stops needless waste of heat. The further fact that Armstrong's Corkboard is made in thicknesses from 11/2" to 3" inclusive and needs only a single laying operation, cuts labor costs.

Have you a roof insulation problem concerning office building, or apartment house, hotel, school, or similar building? We'll send you complete information, without obligation on your part. And we'll gladly place the services of our engineers at your disposal. Armstrong Cork & Insulation Company, 902 Concord Street, Lancaster, Pennsylvania.



In modern buildings, corkboard insulation on the roof assures top-floor comfort all year 'round.

Armstrong's Corkboard Insulation

FOR THE ROOF OF EVERY BUILDING

465,0 **UU** square feet

SPECIFICATION ROOFS CANNON UILDINGS

465,000 square feet of Barrett Specification Roofs protect sixteen buildings of the Cannon Manufacturing Company, Kannapolis, N. C. Roofing Contractor: G. G. Ray & Company, Charlotte, N. C.

SINCE 1921, Barrett Specification Roofs records of roofs of Barrett Coal-tar Pitch totaling 465,000 sq. ft. of area have and Felt and gravel, which have remained been applied on sixteen buildings of the Cannon Manufacturing Company, Kannapolis, N. C., largest manufacturer of towels in the world.

A roll call of American industry would find few famous names missing from the list of those who have repeatedly and consistently evidenced their preference for Barrett Specification protection. Repeat sales to such discriminating buyers constitute both evidence and proof of the unmatched value represented by this world-famous roof.

Architects and engineers generally are familiar with the thoroughly authenticated

weather-proof and fire-safe 40, 50-even 60-years without once costing a penny for repairs. The Barrett Specification, stipulating known quantities, known qualities and known craftsmanship to produce a known result, appeals particularly to the modern business mind.

Barrett Specification Roofs are bonded for 20 years* against repair or maintenance expense, but actually the expense-free protection of a Barrett Specification Roof outlasts by many years the term of the bond. The reasons for this remarkable durability are easily understandable. Barrett Specification Roofs are practically impervious to weather and atmospheric acids.

Water, which in time destroys most roofing materials, actually preserves pitch. No roof-covering retards fire to a greater degree than a built-up pitch and felt roof with a gravel or slag surface. Barrett Specification Roofs carry Underwriters' Class

Every Barrett Specification Roof is applied by one of the 614 Barrett Approved Roofers, each selected for his experience, ability and integrity. Consult with them or with us on any roofing problem.

*The Barrett Company also offers a Specification Type "A" roof which is bonded for 15 years. This type of roof is adaptable to a certain class of buildings. The same highgrade materials are used, the only difference being in quantity.

Barrett pecification Roots



A
FORM
FOR
EVERY
PILE
A
PILE
FOR
EVERY
PURPOSE
REGARDLESS
OF
LENGTH

Knights of Pythias Bldg., Baltimore, Md.

383 Standard Raymond Concrete Piles. Also 6 Caissons. Total length of Piles, 6.474 ft. 7 in.

Clyde N. Friz, Architect. J. Hiltz & Sons. Contractors. H. F. Doleman, Engineer.

Maryland Pythian Castle Bldg. Commission

It's on Raymond Concrete Piles of course . . . typical of those small but important structures about which Architects, Engineers and Owners are so careful in their choice of foundations.

For great structures and small, the choice of so many experienced men is Raymond Concrete Piles

RAYMOND CONCRETE PILE COMPANY

NEW YORK: 140 Cedar Street

CHICAGO: 111 West Monroe Street

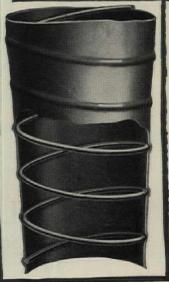
Raymond Concrete Pile Co., Montreal, Canada

Branches in these Cities

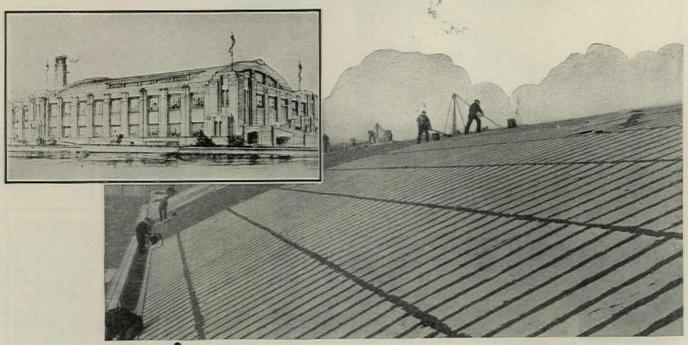
ATLANTA BALTIMORE BOSTON BUFFALO CHICAGO CLEVELAND DETROIT HOUSTON KANSAS CITY LOS ANGELES MIAMI MILWAUKEE PHILADELPHIA PITTSBURGH PORTLAND

SAN FRANCISCO ST. LOUIS ST. PAUL WASHINGTON LONDON, ENGLAND





Chicago's Lake Front Development



again includes

ARMORY FOR ILLINOIS NAVAL RESERVES -- CHICAGO ZACHARY T. DAVIS, Architect
C. Herrick Hammond, State Architect

Teatherweight Concrete Insulating Roof slabs

Lake Front
Projects Utilizing
FEDERAL PRODUCTS

SHEDD AQUARIUM
ADLER PLANETARIUM
NAVAL ARMORY
FIELD MUSEUM
ART INSTITUTE
23rd STREET
RETAINING WALL
OUTER DRIVE
LIGHT PLANT

Chicago's plan for developing and beautifying its magnificent lake front—public buildings, broad boulevards, fountains, parkways—calls for permanent construction—materials that will serve the future as effectively as the present. Thus concrete—in the form of Federal—is prominently represented in this great public development.

The newest additions—the Naval Armory and Adler Planetarium—are roofed with Featherweight Concrete slabs, assuring permanence, fire safety and freedom from maintenance.

These slabs are made of Haydite aggregate (trapped air cells) in place of sand, providing a strong concrete roof deck that weighs as low as 10 lbs. per sq. ft. and has new insulating value.

Our new "Catalog and Roof Standards" tells of this interesting development now in use on many of the country's finest public buildings as well as on industrial and railroad structures.

Made, Laid and Guaranteed by

FEDERAL CEMENT TILE COMPANY

608 South Dearborn Street

Chicago

FOR OVER A QUARTER CENTURY

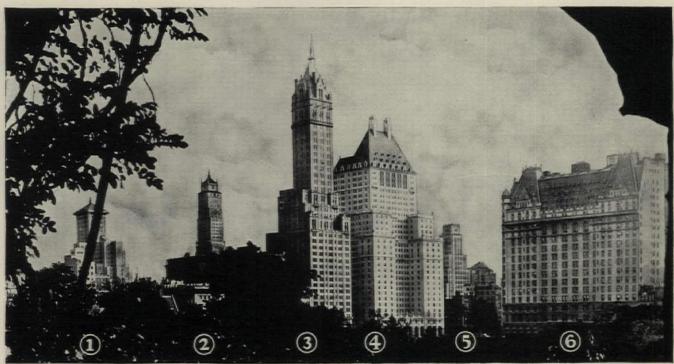


Photo by courtesy of The New York Times



The Six BRYANT INSTALLATIONS shown above

- 1 Delmonico Building Goldner & Goldner, Architects J. L. Goodrich, Electrical Contractor
- 2 Ritz Tower Emory Roth, Architect J. Livingston & Co., Electrical Contractors
- 3 Sherry Netherlands Hotel Schultze & Weaver, Architects & Engineers J. Livingston & Co., Electrical Contractors
- 4 Savoy Plaza Hotel McKim, Mead & White, Architects Tenney & Ohmes, Electrical Engineers Walter H. Taverner Corporation, Electrical Contractors
- 5 Brisbane Building Emory Roth, Architect P.J. Keogan Co. Inc., Electrical Contractors
- 6 Plaza Hotel
 Warren & Wetmore, Architects
 Walter H. Taverner Corporation, Electrical
 Contractors

A Random Shot -but a bull's-eye

HE New York Times photographer, when he took this ■ striking photograph of part of New York's skyline, did not know that these six important buildings were all "Bryant Equipped". That was a random shot but there was no element of chance in the fact that all of these buildings were "Bryant Equipped". Bryant products are in general use, not only in New York, but wherever civilization has penetrated. The Bryant Electric Company manufactures over twenty-five hundred different wiring devices, keeping abreast of all new applications of electricity and combining the most modern machinery, mass production, adequate financial resources and long experience in the manufacture of wiring devices of uniform excellence. Bryant policies, Bryant products, and the concrete evidence of thousands of BRYANT EQUIPPED installations have built and are keeping busy the largest exclusive wiring device factory in the world.

> See our Catalogue in the new 4-volume Sweet's for 1930, Vol. D, pages 5188 to 5192

THE BRYANT ELECTRIC COMPANY

BRIDGEPORT, CONNECTICUT

342 Madison Ave., New York, N. Y. Widener Bldg., Philadelphia, Pa. 844 West Adams Street, Chicago, Ill.

149 New Montgomery St. San Francisco, Calif.

MANUFACTURERS OF SUPERIOR WIRING DEVICES SINCE 1888



A Highly-Efficient Unit for Heating Homes and Smaller Buildings

THE Kewanee Type "R" Residence Boiler has many advantages in addition to its greater strength and consequent longer life.

> The shell has extra thickness, of high quality steel plate made into one homogeneous piece. It may easily be carried into a building through any ordinary door, and is then ready to set on the base.

> The base, of very heavy cast iron, comes already assembled with grate bars in place. Each grate barrocks on a removable trunnion.

Every unit of Kewanee Type "R" is practically indestructible. All castings are substantial to withstand rough usage, the lighter parts being of malleable iron for toughness as well as strength.

Notice particularly the Crown Sheet, the roof of the firebox, which is arched right-side up (a distinctive Kewanee feature). That makes it self-draining, shedding any sediment or loose scale that might be precipitated from the water.

for Every Fuel—Coal, Gas or Oil

Every kind of solid fuel, coke, all grades of soft or hard coals, their briquette or powdered forms; also any liquid fuel oils, and natural or commercial gas can be burned with high efficiency in the Kewanee Type "R" Residence Boiler.

In sizes to heat from 370 to 1960 square feet of steam, and from 590 to 3140 square feet of water radiation. Details in Catalog 38.

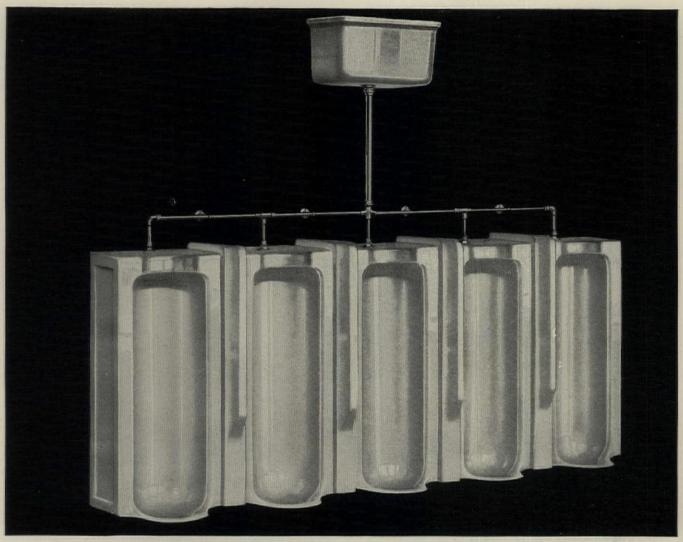
KEWANEE BOILER CORPORATION

division of American Radiator & Standard Sanitary Corporation

KEWANEE, ILLINOIS

Branches in 40 Principal Cities

Now there's a
KEWANEE
to heat Every
Size and Type
of Building



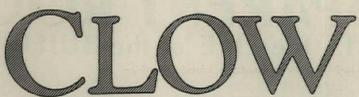
FULL HEIGHT ... for full sanitation

So that school and public building sanitation may be more complete... Clow builds porcelain stall Urinals "full height." They have styles to meet every need—tank or valve flushing.

The automatic flush is positive and at regulated intervals. The tank has no moving parts—no ball cocks to cause trouble. The urinal spreader is of cast brass with removable clean-out plug and special non-drip construction. The outlet is large and fitted with raised strainer to avoid stoppage.

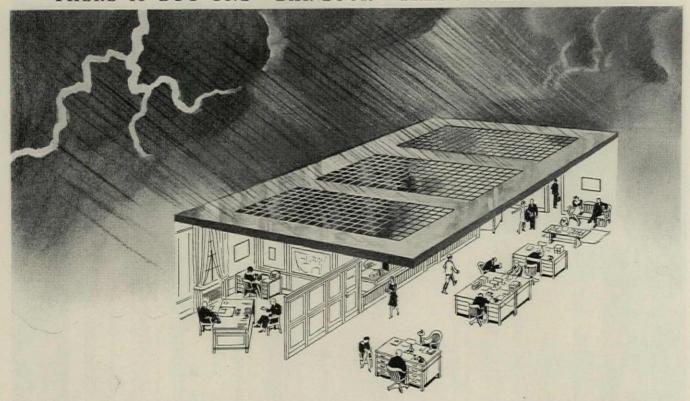
Hurried users and careless children too often cause insanitation. Clow Urinals can help the difficult job of keeping toilet rooms free from germs and odors. Clow Urinals are but one part of the complete line of showers, fountains, lavatories, and the famous Clow Madden Automatics built especially for school use.

JAMES B. CLOW & SONS, 201-299 N. TALMAN AVE., CHICAGO Sales Offices in principal cities



PREFERRED FOR EXACTING PLUMBING SINCE 1878

-THERE IS BUT ONE "BAR-LOCK" TRANSPARENT ROOFING-



WATER-TIGHT SECURITY

TIME has proven conclusively that TRANSPARENT ROOFING by BAR-LOCK is absolutely tight and will remain so for the life of the building.

The elements which cause heavy maintenance costs, annually, with average roof lights are defeated by this BAR-LOCK construction.

TRANSPARENT ROOFING by BAR-LOCK is more than just roof lighting, it is a part of the roof—it is the roof.

Every glass, every section of BAR-LOCK TRANSPARENT ROOFING is water-tight in itself. Only the simplest kind of flashing is needed where TRANSPARENT ROOFING joins the rest of the roof construction, to

assure an absolutely tight roof.

Tight against all elements and wears for years to come giving added security against fire and burglary as well.

It is a comfort to know that the Building Owner, for whom you have specified TRANSPARENT ROOFING by BARLOCK, can present his tenants with bright cheerful offices improved by economical daylight coming from overhead through a watertight and secure roof that needs no attention.

A series of folders tell the story of BAR-LOCK TRANSPARENT ROOFING. May we send you a Brochure covering your specific type of Building?

AMERICAN BAR-LOCK CO., INC., 3730-30th Street, Long Island City, N. Y.

ARENT ROOFING

LASTS the LIFE of the BUILDING___

AMERICAN BAR-LOCK CO., 3730-30th Street, Long Island City, New York

Please send your Brochure on TRANSPARENT ROOFING and other facts.

P.P.-3

For Distinguished Shops



Napier's, Omaha. Architect, F. A. Henninger. An ultra-modern front of beauty and character—a complete Davis bronze installation throughout, including sash, bars, engaged columns, ornamentation, cresting, panels, monograms, pivot windows, doors and frames and matching cast work.

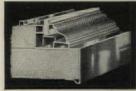




DAVIS SOLID BRONZE Showing the patented fulcrum principle which, with the indirect screw pressure, assures absolute glass safety. All glass is set from the outside—no need for putty or plastic cement.



COPPER OR BRONZE Brasco Series 500 embodies timetested principles of heavygauged strength, lasting beauty, extra-wide, safe grip on the plate, ease of installation, adequate ventilation and drainage.



ART BRONZE
A striking innovation in store
front constructions, offering
handsome patterned effects
deeply wrought in the metal.

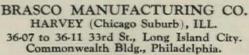
THE architect who seeks the *ultimate* in store front design need only consider one construction—DAVIS—to find his every requisite anticipated.

For here under one name is offered a complete system of solid bronze members—unified and harmonious—with permanent beauty and richness not to be found elsewhere.

Advanced ideas on the most effective use of the space available for window display are given full scope. Such practical requirements as strength and safety to the plate are fully provided for.

Today, Davis construction distinguishes many of the country's finest shops. Data on these installations, with catalogs, full-sized

details and samples of Davis and Brasco constructions gladly sent on request.



Commonwealth Bldg., Philadelphia DISTRIBUTORS EVERYWHERE



PERMAWITE

The latest in store front construction—a solid white metal of chromium lustre whose flashing brilliance adds much to the modern shop. Because of its remarkable resistance to wear and weather, the lustre is successfully retained. Furnished at a cost considerably less than plated metal.

The Protection of Fire-Proof, Rot-Proof

ORIGINAL NAILING CONCRETE

was Welcomed by Builders During 1929

The superiority of Nailcrete, the ideal nailing base for roofs and floors in large and small construction . . . won still further widespread recognition during 1929. As evidence of this we submit the following partial list of important buildings in which this durable, nail-gripping concrete was used.

Hotels

New Yorker Hotel, New York City, Sugerman & Berger St. George Hotel, Brooklyn, N. Y., Bing & Bing Haddon Hall Hotel, Atlantic City, N. J. St. Regis Hotel, New York City

Colleges and Universities

University of Rochester, Rochester, N. Y., Gordan & Kaelber Jewish Theological Seminary of America, New York City, Gehron & Ross

Mudd Memorial Hall, University of Southern California, R. C. Flowelling

R. C. Flowelling

Alphi Chi Rho Fraternity Bldg., Ithaca, N. Y., Otis & Fuller
Lehigh University Library, Bethlehem, Pa.

State Agricultural College, Fargo, N. D.

University of Penn., Philadelphia, Pa., Stewardson & Page
Trinity College, Hartford, Conn., Trowbridge & Livingston
Austin Colgate Memorial Hall, Hightstown, N. J.,

McKim, Mead & White Hartwick Seminary, Oneonta, N. Y., Dwight James Baum & John Russell Pope

State and Municipal Buildings

Museum City of N. Y., New York City, Jos. H. Freedlander U. S. Post Office, Elizabeth, N. J., J. A. Wetmore Municipal Bldg., Baltimore, Md.
Newark Court House, Newark, N. J., Guilbert & Betelle

Schools

Fourth Ward Grade School, Sunbury, Pa., Raymond C. Bobb Oakville & Jacksonville School, Chambersburg, Pa., H. K. Kilmer School at Canandaigua, N. Y., Wilson Potter Grade School, Westwood, N. J., A. E. Dore Brearley School, New York City, Benjamin Morris Jr. High School, Montgomery, Ala., Fred Ausfield School, Washington, D. C., A. L. Harris Langdon School, Washington, D. C., A. L. Harris Amenia High School, Amenia, N. Y., Ernest Sibley Princeton High School, Princeton, N. J., Ernest Sibley Jr. High School, New Milford, N. J., Ernest Sibley Blessed Sacrament School, Cherry Chase, Md., Milburn Heister Co.
School No. 4 addition, Hackensack, N. J., A. E. Dore Wassaic State School, Wassaic, N. Y., Public School No. 15, Yonkers, N. Y., G. H. Chamberlain Lanier High School, Montgomery, Ala.

Lanier High School, Montgomery, Ala.

Abe Lincoln High School, Coney Island, N. Y., Board of Education
Brooklyn Trade School, Brooklyn, N. Y., Board of Education
Public School No. 11, Bronx, N. Y., Board of Education
Public School No. 7, Kingsbridge Rd., N. Y., Board of Education Public School No. 7, Kingsbridge Rd., N. Y., Board of Education
Public School No. 46, South Beach, S. I., Board of Education
Public School No. 92, Bronx, N. Y., Board of Education
Public School No. 96, Bronx, N. Y., Board of Education
Public School No. 96, Brooklyn, N. Y., Board of Education
Public School No. 93, Bronx, N. Y., Board of Education
Public School No. 121, Brooklyn, N. Y., Board of Education
Public School No. 141, Astoria, L. I., Board of Education
Public School No. 142, Language L. I., Board of Education Public School No. 141, Astoria, L. I., Board of Education
Public School No. 165, Bronx, N. Y., Board of Education
Public School No. 200, Brooklyn, N. Y., Board of Education
Public School No. 228, Brooklyn, N. Y., Board of Education
Public School No. 233, Brooklyn, N. Y., Board of Education
Public School No. 235, Brooklyn, N. Y., Board of Education
Public School No. 235, Brooklyn, N. Y., Board of Education School, Mercersburg, Pa.

Office Buildings

Chrysler Bldg., New York City, W. Van Alen
Brown Bros. Building, New York City, Delano & Aldrich
Fuller Bldg., New York City, Walker & Gillette
Herald Square Bldg., New York City, Clinton & Russell
44 Wall Street, New York City
26 Pine Street, New York City
71 Broadway, New York City
Merchants Bank & Trust Bldg., Jackson, Miss.,
Wyatt C. Hedrick, Inc.

Penn National Bank & Trust Co. Reading Pat Hoggson Br Wyatt C. Hedrick, Inc.

Penn. National Bank & Trust Co., Reading, Pa., Hoggson Bros.

Professional Bldg., Hicksville, L. I., W. L. Palmer

Deposit & Savings Bank Bldg., Wilkes-Barre, Pa.,

McCormick & French, Bertram & Cunningham, Asso.

Lehigh Valley Outdoor Adv. Corp., Allentown, Pa.,

Jacoby & Everett

Bart Dela Building. Bert Dale Building, Los Angeles, Calif., Bert Dale Co. American Tobacco Co. Bldg., Reidsville, N. C., J. B. Heard

Hospitals and Institutions

Dormitory, Male Employees, Welfare Island, N. Y., Charles B. Meyers Charles B. Meyers

Margaret Maternity Hospital, Jersey City, N. J., C. H. Zeigler

Utica State Hospital, Marcy, N. Y., Sullivan W. Jones

Doctors' Hospital, New York City, Crow, Lewis & Wick

Mercy Hospital, San Diego, California, J. S. Seibert

Rockefeller Institute, New York City,

Coolidge, Shipley, Bulfinch & Abbott

Home for Aged, New York City, Eric Kebbon

Churches

St. Aedan's Church and Rectory, Jersey City, N. J.,

Murphy & Lehmann St. Bartholomew's Church, Elmburst, L. I. Congregational Church, Manhattan Hall, New York City, Tillion & Tillion Riverside Church, New York City, Allen & Collins Cathedral, St. John the Divine, N. Y. C., Cram & Ferguson Immanuel Presbyterian Church, Los Angeles, Calif., H. M. Patterson

Apartment Houses

70th Street and Madison Avenue, New York City Garfield Place and Prospect Park West, Brooklyn, N. Y. Beaux Arts Apartments, New York City 325 West 44th Street, New York City Tudor City Apts., 41st St. and Prospect Pl., New York City Austin Street and 73rd Ave., Forest Hills, L. I. 126 East 85th Street, New York City 167 East 82nd Street, New York City 211 East 69th Street, New York City 434 East 52nd Street, New York City 101 University Place, New York City 102nd Street and Fifth Avenue, New York City 319 West 90th Street, New York City Centre Arms, Main and Center Streets, New Rochelle, N. Y. 210 East 73rd Street, New York City Los Altos Apartments, Los Altos, Calif. 111 East 21st Street, New York City 4 Sutton Place, New York City Apartments, Scarsdale, N. Y. 81st Street and 82nd Street and Central Park West, N. Y. 70 East 80th Street, New York City 85th Street and Park Avenue, New York City 65th Street and Park Avenue, New York City 444 East 52nd Street, New York City 339 Central Park West, New York City 61st Street and Central Park West, New York City 784 Park Avenue, New York City 83rd Street and Riverside Drive, New York City 221 E. 71st Street, New York City 61st Street and Central Park West, New York City 101st Street and 5th Avenue, New York City 237 East 20th Street, New York City 51 East 64th Street, New York City 69th Street and Central Park West, New York City 66th Street and Madison Avenue, New York City 75th Street and Madison Avenue, New York City 67th Street and Central Park West,, New York City 93rd Street and Amsterdam Avenue, New York City 400 East 59th Street, New York City 11th Street and 5th Avenue, New York City 210 East 68th Street, New York City 85th Street and Amsterdam Avenue, New York City Meceor Street and Continental Avenue, Forest Hills, N. Y. 75th Street and Lexington Avenue, New York City 107th Street and Broadway, New York City 350 Central Park West, New York City 49th Street and 1st Avenue, New York City 33 Pierpont Street, Brooklyn, N. Y. 96th Street and Central Park West, New York City 139 West 82nd Street, New York City 58th Street and 1st Avenue, New York City 21st Street and 2nd Avenue, New York City 83rd Street and Park Avenue, New York City 317 East 57th Street, New York City 343 East 57th Street, New York City 350 Central Park West, New York City 339 Central Park West, New York City 307 East 72nd Street, New York City

Miscellaneous Installations

Capitol Building, Havana, Cuba, Purdy & Henderson
N. Y. Telephone Bldg., 13th St. and 2nd Ave., N. Y.,
Voorhees, Gmelin & Walker Salvation Army Headquarters, N. Y., Voorhees, Gmelin & Walker Hurd Mausoleum, Woodlann, N. Y., J. Robertson Ward Harleigh Memorial Mausoleum, Camden, N. J., Sidney Lovell Westinghouse Lamp Plant, Bloomfield, N. J., Stone & Webster Pumping Station, City of Attleboro, Mass., F. A. & F.M. Kendall Firehouse, Tottenville, S. I. Firehouse, Westchester Square, N. Y. Firehouse, Bronx, New York Peerless Towel & Supply Co., Brooklyn, N. Y., G. Schelling Providence House, Wading River, L. I., Murphy & Lehmann Rockefeller Squash Courts, Port Chester, N. Y Memorial Library, Willsboro, N. Y., C. P. H. Gilbert Y. M. C. A. Bldg., New York City, Dwight James Baum Theatre, New York City, T. W. Lamb
Webb Publishing Co., St. Paul, Minn., Mather & Fleischbein
Bell Telephone Co., Buffalo, N. Y. Propper Silk Mills, Elmhurst, L. I., A. Ullrich Aroc Construction Co., Alpine, N. J. Transformer House, Brooklyn Boro Gas Co., Coney Island, N. Y., Block & Hesse Vitaphone Studio, Brooklyn, N. Y., T. W. Golding Sub-station, Atlantic City Electric Co., Williamstown, N. J., C. W. Higgins Tamarack Country Club, Greenwich, Conn. Filter Plant, Tulsa, Okla., Black & Veach Store Building, Perth Amboy, N. J., Godfrey M. Ricci Garage, New York City A. S. Beck Shoe Store, 545 Fifth Are., N. Y., S. B. Eisendrath West Side Tennis Club, Forest Hills, N. Y., Grosvenor Atterbury Mike Bard Bldg., Los Angeles, Calif.

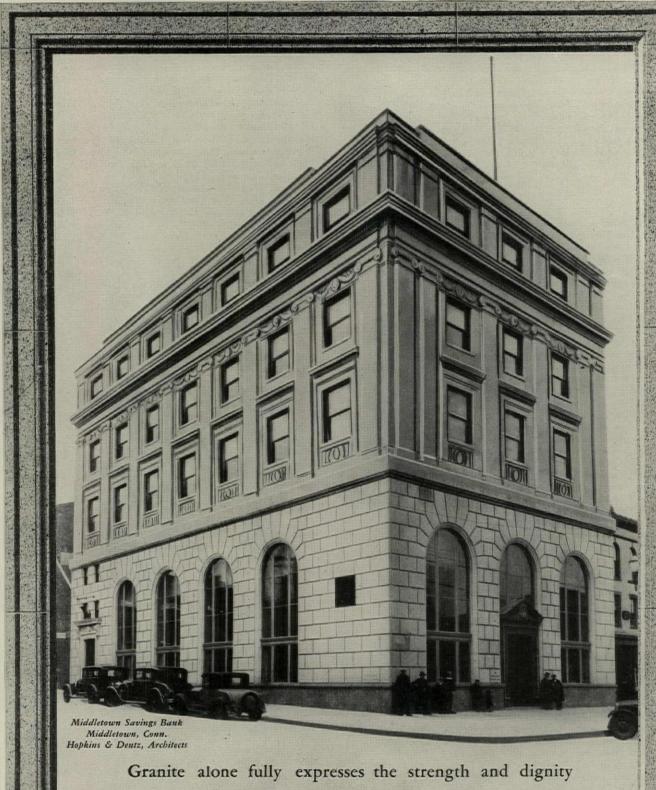
Residences

Barker Residence, Cross River, N. Y. J. W. Mackay Farm Bldg., Roslyn, L. I., Cross & Cross Residence, Augusta, Fla., Scroggs & Ewing Bowman Gray Residence, Winston-Salem, N. C., Northrop & O'Brien Bourne Residence, Washington, Conn. Campagna Residence, Riverdale, N. Y. Percival Wild Residence, Fieldston Rd., N. Y. Sidney R. Francis Residence, Pasadena, Calif., Reginald D. Johnson
British Embassy, Washington, D. C., Sir Edward L. Luytens,
Archt.; Frederick H. Brooke, Asso. Archt.
Henry U. Harris Residence, Brookville, L. I., Roger H. Bullard J. S. Morgan Residence, Glen Cove, L. I., Roger H. Bullard Residence, 117 East 69th St., N. Y., J. S. Gaylor H. Linch Residence, Cincinnati, O., Grosvenor Atterbury R. H. Grant Residence, Centerville, O., Peabody, Wilson & Brown Residence, Great Neck, L. I., H. T. Lindeberg Russell Brown Residence, Houston, Texas W. E. Mitchell Residence, Atlanta, Ga., Sigmund Nesselroth



Write to us for a copy of our illustrated booklet, "Nailcrete". This presents in an interesting and informative way, the unique characteristics of Nailcrete and descriptions of its application.

THE NAILCRETE CORPORATION 105 West 40th Street



associated with the character of a bank

National Building Granite Quarries Assn. 31 STATE STREET BOSTON, MASS.

H. H. Sherman, Secretary

GRANITE



YOU WOULDN'T put an old fashioned chandelier in this_beautiful room

HEATING too, has

been modernized for the beautiful room such as this.

Modine Concealed Radiation is the fulfillment of the fondest dreams of the builder and home buyer who long have recognized the need for unobtrusive equipment that will provide better heating.

It is a step forward that appeals to the Individual in the market for the better quality ready-built home.



Above, the Modine is installed in the wall beneath the window.

Two artistic grilles are all that can be seen.

Modine Concealed Radiation is so much more satisfactory. Ordinary limitations in furnishing and arrangement are gone. Each piece may be placed to the best advantage. The entire floor area is available. The wall grilles are decorative factors in themselves.

The advantages of Modines do not stop there. This equipment, in addition, provides cleaner, quicker, more easily regulated room heating. And it's built for lifetime service. You couldn't offer the home-builder more. Let us give you complete information now. Write today.

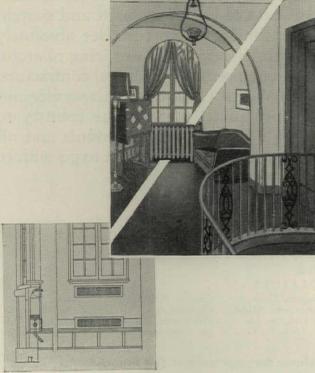
MODINE MANUFACTURING COMPANY

Manufacturers of

Unit Heaters — Copper Radiation — Automotive Radiators
1722 RACINE STREET RACINE, WISCONSIN
London Office: S. G. Leach & Co. Ltd., 26-30 Artillery Lang.







Copyright 1930, Modine Mfg. Co.



ARE you getting the full value of the @ Sales Engineering Service on the buildings you are doing? The everyday, practical help of specialized knowledge and experience that an @ man can and will cheerfully give you will help you when figuring panelboard and switchboard installation.

It is our business to assist in every way possible to make electrical jobs better. Our district office men are posted on upto-date wiring practice—they know all the improvements in installation and

can recommend suitable panelboards and switchboards for greatest service and economy.

Knowledge of the electrical industry generally, of the electrical contracting business, and of the panelboard and switchboard business, we consider absolutely essential in successful servicing of architects, engineers and electrical contractors. We have men trained to this service and facilities in all parts of the country to provide both the right product and all the features of co-operation to go with it.

Frank Adam

ELECTRIC COMPANY

ST. LOUIS

DISTRICT OFFICES

Atlanta, Ga.
Baltimore, Md.
Boston, Mass.
Buffalo, N. Y.
Cinc

Chicago, Ill. Cincinnati, Ohio Dallas, Texas Denver, Colo. Detroit, Mich. Jacksonville, Fla. Kansas City, Mo. Los Angeles, Calif. Memphis, Tenn. Minneapolis, Minn. New Orleans, La. New York, N. Y. Omaha, Nebr. Philadelphia, Pa. Pittsburgh, Pa. San Francisco, Calif. Seattle, Wash. Tulsa, Okla. Vancouver, B. C. Winnipeg, Man.

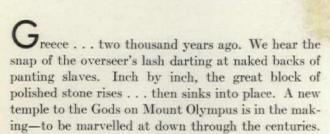


Send for our catalog. Telephone for your nearest @ Man and use him for co-operation. The obligation to serve you we consider ours.

PANELBOARDS ARE THE SIGN OF A BETTER JOB

AGE-OLD BEAUTY

in a MODERN FLOOR MATERIAL



America . . . today. In an enormous factory room, a giant wheel so tall that it turns men into dwarfs, revolves slowly. Beauty issues in an endless stream.

Beauty (here lies the miracle) which shows no

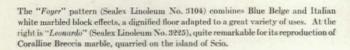
trace of its machine origin. With no hint of that tiresome sameness, that uninspired regularity which often betrays the touch of the iron workman.

In the new Karnean Marbled patterns in Sealex Inlaid Linoleum, colors run riot—defy discipline—disappear and reappear—writhe and twist themselves into unexpected shapes and courses. They parallel the astonishingly gorgeous, accidental beauty of Nature!

Below is illustrated one of the new Sealex designs in which these rare marble markings appear. This pattern represents a departure from the popular "checker-board," such as that illustrated at the left. You will notice that although the veinings of adjoining tiles run at right angles, only one kind of marble effect is used, resulting in a more restful pattern than those floor designs in which more pronounced color contrasts are evident.

On the next page are reproduced a few more interesting innovations in linoleum design, typical of the Sealex floors offered for 1930.







BELOW are shown four of the new Sealex Linoleums. Hundreds of other patterns are reproduced in our new catalog, which we will be glad to send upon request.





"Sea Rock," No. 3037

One of many patterns available in the realistic Karnean Marbled effects. In the small illustration it is impossible, of course, to do justice to the wonderful coloring and veinings.

and a serial and a



"Zuyder Zee," No. 2600

In this and other patterns of Sealex Embossed Inlaid Linoleum, each tile is slightly raised above the "mortar line"—giving an interesting effect of texture and surface.





New Jaspé Effects

The new pastel shades in Sealex Jaspé Linoleum will be welcomed by architects who realize the possibilities of this subdued, yet decorative, type of floor. Illustrated here are "Roseglow" and "Lake-blue."

BONDED FLOORS are floors of Sealex Linoleum and Sealex Treadlite Tile, backed by a Guaranty Bond issued by the U. S. Fidelity and Guaranty Company. They are installed by Authorized Bonded Floors Contractors, located in the principal cities of the country. Only firms of excep-



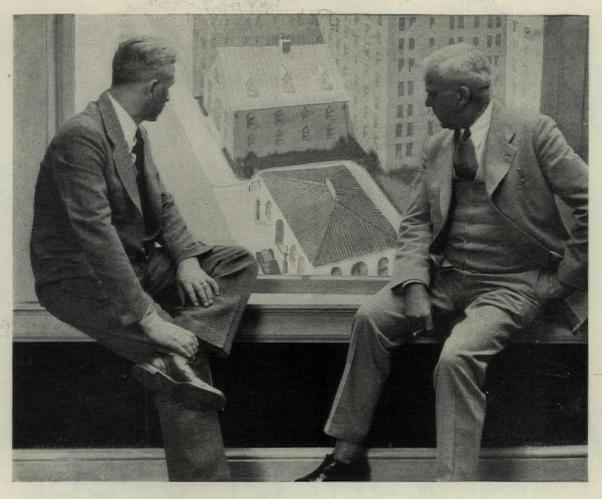
tional standing in their communities are given this authorization. Authorized Bonded Floors Contractors are the pick of the country's flooring contractors—that is why we can afford to back their installations with our Guaranty Bond.

CONGOLEUM-NAIRN INC., General Office: Kearny, N. J.

BONDED FLOORS

SEALEX LINOLEUM AND TILE BACKED BY A GUARANTY BOND

See preceding page



Metal Tile, in Leadclad, a favorite material

in filling station design ...

LeadCLAD metal tiles, Spanish or Duplex, are ideal for service and filling station designs. Light in weight, they permit of distinct construction economies since heavy supporting beams are unnecessary. They have all the beauty of old Spanish clay tile but will not crack or chip. They make a weatherproof, fireproof and lightning proof roof of pleasing symmetry. Leadclad tiles are longer lasting, too, because of the thick coating of PURE LEAD, which is fused to the copper bearing steel base.

WHEELING METAL & MFG. CO. Wheeling, W. Va.



Leadclad Stocks in the following cities:

Boston, Mass. Bridgeport, Conn. New York City Erie, Pa. Cleveland, Ohio Cincinnati, Ohio Mansfield, Ohio Youngstown, Ohio Toledo, Ohio Detroit, Mich. Richmond, Va. Los Angeles, Calif. San Francisco, Calif.

Portland, Oregon
Baltimore, Md.
Norristown, Pa.
Tacoma, Wash.
Medford, Ore.



LEADCLAD COPPER

has a base of PURE COPPER to which is fused a thick coating of PURE LEAD. Non-staining, unaffected by sulphurous air conditions, this material weathers to a soft stone like color. Recommended for flashings, gutters, leader heads and all drainage products. Furnished in either Old English or plain finish, as illustrated above.





HERE ECONOMY POINTS TO SHEET STEEL



Save with Steel

CONTRIBUTOR TO TRADE RESEARCH DIVISION, NATIONAL ASSOCIATION OF FLAT ROLLED STEEL MANUFACTURERS

NOT only in up-to-date offices, but where ever economy points to sheet steel for security and continuously efficient service, there you will find AMERICAN sheets.

For thirty years American sheets have proved their worth, and are constantly improved as research and experience point the way.

An AMERICAN engineer is ready to help you select the proper sheet for your product. We manufacture a complete line of Black and Galvanized Sheets, Formed Roofing and Siding Products, Tin and Terne Plates, for all uses in the construction field. KEYSTONE Copper Steel Sheets and Tin Plates give maximum endurance and rust-resistance. Time and service prove this.



SUBSIDIARY OF UNITED STATES STEEL CORPORATION

PRINCIPAL SUBSIDIARY MANUFACTURING COMPANIES:

CARNEGIE STEEL COMPANY
CYCLONE FENCE COMPANY
FEBERAL SHIPBULDING AND DRY DOCK COMPANY
cts Company, San Francisco, Los Angeles, Portland, Seattle, any, San Francisco, Los Angeles, Portland, Seattle, Honolulu. Export Distributors—United States Steel Products Company, New York City

ILLINOIS STEEL COMPANY MINNESOTA STEEL COMPANY NATIONAL TUBE COMPANY

THE LORAIN STEEL COMPANY TENNESSEE COAL, IRON & R. R. COMPANY UNIVERSAL PORTLAND CEMENT COMPANY

AMERICAN BRIDGE COMPANY AMERICAN SHEBT AND TIN PLATE COMPANY AMERICAN STEEL AND WIRE COMPANY Pacific Coast Distributors—United States Steel I



Old Sweet

So Romantically Linked with Napoleon's Brother

Being Brick Tale Telling Number XXVIII

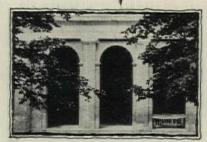
TUCKED away in a valley, over three of the Blue Ridge Mountains from Salem, way down here in Virginy, is romance-laden Old Sweet.

They tell you in one breath, it was designed by Jefferson; and in the next that Napoleon's brother here courted his wife, a famous Baltimorian belle. Of a sudden you find yourself transported back to those glorious vesteryears. Those years when coaches and four, drove up from New Orleans, and down from Baltimore and Washington; and Old Sweet was in its pristine glory.

Examining the brick you find them the same Jefferson size, and in coloring a near kin to those we are right now making in the mould-made-way down here at Salem. Which, by the way, is "about two whoops and a hand-ful of hollers" from Roanoke.

Glad to tell you more about these bricks. I'll warn you there's a very considerable more to tell. One we'll say right now, and that is we make them in both the Jefferson and Standard size. Architects seem to favor Jeffersons.

Wish this photo could show you the meticulous care watails were studied which all the deefferson. Oh well, you'll just ha Old Sweet and see f go down to

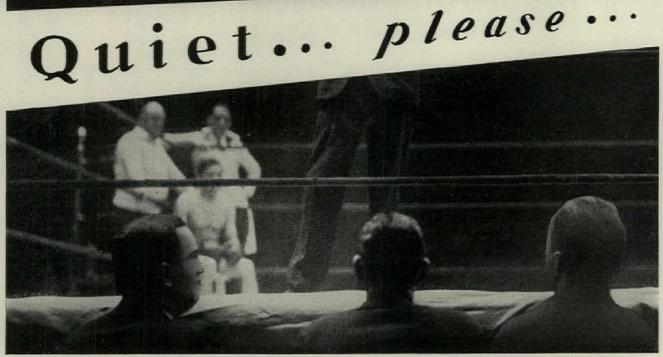


Jefferson seems never to have lost an opportunity to introduce his brick arched connecting-ways.



Old Virginia Brick Company Salem, Virginia





Efficient ... e-safe ... decorative. Three basic considerations in the selection of a sound-corrective material for auditoriums, halls, and theatres. Acoustex gives you all three . . . and more.

BOSTON ACOUSTICAL ENGINEERING DIVISION
of HOUSING COMPANY
40 CENTRAL STREET, BOSTON, MASS.

Acoustex erectors are located in principal cities. Ask for specifications and details on the use and application of Acoustex... or write us direct.

ACOUSTEX

The Decorative Sound Absorbent

ACOUSTEX

offers you . . .

An acoustic material which is a finish beautiful in itself... tinted to your specifications... unusually high coefficient of sound absorption... easily vacuum cleaned and redecorated... made of incombustible wood fibre... moisture proof... tested through



years of successful installations...furnished in tiles from $6" \times 12"$ to $12" \times 24"$ and large sheets two feet wide and up to ten feet in length ... three thicknesses available to meet all absorption requirements:

ACOUSTEX 60-1" thick
*Absorbs more than 60% of the incident sound

ACOUSTEX 70 − 1½" thick *Absorbs more than 70% of the incident sound

ACOUSTEX 80-2" thick

*Absorbs more than 80% of the incident sound *1024 vibrations per second.

"I don't need a door as good as yours"





Mr. Architect, the difference in price between Jamison and Stevenson Doors and the cheapest Door on the market is only a few

dollars. But is anything gained when you try to save those few dollars? During our last 42 years we have replaced hundreds of doors of the "Just as good" kind-cheaply constructed doors-showing that such doors give only a few years' service. • • • Suppose you paid \$45 for the cheap door and it gave as much as ten years' service. It would cost \$4.50 per year. But if you specified a \$50 door with proved records of twenty years or more-(and Jamison and Stevenson Doors have plenty of such records) - you could figure in advance that the door cost would be \$2.50 a year or less. The cheaper constructed door doesn't save money. It just doubles your client's yearly door cost, not to mention the necessary extra repair bills, less satisfactory operation, and losses on ruined goods. . . . Jamison and Stevenson Doors by proved performance give a lower yearly cost. They are guaranteed to outlast any other door, at any price, under any conditions. Think that guarantee over,

Mr. Architect, when you compare prices. Now, as to this claim of monopoly—

J. Jamism Ja

THE JAMISON STANDARD COOLER DOOR



Stevenson Cold Storage

see our advertisement in April, 1930, issue

For Maximum Cleanliness



Installation: Shriners' Hospital, San Francisco, Cal. Architects: Weeks & Day, San Francisco. Fabricator: MONTAGUE RANGE & FURNACE CO., San Francisco.

ARCHITECTS Specify Built-In Cabinets of Monel Monel

In hospitals, built-in cabinets may be placed in the most convenient, yet inconspicuous positions in either clinical or food service departments. Consolidated with sinks or other equipment, built-in cabinets are handy without being in the way.

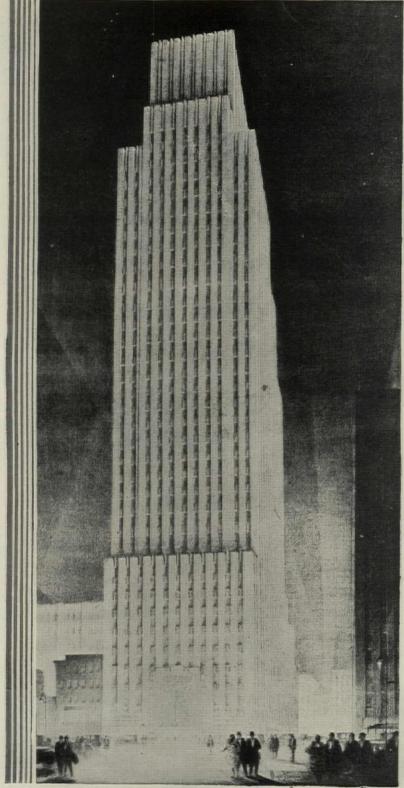
Constructed of and lined with Monel Metal, built-in cabinets represent the last word in cleanability. Monel Metal will not rust and it resists corrosion. It is easily cleaned and kept clean. It has no coating to chip, crack or wear off under heavy impacts or severe use. It is strong as steel and will last for years.

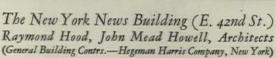
In your plans for new construction keep in mind the advantages of builtin Monel Metal cabinets. Fabricated by regular cabinet manufacturers.

"MODERN KITCHENS", A 72-PAGE BOOK CONTAINING VALUABLE FOOD SER-VICE DATA FOR USE IN SPECIFYING EQUIPMENT WILL BE SENT ON REQUEST

Monel Metal is a technically controlled Nickel-Copper alloy of high Nickel content. It is mined, smelted, refined, rolled and marketed solely by The International Nickel Company. The name "Monel Metal" is a registered trade mark. MONEL METAL







HALSEY TAYLOR DRINKING FOUNTAINS

The Specification For Sanitation



N this new building of

THE NEWS

NEW YORK'S PICTURE NEWSPAPER

New York, with its scores of distinguished office structures, has none that surpass this magnificent new building, in its appointments and facilities, in the efficiency of its office space and the convenience of its location. It is an architectural masterpiece, and we are proud to say that Halsey Taylor fountains were installed throughout...The Halsey W. Taylor Co., Warren, O.



No. 608

Drinking Stream Always Practical

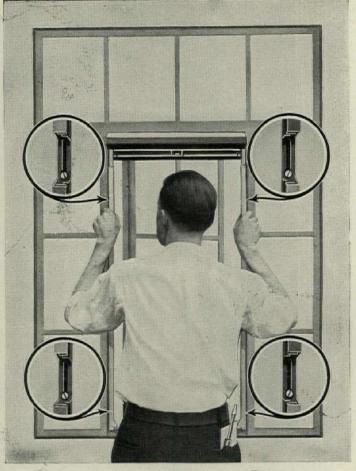
Eighteen No. 631 fountains (shown at right) and seventeen No. 608 (shown above) were used to assure sanitary drinking convenience. All with two-stream projector and automatic stream control, of course, thus assuring a drinking stream of uniform height regardless of pressure, and of utmost sanitation, with no necessity for lips to touch!



SIMPLICITY OF INSTALLATION OF



TRUSCON STANDARD CASEMENTS



Attaching Assembled Rol-Up Screen to Truscon Casement. Note simplicity of screw connections.

Once more Truscon proves its leadership by providing ideal Rol-up Screens for all its Standard Casements, Model No. 5.

Truscon Rol-up Screens are simply installed in a few minutes' time by any mechanic. They are quickly assembled by telescoping guides over end of housing and are attached by six screws provided with the casement.

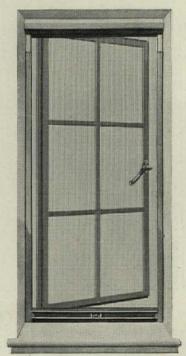
Truscon Rol-up Screens are of the same high quality that has made Truscon Standard Steel Casements preferred by discriminating builders. Due to large scale production they are very moderate in cost.

In many locations the Truscon Side Hinged Casement Screen can be used with entirely satisfactory results and at a considerable saving in cost. Truscon solves the screening problem for steel casements, simply and economically.

Write for literature and quotations

STEEL WINDOW DIVISION
TRUSCON STEEL COMPANY, YOUNGSTOWN, OHIO

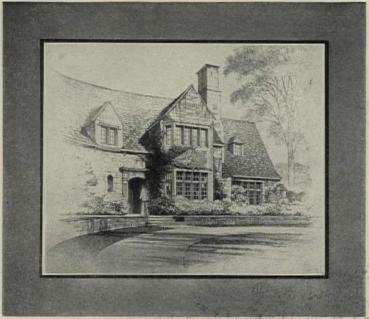
Warehouses and Offices in Principal Cities Truscon Steel Company of Canada, Limited, Walkerville, Ontario



Rol-up Screen completely installed and in operation.



STANDARD CASEMENTS
with CASEMENT SCREENS



Entrance detail of residence for Mr. Percival T. Gates, at Montelair, New Jersey. STEELTEX was specified and shall be used in this fipe home. Lyon and Taylor, architects, New York City.



This Texarkana Country Club, Texarkana, Ark., knows the value of STEELTEX for plaster . . . STEELTEX was used throughout.







. . Why are Architects everywhere specifying Ribbed STEELTEX?

_ because it is a proved plaster lath and actually reinforces the plaster with



80% of every room, in the average home or building, consists of walls and ceilings. Therefore, the walls and ceilings are something important to consider, whether the finishes are plain or highly textured and expensive . . . and these walls and

ceilings to be lasting should be reinforced with steel wires.

Reinforces and Protects

Ribbed STEELTEX is the modern plaster base and steel reinforcement that makes plaster permanent and protects the beauty and value of walls and ceilings. Ribbed STEELTEX does it this way: STEELTEX reinforces the walls and ceilings with a complete network of electrically-welded steel wires . . . these steel wires become automatically embedded (in the plaster) during plastering. The entire plaster slab is thus reinforced with a network of heavily-galvanized and welded steel wires . . . like reinforced concrete in principle.

Nothing new . . . nothing untried . . . nothing experimental about Ribbed STEELTEX. It is quickly and easily applied and plastered no unusual methods are necessary. There are however, many decided advantages in home or building construction for the use of STEELTEX . . . it strengthens the framework of the building . . .

insulates against heat and cold . . . deadens sound . . . blankets each and every room with its heavy, tough fibrous backing (preventing infiltration of air). Finally, Ribbed STEELTEX actually safeguards by making walls and ceilings last for a lifetime . . . by reducing plaster cracking hazards to the minimum. There are many other facts about STEELTEX worth knowing . . . these are fully explained and illustrated in our new FREE book, "Better Walls for Better Homes." Simply clip the coupon below, send it to us and your copy will reach you promptly.



★ This STEELTEX method gives Lifetime Walls and Ceilings

Our new Free book tells HOW and WHY. Mail the coupon

National Steel Fabric Company,	Dept. 51-1
Pittsburgh, Pa. Gentlemen—Please send your book (witho Walls for Better Homes." Name	ut obligation), "Bette
Address	
CitySta	te

(Indicate your business here)

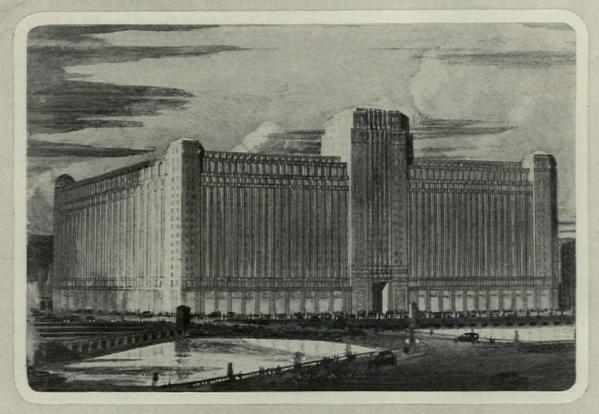
NATIONAL · STEEL FABRIC · COMPANY

UNION TRUST



PITTSBURGH, PA.,

INTERNATIONAL CASEMENTS



Rendering by the Architects-Graham, Anderson, Probst and White

The Merchandise Mart of Chicago, when completed, will be the Largest Building in the World. All casements were supplied by the International Casement Company, Inc.

> Where materials of the highest quality are required, International Casements are specified.

Also Manufacturers of International Austral Windows

INTERNATIONAL CASEMENT CO INC

JAMESTOWN, NEW YORK

AGENTS IN PRINCIPAL CITIES

IN CANADA: ARCHITECTURAL BRONZE & IRON WORKS, TORONTO, ONT.







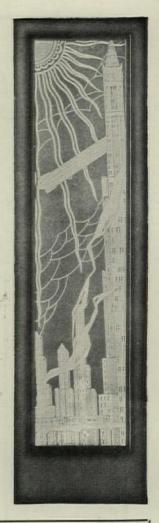
Door Panels of Stainless Steel

No material of recent years has met with such wide-spread comment and interest in architectural circles as the new Enduro Nirosta Steel which takes a weatherproof finish that gleams like polished silver.

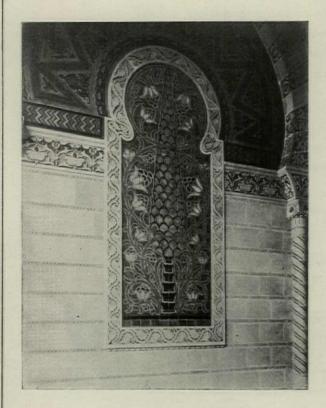
Produced in this country under Krupp License, Enduro affords the architect a white metal with all the permanence of brass and bronze. Alert to this development, United Metal Products Company is now furnishing etched door panels of surpassing beauty in this enduring metal.

A plastic baked-on enamel process provides any color effect desired either grained or plain. The metal itself supplies the relief and contrast. Photography cannot do justice to the beauty of the doors shown here. Write to us for further information on this important development.

THE UNITED METAL PRODUCTS CO. CANTON, OHIO



POLYCHROME FAIENCE



PANEL 6 feet by 20 feet

NEW MASONIC TEMPLE TRENTON, NEW JERSEY

WALTER HANKIN, ARCHITECT

TILE PANEL BY

MUELLER MOSAIC CO. TRENTON, NEW JERSEY

NEW YORK DISPLAY ROOM 103 PARK AVENUE

SEND FOR BOOKLET





WE Consider the Architect's Drawing as Our Negative Film

The architect has a definite conception of the exterior lamp, lantern or bracket he wants. He puts his exact specifications on paper. His drawing and specifications we consider our negative film. From these specifications we develop into reality a replica of the mental image created by the architect.

It is only through long experience, and an understanding of the architect's point of view that we are able to develop the fixture precisely as the architect wants it. Our skilled craftsmen are able to produce delicate work in fine detail—and this without sacrifice of strength or durability.

If you desire to have an original design produced you can depend upon a faithful interpretation of the drawing.

In case an original conception is not needed our Catalogue "J" displays lamps, lanterns and brackets for every purpose.

> Smyser-Royer Display in Sweet's Catalogue

In Sweet's Catalogue, Section D, pages 5334 to 5344 there is a display of 200 Smyser-Royer exterior lamps, lanterns and brackets. These illustrations will display to the reader the high standard of craftsmanship maintained by Smyser-Royer. Exterior fixtures for every period and purpose are produced with equal skill and attention to detail.

Lamp Posts Lanterns Brackets SMYSER-ROYER CO.

Main Office and Works: YORK, PA.
PHILADELPHIA OFFICE: 1700 WALNUT STREET



Philadelphia Art Museum, * Philadelphia, Pa.

WATERTIGHT

THE stone-paved court and fountain on the east elevation of the Philadelphia Art Museum are a very remarkable example of masonry.

This tremendous surface of stone is subjected to the attacks of notoriously variable weather. Snows pile up in drifts, melt into slush, and freeze into hard ice. Torrential, wind-driven rains beat down and sweep across the court. Fogs hang over the city for days at a time. Blazing midsummer sun smothers the broad expanse of stone under shimmering waves of heated air. There are the inevitable deposits of grit and dust. Occasionally, traces of industrial gases permeate the air. Today the temperature may be 65°, tomorrow it falls to 25°. Altogether, the Philadelphia climate is not too gentle.

However, in every inch of masonry joint in this broad terrace, there is embedded a protecting watertight compound; one that bonds perfectly and remains permanently viscous. Every joint is a true expansion joint. The court is completely self-protecting.

*The Philadelphia Art Museum, at the head of the Parkway, is the pride of the city. Calked with Pecora Calking Compound applied by the Ev-Air-Tight Pneumatic process, it is fit to resist the attacks of the elements and remain a thing of beauty.



PECOI Sedgle							, Phil	ade	lphia					
Plea And	se tell give	me me	why full	a b	uildir	g isn'	t comp	plet	ed un Calk	til	it is	s ca	lke	d.
Name														
Firm 1	Name		***	* * *		***								
Street	and N	0												
City a	nd Sta	te .												

With

qas

or oil

for heat

what about

Waste

Disposal?



THE use of modern fuels in heating has given rise to a very definite problem in the disposal of waste and rubbish. Oilor gas-fired heating plants are obviously out of the question for the destruction of wrappings, wilted flowers, sweepings and other refuse; it is dangerous to accumulate them in the basement, and ordinances—in most cities—prevent burning them out-of-doors.

Convenience, the keynote of modern housekeeping, makes the Kernerator a necessity when modern fuels are used. Your insistence upon the specification of a Kernerator is one of the things that will win the sincere appreciation of your clients.

The Kernerator and its unqualified success in thousands of installations are evidence enough of the correctness of its principle and the quality of its service.

Send for A. I. A. Folder or see our Catalog in Sweet's.

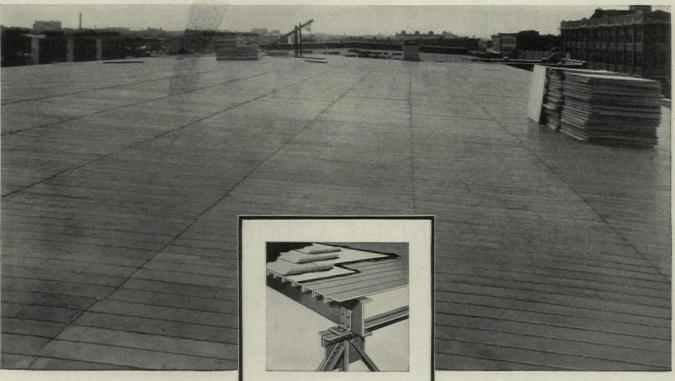
KERNER INCINERATOR COMPANY
1233 North Water Street
Milwaukee, Wisconsin



FOR NEW AND

EXISTING BUILDINGS

. . . "the Most Economical Permanent Roof Obtainable"



N PERMANENT roof construction, weight is the cost determining factor. When light weight is combined with fire-safety and permanence in a material requiring absolutely no maintenance, you have unquestionably the most economical permanent roof obtainable.

¶ Mahon Steel Roof Deck meets these specifications perfectly . . . it weighs only five pounds per square foot, including insulation and roofing material. In buildings designed to carry this extremely light roof load, remarkable savings can be effected through the use of lighter members in the sup-

Cross section of Mahon Steel Roof Deck showing interlocking principle and the application of insulation and roofing material.

MATERIAL

Mahon Steel Roof Deck Plates are rolled from special, tight-coated galvanized copper-bearing steel, and require no painting or maintenance whatsoever. The brightgalvanizedceiling surface, presented by Mahon Deck installed, is a desirable asset from a standpoint of light reflection.

porting structure.

The millions of square feet of Mahon Steel Roof Deck already installed on industrial and commercial buildings throughout the country, bear evidence to the fact that many architects and builders are taking advantage of the outstanding economy of this type of permanent roof construction. Write for our complete data book and our folder, "Facts and Figures."

THE R. C. MAHON COMPANY Detroit, Michigan

Branch offices in New York, Chicago and Pittsburgh-Representatives in all principal cities.



Manufactured in Galvanized Copper Bearing Steel in either 18 or 20 Gauge

The illustration above shows Mahon Steel Roof Deck installed on a new building for the Robert Beyer Corporation, Brooklyn, N. Y.

GURE THIS SAVING

A typical example of fuel economy

The Prairie Oil & Gas Co. office building at Independence, Kansas, is now heated with a Dunham Differential System, a change-over of the previous system. Direct comparison of "before and after" costs of gas fuel shows a 33.4% saving effected by Differential Heating.

Another example in a 40 story office building

The superintendent of the Barlum Tower, Detroit says, "The Differential System solved two great problems of operating our large heating system — (a) satisfactory heating, (b) reasonable cost. Fast circulation and efficient heating save an average of 1½ hours on the heating-up period each day."

FOR YOUR OWN HEATING NEEDS

Dunham Differential Heating Systems save from 25 to 40% of fuel costs, by direct comparisons in change-over installations from ordinary heating systems to those differentially operated. Similar fuel economy is obtained in new buildings.

Apply even the low figure of 25% to the usual fuel costs, and you will see that the plain dollars and cents consideration warrants an investigation of Differential Heating performance.

When you look into the exclusive operating characteristics of Dunham Differential Heating you will find that fuel saving is but part of the story. Maximum comfort and health conditions, unusually important in modern building projects, are uniformly maintained by Differential Heating.

The simple and effective operating principles based upon the controlled use of hot steam, warm steam, cool steam, as required by outside weather, are exclusive Dunham Differential features. Automatic control maintains room temperatures without wasteful overheating.

Investigate the operating features that make Dunham Differential Heating so satisfactory in hundreds of installations throughout the United States and Canada. Write for descriptive bulletins and for facts bearing on your own requirements.

Many existing heating systems can be converted to Differential operation at moderate cost. These change-overs will pay for themselves. Dunham engineers will survey present systems without obligation.

33

Look for the nameDUNHAM. This nameplate identifies a genuine Dunham Thermostatic Radiator Trap.

The Dunham Differential Vacuum Heating System and individual parts of the apparatus used in that system are fully protected by United States Patents Nos. 1,644,114, 1,706,401 and 1,727,965 and Canadian Patents Nos. 282,193, 282,194, and 282,195. Additional patents in the United States, Canada and foreign countries are now pending.



C. A. DUNHAM CO.

Dunham Building

450 East Ohio Street

Chicago, Illinois

Over 80 branch offices in the United States, Canada and the United Kingdom bring Dunham Service as close to you as your telephone. Consult the 58-page DunhamArchitectural Handbook in Sweets—Volume D. Dunhamengineers are at your service with complete and authoritative data on improved heating practice.



BEST BROS

KANSAS.

MODERN WALLS... BEAUTIFUL AND DURABLE

COLORFUL richness...modern textured finishes...beauty combined with utility. These desirable features of interior walls are easily obtained by the use of BEST BROS. Keene's Cement. • As far back as 40 years ago this gypsum cement

had won a reputation for durability, strength and workability. Today, in addition to having those necessary qualities, BEST BROS. Keene's Cement readily

AN ARCHITECT IS AN INVESTMENT
... NOT AN EXPENSE

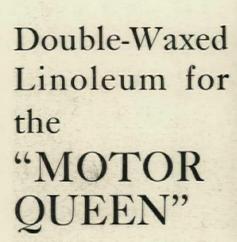
Refectory in the Memorial Union Building, University of Wisconsin. Architect: Arthur Peabody. General Contractor: Pfeffer Construction Co. Plastering Contractor: George Thill.

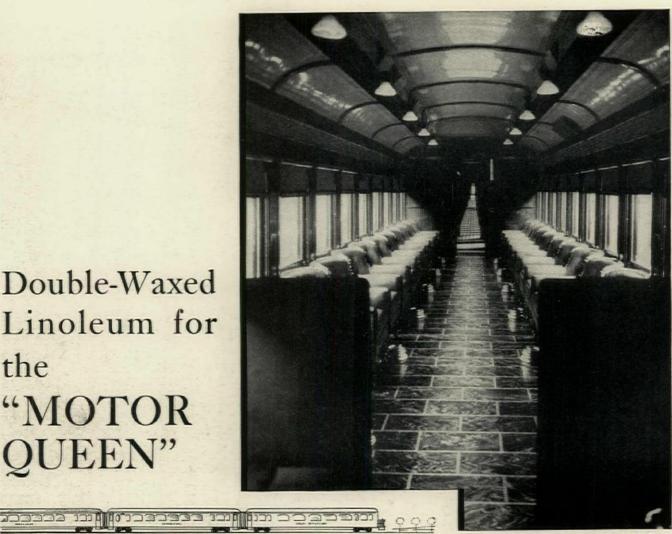
answers the demand for the modern textured finishes...for color...for the splendor and charm of the more ornate decorative effects. • There is rarely a plastering job in the realm of building where

BEST BROS. Keene's Cement cannot be used to advantage. We invite you to write for literature giving further information.

BEST BROS

Mlways "BEST" for Plastering





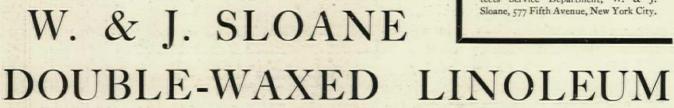
The Club Car of the "Motor Queen." W. & J. Sloane Contract Marble Tile "A" Inlaid is used for the floor. Pattern No. 175.

(New York Central Lines' de Luxe Train)

The "Motor Queen," the New York Central Lines' de luxe train, running between Cincinnati and Detroit, is the last word in passenger equipment. The "Motor Queen" is made up of the latest type cars, beautifully finished, with individual upholstered chairs and with linoleum floors! W. & J. Sloane Double-Waxed Linoleum is used for the floors.

Each month sees new uses for linoleum floors. Each month sees an increasing use of W. & J. Sloane Linoleum, because of the wide range of colorful patterns, its inherent quality, and its exclusive double-waxed finish.

W. & J. Sloane Linoleum is made with a natural fine-textured finish, the result of extra-processing in the grinding and mixing of raw materials and extra pressure in the calenders. It is then double-waxed at the plant by an exclusive Sloane process. When you specify W. & J. Sloane Linoleum you assure your client of the finest money can buy. It is easy to handle and lay and ready for use the instant it is laid. Examine this superfine finish before you write the specifications. We will gladly send you a quality sample.





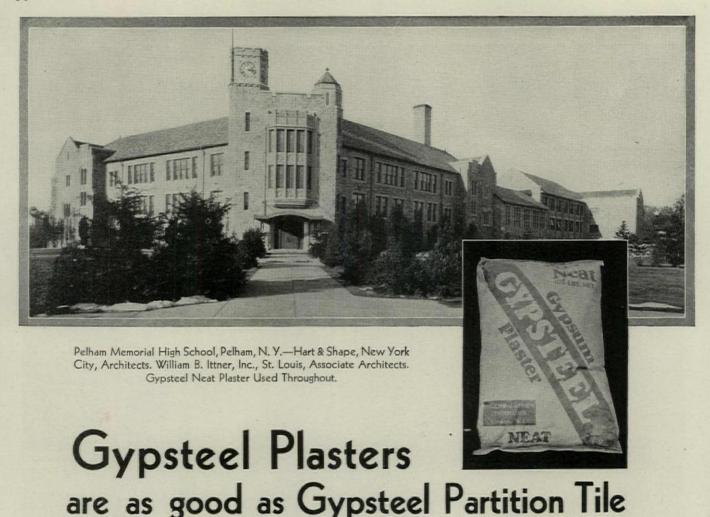
This Service Free to Architects

If you wish practical suggestions in planning linoleum floors, do not hesitate to call upon our Architects Service Department. There is no charge nor obligation involved. You may also have for the asking a copy of the Linoleum Data Book illustrated above. It will help you in preparing specifications. Address: Architects Service Department, W. & J.



FURNITURE BY DE LONG

FOR CHURCHES~FRATERNAL AND PUBLIC BUILDINGS



-the strongest endorsement they could have

ARCHITECTS have given Gypsteel Partition Tile the strongest endorsement possible by using it exclusively in such great projects as the Chrysler Building, Hotel New Yorker, Hotel Governor Clinton, United Shoe Machinery Building at Boston, Tudor City units 9 to 13, Williamsburg Bank Building, and a host of others.

The reason is simple: Tests have repeatedly shown that Gypsteel Partition Tile averages 2½ times greater strength than the requirements of the Standard Specification of the American Society for Testing Materials.

Gypsteel Wall Plasters are likewise as superior in their qualities of strength and workability as you have already found Gypsteel Partition Tile to be in comparison with others.

This isn't strange, after all, because the tile and the plasters are made from the same gypsum. We make the gypsum in both by the patented "Gypsteel" process. This results in distinctive qualities of workability and strength not obtainable in any gypsum products other than those having the "Gypsteel" name.

Gypsteel Wall Plasters have been enthusias-

Gypsteel Wall Plasters have been enthusiastically received by the architects, builders and plasterers who have had the opportunity of using them. They say the plaster slips easily under the tool, spreads well, and makes stronger walls

In fact, Gypsteel Plasters are as good as Gypsteel Partition Tile—the strongest endorsement that could be given them.

GYPSTEEL Gypsum Plasters

General Offices: Linden, N. J.

STRUCTURAL GYPSUM CORPORATION

Sales Offices in Principal Cities



Court of Honor in Architectural and Industrial Arts Exposition, Memphis, Tennessee. *CELLized Oak Blocks with center area of light and dark mahogany.

now Variety in*CELLized Wood Floor Blocks

Interesting combinations of hardwoods now provide beautiful patterned floors, with the economy of unit block construction, laid in EVERBOND, a plastic cement, over any level sub-floor.

OAK 13-16 in.			MAPLE* 1 1-16 in.	WALNUT 13-16 in.	PHILIPPINE MAHOGANY 13-16 in.	YELLOW PINE 13-16 in.	RED GUM 13-16 in.
6% in.	6% in.	6% in. 8 in.	in the f	ollowing siz	es of squares:		for walls and ceilings 6张 in.
9 in. 10% in.	9 in.	9 in. 9% in. 10 in.	9 in.	9 in.	9 in.	9% in.	9 in.
11¼ in. 12 in.	11¼ in. 12 in.	11¼ in. 12 in. 13 in.		11% in.	11% in.	13 in.	11½ in.

*For industrial floors, (extra heavy service) maple blocks are also fabricated 1 5-16 in. thick; several sizes.

NEW Rectangular Blocks for basket weave, herringbone and other patterns are available in all woods, in sizes 634 in. x 131/2 in. and 6 in. x 12 in.

Sold through lumber dealers everywhere; manufactured by THE LONG-BELL LUMBER CO. . . . Kansas Circ. M. THE LONG-BELL LUMBER CO. . . . Kansas City, Mo. NASHVILLE HDW. FLOORING CO. . . Nashville, Tenn. ARKANSAS OAK FLOORING CO. . . Pine Bluff, Ark.

CELLized Oak Flooring Inc.



Front and back

A corner of the exhibit, showing *CELLized wood blocks for walls as well as floors. Panel at left, white and red oak, laid alternately; at right, red gum. Floor, maple and walnut blocks.

*CELLized Wood Floor Blocks are guaranteed. Laid only by Licensed Flooring Contractors. Names on request.



Condensed Specification

MARY INSTITUTE

OCATED on a twenty acre campus in St. Louis County, Mo., Mary Institute is an important addition to a city of fine schools. The architectural conception is the work of Study & Farrar, architects, of St. Louis and the entire

project a monument to the generosity of Mrs. Sarah Wilson of St. Louis. Its purpose is that of a preparatory school for girls.

Permanent beauty of the building's interior is provided for by Par-Lock (Specification Form B) applied to the inner face of all exterior walls receiving plaster finish, all interior concrete surfaces as well as the concrete joist-tile ceilings. Par-Lock has also been specified for the principal's house, not yet constructed.

The Gamble Construction Co. of St. Louis, are the general contractors, with the plastering contract in the hands of Dunn & Campbell, also of St. Louis. Par-Lock was applied by the Par-Lock Appliers of St. Louis.

THE VORTEX MANUFACTURING CO. - 1975 West 77th Street, Cleveland, Ohio





Address

PAR-LOCK APPLIERS

At Any Point Listed

ALBANY, 425 Orange Street ATLANTA. Bona Allen Building BALTIMORE, 613 West Cross Street BUFFALO, 958 Ellicott Square Bldg. CHARLOTTE, 217 Builders Ex. Bldg. CHICAGO. 862 Builders Building CINCINNATI, 611 Dixie Terminal Bldg. CLEVELAND, 218 Hunkin-Conkey Bldg. COLUMBUS. 751 South Cassingham Rd. DETROIT, 2457 First National Bldg. KANSAS CITY, 2035 East 19th Street

MINNEAPOLIS,

NEWARK, N. J.,

434 Builders Exchange

24 Commerce Street



NEW YORK CITY, 50 Church Street PHILADELPHIA, 1700 Walnut Street PITTSBURGH, 207 Fulton Building SCRANTON, Cedar Avenue ST. LOUIS, 1514 Chemical Building TORONTO, 2258a Bloor Street, West TRENTON, 339 Broad St. Bank Bldg. YOUNGSTOWN, 503 City Bank Building WILKES - BARRE, 904 Second National Bank Building Par-Sock

Plaster-Key

A new era in Chicago's building history



Frick Building, Pittsburgh, Pa. SUBSIDIARY OF UNITED STATES STEEL CORPORATION

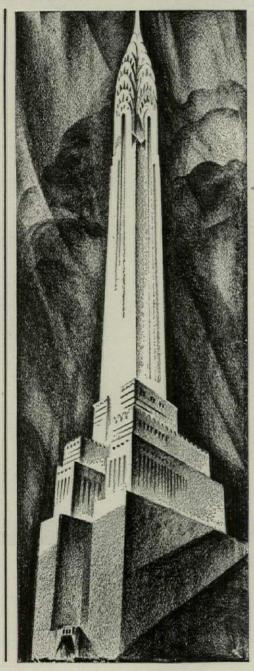
AMERICAN BRIDGE COMPANY
AMERICAN SHEET AND TIN PLATE COMPANY
AMERICAN STEEL AND WIRE COMPANY
Pacific Costs Distributors—United States Steel Produ

PRINCIPAL SUBSIDIARY MANUFACTURING COMPANIES
CARNEGIE STEEL COMPANY ILLINOIS STEEL CYCLONE FENCE COMPANY CYCLONE FEBREAL SHIPBUILDING AND DRY DOCK COMPANY
TEBERAL SHIPBUILDING AND DRY DOCK COMPANY
ATIONAL TUBE COMPANY
TAXONAL TUBE COMPANY
UNIVERSAL PORTLAND CEMENT COMPANY
TAXONAL TUBE COMPANY
TAXONAL TUBE COMPANY
UNIVERSAL PORTLAND CEMENT COMPANY
TO ALL TUBE COMPANY
TO

MINNESOTA STEEL COMPANY NATIONAL TUBE COMPANY

THE LORAIN STEEL COMPANY
TENNESSEE COAL, IRON & R. R. COMPANY
UNIVERSAL PORTLAND CEMENT COMPANY





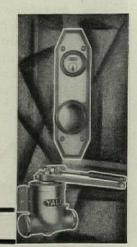
Architect William Van Alen Contractor Fred T. Ley & Co.

YALE

FINE BUILDERS' HARDWARE
IS USED THROUGHOUT THE
CHRYSLER BUILDING

he 77 storied Chrysler Building rises gracefully 1,030 feet above the street, 46 feet higher than the Eiffel Tower in Paris . . . After the most critical inspection, the architect and Chrysler Engineers selected Yale Hardware and Door Closers because they embody that exacting quality so essential to the proper equipment of this dignified and imposing structure.

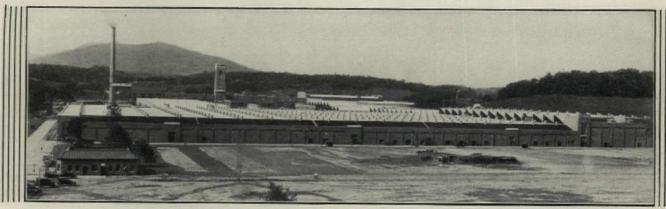
The Yale & Towne Mfg. Co., Stamford, Conn., U. S. A. - Canadian Branch at St. Catharines, Ont.



YALE MARKED IS YALE MADE

HOW WOULD YOU DRAIN A LARGE SAW TOOTH ROOF?

Josam Saw Tooth Roof Drains Effectively Solve Problem on One of Biggest Roof Jobs



The H. K. Ferguson Co. Cleveland, Ohio. Engineers & Builders

Lockwood-Greene & Co. Boston, Mass. Consulting Engineers

American Enka Corp. Asheville, N. C.

 $T_{
m developed\ may}$ prove valuable to you in the structure you are now planning.

Nearly 300 Josam drains were installed both inside and out of The American Enka Corporation to provide the building with proper drainage, but the real problem was to effectively drain the massive roof-and the new Josam Saw Tooth Roof Drain

Heretofore the setting of a Saw Tooth Roof Drain was a difficult and expensive task, owing to its extreme weight and bulk. Often it was necessary to add additional supports or roof framing to sustain its weight.

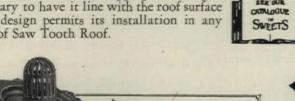
All this is now eliminated with the new Josam Saw Tooth Roof Drain. No tipping or tilting is necessary to have it line with the roof surface as its design permits its installation in any kind of Saw Tooth Roof.

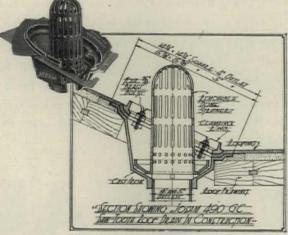
Josam Drains are being selected by architects not merely to be placed at convenient draining outlets but at every point in the building to protect it against any violent attack of the rain, to prevent the deterioration that seepage brings along, to guard against streaky, discolored walls, excessive moisture, and to preserve the beauty of the building.

Josam engineers cooperating with leading architects everywhere will be glad to be called in on the draining of your next structure. Send for the Josam Catalog "G" which shows the adaptability of Josam Products and recommends hundreds of

THE JOSAM MANUFACTURING CO. 4908 Euclid Building Cleveland, Ohio

> Factory: Michigan City, Indiana Branches in Principal Cities





Josam Products are sold by all Plumbing and Heating Supply Jobbers

The Josam Line Includes:
Josam Drains for Floors, Roofs.
Sonwers, Urinals, Garages and
Hospitals; Josam Swimming Pool
Equipment; Josam-Marsh Grease,
Plaster, Dental and Surgical,
Sediment and Hair Interceptors;
Josam-Graver Floor-Fed, GasFired Portable Garbage and Rubish Incinerators; Josam Open
Seat Back Water Sewer Valves;
Josam Open Seat Swing Check
Valves; Josam Adjustable Water
and Gas-Tight Closet Outlet Connections and Bends. The Josam Line Includes:

There are no Substitutes for Josam Products

View of general offices, Bell Telephone Bldg., Dallas, Texas-floors laid with Goodyear Rubber Flooring



Lhe cushioned floorfor busy offices

for scraping chairs and clacking heels

Where many persons work and walk, consider the silence, sanitation, and orderliness of Goodyear Rubber Flooring. For clerical offices especially this resilient and handsome flooring is valued by modern business.

It efficiently absorbs sound. It is a permanent cushion swiftly and easily to deaden the scrape of chair and the scuff of heels.

Cold water is usually sufficient for cleaning. The pliant surface is impervious to dirt. There is no fibrous material in Goodyear Rubber Flooring to absorb water. It possesses laboratory cleanliness.

Thirty different colors meet the style of any room in any building. This versatile flooring material easily follows the mood of your pencil. Infinite patterning is possible in plain or variegated stock colorings.

Specify this durable, resilient, and economical flooring. Write today to Goodyear, Akron, Ohio, or Los Angeles, California, for handbook A. I. A. 23C, and complete specifications.



RUBBER FLOORING

MINWAX PRODUCTS · SEAL · PROTECT · BEAUTIFY



In~ 1940

In the Harkness Memorial, Yale University, James Gamble Rogers, Architect, all floors and trim are finished with Minwax Flat Finish. It is interesting to note that the entire stone exterior is protected and beautified with Minwax Clear Waterproofing.

A Rag Saturated with MINWAX Flat Finish and wiped over the floors and trim of this building will renew its Original Lustrous Beauty

During the past 25 years it has been found that with only reasonable care (an occasional rewiping with a saturated rag) wood work or floors treated with Minwax Flat Finish will not only retain their original lustrous finish, but will enhance their beauty with the passage of time.

Why this is so is easy to understand, when it is realized that Flat Finish does in an economically modern way what the old masters of wood work accomplished only through tedious periods of finishing and rubbing.

Minwax Flat Finish, when first applied, penetrates into the pores of the wood, depositing its tough mineral gums that then become a part of the wood itself. Use and wear only hardens and polishes the surface thus created. As there is no surface film to break, it is almost impossible to seriously mar Minwax Flat Finished wood, so that we can confi-

> dentially say in ten years from now floors and trim so finished will still retain their original beauty.

> Complete data may be had for the asking, or refer to Sweet's Cata-

MINWAX

MINWAX CO., Inc.

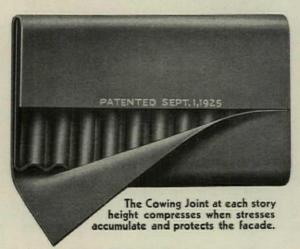
Branch: 232 E. Ohio S Chicago, Ill. 11 West 42nd Stree New York City Factory: Delawanna New Jersey

Finish does in an eco- A complete service for waterproofing, dampproofing and preservation of masonry and wood.

what the old masters Canadian Representatives: Refer to telephone directory or see Sweet's Catalogue.

Canadian Representative: The Raines Co. of Can., 1008 Anderson St., Montreal, Q.

Temperature Changes . . . Vibration...Imposed Loads Create Crushing Stresses Which Must Be Taken From The Facade To Insure It Against Cracks and Spalls



Pressure Relieving

THE Cowing Joint installed in place of one mortar joint across the columns and weight carrying mullions at each story height will zone the facade and insure the facing material against cracks, spalls and breaks. It also protects the mortar joints from crushing and saves frequent tuck pointing. The Cowing Joint has won such widespread approval among architects and engineers that it is now generally specified in all big buildings throughout the country.

SOME RECENT INSTALLATIONS

Merchandise Mart, Chicago One La Salle Street, Chicago Foreman Bank Bldg., Chicago Rand Tower, Minneapolis

Boody Building, Toledo One La Salle Street, Chicago
Foreman Bank Bldg., Chicago
Rand Tower, Minneapolis
Ohio Telephone Bldg., Akron
One Wall Street, New York
Can. Pac. Bldg., Toronto

See "SWEETS" PAGES A182-183

Cowing Pressure Relieving Joint Co. 160 NORTH WELLS STREET

Mill Construction is as Good as its Framing



Type of Building for which Duplex Timber Fittings are ideally suited

THE best timber obtainable, selected with great care to assure the permanence of a structure, is rendered inefficient by inferior fittings.

DUPLEX Timber Fittings are found in the most prominent mill construction buildings in the United States and Canada.

strength and make

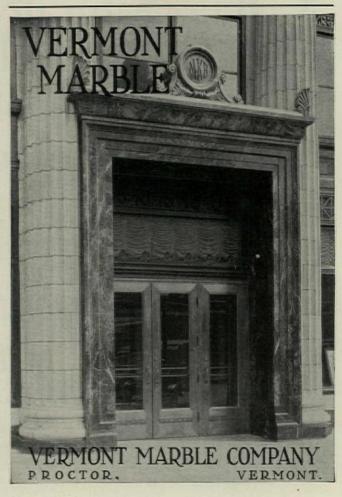


They are designed DUDLEX primarily for a neat appearance.

BEST SINCE 1890

Send for a copy of "A Reference Book of Mill Building Construction," Edition 27-P. Free to Architects







Fairchild Aerial Surveys, Inc.
THE ARLINGTON MEMORIAL BRIDGE
McKim, Mead & White, Architects.

Noble in its conception, most strikingly appropriate in its design and location, a memorial of commanding beauty and usefulness . . . this great bridge crosses the historic Potomac from Lincoln Memorial to Arlington Cemetery, symbolizing the complete reunion of North and South and paying a beautiful tribute to the brave boys of both sections who gave all in their country's service.

We invite your inspection of the more than 500 carloads of accurately cut and nicely carved Mount Airy Granite already shipped by us for this bridge,

J. D. SARGENT GRANITE CO. MT. AIRY, N. C.

615 Witherspoon Building, Philadelphia 127 N. Dearborn St., Chicago 207 Fulton Bldg., Pittsburgh



antique

reproductions and adaptations

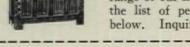


Carved oak Armory, height 60 inches, dating from 16th century

Architectural Harmony in Furnishings



The Charlotte Furniture Company works closely with architects in the production of Character Furniture appropriate for private homes, clubs, hotels and other buildings designed by them. Charlotte pieces are historically accurate, and are distinguished by a high quality of hand workmanship, including finishes of an aged aspect. The range of our line is suggested in the list of periods and woods below. Inquiries are invited.



CHARLOTTE FURNITURE CO., Charlotte, Mich. Showrooms at Grand Rapids

I enclose 10 cents for which please send me your illustrated booklet, with historical descriptions. Also send name of your nearest dealer or decorator. I am especially interested in the periods and woods which I have checked below:

EARLY AMERICAN in Cherry Maple Mahogany
□ Walnut □ Oak □ Pine
ENGLISH TUDOR JACOBEAN WILLIAM and MARY
SHERATON GEORGIAN in Oak Walnut
☐ Mahogany
FRENCH PROVINCIAL in Beech Oak

FRENCH	PROVINCIAL	in in Beech	□ Oak	
FIRM				
Lamazzanazza				

Address

Where criticism may generate or praise be won

N THE lobby, where people ebb and flow, the detail of highest visibility is the elevator entrance. It behooves this important unit, so conspicuous and so much-used, to be beautiful, impressive, quiet and sturdy.

Dahlstrom installations thickly dot the country, in its finest buildings. Architects entrusted with the designing of their plans have discovered and re-discovered, in Dahlstrom, a happy source for entrances that withstand every test of scrutiny, operation and long life. If they occasionally cost a little more, it is made up many times over, in the negligible outlay for upkeep over the ensuing years, and in the satisfaction in a beautythat persists.

We are glad to be consulted, at any time, on the equipment most suitable for the type of building you may contemplate, and to submit color sketches without obligation of any sort. We pioneered the hollow metal door, twenty-five years ago, and have been ever since the largest manufacturers of this now-standard construction. It is a safe procedure, and a logical one, to entrust its manufacture and installation in your buildings, to the firm that conceived and fostered it.

AVA

The Milwaukee Gas & Light Co. Building, Milwaukee, Wisc. (illustrated at left) is a 100% Dahlstrom Installation. Dahlstrom Metal Doors and Trim are used throughout, including Elevator Entrances. Architects: Eschweiler & Eschweiler, Milwaukee, Wisc. Contractors: H. Schmitt & Son, Milwaukee.

DAHLSTROM METALLIC DOOR CO.

455 Buffalo St., Jamestown, N.Y.

(Established 1904)

"NO BUILDING IS MORE FIREPROOF THAN ITS DOORS AND TRIM"—DAHLSTROM

New York * Chicago * Los Angeles * Detroit * Dallas



OAK floors do not flinch from the sun

OAK'S BEAUTY is intensified by sunlight, which streams through the windows and dapples the floor with glistening high-lights and cool shadows. Even under these conditions, when mars and blemishes cannot be hidden, oak reveals its enduring qualities . . . its capacity to withstand the tread of countless feet.

And Oak Flooring adds to the pleasure of all architectural design. Whatever the type, Oak Flooring seems to be its natural complement. Because of this versatility, it is fortunate that oak is not expensive. Compare it with other woods and manufactured flooring

substitutes. Seldom does oak cost more. Generally it costs less. And though other floorings may wear out, or even lose their vogue, oak never does. It is the standard of flooring materials. And once laid, oak will never need replacing during the life of the original owner.

You are invited to send for information on some recent and interesting installations of Oak Flooring. Our staff of experts is ready to assist you with any flooring problem. Oak Flooring Manufacturers Association of the United States, 1287 Builders' Building, Chicago.

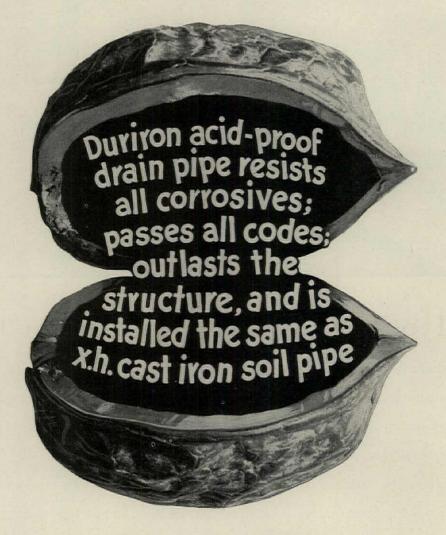
SEE OUR Catalogue SWEETS

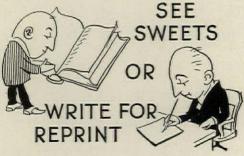
Oak Flooring advertising is being continued on an increased scale during 1930. Look for our advertisements in House & Garden, House Beautiful, Good Housekeeping, Better Homes and Gardens, The Literary Digest, Ladies' Home Journal and Small Home.

This Master Trade-Mark is stamped on the under side of all Oak Flooring produced by members of the Oak Flooring Manufacturers Association of the United States. It is complete protection for you. Every piece is air-seasoned and kiln-dried, then milled, and thoroughly inspected and accurately graded, insuring uniformly high quality.



DURIRON · · · in a nut shell





The DURIRON COMPANY DAYTON OHIO

PROTECTS WOODEN FLOORS, PROTECTS THE ARCHITECT, THE OWNER

Whatever You Specify Must Speak Not Only for Itself, but Also for You and for Years to Come.

LIGNOPHOL

THIS easily applied penetrant permeates the wood through and through. Binds the fibres, fills them with natural oils and gums, protects against grinding wear, and prevents warping, cracking, splintering, and dry and wet rot.

Any workman can apply Lignophol quickly with a long brush. It soaks right in, while leaving a hard, durable, dust-free floor that is easy to keep clean.

Another valuable floor product is

LAPIDO LITH

—for hardening concrete floors and rendering them

dust-proof and wearproof by penetrating deep and binding the porous concrete into a granite-like mass that wears for years. It is the original concrete hardener—a Sonneborn product.

Sonneborn Consulting Service

Sonneborn co-operates with your contractor and gives him the benefit of 25 years' experience. That is important for you to know. This free service, with the moderate cost and guaranteed quality of Sonneborn products enables your contractor to meet your specifications without heavy cost.

The attached coupon brings descriptive literature and samples of Sonneborn products. Send the attached coupon for them today.

L. SONNEBORN SONS, INC., Dept. 3, 114 Fifth Avenue, New York

SOME OTHER SONNEBORN PRODUCTS

Hydrocide No. 633

—Plaster Bond—For damp-proofing interior of exterior walls above ground.

Hydrocide Colorless

—For waterproofing exterior of exposed walls.

Hydrocide

Liquid, mastic and semi-mastic—For waterproofing foundation walls, footings, etc.

Hydrocide Integral

-For waterproofing mass concrete, stucco and mortars.

CEMCOAT

—an exterior or interior wall coating that stays white and can be washed endlessly.

L. SONNEBORN SONS, INC. Dept. 3, 114 Fifth Avenue, New York	P.P.
Please send me, without cost or oblig tion samples and literature on: Ligno olith; Hydrocide Colorless. Hydrocide No. 633; Hydrocide No cide Integral; (Check products t	phol; Lapid- ; Fermo; .648; Hydro-
Name	
Address	
Company	
Position	



Much admired at the beautiful James Russell Lowell Apartments is the ribbon grain of Philippine Laminex

A PHILIPPINE LAMINEX DOOR (TO SPECIFICATIONS)

JAMES RUSSELL LOWELL APARTMENTS, KANSAS CITY

NELLE E. PETERS, ARCHITECT

THE PHILLIPS BUILDING COMPANY, CONSTRUCTION

The beauty of Philippine Laminex lies not alone in the long, slender ribbons of its grain. This remarkable imported hardwood will take a wide range of finishes, from light walnut to the deepest mahogany red, with the most striking effects. And furthermore, trouble-proof Laminex doors faced with selected, grain-matched veneers of this lovely wood are not at all expensive. For a copy of our manual which pictures some twenty-three stock Philippine Laminex designs, or quotations on plans and specifications of your own, get in touch with us today. Use the coupon.

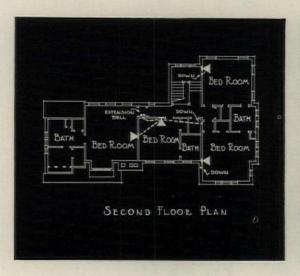
THE WHEELER, OSGOOD COMPANY, DEPT. P-150, TACOMA, WASHINGTON: KINDLY SEND ME A MANUAL

ADDRESS.....

FIRM.

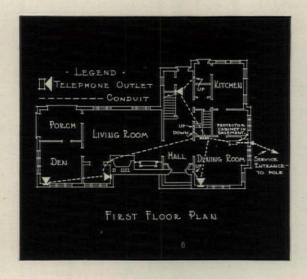
NAME

Throughout the Country Architects are including Telephone Convenience in their Plans for new Houses





In the home of Mr. Joseph H. Skaggs of Atlanta, Georgia, provision for complete telephone convenience is made by nine telephone outlets, including one in the servants' quarters over the garage. Frazier & Bodin, Atchitects, Atlanta, Georgia.





THE APPEAL of telephone convenience is country-wide. In the South . . . as in the Middle West, the Pacific Coast, or along the Atlantic Seaboard . . . architects are planning for it by providing sufficient outlets and conduit for telephone service in the design of new and remodeled residences. Their clients may then have the added ease and comfort that enough telephones give, plus the improved appearance of having the telephone wiring concealed within the walls of the house.

Locations for the telephone outlets are usually determined in conferences between the architect, the client and a representative of the local Bell Company. The home owner can use just those telephone outlets which he needs, and can expand or rearrange the service in the future as he desires.

Architects may consult freely with the telephone company in planning for telephone arrangements. No charge is made for this service. Just call the Business Office.



AMERICAN STEEL & WIRE COMPANY

WILLIAM VAN ALEN, Architect FRED T. LEY & CO., Inc., Contractors

KNICKERBOCKER FIREPROOFING CO.

Electric Weld

Illustrating Wire Fabric used as

floor reinforcement

SUBSIDIARY UNITED STATES STEEL CORPORATION 208 S. La Salle Street, Chicago 30 Church Street, New York Other Sales Offices: Atlanta Baltimore Birmingham Boston Buffalo Cincinnati Cleveland Denver Detroit Kansas City Memphis Milwaukee Minneapolis-St. Paul Oklahoma City P
Pittsburgh Salt Lake City St. Louis Wilkes-Barre Worcester Philadelphia Worcester U. S. Steel Products Co.: San Francisco Los Angeles Portland Seattle Honolulu Export Distributors: United States Steel Products Co., 30 Church St., New York City



WHEN THE BUILDING IS FINISHED . . .

Adequate roof insulation must be present to protect . . . and save!

HAS THE building been well constructed? Look to the roof—for your final answer! Yes, the roof can be a source of much annoyance and waste. Or it can prevent waste, and increase the efficiency of production—if it is adequately insulated.

By laying Novoid Corkboard Insulation on the roof, heat-leakage is checked permanently. There is ample protection against the passage of heat either in or out. "But the expense?" An adequate thickness of corkboard on the roof will pay the entire cost of insulation in a few years. And the building will be so easily heated that an additional saving is effected in the original cost of the heating plant.



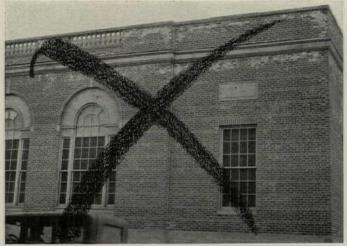
When an industrial building is comfortable—when it is insulated with cork on the roof—the comfort is reflected in the increased efficiency and well-being of the employes. Operatives work faster, do better work.

Another important advantage of Novoid Corkboard is the effectiveness with which it prevents condensation. In any uninsulated building where high humidity is present, cold weather causes the moisture in the air to condense and collect on ceilings. Dripping of water follows—spoiling goods, hindering workers, and rusting machinery. Adequate cork insulation puts a stop to these unnecessary evils by keeping the under-ceiling temperature above the dew-point.

If you wish further information about your own insulation problems, write to us for complete data. Our engineering department will gladly make recommendations and suggestions. Cork Import Corporation, 345-349 West 40th St., New York City.

Novoid Corkboard Insulation

CORK IMPORT, CORPORATION 345 W. 40 TH ST. NEW YORK



Architecturally spoiled by lack of thru-wall flashing. Cheney Flashing under Parapet and Cornice would have prevented such defacement.

CHENEY INTERLOCKING WALL FLASHING prevents ~ seepageleaks-efflorescence "Does Not Break The Bond"

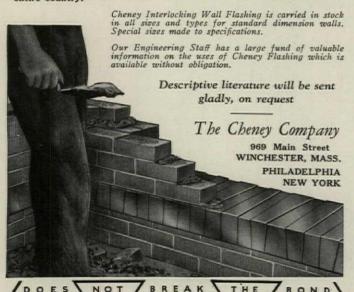
CHENEY INTERLOCKING WALL FLASHING is a thru-wall flashing that positively prevents seepage, leaks and efflorescence in Parapet and other masonry walls. It is so designed that when laid between two courses of masonry it forms a perfect mechanical key-bond in every direction.

This is true because Cheney Interlocking Wall Flashing is keyed both ways, the ends of the strips hooking together to make a continuous waterproof flashing.

Cheney Interlocking Wall Flashing comes ready-to-use; is laid by the Mason, in mortar, as quickly and easily as brick; requires no special fitting, soldering, or loss of time. The design of the flashing cares for all expansion and contraction due to temperature changes.

Cheney Flashing is economical in cost and application, generally costing no more than ordinary copper flashing properly formed, soldered and set in place.

Cheney Interlocking Wall Flashing has been approved on sight and adopted as standard by leading Architects, Engineers, and Contractors, wherever shown, and its use is rapidly spreading over the entire country.



Leonard Water Mixing Valve



THERMOSTAT control. Easy to operate, any flow at any temperature. Solid metal thermostat automatically maintains water temperatures.

The complete story is told in our catalog. Mailed on request.

Manufactured by

LEONARD-ROOKE COMPANY

Incorporated 1913

Providence, Rhode Island

THE CUTLER MAIL CHUTE

In its perfected form is the outcome of long experience, and is designed to meet the requirements of public use under Postoffice Regulation. It is simple and substantial in design and construction, durable in finish, and has an Architectural quality which is appreciated and much commended by Architects.

Full information, details, and specifications on request.

THE CUTLER MAIL CHUTE CO.

GENERAL OFFICES AND FACTORY ROCHESTER, N.Y.



Automobile and Carriage Calls

UIET and effective means of calling vehicles to doorways of theatres, hotels, department stores, and other public buildings. They obviate confusion and shouting; require no perforated key-cards or other contrivances; and are visible day or night.

OTHER KLIEGL LIGHTING SPECIALTIES

Footlights
Borderlights
Cove Lights
Color Lighting

Exit Signs Aisle Lights Step Lights Auto-Calls

Floor Pockets Wall Pockets Panel Boards Dimmers

for Descriptive Literature write

UNIVERSAL ELECTRIC STAGE LIGHTING CO., INC.

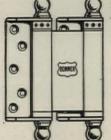
321 WEST 50th STREET

NEW YORK, N.Y.

Bommer

Spring

the best



specify

whenever they open a door

Catalog No. 50 Mailed free

Follow the line of

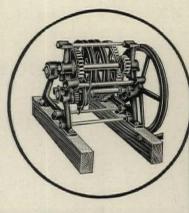
See details in "Sweet's"

Specify-Kommer--Always

They are the best

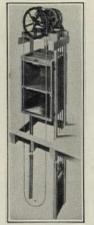
Bommer Spring Hinge Co., Brooklyn, N. Y.

The New SEDG-VERSAL Dumb Waiter Machine



Where Definite Loads or Capacity can not be determined in advance-

Specify "Sedg-Versal"



SEDG-VERSAL

DUMB WAITER

Guarantee

Sedgwick Dumb Waiter machines are guaranteed for five years against defects in workmanship and material and will be repaired free of charge during that time if returned.

For satisfactory dumb waiter service it is essential to install equipment designed to raise average loads with ten pounds of pull or less on the hand rope, and strong enough to carry definite capacity or test loads.

When these requirements of service are KNOWN, we can furnish equipment designed for the service, but in many instances loads cannot be determined in advance, and a dumb waiter is installed which proves too light or too slow for the service, thereby necessitating a change in equipment.

For such occasions we recommend installation of the NEW SEDG-VERSAL **DUMB WAITER OUTFIT** which is adapted to meet universal conditions in dumb waiter service.

Our Architectural Service Department will gladly furnish blueprints, specifications and complete data.

Address: Sedgwick Machine Works 158 W. 15th St., New York



SEDGWICK

Dumb Waiters - Elevators OR ALL PURPOSES

Casements that will continue to give satisfaction to your clients over the years



C. E. MALLERS RESIDENCE, Evanston, III. MAYO & MAYO, Inc., Architects
WM. McCUMBER & SON. Contractors

LUPTON RESIDENCE CASEMENTS are built to operate with perfect ease. Made of enduring steel, they will not warp, stick or jam in any weather. The special Lupton friction-hinge prevents all window-chatter, and reduces adjustments to the minimum. Lupton Casements can be opened and closed 15,000 times with adjustments only twice every five years.

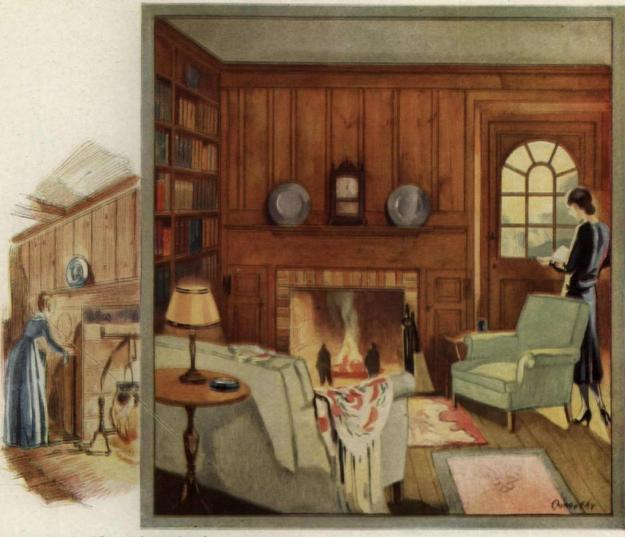
Lupton Casements are quickly adaptable to each season. They open to borrow the summer breezes, and shut snug against winter storms. They have attachments for screens, shades and draperies.

Their underlying usefulness is equaled by their manifest beauty. Slender lines of steel divide each glistening pane of glass . . . achieving an effect of delicacy and restraint. Lupton Casements bring buoyancy to interiors, and a refreshing modern lightness to the architectural nuances of the exterior.

Costs are well within line with even the average building budget. Your 1930 edition of "Sweet's Catalogs" will give you all important details. David Lupton's Sons Company, 2229 E. Allegheny Avenue, Philadelphia, Pa.

LUPTOX

where steel is fused with sincerity



Connecticut furnishes two interesting pine rooms for architectural study—the early eighteenth century room in the Morris House at New Haven and the twentieth tentury library of the modern home at Greenwich designed by H. W. Rowe Associates. Here fireplace cupboards and built-in book shelves combine to create an unusually cozy setting.

Your dealer can easily obtain Shevlin Pine by getting in touch with the nearest office:

Chicago: 1866—208 South La Salle Street Building

New York: N. H. Morgan, Sales Agent, 1205 Graybar Building

San Francisco: 1030 Monadnock Building

Toronto, Ontario: 606 Royal Bank Building

All Shevlin mills now make grade-marked and trade-marked lumber. Insist on the Shevlin trade-mark. If you have any difficulty getting Shevlin Pine, write and our nearest branch office will see that you are supplied.

PINE WALLS WITH BOOK NOOKS

In designing pine-walled rooms architects take delight in built-in book nooks, odd cupboards and other quaint Colonial conceits. The inviting warmth of knotty pine walls is enhanced by the whimsical charm of fireplace cupboards and ample book shelves where bright bindings shine with friendly radiance.

The pine room illustrated uses simple feather-edged knotty pine boards. Shevlin Pine is especially prepared for this use and is thoroughly kiln dried, carefully milled and finely finished, ready for installation at a minimum cost for labor.

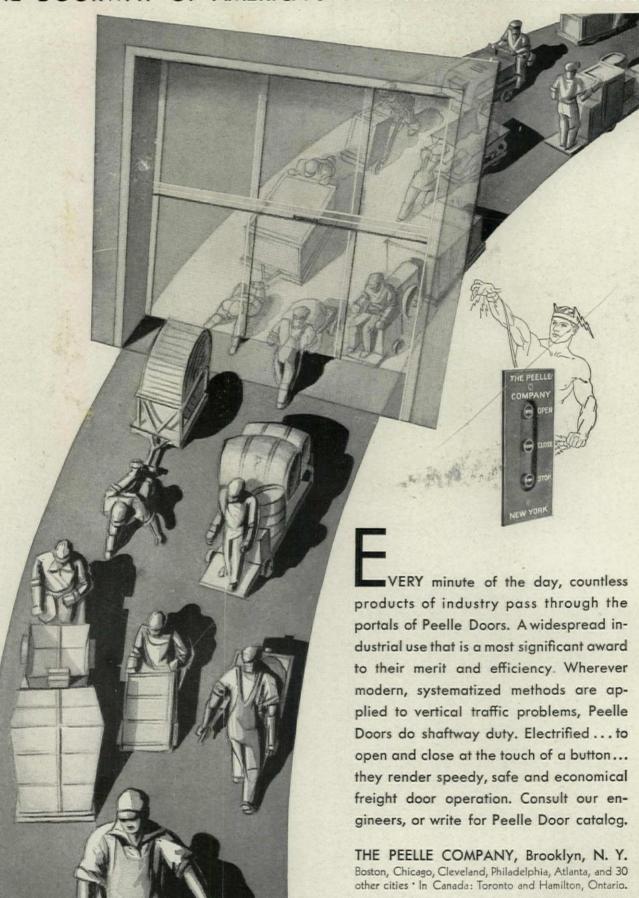
As time goes on, the pine-walled rooms you design will prove not only their decorative sufficiency but their economy of upkeep. They need never be re-finished. Age, sunlight and use only make Shevlin Pine more mellow.

To be sure of getting genuine Shevlin Pine insist on the trade-mark. You need have no difficulty obtaining Shevlin Pine as there is a plentiful supply available in five varieties — Shevlin Northern White Pine, Shevlin Norway Pine, Shevlin California Sugar Pine, Shevlin California White Pine (Pinus Ponderosa) and Shevlin Pondosa Pine. For complete data, write for the booklet, "Specify Shevlin Pine."

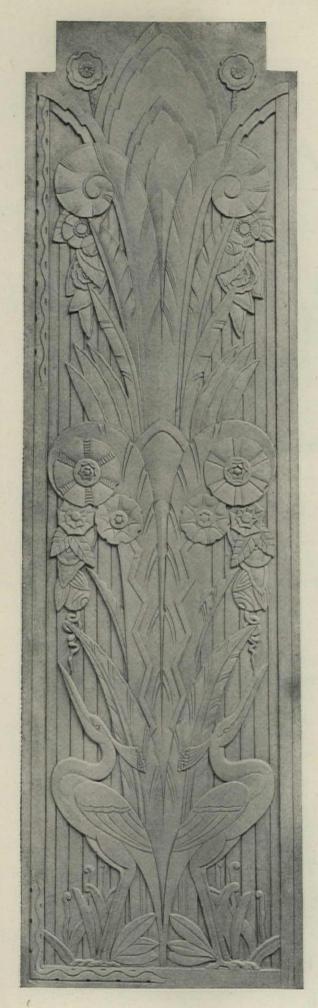
Shevlin, Carpenter & Clarke Company 909 First National-Soo Line Building Minneapolis :: :: Minnesota



THE DOORWAY OF AMERICA'S FREIGHT ELEVATOR TRAFFIC



PEELLE Freight DOORS



MODEL in work at studios of The Northwestern Terra Cotta Company, showing infinite detail which can be accomplished in terra cotta. After design of Rebori, Wentworth, Dewey & McCormick, Architects. On building at 737 N. Michigan Ave., Chicago.

When Prometheus stole fire from heaven he inspired the sons of men to transform humble clay into everlasting beauty; to imprison in glazes the blue of the sky, the emerald of the ocean, the glories of the rising and the setting sun; to model images of plants, animals, heroes and gods. Northwestern Terra Cotta offers to artists of today unlimited freedom of expression in form and color; to time and the elements a resistance that justifies its classification as a permanent, "fire-made" material.

THE NORTHWESTERN TERRA COTTA COMPANY

DENVER . CHICAGO . ST. LOUIS

Prestolith VELO CEMENT

SAVE TIME



Successful Cold-Weather Construction

Time can be saved, long curing delays eliminated, and dependable 24-hour concrete secured by using Prestolith Velo Cement — and observing the following cautions necessary to obtain any good concrete in cold weather:

- 1. Temperatures 50° to 40° F.—heat water.
- 2. Temperatures 40° to 32° F.
 —heat water and sand. Protect newly placed concrete.
- 3. Temperatures below 32° F.—heat water and all aggregates. Protect newly placed concrete.
- 4. Concrete when placed in forms should have a temperature of 70° to 140° F., and not allowed to drop below 60° for the first 24 hours.
- 5. A minimum amount of water should be used.

Write for complete instructions on securing dependable high-earlystrength concrete with PRESTOLITH VELO CEMENT, regardless of cold weather, and without the use of admixtures or accelerators.

MISSOURI PORTLAND CEMENT CO.

ST. LOUIS

KANSAS CITY

MEMPHIS

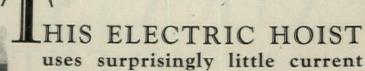
Manufacturers of "Red Ring" Portland Cement and "Prestolith" brand of Velo Cement. Producers of sand, gravel and Bethany Falls crushed stone.

36

FOR HIGH EARLY STRENGTH CONCRETE



ASH REMOVAL



ENGINEERS of the Sprague Electric Works conducted a series of comprehensive tests for us to determine current consumption of G&G Electric Ash Removal Equipment operating under varying conditions.

26 cans raised and lowered for ONE CENT At the Mergenthaler Linotype Co., Brooklyn, N. Y., a Model D, similar to illustration, handled 78 tons of ashes in one k. w. h. with current costing 3 cents.

15½ tons of ashes moved in ONE k. w. h. At a New York Telephone Co. building (one of 168 Bell Telephone buildings) where a Model E (no overhead crane) Hoist was tested, 85 round trips were made for one cent current cost. Another test (at a Public School) showed 33 cans handled for one cent. Still another test (at a Telephone Building) showed 15½ tons of ashes handled in one k. w. h. In every case, distance of lift and rate per k. w. h. must be considered.

Complete Test Data available

This test data is in our files. We shall be glad to furnish complete figures on request.

Merited Popularity

It is performance like this that has led to the outstanding popularity of G&G Electric Ash Removal Equipment in all types of buildings where a volume of ashes must be removed.

1873 SCHOOLS USE G&G EQUIPMENT 598 BANK BUILDINGS 565 OFFICE BUILDINGS and CHURCHES, HOSPITALS, THEATRES, etc.

You will find the services of our Engineering Department of considerable value in determining how various ash removal problems shall be met and in determining which Hoist and what equipment best suits the specific condition—so that the completed installation may give the building owner the utmost satisfaction throughout the years.

Catalog in Sweet's Archt. Cat., 24th Ed., pp. D5116-23 Catalog in Specification Data, 1929 Ed., pp. 226-227

GILLIS & GEOGHEGAN
548 West Broadway New York, N. Y.



LOCK-

Swell.

tapered

upper 2/3

length.

Straight lower 1/3

Architecturally

correct

EXTRA STRENGTH AT NO EXTRA COST

The Koll Lock-Joint principle, originated and developed in the Hartmann-Sanders plant, provides the greatest amount of columnar strength, which means *lasting* beauty. The joints simply cannot come apart. There

is no additional charge for this patented feature exclusive with Hartmann-Sanders.

Hartmann-Sanders columns are also architecturally correct even to the finest details of fluting, tapering and finish.

In addition to Koll Lock-Joint Columns, Hartmann-Sanders also supply finest quality exterior mill work including such things as cornices, pilasters, etc.

- 1. Koll lock-joint columns cannot come
- 2. Not a knot in ten thousand Koll columns
- 3. Correctly proportioned, according to the five orders of architecture
- 4. Also made to architects' detail
- 5. Asphaltum paint waterproofing inside all large columns
- 6. Ventilated plinths, wood or cast iron, the latter recommended
- 7. Staves same thickness full length of shaft, for maximum carrying strength
- 8. Workmanship and lasting qualities fully guaranteed

Send for catalog

You are invited to send for catalog 48 of columns or catalog 53 of Colonial entrances.



HARTMANN-SANDERS COMPANY

Factory and Showroom
2155 Elston Avenue, Chicago
Eastern Office and Showroom
Dept. X, 6 East 39th Street, New York City

HARTMANN-SANDERS

KOLL COLUMNS CO ROSE ARBORS

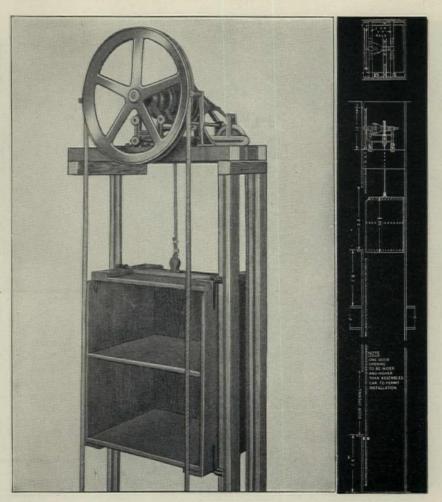
COLONIAL ENTRANCES
ORS GARDEN EQUIPMENT

PERGOLAS

ጷ

3

Photographic Illustration with Side Elevation



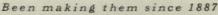
ENERGY HAND OPERATED DUMBWAITERS

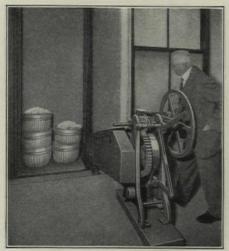
offer low first cost, low operating cost, PLUS adaptability



When dumbwaiter service is an advantage, but the need does not justify the cost of electric equipment, Energy offers you the Hand-

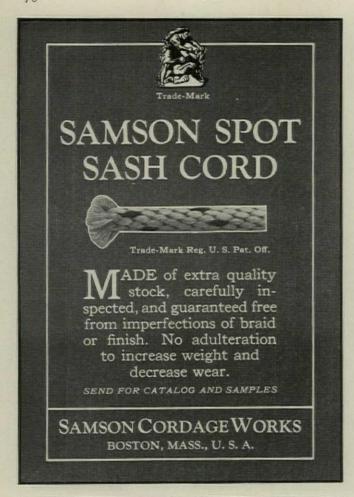
Operated Dumbwaiter . . . Energy Hand - Operated Dumbwaiters provide the most economical floor-to-floor messenger or light-load service possible. Forty-three years of experience have resulted in the development of specific types to meet every need. Each type is designed to eliminate all non-essentials, yet is strongly constructed to operate easily and give lasting service. For heavier loads or more active service, we recommend Energy Electric Dumbwaiters . . Leaflets covering either Hand-Operated or Electric Types will be supplied on request. Address Energy Elevator Company, 211 New Street, Philadelphia, Pa.





Energy Hand-Operated Sidewalk Elevator, Type 1004, for easy movement of ashes, merchandise, etc., from basement to street level. Furnished electrically operated also. Write for descriptive bulletins.

ENERGY DUMB WAITERS
WHEREVER A LIFT IS NEEDED





You can save your own valuable time and assure your client's complete satisfaction by calling the Kewaunee Engineer when the first rough drawings for a laboratory are to be made. His intimate knowledge of the up-to-date laboratory requirements and his experience in the installation of laboratory furniture, enable him to give you reliable information regarding equipment, plumbing, gas, air, vacuum, etc. This service is offered free.

Kewaunee Laboratory Furniture

is used in hundreds of the nation's largest laboratories. Architects for leading Universities, Colleges, High Schools, private and commercial laboratories everywhere are specifying Kewaunee Laboratory Furniture because of its enduring quality, its built-in conveniences, its time-saving features, its greater utility and its more modern design.

We invite your inquiries.

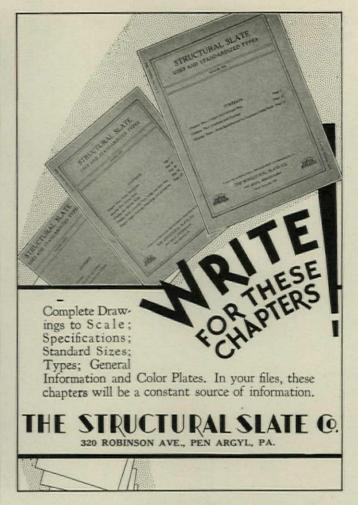
Kewawnee Jyg. Co C. G. Campbell, Pres. and Gen. Mgr.

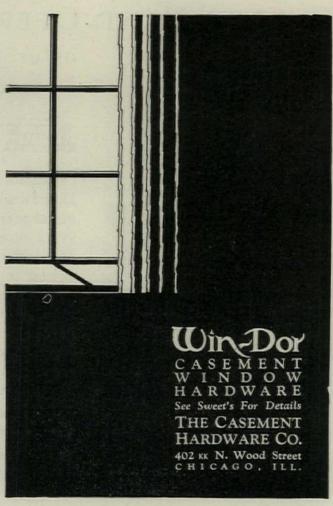
196 Lincoln Street, Kewaunee, Wis.

Chicago Office: 14 E. Jackson Blvd.

New York Office: 70 Fifth Avenue

Offices in Principal Cities









WASHABLE

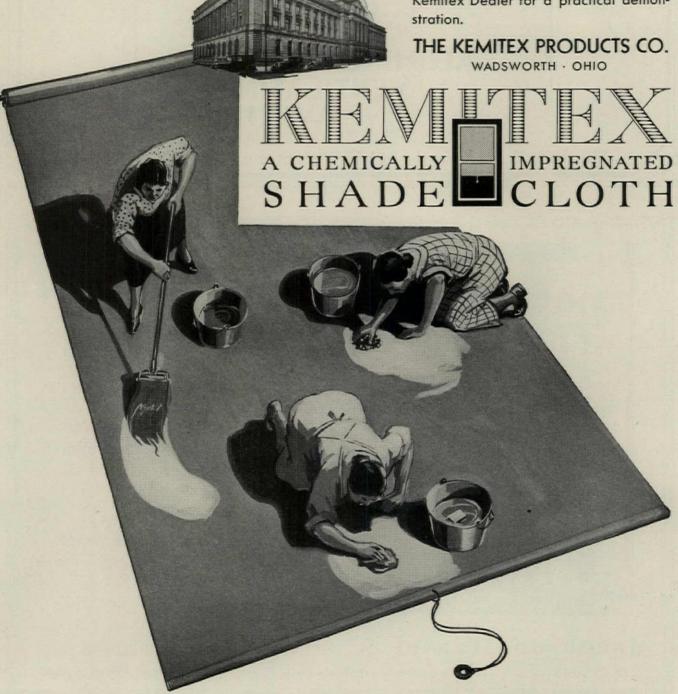
ARCHITECTS, managers of large public buildings, and homeowners the world over, have selected Kemitex Window Shades because there is no question regarding their washability.

Being washable, these increasingly popular shades may be easily

The Cuyahoga County Court House in Cleveland. This is one of the many hundreds of large public buildings which find Kemitex to possess unusual quality and utility.

and quickly restored, year after year, to their initial fine appearance, and thus represent an investment which is at once profitable and economical.

The next time you are called upon to select window shades, visit or call the Kemitex Dealer for a practical demonstration.





COLORUNDUM

For Coloring

Armor Plating

Cement Floors

Made in 4 Colors

Red, Brown, Green and French Grey. Furthermore the one price covers all colors. Yes even to green.

COLORING them lastingly. Armor plating them enduringly. That's what Colorundum does. Those two things, besides water-proofing and dust-proofing. It can be applied in two ways. The topping method and the monolithic.

Colorundum is a dry powder composed of powerfu. non-fading, limeresisting coloring mediums, combined with fused aggregates, water-proofing and hardening elements and cementitious binders. It colors, water-proofs, hardens and slip-proofs cement floors.



At first the Colorundum surface is smooth. You say to yourself, it will become even smoother with wear.



JOINTER

Our rubber-carborundum wheel on a power hand saw will quickly score the floor to give a joint effect of tile.

Smooth Yet Non-Slip

L OOKING at one of our samples of Colorundum and running your fingers over it, it seems perfectly smooth. And it is. But the minute the slightest wear takes place the tiny points of the fused aggregates are exposed making it a non-slip surface.

So far as we know there is no single coloring product that accomplishes in the one material so many results, each complete in itself. Here is something worth your careful consideration.

A. C. HORN COMPANY

Branch Offices in All Principal Cities
GENERAL SALES OFFICE

New York: 101 Park Avenue WORKS: Long Island City, N.Y.



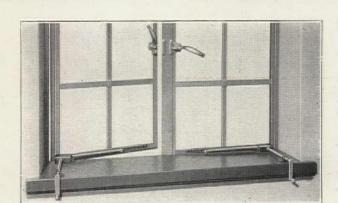
But with the least wear, a cross section of it when greatly magnified looks like this, making it non-slip, but entirely without any disagreeable, gritty resistant feel.



NON-SLIP

The finished surface looks glass-smooth. But try and slide on it and see how you are brought up short.

WIDER USEFULNESS for this NARROWER OPERATOR



RIXSON No. 194 Casement Operator

Designed for Steel Casement Residence Windows (Close-up or Offset Hinges)

To the many architects who have regularly specified Rixson Casement Operators the new Model 194 will come as a bit of good news.

The qualities and performance on which other Rixson Operators have won acceptance, are all found in the No. 194,—full swing in 3½ turns,—locked wherever halted,—freedom from rattle,—no disturbance of fly screens,—lasting construction of steel and hard bronze parts.

The sash plate, for attachment to the lower rail of the sash has screw hole locations which conform to the standard perforations adopted by the majority of steel sash makers at the suggestion of the Bureau of Standards.

THE OSCAR C. RIXSON COMPANY

4450 Carroll Avenue

Chicago, Ill.

New York Office: 101 Park Ave., N. Y. C.
Philadelphia Atlanta New Orleans Los Angeles Winnipeg



Write us for full details of No. 194

Improved Mechanisms in Builders' Hardware

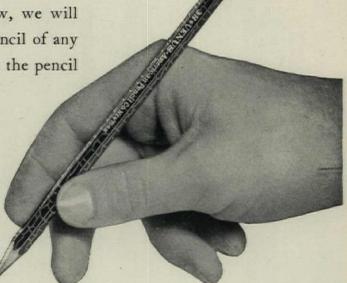
No man is "fussy" if he wants the best pencil!

IT'S not fussiness. To the craftsman, the pencil is a tool that is either perfect or imperfect. If it is imperfect, he will discard it.

But Venus Pencils are perfect instruments that produce smooth, even lines without effort. They are true to the degree. They are *strong!*

Uniform degrees mean a lot. Venus Pencils, in 17 shades of black, are the same whether you buy them in Rochester or Rome. You can find in this selection any tones you want—from the softest 6B to the hardest 9H.

If you send us the coupon below, we will gladly mail you a sample Venus Pencil of any desired degree for comparison with the pencil you now use. American Pencil Co., Venus Building, Hoboken, N. J.



This is the hand of McClelland Barclay, one of America's foremost commercial artists, whose magazine covers and "Fisher Body" illustrations have given him national prominence.

Pencil of

VENUS

Milland Barclay

the pencil of 17 shades of black

(Of course you know about Unique Thin Lead Colored Pencils . . . and Venus Erasers . . . made by the makers of Venus)

Without obligation, please send me a Venus
the following degree

Name....

FEDERAL SEABOARD TERRA COTTA





Suggesting the decorative possibilities of Federal Seaboard Terra Cotta in conjunction with face brick
. . . Cooley High School, Detroit, Donaldson & Meier, Architects. Rosewarne, McNabb & Worswick, Builders.

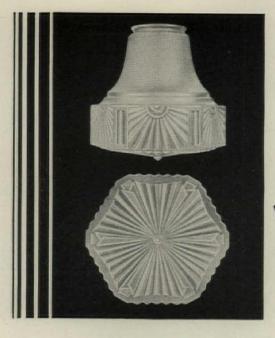
FEDERAL SEABOARD TERRA COTTA CORPORATION

ARCHITECTURAL TERRA COTTA MANUFACTURERS



10 EAST 40th STREET NEW YORK CITY TELEPHONE ASHLAND 1220

FACTORIES: PERTH AMBOY, N. J. . WOODBRIDGE. N. J. . SOUTH AMBOY, N. J.



NEXT.TO.DAYLIGHT"

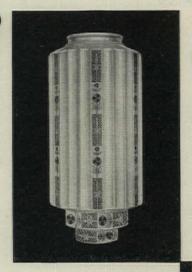
THE spirit of a swiftly paced age, short-cutting furbelows...long on simplicity...has given rise to a new art...modernism. Interpreting the vogue with nice artistry, Celestialite offers a number of models in the modern manner. Smart, distinguished, striking, they bring to any interior a modern distinction with maximum lighting efficiency. For Celestialite produces soft, white, "next-to-daylight" illumination... free from glare. Celestialite is thus ultimately modern... in its interesting designs and in its lighting quality. Write for information, and reproductions showing the many modernistic Celestialite designs in both plain and decorated glass. Celestialite Division – Gleason-Tiebout Glass Company, Two Hundred Fifth Avenue, New York City.

IN THE MODERN MANNER



Celestialite's Three Layers

Celestialite is a scientifically constructed glass that is made in three layers: (1) of crystalclear transparency—for body and strength; (2) a layer of white glass—to diffuse the rays and soften the light; (3) a layer of blue glass—to whiten, clarify and perfect the light.

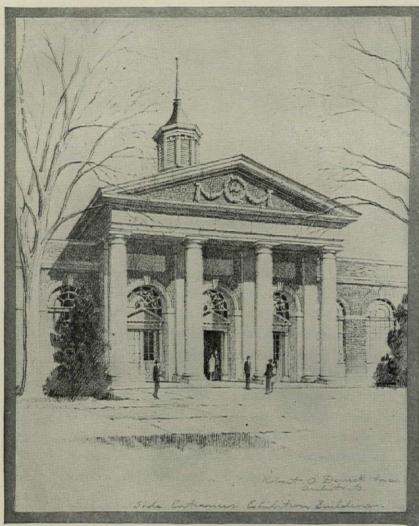


CELESTIALITE

(Registered and Patented)

NEXT TO DAYLIGHT

GEORGIA MARBLE



The Henry Ford Museum

Dearborn, Michigan ROBERT O. DERRICK, Inc., Architects

The Henry Ford Museum is to contain a most complete exhibit of American progress,—therefore the group of buildings housing this collection is an architectural expression of National character and tradition, following closely the Independence Square Group at Philadelphia.

The museum group (see below) consists first of five administration buildings, which, connected by arcades form an interesting facade; back of this is a secondary group,—auditorium, school, five arcades, and the main exhibition building which is a single room 800' x 450'.

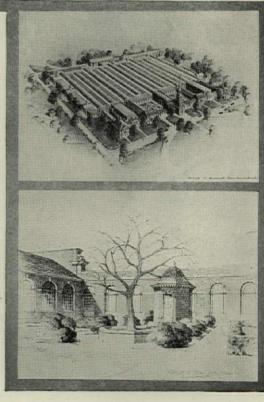
The exterior features are the ten large entrances, four of which are especially impressive, being flanked with monolithic Doric columns of Grey Georgia Marble. These buildings are constructed of steel and concrete, and all exterior walls, which are of solid masonry, are trimmed for the most part in Grey Georgia Marble.

FORD MUSEUM

Georgia Marble trim is the perfect choice for this building development . . . First, the marble itself is structurally and architecturally right . . . Second, with our eight quarries and three finishing plants operating 12 months in the year, we planned and carried through a delivery schedule on finished marble that earned the appreciation of the architects and general contractors.

THE GEORGIA MARBLE CO. · TATE · GEORGIA

NEW YORK ATLANTA CHICAGO DALLAS CLEVELAND





FIRST, design a house as beautiful as this,—
appropriate to its setting, sympathetic and
homelike in mass and detail, fitted to its use.

THEN, finish its exterior walls with Cabot's DOUBLE-WHITE, a brilliantly white white that stays white, because it is made by the patented Cabot Collopaking Process. There is no other white just like Cabot's DOUBLE-WHITE.

INSULATE and protect against summer heat and winter cold with Cabot's Insulating Quilt,—the health-giving, time-tested, time-defying and low-priced insulating material.

USE Cabot's Collopakes on exterior trim, doors and shutters, and on interior walls. Waterproof with Cabot's Waterproofings, Stain with Cabot's Creosote Shingle and Wood Stains.

*This beautiful house, designed by Barber & McMurry, Knoxville, Tenn. for Hugh Goforth, Esq., was awarded the Tebbs & Knell Gold Medal at the Southern Architectural & Industrial Arts Exposition, Memphis, 1929.

The Architects state in a letter recently received," Cabot's DOUBLE-WHITE was used for the entire exterior of this job, three coats, and has proven to be entirely satisfactory. Cabot's three-ply insulating Quilt was also used on all side walls and sloping portions of ceilings. Incidentally, we find that Cabot's Quilt is a very effective and economical material as compared to other similar products."

Send in the coupon below for complete information on

Cabot's

Insulating Quilt - DOUBLE-WHITE Collopakes and Other Building Specialties

0	1 1	Gentlemen: Please send me your Building Specialties Booklet.
Janual	babot	Name
	inc.	Address
141 Milk Street	Boston, Mass.	



PHILADELPHIA MUSEUM OF ART

The Akroteria Ornaments of Cast Bronze—one of which is here photographed—surmount the Pediment Design indicated by pencil-sketch above. The Cornice ornamentation is Architecturally modelled, the Tympanum Group Sculpturally—both are of polychromed Terra-Cotta; the Bronze Akroterion-Gazelle Group is patined.

The Casting Problem presented the Foundries for handling, was solved by employing Architectural and Sculptural Molders using French Sand and Italian ciré-perdue casting processes for the Akroterion and Animals respectively; done under one direction and one roof.

Horace Trumbauer, C. C. Zantzinger and C. L. Borie, Jr. Associate Architects

C. P. Jennewein, Sculpton George A. Fuller Co., Builders

Sculptural and Architectural Bronze by
Roman Bronze Works, Tiffany Studios and
John Polachek Bronze & Iron Plants

Divisions of

GENERAL BRONZE CORPORATION

DISTINCTIVE PRODUCTIONS IN ALL METALS

LONG ISLAND CITY, N. Y.

PENCIL POINTS

An Illustrated Monthly JOURNAL for the DRAFTING ROOM Edited by RUSSELL F. WHITEHEAD

KENNETH REID & E. L. CLEAVER Published by THE PENCIL POINTS PRESS, INC. Ralph Reinhold, President, L. F. Nellis, Vice-President, William V. Montgomery, Secretary



CONCERNING SOME OF OUR RECENT ACTIVITIES

ON THE FOLLOWING PAGE you will find a letter which has been sent to the architects of the country announcing that we have been encouraged to go ahead with the raising of a fund to be used to educate the public concerning the value of the architect's services and that the box office is now open for contributions to this fund. If you want to see what encouraged us just turn to pages 211-217 and look over the excerpts from letters we received in response to our announcement of January 6th. The almost unanimous sentiment of the hundreds of architects and architectural firms represented by these letters was that of hearty approval. In the face of such an expression of favorable opinion coming from such a large cross section of the profession, we cannot do otherwise than to make good our promise to raise an

educational fund and spend it as wisely as we know how, to the end that architects may become better understood and appreciated by the laity. Better understanding and appreciation will, we hope, be followed by better business. The movement is now under way. We stand ready to do our part. Can we count on you?

WITH THIS ISSUE we present the first of a series of special inserts, the subjects of which are architectural etchings and lithographs, printed by the Similetone process on uncoated paper so as to provide as faithful reproductions of the original prints as possible. We believe that they will

prove to be a welcome addition to our regular monthly features. Comments from our readers will be appreciated. Tell us how you like them.

AND WHILE WE are inviting comments, we would be glad to know how you like our series of articles by Professor Harbeson, started in the January, 1930, issue. There has probably been more discussion in the profession concerning the virtues or failings of the so-called "modern architecture" than anything else we know of. Many plates have been published by the architectural press showing examples of the way the modern movement is manifesting itself on the Continent and in this country. For the most part, architects and draftsmen have taken the stand that

they liked it or that they hated it, but the acceptance or rejection has been principally a matter of taste. Professor Harbeson is endeavoring to explain some of the things that have influenced the development of this modern work and at the same time is making an attempt to separate the sound from the unsound, the good from the bad. Both he and we would appreciate knowing how you feel about what he is doing.

ON PAGES 222 and 223 you will find the program of our Second Annual Architectural Competition. You have about two months to do it in, so—let's go! The more the

Contents

A Few Words About	
California, etc.	
By W. J. Veale	155
Design in Modern	
Architecture—3	
By John F. Harbeson	165
Adventures of an Architect-5	
By Rossel E. Mitchell	173
The Geometry of Architectural	
Drafting—8	
By Ernest Irving Freese	177
Plates 189	-196
The Story of an Architect	
Anonymous	197
Here & There & This & That	225
The Specification Desk	232

Pencil Points—Yearly subscription, payable in advance, \$3.00 to the U. S. A., U. S. Possessions, Cuba, and Mexico. Foreign subscriptions in the Postal Union, \$1.00 additional for postage; Canadian subscriptions, 50 cents additional. Remittances by International or American Express Money Order or by Draft on a bank in the U. S. Payable in United States Funds. Subscribers are requested to state profession or occupation. TO SUBSCRIBERS: Instructions for change of address should reach us before the twentieth of the month to assure delivery of the forthcoming issue. Please give both old and new addresses. TO CONTRIBUTORS: We are always glad to rejective manuscripts, drawings, etc. We will use due care with material in our hands, but cannot be responsible for damages. Copyright, 1930, by The Pencil Points Press, Inc. Trade Mark Registered. All rights reserved. EDITORIAL AND BUSINESS OFFICES, 419 FOURTH AVENUE, NEW YORK.

A SECOND LETTER TO ARCHITECTS IN THE UNITED STATES AND CANADA

DEAR SIR:

On January sixth we broadcast our "plan to educate laymen concerning the value of the architect's services." We venture to say that you would be surprised at the promptness, the volume, and the enthusiasm of the response to our proposal. Certainly it has confirmed us in our conviction that the need exists, and, more than that, in our determination to get under way.

We are, accordingly, now prepared to receive contributions to the fund on the following basis:—

Any architect may contribute \$25.00 per year for two years.

In any architectural firm, each partner or associate may contribute \$25.00 as above.

Any draftsman may contribute \$5.00.

Any manufacturer or firm interested in the advancement of architecture may make a contribution up to but not exceeding \$200.00.

All checks should be made out to Pencil Points' Educational Fund. Contributions to the fund should in every case be sent direct to our office. We have no authorized agents or solicitors.

Individual receipts will not be sent out, but acknowledgment of each contribution will be published in the following issue of Pencil Points. If so requested, contributions will be listed as anonymous.

Please be advised that contributions are being accepted at this time for the year 1930 only.

We pointed out on Page 145 of the February issue of Pencil Points that the exact program will be finally determined as the size of the available fund becomes known to us. We also stated there, and reiterate here, that no part of this money will be used for publication of material in Pencil Points. Rather, we propose to use space and incite comment in periodicals of general circulation outside the profession. The columns of Pencil Points will be used only to keep you informed of the details and progress of the plans as they mature.

In the meantime we are going straight ahead with our own part of the program. This (also described in the February issue of Pencil Points) involves the preparation and wide circulation of a document entitled *The Value of the Architect's Services*.

As we said at the beginning, responses to our proposal have been most heartening and invigorating to us. It is clearly impossible to show you all the letters, but we can and do send you a few extracts from them. These you will find enclosed herewith.

We thank you for your pledge of support and for your contribution to the fund. Our accounting for its administration will reach you as the program develops.

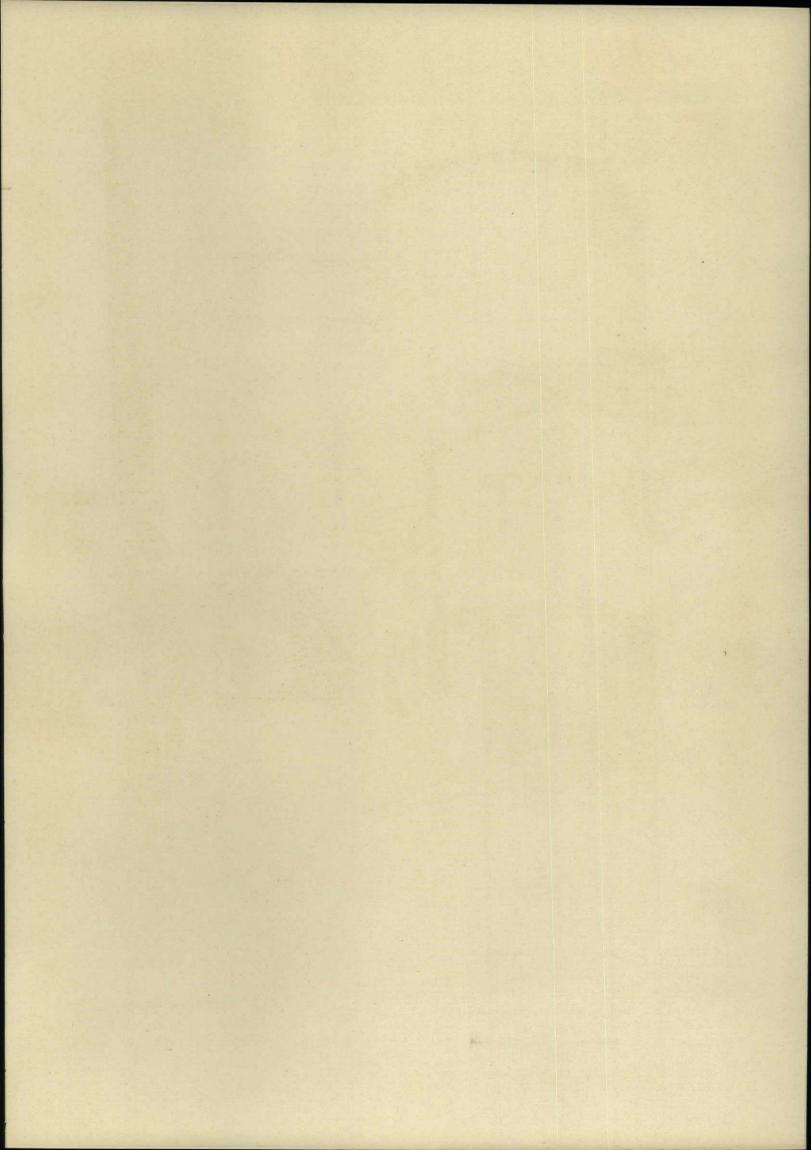
Cordially yours,

RALPH REINHOLD,

President,

THE PENCIL POINTS PRESS, Inc.

February 20, 1930.





VANNES, FRANCE FROM A LITHOGRAPH BY MILLARD SHEETS Original printed by Gaston Dorfinant

PENCIL POINTS
March, 1930

PENCIL POINTS

Volume XI

March, 1930

Number 3

A FEW WORDS ABOUT CALIFORNIA

AS REPRESENTED BY THE YOUTHFUL MILLARD SHEETS

By W. J. Veale

WHEN THE Texas National Competition for Oil Paintings on the general subject of Texas life was held in the Spring of 1929, with the finest of our nationally known artists entering paintings in competition for some of the thirty-two thousand dollar prize

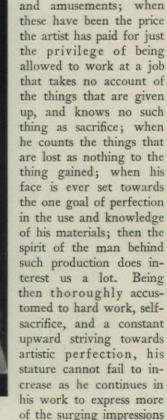
money offered by Edgar B. Davis, oil man, of New York and Texas, practically all of the prize money and the consequent notice and distinction went to artists of established fame and position. However, when the telegrams from the committee of awards were finally being sent out from San Antonio, there appeared as second prize winner in the field of "Texas Ranch Life," carrying its award of seventeen hundred and fifty dollars, the name of Millard Owen Sheets, of Hollywood, California, whose name up to this time was unheard and unsung in any realm outside of his native state.

Persistent work done along a line of carefully determined action is cumulative, so that when an artist finally breaks

through the wall of obstruction, honors, prizes, and recognition of increasing value and extent fall more and more frequently to his lot. So it was with Sheets. In the few months succeeding the competition he received word of his paintings and water colors being hung in the galleries of the Pennsylvania Academy; of their being accepted for the National Travelling Water Color Show, the Chicago Art Museum, and the International Water Color Show.

Sheets was at this time only twenty-one years old. Now, youthful prodigies make no appeal to us, for too often their output depends solely upon evanescent and fickle impulses, and on such alone. Their production

n for may boom today, while tomorrow, or a year from now, their talents will lie unused and fallow. But when back of important achievement by an artist we imperize deliberate elimination from his life of all distracting and detracting influences and amusements; when these have been the price the artist has paid for just the privilege of being allowed to work at a job that takes no account of

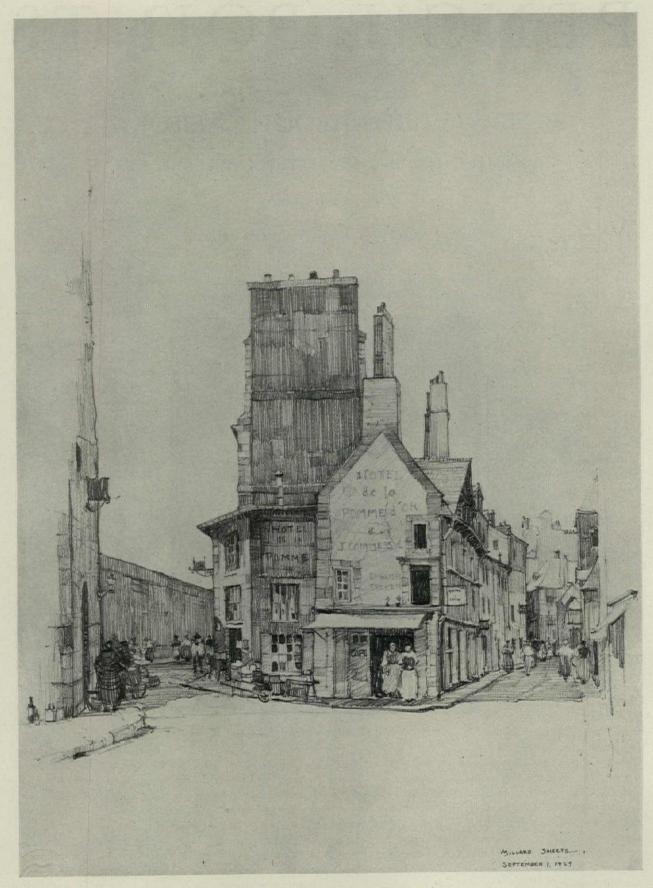




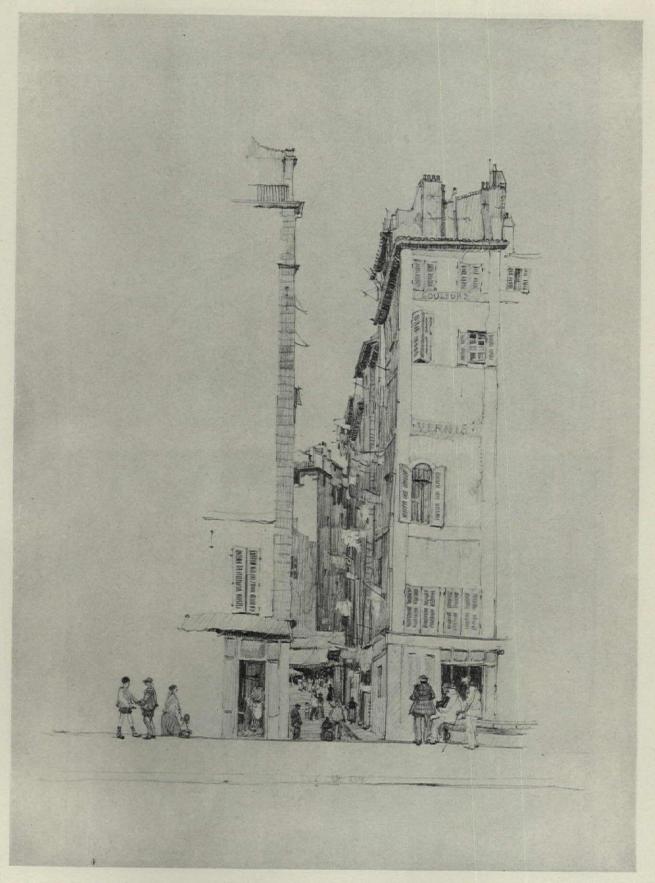
MILLARD SHEETS

that life is constantly making upon his open mind. While full credit must be given to the initial impulse of the inward passionate desire that lies in every artist's heart for a fuller expression of beauty and harmony, yet back of that desire there must be the drive of an indomitable will, which will sacrifice, gladly, everything that stands in the way of his goal—everything that would consume the precious hours necessary for the practice and use of those materials and tools which must be brought into absolute subjection to his mind. Sheets reiterates the old saying, "genius is ninety per cent perspiration" and then proves it.

Pomona, California, in the year 1907, was the



PENCIL DRAWING BY MILLARD SHEETS STREET IN SAN MALO, FRANCE



FROM A PENCIL DRAWING BY MILLARD SHEETS
OLD STREET, MARSEILLES





FROM TWO DRAWINGS IN BRILLIANT WATER COLOR BY MILLARD SHEETS
COMPOSITIONS FOR POSSIBLE DEVELOPMENT INTO DECORATIVE MURALS

These drawings, selected from among many similar ones by this artist, show a considerable feeling for decoration. It is to be regretted that they are not reproduced in full color, for the originals show a high degree of skill in color composition.



A PROCESSION AT GRAUMAN'S CHINESE THEATRE, HOLLYWOOD, CALIFORNIA FROM A WATER COLOR SKETCH BY MILLARD O. SHEETS

PENCIL POINTS SERIES of COLOR PLATES

This sketch, which is in the collection of Marshall Laird, of Los Angeles, was made as a quick color note and tone study to be later worked up as a drypoint. The original measured 103%" x 123%". Mr. Sheets' palette for water colors includes Gamboge, Yellow Ochre, Vermilion, Alizarin Crimson, Cobalt Blue, Ultramarine, Viridian or Emeraude Green, and Ivory Black—with emphasis on the black. He uses no white or tempera. He writes: "My technique in water color is very simple. I never rewash, unless it is positively necessary. The darks as well as the lights are drawn directly with one wash and the color is flowed on very wet. I never work longer than three-quarters of an hour on a sketch outdoors."

A FEW WORDS ABOUT CALIFORNIA

scene set for Sheets' entry upon this earthly stage into what at first might seem an unpromising start for a life of hard competitive effort. After the loss of his mother, who died soon after his birth, and a period during which his own life was despaired of, there entered the self-sacrificing devotion of a Grandmother who nursed him through a precarious babyhood into perfect health and raised him to strong young manhood.

Back of every person who ultimately achieves greatly, hewing out his or her purpose against odds, one almost invariably finds some other individual who has discerned, at its beginning, the embryonic talent. Such an individual will have given of himself or herself freely, to the end that this early promise might be fulfilled and come into its full light to influence an ever widening circle. So this kindly grandmother had the wisdom, during Sheets' childhood, not to thwart his early desires to draw, to play with color and form, to be ever making something with his hands. Out of her slender income she made it possible for him to have the needed materials and supplies to gratify these desires, later adding to these gifts an occasional lesson from whatever artist or teacher might be available in such a small western city as her home. All hail those spirits that have loved deeply enough to disregard such taunts as, "You'll spoil the child for any good work," or, "It's a waste of good money"; that have looked forward confidently with more than ordinary wisdom toward the ultimate achievement!

outstanding success has had such a silent partner.

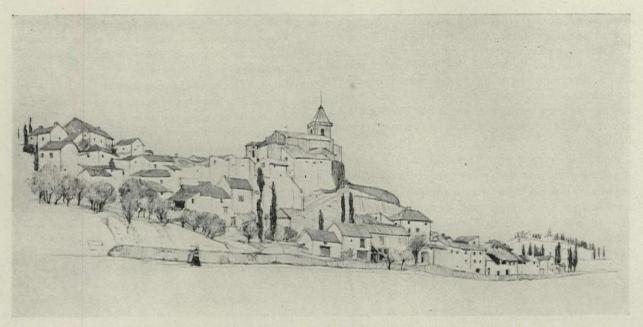
Sheets' early training was followed by the usual high school art course, neither better nor worse than is to be found in the high schools of other towns of equal size. During this time a healthy interest in outdoor physical activities was building up a body full of vitality and reserve energy that was to stand him in good' stead during the years of hard work just ahead. By playing on the local basketball, tennis, and baseball teams, he formed habits of regular and systematic exercise which later provided the balance wheel to overcome the possible bad effects of the intense application demanded by his work. Near the end of this period came some very fine instruction under one of California's noted flower painters, Theodore P. Modra.

High school finished, Sheets immediately made his plans, with an eye to his single purpose—proficiency in the use and knowledge of his materials. Here his intense interest and diligent application were brought to a fine focus by three years of study under F. Tolles Chamberlain, Fellow in Painting of the American Academy in Rome 1909-1912. All of the sound and thorough knowledge possessed by Mr. Chamberlain of color, composition, form, and constructive anatomy, together with his ardent appreciation of all classic expressions of art, was made available to Sheets, who set himself to absorb with avidity all that he could of this rare knowledge and appreciation, making it his own by prolific use, and storing up a mine of infor-



"WOMEN OF GUATEMALA"-LITHOGRAPH BY MILLARD SHEETS

PENCIL POINTS FOR MARCH, 1930



"ROCHEFORT, FRANCE"-FROM A PENCIL SKETCH BY MILLARD SHEETS

mation that was available as the boy developed to where he could prove by experiment the truth of this previous experience. Of Sheets' work, Mr. Chamberlain graciously said, upon the occasion of a recent showing of his paintings, "It has been a pleasure to watch Millard Sheets' rapid artistic growth, and in his recent work, done in this group of canvases, there is an extraordinary vigor and sensitiveness of vision which places it on a high plane. These sterling canvases, which already show a grasp of the higher plastic values very rare in one so young, surely indicate a brilliant future." Of this same exhibition Clarence Hinkle, portrait painter, said, "What a pleasure to know some-

one can learn to paint without experimenting over half a lifetime. Millard Sheets shows us all the vitality of youth directed straight to an accomplished ambition. This young man is a powerful impressionist; his pictures have the quality and texture of the work of a man who has painted for years. The achievements for an artist are endless as new worlds of ideas are constantly opening up—and when a young painter gains a leaping start and is always open to greater things, we can only predict that he will go far."

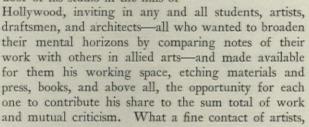
Early in his student life, Sheets seems to have grasped a principle of work that is worthy of emulation by all of us. Finding himself possessed of a con-



"PLOUAY, FRANCE"-FROM A PENCIL SKETCH BY MILLARD SHEETS

A FEW WORDS ABOUT CALIFORNIA

stantly increasing progression of ideas which his mind was nimble enough to analyze and hold, together with sufficient energy and vitality for fecund expression, he became aware that the more he could pass on to some one else, the more sure he became in his own work, the greater became the flow and continuity of his ideas, and the larger became his receptive capacity. So, out of his busy routine of study and expression, he set aside one night a week on which he flung wide the door of his studio in the hills of





FROM AN ETCHING BY MILLARD SHEETS "JUNKIE"

students, and architects it was, and what such contact carried further could do for the advancement of a finer cooperation between the allied arts of Architecture, Sculpture, and Painting!

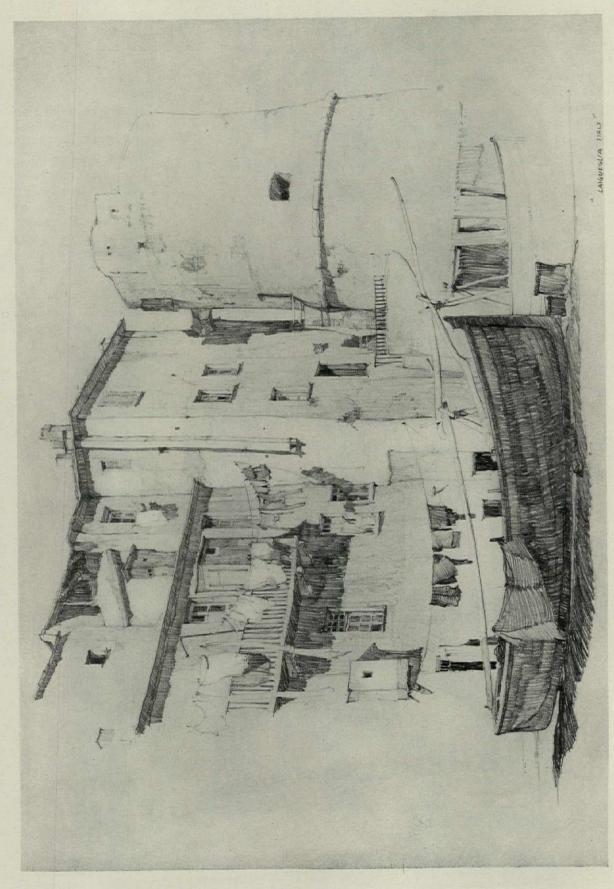
Later, upon his graduation from the Chouinard School of Arts in Los Angeles, Sheets was invited to return there and take charge of the class in landscape painting, numbering about fifteen students ranging in age from fifteen to thirty. Since he brought to the class his spirit of boundless giving, the attend-

ance rapidly increased so that it soon became necessary to divide the class into two sections. At the close of the first term, the two groups totaled an enrollment of seventy-five persons who ranged in age from sixteen to sixty, and in addition there was, once a week, a children's class of forty eager learners.

From this background he finally separated himself by mapping out a program of two years' study in



"MAZATLAN"-REPRODUCED AT THE SIZE OF THE ORIGINAL ETCHING BY MILLARD SHEETS



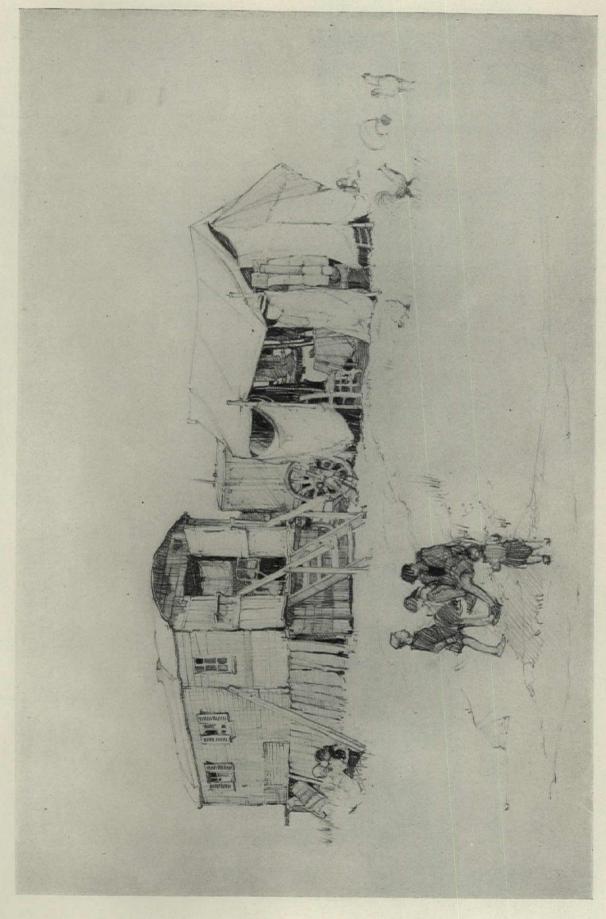
"LAIGUEGLIA, ITALY"—FROM A PENCIL DRAWING BY MILLARD SHEETS



"THE BOAT BUILDERS"—POINT MAGU, CALIFORNIA FROM A WATER COLOR SKETCH BY MILLARD O. SHEETS

PENCIL POINTS SERIES of COLOR PLATES

The important quality of any water color, according to Mr. Sheets' theory, is the proper balance of "color" and "gray" (absence of color). A drawing executed in beautiful grays with bits of pure color punched intelligently into the half tones sings because of its contrasts. Most water colors are painted so full of color—with color in the light, color in the half tones, and color in the shadows—that they become just so much paint. Contrasts or opposites in color are needed as well as contrasts in dark and light. This sketch, which measures 13¾" x 10¾", was a study for an oil painting that won second prize at the 1929 California State Exhibition. It was done in about forty-five minutes.



PENCIL DRAWING BY MILLARD SHEETS "CONCARNEAU—GYPSY WAGON"

figure painting in Europe and sailing for Berlin in midsummer. Once he was in Europe, however, this program received a very vital alteration. With his consciousness already accustomed to constant selfexpression, a mind sensitive to ideas and new impressions, and a sound training in the use of his materials, to be in Europe inevitably led him to take to sketching and painting-to express on paper and canvas these new experiences as they flooded into him. So he passed from Hamburg, through Berlin, down to South Germany, the Rhineland, Paris, and the Riviera, Italy -everywhere seeing all the rich treasures for the lover of artistic expression to enjoy, and everywhere making each day yield him its quota of new sketches, water colors, and oils. Then back again to Paris where he practically lived for a time in the lithographic studio of Gaston Dorfmant, turning his architectural sketches made in Southern France and Italy into beautiful, clean-cut drawings direct on the stone, to be printed later by that master of lithography, Gaston Dorfinant, in full editions.

Then on to London, with its wealth of material. Here awaited him one of the greatest delights of his trip, the opportunity for a close study of the 15th and 16th Century Mogul paintings now owned by the Victoria and Albert Museum. Rich in design, delicate and sure in drawing, and full of grace and color,

these plates held him enthralled, much as they had, as he later learned, enthralled William Morris, the English master of design, upon their entrance to England in the late '80s.

What started out to be for Sheets a two-year trip, vielded him, in four months of constant application, such a wealth of material that from London he again returned to America, impatient to get back into the studio where he could transfer material and ideas to new and fresh canvases, and once more give out something of the richness of his experience. In his studio I have seen (and to see is to want to sit down and enjoy, over and over again) the results of this trip, and have found that they total, for four months' work, thirtyfive colored designs for tapestries and wall decorations, sixty superb pencil drawings from France and Italy, sixteen water colors, and thirty-five oil paintings. Truly, taking into account the necessary time consumed in travel from place to place with the inconvenience of local trains and small town hotels, the thousands of things that must be seen before one is selected for delineation, here indeed is a quantity of work for four months that bespeaks a robust and vigorous workman and a determined spirit.

A fitting climax to his work abroad was the recent announcement of the acceptance, for hanging in the Fall Salon in Paris, of Sheets' oil painting, "Guatemala."



ETCHING BY MILLARD SHEETS "MEXICAN CHURCH"

DESIGN IN MODERN ARCHITECTURE

3-THE CITY OF TOMORROW

By John F. Harbeson

"THE SKYSCRAPERS, New York's invention and America's proudest architectural boast, may yet be the ruin of New York and many another American city unless we do something about them. They are another proof of the fact that man's cleverness is generally far in advance of his intelligence, that his ingenuity in devising new instruments of civilization is by no means accompanied by any resourcefulness or imagination in handling them. The skyscraper was born of the realization that if you pile floor-space vertically, instead of spreading it horizontally, you can easily house an acre full of people in a hundred-foot square . . . Like all brilliant discoveries, this was a simple one; and if it had been intelligently handled, would have made New York or any other city a paradise to live in; for if only part of the space so liberated had actually been left free, . . . the American metropolis would have been a series of towers surrounded by areas of parks, gardens and drives."-DEEMS TAYLOR, The City that Died of Greatness, Vanity Fair, November, 1928.

"The human being is the principal [of the stage-setting of the Metropolis of Tomorrow], yet it must be realized that the builders [of the City] must at least have been lacking in the two attributes usually assigned to principals—clear sense of the situation and manifest ability to control it. Is the set well designed? Indeed, it is not designed at all! It is true that in individual fragments of the set here and there—in individual buildings—we see the conscious hand of the architect. But in speaking, as we are, of the city as a whole, it is impossible to say that it did more than come to be built; we must admit that, as a whole, it is no work of conscious design."—HUGH FERRISS, The Metropolis of Tomorrow.

We have seen how the modern program of the single building has become more and more complicated, due to the vastly increased scale on which modern enterprise is conducted, and the ingenuity with which inventions have answered old needs, and made new needs and answered them. These problems have been solved by the modern architect—well solved—an architecture of our own age is shaping itself, as good an architecture, in the average, as that of most periods of past history, if we consider individual examples.

But if we think of architecture in terms of groups of buildings—that is a different story. When seen from above, New York, the most representative American city from the standpoint of architecture, looks like a table in the shop of a dealer in antique glass—crowded with vases or jars or other pieces, many of which are interesting in and by themselves, but which are not composed in their relation to each other on the table. Our architecture of today is also an unintelligent

grouping of miscellaneous buildings, many of them beautiful.

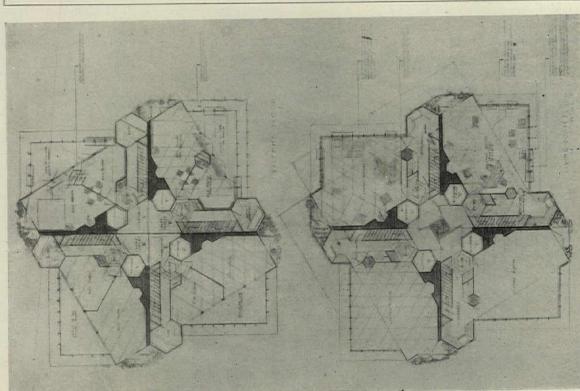
This is a result of our civilization, very democratic, made up of a large number of individuals who insist upon thinking and acting as individuals, in a selfish way, with little or no thought to the general good, or the good of posterity.

In earlier times, the "client" was a prince of some sort, who not only had the money with which to build, and resources to carry out great projects, but felt a responsibility to the public; and this thought of the good of the "common people" was manifested in such examples of city planning as the fora of the Roman emperors, the "places" or city squares of the French Kings, the plazas of the Rome of the Popes.

Some of our citizens have amassed the wealth of princes, and have built for themselves residences on a scale comparable to that of the Palace of Versailles, or have built for the general good hospital or college buildings, or even groups of college buildings about quadrangles. But improvement in our cities must come from a popular demand, and will result from mass action rather than individual undertaking. The holders of land, valuable because of its location, have usually the attitude of the exploiter, to squeeze the last penny's worth of financial opportunity out of it, without regard for the well-being of neighbors. And so buildings have been considered as individual pieces, not as parts of compositions of pieces.

But a country whose foremost citizens have the mental acuteness of the leaders of modern life—of business, of the professions—will not long be satisfied with this short-sighted conception of a city. Even our politicians, when visiting Europe for the first time, are struck with the ordered arrangement of certain cities, and talk of the beauty of the Place de la Concorde, and the Piazza del Popolo; and the average citizen, the voter who, in the aggregate, takes the place of the "king" of old, is becoming interested in the ordered arrangement of a city and its growth, and will soon be demanding, first, a study of the development of his city, and then the execution of these plans.

We already have zoning laws restricting the height and type of occupancy of buildings. But this is only negative provision for the future. There are city plans for Washington, D. C., for Chicago, and for portions, usually the "civic center," of other cities. But city planning in the terms of our modern civilization is only in its infancy. The cities of the old world, some of them excellent solutions for a day gone by, both æsthetically and practically, will not serve as complete models for the city of the future, for two reasons. The skyscraper has come to stay; and traffic is immeasurably greater than ever before.



From "The Architectural Record"
PROI

Right—A new idea of an ingenious architect for future housing. Hung on a central concrete core from which the floor construction is cantileered, the outer walls may thus be mainly of glass. There are many ingenious devices; radiators are done away with, and heating is by means of horizontal piping, as was done in schools some twenty years ago; there are metal wardrobes for clothes, metal diving tables pivoted to weing into the living room, and, of course, kitchenettes with metal futungs.

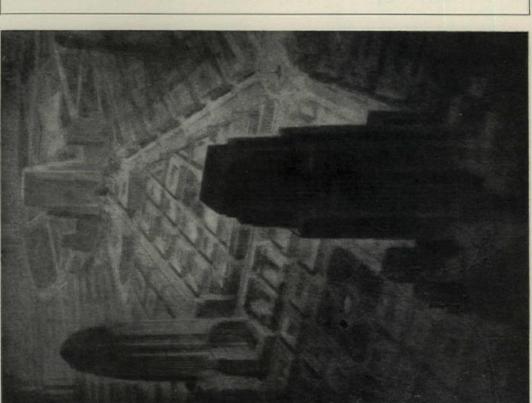
The bedrooms and bath are on the floor

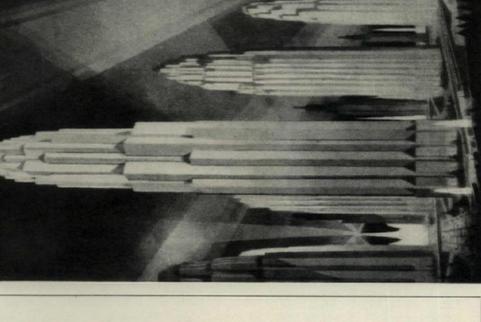
private entry of everyone living below you docon to the ground level-ingenious, but these holes come the only light and air to and cigar smoke of those who like to "sit sham; if the elevators are not running the only way to reach the street is through the equally with the others at the table. One braces of the cantilever trusses, and through the bedroom—as well as the conversation up a while longer." The fireplaces are Left-While the ideas here suggested are ways. To people brought up in rectangular rooms these queerly shaped spaces with no bathtubs are longer on one side than on the other, to say nothing of the built-in beds; and if a guest too many came to dine, and was seated at the "head" of the table, he ecould hurt his neck trying to converse evall of each bedroom is pierced with large openings between the ingenious, they are not satisfying in many right angles would be irritating. Even the not very comfortable to live in. diamond-shaped

ABBISIAN BERKER

PROPOSED ST. MARK'S TOWER, ST. MARK'S IN THE BOUWERIE, NEW YORK, NEW YORK

FRANK LLOYD WRIGHT, ARCHITECT





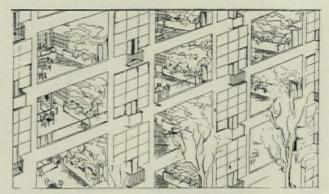
BY
HUGH FERRISS
FROM
"THE
METROPOLIS
OF
TOMORROW"

Another City of Towers. Such towers would have "unusual values as to exposure, light, and air; but probably the greatest virtue of this proposal lies in the implied simplification of transportation. The vertical transportation is, in these narrow towers, visibly centralized, and the entire ground level, throughout the city, is made available for horizontal traffic." In high buildings the elevators are separated into groups serving sets of floors at succeeding heights. At the top of every such division one group of elevators stop—and space is saved. The base of such a tower as this would be little but elevator; unless several cars, one over the other, are run in one elevator shaft. There is thus a logical reason for the "set-back" building.

Here is a suggestion for a city having enormous buildings, covering six or eight city blocks, at the "centers" of a city—one center for administration, one for business, one for art, one for religion, etc.—with lower buildings in between the big buildings being like "mountains in a wide plain." Such towers would have commanding positions, and would be designed from the viewpoint of sculptural composition. Perhaps the business center would be more adequately expressed as a mountain range, rather than as a mountain peak, and such a range of high buildings would be even more impressive, and retain some of the picturesqueness of modern New York, while achieving the light and air now so lacking.

PENCIL POINTS FOR MARCH, 1930



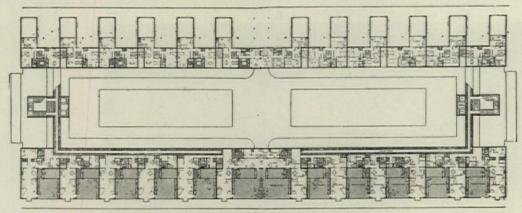


"FREEHOLD MAISONETTES"—GENERAL VIEW OF ONE BLOCK AND DETAILS OF GARDENS

The skyscraper is the result of American civilization, and to most Americans expresses in concrete and vivid form the ingenuity, skill, and organizing ability of modern America. With the skyscraper has come the resultant congestion of all means of communication—by subway and elevated, by pedestrians, and to a tremendous extent the congestion of vehicular traffic.*

every day. Certainly every year, if not quite every day, it is becoming perceptibly several degrees more congested and is now rapidly approaching the point of public danger. As the avenues and streets of a city are nothing less than its arteries and veins, we may well ask what doctor would venture to promise bodily health if he knew that the blood circulation was steadily growing more congested. With a very few exceptions (such as the Super-highway project of Detroit) no design for urban traffic is now being proposed that can truly be called masterly. This is the problem of problems that must be comprehended if we are adequately to visualize the future city." Hugh Ferriss, "The Metropolis of Tomorrow." Many are the prophets who are crying of these evils, some suggesting remedies, others only foretelling the inevitable doom of civilisation as we know it.

Today our citizens jostle each other into subway cars where they must stand, crowded together uncomfortably, for half an hour; they push their way through the crowds at railway stations daily, crowds that a few years ago were met once a year at circus time; they take taxicabs to cross from one railway station to another-at a slower pace than they could walk. But this is a democratic age: a country of and for "the people." Ultimately the people will realize that all this is very stupid; that such discomforts are no more necessary today than was bad drinking water a few years ago; when they so decide, the art of city planning will begin to develop at as rapid a pace as our skyscraper buildings have developed. Many ideas have been tentatively advanced. Harvey Wiley Corbett long ago suggested streets at three levels-subways at the bottom, vehicular traffic on the ground level (with parking space under all buildings), pedestrian traffic at a higher level, carried across the street intersections by



Plan of one story.

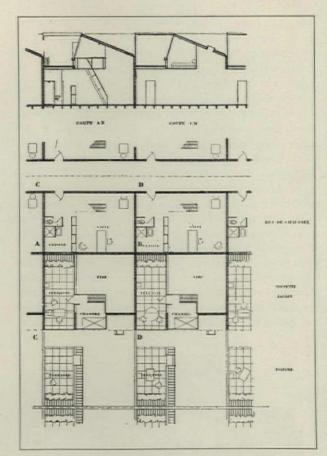
At street level a great entrance hall; on other floors the grand staircase and the main corridor.

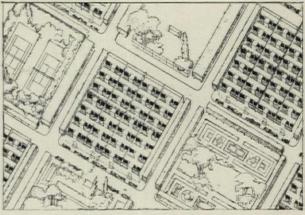
Ground floor plan: The shading indicates the hanging gardens.

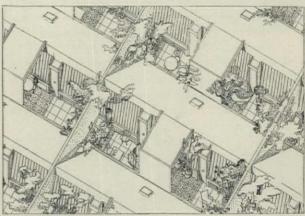
From "Towards a New Architecture," by Le Corbusier

PLAN OF "FREEHOLD MAISONETTES"—A SOLUTION BY LE CORBUSIER OF QUANTITY HOUSING

"The drawings show the arrangement of a group of 100 maisonettes disposed in five stories, each maisonette having two floors and its own garden. A communal service provides for all necessities and provides the solution to the servant question (which is only just beginning and is an inevitable social fact). Modern achievement, applied to so important an enterprise, replaces human labor by the machine and by good organization; constant hot water, central heating, refrigerators, vacuum cleaners, etc. Servants are no longer of necessity tied to the house; they come here, as they would to a factory, and do their eight hours; in this way an active staff is available day and night. The provision of food, whether cooked or not, is arranged by a special purchasing service, which makes for quality and economy. From a vast kitchen the food is supplied as required to be eaten, either privately or in the communal restaurant. On the roof there is a communal hall for sports and a 300-yard track, and an entertainment hall for the use of the inhabitants. There is the great covered court, on the roof of the underground garages, for tennis. 'Standardization' here comes into its own. The maisonettes represent a type of house arrangement which is rational and sensible without emphasis in any particular direction, but sufficient and practical . . . No actual rent is paid; the tenants take shares in the enterprise; these are payable over a period of twenty years, and the interest represents a very low rent."

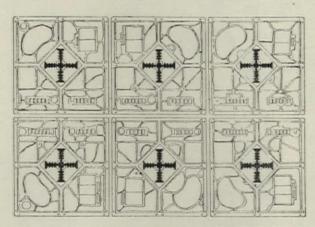


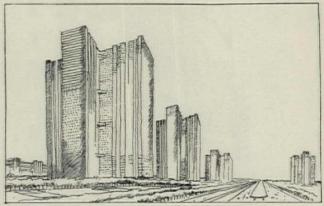




SECTION, PLAN, PERSPECTIVE, AND DETAIL OF A COLLEGE DORMITORY BY LE CORBUSIER, UNIVERSITY QUARTER

"Attempts are made at enormous cost to build quarters for university students which may reproduce the poetry of the old buildings at Oxford. A costly poetry, disastrously so! The modern student is in any case inclined to protest against an old-world Oxford; an old-world Oxford is the dream of the modern Maecenas, the donor of such a university quarter. What the student wants is a monk's cell, well lit and heated, with a corner from which he can look at the stars. His cell should be self-contained, as far as possible. Every student has a right to exactly the same type of cell; it would be invidious that the poor student should occupy a cell different from that of the rich student. Each 'cell' has its antechamber, its kitchen, its W.C., its living room, its sleeping loft, its roof garden—economy, efficiency, and architecture? We can always achieve this when the problem is clear . . ."





"A CITY OF TOWERS"—A CITY PLANNING SUGGESTION BY LE CORBUSIER IN 1920

A project for 60-story office buildings, 700 feet high and 1200 to 1500 feet apart. "In spite of the great area devoted to the surrounding parks, the density of a normal town of today is multiplied many times over. It is evident that such buildings would necessarily be devoted exclusively to business offices and that their proper place would therefore be in the center of great cities, with a view to eliminating the appalling congestion of the main arteries; these, with their motor tracks built over them, allow of easy, or rapid, or very rapid circulation of traffic." Compare with Hugh Ferriss' towers scheme on page 167. Perhaps, in this day of the telephone, business could comfortably be conducted in such buildings; the outlook would be a bit monotonous, however.

PENCIL POINTS FOR MARCH, 1930

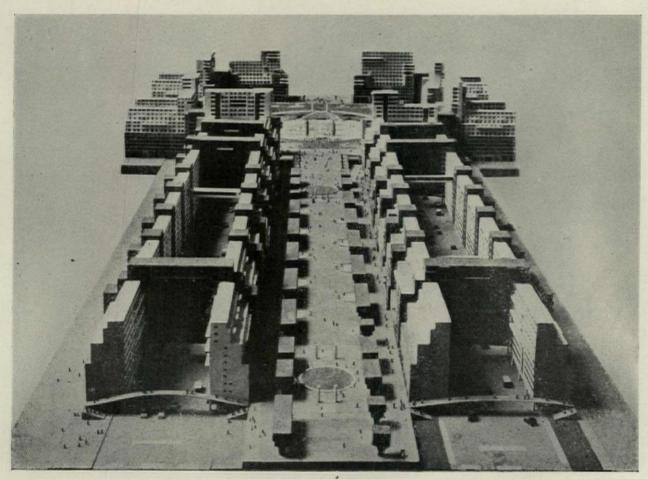
bridges. Others have suggested variations of this idea. Already in Chicago practically this is now in operation on Wacker drive: certainly in the centers of crowded cities, where land has risen to tremendous values, some such scheme is almost inevitable. But for the smaller cities, and for the less dense portions of the great cities, an adequate widening of streets, or cutting of new wide streets—such as the Boulevard Raspail cut through Paris as long ago as 1910—seems a more reasonable, more healthy and withal more beautiful solution.

Another suggestion is the "daughter-city," the arrangement of a series of subsidiary towns around the perimeter of a great city, each with its administrative center, its business and professional areas, its centers for recreation and amusement. In many cases existing nearby towns have developed into this sort of "daughter-city." At other times such a place has been planned consciously as a unit, and built at one time.

Such a one is the new city of Elisabethville in Belgium, six kilos from Meulan, on the Seine river. It is constructed on a radiating plan, with wide streets, and parks placed along the streams, at the disposal of the dwellers and promenaders, and a bathing beach. "It is without doubt the best means to resolve the crisis of housing, and also the social (servant) question, to create not far from large cities, amiable and gay centers from which are banished the barrack-like houses so mediocre from a social and hygienic standpoint, and where employed people of moderate circumstances, small renters, may become, by ingenious arrangements, proprietors of their own homes."*

But any development in city planning will require the study of the grouping of buildings—buildings will have to be studied in their relation to each other, and to the city as a whole. The architects are ready for such a study—so far there has not been the opportunity, which must result both from legislation and from economic causes. The legislation will come, for the voters will soon demand some such organized planning, and until that time it is better that no laws be passed, for they are just as apt to be short-sighted and restrictive as otherwise. The economic pressure

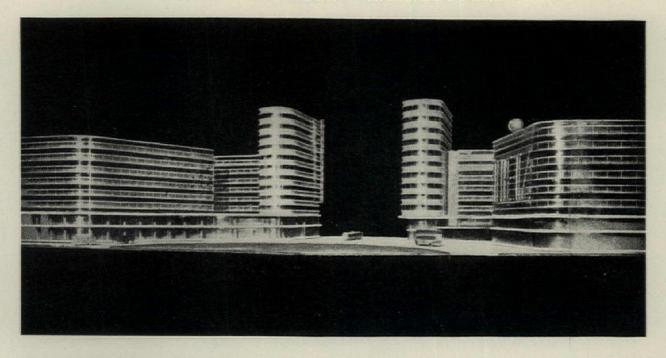
*"L'Architecture," 1928.

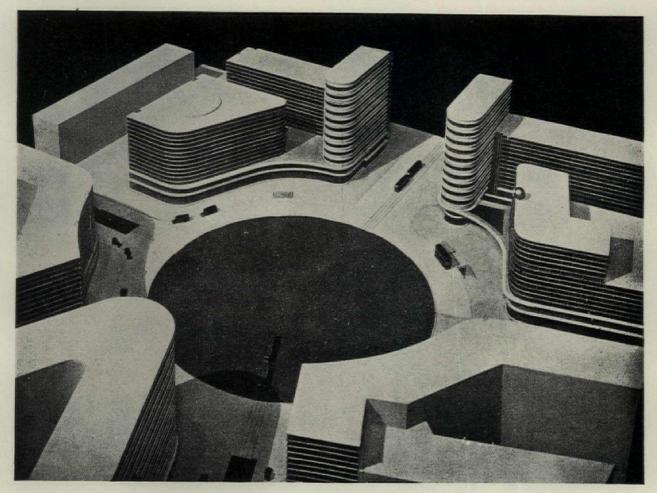


A PROJECT IN CITY PLANNING BY ANDRE VENTRE AND E. AILLAND (FRANCE)

Model exhibited at the Salon d'Autonne, Paris, 1928. Here again the sides of an important avenue and of a city square are treated symmetrically; there are separate levels for motor and pedestrian traffic. By uniting all interior courts into one large court light and air are secured for all rooms. Such a development means a single ownership of a large amount of property, or at least a willingness to collaborate on the part of all the owners. "Trees" are shown on the large avenue; unfortunately when the traffic ways are cared for below there is little ground left for tree roots; unburned motor gases, which act like poison to trees, must find their way up from below, and high buildings along such an avenue cut the number of hours of sun almost in half. One has only to look at the trees in the squares of our cities today to be pessimistic about any verdure in the future that is not of the kind that can be renewed from the greenhouse every year.

DESIGN IN MODERN ARCHITECTURE





A GERMAN STUDY IN CITY PLAN FORMS—ALEXANDERPLATZ, BERLIN, BY LUCKHARDT BROTHERS AND A. ANKER

These architects have composed their buildings so that when looking toward any street it is framed symmetrically. Most architects if given the opportunity to design a group of buildings surrounding a public square would be guided by such considerations; since the days of the great kings there has been little opportunity to do so. It is likely that this will be more and more the case, however, now that the "common people" are becoming collectively king, and that in time a single building on such a square could not be rebuilt without definite plans as to the rest.

is already working in such a direction. The requirement of the New York Zoning law that towers may be built to any height on twenty-five per cent of a building plot, behind certain restrictive lines, has already caused development in the direction of the assembling of larger and larger parcels of land for building, for only in that way can towers be built sufficiently large to have income producing space in addition to the great number of elevators requisite in high buildings. This has also resulted in greater opportunities for the Architect in composing his building: it is less and less stopped by party walls, more and more being built surrounded on all sides by streets. In the future several blocks will be composed together: if the ownership is common, the blocks may be built into one unit.

The time is ripe, the stage is set, the men who work the puppets—for so the architects may be called —know their parts and are ready for the show.

Perhaps the one pessimistic note is that the city of the future would seem to be a city without any vegetation, or else with concrete trees such as were "grown" at the Paris Exposition of Decorative Arts in 1925. For trees will not grow, can not breathe, when surrounded by unburned automobile gas, and that, in this day of bigger and bigger years for the motor manufacturers, is their continual atmosphere. It is likely that unless some sort of hardy species of tree can be found, it will be necessary to go to the country to see one, just as we now go there to show the children a cow—or a horse.



SUGGESTION FOR A CIVIC CENTER, CITY HALL PARK, EMBODYING THE SPIRIT OF NEW YORK FRANCIS S. SWALES, ARCHITECT

In this drawing by Mr. Swales he proposes "that the Old Post Office and the Court House be removed, and that the buildings on the north side of Chambers Street, including the Hall of Records and the Industrial Bank be removed is to make room for a new building between Broadway and Center Street." "With the Old Post Office gone, this great structure, towering a thousand feet above City Hall Park, and with ample space about it for light and air, would command one of the most imposing sites in the city."—From "Mastering a Metropolis," by R. L. Duffus.

ADVENTURES OF AN ARCHITECT

5—ITCHING PALMS

By Rossel E. Mitchell

THE MAJORITY OF men in the building business are consistently honest. The fierce light of competition makes it impossible for a crook to survive for long. Occasionally a man or firm with a slippery reputation seems to flourish like the green bay tree, but sooner or later disappears into the obscurity which follows failure and loss of confidence of his fellows. Every unit of the building world is so intertwined with other units that the dishonest contractor quickly acquires the bar sinister. He finds it increasingly difficult to get work, and either quits or moves on to some other field where he can make a fresh start.

Not that all honest people survive, and only the dishonest fail. Unfortunately, that kind of poetic justice does not obtain consistently. Many an honest builder fails, sometimes after a lifetime of successful effort. Changing methods, more scientifically conceived organization, greater access to capital, all these and other factors, to say nothing of the ordinary hazards which are a constant threat to the business life of the builder, combine to cast down many worthy men.

An architect must have his eyes open all the time, however, for that minority species, the crooked contractor. His experiences with such, when he finds them, are sometimes amusing, sometimes painful, but always interesting.

My first encounter with a "smooth guy" was in connection with a large government building. Architects in another city planned it and associated me with them to supervise the construction. All went smoothly until the structure was ready to plaster. The plastering contractor was a large, fleshy man of foreign appearance. The other contractors called him 'guinea," which crude designation he resented, informing me he was of Italian extraction, born in America. There were more than thirty thousand yards of plaster to be applied on metal lath. This calls for a "scratch coat," a "brown coat," and a finishing coat, the plaster to be allowed to set between each coat. On wood lath only two coats are applied. Mr. "Guinea" came to me one day with a proposition. Wordily explaining his vast experience and ability, he declared he could get a much better job if I would allow him to put on the scratch and brown coats together. I informed him the specifications called for three coats and I had no authority to change them.

"I'll take the responsibility. No one will know of the change but you and the foreman, and he says all right if you say so. I get you a better job—the best job plaster you ever see. I got good reputation; twenty years first class plasterer. All the big companies get me to plaster for 'em. Let me show you real job plaster. This scratch coat business—no good! Out of date! I do all my work two-coat now. You

be glad when you see my work. Other architects be glad. When I get done you say, 'Fine job, you know your business, I recommend you.'" Bending his face to my ear he lowered his voice.

"You let me get you good job—two-coat work. I take care of you. I get you neatest tailor-made suit, overcoat and hat in town!"

I thanked him politely but advised him firmly that there must be three coats, and a first class job throughout.

Thirty thousand yards at a saving of ten cents per yard—\$3,000.00! He could well afford to exchange some good clothes for that.

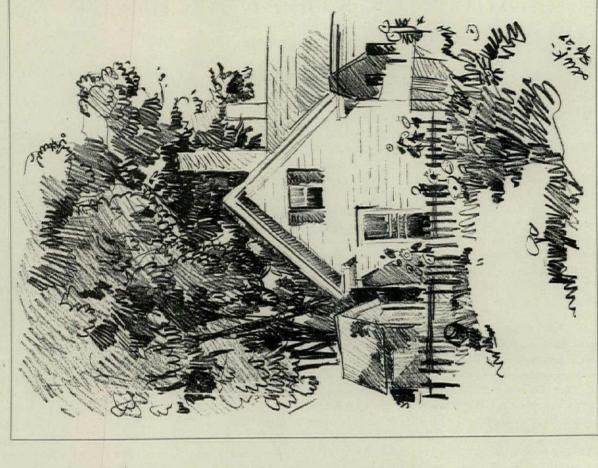
Let it not be inferred that all foreigners are grafters, but Latin peoples have a very different conception of ordinary business ethics from Anglo-Saxons. This is well recognized in the building world. Even at that, the American crook is more dangerous, for the while the Latin tries to take open advantage of every little opportunity to save himself a dollar, the American grafter tries to deceive you into thinking he is giving you what he is not. The foreigner is apt to be technical, and refuse to do some simple thing that is properly but perhaps not specifically a part of his work. The American, if he is honest, will do all that appertains to his work without question. But if he is dishonest, he will pretend to do so, and skimp where you cannot find it.

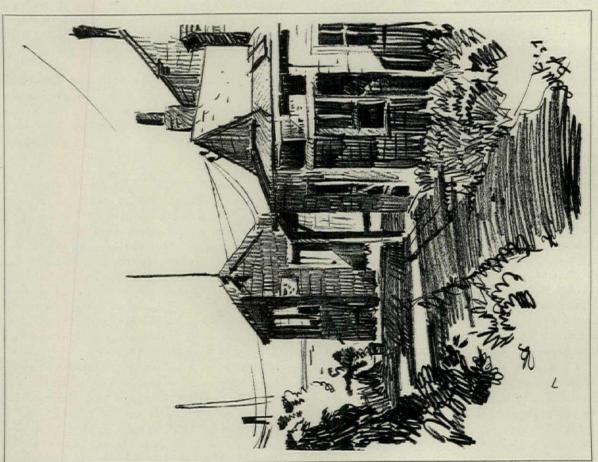
A Mexican draftsman, a man of fine education, worked for me for several years. He introduced me to a Cuban who had set up as a builder. The Cuban was intelligent, educated, and ingratiating. Learning that I had been commissioned by a wealthy man to plan some commercial shops, he came to me with a proposition.

He wanted to build those stores. He would like for me to recommend him to my client. He said that I knew that it was customary for builders to charge ten per cent profit on their work. He proposed that I recommend to my client his employment to build the stores at a profit of eight per cent. Of this, he, the builder, would pay to me two per cent. This would be in addition to the regular percentage paid me by my client. I explained that an architect could not serve two masters. He could not get that idea at all, but as he was really a delightful fellow, we parted good friends.

I believe he was thoroughly honest in his viewpoint. The weakness of his idea lay also in the fact that any reputable builder would have been glad to accept the contract for six per cent net over all expenses.

But my first real difficulty with a crook was with a Simon-pure American. He was successful bidder on the institutional building I won in competition the first year of my business career. My situation was





TWO SKETCHES OF OLD PROVINCETOWN BY DONALD M. KIRKPATRICK-DONE WITH LITHOGRAPHIC CRAYON The originals were quite large, each of them measuring 14" wide.

pregnant with trouble; a young, moderately experienced architect with a large job on hand, a middle-aged, long experienced contractor, known to everyone as the most capable man in building work in that city. He was large, fat, powerful, and domineering. Socially he was jolly and good-natured. The building in question was unusually complicated. The site was altogether too small for the purpose, and endless ingenuity had been expended to make room for various "features" and conveniences.

One fine day this big builder called on me with a great idea. He wanted to change the structural frame from steel to concrete. He would save the building committee a large sum of money.

When I refused to consider it, he appeared crestfallen, and argued for his scheme. I advised him that we had given careful thought to the structural frame, and fully considered reinforced concrete, rejecting it for the reason that the structural members in this building, if of concrete, would be so large they would seriously interfere with the arrangement and use of many parts where space was at a premium.

This did not satisfy him. He went to the members of the committee individually, explaining how eager he was to save them money, which he knew they wanted to save. He also advised them, I later found, that I was ignorant of reinforced concrete work, didn't want to change my plans, and would put the committee to the larger expense rather than do so. Rather insidious propaganda!

He got far enough to have the committee call a special meeting to consider the matter. It was not difficult to show them the disadvantages of concrete for this building. I advised them, if they wanted to consider the change, we would make the necessary drawings and get new bids, as otherwise there was no way to tell how much saving ought to be made. In our opinion the builder was planning to save himself much more than he saved the committee.

Turned down on this, the man became my implacable enemy. He attempted to prevent my advance in Masonry, and circulated damaging stories purporting to show my ignorance as a constructor and the "mistakes" I had made. Several times he offered the olive branch, which I accepted. Always this was followed by a request for a concession on the construction which I did not feel justified in allowing. He was in bad shape financially; his bid was probably too low in the first place, and he had hoped to make up a profit by other devices. An older man than myself would no doubt have handled him more diplomatically, had less trouble, and still hewed to the line. He finally went into bankruptcy and the building was completed by his bondsmen.

Since that time, serious and costly defects developed in other structures he erected. Our building showed no structural defects after years of use. I have always regretted having had such an enemy, but it seemed unavoidable.

Much of the trouble and most of the temptations to fraud in the building industry are due to the competitive system of building, with its chance-taking elements. Some strong and reputable firms have devised systems of building on a fair cost-plus system that obviates the temptation to skimp. These methods are not fool-proof. Many are the ways to pad a cost-plus price. Without deliberate padding, costs may be unduly run up by excessive charges for overhead, plant equipment, etc.

Striking examples of this were seen during the rush of Great War preparation. Large contracting concerns were employed on a basis of cost plus ten per cent profit. Soon scandalous stories were on the tongues of mechanics and workmen. Twenty-five bricklayers would be at work on a wall where half that number could scarcely be used. Ten men were sent down into a pit to build a brick cistern where five had barely elbow room. A hundred carpenters would be set to work sawing by hand lumber that could be sawn in a fourth the time by machine, and with a tenth of the labor.

A temporary hospital was built at a cost of more than four hundred thousand dollars, the builders receiving ten per cent clear profit. Later, after costs had gone up and labor became more scarce, the authorities found it necessary to double the unit. Cognizant of the rumors going about as to graft, they decided to take bids. The appropriation asked for was six hundred thousand dollars, the difference representing the estimated rise in labor and materials.

The successful bidder got the contract for about two hundred and fifty thousand dollars, or a saving of about one hundred and fifty thousand dollars under the cost of the first unit, built when prices were low!

Not all government agencies were inveigled into such loose methods, however. The United States Housing Corporation, organized to provide industrial housing for war workers, was a notable exception. Headed by a practical builder of great experience, government interests were protected. While army officers were being fooled into paying enormous sums for property recently purchased by speculators, this corporation bought land at fair pre-war market prices.

My own experience with attempted or suggested graft was very personal. Soon after securing a large contract for a government project, a contractor friend called on me. He just wanted to give me some fatherly advice.

"You now have a chance to make good, financially. Don't let it slip. The war will be over some day, and the government will forget all about you. You can get a commission on everything that goes into those buildings. Get it! Salt down your savings and when the war is over you will be fixed for life!"

This man was well up in Masonry, and had a good reputation in the city as a business man and contractor. Astonished at his suggestion, I let him down easy by saying I feared I was not clever enough to handle things that way. This was true, as a number of grafters found out after the war. Some, however, "got by" and have since been both purse proud and affluent.

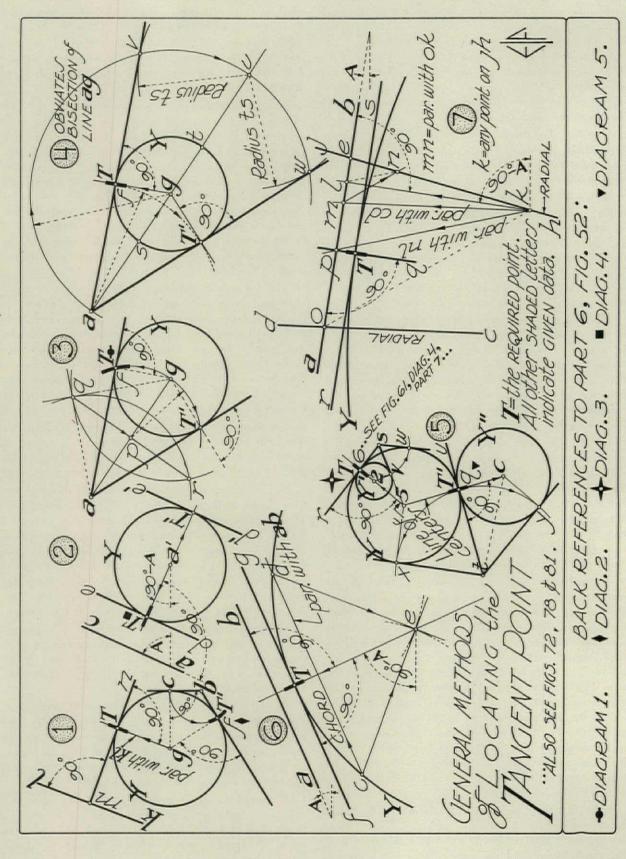


FIGURE 70-SEE TEXT OPPOSITE

THE GEOMETRY OF ARCHITECTURAL DRAFTING

PART 8-JUST TOUCHING ON THE CIRCLE

By Ernest Irving Freese Copyright 1930 by the Author

THERE IS scarcely a drawing made in the drafting-room that does not involve, directly or indirectly, the determination of straight line tangents to given circles or circular arcs. In fact problems arise which, at first sight, have nothing whatsoever to do with the circle, yet which, in the final analysis, reduce to this one general problem of drawing a tangent to a circle under certain given conditions. This Part, then, completely covers this phase of drafting-room geometry. Every general solution, and every particular application of same herein shown or suggested, will be found usable in actual practice. Some of them are exceedingly simple. None of them are exceedingly

complex. All of them are exceedingly practical.

PROBLEM 1: To draw a tangent to a circle from a given point on the circumference. This is one of the "three fundamentals" mentioned in Part 1, and therein "solved" both in the ancient Euclidean style and in the modern drafting-room manner. See Figure 1, Diagrams "C" and "F," of Part 1. Or, referring to Figure 70, herewith, assume for the

time being that point T of Diagram "1" is the given point, on the circle Y, from which the required tangent must be drawn. Then mn, drawn perpendicular to gT, and through T, is the tangent required. Now reverse the problem, and you have:—

PROBLEM 2: To detect the tangent point of a given straight line and circle. This is as easy as the other—easier—but, somehow, it seems to be more forgettable! Merely cross the tangent with a perpendicular to same projected from the center of the circle. The point of crossing, T, defines the exact point of tangency. And if you think you can locate it "by eye"-try this: Swing an arc of, say, a foot radius. Shift the center a few inches along a horizontal and draw another arc of the same radius. Cross the first arc with a vertical projected from its center, and through this point draw the horizontal tangent to both arcs. Now "detect" the point of tangency of the second arc by eye. Then project a vertical from the second center and see how good a detective your eye is. If you came within a sixteenth of an inch of "hitting" the true tangent point, your eyes are better than the average. If you hit it exactly-well, there's just one chance in a hundred of doing that! For the intersection "point" of that straight line and circle is just one hundred times as long as the thickness of the lines used. So if your lines are half a hundredth of an inch thick—why then that straight line, representing the tangent, traverses one half inch of the length of that arc during its "tangency." You have already been made aware of the fact, in Part 7 at Figure 59, that a tangent, instead of "just touching" a circle, intersects it. So don't ruin your eyes and waste a lot of valuable time guessing at points of tangency: locate them geometrically—it's faster and more precise. Now we'll try one in which the center is off the board:—

PROBLEM 3: To draw a tangent, or radial, from a given point on a circular arc: the center being INACCESSIBLE.

Solution 1: (Figure 71) The given arc is AB. The given point is C. The required line is the tangent, T, or the radial R. From C as a center, radius as large as convenient, cross AB at 1 and 2. Through C, parallel with the imaginary chord 2-1, draw the

chord 2-1, draw the required tangent T. Or, through C, perpendicular to 2-1, draw the required radial R. This Figure also shows the simple instrumental manipulation to produce these lines. But possibly the given point occurs at the end of the arc. What then? Oh, there's two or three ways of getting around this situation. Here's one:—

Solution 2: (Diagram "2" of Figure 72) From C, space off along the arc any three equal distances, C1, 1-2 and 2-3. Through 2 project a line parallel with 3-1, and cross this at 4 with a line perpendicular to 2C projected through 1. Then a line projected from 4 through C is the required tangent T. And a line perpendicular to this, through C, is the required radial R. Note that this is all manipulation—parallels and perpendiculars. The chords indicated on the diagram, for clarity, need not be drawn at all. But here's still another way that the tangent or radial can be drawn from or near the end of the arc:—

Solution 3: (Diagram "3" of Figure 72) From C as a center, with any radius r, draw an arc crossing the given one at 1, and space off 1-2 with same radius. With the chord 2C,

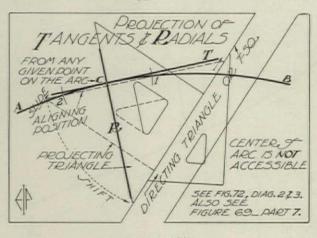


FIGURE 71

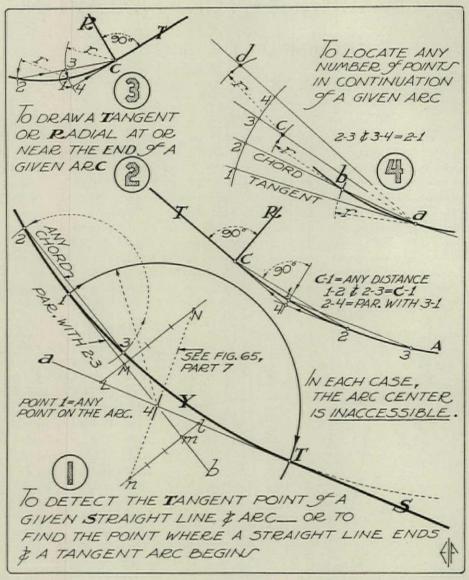


FIGURE 72

cross the arc swung from center C. This gives point 3. From 1 revolve 3 to 4, and project the required tangent, T, from 4 through C. Or draw the required radial, R, from C perpendicular to C4. If the given arc happens to be so short as to render all of the above solutions impractical, then find another point in the continuation of the arc and use Solution 1. Which gives rise to the following:—

PROBLEM 4: To locate any number of points in continuation of a given circular arc: the center being INACCESSIBLE.

Solution: (Diagram "4" of Figure 72) From any point a, on the given arc, and using any convenient or desired radius, r, cross the arc at b. Indent these two points. Project a tangent through a and a chord through ab. Multiply the angle thus formed any number of times desired, and in the manner shown. Then, with the compass, mark off the chord length ab, which is radius r, consecutively from b to c, c to d, etc., as far as you like. If you go far enough, you'll

come back to the arc that you started from. Now assume that b is the end of the given arc, or a point very close to the end, and that a tangent or radial is required at this point. Well, the tangent will be parallel with ac, and the radial will be perpendicular to That's another way! You can do almost anything you like with a piece of a circle from the information conveyed in Figure 72 -inclusive of the following:-

PROBLEM 5: To detect the tangent point of a given straight line and circular arc, or to find the point where the straight line ends and the curve begins; the center being INACCESSIBLE.

Solution: (Diagram "1" of Figure 72) The given arc is Y. The given straight line is S. And the required tangent point, or junction, is T. From any point 1, as far as practicable from the vicinity of the required point T, project another tangent, 1b, to cross the given tangent S (or its prolonga-

tion Sa) at point 4. (If the crossing is so acute as to render point 4 obscure, use the detective recourse of Problem 15, Part 7, Figure 65.) From 4 as a center, revolve 1 to the required point T. Now then, if you rack your brains sufficiently, possibly you'll recall an abstract statement that you used to abstractedly "recite" to your abstracted professor: namely, the two tangents drawn from any one point outside a circle are equal in length, and make equal angles with the line joining their vertex to the center. Moreover, you could prove it-you had to be able to prove it-that was a very essential part of your memorized higher education. But of what earthly use it could be, other than "training your mind," neither you nor your tutor could tell. Euclid was neither an architect nor an engineer: he was a mathematician. If he had been all three, and had equipped himself with a drafting-board, a T-square and a few papyrus triangles-well, the instrument manufacturers would have been kept quite busy for the last twenty-two hundred

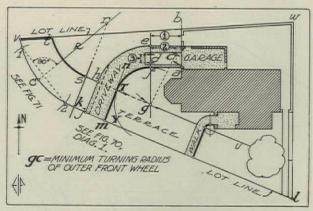


FIGURE 73

years fulfilling their contracts with the institutions of learning, and the drafting-board, itself, would have long since become known as the board of education. As it is, the author of The Geometry of Architectural Drafting respectfully suggests that, to consummate the anachronism, Euclid be taught in Latin. They're both dead languages to the average student who, glibly reeling off the queer-sounding phrases of each, vaguely wonders "what they're all about." And he seldom finds out in the classroom. And he promptly forgets both outside the classroom. Moreover—oh yes, those two tangents: I'll show you a few more ways to use them after a while. So we'd better get along. Meanwhile, here's another one you can often apply:—

PROBLEM 6: To draw a tangent to a circle perpendicular to a given line.

Solution: (Diagram "1" of Figure 70) The given circle is Y. The given line is kl. And the

required tangent is mn. Cross Y at T with a line from g paralleling kl. Through T, which is the tangent point needed, project the required tangent, mn, perpendicular to kl.

Figure 73, along with some other useful information, contains a practical working-out of PROB-LEM 6. The location of the garage is fixed in relation to the front lot line lv, and it is required to plot the lines of the driveway so as to use the minimum amount of paving, that is, so as to reach the street by the shortest possible route consistent with the practical operation of the car. The car dimensions "1," "2," and "3," as well as the minimum front-wheel turning radius, gc, and the

width of the garage opening through which the car is to pass, must be known or assumed. Now we can go. Parallel with the face ab of the garage, and at the perpendicular distance "1" therefrom, draw the prolonged line ge, which line passes through the rear axle when the front bumper is in line with ab. On ge locate f by the perpendicular af, which latter line then represents both the inner edge and the necessary length of the straight portion of the driveway and is exactly in line with the corresponding door jamb at a. Now, from the allotted width of opening through which this car is to pass, subtract the tread-dimension "3." Make fd equal to half of this difference. Then, still on the line ge, lay off from d the width of tread "3," and then, perpendicular to ge, lay off the wheel-basedimension "2" as shown, thus fixing point c which, practically, may be assumed as the point of contact of the cramped outer wheel and the paving. Actually, of course, it is the point of contact of the straightenedout wheel instead of the cramped wheel. But there's no necessity of "splitting hairs" here. So, with the minimum front-wheel turning radius in your compass, and with center at c cross ge at point g, which latter is the required center from which to swing the arcs of the driveway. Hence, from center g, radius gf, draw in a portion of the circle Y defining the now given inner curve of the drive, but leaving the required point T, where the curve swings into the straightaway, still to be determined. PROBLEM 6 now comes into bearing. The circle Y, or a sufficient portion of it is given. The lot line kl is given. And it is now required to draw the tangent mn perpendicular to kl. Note that the same reference letters are used in this application as in the general solution given at Diagram "1" of Figure 70. Now you do it. Then draw in the outer

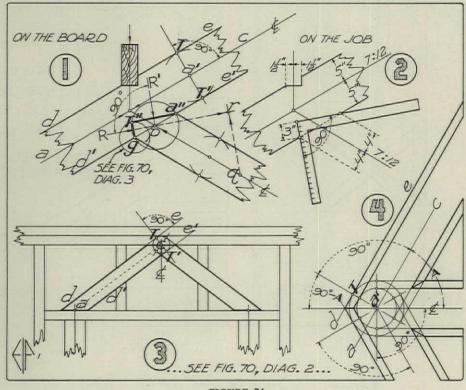


FIGURE 74

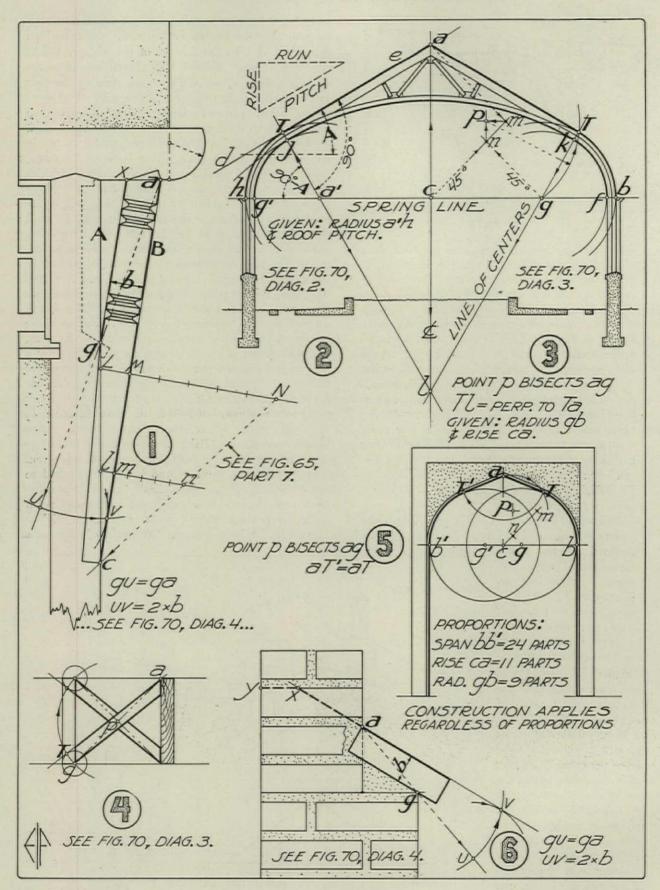


FIGURE 75

line of the driveway, using, as radius, the front-wheel turning radius gc PLUS a foot or more leeway to avoid scratching that far front fender on the contiguous shrubbery or running off into the garden to make the turn. You can see very clearly from this discussion and from this diagram, just why an automobile driveway must be wider on the turns than on the straightaway. The whole car moves as a unit about center g as if rigidly fixed to the radial ge. Hence, the minimum turning radius requires the maximum width of driveway. Now some other mathematician can "figger out" whether, after all, the route shown is the most economical of paving. Maybe there's a longer route that takes less material-who can say? Anyhow, the route shown is the shortest. And if you want to get real economical you can slice off that portion northwest of the dotted line-but 'twould look likepoor economy in this case. Now lay out the lines of the entrance walk, which calls for another application of PROBLEM 6. But in this case make the "turning radius" any length you like!

On the survey of the lot shown in Figure 73, the total length of the front lot line from corner l to corner v was given, and the radius of the curved portion was noted thereon. But neither the center r nor the tangent point k were marked. Both, however, were required in the laying out of the grounds. They were found quickly in the following manner: From about the mid point c', of the arc, the radial, R, was projected in accordance with the manipulation heretofore shown at Figure 71. The given radius was then laid off from c' to r-it being not so great, in this case, as to throw r off the board. From the thusfixed center, r, a line projected perpendicular to the straight portion of the front lot line located k, the required tangent point where the straight part ends and the curve begins. The line sk then marked the limit of the straight portion of the front terrace, as shown. The required arc, st, was then drawn from center r, thus determining the point t where a necessary retaining wall, vt, ended. If the radius, c'r, had not been noted on the survey, then r could have been found by projecting any two radials until they met. And if this radius had been so great as to throw the meeting of the radials off the board—that is, if the center r had been inaccessible—then the tangent point k could readily have been detected by the method given at Diagram "1" of Figure 72, heretofore. And the required curve st could have been drawn optically tangent to a close-together consecutive series of arcs centered on the given arc kv and of radius ks-or it could have been drawn through a similar series of definite points found by marking off the distance ks, with the compass, on a number of radials of which ks would be the first.

PROBLEM 7: To draw a tangent to a circle parallel with a given line.

Solution: (Diagram "2" of Figure 70) The given circle is Y. The given line is ac. And the required tangent is de. Cross Y at T with a line from a' perpendicular to ac. Through T, which is the tangent point required, project the required

tangent, de, paralleling ac. Note that two solutions are possible: that is, the tangent d'e' would also meet the requirement stated in the general problem.

The above problem is one of daily occurrence in the drafting-room. Its practical applications are many and varied: some immediately obvious, others latent. One useful application has heretofore been shown in Part 3, in the "layout detail" of the roof lines of Figure 17—this Figure also indicating the instrumental manipulation to produce said tangent. given herewith at Figure 74, Diagrams "1," "3" and "4," and another at Diagram "2" of Figure 75. All applications carry the same reference letters as used in the general solution at Diagram "2" of Figure 70. Note that, in the particular cases shown in Figure 74, the given circle to which the required tangents are drawn is purely constructional: it is an expedient utilized to avoid time-wasting duplication or repetition of scale-measurement each side of a given or imaginary center line. This is particularly striking in Diagram "4," where this simple recourse has reduced twelve otherwise necessary measurements to two: these two being the radii of the two circles used to establish the required equality of measurement. In Diagram "2" of Figure 75, however, the given circle is neither latent nor imaginary—it is the actual haunch curve of the arched roof, and the required tangent thereto is established in direction either by the given rise and run of the roof or by the given pitch expressed by the angular measurement A.

It is now evident that the general PROBLEMS, 6 and 7, are particular cases of the still more general problem of drawing a tangent to a circle at any given angle or, which is the same thing, in any given direction. In general, then, to locate the tangent point, simply project a line from the center of the circle to cross the circumference in a direction perpendicular to the required direction of the tangent. Then, through the point of crossing, or possibly through the two points of crossing, draw the one or two tangents as the given conditions may require. In Diagram "2" of Figure 70, for instance, if the given angular direction of the required tangent were A, then the direction perpendicular to this, which establishes the radial angle that locates T or T', is 90 degrees minus A, or the complement of the given angle. Now let's see what we can do about it if the center of the circle issomewhere else instead of on the board:-

PROBLEM 8: To draw a tangent to a circular arc parallel with a given line: the center being IN-ACCESSIBLE.

Solution 1: (Diagram "6" of Figure 70) The given arc is Y. The given line is ab. And the required tangent is fg. Fix any two chord points, c and d, in a line paralleling ab. Then the perpendicular bisector of cd will cross Y at the required tangent point T. Hence, through T, draw the required tangent, fg, parallel with ab. As in PROBLEMS 6 and 7, this is a particular solution of the general problem of drawing a tangent at any given angle under the stated con-

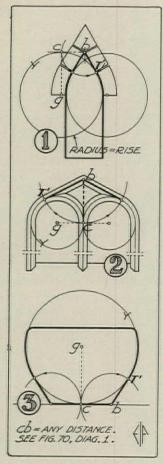


FIGURE 76

ditions: this angle being designated as A in the Diagrams. Now then, it might be that the given arc is so slight of curvature as to render the chord points, c and d, indefinite or obscure. Well, you can still draw that required tangent without knowing the arc center and without utilizing the chord, as follows:

Solution 2: (Diagram "7" of Figure 70) First draw any two radials, cd and hj. Fix, by indenting, any point k on either radial. From k project a line perpendicular to ab, or perpendicular to the direction of the required tangent, to cross ab at l, or to there cross any other line having the given direction of the re-

quired tangent. Project k to m, in a direction paralleling cd. Project m to n, in a direction paralleling ok. Project k to the point p, in a direction paralleling nl. And from point p, project pq perpendicular to ab. Then pq will be a third radial, and it will cross Y, the given arc, at the required tangent point T. Hence, through T, draw the tangent required. In this solution, if the line nl becomes too short to accurately establish therefrom the parallel kp, then just multiply el and em each the same number of times along the given line ab and in the directions el and em, respectively. Still call the thus-moved points l and m, and proceed as before. The point n will then move accommodatingly toward k: the line nl thus becoming longer but yet maintaining its original direction. Finally, take particular note of the fact that point k is not an intersection point, but a point from which the lines of projection originate-hence requires no "detection." Part 7, heretofore, has covered this distinction fully. Now I'll show you another interesting onebased on the principle of two-equal-tangentsfrom-one-given-point heretofore used in PROB-LEM 5. But this time the center is either on or off the board-it matters not which:-

PROBLEM 9: To draw a tangent to a circle or circular arc from any given point on another tangent.

Solution: (Diagram "1" of Figure 70) The given circle is Y. The one given tangent is bc.

And bT' is the other required tangent. First detect the tangent point c of the given tangent, unless it is already definitely fixed. Then, from the given point b as a center, radius bc, cross the circle at the other required tangent point T' as shown. Then bT' is the required second tangent, and it is exactly the same length as the given one bc. This valuable property of the circle has been utilized in a somewhat unusual manner in the three applications shown in Figure 76, which Figure carries the reference letters used in the general solution. Also, the process of tangent-point detection heretofore divulged at Diagram "1" of Figure 72 is a utilization of the same principle. The more usual and oft-occurring application of this basic property is, however, in the determination of arc centers when any two tangents are known or given. An instance of this is shown at Diagram "2" of Figure 77. In this instance, which is typical of many others met with in the drafting-room, the general problem becomes reversed. Here, the lines ab, cd and gh are given and the tangent arcs are requiredhence, their centers. In the case shown, the points e and j will have been fixed by the conditions of the case. Hence: to locate the other points of tangency, T and T', on ab, merely revolve the given points from one given tangent to the other, using the intersection point of each pair of tangents as a center. Then through each pair of tangent points, project lines perpendicular to the respective tangents. These projected lines will be radials, or normals, and will therefore cross at the required centers, 1 and 2, as shown. The most common use of this reversed process is in connection with stair rail ramps and easements. This has been illustrated heretofore in Part 1 at Diagram "A" of Figure 4, and again in Part 6 at Diagram "2" of Figure 52. The locating of the center for the roof sweep of Figure 50, Part 5, is also a particular application of the same geometry. Finally, suppose you want to "round off" any angle by an arc passing through a fixed or given point on the bisector of the angle. You can do it real suddenly by utilizing what you now know about this pair of accommodating tangents. But I've shown you this one too-Diagram "4" of Figure 77.

PROBLEM 10: To draw a tangent to a circle from a given point outside the circumference.

Solution 1: (Diagram "3" of Figure 70)
The given circle is Y. The given point is a.
And the required tangent is aT. Bisect ag at point p, and from this point as a center, radius pg or pa, cross Y at T or T'. Either one of these points might be the tangent point required, since, as you now know, from any point outside a circle two tangents may be drawn. Hence, draw the required tangent either through a and T, or through a and T', as the particular solution demands or makes possible. Two general methods of bisecting ag are shown: the straight

Euclidean and the straight manipulative. When using the Euclidean method, endeavor to make the radius of the twin arcs approximate in length the side of a square of which the line to be bisected is the diagonal. The arcs will then cross at about a right angle, thus yielding definite points, q and r, through which, or between which, the extraneous bisector is projected. In the manipulative method (heretofore illustrated in Part 7 at Figure 62) only one point, say q, is required, and this is fixed by straight lines crossing at an exact right angle. Another general method of bisection is to consider the line to be bisected, ag for example, as the diagonal of a parallelogram or rectangle, and then cross this diagonal with the other constructed one. This method has been utilized heretofore in Part 1 at Diagram "B" of Figure 4, and is also shown in Part 6 at Diagram "1" of Figure 52.

Solution 2: (Diagram "4" of Figure 70) This original method obviates bisection of ag and, moreover, yields a definite tangent line twice the length of that obtained in Solution 1, above. It is often highly convenient and expedient—especially in constructions where the circle Y becomes purely imaginary and what is actually needed is an extensive tangent to this imaginary circle; as will presently be exemplified. Meanwhile, work out the general solution as follows:

From g as a center, radius ga, swing the arc vuw and then project a to u through g. Then, from u as a center, and radius equal to the diameter of Y— which is here ts—cross the first arc at v and w. Then, draw av or aw, either of which might be the tangent required. They will come tangent to Y at T and T', respectively, which points, if required, can be detected by crossing the tangents with perpendiculars to same projected from g. Or, if one point is so detected, then the other can be found by revolution about a as a center, as unmistakably indicated in the Diagram.

At Diagram "1" of Figure 74, a practical application of the first solution of PROBLEM 10 is given. In designing the joints of timber trusses, or the joints of any structural framing wherein one member is let into another, the angle in the notch so formed should

always be a right angle in order to avoid secondary or "moment" stresses at the framed joints. Moreover, this makes an easy and practical joint for the carpenter to lay out "on the job" with the steel square—which latter seemingly overlooked fact is here purposely and clearly shown at Diagram "2" of this Figure. To detail this type of joint "on the board," it becomes necessary to con-

struct a right-angled triangle, a"gT" of Diagram "1," upon the given hypotenuse a"g, and with the length of one side, gT'', being known. The latter dimension is fixed-or assumed and then checked-by consideration of the stress to be transmitted and by the bearing value of the timber obliquely to the grain. Now then, if a circle of radius gT'' be described about the point g, a tangent to this circle drawn from the point a", outside the circle, will be the required other side of the notch or indent, and the angle thereby formed between the two sides will, of necessity, be a right angle. Also, the distance a"g is already bisected at point p by the center lines of the joining members. Hence, the required tangent point, T'', can quickly be located, since it lies at the intersection of the two imaginary circles shown. Now let's check this joint for the bearing stresses developed, which stresses, as the Diagram shows, now meet at the point ϕ , as they should meet—that is, they meet on the stress line of the strut which, in this case, is the center line of said strut. At any scale, make pq measure the compressive stress in the strut. From the point p, project prperpendicular to gT'', and from q, project qr perpendicular to a"T": they meet at r. Then pr equals the reaction R, and rq equals the reaction R', measured to the same scale as pq.

Diagram "3," "4," and "5" of Figure 75, show further applications of the first solution of PROB-LEM 10—the reference letters of the general solution being again repeated so as to require no further explanation except, perhaps, the novel method of bisecting the imaginary line ag of Diagrams "3" and "5." This is a fast and accurate method that applies to all cases where gca forms, or is made to form, a right angle of which one leg is horizontal. This is the way it's done: Project a 45-degree line from the right-angle vertex c. Cross this with 45-degree lines from a and g, at m and n. Then cross a vertical from n with a horizontal from m, which crossing fixes point p, the mid-point of the imaginary straight line ag. sounds like a lot of work. But it's all done "in a jiffy" with the 45-degree triangle and the T-square. Try it. This same method of bisection has, as already noted, been used in the layout of the Saracenic arch given at Diagram "5." A Diagram "4," however, the given conditions of the case make the crossing of

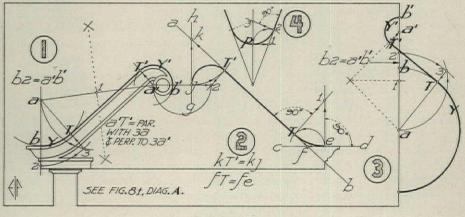


FIGURE 77

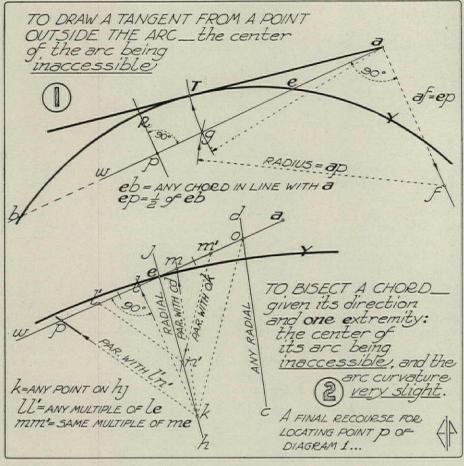


FIGURE 78

the diagonals an easy and direct method of locating point p, that is, of bisecting ag.

Two especially apt applications of the second solution of PROBLEM 10 are depicted at Diagrams "1" and "6" of Figure 75. In Diagram "1" the points a and g are fixed by the conditions of the case, and the thickness, b, of the required brace is given or known. Point c is then required. It is quickly found by the method set forth at Diagram "4" of Figure 70—the same reference letters being retained in the applied problem. Note, however, that in this application the circle about center g need not be drawn at all, for the given thickness b, of the brace, is the radius of this imaginary circle, and this thickness, multiplied by two, is the radius that is actually used to establish the required long tangent ac. The line gx is then drawn parallel with this tangent. All of which is clearly indicated in the diagram.

In Diagram "6" of Figure 75, it is desired to use whole brick for the sloping weathering of the offset base course there shown. Moreover, the determination of the slope of this weathering must be accurate, since this slope also establishes the coincident slope of the window sills and, consequently, fixes the required point x for detailing these sills. A structural unit, then, of a given thickness b, must be fitted in between the given points a and g occurring on its opposite sides—which condition is identical with the situation confronting the draftsman in detailing the brace of Dia-

gram "1." Hence, the second solution of PROB-LEM 10 applies here also: the same reference letters being again used. Take especial note, however, of the exceedingly few lines required in the actual working-out of this general problem in the particular cases shown. It is faster, even, than the otherwise commendable and always possible subterfuge of cutting the brick or other member out of paper and fitting it bodily between the given points. Take especial note, also, of the fact that the second solution of PROBLEM 10 is used, in the two typical cases shown, instead of the first solution, because the second yields the long line av which, in the two instances shown, is quite necessary to assure of its accurate and requisite prolongation. Finally, at Diagram "1" of Figure 75, after the long required line av has thus been established, it is

there suggested that its intersection at c with the vertical wall line be clearly defined by employing one of the simple detective devices heretofore illustrated in Part 7, Figure 65. If this suggestion is followed, and if the mill follows your full-size detail that was made by following my suggestion, that brace will fit when it comes on the job. Inaccurate and careless "eye ball" methods of detailing make just as many "wood butchers" as dull chisels and saws! Now it's time for another one:—

PROBLEM 11: To draw a tangent to a circular arc from a point outside the arc: the center being INACCESSIBLE.

Solution: (Diagram "1" of Figure 78) The given arc is Y. The given point is a. And the required tangent is aT. Anywhere beyond the vicinity of the required tangent point T, draw a radial R. From a project a line perpendicular to R, crossing the latter at point p. Now, strange to relate, the point p bisects the chord of which eis one known end. Moreover, the line aT, which is the tangent we are going to find, is the "mean proportional" between ae and ab. And this will be so regardless of the length ab. I'm not proving these statements: I'm admitting them. Hence: make af, perpendicular to ap, the same distance as ep. And from f as a center, radius ap, cross ap at g. Then, from a as a center, revolve g to T on Y. Then T is the exact point of tangency of

the required tangent aT—which latter is not such a mean proportional after all! On the contrary, it has proven unhesitatingly obliging. Now then, if the crossing at point e becomes too acute for accurate definition of said point, then merely move the radial R farther from a-possibly to the end of the arc-and proceed exactly as before. Or, if the radial gets so far removed from a as to make impracticable the locating of point p by a perpendicular from a; then forget the radial altogether and, instead, project a line directly from a entirely across the arc, thus forming a full chord eb which, bisected, will also yield point p. But, if the chord points are then obscure, forsake all of the above methods of locating point p, and first fix the point e directly on the arc anywhere you choose. Indent this point and then, from a, and through the definitely assumed point e, draw aw. Then, by the following solution, find point p by bisecting the chord of which ew is now only a portion:-

PROBLEM 12: To bisect a chord of a circular arc: one end of the chord being UNAVAILABLE; the arc center being INACCESSIBLE; and the curvature of the arc being VERY SLIGHT. This sounds like a proposition to determine the unknowable: a small piece of a huge circle and the incomplete chord are all we have to work on. But it's easy. The solution is based on the identical principle that was used in the second solution of PROBLEM 8; hence, bears the same reference letters.

Solution: (Diagram "2" of Figure 78) The given arc is Y. The direction of the chord is aw, and its one definite extremity is e. And the required bisection-point is point p. And this is how it's found: Project a radial, hj, through e. Project any other radial, cd, crossing aw at o. Fix any point, k, on hj. Project k to l, in a direction perpendicular to aw. Project k to m, in a direction paralleling cd. From m, in the direction em, space off me a sufficient number of times to result in em' being about one such spacing less than eo. From l, in the direction el, space off le the same number of times that me was repeated, thus fixing l'. Project m' to n', in a direction paralleling ok. Project k, in a direction paralleling n'l', to the required bisection-point p. Now, if you like, you can go ahead and perform the other ceremonies required in PROBLEM 11 for drawing a tangent to this arc from the given point a, since the distances ep and ap required in that solution are now known. Then compare this construction—or rather manipulation—with that already given at Diagram "7" of Figure 70, and you'll discover that they are identical in principle. You merely moved the inaccessible center of that arc up to point k, then, by similar triangles, found the point p through which a radial would pass in a direction perpendicular to the given line aw or ab. If you are mathematically inclined, you can easily prove it. If you're not inclined to prove it-you can use it. And I shall show you more uses of this valuable principle as the occasions arise. No—you don't have to remember all this—just remember where you can find it when you want it. Here's an easier one:—

PROBLEM 13: To detect the tangent point of two given circles.

Solution: (Diagram "5" of Figure 70) The two given circles might be either the pair Y and Y', one within the other, or the pair Y and Y'', one outside the other. Makes no difference. Merely cross either tangential pair with a line projected through, or connecting, their centers, as shown. The point of crossing, T or T', as the case may appear, is the required tangent point. Which is easy enough. Coupled with what you have already learned in Part 7 apropos perpendicular bisectors, this equips you to experiment diversifully and profitably with the "building up" of all manner of decorative curves composed of circular arcs of which the one shown in Figure 79 is but a single example.

You have, say, roughed in freehand the S-curve of the sawed corbel detailed in said Figure 79. Nothing but your own free will has fixed the start and finish of this curve. The only requirement of this kind is that the curve shall start at point a and finish somewhere in the vicinity of point b, or vice versa. All right, you have it "sketched out" in a more or less

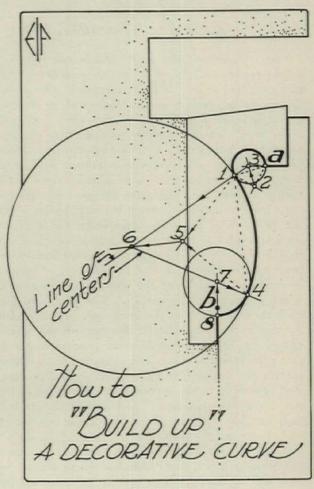


FIGURE 79

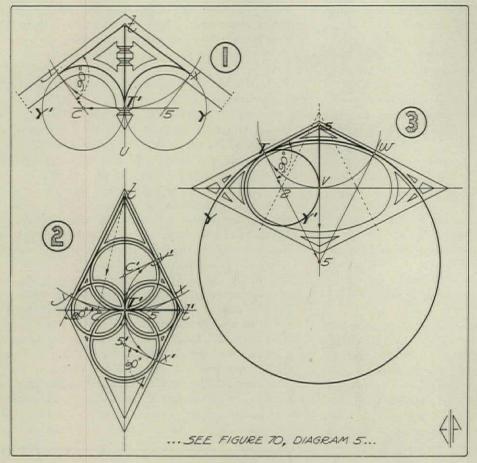


FIGURE 80

satisfactory manner: that is, it "looks about right"satisfies your eye. Now, how can you define this curve, or "ink it in," with the compass? Obviously, if this, or any other smooth compound or reverse curve, is to be made up of circular arcs, these arcs must "flow" into one another-that is, they must be tangentially coalescent. This is how it's done: Place your pencil, or any other instrument that will act as a pivot, at point a. Slide a straightedge into touch with this pivot: the straightedge covering the start of the curve. Now slowly swing the straightedge about the pivot-thus gradually uncovering the curveuntil that part of the curve of which the revolving straightedge is the chord appears to deviate from what your eye tells you is a true circular arc. Stop the straightedge at this point (or move it back to same), which is point 1 of Figure 79. The imaginary line 1a is then the chord of this initial arc. Hence, point 3, where the perpendicular bisector of this chord crosses a radial from a, will be the required center of that portion of the curve from a around to 1. Next revolve the straightedge about point 1 until its edge, 1-4, appears to be the maximum possible chord of the next apparently true arc. The center of this arc will then be point 6 where the perpendicular bisector of 1-4 crosses the projected line of centers 3-1. Don't you see? Point 1 is the tangent point of two tangent circles; hence, as PROBLEM 13 shows, lies on their line of centers. You have merely reversed the process, that's all, and drawn the line of centers 3-6

by first establishing the tangent point 1. You could continue this process of tangent-point-fixation and chord-bisection "from here on out"-but, in this particular case the next arc appears to finish this particular curve. Wherefore, the remaining required center, point 7, lies at the crossing of the line of centers 6-4 and a radial from b, as shown. So, with compass at center 7, you swing the round-up and find that you missed point b, of the "sketched" curve, by the slight distance 8b. In other words, instead of finishing at b, your "built up" curve ends at 8which is of no consequence whatsoever, since your own free will may have put the ending there in the beginning. Someone-Hogarth, I believe-defined a reverse curve as "a line of beauty." Some of 'em are. But someone-Hogarth, I believe-hadn't

seen 'em all: skirts were longer in those days! Diagrams "2" and "3" of Figure 75 contain another application of the reversal of PROBLEM 13: that is, the center l, of the crown arc for the lower chord of the roof truss, is found by projecting a "line of centers" from j or k, and through a' or g. This projected line will cross the center-line radial at the required crown center l, and the thus-found crown radius, lj or lk, fixes the height of the crown above the spring line. Which is certainly quite different from, and much more simple than, the problem of drawing a compound curve-say of a five-centered arch-between absolutely fixed points both at the spring and the crown. You'll have to acquire a little more "geometry" before tackling the latter problem

-which'll come along later.

Now, reverting to Diagram "5" of Figure 70, take cognizance of the fact that the common tangent drawn through the point of tangency of either pair of circles is perpendicular to their line of centers. Also note that from any point on such a tangent-from the point t, for instance, on tT'—two other equal tangents may be drawn, one to each of the two circles. In other words, if, from any point t, on tT' (or from any point s, on sT) a circle be drawn with a radius equal to the length of the tangent occurring between the given point and the common point of tangency, then this circle will pass through, and thus fix, the other two points of tangency x and y (or vand w), as indicated. And this will always hold true

irrespective of the diameters of the two tangent circles, and regardless of whether they are tangent externally or internally. Consequently, the three tangents concurring at point t (or point s) will always be equal in length. And the practical application of this fact to geometric design opens up another field of interesting and profitable endeavor. A few of the many possible and usable geometric combinations based on the foregoing principle are suggested in Figure 80. These Diagrams bear the same reference letters as used in Diagram "5" of Figure 70, hence, require no further discussion but will well repay careful study. This applied principle of three-equal-tangents-to-anytwo-tangent-circles often acts as a short-cut to what would otherwise become a problem of angle-bisection to determine the requisite centers for circles inscribed within triangles, parallelograms, etc. In Diagram "2" of Figure 80, however, or in similar cases, the bisector tc of the angle T'ty, should preferably be employed instead of the normal vc, to locate point c, since the bisector crosses the line of centers at a less acute angle than the normal-as the one dotted line of this Diagram indicates.

PROBLEM 14: To draw a tangent common to any two circles.

Discussion: (See Figure 81) When one circle occurs inside the other, and apart from it, a common tangent is, naturally, impossible. When one circle occurs inside the other, and is tangent to it, one common tangent is possible, as indicated at Diagram "1," Figure 81, and as heretofore shown at Diagram "5" of Figure 70: the line rs, in the latter Figure, being the required tangent, drawn through the tangent point, T, of the two circles, Y and Y', and in a direction perpendicular to their line of centers 5-2. When the two circles intersect, as at Diagram "2" of Figure 81, two common tangents are possible. the two circles are tangent externally, as at Diagram "3" of Figure 81, three common tangents are possible, one of which corresponds to the tangent tu of Diagram "5," Figure 70—being the one drawn through the common point of tangency of the two circles, and perpendicular to their line of centers. When the circles are apart externally, as at Diagram "4" of Figure 81, then four common tangents are possible. The given conditions of the particular case to which the general problem applies will always determine which of the possible tangents is, or are, required.

Diagrams "A" and "B," of Figure 81, typify the general solution for the cases not heretofore presented and explained. The process is as follows:

Solution: (Figure 81) The two given circles are Y and Y', with centers at a and a', respectively. They might be apart externally, tangent ex-

ternally, or intersecting. First bisect aa' at 1. Make b2 equal a'b', which latter is the radius of the smaller circle. From center a, radius a2, and from 1 as a center, radius 1a, cross arcs at 3. Then one required tangent point is T, collinear with 3a. And a line projected from a', either parallel with 3a or perpendicular to 3a', will cross the other circle at T', which latter is the other tangent point required. The required tangent, then, is TT', and you will discover that it is parallel with 3a' as well as perpendicular to 3a. When one tangent, TT', is found, and the other one, tt', is also required, then the points of the latter can quickly be located by the simple processes of revolution clearly indicated in this Figure. At Diagram "A," the point c, where the two tangents cross, is termed the internal center of similitude of the two circles. And at Diagram "B," if the two tangents were prolonged until they, too, crossed, that point would be the external center of similitude. These points possess properties that render them an invaluable aid in what would often otherwise become an exceedingly involved geometric solution. They will be utilized when the occasion demands. In fact one such occasion has already arisen: notably, in the location of the centers for the Moorish arch shown at Diagram "3" of Figure 61, Part 7.

Figure 77, (Diagrams "1" and "3") herewith, shows how exceedingly simple the practical application of PROBLEM 14 is to particular cases. In the detail of the Colonial pediment (the half shown at Diagram "1") the "design" is first tentatively sketched in freehand. The centers a and a' are then determined for the curved portions, and these curves then drawn. The problem of drawing the raking tangent, TT', then becomes identical with the one shown at Diagram "A" of Figure 81, the same reference letters being used both in the general solution and in the practical application of same. When, however, the pitch of the roof is a controlling condition, then the problem becomes reversed as shown at Diagram "2" of Figure 77—the same being heretofore discussed under the heading of PROBLEM 9. Diagram "3," of Figure 77, is shown as another common instance where a straight line forms the intermediate or connecting part of a reverse curve. It, also, is a direct application of the construction given at Diagram "A" of Figure 81.

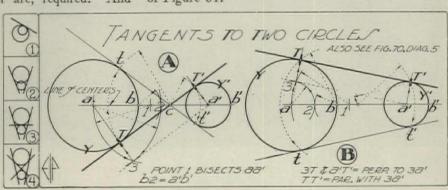
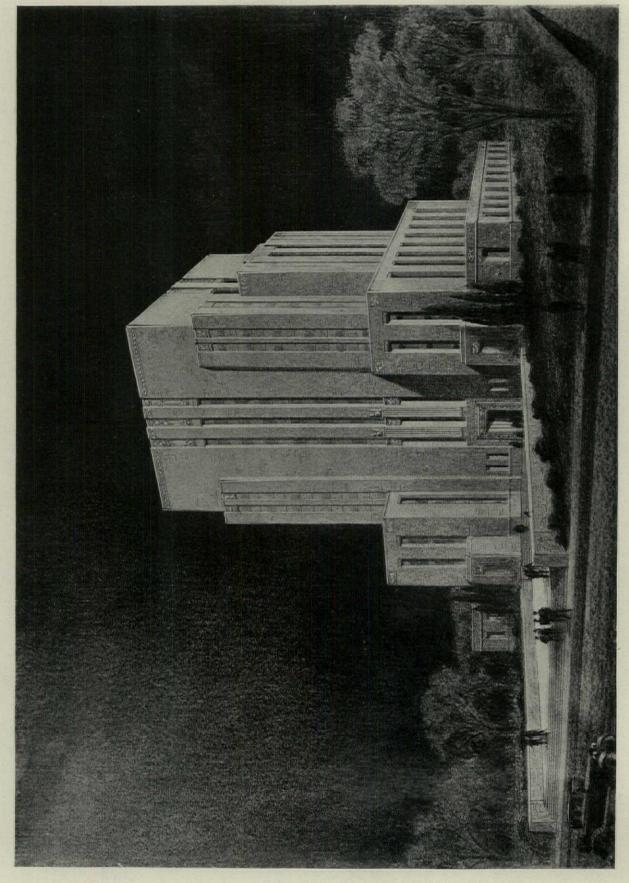
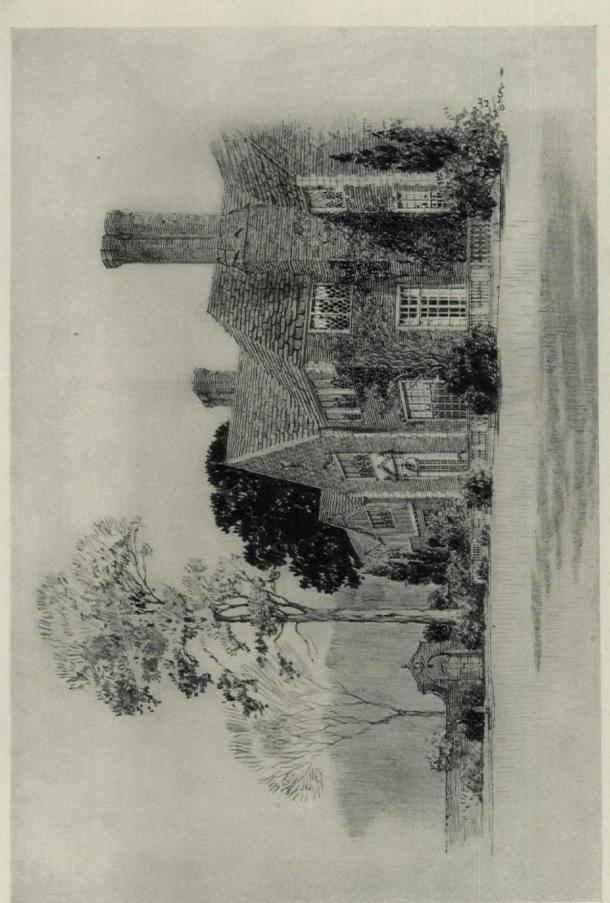


FIGURE 81



FROM A PENCIL RENDERING BY GILBERT P. HALL RACINE COUNTY COURT HOUSE—HOLABIRD AND ROOT, ARCHITECTS



PENCIL RENDERING BY LOUIS KURTZ-RESIDENCE FOR R. R. BROWNING, ESQ., AT NEW ROCHELLE, NEW YORK OFFICE OF W. STANWOOD PHILLIPS, ARCHITECTS

PENCIL POINTS FOR MARCH, 1930 VOLUME XI NUMBER 3

Of particular interest in this drawing by Mr. Kurtz is the treatment of the trees and shrubbery about the house. The rendering was made on tracing paper.



"VICTORY," FIGURE FOR WAR MEMORIAL AT CLIFTON, NEW JERSEY GAETANO CECERE, SCULPTOR



PENCIL POINTS FOR MARCH, 1930
VOLUME XI NUMBER 3

This war memorial, of which Gaetano Cecere is designer and sculptor and William E. Brown supervising architect, was unveiled last Armistice Day at Clifton, New Jersey. The bronze urn on top of the monument throws a shaft of light at night. The figure of Victory is of bronze and measures $6\frac{1}{2}$ high.



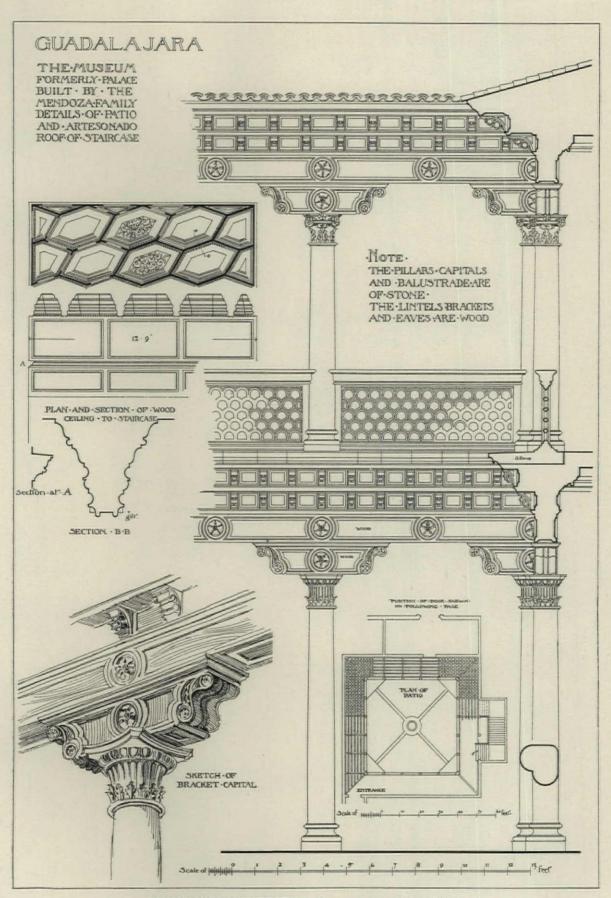
SCULPTURED WOOD PANEL BY IVAN MESTROVIC "THE ANNUNCIATION"

PENCIL POINTS FOR MARCH, 1930

VOLUME XI

NUMBER 3

This panel was shown at the Fifty-sixth Street Galleries, New York, in a recent exhibition of the sculptor's work. It is one of a pair of panels, the other being "Jesus and the Samaritan Woman." The original of this, a rich red brown in color, measures approximately 71" x 46".



RENAISSANCE ARCHITECTURE AND ORNAMENT IN SPAIN
A PLATE FROM THE WORK BY ANDREW N. PRENTICE

PENCIL POINTS FOR MARCH, 1930 VOLUME XI NUMBER 3

"The patio and staircase of this palace are in a better state of preservation than the entrance doorway given on Plate XXXIX [PENCIL POINTS, page 114, February, 1930], and this portion of the building is used as a museum and library. The effect of the overhanging wooden eaves is very pleasing. The pillars and fretwork balustrade are of stone, resting on strong wooden lintels. The wooden brackets placed on the tops of the capitals are of somewhat the same form as the Alcala examples. The deeply coffered ceiling of the staircase, which is in dark wood, is very effective, owing to the ornament in the sunk panels being gilded."

A. N. PRENTICE.

THE STORY OF AN ARCHITECT

AN ANONYMOUS ARTICLE, REPRINTED BY PERMISSION FROM THE CENTURY MAGAZINE FOR DECEMBER, 1917

Copyright 1917 by The Century Company

Editor's Note:—We are republishing this narrative in the belief that it might well serve as a model for other stories which could be written by other architects for magazines of lay circulation to the advantage of the entire profession. It demonstrates that the career of an architect, simply and clearly set down, is likely to provide a fascinating document of real human interest. We dare say that thousands of readers of "The Century" found this account so thoroughly entertaining that they not only read it through from start to finish, but have remembered it to this day. The important thing about it, considered in terms of the present desirability of educating the layman, is that it helped to establish in the lay mind a better understanding of the architectural profession and of its individual practitioners. We hope that some of our readers may be inspired to emulate the anonymous author of this contribution and that their efforts may meet with success. Each one published in a magazine of general circulation will be another substantial blow struck for the profession of architecture.

WHEN I WAS TEN or eleven years old I was playing by myself on the beach at East Hampton. It was the first summer that my family had spent there, and I had not met many of the boys; so I went down alone to the beach in the pleasant July afternoon and began to build sand castles. I had worked alone for an hour or two, very well contented with my success, building up as well as I could the towers and steep roofs which I remembered from Howard Pyle's drawings in "Prince Otto," when a pleasant-faced young man came along and, sitting down beside me, watched me work. Presently, when he found me in trouble with the structural difficulties connected with the use of wet sand as high retaining walls, he asked me if I would let him help me, and did it in so quiet and tactful a way that instead of being scared off, I was pleased to have a grown-up play with me. I was more than pleased when I found that he was a real master of the art of building sand castles. Towers, strengthened by supporting sticks of wood driven deep into the sand, grew to unexpected heights; roofs, inlaid with seaweed, looked like roofs instead of like shapeless mounds of sand; deep-recessed windows in unexpected places afforded wonderful points of vantage from which the defenders of the castle could repel their assailants. Finally a castle was completed the like of which I had never seen before, and which still remains in my memory the most wonderful architectural creation that I have ever seen.

I do not remember if it was that afternoon or during one of the other afternoons when we built castles together that he told me he was an architect; told me what architecture was, and asked me why I, too, did not become an architect. It was the first time I had even heard of the profession, for it was little known and less regarded in the days of my childhood.

I think it was fortunate for me that my first acquaintance in what has since become my profession was a man so earnest, kindly, capable, and enthusiastic as the young fellow who used to walk the three miles from his house at Wainscott to play with me. His interest in me and his apparent desire to have me become an architect did not cease with building sand castles. For a number of years after that he used to

send me from time to time copies of *The American Architect* containing illustrations of drawings he had made or of houses he had built. He died when he was a man of only thirty and I was about fourteen. It has always been a regret to me that he could not have lived to fulfill the promise which his early work showed, and I was very glad to learn a year or two ago that one of the three little girls who were his only children had in her turn started to work as an architectural draftsman in Philadelphia.

It was not long after I made my first friend in the profession that my father built a new house, and employed a firm at that time very well known in New York to make the drawings for him. They, too, were charming, cultivated men, and with the senior member of that firm I have ever since continued the very pleasant acquaintance which was begun when as a little boy I showed him the drawings which my architect had sent me. Perhaps if my first two friends in the profession had not been men of such admirable personal character and of such earnest enthusiasm, I would not have been further interested in architecture; but I think that from that first day on the beach at East Hampton I was determined to become an architect myself.

I never had any real architectural training. My family were just as ignorant about what an architect should learn as were most other families; so when it was time for me to go to college I decided upon one that I liked rather than upon one that offered a good architectural course. As by that time I had learned that architecture is often considered one of the fine arts, I chose the course which led to the degree of bachelor of arts.

I suppose I was about as ignorant of architecture as any human being could be, but in my junior year I began to elect all the courses that seemed to me to have any bearing on architecture, as the history of art, the history of painting, and things like that.

I do not believe that every course except strictly technical courses are a waste of time, but I do think that one might be "liberally educated" and still learn something of practical benefit. The only course which has been of constant practical use to me was one

in descriptive geometry, which at the time seemed to me from its name to be so far removed from architecture that I loafed through both terms, flunked both examinations, and required a number of extra examinations before I finally passed. Yet all architectural drawing is applied descriptive geometry; and though my instructors knew that I intended to become an architect, not one of them had common sense enough to inform me of this very vital fact.

After my graduation from college, I had expected to go to the Ecole des Beaux-Arts, the great French school of architecture, and there really begin to study for my profession. I thought the school was open to anybody who would apply, and offered a three-years' course leading to a degree. Fortunately for me, although it did not seem so at the time, my father's business went to pieces during my senior year, and I had to go out and get a job. One of my father's friends promised me a position as a clerk in his brokerage house, and my idea was that I would work a year or two, studying at night, and save up money enough to go to the Beaux-Arts, where perhaps I would have money enough to take the course, helping myself out by work which I would pick up in Paris.

I was deflected from this laudable and well-intentioned scheme by the offer of a fellowship from my university in the department of fine arts. I can never be sufficiently grateful to the kindly and far-sighted professor who recommended me for this fellowship, because I could not have entered the Beaux-Arts or supported myself if I had entered.

Very few people outside the men who have actually been there understand that the Ecole des Beaux-Arts admits only twenty foreigners a year, and these only after the strictest sort of technical competitive examination; and as the applicants for these twenty positions usually run well up into the hundreds, I should have stood no chance to get into the school.

The requirements for a fellowship at my university were that a man must have averaged "first group" for his entire course, and should not have fallen below "second group" in any subject during his entire college course. Under the rules I was ineligible. My average standing was "third group," just above the middle of the class, and I had been conditioned in a number of courses; but my friend the professor told me that his recommendation was based on my aptitude in his special department, and that the faculty would abide by his decision. I therefore worked only for the summer in the broker's office, and went back to college in the autumn as fellow of fine arts.

This was my best year at college. The required work for a fellow was very little. My class had gone, and I had few friends left in college, so I spent the year in desultory reading on all sorts of subjects allied with architecture, in working as I pleased, and in constant and close companionship with one of the most admirable men and wisest teachers in America. He was good for me in every way. His instruction was never ex cathedra, always suggestive, and he very frequently had me to dine at his house, talking all through dinner

and through the evenings about subjects in which he desired to interest me. It was personal education of the finest sort; one learns much more in that way than can ever be learned in the classroom.

At the conclusion of this year my real work began. My professor furnished me with letters of introduction to four or five of the best-known architects then practicing in New York, and after trying two or three I secured a position with one of them at a salary of eight dollars a week.

The man I had roomed with in college was studying law, and we arranged to room together through the winter, paying three dollars and a half apiece for our room, which left me the magnificent sum of four dollars and a half for food, clothes, car-fare, entertainment, and other expenses; for by that time I was thrown absolutely on my own resources.

I reported for work with a full architectural equipment of T-square, triangles, drawing-instruments, and pencils, the hardest I could find, a mistake characteristic of the beginner, since most offices supply everything except drawing-instruments, and the architect uses no hard pencils, but those which run from ordinary writing pencils to the softest pencils which can be made. The drafting-room in which I began my architectural career occupied most of the top floor of an old loft building, a great, bare, barren place, with drawing-tables and chests of drawers to hold the drawings scattered all through it, and with a man at almost every table. Electric lights suspended by long cords from the ceiling, tied up with string so as to shed light on particular spaces of each drawing-board, cluttered up the room. The floor was of bare cement, and about half covered with scraps of tracingpaper and cigarette-butts and pencil-shavings. The men were in shirt-sleeves or in dirty working blouses, for it was hot, the hottest week in the hottest summer we have ever had. It was a most unprepossessing place for any one to work. The men did not look bright or attractive, and the room was ugly beyond description.

Nor was my first office experience in other ways a satisfactory one. The office was big, the head of the firm was an old man who had lost that intimate touch with his employees which is an essential to success, the office itself was full of dissension and intrigue, the head draftsman had no respect for his employer, and very often I found myself wondering if those were the inevitable accompaniments of every business office or if they were conditions peculiar to the offices of architects. The head draftsman was a middle-aged man of great ability who had twice begun independent practice, and twice had failed to establish himself because of a reputed fondness for drink; and although I cannot recall any occasion when he appeared in the office even touched by liquor, the rumor of his weakness prevented us from properly respecting him. The head of the firm-the "boss," as he is always called in an architect's office-knew of his weakness as well as anybody else, and when the designs for a building were completed, he would turn over to one of the younger men the care of the working drawings and the execution

of the work. This was greatly resented by the head draftsman, and the office took sides, some with the head draftsman, and some with the men who were actually in charge of work. The differences became so bitter that half the draftsmen were not on speaking terms with the rest. I was too insignificant to be counted on either side, and found even in this disorganized and unhappy office, what I have always found in every office since, that the draftsmen were more than willing to help the beginner, to encourage him, to teach him, to do his work for him, and to cover up his mistakes. With such help one must learn something.

I never shall forget the first piece of independent design with which I was intrusted-a railing and gate to divide the private from the public office in some business concern. I suppose I worked on it for about two solid days, assisted and encouraged as far as I was capable of receiving assistance by the men at the neighboring tables. When finally the head draftsman came around to look at my effort, I was a very proud person; but when, after looking at the drawings for a minute or two, he started to make some criticism, and, unable to control himself, began to laugh so hard that everybody else came around to see what he was laughing at, I was about as disappointed as anybody ever was in the world. The head draftsman was not only a great artist, but a big man. He did not take the job away from me, as he should have done; he told me where it was wrong and why it was wrong, apologized for laughing at it, and gave me in these few minutes my first toehold in comprehension of architectural design. It was then that I began to learn.

I suppose this was about four months after I entered the office; four months later I was so convinced of my increase in knowledge that I thought I ought to have a corresponding increase in wages. I am now perfectly sure that there wasn't one week in which I had earned the eight dollars that were paid me, and, as a matter of fact, I think I had probably been a loss, because of the diversion of other men's time to help me, and in a smaller office I never would have been kept on at all. I finally got up my nerve to ask for a raise, and when I was told that investigation proved that I wasn't worth any more I made up my mind to change offices.

At that time a Boston architect who had achieved considerable prominence had just moved his office to New York. He was one of the younger men, much talked about by the architectural draftsmen, and it was to him that I decided to apply. About a year before I had got a Boston girl whom I knew pretty well to supply me with a letter to him; but by the time I had been working eight months I realized that probably the Boston girl wasn't the best judge of my knowledge and ability and that a letter of introduction from her would be a detriment rather than a help. I therefore went over to his office without the letter. I was met at the door by a moon-faced office boy-Wallace, the Untamable Liar, as I afterward knew him. He told me that Mr. Murray was "not taking on any draftsmen"; I could leave my name and telephone number, but I couldn't see Mr. Murray. So it looked to me as if my chances in that office were very slim indeed. The next night, when I got home, however, I received a telephone message, asking me if I could come to work at once, at the princely salary of fifteen dollars, which was about ten dollars more than I could earn.

The new office was as different from the old as can well be imagined. Mr. Murray was in the draftingroom at least half of every day, an inspiration in himself; and I don't suppose that there has ever been a nicer, kindlier, or more capable lot of draftsmen gathered together in one place. There wasn't a man of the lot who has not since made good in independent practice, and there wasn't a man in the lot who did not believe in the ability of his employer or who was not most anxious to make good. Everybody was hardworking, earnest, and enthusiastic; there was no timeclock; the men appeared to come and go pretty much at will, and yet I think there wasn't one of them who did not spend at least his full forty hours a week in the office, and most of them habitually put in half an hour or so more every day. Every one of them was kind to me when I first came in; curious about me, as to how much I knew, as to how I got into the office, but genuinely friendly, and anxious to have me please them and the boss.

It is upon the drafting-room that in the end the success of every architect depends. He may be able to get work and he himself may be a man of ability; but no one can turn out anything like the vast number of drawings required even for a simple job, and the architect must stand or fall as his drafting-room force is capable and sympathetic.

The men in Mr. Murray's office were, as I have said before, of unusually fine quality, most of them college trained, the others taking extension courses in Columbia or working in the system of ateliers which has been built up by the American graduates of the Ecole des Beaux-Arts.

Fifteen dollars a week looked like a good deal to me, but I found that during the first eight months I had not been able to buy any new clothes, and had even gone into debt for small extras at some of the places where I had credit; so that I really did not have much more money to live on than before. My roommate and I continued to live in the same place, although now we stopped eating in the cheap lunchrooms, and acquired the dignity of a real boardingplace, at three dollars and fifty cents a week for breakfast and dinner. The place was literally a cabman's eating-joint, and I suppose the food must have been pretty bad, although I did not then think we were having a hard time, and I do not suppose we were. However, I have never been able to eat scrambled eggs with tomatoes since. We had them for breakfast every morning for a year, the purpose of the tomatoes being obviously to disguise the eggs. Occasionally we used to treat ourselves to a real dinner at some forty-cent table-d'hôte, and I remember that the

first time I went to a popular one on Tenth Street the draftsman who went with me said:

"You don't have to eat so much bread, Mike. They give you lots else."

I am not telling these things so much because they were my own experience as because they were the common experience of virtually all the men with whom I came into contact, and I have never met a happier or a nicer lot of fellows.

I have spoken of the ateliers conducted by the societies of former students of the Beaux-Arts. These are really cooperative schools. One has to be elected, since they are virtually clubs, and all the members of the ateliers contribute equally to the expenses, which include the promise of a salary to an instructor chosen by the members from the graduates of the Beaux-Arts. Though the salary is as a rule more of a promise than a reality, many of the best of our architects, purely from a desire to help the younger men in the profession, are willing to devote two or three nights a week to teaching and criticism. I joined one of these ateliers, and though it has been of great service to me, it was in the offices that I really learned my architecture. There is no instruction so valuable as the actual doing of the work, especially when the boss is himself a capable architect. In the ateliers draftsmen improve their technique, learn how to make colored perspectives and prettily drawn plans, and it is in the ateliers that most draftsmen make the drawings for their first jobs.

I was still in Mr. Murray's office when my first job came to me-the alteration of the city house of a friend of my mother's. Nobody will ever have another job like his first, and my first client got as competent service as any architect ever furnished, because the whole of Mr. Murray's office, including Mr. Murray himself, criticized, advised, and helped in the preparation of the drawings, and Mr. Murray's superintendent and specification-writer prepared the specifications and told me why specifications are written as they are. He was both specification-writer and general superintendent in the office, and had been both a practicing architect and a builder. Of all the men doing that sort of work with whom I have come into contact, I think Pop Jones is the best. He used to come and help me superintend; in fact, all the fellows used to come around to the building and criticize the moldings, and suggest improvements in the details of the trim, and advise as to small changes in the plans, and for all this help and assistance I never was able to pay anybody one cent.

My commission on this first job was six hundred and twenty-five dollars; I promptly put four hundred and eighty-five of it into an engagement-ring, and gave the office a dinner with about half of what was left. The proportion of the proceeds devoted to my personal use wasn't very large, but it certainly was a fine ring.

The time that I spent in Mr. Murray's office was perhaps the most valuable in my whole career. The office was busy; the boss did not believe in putting a man on one job and keeping him there until he died, so the work was varied, always interesting, and instruc-

tive. Of course it was hard for me to keep up. Almost every drawing that I made involved questions which were to me unanswerable, and about which somebody had to tell me. Indeed, this condition lasted for some time after I left that office, for during the first four years that I worked as a draftsman I never had one single thing to do that I had ever done before. Of course, under conditions such as these, I developed rapidly—I had to, or lose my job—and while I had the feeling that I was getting along, I did not know whether I was really making good or whether I wasn't, because the boss had a kind word for everybody, though never hesitating to criticize anybody.

The fact that we were able to come and go as we wished was a great convenience to me in doing my first job, since I could run up in the noon-hour, getting back fifteen or twenty minutes late, and making up the time at night or on Saturday afternoon, without slighting my office work. One night about six o'clock (the office was supposed to close at five), Mr. Murray came out of his private office, found me working in the drafting-room, and asked me why I was staying so late. I told him that I had taken a little extra time off at noon and was making it up. He stood looking over my shoulder at the drawing I was working on.

"I wonder if you realize how you have improved," he said. "You are really drawing pretty well, and you couldn't draw at all when you came to the office."

"Nobody could help improving in this office," I answered, hardly aware of how tactful a thing it was to say.

He stood there for a moment longer and then he said:

"You tell Mr. Mulford [that was the bookkeeper] that your salary is eighteen dollars from this week on." And before I could even thank him he went back into his private office. In a minute or two he came back.

"You had a letter of introduction to me, didn't you?"

I told him that I didn't think a letter of introduction from an eighteen-year-old girl was worth much, and he said:

"That is the reason I employed you. I was told you had that letter, and I was pleased that you didn't try to use it."

It wasn't long after this that I was taken out of the office and made "clerk of the works" on one of the biggest buildings that Mr. Murray had designed. Clerk of the works is a sort of resident superintendent, and while at the time I resented my transfer from office work to superintendence, it was not long before I realized it was the best thing that could have happened; for nobody can be a competent architect until he knows the processes by which buildings are put together, as well as the drawings which indicate those processes. Pop Jones used to come over to the job about twice a week, sometimes oftener during the first month or two; but when he found that I was getting along pretty well with the contractors and that I was reading the specifications as carefully as I could, and trying

to understand them, he came over less and less. Of course it gratified my vanity to think that two years after leaving college I was virtually boss of a three-million-dollar job. Another thing which pleased me enormously, and which should be the rule in all offices, was to find that my decisions in regard to matters of workmanship and material were backed up by the office. In the first place, it made me careful in making decisions, and in the second place it greatly strengthened my hand. No office where the decisions of the subordinates are not backed up by the superiors, unless the decisions are distinctly detrimental to the work, can possibly run well.

Of course I was as green as grass, but I found the same kindly spirit among the rough lot of workmen with whom I then became associated that I found in the office. I found the same willingness to help and inform (not infrequently coupled with the desire to play jokes on the green man) that I had previously found in Mr. Murray's office, and the year that I spent as clerk of the works was in its way as valuable a year as I have ever had.

It taught me to some extent to manage men. I found the union regulations, which seem arbitrary to the outsider, have in most cases for their foundation a sincere desire to promote the welfare of the workman without interfering with the proper conduct of the work, and I also found that a successful superintendent must know the union rules as thoroughly as he knows the building code if he is to be successful.

It was while I was clerk of the works that I got my first house to build. I had gone into two or three competitions, just as all draftsmen do, without any success, but I had not had any real work except the cityhouse alteration.

I have spoken about buying an engagement-ring. One doesn't buy those rings without a reason, and I had been having trouble with the family of my reason. Her father didn't like me. I hadn't any money, although I do not believe that worried him except as he wanted to see his daughter properly supported, and I had no prospects as far as he could see; so I was forbidden to come to the house. The engagement-ring, instead of being worn on the finger, was worn on a ribbon around the neck. Nevertheless, it was from her father that I got my first independent job, and at a time when I was in theory not on speaking terms with any of the family. I have always thought that he wanted to test me.

I made the drawings. The house cost a few hundred dollars under what he told me he wanted to spend; it was built, and he liked it as much as I have ever had a client like a house. It still remains one of the houses I am proudest of. However, my father-in-law-to-be was by no means appeased. He was willing to talk to me, but nobody else could, and it was very embarrassing at times, for I had to find out the wishes of each separate member of the family through him.

The house was so much of a success that I was given one or two other commissions in the same little suburban town, and really began to feel like an architect; but that did not help me any in the good graces of my father-in-law. When he found that I was earning only twenty dollars a week (they raised me two dollars when I became clerk of the works), he couldn't see me for a minute, and finally, to get rid of me, took the whole family away to Europe.

I began to get impatient with my position about this time. I had had five years of college; had been working for nearly three years, and was earning only twenty dollars a week, although this was supplemented by over-time pay for night and Sunday work, and I had one or two country houses to design. This meant that I worked every night and every Saturday afternoon, and got up at six o'clock every morning. I thought that if I could go into another office where I could get a little more salary and where the work was a little more varied it would be better. So I talked the matter over with Mr. Murray. He urged me to stay, but, being a good business man as well as a decent employer, did not "urge" me to the extent of a very substantial rise, so I began to look for a better position.

I never shall forget one of the places where I tried. This man had sent word to me that he wanted a sort of office head. He had only a small office—three or four men—and he asked me to come and meet him at twelve-thirty. I left Mr. Murray's office at a quarter after twelve, got a piece of apple-pie and a glass of milk, and hurried up to see my prospective employer, and found that he was not in. I waited until a quarter-past one, when I should have been back in the office, before he came in. I stood up as he entered his door and told him who I was.

"Sit down," he said, and went into his private office. I could see him sitting with his feet on his desk reading the newspaper. I waited for about twenty minutes more, getting madder and madder every minute. Finally he came out and said:

"You want a job with me, don't you?"

"No, I don't," I said. "I just waited to tell you so," and walked out.

I think it was in the next office I tried that I did succeed in getting a position.

This office differed very materially from either of the others in which I had worked. The heads of the firm were two young men, both of them wealthy and of good social connection, who had gone into architecture partly because they liked the work, but more, I think, because it was a nice, light job suitable to a gentleman. Neither of them had any particular knowledge of construction, and though both had good ideas as to design, they were not sufficiently skilled as draftsmen to be able to work them out. The work, therefore, was handled by their head men. One was a Frenchman, a graduate of the Beaux-Arts, and to him virtually all the design was intrusted; the other was a young Irishman who had started as an office boy, and because of his patience and earnest anxiety to succeed had worked himself up to a place of responsibility in one of the large New York offices, and had been recommended to this firm when they began business.

It was a curious sort of office in that nobody really knew the business of architecture. The Frenchman knew nothing about construction, and the practical man knew nothing about design, and because of his entire lack of technical training, his knowledge of structure was only that which a good carpenter might have picked up on a job. The whole atmosphere of the office was very different from that which prevailed in Mr. Murray's. In place of confidence in and lovalty to the chief, there was a constant undercurrent of jocular contempt among the draftsmen for the abilities of the firm; and as we grew to know his limitations, this contempt extended to the practical man. He, poor fellow, was probably as aware of them as we were, and must have led a dog's life in trying to cover them up from his employers and from the men he was supposed to command. His methods were not always sportsmanlike; whenever anybody did anything particularly nice, he was very forward to claim credit for it, while, if an error was made anywhere, he would always endeavor to shift the blame. At the time I disliked him as cordially as I ever disliked anybody, and despised him, too. Now, as I look back upon it, I see that he was really in a pretty difficult position, but his handling of that position was neither capable nor tactful. He was constantly irritating the men by insistence upon trifling details of routine; never made a correction in a pleasant manner; and as many of his "corrections" were incorrect, there was little good feeling. I remember on one of the drawings I was making he noted that the angles were wrong and after verifying them three or four times, I told him that I was sure my figures were right and asked him to go over them with me. I found then that the poor fellow did not know that sixty minutes made a degree; he thought it was one hundred. I remember on another occasion he made me spell "wainscot" "wainscoat" and when one of the firm noticed the error and called me down for my spelling, he stood by and let me take it. I did not like to tell on him, like a school-boy.

Of course in an atmosphere like this the quality of the work was far below what it should have been, although the opportunities were many and varied. The family influence wielded by the members of the firm brought in many jobs, and the very delightful personalities and real artistic appreciation of both these men impressed many of their acquaintances with a sense of their ability that was unjustified by their attainments.

Nevertheless, as in every office in which I have been, I found among the draftsmen several who were, as they have continued to be, good friends of mine, and I found the same willingness to help the beginner and to lend information or books or money or anything else that I have found among draftsmen everywhere. It was in that office that I was first able to begin to repay to still younger men the very great kindnesses I myself had received from older draftsmen.

Every once in a while I managed to get a job of my own. Most of them were abortive, but one or two little houses or small alterations actually went through. The money I received from them was either used for buying pieces of furniture which I thought we might need in the house I hoped to build, or was put away in the bank to await that time. Incidentally, I think this is the only period in my life that I have been out of debt. I was still forbidden to visit my fiancée's house; but her father went to South Africa on business, and the Boers, thoughtfully declaring war on England about that time, locked him up for six months, so that when he returned he found that our engagement was announced. He took the matter rather more calmly than I had expected, and as a wedding present gave my wife a little piece of land on which we were to build a house of our own.

I was married in the first house I ever designed, and the wedding really was an architectural affair, as all the ushers were draftsmen, and there were probably twenty-five or thirty draftsmen who were not ushers. I got a two weeks' vacation, the first I had had since I began work. Most of this vacation was spent in making drawings for our own house. We began it as soon as we came back, and it was finished in about four months. One of the upper rooms I made into a little office for myself, and as I continued to get small jobs from time to time, it was there on nights and Sundays and early in the mornings that all of the drawings were made during the next two years. Once in a while some one of the fellows in the office would come out and help, but most of it I did myself; and while I can't say that I was ever unhappy during that time, I wished often that there might come a Saturday or a Sunday or an afternoon or an evening when I didn't have to work.

My experience in this respect is that of most of the young men who begin work for themselves. The average architectural draftsman works seven hours a day in the office unless he has over-time work, and two or three hours besides at night on his own work in the ateliers or perhaps helping out some other architect. Nobody who did not really love the business could get along under such conditions, and I have found that most architectural draftsmen herd by themselves. They do not often go to parties, they do not go much to the theatre; they are always walking about the Metropolitan Museum or some picture show or taking trips out to see old colonial houses or working on problems in the ateliers. The salaries they get are below those of the bricklayers and carpenters who execute the work from the drawings they make. There is certainly something in the profession that gets the men as does no other profession that I know of.

I was enormously pleased when one of the magazines took some pictures of my own house and my father-in-law's house and asked if they could publish them. It was probably the best thing that ever happened to me, because the houses were small and were of different types, and there were not many good small houses being built in those days; so almost as soon as they were published I began to get letters about them from people all over the country, and from them I got four or five jobs. It was really the

start of my independent practice, although I continued to work for other men for two years, and for a number of years after that was accustomed to go around to different offices to help out on competitions or to give assistance in some one of the lines in which I had become proficient.

I left this office because I couldn't get along with the head draftsmen, and although the manner of my going was not pleasant, I have since become good friends with both members of the firm. I remember that the head called me in and told me that he couldn't have anybody work in his office who couldn't get along with the head draftsmen selected by the firm, with the criticism of the firm's intelligence which that implied; and then, righteous indignation overcoming him, he said the quicker I could make my arrangements to go the better.

This happened at just twelve o'clock. I walked down-stairs to another office, got a position, came back up-stairs, packed up my things, and went in and told him I was going. It was of course a great satisfaction to take him at his word, tempered somewhat by the fact that they paid me two weeks' advance salary, and said that if I wanted to come back and they could arrange for me to take independent charge of work, they would like to have me do it.

The new office was a very different sort of place from any I had been in before, and especially from the last one. There was no discipline of any sort. The men worked on the basis of so many cents per hour, and put in their time-cards every week for what time their consciences dictated to them; and while the work was well and rapidly done, I can't exactly see how an office could continue under such conditions. The firm was made up of three men, one of whom I never saw in the office, although I understand he did occasionally secure new business; the second was supposed to run the office, but as a matter of fact was entirely dominated by the aggressive personality of the third partner, who had reduced his position virtually to that of head office boy.

The draftsmen were capable, attractive, and got along well together. In fact, they got along too well, so that the head draftsman and two of the others who were interested in pistol-shooting used to set up a target in one end of the drafting-room and practice in the late afternoons. I heard only two remonstrances concerning this, and both were put tactfully, to say the least. The office manager on one occasion said:

"The next time you boys want to do target practice, get a book of your own. You've shot two telephone-books to pieces, and we haven't got another one left."

And the other was when he was coming out of his office and had to cross the range.

"Hey, wait a minute, boys! I want to get out," he said.

Of course offices like this are rare, and yet I am not sure but the firm got as good work from their men as they could have by any other way of managing them, although I think none of the draftsmen felt the real respect for their employers on either the technical or personal grounds that was the case in Mr. Murray's office.

I stayed in this office until two years later I finally decided to open an office of my own. I took this step with some hesitation. For the last year I had been earning from forty to fifty dollars a week as a draftsman, with over-time occasionally running the amount up much higher, and I had been under no office expense. Beginning for myself meant rent, salaries for an office boy and a stenographer at least, expense for light, cleaning woman, telephone, and numerous petty items that even in a small office amount to a considerable sum annually. But the number of people who came to me for houses had increased so steadily that it was necessary for me to begin for myself. It meant less income than I had earned during the previous two years, but it was physically impossible for me to go on as I had been going; the work had taken too much out of me. I had had no time for recreation of any sort and I went from one day to the next under a constant strain, feeling that I had a lot to do that I had not been able to get done, and I was always tired out. I had not had a vacation except for the two weeks at the time I was married, and I did not have another for five years after I began work for myself; but at least I was relieved from the continual pressure of night work, and how much I needed such relief was proved by the fact that in the five weeks after I opened my own office I gained thirty-five pounds.

I secured a little office in connection with another man who, too, was just beginning. We were not partners, but simply took the office together to lessen the expense to each of us, and this arrangement continued until we both outgrew it. But with every effort to keep expenses down by doing as much work myself as I could and by paying as little as I could for the overhead account, I was nevertheless often very hard up. When my first daughter was born I did not have a cent in the world, I owed everybody that I knew, and it seemed as if I just must get some money somehow. Having no new work in hand, I went into one of the competitions which are always open to the young men, and finished up the drawings on the same day that my daughter arrived. Anybody who has had a youngster of his own knows that this is not the most favorable time for constructive work. Imagine my happiness when two weeks afterward I received a check for a thousand dollars, being that portion of the commission which was payable at once to the winner.

Since that time things have smoothed themselves out, and there is little of interest to tell. My work has grown steadily, and my office force has increased with it; the only thing that has not grown is the gain to be made out of the profession. It is not a profession in which the faithful practitioner can ever become wealthy unless he is one of the few men who do big work. The average country house needs as many drawings as a loft building, and the drawings cost just

PENCIL POINTS FOR MARCH, 1930

as much. The loft building is built of fireproof material and trimmed with marble, while the country house is built of frame and trimmed with painted wood; the architect's fee is a percentage of the cost.

I am in a way a successful architect, I might almost say a very successful architect; yet I have not been able to live in comfort and put away money. In fact, my reason for writing this story is that I may add something to the little surplus which would be available for the support of my family should I receive the commission for which I have applied and be called to the front.

Nevertheless, I wouldn't change professions with any one I know. One has always the feeling that one is creating something of permanent beauty.

I do not mean that all buildings designed by architects are beautiful. The profession varies greatly in skill and ability, and there is no way in which things of at least fair quality can be turned out by a man who has no conception of beauty per se. Each problem is a new one, and is a question of comprehending the tastes of one's clients and of expressing them in a way which will be satisfactory to them as well as to the

designer, and there are no rules by which this can be done.

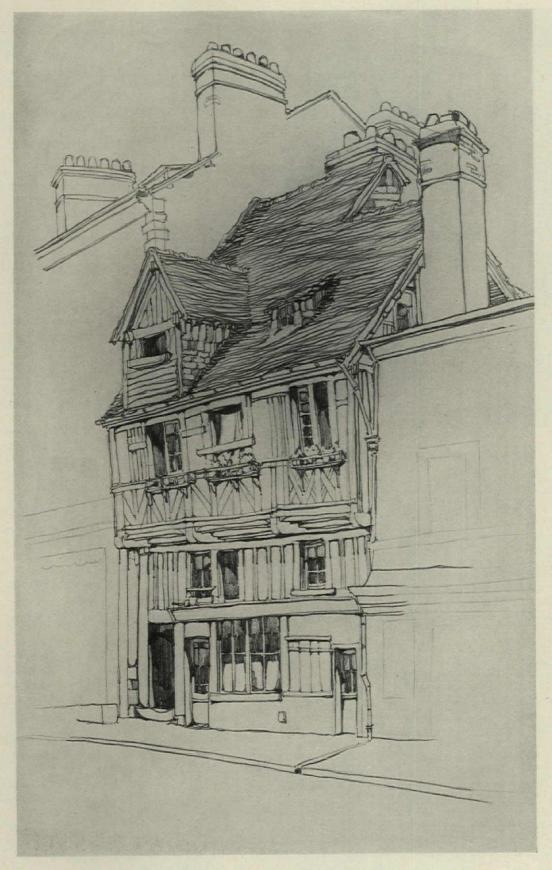
There is one side of architecture not commonly commented upon that is to me one of the most interesting things about the profession. I mean the relations which the architect enjoys with his clients. I have met so many pleasant people and have seen so many delightful places in the course of my work that that alone is almost enough to repay me for my efforts, although some people are inclined to regard the architect as an impractical person whose suggestions must be looked upon with suspicion. With such people work is difficult in the extreme, and it is almost impossible to secure the best results not only in an artistic sense but in the correct fitting of the scheme to the client, as a tailor fits clothes.

Yet the profession as a whole is underpaid even for the best of clients, and apparently it always has been. When an old house in New Haven was torn down a few years ago, these words were found cut in the corner-stone and signed by the architect:

"I have caused this beautiful building to be erected for your use as well as for mine, and have taken much pains to accommodate you for which you will never pay."



CALATAYUD, SPAIN-FROM A PENCIL SKETCH BY HAROLD C. GEYER OF YALE



FROM A PENCIL SKETCH BY PERCY DANFORTH OLD HOUSE IN LISIEUX



SOUTHERN CALIFORNIA EDISON BUILDING ALLISON & ALLISON, ARCHITECTS, LOS ANGELES

This 13-story building is to be almost entirely electrically welded and will be, when it is completed, one of the first buildings of architectural importance built in this way. The area covered will be 180 feet square and the height of the structure will be 150 feet. The steel in the first four stories will be partly welded and partly riveted but above the fourth story it will all be electric arc welded. The structure was designed in accord with the most modern theories of earthquake prevention and it is interesting to note that all of the earthquake bracing is to be welded.

A LETTER ON REGISTRATION FROM SULLIVAN W. JONES TO CHARLES BUTLER

My inability to attend the conference in Albany on February 18th is most disappointing, not only because of my conviction that the Department of Architecture and the State Fine Arts Commission ought to be re-established, but also because I had intended to bring up for action by the conference the matter of amending the so-called Architects' Law.

In my absence I ask you to add this subject to the Conference agenda, and to make a serious effort to secure action directed toward liberalizing the law. Legislation affecting the practice of architecture should be initiated by the profession. If it is not so initiated some one or some group will certainly capitalize the opportunity. I need not remind you, or the Conference, that there is a real danger of that happening.

My interest in the law as it now stands upon the Statute books has been stirred by the rejection of applications for architectural registration by two men about whose competency to practice there can be not the slightest question. There are others—many others—with respect to whom the law works a wicked injustice, by depriving them of an opportunity to demonstrate their competency to practice. The situation is over ripe for the development of a "racket."

Section 1478 "Qualifications, Examinations, Fees" of Article 56 of the Education Law, provides that every applicant for a certificate of registration shall have completed a high school course or its equivalent, "and subsequent thereto of having satisfactorily completed two years in an institution approved by the department conferring the degree of Bachelor of Arts or Sciences."

It will be noted that the requirement of two years at college or a technical school is mandatory, and that there is no provision for an equivalent, for an appeal, or any discretion on the part of anyone which would give the slightest elasticity to this requirement.

This mandatory qualification is being strictly enforced with the result that persons fully equipped and competent to practice architecture are debarred from even taking an examination.

We architects are interested primarily, or should be, not in the mechanics of the applicant's education, but in his qualifications to practice his profession at the time of his application. Knowing as we all do how many ways there are in which a man may become proficient in the practice of architecture, we must also know how ridiculous it is to attempt to lay down by law the precise curriculum for his preparation. Any law which arbitrarily debars an applicant from taking an examination to demonstrate his ability to pursue his chosen vocation is bad law, whether it be constitutional or unconstitutional.

The fallacious theory underlying this provision of the law is to be applied even more drastically as time passes. That this is the clear purpose of the law, and of those who were responsible for framing it, is removed from the realm of discussion by the provisions of Sub-division 4 of Section 1478, which reads in part as follows:

"Subsequent to January 1, 1937, every candidate for examination shall present evidence that he has satisfactorily completed the course of study in a college or school of architecture registered by the department—and that prior to the beginning of his course of study in such college or school of architecture, he satisfied the prerequisite for admission thereto."

The result of this provision will be the restriction of the future practice of architecture to those who are fortunate enough to have been born with "silver spoons in their mouths," or to the "wealthy class." We cannot make such restrictions stand up, and even if we could, and they were desirable from any standpoint, they would bring down upon the profession the scorn and ridicule of the public. Moreover, it does violence to the principle of equal opportunity.

Through the conference I urge the profession of architecture in the State to prepare and sponsor immediately amendments to the law as follows:

Add, after the first quoted part of 1478 the following: "or the equivalent thereof as may be determined by the Department."

Strike out the first paragraph of sub-division 4 of

Add a new section providing for appeals by applicants from the rulings by the department to some competent authority, probably the Board of Examiners.

Every applicant must be accorded his constitutional right to be judged by his peers, and not by a bureaucratic clerk, who knows nothing about qualifications, and whose actions are purely routine.

COMPETITION FOR ENTRANCE DESIGNS

THE WILLIAMS and Matilda Sparks Foundation, Inc., comprises 465 acres of land in Jackson, Michigan, which during the next three years will be developed into a recreation center at a cost of nearly \$5,000,000. When complete it will be presented to the city. Among many features will be a 200 foot tower topping a seventy foot hill, cascades, an outdoor amphitheatre seating 15,000 persons, canals, lagoons, a championship golf course, tournament tennis courts, an electric fountain and a Prado or walk, 20 feet wide, 2100 feet long.

The designs wanted in this competition are for the entrance to this Prado. It will be located about 50 feet from the street line to provide space for cars.

The cost of the entrance must be between \$5,000 and \$10,000 without buildings or high towers.

All designs must be submitted on sheets 15 x 20 inches, and may be in perspective or plan and elevation, in water color, ink, pencil, or crayon.

The entrance should be designed in stone or brick. Designs must be received before April 15th, 1930, to be considered in competition.

The judges will be three competent architects or engineers not connected with the Foundation. The prizes will be as follows:

First Prize, \$250.00 cash, Second Prize, \$100.00 cash, and Third Prize, \$50.00 cash.

All designs and communications should be addressed to A. W. D. Hall, Chief Engineer, The Wm. and Matilda Sparks Foundation, Inc., 313 Carter Building, Jackson, Michigan.

A NEW FELLOWSHIP FOR CORNELL

SHREVE, LAMB, AND HARMON, New York architects, have given to Cornell an unusual kind of fellowship. A graduate will be chosen annually to spend a year in the firm's office, at a normal salary. But "he will be encouraged to study the work of the office as he did his student work and perfect himself as far as possible along whatever line seems best calculated to advance his special ability or interest." Thus many of the common difficulties of adjustment of the student to the business world should be smoothed away. Says Mr. Shreve: "There is too often a hampering sense of a complete altering of direction and activity, with a loss of measure of progress and a failure of real accomplishment; there may even be the feeling of a necessity of endeavoring to render service merely in order to hold a position and so secure an uninspiring living through effort along unfamiliar and less attractive lines, not following the path in which the true ability and ambition of the student lie." Charles C. Porter, Cornell, '29, is now working for the firm on such a basis as is outlined for the fellowship.

GUY LOWELL MEMORIAL SCHOLARSHIP AWARDED

CHARLES LE BOUTILLIER has been awarded the Guy Lowell Memorial Scholarship for 1930. Mr. Le Boutillier had some of his architectural training at Harvard and later took a year's work at the Massachusetts Institute of Technology. B. S. Gruzen, a graduate of Massachusetts Institute of Technology, was awarded second place.

The first and second prize winning designs will be published in the April issue of Pencil Points.



ELIZABETH KIMBALL NEDVED

ELIZABETH KIMBALL was born in Chicago and grew up in the suburban villages of Winnetka and Glencoe. After graduating from New Trier High School, she decided to pursue the course in Interior Decoration at the Church School of Art. This was followed with a period in the Interior Decoration Department of Marshall Field and Company. There she decided that architecture was her real goal and enrolled for that course at Armour Institute of Technology.

At Armour, Elizabeth Kimball met Rudolph Nedved. The next two years were spent at the University of Illinois. This was followed by her marriage in London to Mr. Nedved who was then abroad as holder of the Chicago Architectural Club Traveling Scholarship.

After fifteen months of European travel, Mrs. Nedved returned to Chicago to take her degree of B.S. in Architecture. Following this she became a member of the Chicago Chapter of the A.I.A. and a registered architect in Illinois.

For three years she practiced architecture with her husband. The work of this period was residential and a number of country houses were built. On January 1, 1929, both of the Nedveds became partners in an older firm, now known as Hamilton, Fellows, and Nedved, with offices at 814 Tower Court, Chicago.

Mrs. Nedved is very much interested in water color. She has exhibited in the Chicago Artists and the International Water Color Shows.

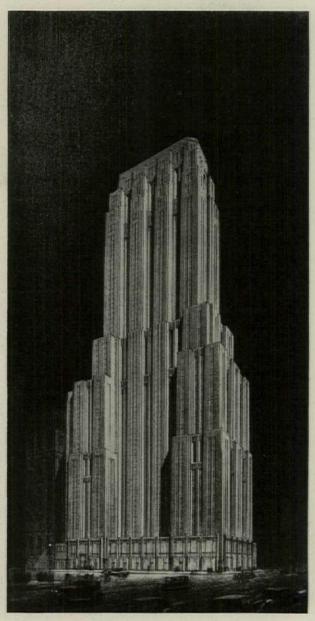
REGARDING REQUESTS FOR MANUFACTURERS' LITERATURE

HEREAFTER, NOTICES requesting manufacturers' samples and catalogs will be published in our house organ, ONE-FIFTY-Two, which is sent each month to manufacturers. This change is made due to a lack of space in Pencil Points, also because the former is a more direct means of obtaining such literature.

CARNEGIE CORPORATION TO GRANT FINE ARTS SCHOLARSHIPS

To enable promising young men and women students in the fine arts to prepare to teach graphic and plastic arts in colleges and universities, the Carnegie Corporation of New York has recently set aside a fund which will provide for a limited number of scholarship grants for such students. The fund will also provide for the re-appointment of a number of those who have been the recipients of the scholarship grants in fine arts made by the Corporation in former years. The grants range from \$1200 for first year graduate students to \$2000 in certain cases for advanced study abroad.

While no formal pledge is required of incumbents, it is understood that applications received will be made in good faith by those who are planning to become teachers. The desire of the Corporation is to attract promising young persons to the teaching profession rather than to recognize



PENCIL DRAWING BY GILBERT P. HALL
PALMOLIVE BUILDING, CHICAGO
HOLABIRD & ROOT, ARCHITECTS

merit and accomplishment on the part of those who are already members of the profession.

Applications for scholarship grants for 1930-31 should be filed with the Carnegie Corporation Advisory Group on Scholarship Grants, 522 Fifth Avenue, New York, before March 15, 1930. The Group will make selections on or before March 31, 1930, and applicants will be notified as soon as possible thereafter.

THE XIITH INTERNATIONAL CONGRESS OF ARCHITECTS, BUDAPEST, 1930

The XIITH INTERNATIONAL CONGRESS of Architects will be held in Budapest, Hungary, from September 7th—14th, 1930. The officers have been working at the Society of Hungarian Engineers and Architects, Budapest, since last fall. According to present indications, it is to be expected that architects from all parts of the world will meet in Budapest; and already a great number of enrollments have arrived at the Offices of the Congress. Among others, Professor Ragnar Ostber, of Stockholm, has announced his participation at the Congress; and, in a long letter written in the warmest tones, he has also declared his readiness to take part at the International Exhibition of Architecture, which will be held in conjunction with the Congress, by exhibiting the plans of the Town-hall of Stockholm.

At the request of the Executive Committee entrusted with the preparations for the Congress (under the direction of Messrs, Robert Kertész, Under-Secretary of State, President, André de Virágh, former Under-Secretary of State, managing president, and Adalbert Rerrich, High Commissioner of the Government, general secretary), Count Kuno Klebelsberg, Minister of Culture and Education, will, in order to enhance the importance of the Congress and Exhibition, award prizes consisting of one gold medal, two silver medals and three bronze medals for the International Exhibition of Architecture. This decision of the Minister of Culture and Education will contribute in a great measure to increase still more the significance of both the Exhibition and the Congress.

The Committee formed for this purpose has decided to erect a statue to perpetuate the memory of Edmond Lechner, the great Hungarian architect, whose works are renowned and appreciated in all foreign countries. This statue will be unveiled in Budapest next September, during the International Congress of Architects.

There will be an International Exhibition of architectural photos, drawings, and models at the same time and all American architects are invited to exhibit. All expenses in connection with the transportation must be borne by the exhibitor. Those wishing to exhibit will kindly communicate with George Oakley Totten, Jr., Secretary of the American Section, International Congress of Architects, 808 Seventeenth Street, N. W., Washington, D. C.

The members of the American Section are: Cass Gilbert, Chairman, William A. Boring, Glenn Brown, J. Monroe Hewlett, John Russell Pope, C. Howard Walker, C. C. Zantzinger, Arthur Brown, Jr., Warren P. Laird, Whitney Warren, J. E. R. Carpenter, John A. Holabird, J. Otis Post, and Geo. Oakley Totten, Jr., Secretary.

CONVENTION OF THE AMERICAN INSTITUTE OF OUANTITY SURVEYORS

THE FIFTH ANNUAL convention of the American Institute of Quantity Surveyors will be held in St. Louis, Mo., April 14th to 16th inclusive.

COMPETITION FOR A WEATHER VANE

A \$1000 PRIZE COMPETITION interesting particularly to architects, artists, designers, students of the arts and followers of aviation, but open to anyone, is announced by the Art Alliance of America, 65 East 56th Street, New York City.

The Carrier Engineering Corporation, having taken over a large factory building at 850 Frelinghuysen Avenue, Newark, N. J., found itself owning a water tank 114 feet high made in the shape of a giant electric light bulb, erected by the previous owners, the General Electric Company. It wishes to change the appearance of this elevated tank, which is supported on four structural steel legs about 84 feet high, and to surmount it with a huge weather vane and a cylindrical or conoidal air beacon made up of neon light tubes, as an auxiliary to the revolving neon beacon at the Newark Airport, only a mile away. The weather vane is stipulated because the Carrier Plant makes air conditioning apparatus to furnish "manufactured weather" for mills, shops, theatres, office buildings, assembly halls and homes. This apparatus is most familiar to the public through its use in some 200 theatres and in the halls of Congress and the White House office, although it is much more widely used in industrial buildings, nearly 3000 being equipped now with automatic air conditioning plants. The Carrier Corporation also publishes an informative monthly called The Weather Vein, which suggested the idea of a wind vane for the tower.

The Jury of Award is: Paul Manship, sculptor; J. Monroe Hewlett, architect; Walter W. Kantack, designer and president of Kantack & Company, Inc.; A. Lawrence Kocher, architect and managing editor of The Architectural Record, and Richard L. Marwede, chairman of the competition committee of the Art Alliance of America. This was organized to be a link between manufacturers and artist designers, which sponsors exhibitions of all sorts of industrial art, finds designers for manufacturers, offers a design advisory service to manufacturers, through a group of expert designers and has a placement service which registers artists for design work.

Conditions of the contest and entry blanks may be had from the Secretary of the Weather Vane Design Competition, Art Alliance of America, 65 East 56th Street, New York City, together with photographs of the water tank and its surroundings. Entries will be received only between March 14 and March 18, when the competition closes. The Jury meets March 20, announces prizes and places the prize winning and others honorably mentioned on exhibition.

The location of the neon beacon has been approved by the Department of Commerce as serving a useful purpose in aviation and will become a permanent landmark on air maps.

THE PRINCETON ARCHITECTURAL PRIZES

Two competitive prizes of eight hundred dollars each, in the School of Architecture, Princeton University, are announced for the year 1930-1931. The purpose of these prizes is to permit men of unusual ability, who desire to complete their professional training, to profit by the opportunities offered by the School of Architecture, the Department of Art and Archæology, and the Graduate School of Princeton University.

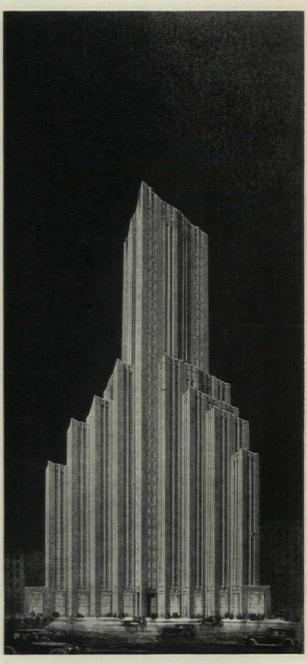
The prizes will be awarded as the result of a competition in design to be held from 9:00 a.m., May 22, 1930,

to 9:00 a.m., June 1, 1930. The winners will devote the following school year to the study of Advanced Architectural Design, and such other subjects as they may elect. They are exempt from tuition fees.

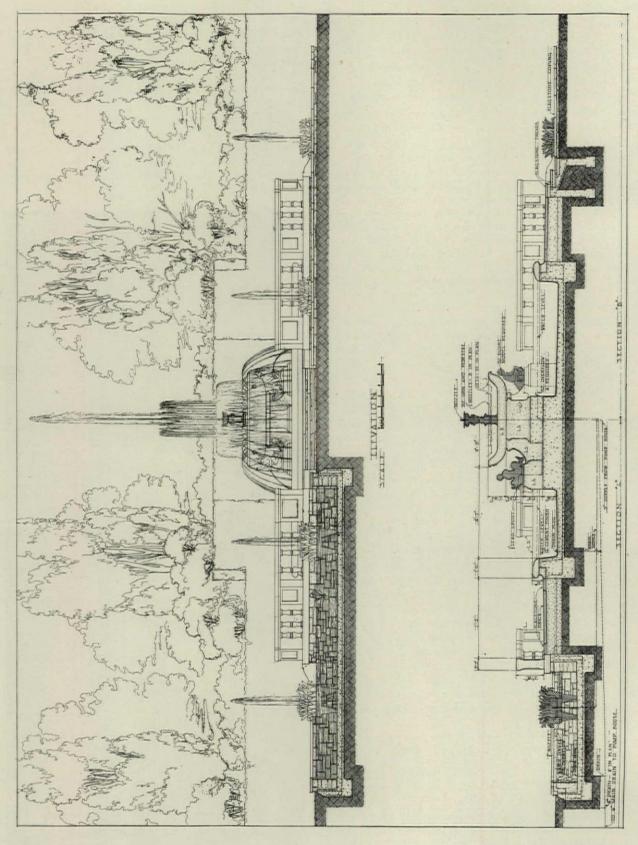
Candidates for these prizes shall be unmarried male citizens, not less than twenty-one nor more than thirty years of age on September 1, 1930, who have been employed as draftsmen in architects' offices for not less than three years, or who have otherwise demonstrated their ability in architectural design.

Applicants to enter the competition for the prizes must be filed on or before April 19, 1930.

For application blanks, and regulations governing the Competition and Award, address *The Director*, The School of Architecture, Princeton University, Princeton, New Jersey.



PENCIL DRAWING BY GILBERT P. HALL STUDY FOR A LOFT BUILDING HOLABIRD & ROOT, ARCHITECTS



FOUNTAIN ON THE ESTATE OF CLARENCE H. GEIST, VILLA NOVA, PENNSYLVANIA PAUL P. CRET, ARCHITECT—JACQUES GRÉBER, LANDSCAPE ARCHITECT

CONCRETE EVIDENCE

THAT THE ARCHITECTURAL PROFESSION IS IN FAVOR OF PENCIL POINTS PLAN FOR EDUCATING THE LAYMAN

Excerpts from letters sent to us in response to our announcement of January 6, 1930

January 13th, 1930

Mr. Ralph Reinhold, President, PENCIL POINTS PRESS, Inc., 419 Fourth Avenue, New York, N. Y. DEAR MR. REINHOLD:

In answer to your letter of January 6th, I wish to state that I am sure the program as outlined by you will meet with the hearty approval of the architectural profession. I have already received a number of letters commending you for your splendid idea and I hope that it will be successful.

May I suggest that you get in touch with Mr. William Harmon Beers, Chairman of the Committee on Publicity of the Institute, and I hope that he may, through Mr. Grady and the members of his committee, be of assistance to you.

Very sincerely yours, C. HERRICK HAMMOND, (Signed) President, American Institute of Architects.

January 27, 1930

Mr. Ralph Reinhold, President, PENCIL POINTS, 419 Fourth Avenue, New York City. DEAR MR. REINHOLD:

In answer to your letter of January the sixth, and our subsequent conversation relative to your proposed program, I cannot commend the idea too highly. I am sure that when the details are more carefully worked out and the architects throughout the country have the basic scheme explained to them they will be enthusiastic. If I can be of any assistance please advise me.

Very sincerely yours, WM. HARMON BEERS, (Signed) Chairman, Committee on Public Information, A.I.A.

"Count on our financial assistance and any other cooperation you may need"-J. Andre Fouilhoux, Raymond Hood, Godley & Fouilhoux, New York, N. Y.

"It sounds like a good idea. This firm is glad to say that they will contribute a hundred dollars for the work this year"-York & SAWYER, New York, N. Y.

"I think this is a splendid undertaking and will gladly contribute" -N. Max Dunning, Chicago, Illinois.

"As members of The American Institute of Architects we should not care to commit ourselves in any way on the proposition you have to offer"-Francis V. Bulfinch, Coolidge, Shepley, Bulfinch & Abbott, Boston, Massachusetts.

"It seems to me you have just the right point of view"-Myron Hunt, Los Angeles, California.

"I am in general in sympathy with the proposed plan"—ALEXANDER B. TROWBRIDGE, Washington, D. C.

"We are altogether sympathetic with the purpose of your program" -Louis La Beaume, La Beaume and Klein, St. Louis, Missouri. "I wonder if any plan for advertising the value of an architect's services would not necessarily include a frequent repetition of the statement that 'there are good architects and bad architects'; and that the owner will have to be mighty particular about choosing his architect, otherwise he might find himself back again in the class of people who do not believe in employing architects"—Robert D. KOHN, New York, N. Y.

"I think such an education is needed but I am very doubtful as to whether it can be effectively done, though I think that if any one can do it you can and I am agreeable to gambling twenty-five dollars a year for two years on the proposal"—AYMAR EMBURY II, New York, N. Y.

"In principle I think the idea is a very good one"-HENRY IVES COBB, New York, N. Y.

"I feel that your plan is a very worthy one and should be encouraged in every way possible"-Dwight James Baum, Riverdale, New York.

"I am so favorably impressed by what you are doing that I will bring it up at the Washington Chapter meeting tomorrow night and urge the Chapter members to cooperate"—Horace W. Peaslee, Washington, D. C.

"Best luck to you in what you are trying to do and be assured of our hearty sympathy"-Alfred Granger, Granger & Bollenbacher, Chicago, Illinois.

"Your idea is an excellent one. Its value will of course depend entirely on how well you do the advertising"-W. O. Ludlow, Ludlow & Peabody, New York, N. Y.

"The writer wishes to advise you that our firm would be willing to do its small financial share towards your projected program"— M. H. Sugarman, Sugarman & Berger, New York, N. Y.

"More than delighted to know that you will undertake this work" -WILLIAM B. ITTNER, St. Louis, Missouri.

"You can rest assured you will have our hearty co-operation and we would be glad to contribute \$25.00 a year for two years"-J. WILLIAMS BEAL, Boston, Massachusetts.

"I am in favor of the proposition set forth in your letter"—
GODFREY M. RICCI, Perth Amboy, New Jersey.
"I think your idea is excellent, and I would be glad to make my subscription"—KENNETH W. DALZELL, East Orange, New Jersey.

"With an increasing proportion of the public educated and convinced that an architect should be employed for its building work, the public interest will be better served and, as a by-product, the architectural profession will benefit"-HARRY T. STEPHENS, Paterson, New Jersey.

"I thoroughly agree with you"-WILLIAM J. FITZSIMONS, East Orange, New Jersey.

"Absolutely for it"-ALFRED ODELL POLLITT, Maplewood, New Jersey.

"I am heartily in favor of the idea"-ARTHUR E. DORE, Hackensack, New Jersey.

"We wish to express our appreciation that a publishing company such as yours is behind such a movement and we feel that the architects, generally, should appreciate it and be very grateful and cooperate fully with you in this movement"—WARREN D. MILLER, Terre Haute, Indiana.

"I was very much interested in your letter"-CARROLL O. BEESON, Crawfordsville, Indiana.

"We are very much interested in what you are proposing, but it would, of course, be impossible for us to say whether we would be favorable to it, particularly to the extent of contributing, until we know more in detail as to just what is proposed"—George СALEB WRIGHT, Pierre & Wright, Indianapolis, Indiana.

"I am heartily in accord with this idea"-A. L. VEGLIANTE, Garfield, New Jersey.

"If this subject can be put across in as clear and convincing a manner as you have presented your proposition in your letter it ought to go over big"—Cornelius V. R. Bogert, Hackensack,

"The proper education of the building public to work with the architect is going to be of inestimable value"—RAYMOND R. CHAT-

"I cannot see that any one member of my profession could want anything more pleasing to happen"—George R. Jensh, Newark, New Jersey.

"If the client could realize before the project is started that architects and engineers should work hand in hand, the result should be much better building at no greater cost. Clients often do realize this when it is too late"—Lee Burns, Burns & James, Indianapolis, Indiana.

"I can assure you that I, as well as anyone that I come in contact with, will support your noble efforts to the 'nth degree"—
B. FRANCIS McGuire, Teaneck, N. Y.

"I would be favorable to the idea of contributing to the fund if the methods to be used in the project are at least dignified, and not of the signboard bally-hoo type"—ROBERT C. KLEMM, Newark, New Jersey.

"Thank you for that interest that you are taking"—HAROLD F. ADAMS, New York, N. Y.

"We are very much interested in your plan"—Frank Upman, Upman & Adams, Washington, D. C.

"This Society unanimously endorses your timely action and the general idea outlined and offers to exert its own efforts to the end that your aim be attained"—G. FRANK CORDNER, Michigan Society of Architects, Detroit, Michigan.

"We would be willing to co-operate"-E. A. VARNEY, Cleverdon,

Varney, and Pike, Boston, Massachusetts.

"There are two things in connection with the proposition that, to my mind, are of prime importance. One is a determination of how valuable the services of architects are to the public. The other, can it be successfully demonstrated that the average of architectural services rendered up to the present is of enough more value than similar services otherwise obtained to warrant the kind of a campaign you undertake to sponsor?"—Wilfred W. Beach, Chicago, Illinois

"We are in entire sympathy"-W. F. Shaw, National Lumber

Manufacturers Association, Washington, D. C.

"I believe that this is the most important single project which the architect can support"—LANCELOT SUKERT, Michigan Society of Architects, Detroit, Michigan.

"I believe the field for better understanding and true appreciation lies within the profession rather than outside of it"—EDWARD STOTZ, Pittsburgh, Pennsylvania.

"I am for it and I do not know what your plan contemplates, but I do know that the profession is in need of a boost with the public"—ARTHUR E. THOMAS, Dallas, Texas.

"I am very much in favor of something of this kind"-F. H. MARANI, Toronto, Canada.

"I am certainly interested in your proposition and would be willing to subscribe should a working proposition be later submitted"

—ARTHUR N. GIBB, Ithaca, New York.

"I am heartily in favor of your proposition"—HENRY HOLDER, New York Society of Architects, New York, N. Y.

"At the last regular meeting of the membership of our organization, I was instructed to notify you that our league by vote and resolution endorses the idea of the Publicity Plan as proposed by you"—HARRY LUCHT, The Architects' League of Northern New Jersey, Cliffside Park, New Jersey.

"We would be interested and would no doubt contribute \$25.00 to this cause provided the campaign would be conducted by you in such a way as to actually reach the laymen"—EDWARD CRAY TAYLOR AND ELLIS WING TAYLOR, Los Angeles, California.

"We believe that your project, properly handled, can be made to produce real results"—EDWARD H. DAVIS, Scranton Wilkes-Barre Chapter of the American Institute of Architects, Scranton, Pennsylvania.

"More power to you"—Charles Kyson, Glendale, California. "We are heartily in accord with the project outlined"—Thompson, Holmes & Converse, New York, N. Y.

"Yes, I'll contribute. (This sentence, in order to ring true, should be read with a tone of weariness.) Now . . . (happily, and with enthusiasm . . .) start a plan to educate the architect to a broader human understanding . . . and I'll double the donation!"—
ERNEST IRVING FREESE, Los Angeles, California.

"Am very much interested in the proposition"—A. TEN EYCK Brown, Atlanta, Georgia.

"Before stating my position on this, however, I would like to enquire whether or not your plan has the sanction of the American Institute of Architects"—ROBERT R. GRAHAM, Middletown, N. Y.

"My congratulations for your courage in attempting a task of such magnitude"—RAYMOND M. MARLIER, Pittsburgh, Pennsylvania.

"For it! But I think the A.I.A. will have to govern just what action its members may take"—EDWIN E. CULL, Providence, Rhode Island.

"I am immensely enthusiastic over your scheme and shall be delighted to contribute the sum of \$25.00 for two years toward this purpose"—Robert M. Carrere, New York, N. Y.

"Absolutely I am for your plan as I have confidence in the undertakings of Pencil Points"—F. E. Davidson, Chicago, Illinois.

"Well worth serious consideration"—CHARLES F. OWSLEY, The Youngstown Architectural Society, Youngstown, Ohio.

"I have been observing lately the general trend of architects' advertising and, in my opinion, it falls very far short of the mark" — James R. Tyler, Rochester, New York.

"Heartily approve your idea"—ROYAL BARRY WILLS, Boston, Massachusetts.

"Of course, I am in complete harmony with you on this matter" —Louis Jallade, New York, N. Y.

"It seems too good to be true"—PHILIP S. MEWHINNEY, Birmingham, Alabama.

"We are most heartily back of any legitimate publicity idea for educating the public"—ROBERT BOLLER, Kansas City, Missouri.

"Will of course support you willingly in any way, and to a much greater extent than you suggest"—W. H. Cooκ, Youngstown, Ohio.

"Undersigned witnesses no difficulty in securing work. Have put my business on an architectural and legal business years ago"—LAWRENCE FLAGG HYDE, Oakland, California.

"I am in favor of the campaign"-Frederic A. Fletcher, Baltimore, Maryland.

"Count us in and glad to get a chance to do something"-Howard R. Perrin, Klamath Falls, Oregon.

"I am very much in favor of your plan"-HAROLD W. DOTY, Portland, Oregon.

"We are heartily in accord with your idea" — CECIL A. SCHILLING, Long Beach, California.

"I am very much interested in your proposal"—C. F. J. Barnes, Detroit, Michigan.

"We are in favor of your plan"—J. H. Quinn, Chicago, Illinois. "Your letter has interested me very much"—James W. Kideney, Buffalo, New York.

"Yours of the sixth has my sincere interest"—Henry B. Sumner, Providence, Rhode Island.

"Most assuredly I am for it with my \$25.00 per year for two years or more"—EDGAR L. LOVE, Huntsville, Alabama.

"I feel that this idea undoubtedly is worth considering"—A. C. ZIMMERMAN, Los Angeles, California.

"I, for one, am heartily in favor"—Paul B. Johnson, Springfield, Massachusetts.

"I am certainly in favor of the program that you have in mind"
—Glen H. Thomas, Wichita, Kansas.

"I am in full accord with your plan"-M. F. WHITTAKER, Orangeburg, South Carolina.

"I wish to congratulate you upon this movement"—CLARENCE W. Doll, Chicago, Illinois.

"I have read your plan with a great deal of interest"—HARRY F. HUDSON, Buffalo, New York.

"I admit the truth of your statements"—Samuel Abramson, Philadelphia, Pennsylvania.

"Certainly, we shall contribute \$25.00. Draftsmen, too, are willing to part with \$5.00"—Joseph C. Goddenne, Bay City, Michigan.

"I am enthusiastically in favor of the plan"—A. Corrubia, St. Louis, Missouri.

"I heartily approve of your plan in principle"—E. DEAN PARMELEE, New Rochelle, New York.

"I express the approval of our firm"-Kenneth F. Noxon, Toronto, Canada.

"Am most heartily in favor of the project"-Wesley P. RIDENOUR, Portsmouth, Ohio.

"I heartily concur in your idea"—HARRY HAKE, Cincinnati, Ohio.
"We are very much interested. We believe you will strike a
sympathetic chord in the architectural profession"—LYNN W. FRY,
Ann Arbor, Michigan.

"We are heartily in favor of such a campaign"—Charles M. Hart, New York, N. Y.

"We are very much interested in your idea"—BEN F. McMurry, Knoxville, Tennessee.

"I congratulate you upon your endeavor to improve the situation and you have my hearty support"—Louis S. Newton, Burlington, Vermont.

"Would be willing to contribute to this"—ARTHUR H. GODDARD, New York, N. Y.

"We are prepared to contribute \$25.00 a year for two years"—H. M. Stern, Rochester, N. Y.

"I am heartily in favor of the campaign"—John W. Teasdale, St. Louis, Missouri.

"I wish to congratulate the Pencil Points for taking up the problem of advertising the architectural profession"—Walter Carlson, Wilmington, Delaware.

"We would be willing to go into a two-year agreement of this kind and several of the men in our office said that it would be agreeable for them to contribute"—R. J. CLAUSEN, Davenport, Iowa.

"Your circular letter is indeed interesting to me"-HENRY I. GAINES, Asheville, North Carolina.

"This is an excellent idea, and we are very much in favor of it. Please carry on"-Branson V. Gamber, Detroit, Michigan.

"Our firm and everyone connected with it will be very much in favor of your plan"-CHANDLER C. COHAGEN, Billings, Montana. "A cause like this should have the fullest support of the pro-

fession"-W. F. Weibley, Burlington, Iowa.

"We are in hearty accord with your proposal and will back same financially"—EDMUND J. PRONDZINSKI, Minneapolis, Minnesota. "I believe that a wonderful work can be done along these lines and that you are in an excellent position to handle the matter" -Paul F. Mann, Buffalo, New York.

"We are heartily for your plan in principle, and should like to receive further information as to details"-W. D. PARKER, Boston, Massachusetts.

"We shall be pleased to subscribe \$25.00 per year for two years to such a fund and shall be interested in receiving further informa-tion regarding your plans for the same"—A. S. KEENE, Kansas City, Missouri.

"I am heartily in favor of such a scheme. My Drafting Room force is also favorably disposed toward the scheme"—E. WILLIAM MARTIN, Wilmington, Delaware.

"I think your idea and plan is an excellent one, and I want to register myself as heartily in favor of it"-James H. MacNaugh-TON, Boston, Massachusetts.

"The plan is an excellent one"-HARRY E. MAHER, Evanston, Illinois.

"The fault is largely with the architects. This bureau that syndicates plans and designs of houses-published in all newspapers-plans and specifications, etc. sold for \$25.00 is killing the business of house architects-and house architecture is where most architects start. These are very good plans and designs—for \$25.00. Why hire an architect?"—Joseph W. Northrop, Houston, Texas. "We are heartily in accord with the program"—W. D. Harper,

Florence, South Carolina.

"For it, and would contribute"-LEWIS J. SARVIS, Battle Creek, Michigan.

"I am very much interested in your plan"-Eli W. Goldstein, Buffalo, New York.

"The idea is all right"-RAY R. GAUGER, St. Paul, Minnesota. "I would be willing to contribute toward such a movement and will be glad to hear more about it."—A. F. Evans, New York, N. Y. "This is an excellent movement"-WALTER H. VEENENDAAL, Milwaukee, Wisconsin.

"I am quite in accord with such a procedure"-Newton L. Lockwood, Plainville, Connecticut,

"I am heartily in sympathy with the proposal"-EDWARD M. BRIDGE, Wakefield, Massachusetts.

"I am very much in sympathy with the movement"-Howard T. YATES, Syracuse, New York.

"Now is the time to save our work"-W. C. STEPHENSON, Beeville, Texas.

"You can count on this office for \$25.00 per year"-Hansen & WAGGONER, Mason City, Iowa.

"This office is very much interested in your new venture"— EUGENE A. STOPPER, Philadelphia, Pennsylvania.

"I assure you that I am for your suggestion"-C. C. Coursey, North Platte, Nebraska.

"Your circular letter is very interesting. We would be very glad to contribute"—John P. Thomas, Portland, Maine.

"We are quite in sympathy with the idea"-Frank R. Warson, Philadelphia, Pennsylvania.

"I am in hearty accord with your plan"-GALEN H. NICHOLS, Albany, New York.

"We consider this a very good proposition, and are glad to be considered as subscribers to the idea"—HARRY J. KERRIGAN, New York, N. Y.

"I am for it"—A. L. Delehanty, Albany, New York.
"I am heartily in favor of the idea"—Laurence M. Loeb, New Rochelle, New York

"I am with you, heart and soul"-EDMUND HERRMANN, Canton, Ohio.

"You have taken on a big contract and I'm with you"-Angus S. Wade, Amityville, L. I., New York.

"We heartily endorse your plan, and will gladly contribute"—ROSARIO CANDELA, New York, N. Y.

"I congratulate you on your appeal"-ETHAN ALLEN DENNISON, New York, N. Y.

"I am heartily in favor of your proposition"-WILLIAM H. HUMPHREY, Chappaqua, New York.
"I am for it"—G. WESLEY STICKLE, Eric, Pennsylvania.

"I think you can be of great service to the profession"-EDWIN H. DENBY, New York, N. Y.

"Your plan is very good and necessary. Count on us to assist in this program"-OTTO J. KLING, Youngstown, Ohio.

"Your plan is worth any architect's attention and worthy of everyone's cooperation"-BERNARD H. LAWSON, Pittsburg, Pennsyl-

"I am for it if it is of a nature that it will reach the prospective building public"-CHARLES A. CARPENTER, Rochester, New York.

"I am in sympathy with the program you outlined"-WILLIAM W. DRUMMEY, Boston, Massachusetts.

"I am heartily in accord with your project"-Frank B. Gray, Aurora, Illinois.

"We are thoroughly in accord with your ideas"-ARTHUR GROSS, New York, N. Y.

"I am willing to give \$25.00 a year for two years to educate laymen concerning the value of architectural services"—BEVERLEY T. NELSON, St. Louis, Missouri.

"I am heartily in favor of your idea"-W. W. PURDY, Minneapolis, Minnesota.

"I am exceedingly interested in your plan"-WILFRED E. PROVOST, Manchester, New Hampshire.

"We are heartily in accord with your plan"-CHARLES R. STRONG, Cincinnati, Ohio.

"We are very much in favor of your proposed campaign of publicity in the interests of Architecture"—REGAN & WELLER, Memphis, Tennessee.

"We will be pleased to subscribe"-ARTHUR ROSENSTEIN, Boston, Massachusetts.

"We have faith in your ability to put it across"-Frederick A. MUHLENBERG, Reading, Pennsylvania.

"I am in accord with your proposition"-WILLIAM E. HUNT, Torrington, Connecticut.

"We are for this-100%. We agree with you that it will result in a decent and adequate scale of compensation"-WHITEHOUSE & PRICE, Spokane, Washington.

"We most certainly need just such an advertising campaign as you suggest and who could be in a better position to administer the funds for such a venture than the staff of Pencil Points"J. Robert Harris, Hollywood, California.

"It is a splendid and worthy undertaking"-FREDERICK D. Madison, Royal Oak, Michigan.

"I am heartily in favor of the idea"-TED MASON, Wichita, Kansas.

"By all means, yes"-THEARD & MATTHEWS, New Orleans, Louisiana.

"We heartily approve of the idea"-C. L. HUTCHISSON, Mobile, Alabama.

"We are heartily in accord with your ideas and consider your efforts highly commendable"-Samuel S. Oman, Chicago, Illinois.

"I shall give you my sincere co-operation in this matter by contributing to a fund for the purpose"-C. I. KRAJEWSKI, Dubuque,

"I am very much interested and I am very favorable to the idea"-Murray Klein, Brooklyn, N. Y.

"I heartily endorse this idea and hope you will be successful in executing it"—Dana Somes, Boston, Massachusetts.

"I will be glad to cooperate with you in this matter"-ROBERT G. CHAPMAN, Birmingham, Alabama.

"I express my hearty support"-John S. Bartley, Waterloo, Iowa.

"Your circular letter strikes a warm note in my 'bosom' "-Howard F. Baldwin, Baltimore, Maryland. "We shall be heartily in favor of your plan"-S. LLOYD BEALL,

Washington, Pennsylvania. "We are interested in your proposal and would be glad to co-

operate with you in any way"-HAROLD HOLMES, Concord, New Hampshire.

"I like your proposition. I will be glad to give my cooperation in any way to help this movement"-JAMES F. SCHINDLER, Syracuse, New York.

"We wish to go on record as being thoroughly in accord with the idea"-J. Frazer Smith & H. M. Burnham, Memphis, Tennessee.

"I cannot but feel that your proposition is a most excellent one" EDWARD UNDERWOOD, Edmonton, Alberta.

"We would be favorable to contributing to a fund for this purpose"—Kenneth H. Gedney, Hastings, Nebraska.

"We are partly in accord with your proposed plan and feel that such a project if properly carried out will be an excellent thing for the profession"-C. T. Jackson, Boston, Massachusetts.

"Speaking for our firm, we are inclined to favor it"-A. E. PRICE, New York, N. Y.

PENCIL POINTS FOR MARCH, 1930

"I am very much in sympathy with your purpose and object"— H. M. King, Louisville, Kentucky.

"I would want a thorough explanation of the method to be used"

—BERNARD PEPINSKY, Cincinnati, Ohio.

"I agree with you that it is necessary to bring the service of an architect to the public"—E. A. STUBENRAUCH, Sheboygan, Wisconsin.

"I am interested, and would like to know how you mean to go about it"—Hollis Johnston, Portland, Oregon.

"I think your plan is highly commendable, exceedingly comprehensive and, if carried out, will be productive of results well worth the time and money it will cost"—EUGENE B. CHURCH,

Houston, Texas.

"I should be pleased to support any legitimate movement for the betterment of the architectural profession"—Cedric A. Shantz, Chicago, Illinois.

"The plan not only seems feasible, but highly commendable"-CARL NIELSEN, Chicago, Illinois.

"We are certainly in sympathy with your plan"—BURNHAM BROTHERS, Chicago, Illinois.

"I have read this with a great deal of interest"—Max J. UNKEL-BACH, New Britain, Connecticut.

"Sure I am for it"-E. A. EHMANN, Miami, Florida.

"I am truly in accord with the idea and if such a work could be done the architect might not be considered as merely just an unnecessary nuisance"—Carlos C. Lacy, Niagara Falls, New York.

"I am heartily in favor of your plan and think you should be able to do a wonderful service"—Kemper Nomland, Los Angeles, California.

"I am heartily in favor of your scheme"—Lewis Wood Easby, Philadelphia, Pennsylvania.

"I am certainly for it and I wish to commend your courage in starting this job"—RICHARD R. BOYD, Beaver Dam, Wisconsin. "A most noble adventure and I am sure the architects of the

"A most noble adventure and I am sure the architects of the country will be with you 100%"—Elliott B. Hadley, St. Petersburg, Florida.

"You can count on us being behind this movement"—C. F. Drury, Oklahoma City, Oklahoma.

"This is best idea yet and demands attention. I am for it"— HARRY F. ALMON, Kansas City, Missouri.

"I am very much interested in this proposition"—WILLIAM G. UPHAM, Norwood, Massachusetts.

"Any architect having the interest of the profession at heart could do nothing else but endorse your proposal"—Frederick H. Meyer, San Francisco, California.

"There is need for education in this field and we think that good can be accomplished"—CHARLES C. WILSON, Columbia, South

"I certainly am in sympathy with the movement"—W. H. BLAIR, Janesville, Wisconsin.

"I am with you whole-heartedly, body and spirit"—N. P. Backes, Milwaukee, Wisconsin.

"If you can show me a concrete plan whereby the layman home builder may be reached and educated, I am interested"—R. G. INGERSOLL, Warren, Ohio.

"We are very much in accord with this idea"—Douglas Orr, New Haven, Connecticut.

"I am in favor of any project which gives proper publicity to our profession provided it is carried out in a manner which is in accord with our high standard of professional ethics"—ROLLIN C. CHAPIN, Minneapolis, Minnesota.

"Undoubtedly there is plenty of room for work of this nature"

—ROLLIN E. GEBHART, Dayton, Ohio.

"The proposition sounds good to me and I am for it strongly and hope its going forward is possible and practical"—L. P. Wheat, Jr., Washington, D. C.

"I will appreciate further information with respect to your program"—Frederick G. Mueller, Hamilton, Ohio.

"It is impossible for any firm or group of architects to carry out an extension advertising campaign, but a national campaign should produce real results"—Francis M. Baldwin, Riverside, Illinois.

"I heartily endorse the sentiments expressed therein and would be very glad to hear more of the proposal"—Reddick H. Bickel, San Francisco, California.

"I am heartily in favor of your idea and am very much interested in your plan of attack"—Herbert Sobel, Chicago, Illinois.

"I wish to thank you for the effort which you are making on behalf of the architects"—Albert J. Evers, San Francisco, California

"This is the thing most needed by our profession"—EARL HALLENBECK, Syracuse, New Yor'r.

"I am personally in accordance with the general idea"—LEONARD P. BOTTING, New York, N. Y.

"It seems this proposition is being given much consideration and I hope something definite will result"—ARTHUR DAHLSTROM, Minneapolis, Minnesota,

"I think this a wonderful idea"—F. Roy Duncan, Columbus, Georgia.

"We think that your idea of improving the situation is good"— W. G. Eckles, New Castle, Pennsylvania.

"I am in favor of the plan"-HERMAN A. BELL, Miami, Arizona.

"I would like to know some of the details. At any rate you can count on me as a supporter of any such movement"—HERMAN J. DUNCAN, Alexandria, Louisiana.

"I am very much in accord with your purpose"—E. P. VALKENBURGH, Middletown, New York.

"Sounds good. Am with you"-PAUL W. HOFFERBERT, Gadsden, Alabama.

"For it"-THOMAS S. TANNER, Ann Arbor, Michigan.

"I'm for it!"-HARVEY P. SMITH, San Antonio, Texas-

"We are for this movement"-John G. Becker, San Angelo, Texas.

"Yes, I am for it"-CARL V. JOHNSON, Des Moines, Iowa.

"I for one am with you" -- WALTER H. PARKER, Roth & Parker, Los Angeles, California.

"Such a scheme as you suggest is certainly worthy of further investigation and we can assure you of our interest in the same"—Addison C. Berry, Hammond, Indiana.

"I would be very much interested to hear further on the matter outlined—when it is further developed"—ARTHUR B. HEATON, Washington, D. C.

"This seems like a worthwhile movement"—EARL F. MILLER, Appleton, Wisconsin.

"The above outlined proposal is certainly interesting and worthy of consideration by all practicing architects"—J. R. Smith, Lincoln, Nebraska.

"The cause which you are contemplating bringing pressure on is certainly worthy, but we do not see how you can accomplish it through magazine work and until we know more of the details, do not feel able to express ourselves on the subject"—C. B. ROWLEY, Cleveland, Ohio.

"I am heartily in favor of any effort along that line"—Leslie H. Lippiatt, Pasadena, California.

"The idea is a good one"-NICKLAS & RODRICK, Cleveland, Ohio.

"Your suggestion contains the germ of a most excellent idea"—A. BLAIR RIDINGTON, St. Louis, Missouri.

"I think your plan is very interesting"-HENRY S. CHURCHILL, New York, N. Y.

"You may be assured of my whole-hearted support of any movement to further the interest of the profession"—C. O. Chromaster, W. G. Clarkson & Company, Fort Worth, Texas.

"You should have the cooperation of the architects 100 per cent"—DALEY CRAIG, Petersburg, Virginia.

"We are heartily in favor of the proposed campaign and find that almost every architect in this community feels that he would like to give it his support"—WILLIAM G. KAELBER, Gordon and Kaelber, Rochester, New York

Kaelber, Rochester, New York.
"I am with you"—W. E. REYNOLDS, Green Bay, Wisconsin.
"Your proposition presents wonderful possibilities. Good luck.

Want to see it succeed"—F. A. Harris, St. Petersburg, Florida. "We endorse your idea most highly"—A. C. Eschweiler, Eschweiler & Eschweiler, Milwaukee, Wisconsin.

"This service on your part we consider would be of inestimable value to all engaged in this profession and we consider it would render a most valuable service to the public in general"—John S. Porter, McCarter & Nairne, Vancouver, B. C., Canada.

"I believe that you have taken the right move in the right direction"—Charles H. Ensign, Cleveland Heights, Ohio.

"Your suggestion is a good one and may bear fruit"—A. CAMP-BELL HOPE, Vancouver, B. C., Canada.

"I believe the plan to be very practicable and will be glad to do something toward its accomplishment"—J. W. EVERHARD, Cleveland, Ohio.

"We are in hearty accord with your program"—W. P. Manske, W. P. Manske & Associates, St. Louis, Missouri.

"We believe that your idea of educating the public as to the services rendered by an architect should proceed at once"—Noel H. Hick, Hadlow, Hughes, Hick & Conrad, Cleveland, Ohio.

"There is a need for this thing and I am in favor of it"— STANLEY M. PETERSON, Evanston, Illinois.

"We are pleased to hear of your idea and want to congratulate you on stepping forward with a concrete idea for publicity which will help the architect"—WILLIAM G. BALCH, Balch & Stanbery, Los Angeles, California.

"I am very much interested in your proposition"-FRANK C. WALTER, Tulsa, Oklahoma.

"I feel that if this matter is handled in the proper way it can accomplish a great deal"-NAIRNE W. FISHER, Dubuque, Iowa.

"I wish to compliment you on your initiative"-John L. Hamil-TON, Chicago, Illinois.

"I am for it"-SEYMOUR WILLIAMS, Rahway, New Jersey.

"Mr. Smith and I are very cordially disposed towards any sensible plan which will benefit the profession at large"-HAROLD O. REIF, Pittsburgh, Pennsylvania.

"We have been seeking for some years a way to educate the public along this line and we believe your suggestion points a way that end"-George E. Merrill, Secretary of Architecture, The American Baptist Home Mission Society, New York, N. Y.

"I don't know just what your idea is but would like to keep in touch"-Charles W. Steinbaugh, Omaha, Nebraska.

"There is no question your idea is a very sensible one"-S. CHARLES LEE, Los Angeles, California.

"We believe that before any architect agrees to contribute to fund of this character a more specific explanation should be made as to how the fund will be used to promote the architect's position in the minds of possible clients"-ROBERT E. BOURKE, Mundie and Jensen, Chicago, Illinois.

"I think this matter is one to be discussed in Chapter Meeting and am so suggesting to the President of the Louisiana Chapter"-Moise H. Goldstein, New Orleans, Louisiana.

"The Chapter has requested me to express its whole-hearted appreciation and support of what you intend to do"-W. S. Arrasmith, Secretary, Kentucky Chapter of the American Institute of Architects, Louisville, Kentucky.

"The Chapter membership believe that a better understanding of the services rendered by the Architectural Profession will be beneficial to those who finance, those who build, and those who occupy buildings as well as to the Architectural Profession, and commend your endeavor to work out a plan to educate laymen concerning the architectural services"-LEWIS HANCOCK, Secretary, Scranton-Wilkes Barre Chapter of the American Institute of Architects, Scranton, Pennsylvania.

"I am certainly strong for this idea, provided of course that it is handled in the right way, and I hope you will receive much encouragement and support in this urgent and worthy cause"-ARTHUR T. REMICK, New York, N. Y.

"I do not know of any place that I would be more willing to contribute \$25.00 a year for two years and I can tell you that I would be glad to do it"-EDWARD B. LEE, Pittsburgh, Pennsylvania.

"My Council is very much interested by your plan"-LUDGER Menne, Honorary Secretary, The Province of Quebec Association of Architects, Montreal, Canada.

"We feel that your proposal should have the 100% backing of every architect in all parts of the country"—FRED L. SWARTZ, Swartz & Ryland, Monterey, California.

"I am heartily in accord with everything you say and will do what I can to persuade others to support your programme."- F. H. Marani, Toronto, Canada.

"The architects in the larger cities get plenty of advertising through the newspapers but we, in the small towns who do comparatively small work which is not considered as 'news,' do not get any publicity whatever"-WALTER F. FONTAINE, Woonsocket, Rhode

"You have my yes"-PHILIP G. KNOBLOCH, Hazleton, Pennsyl-

"I am rather put out with the architects as a whole for not finding a way out of their difficulties themselves."-George S. Hawes, Flint, Michigan,

"This certainly is a crying need for the profession"-THEODORE H. SKINNER, Clearwater, Florida.

"I congratulate you and thank you for your forethought in this matter"-FREDERICK H. REIMERS, Oakland, California.

"I think you have conceived of a worthy plan, and whether or not my views coincide with yours, I would be pleased to render some assistance"-ARTHUR DYSART, Seattle, Washington.

"Fine object"—T. D. HETHERINGTON, Colorado Springs, Colorado. "We should like to assure members of this Chapter that Canada will be in your field of operations. You can be certain of support if such is your intention"—E. R. ARTHUR, Secretary, Toronto Chapter, Ontario Association of Architects, Toronto, Canada.

"I can only add my hearty approval"-KIRBY STRINGER, Birmingham, Alabama.

"This office would certainly favor such activity, provided the publicity was gained through other than the pages of architectural publications"-J. Percy Hanford, Newburgh, New York.

"I should be very glad to contribute twenty-five dollars a year for two years"-MARCUS T. REYNOLDS, Albany, New York.

"Want you to count me in on anything which can be of help to the architectural profession and I am certainly for it"-G. ALBIN PEHRSON, Spokane, Washington.

"I must say that you seem to have a good idea, and if you can show me how you propose to help us fellows out here in Nebraska, educate our laymen' and can convince me that your plan will work, I am for it"-JESSE B. MILLER, Lincoln, Nebraska.

"All in all, it is an interesting idea and I shall be glad to know what comes of it"-T. L. Rose, Milwaukee, Wisconsin.

"I am very much interested in the campaign suggested by PENCIL Points"-Ossian P. Ward, Louisville, Kentucky.

"I am heartily in favor of your letter"-CHARLES ALTFILLISCH, Decorah, Iowa.

"Would be glad to do anything within our power to help you carry on the work"-Horace L. Smith, Jr., Richmond, Virginia.

"We are personally in favor of this movement"-Louis Green-STEIN, Buffalo, New York.

"We are interested in the plan outlined in this letter and would agree to contribute twenty-five dollars a year for two years for such a fund"-Russell Howard, DuBois, Pennsylvania.

"There is no doubt in my mind that the public should be better educated regarding architects' services"—Obadiah Bass, Lexington, Kentucky.

"We wish to advise you of our hearty approval and desire to assist you in every way possible"-C. H. OEMLER, Miami, Florida.

"Your attitude and your contemplated activities relative to this matter meet with my hearty endorsement"-HARRY D. PAYNE, Houston, Texas.

"We are favorable to the idea providing the means used are of a type calculated to help bring the desired result"-Albert C. McDonald, Detroit, Michigan.

"We heartily endorse the educational plan"-ARTHUR K. HYDE, Detroit, Michigan.

"Your desire to educate laymen concerning the value of architectural services ought to be commended and supported"-Selby H. KURFISS, Kansas City, Missouri.

"All sounds just right".—ALTHOUSE & JONES, Mansfield, Ohio. "It would seem to us that the lead you intend to take educating the public concerning the value of architectural services is mighty fine"-Wallace P. Beardsley, Auburn, New York.

"At the outset we wish to say that we are thoroughly in sympathy with your ideas"—ELMER A. STUCK, Little Rock, Arkansas.
"I heartily endorse your plan"—MAURICE E. KRESSLY, Orlando,

"Your proposed educational service to the architectural profession found, in me, a welcome and responsive appeal"-ARTHUR F. COMER, Savannah, Georgia.

"Some action must be taken by the architects shortly and I am very glad that you have been far-sighted enough to be willing to pioneer in this line"-S. BRUCE ELWELL, Boston, Massachusetts.

"Your proposed plan is very creditable and should have the support of the architectural profession in every community where no effort is being made by the state architectural societies in this direction"-LEON E. STANHOPE, Chicago, Illinois.

"Any movement that would successfully accomplish that end would, of course, have my approval; that is, provided it were handled on the highest professional plane' "-WILLIAM C. NOLAND, Richmond, Virginia.

"Feel quite interested in the suggestion"-W. H. EMORY, JR., Baltimore, Maryland.

"You have hit upon a subject in which I have been interested, passive, for years"-Victor A. Matteson, Chicago, Illinois.

"I most heartily agree with you that something must be done if we hope to receive due consideration from the trickery selfish building public"-Frank H. DeArment, Akron, Ohio.

You can count on me and the two men who work for me. Start on the A.I.A. with their Small House Bureau which to my positive knowledge has put several good young architects out of business and driven them out of their profession"-Guy B. Johnson, Philadelphia, Pennsylvania.

"My most enthusiastic personal endorsement"-BERNARD HEATHERLEY, Rochester, New York.

"You have certainly put your finger on a very sore spot and I certainly wish you success in your efforts"—A. L. BROCKWAY, Syracuse, New York.

"As an individual I am decidedly for your proposition of doing something for the standing of the Profession"—CLARENCE T. Myers, Indianapolis, Indiana.

"My heartiest congratulations for your thought"-HALL CREWS, Winston-Salem, North Carolina.

"We enthusiastically endorse your effort"-GEORGE GOVE, Tacoma, Washington.

"I have read your letter with much interest and am fully in accord with your views"-ROBERT H. ORR, Los Angeles, California.

"We very cordially favor your project, but believe that you should get the approval of the American Institute of Architects"—H. E. HEWITT, Peoria, Illinois.

"We sincerely hope that your plan will be put into operation soon, and believe that it will be of great value to the profession"—HOWARD I. EILER, Reading, Pennsylvania.

"Attacks perhaps the most vital problem with which the architectural profession is concerned and cannot help but enlist the serious attention and consideration of all architects as well as those directly or indirectly engaged in the profession"—PAUL MARZILLIER, Milwaukee, Wisconsin.

"It appears to me that you have in mind a very important project which will be welcomed with great appreciation by all of us"—GILBERT L. VANAUKEN, Syracuse, New York.

"The sooner we put architecture on a business basis the sooner the architect, instead of the contractor, will lead in building construction. Legitimate means should be used. Advertising is legitimate"—R. C. Hugenin, Butte, Montana.

"I hope it will prove to be a successful undertaking"—WALTER F. BOGNER, Boston, Massachusetts.

"Sounds most opportune"-G. Piers Brookfield, New York, N. Y.

"Feel assured that you will have my support in any plan which will bring the question forcefully to the laymen's attention"—J. E. COYLE, Joliet, Illinois.

"Wish to go on record as heartily endorsing the suggestion as outlined"—EARLE L. SHEPPARD, Toronto, Canada.

"I think this is a splendid plan and am quite in accord with your suggestion"—P. R. L. HOGNER, Pittsburgh, Pennsylvania.

"It will be very much appreciated if you would go further into the matter with me"—MALCOLM G. SIMONS, San Antonio, Texas.

"We will be glad to contribute \$25.00 a year for two years towards this fund provided that the scheme embraces educating the Canadian public as well as that of the United States"—E. W. HALDENBY, Toronto, Canada.

"We are very much in favor of your proposed nation wide advertising campaign for architects"—Thomas K. Hendryx, Bradford, Pennsylvania.

"If you have something in mind for the little fellow, I shall be very glad to take a crack at it"—LYNN TROXEL, Tiffin, Ohio.

"If the plan is thoroughly investigated and approved by the A.I.A. I would be in favor"—Alexander McCall, Grand Rapids, Michigan.

"I am heartily in favor of the principle"-E. G. Holbrook, Davenport, Iowa.

"Give me some idea of your plans, not only will I contribute, but am willing to help in other ways if needed"—A. E. KLUEPPEL-BERG, Bronx, New York.

"This proposal is wonderful and far-sighted—and of course we wish it success"—IDA A. RYAN, Orlando, Florida.

"You are working on a scheme which, if sufficiently extensive, should prove of inestimable value to the profession"—EDWARD C. SMITH, Poughkeepsie, New York.

"We would like to place your letter before the members of the Manitoba Association of Architects at a general meeting to be held on January 20th. We will communicate with you further"—Over & Munn, Winnipeg, Canada.

"It brought the first note of cheer of the new year to this architect"—Julius J. Schwarz, Chicago, Illinois.

"We wish to express ourselves as being whole-heartedly in favor of your plan"—CARL W. CLARK, New York, N. Y.

"I shall be glad to co-operate in every possible way"—Robin B. Carswell, Fort Madison, Iowa.

"I am heartily in accord with the sentiment expressed in your letter"—A. V. McIver, Great Falls, Montana.

"We wish at this time to let you know that we are heartily in favor of your plan"—EDWARD O. ANDERSON, Salt Lake City, Utah. "I am most heartily in favor of such a movement provided it

"I am most heartily in favor of such a movement provided it follows the lines indicated in your letter and would support it earnestly"—Francis J. Taylor, Hanover, Maryland.

"The plan you have outlined is a most commendable one"— WILLIAM E. FISHER, Denver, Colorado.

"Your letter received and read with a great deal of interest not unmixed with some elation and a large amount of trepidation"— MEYER J. STURM, Evanston, Illinois.

"Want to compliment you on the idea, which is the best ever"— LLOYD E. MELLOR, Harlingen, Texas.

"We are in hearty accord with the sentiment of your letter and will contribute to a fund to relieve the situation"—Albert S. Ross, Ada, Oklahoma.

"The situation in that regard is even worse than you describe it and of course if this could be improved even as much as 25% it would be of very material assistance to the income of architects, and I am willing to help in any way that I can"—John R. Gieske, Huntington, West Virginia.

"I agree with you on most of your indictments but think it is as much the architect's fault, if not more, that the public is not educated to their value and I think they need some educating as well as the public"—J. H. Antrobus, Montrose, Colorado.

"I think it is the prerogative if not the duty of the architectural press to do the job of educating the public. The architect and draftsman have a tremendous burden in educating themselves"—HENRY K. HOLSMAN, Chicago, Illinois.

"There certainly is not an item concerning the profession today which is of so much importance as this matter of publicity"—GEORGE C. WRIGHT, Indianapolis, Indiana.

"A plan of this kind is universal in service"—LEONARD C. HEDRICK, Chicago, Illinois.

"We believe that doctors as a class are good examples of public education and we see no reason why the architects should not be alive enough to the situation to follow suit"—George A. Spooner, Council Bluffs, Iowa.

"We are very heartily in favor of your proposed plan"-E. T. Mock, Tacoma, Washington.

"An advertising campaign such as you seem to have in mind would benefit the incompetent fully as much if not more than the competent architect, and the competent architect would be the one who would pay for it. We are interested, however, in your proposal and will be pleased to receive additional information"—Seth J. Temple, Davenport, Iowa.

"It is the writer's opinion that this campaign should be conducted in cooperation with the National Body of the American Institute of Architects rather than with individual architects"—HARRY L. MEAD, Grand Rapids, Michigan.

"Of course we are interested in anything to help the profession along, but as yet we are from Missouri"—Elmer R. B. Chapman, Stoneham, Massachusetts.

"The plan proposed in your letter of January 6th is a very good one and should meet with approval of architects in general. I believe, however, that the greatest competition is from those architects who do not charge full fees as outlined by the American Institute of Architects, rather than competition of buildings built without architectural service"—S. N. Crowen, Chicago, Illinois.

"Our first reaction is that the various architectural societies have arrived at your own state of mind at about the same time you have, and we would be inclined to wait and see what they will do"

—John H. Stevens, Portland, Maine.

"I am inclined to believe, with the president of one of our great universities that the only education there can be is self-education" —George L. Smith, Boston, Massachusetts.

"The architect of small means would be foolish to advise the public through advertising to select the best architect available, as you know that points to the one already best established. Remember how hard pressed the small architect is, and be democratic in your advertising"—A. Folger Snow, Daytona Beach, Florida.

"I believe, however, it would be better if this campaign were conducted through co-operation with the American Institute of Architects, as the secretary of the local chapters is in closer touch with its members than any advertising organization"—LEONARD WILLEKE, Detroit, Michigan.

"I am very much in favor of your plan and will be very pleased to contribute \$25.00 a year. I think, however, that the plan of publicity should be very carefully thought out and such publicity carried on in a highly dignified manner, through a medium that will reach important people, so that it will not have the character of advertising that might do more harm than good"—H. Roy Kelley, Los Angeles, California.

"Your idea is great, but \$10,000.00 is a drop in the bucket and I would advise that you save it, with the information at hand as furnished by you. Your plan may be different and it may work; I sure hope it does"—George E. EICHENLAUB, Erie, Pennsylvania.

"The Rochester Society of Architects, of which I am a member, is endeavoring to do just what you propose to do"—Horace T. Hatton, Rochester, New York.

"Your three closing paragraphs are splendid. Naturally anything that helps the architect is bound to rebound to your advantage. That's the business purpose of it. But, using the same argument, what a field there is for you to encourage the architect, not in his untenable claim for greater consideration and appreciation, but rather in fitting himself to give such service as will naturally bring him a return of voluntary, real, and merited appreciation instead of the artificially created one all effort seems to be centered upon securing now!"—F. W. FITZPATRICK, Evanston, Illinois.

PENCIL POINTS FOR MARCH, 1930

"We do not believe that it is advisable for us to participate at the present time. The American Institute of Architects have been considering a plan similar to this and should they do so, we would naturally want to give it our entire support"-EDGAR W. MAYBURY, Pasadena, California.

"It is somewhat doubtful as to what tangible results can be secured by any educational scheme along these lines, and, of course, unless some tangible results are obtained, it is simply a question of throwing good money after bad; but we all realize that if something is not done in some way or another, conditions will probably get worse instead of better"—FREDERICK H. ELEY, Santa Ana, California.

"It is very gratifying to hear that Pencil Points is going to take up the cudgels on behalf of architects"-Angelo Hewerson, Alameda, California.

"Something should be done and whatever that will be it should be of such make-up that all architects and in particular those living in small towns will get full benefit"-George Issenhuth, Huron, South Dakota.

"This was taken up in our Chapter Meeting of the American Institute of Architects and it was agreed that this was a fine thing for our Profession and that we would contribute as a Chapter directly to your fund"-HARRY C. CHILD, Sayre, Pennsylvania.

"I believe such publicity is much more necessary on the frontiers of architecture than in the highly civilized centers"-CLARENCE W. Brazer, New York, N. Y.

"I would be favorable to the idea of contributing \$25.00 a year for two years to a fund to be used in educating the investing public to the advantages in the use of architects. The ten draftsmen in our office would also be willing to contribute \$5.00 for the same purpose"-Walter T. Williams, New York, N. Y.

"Your letter sums up the difficulties of the architects"-HARRY

C. GRIFFITH, Dayton, Ohio.

"There is no doubt at all that the position of architecture in the lay mind is due to nothing other than failure upon the part of the profession to let folks know why and how they are entitled to be thought of as contributing something worthwhile to human progress" -ROBERT W. DICKERSON, Cleveland, Ohio.

"Has a very strong appeal to us because we found that our oldfashioned architectural connection was a very uncertain quantity"-FRANK PEDEN, Montreal, Canada.

"I am certainly in favor of such a plan"-George E. RAMEY, Champaign, Illinois.

"I think you are attempting a very large order and should have support not only from architects but also from general contractors throughout the country, from sub-contractors, and from manufacturers of building materials"-Rossel E. MITCHELL, Washington, D. C.

"We would consider your suggestion favorably, but it must be remembered that such public information is good only when it gets to people"-George E. V. Blumenauer, Enid, Oklahoma.

"We were very much impressed"-J. W. Ludewig, St. Louis, Missouri.

"Would it not be better to try to experiment for one year instead of two?"-Edward I. Shire, New York, N. Y.

"I am heartily in accord with such a movement and would be glad to make some annual contribution to such a scheme"-W. F. STAUNTON, JR., Los Angeles, California.

"I do not believe that any single method of publicity will lead to the goal, but that every legitimate and professional means should be used for bringing about the desired results. Furthermore, in the writer's opinion, the Institute is the proper organization to undertake this, at least to direct it"—M. H. FURBRINGER, Memphis, Tennessee.

"I favor the idea in its general aspects and would be willing to contribute"-HARRY B. BRAINERD, New York, N. Y.

"Your letter outlines a kind of service to the profession whichmight prove to be very real and helpful"-R. C. HENRY, Boston, Massachusetts.

"The first place to advocating architectural and engineering service is to those institutions lending money. If each institution placing mortgages would first inquire whether the building had been planned by a competent architect, both the money lender and the architect would profit. Until the money lenders have this understanding the laymen can not be convinced"-RICHARD IRVIN, Pittsburgh, Pennsylvania.

"I am heartily in favor of the adoption of a plan which will sell architectural service to the public"—HOWELL TAYLOR, Ann

Arbor, Michigan.

"Your 'moonshine' is in the mail, with the proposition that you want to help promote an architect's business-(passing the hat us, at the same time). Fine spirit truly-but at the end of seeing the architectural press work, for twenty-five years, I am afraid that you can't get up any momentum; you have been sound 'asleep at the switch'; it sounds pathetic to me, to send out your 'straw grasping' proposition. Big Business owes the architectural profession a great debt; it has not been paid to date. You can, if you are in earnest in your plan, make them pay this debt, without passing the hat to us"—WILLIAM T. SCHMITT, Oklahoma City, Oklahoma.

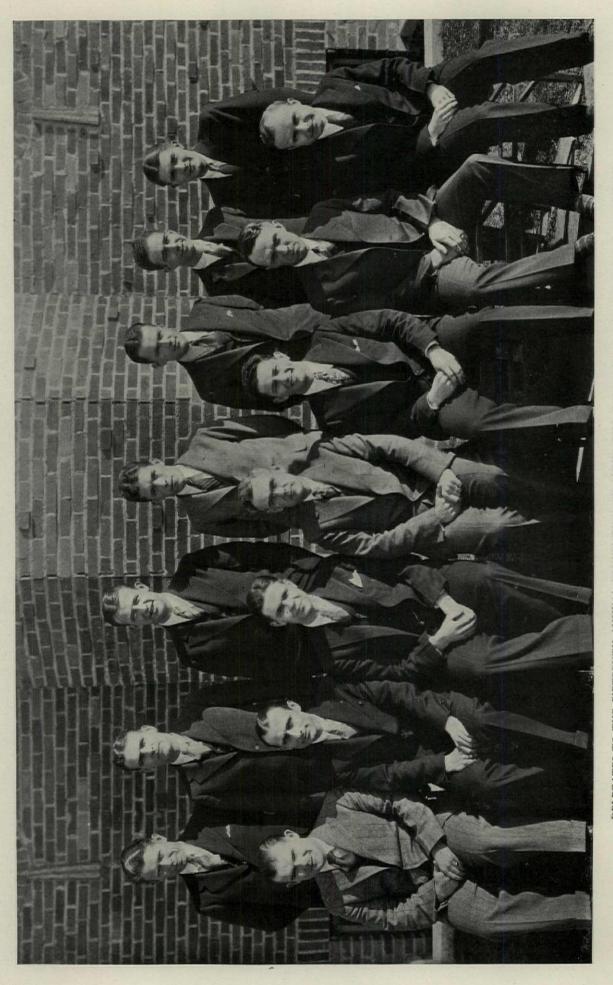
"I am in hearty sympathy with an advance on the whole front, but I cannot subscribe to a spear point at an isolated spot"-Fred-ERICK A. MUHLENBERG, Reading, Pennsylvania.

"Your intentions are good, but your innocence of actual condi-

tions is child-like"—A. W. Sмітн, Oakland, California.

"Advertising for the education of the public is, of course, desirable, but unless the craft can cooperate to the extent of eliminating unfair competition or forcing requirements on all who dabble in design, of certain regulated standards, any moneys expended for this purpose are sheer waste and evidence of just more feeble attempts at recognition"-C. WILLIAM SWANSON, Pawtucket, Rhode Island.

"We are for any workable plan to achieve the object set forth"-GORDON M. WEST, Toronto, Canada.



FRONT ROW (left to right):. P. W. Jones, Minnesota; E. E. Eggert, National Editor; R. B. Mitchell, Convention President, Illinois; D. P. Ely, Grand Council; J. B. Routh, Convention Secretary, Illinois; T. J. Strong, Illinois; E. H. Riedmaier, Carnegie Institute of Technology. Back Row (left to right): H. W. Baker, Kansas State Agricultural College; C. J. Olsen, Minnesota; H. B. Pratt, Southern California; W. S. Gould, Ohio State; T. H. Allen, Texas; J. C. Crissey, Michigan; J. E. Spann, Illinois. DELEGATES TO THE FIFTEENTH ANNUAL CONVENTION OF ALPHA RHO CHI, HELD AT THE UNIVERSITY OF ILLINOIS

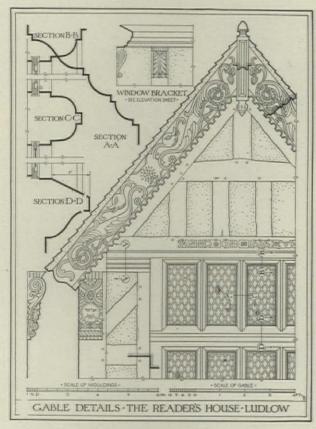


THE DRAFTSMAN'S LIBRARY

In our review of the Year Book of the Annual Architectural Exhibition, Philadelphia, 1929, printed in the January, 1930, issue of Pencil Points, we inadvertently omitted to mention the fact that the book was dedicated to the late Milton B. Medary and that it contained a special memorial section in which were reproduced a number of Mr. Medary's sketches and architectural drawings together with a biography. We are now calling attention to the omission in the belief that many of our readers will find the book of interest for this particular feature.

Tudor Homes of England, by Samuel Chamberlain; 246 plate pages, 12" x 16"; price \$27.50; published by the Architectural Book Publishing Company, New York.

We can become enthusiastic about this book from any point of view—well, almost any. As the publishers state in their announcement, it contains an original print of one of Chamberlain's etchings as a frontispiece, sixty photogravure reproductions of his pen and pencil sketches, thirty full page measured drawings by Louis Skidmore, about three hundred admirable photographs of carefully selected subjects, and a descriptive text which is entertaining as well as instructive. They are all good. So here is practical material in great abundance for the architect and designer of domestic work, balanced with a profuse collection of delightful drawings full of information and inspiration for the sketcher and renderer.



Drawing by Louis H. Skidmore, from "Tudor Homes of England"

The volume is supplementary, in a way, to the famous standard work by Garner and Stratton, Domestic Architecture of the Tudor Period in England, for the authors have searched out and presented a selection of the countless excellent examples of Tudor work which had perforce, for lack of space, to be omitted from the earlier, more exhaustive treatise. The Chamberlain-Skidmore opus deals more particularly with the smaller Tudor homes. "Many of the too famous mansions" (we are quoting from the author's introduction) "have been omitted entirely, as well as the largest Tudor estates, the gaunt and severe structures which, though important historically, offer small inspiration to present-day builders. Where the better known manors have been illustrated, an effort has been made to present unfamiliar angles of them. In place of the ambitious estates, there has been substituted a large number of modest structures: cottages, farmhouses, wayside inns, and almshouses, which, by their detail or ensemble, offer adaptable information to architects of today."

Though the price set upon this book may seem to place it beyond the budget allowance of many draftsmen, we offer, as our opinion, that it is worth saving pennies for. It would not only grace any library but, rightly used, could conceivably pay for itself on even one domestic job.

The Honeywood File, by H. B. Creswell; 310 pages, 5" x 7"; price 7s. 6d.; published by The Architectural Press, London.

"Although The Honeywood File is designed to engage aspirants to architectural practice with a lively presentment of the adventures that await them, a picture in which men and women rather than architects and builders occupy the canvas, and which is more concerned with the fabric of life than with the fabric of houses, will perhaps amuse those who have fallen under the spell of bricks and mortar or who are curious of the unexplored." Thus the author's preface introduces this delightful and unique book. It is the sort of story that engages the attention of the reader from the very start and makes him want to finish it at a single sitting. Such books are rare.

The story is presented as the contents of a folder from an architect's correspondence file relating to a single commission. The letters are, of course, arranged chronologically-including those received and those sent out-so that the whole history of the job is laid out before the reader in a most comprehensive way. If you get a copy and read it-and we urge you not to miss it-you will make the acquaintance of James Spinlove, the young architect, Sir Leslie Brash, his client, Lady Brash, Grigblay, the builder, and a number of other characters who will become for you real living people, typical perhaps of the types you are likely to meet in actual architectural practice. From observing the way in which Spinlove conducts his relations with client, client's wife, builder, district surveyor, material dealers, and all the others-how he gets into difficulties and succeeds in smoothing them out—a great deal of practical value can be learned. That, however, is incidental. The book is of value chiefly for its entertaining quality. It is the only one we have ever



Print by Ernest Watson, from "Linoleum Block Printing"

seen which presents the practice of architecture as a human experience. We feel, after reading it, like thanking the author and publishers for adding so materially to our enjoyment of the architectural scene. As we saw suggested somewhere—perhaps in the publishers' blurb—the book would be a splendid gift from an architect to a client or vice versa.

The Old Cottages and Farmhouses of Norfolk, by Claude J. W. Messent; 245 pages, 7½" x 9¾"; price 10s.; published by H. W. Hunt, Norwich, England.

In this book we find a record, in the form of pen and ink sketches, of the many fine old cottages and farmhouses of Norfolk, England. The author, a British Architect, undertook the work in the hope of making the English public realize what a splendid heritage they have in these old buildings, many of which are rapidly falling to decay. Although the sketches are not particularly brilliant as specimens of draftsmanship the subjects have some architectural interest as showing a variety of small dwellings and rural shops. The author's notes describing the buildings and discussing the materials and methods of construction used in them form a valuable supplement to the drawings.

Linoleum Block Printing, by Ernest W. Watson; 75 pages, 8½" x 11"; price \$3.00; published by Milton Bradley Company, Springfield, Mass.

While the making of linoleum block prints does not come within the field of workaday architectural office practice it is an interesting hobby to many architectural draftsmen. It offers tremendous possibilities as a medium for artistic expression, but, whether you just turn to it when you are making your annual Christmas card or go

in seriously for the making of fine prints like those of Mr. Watson himself, you will find his book of great assistance. The technique is clearly explained by the text supplemented by admirable drawings and diagrams. Many block prints showing various methods of handling the medium suggest ways for solving your particular problem. We have seen perhaps half a dozen books on the subject of making block prints but none were so clear and thorough as this one.

Projects in Design, by Stanislaw Szukalski; 200 pages, 103/4" x 12"; price \$20.00; published by the University of Chicago Press, Chicago.

Reviewed by Frank H. Schwarz

This book of Projects by Stanislaw Szukalski is an arresting and vital book. Szukalski seems like a man who, with great delusions of grandeur, labors mightily to prove his delusions true. The danger in passing judgment is in keeping the middle path, not blaming wholly or casting the work aside as egocentric exaggeration, nor yet swallowing it entire and proclaiming Szukalski hero, prophet, artist, and philosopher all rolled into one. That Szukalski believes this of himself he leaves no doubt whatever. That many do doubt is also clear.

Of the profound ability of the man no one who will look and see can remain unconvinced. It seems to me that Szukalski squanders prodigally a wealth of most beautiful detail on projects which often seem childish, immature, and even senseless. To one who can enjoy beautiful things the details (the Art) of Szukalski should be easy to enjoy. He is a master of form, always has been, probably will continue, so I do not agree with him that he



Monument to Mickiewicz, from Szukalski's "Projects in Design"

THE DRAFTSMAN'S LIBRARY



Design for Monument to Mussolini, from Szukalski's "Projects in Design"

has developed this by exercise; it is a special talent, neither better nor worse now than it was in Chicago twelve or thirteen years ago. His design extends no further than the details of his form but how wonderful it is within those limits! I have found something to delight me in every plate and nobody can say that his projects do not have some thrill of beauty in them. To take for example, the Mussolini, no matter how one may be affected by what seems gruesome and macabre, the alive beauty of the animals, the curl of the ears, the expression on the snarling mouth, are things of beauty. The fine clash of dark and light in the project for a concrete bridge, the designed swirl of the water, are very fine. In the project for a bold structure the contorted, almost human forms of the clouds racing across a pitchy sky form a fittingly dramatic foil to the fantastic structure in the picture. I choose for preference the Monument to Mickiewicz as being most like Szukalski. It seems to read most easily in its massits symbols more acceptable for continuous wear and tear. As a design its details are supreme. I could ask only one thing of Stanislaw,-would he, could he, possibly include somewhere in the composition a single simple vertical line?

OTHER BOOKS RECEIVED

To be reviewed in a later issue.

Mastering a Metropolis, by R. L. Duffus; 302 pages (including index), 5½" x 8½"; price \$3.00; published by Harper & Brothers, New York.

The City of Tomorrow, by Le Corbusier, translated from the 8th French Edition of Urbanisme with an introduction by Frederick Etchells; 302 pages, 7" x 9½"; price \$7.50; published by Payson & Clarke, Ltd., New York.

High Lights of Architecture, by Edith Long Thurston; 64 pages, 8" x 11"; price \$2.50; published by Bridgman Publishers, Pelham, New York.

The Fundamentals of Good Bank Building, by Alfred Hopkins; 142 pages, 6½" x 9½"; price \$7.50; published by The Bankers Publishing Co., New York.

Our Cities Today and Tomorrow, by T. K. and H. V. Hubbard; 389 pages (including appendices and index), 63/4" x 91/2"; price \$5.00; published by The Harvard University Press, Cambridge, Mass.

Modern Architecture, by Henry-Russell Hitchcock, Jr.; 241 text pages, 8" x 11", with 58 illustrations; price \$5.00; published by Payson & Clarke, Ltd., New York.

Handbook for Architects and Builders, thirty-second edition, 1929; 780 pages, 6" x 9", including indexes and advertising pages; published under the auspices of the Illinois Society of Architects.

Drawing and Painting Self-Taught, by Anson K. Cross; 199 pages with bibliography, 5½" x 8¼"; published by A. K. Cross, Boothbay Harbor, Maine.

The Cathedrals of England and Wales, by T. Francis Bumpus; 344 pages, 6¾" x 8¼", including glossary, index, and 56 illustrations; price 25 shillings; published by T. Werner Laurie, Ltd., London.

Year Book of the New York Society of Architects, 1929; 369 pages, 6" x 9"; published by the New York Society of Architects.



A Concrete Bridge with Shoes of Steel, from Szukalski's "Projects in Design"

PROGRAM

AN OPEN ARCHITECTURAL COMPETITION

FOR THE DESIGN OF

AN EIGHT-ROOM HOUSE AND TWO-CAR GARAGE

The Designer may assume that the choice of Materials is at his discretion.

Authorized by THE PENCIL POINTS PRESS, INC.

[Russell F. Whitehead, Architect and Editor, has been appointed as Professional Adviser to prepare this program and to act as Adviser in the Conduct of this Competition.]

Participation in this Competition is not limited. Pencil Points is appealing to the competitive spirit of all Architects and Draftsmen, hoping they will be inspired to produce designs of outstanding merit.

Contestants may submit any number of designs.

This Competition Closes at 6 P. M., Thursday, May 15th, 1930.

COMPENSATION TO COMPETITORS

PENCIL POINTS PRESS, INC., agrees to pay to the Winners, immediately after the Award by the Jury the following Prizes:

Premiat	ed Des	ign		 	1 340	 		\$1000.00
Design								
Design	placed	Third	* * * *			 * (*)		200.00
Design	placed	Fourth				 		100.00

SIX MENTIONS

JURY OF AWARD

PENCIL POINTS PRESS, INC., agrees that there shall be a Jury of Award composed of Five Architects, representing different sections of the United States.

Pencil Points Press, Inc., and the Competitors agree that the Jury of Award has authority to make the awards and that its decisions shall be final.

PROBLEM

PROBLEM: Mandatory. The design of a distinctive and modern house with eight principal rooms, to be built of materials chosen by the designer. The occupants are to be a cultured man, his wife, two children of high-school age, and a servant. Provision shall be made for overnight guests and for genial hospitality.

The house is to be located in the suburbs of a city or in the residential districts of a progressive town, anywhere in the United States. The assumed geographical location to be stated on the drawing. The site is assumed to be in the middle of a block and the land to be level. The lot is rectangular and has a frontage of seventy-five feet (75'-0") on the Street and a depth of one hundred and fifty feet (150'-0"). The Northerly end of the lot faces the Street. A restriction states that no house can be erected nearer than thirty feet from the highway property line and that no building may be placed directly on the other lot lines.

The total area of the first floor shall not exceed one thousand two hundred (1200) square feet, including the area of the garage and porches.

Provision is to be made for Living Room, Dining Room (separate or combined), Kitchen and Five Bedrooms. Four Bathrooms, one two-fixture Lavatory and Pantry are to be provided.

One of the Bedrooms and one of the Bathrooms are to be located on the first floor for possible use as maid's room or guest room. The necessary circulations are to be included. There shall be at least one Closet for each Bedroom, a Linen Closet and a Coat Closet. If cellar is to be used for other than utilitarian purposes accessible stairway shall be included.

PROGRAM FOR PENCIL POINTS COMPETITION

A garage for two automobiles is required. It is assumed that the owner prefers that the garage be directly connected to the house.

CONSIDERATIONS OF THE JURY OF AWARD:

1. Evidence of the imagination and skill of the competitors.

The Architectural Merit of the design and the Ingenuity shown in the development of the plans.

 Fitness of the design as a whole to meet the spirit and needs of the problem.

4. Practicability of Construction.

Excellence of Rendering, while desirable, will not have undue weight with the Jury, in comparison with its estimate of the Competitor's ability, if otherwise shown.

COMPUTATION OF THE TOTAL SQUARE AREA: Measurements to be taken from the outside of exterior walls, or porch foundations.

All square area figures will be carefully checked before designs are submitted to the Jury.

Designs exceeding 1200 square feet total first floor area will not be considered.

PRESENTATION, DRAWINGS: Mandatory. The following drawings are to be submitted:

- Perspective of the residence, at the scale of one quarter inch equals one foot, heights to be measured at corner of building nearest the spectator, undeniably true, rendered in pen and ink, clearly indicating the character of the exterior finish and showing a scenic background which is in keeping with the limitations of the site.
- 2. Plans at the scale of one eighth inch equals one foot, of the First Floor and the Second Floor. The walls and partitions are to be inked solid black and the name and dimensions of each room lettered plainly to be read easily when reproduced at one quarter the size of the original drawing. Range, sink, cupboards and beds are to be shown.

One Side and the Rear Elevation, at the scale of one eighth inch equals one foot.

 Detail of some Exterior Feature of the design at scale of one half inch equals one foot.

5. Graphic Scales must be shown.

 The drawings shall be made in full black ink and shown on one sheet of white paper. Diluted black ink, color or wash; cardboard, thin paper or mounted paper is prohibited.

 The sheet is to be exactly 26 x 39 inches. Single black border lines are to be drawn so that space inside them will be exactly 25 x 38 inches.

- The drawing shall bear the title: Design for an Eight-room House—The Pencil Points Competition. It is to be signed by a Nom de Plume, or Device.
- 9. An itemized computation of the total square area together with a note stating the assumed geographical location is to be placed upon the drawing in a space not to exceed 4" x 1½", surrounded by single border line.

COMMUNICATIONS: Mandatory. As this is an open Competition it will be impossible to answer inquiries. Therefore, the contestants shall not communicate, on the subject of this competition, with the Professional Adviser, or with any other person in any way connected with it, either directly or indirectly.

ANONYMITY OF DRAWINGS: Mandatory. The

drawings submitted shall contain no distinguishing mark, except the Nom de Plume or Device, which could serve as a means of identification. No competitor shall directly or indirectly reveal his or her identity to the Professional

With each drawing there must be enclosed a plain, opaque envelope, containing the true name and full address of the contestant. The Nom de Plume of the contestant shall be placed on the outside of the sealed envelope. The envelope will be opened by the Professional Adviser, in the presence of the Jury, after the awards have been made.

DELIVERY OF DRAWINGS: Mandatory. The drawings submitted in this competition shall be securely wrapped, in a strong tube not less than $2\frac{1}{2}$ " in diameter, to prevent creasing or crushing, and addressed in plain lettering to Pencil Points Press, Russell F. Whitehead, Professional Adviser, 419 Fourth Avenue, New York, N. Y. No other lettering shall appear on the wrapper. Contestants sending drawings by registered mail must obliterate the return name and address and not demand return receipt.

Drawings shall be delivered to Pencil Points office or placed in the hands of the Post Office not later than 6 P. M. Thursday, May 15th, 1930. The postmark will

serve as evidence.

Drawings submitted in this competition are at the competitor's risk. Reasonable care, however, will be exercised in their handling, keeping and package for return.

EXAMINATION OF DESIGNS: The Professional Adviser will examine the designs and records of their receipt to ascertain whether they comply with the mandatory requirements of the Program and will report to the Jury any instance of failure. The Jury will satisfy itself of the accuracy of the report and will place out of the competition and make no awards to any design not complying with mandatory requirements. No drawing shall be exhibited or made public until after the Award of the Jury.

JUDGMENT: The Jury of Award will meet shortly after the close of the Competition.

ANNOUNCEMENT OF THE AWARDS: The Professional Adviser will send, by mail, the names of the winners of the Prizes and Mentions, to each competitor, as soon as possible after the awards have been made and the envelopes have been opened. The announcement will also be published in the July issue of Pencil Points. Requests for this information by telephone and telegraph will not be answered.

REPORT OF THE JURY: The Jury will make a full report, stating the reasons for the selection of the winning designs and offering helpful criticism and comment upon designs not premiated. This report will be published in Pencil Points along with the reproductions of the winning designs and such additional designs as may be selected.

THE PRIZE DESIGNS: Are to become the property of Pencil Points and the right is reserved by this publication to publish or exhibit any or all of the designs not premiated. In every case where a competitor's design is shown his or her name and address will be given.

RETURN OF DRAWINGS: The Authors of non-premiated designs will have their drawings returned within a reasonable time, postage prepaid, insured for \$50.00.



ERNEST IRVING FREESE

PRATT ARCHITECTURAL CLUB

ALTHOUGH WE HAVE come to expect versatility from architects and such, we were pleasantly surprised to note the agility displayed by some of the members at the Midwinter Dance on February 1st. The setting, in the Clubhouse of the Architectural League of New York was ideal, and played a large share in making the affair a social and

INDIANAPOLIS ARCHITECTURAL CLUB NEWS



THE BORDER at the left, submitted by John G. C. Sohn, of The In-dianapolis Architectural Club, is the prize in a recent competition for a design for "The Scandal Sheet." This is a weekly publication of the Indianapolis Club, which is edited each week by a different member of the Club; the blank space in the center is used for news.

The sheets are blueprinted and sent to the members. In this way, no burden falls on any one person and a great friendly rivalry exists. A good idea, this, isn't it? artistic success. We regret only that all the club members and their friends could not be present.

The scheduled trip to the Alumni-Varsity Basketball Game at Pratt, on February 28, developed into an All-Alumni affair and, once the word was passed, the Alumni of the other schools at Pratt were glad to join in to make this a big night.

On March 11 we will have the Open House Meeting at the Fraternity Club at 8 o'clock. Special features, round-table talk, and refreshments are on the program. As a final note we want to tell our friends in distant parts that the interest and enthusiasm shown by the other Alumni Associations of the Institute lead us to hope that we will soon be able to invite them to be our guests in our own clubrooms of the Allied Pratt Alumni in New York.

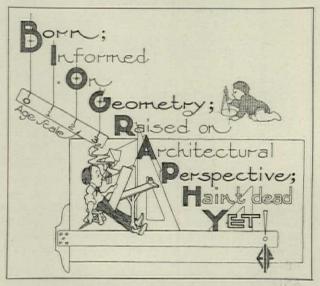
CHICAGO HAS ARCHITECTURAL EXHIBITION

THE COORDINATION OF the varied activities in the construction of a modern building is the keynote of the Second Annual Chicago Architectural Exhibit, which began February eleventh under the auspices of the Architects' Club of Chicago and supported by the Chicago Chapter of the American Institute of Architects and the Illinois Society of Architects. The show will run through March in the exhibit rooms of the Architects' Club of Chicago.

Both members and non-members of the sponsoring organizations have sketches, plans, and models of recent work on display. Building construction materials, equipment, and manufacturers' products are also exhibited. Alfred Granger is president of the Architects' Club of Chicago and David A. Pareira is chairman of the exhibit committee.

ARCHITECTS' AND ENGINEERS' SQUARE CLUB TO HOLD DANCE

ALL THOSE WHO have attended the annual dances of the Architects' and Engineers' Square Club of New York will hail with pleasure the announcement of a bigger and better party this year. This progressive group has chosen the grand ballroom of the Ritz-Carlton Hotel. The time is 9 o'clock on Friday evening, March 14th. Tickets are \$3.00 per couple and can be procured from Mr. Ed. Augustine at 5003—46th St., Woodside, Long Island. You will find several friends to greet you and assure your having the very best night of the season.



AUTOBIOGRAPHY OF ERNEST IRVING FREESE



This department conducts four competitions each month. A prize of \$10.00 is awarded in each class as follows: Class 1, sketches or drawings in any medium; Class 2, poetry; Class 3, cartoons; Class 4, miscellaneous items not coming under the above headings. Everyone is eligible to enter material in any of these four divisions. Good Wrinkle Section: a prize of \$10.00 is awarded for any suggestion as to how work in the drafting room may be facilitated. No matter how simple the scheme, if you have found it of help in making your work easier, send it in. Competitions close the fifteenth of each month so that contributions for a forthcoming issue must be received by the twelfth of the month preceding the publication date in order to be eligible for that month's competitions. Material received after the closing date is entered in the following month's competition.

The publishers reserve the right to publish any of the material, other than the prize winners, at any time, unless specifically requested not to

do so by the contributor.

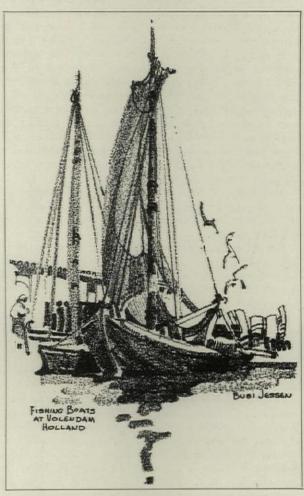
OUR HEADING this month is by Stephen D'Amico, of Pittsburgh, the third prize winner in our recent By Oliver Twitwell Oliver, Architect-very-much-at-large. competition.

Our regular monthly prizes have been awarded as follows:

Class I-Bubi Jessen, for his sketch reproduced below. Class II-Oliver Twitwell Oliver (incidentally if you need a good man, designer, or what have you, we can recommend Mr. Twitwell Oliver most highly. Apply this office).

Class III-J. H. Bell, of Birmingham.

Class IV-Philip Wagner, of Schenectady, for his enlightening article on "Filling Station Architecture."



LITHOGRAPHIC CRAYON SKETCH BY BUBI JESSEN (PRIZE-Class One-February Competition)

ANYBODY NEED ME?

(PRIZE-Class Two-February Competition)

The market crashed! The clients smashed! The boss got "slow"!!! I had to go!!!!

I went aroun' All over town North and south With smiling mouth To offices And premises Both large and small In fact to all.

So that is why I have to try To earn a prize With poet's sighs In Here and There And WHEN or WHERE?



FROM A LINOLEUM PRINT BY MAX FELDMAN Mont St. Michel



BEN MARKOWITZ SUGGESTS FOR THE HALL OF FAME THE FAMOUS CYMAESE TWINS CYMA RECTA AND CYMA REVERSA

FILLING STATION ARCHITECTURE

By Philip Wagner

(PRIZE—Class Four—February Competition)

For CENTURIES the architect had to content himself with houses, and churches, palaces, and public buildings, and monuments to heroes, and other such humdrum edifices. Lately the apartment house and the skyscraper have been added to his repertoire. And now "the noblest of all the arts" has found itself a new medium: the filling station.

I need not set down the mournful early history of filling stations in any great detail. Others are better fitted for the task than I. But there was a time not so many years ago when the purchase of gasoline presented a problem. One was apt to sally forth (I believe that is the correct expression) in gauntlets and duster for a Sunday afternoon's ride, only to get stuck somewhere between the two edges of nowhere without any gasoline. One then walked several miles to the nearest garage and staggered back with a can of the precious volatile liquid. This sort of thing was one of the minor worries of the pioneer motorist.

Then Big Business caught his cue. He bought up all

the vacant lots in all the cities and towns and villages. And he went out into the country and bought up all the highway frontage that hadn't already been leased to the Billboard Magnates. And in the center of every vacant lot, and at regular intervals along the highways, he planted a pair of large red pumps.

The era of the naked pump has long since gone the way of outworn eras. Now and then one of these objects braves the shocked gaze of an innocent humanity; but not often. The naked pump era has been superseded by the filling station era, or more correctly, "the automobile service station era." The job of filling gasoline tanks has developed into a major industry. No one, to my knowledge, has ever taken a census of those who man filling stations; but a private survey leads me to believe that the number runs into the millions.

This development into a major industry has led, of course, to competition between different filling station concerns. And on the principle that a meal always tastes better if it is split into five courses and served with linen napkins, the filling station people have called in Art to help them. The architects quickly concluded that the pump itself was almost beyond hope. But they did see possibilities in the station. Behold the result on every hand!

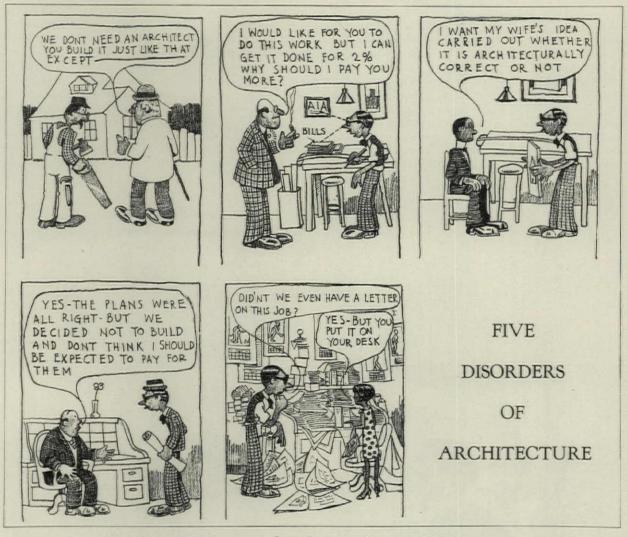
The early ventures into filling station architecture were rather tentative. They consisted chiefly of putting a roof over the pumps, and building a cubby-hole in which the attendant might rest in comparative comfort during Iulls in business. This rudimentary architecture, however, soon went the way of the naked pump. It was supplanted by the Greek Temple; and the style proved so popular that there is now hardly a city which has not its Greek Temple dedicated to the goddess of internal combustion. Of these temples, one of the most successful is located in West Philadelphia. It is a dainty thing, a sort of architectural banana split. "It is a reproduction on an enlarged scale," says the official description, "of the monument to Lysicrates, still standing in Athens, and is surrounded on two sides by an Ionic colonnade, the details of which are taken from the Erechtheum, another classical survival located on the site where Pallas Athene waged war with Poseidon for the possession of her beloved city."

This delicate edifice is made of the whitest terra cotta (and you may be sure its attendants curse the fact); and the beauty of its proportions, really, makes a trip to Greece quite unnecessary.

But do not suppose that the Classicists long held the field unchallenged. Filling station architecture quickly began to sprout in a variety of genera and species. At one street intersection in our town, two stations vie with each other for the patronage of the fickle motorist. One owes a marked debt to the Brothers Adam. The treatment of the door into the attendants' cubicle, particularly, and of the fanlight over the doorway, shows the Adam influence. And the delicate proportions of this little jewel of a building are enhanced by a judicious application of the landscape gardener's art.

On the opposite corner a quite different influence is manifest. It is not clear whether the architect was a Buddhist or a Papist, but it is beyond doubt that he had travelled far and seen things. His dream child is a delicate blending of the Siamese pagoda and the Italian Renaissance styles—a blending fortunate in spots, less fortunate in others. But the lay observer fails to note these minor discrepancies, in his awed contemplation of the extremely brilliant orange roof.

In another section of our city there is what the owner



CARTOON SUBMITTED BY J. H. BELL, OF BIRMINGHAM, ALABAMA

(PRIZE-Class Three-February Competition)

claims is the "world's largest filling station." I don't believe him; but that is beside the point. The point is that a trip to this filling station will never be forgotten. Mr. Redmond was his own architect, and a stroke of inspiration caused him to build his filling station entirely of bronze, which is now weathering nicely. The bronze surface of roof and cornice and lintel is studded with innumerable imitation jewels, at least four inches in diameter, of garnet, topaz, ultramarine, emerald, and amythest. The effect is so dazzling that the motorist seeing it for the first time is apt to rush blinded into a bad accident if he doesn't wear smoked glasses. But this first bedazzlement wears off, and one is then at liberty to relax in contemplation of the intricate and unusual design of the place, whilst obsequious lackeys minister to the motor.

But though gasoline stations are now flowering perhaps too exuberantly, one begins to detect the signs of a growing discipline. Schools are developing. Through Maryland and Virginia, Georgian appears to be the predominent type. Through New York State, Dutch Colonial appears to be gaining steadily in favor—although the Socony stations are putting in a strong bid for Modified Colonial. In the Middle West, as one might expect, the widest diversity is still to be found. However, the Swiss Chalet and the Elizabethan English styles, with timbers

exposed, are being adapted with singular success, especially in Indiana.

In the Far West, the Spanish influence is being given marked preference; as it is in Florida. My mind ever turns to one gorgeous filling station on Wilshire Boulevard in Los Angeles. Happy the hero who could secure this filling station for a final resting place! Let me quote a description of the place which appeared some time ago.

"The central Kiosk with lateral wings is treated with severe walls of stuccoed concrete enlivened with a base within and without the building of applied Tunis tiles in red, black, and yellow. A similar tile enrichment was adopted as the surface covering for the four-sided dome over the Kiosk. The jambs and soffits of all doors are also tile surfaced. A wrought iron grille screens the entrances to the central pavilion."

One detail which was omitted from the description was the stool on which the attendant sits when at ease. It is of wrought iron in harmony with the grille; and it bears a cushion which, as well as I could see, was covered with gay flowered chintz. This, it seems to me, is real filling station luxury.

It will not do to forecast the development of filling station architecture too soon. There are too many influences which have not as yet been weighed and analyzed, and which may throw the development in one direction or

PENCIL POINTS FOR MARCH, 1930

another. There are, for instance, the Rest Rooms, the best of which already enable the weary traveler to rest in an almost Babylonian splendor. Surely Rest Rooms have an important place in molding the ultimate form of the filling station.

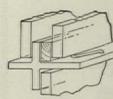
And there are the side lines of merchandise which many filling stations carry, and which are bound to have their influence. The filling station industry has its by-products, just as every well-behaved industry should have. A recent careful investigator includes sandwiches, pie, candy, tobacco, canned goods, lip sticks, cold cream, soap, aluminum ware, work gloves, Ford parts, Stillson wrenches, lamps,

first-aid kits, radio supplies, safety razors, pajamas, and powder among the profitable side lines. One enterprising rustic sells about twelve dollars worth of cold cream every Labor Day, to persons who are suffering of sunburn.

Labor Day, to persons who are suffering of sunburn. So, in view of the developments to come, it would be hazardous to prophesy very much about filling station architecture. It is still too young. One thing, however, is plain. As more of America mounts itself on automobile wheels each year, the filling station will inevitably play a larger and larger part in our national culture. I do not doubt that it will one day appear to be as typical of our period as the Gothic cathedral does of Medieval life.



THE SECOND OF A SERIES OF CARTOONS BY ARTHUR F. BAER, DEPICTING HIGHLIGHTS OF ARCHITECTURE Hopeful young designers are fed on "Vignola" and with this picture of him he becomes a reality.



The remarkable cruciform bar permits inside, outside or double glazing

Now and for the first time you can order window sash that will outlast your buildings the Fumes, smoke, soot, steam or salt air cannot harm it the Known and specified by architects and builders everywhere as "Wrought Iron Sash—MESKER" the Fabricated with amazing strength and rigidity from the exclusive MESKER cruciform type bar the Learn more about it the Request Folder PP the



how times have changed!

It is remarkable how firesafe buildings have come to the fore in recent years.

Kalman Metal Building Products have helped to make them possible.

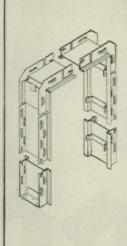
For example, Kalman Steel Buck, and Jamb and Buck are far in advance today of any other doorway construction.

They provide modern, clean-cut, more rigid doorways for virtually every type of wall construction. Standing trim is

KALMAN

Atlanta · Baltimore · Boston · Buffalo · Charlotte · Chicago Cleveland · Columbus · Dallas · Dayton · Detroit · Houston Milwaukee · Minneapolis · Newark · New Haven · New York Niles · Philadelphia · Pittsburgh · St. Louis · St. Paul Syracuse · Washington, D. C. · Youngstown Export Office, New York

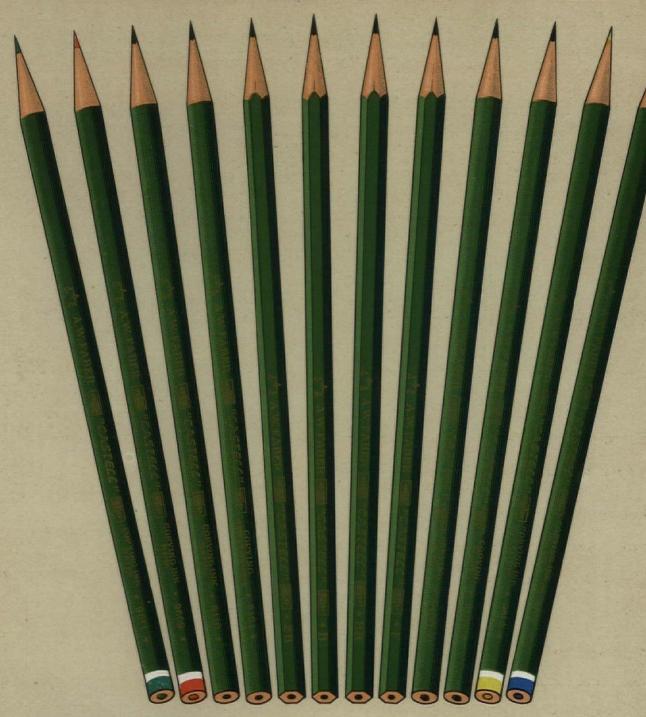
eliminated without the necessity of plaster returns. The terminals are made of specially treated galvanized sheets, and form a definite ground and termination for the plaster. Thickened walls for plaster returns are not necessary.

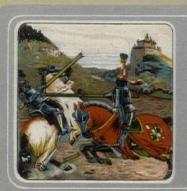


The Kalman Steel Buck, which replaces wood buck, ground and standing trim. Doorways are simplified and beautified in appearance. Net wall space is increased. Strength is added. Write for file folder giving 15 advantages of Steel Buck, and Jamb and Buck.

 $\begin{array}{l} \textbf{METAL LATH} \, \cdot \, \textbf{FURRING} \, \textit{and} \, \textbf{LATHING PRODUCTS} \, \cdot \, \textbf{HOME BUILDING PRODUCTS} \, \cdot \, \textbf{STEEL DOOR FRAMES} \\ \textbf{STEEL JOISTS} \, \textit{and} \, \textbf{ACCESSORIES} \, \cdot \, \textbf{REINFORCING STEEL} \, \textit{and} \, \textbf{CONCRETE ACCESSORIES} \, \cdot \, \textbf{ROAD PRODUCTS} \\ \end{array}$

A.W. FABER "CASTELL"





A.W. FABER



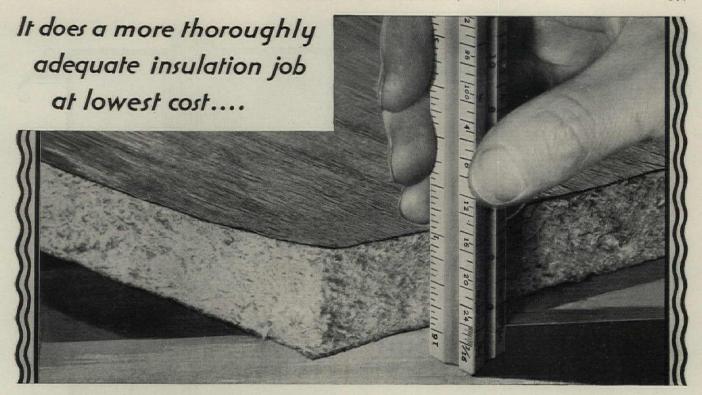




of the charm of a home , ,

It is a fact—and architects everywhere recognize it—that in the windows lies much of the charm of a home. ¶ It is also a fact that the basic beauty of a window is in the glass it contains. ¶ The overwhelming preference for Libbey-Owens glass—as evidenced by the thousands of fine residences, as well as other buildings, glazed with Libbey-Owens—is therefore significant. ¶ It means that architects have found that the rich, sparkling lustre of Libbey-Owens glass adds to the beauty and attractiveness of the window and therefore to the charm of the home. ¶ To achieve the utmost in window beauty, always specify Libbey-Owens "A" quality glass. Each light bears the

familiar L/O label-known everywhere as the symbol of uniform high quality. Libbey-Owens Glass Co., Toledo, Ohio. LIBBEY-OWENS
FLAT DRAWN CLEAR
SHEET GLASS



This Doubly-Efficient... FULL INCH THICK Balsam-Wool

In house insulation there has recently come a new standard of efficiency.

Full inch thick Balsam-Wool has made possible more adequate protection than one application of material ever heretofore afforded.

It offers the two way advantage of: 1. reduced cost in relation to



IT TUCKS IN! Balsam - Wool combines the highest insulating efficiency ever attained in practical house insulation with the important advantage of flexibility. In these two respects it meets squarely the requirements of true house insulation

insulating value 2. no extra time or cost for application.

Thus one-inch Balsam-Wool permits, for a reasonable cost, a more thoroughly heat-tight job—a comfort factor substantially increased, a fuel reduction larger than ever before.

In attaining the added effectiveness of one-inch thickness, Balsam-Wool has retained its important quality of flexibility. One-inch Balsam-Wool tucks in even more snugly. It insulates at minimum labor cost all the odd-shaped spaces. Every crevice around door jambs and window frames is caulked tightly.

These are the advantages of flexibility—a quality inherent in oneinch as in half-inch Balsam-Wool.

For a complete one-inch specification there is abundant precedent. Many architects now standardize on one-inch Balsam-Wool. Others are using it in combination with the half-inch, specifying the one-inch material for the places of greatest heat loss. The two thicknesses constitute one of the advantages of Balsam-Wool.

If you have not yet examined one-inch Balsam-Wool your request will bring a sample, together with complete data file which includes specification material. In Sweet's Architectural Catalogue you will also find complete descriptive matter and specifications.

WOOD CONVERSION COMPANY Cloquet, Minnesota

Also makers of Nu-Wood—the All Wood Insulating Wall Board and Lath. Sold only through retail lumber dealers

Branch Offices: New York, 3107 Chanin Bldg. — Detroit, 515 Stephenson Bldg. — Chicago, 360 N. Michigan—Kansas City, 231 W. 47th St. — Minneapolis, 414 Baker Bldg. — Seattle, 616 Liggett Bldg.



Balsam-Wool Blanket

THICK ... FLEXIBLE INSULATION ... EFFICIENT

Why ---Unit Ventilators are in the Chanin Building

"Fifty-six stories of sunlight" is the slogan of the Chanin Building. It has windows, and air on all sides...but Unit Heater-Ventilators are in executive offices and board-rooms as high up as the fortyfifth floor! They are also used for special service in the lobby and sub-basements.

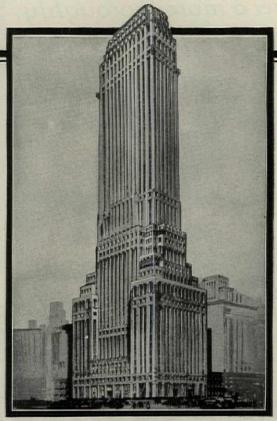
The reason Sturtevant Unit Heater-Ventilators are in these sun-lit offices is because they provide controlled ventilation . . . draft-free, outdoor air, filtered clean...precise temperatures...assured aircomfort at any season—in any weather!

Unit Heater-Ventilators are used in the lobby as recirculating heaters and provide approximately tentimes the amount

of heat that direct radiators could furnish.

Sturtevant Unit Heater-Ventilators require no duct work ... They are compact, handsome in appearance and SILENT!

Sturtevant Unit Heater-Ventilators provide the



Chanin Building, New York. Architects: Sloan and Robertson. Consulting Engineers: Clark, McMullen and Riley.

architect, engineer and contractor with a flexible, individually controlled system of heating and ventilation admirably adaptable to the executive type of offices. They also provide a logical means of heating and ventilating Schools, Clubs, Churches, Public Buildings, Show-Rooms, Shops and Residences. Pictures of many of these installations are shown in a new Data-Catalog just issued. It will be helpful and suggestive to youand it will be a pleasure to mail you a

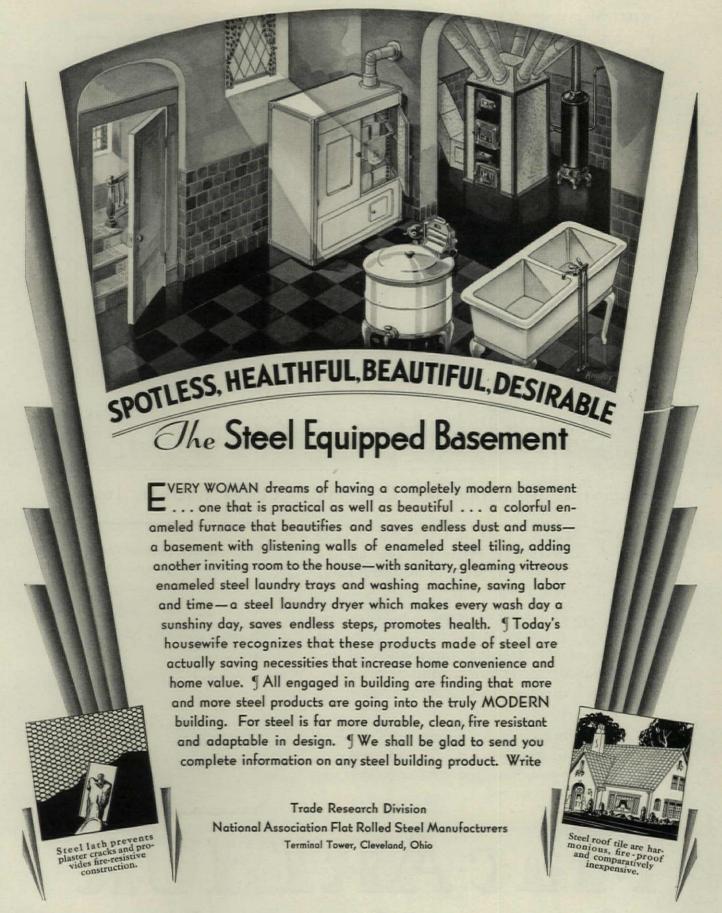
copy of this 40 page book on request-no obligation.

B. F. STURTEVANT CO.



Sturievani

The Silent Unit Heater-Ventilator



Save & Space Money With Steel

WILLIAM JAY BROWN, Architect

HENRY HORNBOSTEL, Consulting Architect



Memorial Building and City Hall, Cedar Rapids, lowa

MacARTHUR COMPRESSED CONCRETE PILES support this imposing memorial on an island in the Cedar River at Cedar Rapids, Iowa.

The increasing number of architects and engineers who "Put it up to MacArthur" is gratifying evidence of the growing appreciation of the MacArthur Method of forming piles by compressing "dry" concrete (just sufficient water to hydrate).

A national organization, driving every type of pile, you, too, may find it to your advantage to consult us when next you have a project on which piles are required.

Check your requirements against MacArthur qualifications

		•	-		
$\sqrt{\text{Product}}$.					proven
√Experience				2	0 years
$\sqrt{\text{Equipment}}$					latest
$\sqrt{\text{Resources}}$	٠			un	limited
$\sqrt{\text{Personnel}}$					capable
√Clientele				illu	strious
√Responsibi	lity	v .	de	mor	strated
√Engineerin	g				sound
√ Performane	ce				100%
,					

√ Speed . . record-breaking

COMPRESSED CONCRETE

Chicago

Cleveland

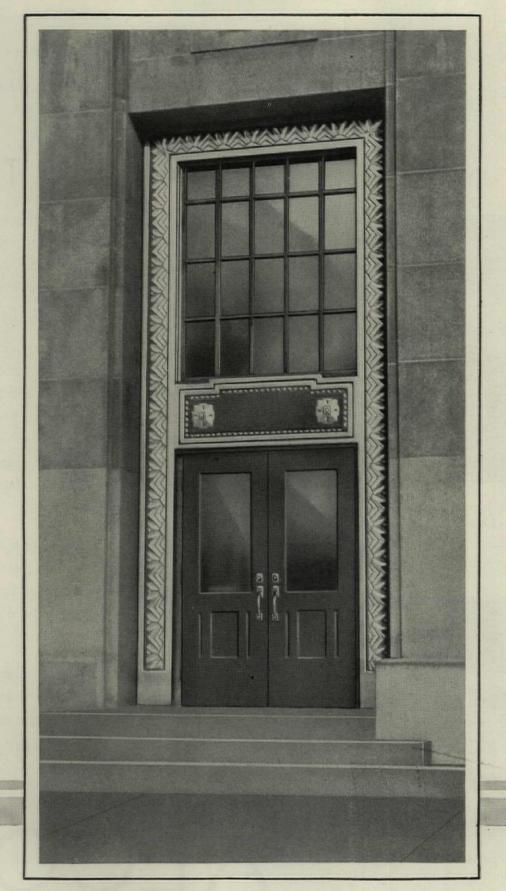
19 WEST 44th STREET, NEW YORK Pittsburgh

New Orleans

San Francisco

Detroit

Canadian MacArthur Concrete Pile Co., Ltd., Montreal



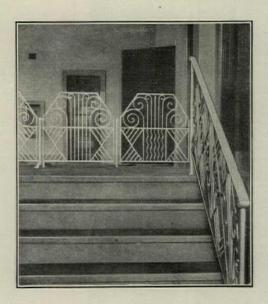
Main entrance to the new Michigan Diamond Telephone Exchange Building, Cleveland. Hadlow-Hughes-Hicks & Conrad, Inc., Cleveland, Architects: Mr. A. W. Baily, Cleveland, Company Architect: The Crowell-Little Construction Company, Cleveland, General Control Contro

tractors: The Kilroy Structural Steel Company, Cleveland, Sub-contractors. The frame, as well as doors themselves, are made of Alloys of Alcoa Aluminum. Both are deplated and finished in high light.

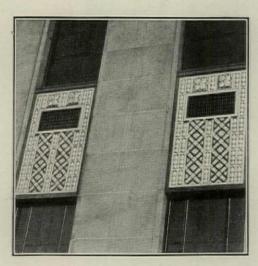
See next two pages for details.

SPANDRELS , SILLS , VENTILATOR GRILLES , DOOR FRAMES , EVEN

VERSATILITY



Total weight of this Alcoa Aluminum Fence and Stair Rail, 150 lbs.



Approximate weight of these Alcoa Aluminum Spandrels, 195 lbs. each.

The new Michigan Diamond Telephone Exchange Building in Cleveland is an interesting study for architects, as it shows the infinite possibilities of using Alcoa Aluminum in architecture.

In addition to the spandrels, foyer fence and stair rail illustrated here, the unit ventilator grilles, sills, vestibule radiator grille and frame, frames to entrance and lobby doors, and the main doors themselves are made of strong Alloys of Alcoa Aluminum. Sheet aluminum is used for ventilator louvers with aluminum wire cloth.

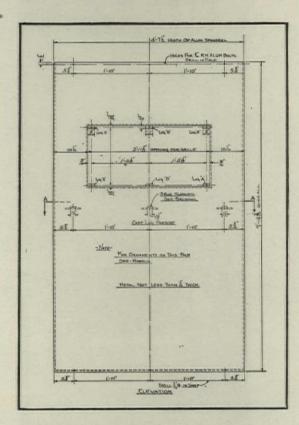
As Alcoa Aluminum weighs ½ as much as old-fashioned metals, it is much easier and cheaper to ship, truck and erect. In addition, it requires no plating, can be high-lighted, and the weather will not make it streak.

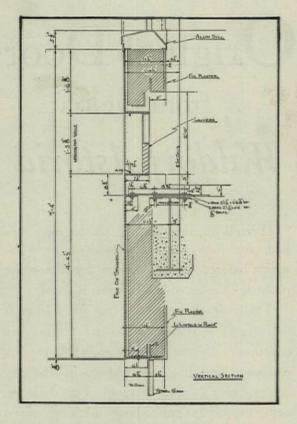
Our booklet, "Architectural Aluminum", describes interesting applications of Alcoa Aluminum. May we send you a copy without charge or obligation? ALUMINUM COMPANY of AMERICA; 2406 Oliver Building, PITTSBURGH, PENNSYLVANIA. Offices in 19 Principal American Cities

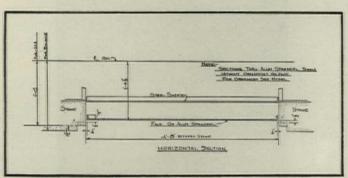
ALCOA

THE MAIN ENTRANCE DOORS . ALL MADE OF ALCOA ALUMINUM

SPECIFICATIONS







"These Aluminum Spandrels, Sills, and other cast items shall be made of Alcoa No. 43 alloy, having a silicon content of 5%. The average tensile strength shall be 17,000 lbs. per square inch and the average elongation in two inches 5%. The weight shall not exceed .097 pounds per cubic inch. The surface shall be free from imperfections and in all respects equal to sample submitted."

ALUMINUM



..ONO.

MURPHY FINE FINISHES

Famous for 65 years among architects, master painters, and makers of products requiring a fine finish

Original Door from the old Waldorf-Astoria

Here is an unretouched photograph of a bedroom door from this famous old hostelry, which has recently been torn down to make room for the 85-story Empire Building.

The door was in the original Waldorf, built in 1893 (The Astoria added next year) and together with the other woodwork in that famous old building, was finished with Murphy Transparent Interior Varnish. This door has never needed any refinishing and doesn't need it now. Thirty-seven years old and still young!

Murphy Transparent Interior is a wonderful varnish—not only to bring out the inherent beauty of the wood, but to last and last beautifully.

For over 60 years, Murphy finishes have been the reliance of leading architects and painting contractors.

Specifications for Murphy products can be found in Sweets Catalog, Volume C, or write for Murphy Specification Manual.

Murphy Varnish Company

Members of the Producers' Council

Newark Chicago

San Francisco



·Ono.

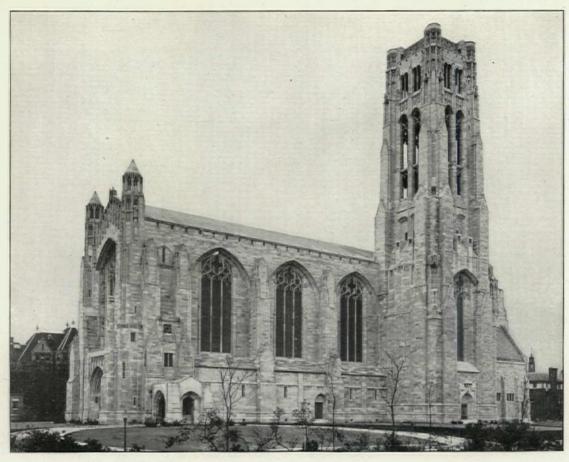
From unretouched photograph





Classic ornament in
TERRA COTTA
lives anew because of
COLOR
available only to the
hand of the designer in
TERRA COTTA

National TERRA COTTA Society
230 PARK AVENUE · NEW YORK, N. Y.



Universal Casements—The University of Chicago Chapel, Chicago, Ill. Bertram Grosvenor Goodhue Associates, Architects

CRITTALL CASEMENTS EFFECTIVELY USED IN UNIVERSITY OF CHICAGO CHAPEL

The exquisite chapel at the University of Chicago is an outstanding example of recent ecclesiastical architecture.

In the large main windows Crittall Casements are employed as ventilators—a typical example of the use of metal casements in art glass design, where the balance of the window is glazed directly into stone. In the small windows, too, Crittall Casements—deep-set in the thick stone walls—contribute to the beauty of this charming chapel.

The beauty and utility that make Crittall Casements ideal for buildings of this type can be incorporated to advantage in all of your projects. Whether your commission be an imposing public edifice or a modest dwelling,

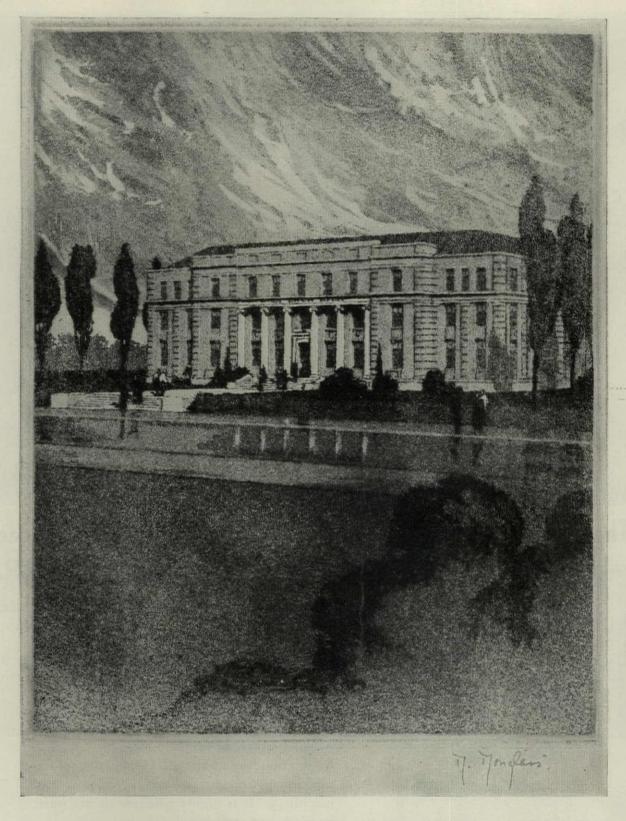
there is a Crittall Casement available for your every window requirement.

Crittall Casements are built in three complete lines. Universal Casements are custom-built, to your specifications, in bronze or steel. Norman Casements comprise a full line of quality steel casements in standardized sizes, designs and types. The Stanwin line offers a complete selection of standard casements in the competitive price class.

Our latest catalog is in Sweet's—pages A1131-A1200. Upon request we will mail you separate copies for your drafting room files.

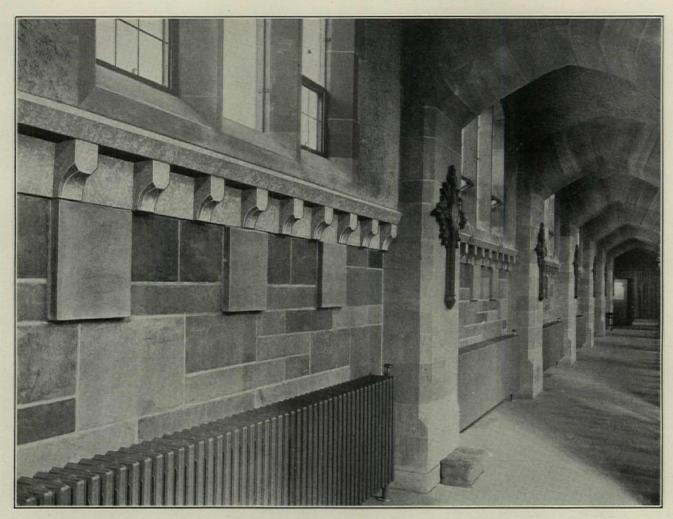
CRITTALL CASEMENT WINDOW CO. 10958 Hern Avenue Detroit, Michigan

CRITTALL

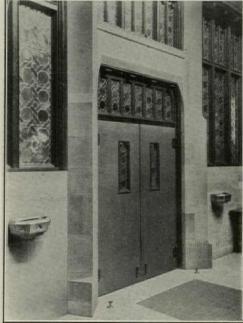


An aquatint study of the Battelle Memorial Institute, Columbus, Ohio \sim Otto C. Darst, Architect \sim K. A. Nylen, Mechanical Engineer \sim J. W. Heckart, General Contractor \sim Samuel Esswein Co., Heating and Plumbing Contractor . . . Jenkins Valves serve in both the plumbing and heating of this modern research institute . . . Jenkins Bros. \sim 80 White St., New York \sim 524 Atlantic Ave. Boston \sim 133 No. 7th St., Philadelphia \sim 646 Washington Blvd., Chicago . . . Jenkins Bros., Ltd. \sim Montreal \sim London.

Reproduction of this etching sent on request addressed to 80 White Street, New York.



The light blue-grey of natural Alberene Stone for color accent in Sacred Heart Church, Pittsburgh, Pa.



Complete data and plates in full color showing Alberene Stone in conjunction with marbles and other building stones make "Architectural Alberene" of interest to any architect wishing further facts. Copies sent gladly on request.

The greatly diversified uses of Alberene Stone are shown admirably in Sacred Heart Church, Pittsburgh, where cap, corbels, base, border, and stoups are all of this Virginia soapstone.

Carlton Strong, Architect

Offered in a variety of textures, Alberene can be used either for accent or in harmony with other building stones. Dense and closegrained, Alberene is easily carved and machined. It is highly resistant to moisture, weather and traffic.

ALBERENE STONE COMPANY,153 West 23rd St., New York

CHICAGO BOSTON CLEVELAND PITTSBURGH NEWARK, N. J. PHILADELPHIA RICHMOND ROCHESTER WASHINGTON D. C. Quarries and Mills at Schuyler, Va.

ALBERENE STONE

THE NATURAL STONE OF DIVERSIFIED UTILITY ...



Residence Greenwich, Conn

Warren & Clark Architects

Pectect Farmony

Tudor Stone is peculiarly desirable for the house with a broad expanse of roof. For here one has a rare opportunity to utilize the slate in a multitude of shapes, sizes, and color tones, and so design a roof of exceptional beauty.

Rising-and-Relson-Slate-Company

WEST PAWLET, VERMONT

Architects' Service Department: 101 Park Avenue, New York City

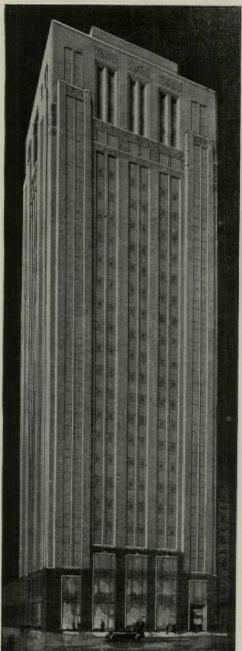
CHICAGO

DETROIT

PHILADELPHIA

BOSTON

ILLINOIS ZONE CONTROL



BUCKINGHAM BUILDING, Chicago Holabird & Root, Architects J. A. Sutherland, Consulting Engineer Kohlbry-Howlett Co., Heating Contractors

BUCKINGHAM BUILDING



N THIS, one of Chicago's finest and newest office buildings, heat is controlled by Illinois Thermo-Manual Zone Control with seven Master Regulating Valves.

Five valves control the main building-one on each side, North, East, South and West, and one valve for the first floor main. Two valves control the tower section, one on the North and West sides, the other on the South and East sides. Clock type thermostats are located in the corridors of the building for the control of all zones above the first floor. A mercoid thermostat controls the first floor. The panel board is located in the Engineer's office in the basement.

With Illinois Zone Control, only one Master Regulating Valve is required to control each zone. The system is *simple*. The pump installation is regular. A separate pump for each zone is not required or recommended. No complicated changes are necessary to install Illinois Zone Control.

Outside temperatures; direction and velocity of the wind; location and intensity of the sun; the number of occupants and hours of occupancy—all are factors that govern the amount of heat required in various parts of a building—and Illinois Zone Control provides for all of these important variables, effecting a remarkable fuel saving.

One report states that during the heating season of 1927-28 with an Illinois Thermo-Manual Zone Control System in operation in a manufacturing plant, the fuel cost was 35.7% less than during the heating season of 1926-27 without Zone Control. Further, the occupants were more comfortable and their efficiency was

To illustrate further what can be accomplished in increased economy resulting from the use of Zone Control, the University of Pitts-

burgh reports a coal saving of \$1,980.00 from the use of two 6-inch and one 5-inch Master Control Valves during the season of 1927-28. In many buildings the installation of Zone Control will save its cost in one heating season.

Seven Unit Thermo-Manual Control Panel for the Buckingham Bldg., Chicago

Control boards are provided to give a clear picture of what each Master Control Valve and Thermostat in a system are doing, and also to give the operator instant individual control of each Master Valve if desired.

The panels are of the unit type. Boards are made up with one panel for each Master Valve installed up to seven panel boards as illustrated.

Partial List of Users of Zone Control Valves

Dartmouth College Bates College University of Pittsburgh Oliver Building, Pittsburgh Farmers National Bank, Pittsburgh Alaska Building, Seattle Republic Building, Seattle

L. C. Smith Building, Seattle Orthopedic Hospital, Seattle Ligget Building, Seattle Northern Life Building, Seattle Central Mfg. District, Chicago, 43 Zone Valves B. & M. R. R. Terminal Bldg.

Write for Bulletin No. 61

REPRESENTATIVES IN 40 CITIES OF U.S.A.



- and permanence with economy a factor

Such great manufacturers as the Westinghouse Electric and Manufacturing Company, whose plants and branches are spread all over the country—and whose experimental and laboratory facilities unerringly determine the best in materials and design—have repeatedly specified St. Louis Freight Elevator Doors in their different plants.

Among their recent installations is the six story Los Angeles district warehouse and service headquarters shown above. Three elevator shafts, equipped with a total of twenty-four "St Louis" Doors, here operate to speed up vertical transportation from one department to another.

Somewhat parallel—at the other side of the country—is another carefully selected installation in the Gray Tele-

phone Pay Station Company, at Hartford, Connecticut This large manufacturer supplies Coin Pay Station equipment to telephone companies throughout the country. Here again, is an installation selected by experienced engineering talent, whose choice is solely based on established performance.

For more than a quarter of a century the St. Louis Fire Door Company has striven to embody the same principles of high-grade materials, design and workmanship into its products as the architect incorporates in his own plans and specifications, to accord with the best standard practice of equipment in modern high grade commercial structures. This equipment is used in many notable commercial structures in different parts of the country. All erection is supervised by our own engineers.

Detailed descriptive literature regarding St. Louis Fire Doors is at the service of architects and others interested in construction work. Special engineering cooperation is offered freely to the architectural profession.





P A G E S 1042 to 1047

ST. LOUIS FIRE DOOR CO., 1138 S. 6th St., St. Louis, Mo.

Manufacturers of all kinds of Fire-Proof Doors and Electric Operators
"MORE THAN A QUARTER CENTURY OF SUCCESSFUL SERVICE"
Offices in Principal Cities



THE WINDOW SHADES

are Lasting in the Western Union Building —they are du Pont TONTINE



Western Union Telegraph Company Building, New York City. Voorhees, Gmelin & Walker, Architects. The shades in this new building will look well many years from now because they are Tontine throughout.

"How long will it last?" That's the first question you naturally ask before specifying a material. Before the introduction of du Pont Tontine shades, the answer applying to all window shades was "not any too long."

But with the New and Improved Tontine window shade, you are sure of many years of service and lasting beauty. Why? Simply because Tontine shades are washable. They can be scrubbed clean with soap and water.

Washability is only one of many advantages of the New and Improved Tontine shades. They will not crack, pinhole or fray. Impregnation with pyroxylin, the basic substance used in the famous Duco, prevents spotting and staining from rain, and fading from sunlight.

Specify the New and Improved Tontine window shade for complete building owner satisfaction. For further information, use the coupon below.



TONTINE

THE WASHABLE
WINDOW SHADE



E. I. DU PONT DE NEMOURS & CO., INC. Desk P.P.2, Newburgh, N. Y.

Please send me complete information about Tontine, the washable window shade.

Name.

Address

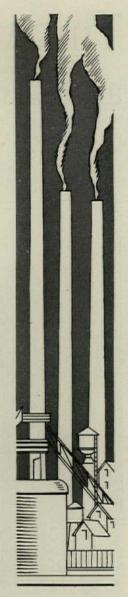
EXPERIENCE

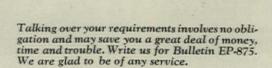
KNOWS THE FACTS

Industrial America is built on methods of efficiency and economy—upon facts and not fancy.

In the highly technical business of producing industrial products today at a profit—there is no substitute for temperature control experience. You cannot afford to guess about the temperature of your varied processes—you must know. Hand control should be replaced by automatic regulators for uniform results.

The Fulton Sylphon Co., the world's largest exclusive manufacturers of temperature control instruments, for more than 25 years have worked with most of the world's outstanding engineers on their temperature control problems in practically all processes dealing with air, liquids, and gases . . . and will be glad to give you the benefit of their wide experience. There is an added security with no extra cost, in dealing with the leader of any industry, for leadership comes only after years of satisfactory service.





FULTON SYLPHON (O.

European Representatives, Crosby Valve & Eng. Company, Ltd., 41-2 Foley St., London, W. I., England.



pany, Ltd., 41-2 Foley St., London, W. I., England. Canadian Representatives, Darling Bros., Ltd., 140 Prince St., Montreal, Que., Canada.



Responsive! Expressive! Convenient! Clean!

Bailer of Constantine - Rome



NO. 1 VERY SOFT



NO. 2 SOFT BLENDS EASILY



NO. 3 MEDIUM ERASES WELL



NO. 4 HARD STRONG, FIRM



NO. 5 VERY HARD HOLDS ITS POINT

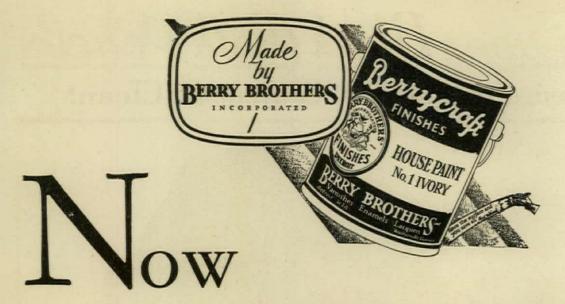
For any purpose from the rough sketch to the finished rendering where a soft, easily blended medium is needed, we recommend this pencil. Like charcoal it may be "scumbled," "lifted," erased and otherwise manipulated, while in addition its greater uniformity of texture and dependable grading, coupled with its convenient form, give it a decided advantage over that medium. It may be used on small drawings, where charcoal would be out of the question. It does not soil the hands whether used in the customary pencil form, or in the everpointed form pictured below, for which refills are available. It shows no gloss, even in the blackest tone, and whether used on rough or smooth papers.

The original of the sketch reproduced above was 8 inches by 10½ inches in size. It was drawn on "kid-finished" bristol board, all five grades of the pencil being employed.

"Kob-I-Noor" Black Chalk Pencils are made in two styles: #49, regular pencil form (Price 10 cents), and #39B, Artists'
Pencil or Holder as illustrated (Price 35 cents). Sample will be sent upon receipt of price. Mention degree.



KOH-I-NOOR PENCIL COMPANY, Inc. 34 EAST 23rd STREET, NEW YORK



THERE'S A HOUSE PAINT made with LIONOIL

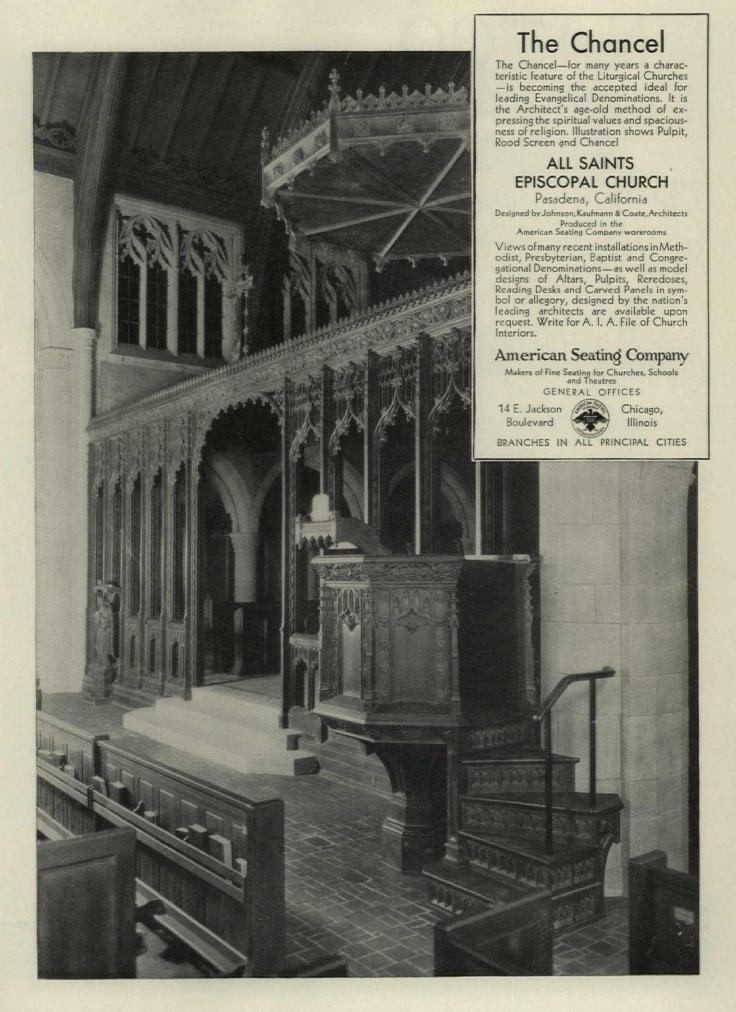
Berrycraft House Paint is a revolutionary new exterior finish made of pure lead, zinc and linseed oil mixed with the proper amount of Lionoil—world-famous wood preservative and rust preventive. For years master painters have used Lionoil in ordinary paints to make them look better, wear longer and dry faster. Now for the first time this secret-processed ingredient is available in ready-mixed paint.

Lionoil penetrates the wood, seals the pores and literally anchors the paint to the surface. Berrycraft is a modern house paint made to meet present-day demands and building conditions. It dries quickly —won't peel, dust off or fade. It even resists salt air encountered in sea coast towns, or tropical heat and Arctic cold. Unusual hiding or covering qualities make a little bit go a long way.

Specify Berrycraft House Paint with the assurance that it will give added beauty and extra years of wear. Write the Architectural Department for details, samples or color card—no obligation, of course.

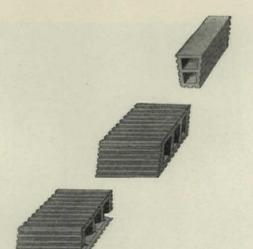
BERRY BROTHERS
Varnishes Enamels Lacquers Walkerville. Ont

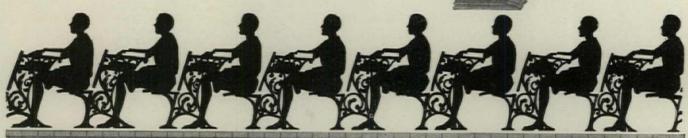
Liquid Granite Floor Varnish, dull, gloss or quick-drying, Lionoil Floor Enamel, Berrycraft Quick-Drying Enamel, Brushing Lacquer, Luxeberry Enamel, Luxeberry Wood Finish and other wear-resisting architectural finishes are manufactured by Berry Brothers.

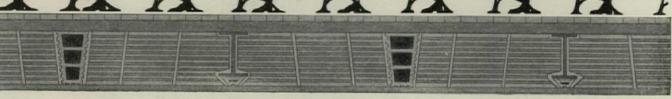


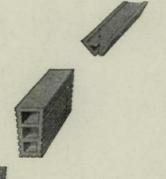
NATCO FLAT-ARCH FLOOR

The Most Economical Form of Strictly Fire-Proof Floor



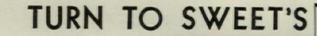


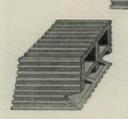




SPEED in construction, independent of temperature, is a highly valuable feature of Natco Flat Arch Floor. Centering is hung; no nails are used. Centers need remain in place but one-tenth to one-fourth the time required under other forms of construction. Floors beneath are accessible for work by other trades. The all-tile ceiling requires only two coats of plaster. Holes may be left, or cut at any time to accommodate pipe work and later easily patched.

Natco Flat-Arch Floor offers outstanding advantages, in both floor and roof work. Engineering and technical data will be gladly furnished on request.







THE COMPLETE LINE of STRUCTURAL CLAY TILE



NATIONAL-FIREPRODFING-CORPORATION

THE LARGEST CONCERN IN THE WORLD MAKING A COMPLETE LINE OF STRUCTURAL CLAY PRODUCTS
GENERAL OFFICES: FULTON BUILDING, PITTSBURGH, PA. BRANCHES; NEW YORK, CHANIN BUILDING, CHICAGO, BUILDERS BUILDING, PHILADELPHIA,
LAND TITLE BUILDING; BOSTON, TEXTILE BUILDING — NATIONAL FIRE PROOFING COMPANY OF CANADA, LTD., TORONTO, ONTARIO



MARS

Colored Copying Drawing

College British

A BIAGE

J.S. STAEDILER, INC.

53.55 Worth St. NEW YORK





Louis C. Siglock, Architect

The new Johns-Manville Asbestos Shingles are designed as to texture and color to provide materials from which you may choose a roof suitable to virtually every type of house. In the accompanying illustration we show a small brick house roofed with Cotswold Blend J-M Asbestos Shingles. A color photograph of this house will appear in Johns-Manville advertising in Collier's of March 22nd. We believe that by using J-M Asbestos Shingles you can obtain not only a safe, permanent roof but also the effect you desire.

Johns-Manville RIGID ASBESTOS SHINGLES



Shingles that are close to nature

RCHITECTS throughout the country have been keenly interested in recent developments in roofing as typified in the new colors and textures of Johns-Manville Asbestos Shingles. These interesting shingles now have color values and textures heretofore impossible to obtain in this type of roofing material.

There are Salem Grays, for example. Those delightful warm, gray shades, with which New England weather dyed the roofs of Colonial houses, have been captured permanently in J-M Salem Grays. In using these shingles, you obtain, besides esthetic value, the practical certainty of long life and fire protection.

Fit to Roof the Most Carefully Designed Home

The Salem Grays are typical of the feeling in J-M Asbestos Shingles. The entire line shows the restraint of good taste, yet helps to provide individuality in the roof—for in-

stance, Cornwall and Cotswold Blends. These shingles in varied shades of reds and greens, tapered shapes and random widths, can be used to obtain exactly the effects desired for almost any style of house design. In fact we believe that from J-M shingles of today, you can select a roof which will be worthy of the most carefully designed house.

They are manufactured to do a definite job, to combine features not found in natural materials. They are thoroughly intelligent examples of the age of fabricated materials.

Our Architectural Representatives are equipped to serve you with expert advice with reference to matters of proper application to obtain the particular effects desired. Whether it be asbestos shingles, or any of the many J-M products which enter into building, our men are available for intelligent cooperation.

FOR THE PRODUCT

BUILDING INDUSTRY

Acoustical Materials

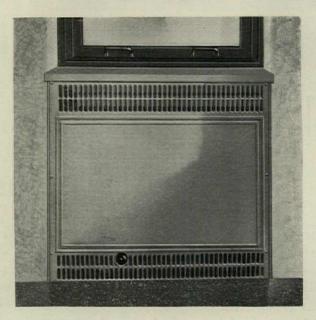
Asbestocel Pipe Insulations
Insulating Board Trans

Asbestos and Asphalt Shingles Tile Flooring Built-up Roofs Floridene Stone

Johns-Manville

New York Chica San Francisco Clevela

In only four years the goal has been reached



Trane announces Concealed Heaters for Large Buildings

Installed at a final cost no greater than for cast iron radiators

Now for the first time you can specify and install concealed convection heaters in large buildings without adding a dollar to the final cost of the heating system.

Now you can add years to the profitable life of every great office, apartment or hotel building you are interested in, postponing obsolescence, and without an extra dollar's cost to the owner.

For Trane has perfected low cost concealed heaters for large buildings.

Only four years ago Trane introduced concealed convection heaters. Their advantages are now well known — increased comfort at the breathing level,

instantaneous regulation of the heat flow, lower fuel consumption, lighter weight, greater beauty, and profitable space saving.

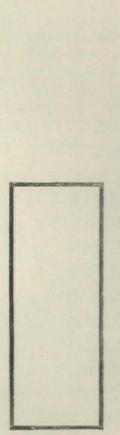
But even this is not enough. The goal has been to design and perfect a concealed heater that can be installed at a final cost no greater than for cast iron radiators.

Now that goal is won. The cooperation rendered by the architectural profession and the heating fraternity has made it possible for Trane to make this announcement.

Complete working information about the new Trane Concealed Heater is ready for you now.

Mail the coupon at once.

THE TRANE COMPANY, Department 3, 302 Cameron Avenue, La Crosse, Wis. Also Trane Company of Canada, Ltd., Toronto	TRANE
Send new bulletin, "Trane Concealed Heaters for Large Buildings". Name	CONCEALED
Firm. Street and No	HEAT



Hardwood edge-strip on all four edges — standard edges — standard construction for Roddis Flush Doors: instead of side edges only.



Cross band, hard-wood veneer on both sides: glued to core under hydraulic pressure. and thoroughly dried.



Surface veneer on both sides glued to cross band veneer: un-der hydraulic pressure and thor-oughly dried.

RODDIS FLUSH DOOR CONSTRUCTION AND BEAUTY

The pictures and descriptions given here reveal clearly, and convincingly we believe, the greater enduring value in Roddis Flush Doors.

Roddis details of construction and thoroughness of manufacture are an engineering exact-

ness and quality pride, from the log to the delivered door.

And the beauty expressed in the finished door shown completes the proof that Roddis Flush Doors are most preferable and practical for all types of buildings.

Write now for the Roddis Catalog: replete with door pictures and prominent buildings equipped with Roddis Flush Doors; and giving other door information worth having. Also

containing complete door specifications for architects' use, reference and to have on file.

RODDIS LUMBER & VENEER CO. Marshfield, Wis. 128 Fourth St.

Established 1890 DISTRIBUTORS IN ALL PRINCIPAL CITIES Flush, French, Panel, Custom Built Doors



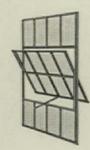
Temple B'nai Jesherum . . Cleveland, Ohio C. R. Greco, Arch. Lundoff & Bicknell Co., Gen. Contr. Roddis Flush Doors

Bayley Windows in Power Houses

Pivoted Windows Screened

Pivots exclusive to this window are lo-cated at center of ventilator. Friction adjusters hold ven-tilator securely and horizontal bar pro-vides close fitting screen contacts.





Pivoted Windows Design of sections assures strength and low cost of maintenance. No sharp edges to en-courage corrosion. No ledges to collect dirt and moisture.

EXCLUSIVE features of design . . . great durability . . . attractive appearance ... proven economy! This combination accounts for the large use of Bayley Pivoted Windows Screened, as well as Bayley Pivoted Windows, in the Power Industry . . . and in many other leading industries.

They not only keep out the swarms of flying insects that are attracted by brilliantly lighted interiors in power houses, water works and other plants operated day and night, and give screen protection to sensitive electrical equipment and intricate processes of water purification . . . but, in addition, ventilators operate without movement of screens or flexing of screen contacts and are held firmly in any position they are placed.

They are the evolution of more than 20 years of intensive engineering study and are not ordinary pivoted windows with screens merely attached. Ventilators and screens are built as a single unit, yet screens are easily removable without use of tools for cleaning or winter storage. As in all Bayley windows, sections are 11/2" deep for extra strength and durability. Bayley quantity production reduces first cost, Bayley design reduces maintenance expense.

Bayley offers 49 years of engineering experience, without cost or obligation, in preparing plans and specifications. Call the nearest district office. Illustrated literature on Bayley Steel Windows will be sent on request. The William Bayley Co., 134 North St., Springfield, Ohio.

TYPICAL INSTALLATIONS OF BAYLEY WINDOWS

Gulf States Utilities Co. Beaumont, Texas

Northern States Power Co. (High Bridge Sta.) St. Paul, Minn.

State of New York Power Plant Poughkeepsie, N. Y.

Virginia Polytechnic Institute Blackburg, Va.

Dayton Power & Light Co. Dayton, Ohio

The Bettendorf Co. Power House Bettendorf, Iowa

Corn Products Refining Co. Pekin, Ill.

Reynolds Tobacco Co. Greensboro, N. C.

Wellesley College Wellesley, Mass.

Allegheny County Heating Co. Pittsburgh, Pa.

Columbus Power & Light Co. Columbus, Ohio

Lynn Gas & Electric Co. Lynn, Mass.

Montaup Electric Co. Somerset, Mass.

Hartford Electric Co. Hartford, Conn.

Columbus Electric & Power Co. Bartletts Ferry, Ga.

Northern Indiana Power Co. Kokomo, Ind.

City of Rockville Center Rockville Center, L. I.

Appalachian Electric Power Co. Glenn Lynn, Va.

Connecticut Light & Power Co. Devon, Conn.

Western States G. & E. Co. Placerville, Calif.

Ohio Edison Springfield, Ohio

Bayley Pivoted Windows Screened and Bayley Pivoted Windows are widely used in leading American in-dustries, including that of Dairying, Candy, Bakery, Milling, Printing, Pub-lishing, Textile, Warehousing, Retail Stores, Electrical Manufacturing, as well as Hospitals, Institutions and Public Buildings.

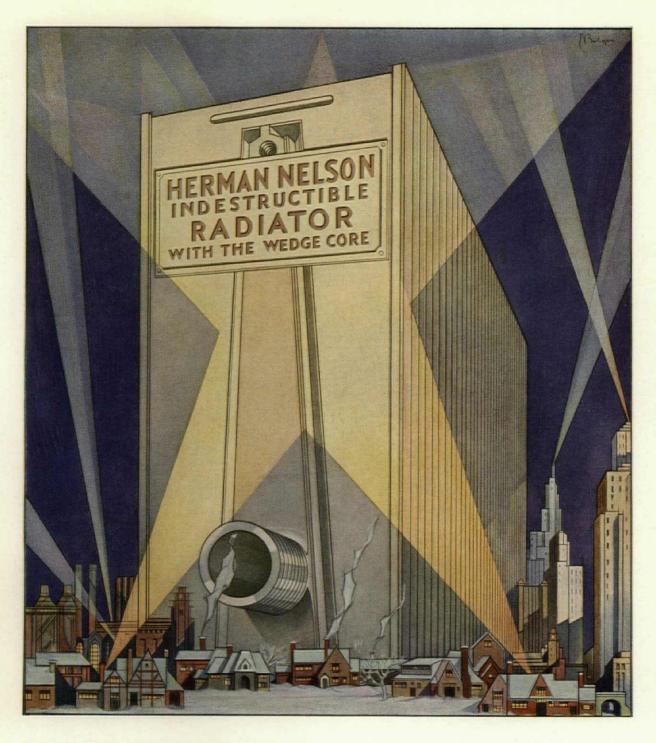
District Offices

New York, 67 W. 44th St. Boston, 5 Park St. Chicago, 75 E. Wacker Drive

Cleveland, 449 Terminal Tower Washington, 1427 I St., N. W. Atlanta, 407 Bona Allen Bldg. Springfield, O., North St.

Sales Agencies also in Principal Cities





OUR CONTRIBUTION TO THE ART OF HEATING AND VENTILATION

The Herman Nelson Wedge Core Radiator is an exclusive feature of all Herman Nelson Heating and Ventilating Products and accounts for their satisfactory performance.

THE HERMAN NELSON CORPORATION MOLINE



BEHIND THAT GRILLE IN THE WALL

Write down your own ideas of a radiator in tune with the modern day...then see how perfectly the Herman Nelson Invisible Radiator meets them!

Invisible . . . this radiator fits within the wall . . . occupies no floor or room space . . . never mars the tasteful decorative plan . . . never interferes with the placement of furniture or draperies.

Easy to control . . . you simply turn a tiny knob at the grille, and heat is quickly distributed and diffused throughout the room—in the exact quantity desired.

Trouble-proof . . . once the Herman Nelson Invisible Radiator is installed, it never requires a moment's further attention. It has no joints of any kind to leak and fail—no parts that can rust or get out of order.

The radiator comes enclosed in a sturdy, scientifically designed steel case which may be installed in any standard wall or partition. For multi-story buildings, where access to control valves is required, a removable panel is provided.

If you are planning a residence or any building that will have a steam, hot water, vapor or vacuum heating system, you will insure your client's satisfaction and the security of his investment by specifying Herman Nelson Invisible Radiators. A request will bring to you our catalog.

THE HERMAN NELSON CORPORATION,* Moline, Ill.

There's a radiator that says....This home is modern"

HERMAN NELSON Invisible RADIATOR

BELFAST, ME.
BOSTON
SPRINGFIELD
PROVIDENCE, R. I.
NEW YORK CITY
SYRACUSE
ALBANY
BUFFALO
PHILADELPHIA
SCRANTON

HARRISBURG
PITTSBURGH
JOHNSTOWN, PA.
WASHINGTON, D. C.
CHARLOTTE, N. C.
GRAND RAPIDS
SAGINAW, MICH.
FLINT, MICH.
DETROIT

CLEVELAND
CINCINNATI
TOLEDO
LOUISVILLE
INDIANAPOLIS
CHICAGO
PEORIA, ILL.
DES MOINES
MILWAUKEE

GREEN BAY MINNEAPOLIS DULUTH ST. LOUIS BIRMINGHAM ATLANTA NEW ORLEANS MEMPHIS DALLAS OMAHA
EMPORIA, KAN.
KANSAS CITY
TULSA, OKLA.
DENVER
SALT LAKE CITY
BUTTE
SPOKANE
PORTLAND, ORE,

SEATTLE
SAN FRANCISCO
VANCOUVER
TORONTO
WINNIPEG, MAN.
CALGARY
LONDON
OSLO
MELBOURNE
TOKYO, OSAKA

*Makers of the Herman Nelson Invisible Radiator, for residences, apartments, hotels, offices and monumental structures — the Univers, for the ventilation of schools, offices, churches and all buildings having an acute ventilating problem — the Herman Nelson hijet Heater, for economical distribution of heat in factories, mills, garages, warehouses, and smaller buildings.

and in the South...

A Birmingham, Alabama, is the magnificent Jefferson County Court House, pictured below. Holabird and Root were the Architects—Harry B. Wheelock, Associate Architect. Ingalls Iron Works Company fabricated the steel and Southern Ferro Concrete Company were the General Contractors. Here again Carnegie Beams were chosen to form the steel framework.

The popularity of Carnegie Beams is nation wide. Every important city in the United States—North, East, South and West—is represented in the imposing list of structures in which these modern sections have been used. Architects and steel designers have been quick to recognize the remarkable adaptability of Carnegie Beams to their needs—to see the unlimited possibilities in design and construction these wide, parallel-flanged sections present.

In any type of construction involving structural steel, Carnegie Beams offer economy, utility and flexibility of design never before possible.

9

CARNEGIE STEEL COMPANY

Subsidiary of United States Steel Corporation

PITTSBURGH - PA.







Æolus Ventilators on a Soap Factory

Fourteen Materials

Æolus Improved Ventilators can be supplied in fourteen different metals to meet the conditions encountered. Copper, cast iron, galvanized and leadclad are some of these materials.

come

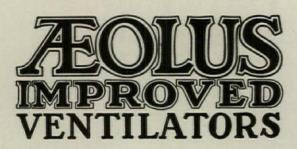
Specify ("ÆOLUS IMPROVED DOUBLE SYPHON"

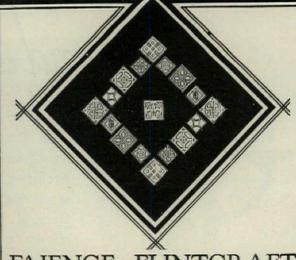
como

ÆOLUS DICKINSON

3360 South Artesian Ave., Chicago

Builders of ventilators since 1888





FAIENCE-FLINTCRAFT -VITROCRAFT

Insure finest results obtainable with tiles

FLINT FAIENCE, a genuine hand-made tile, available in some 150 colors, in plain, decorated and special designs.

FLINTCRAFT, a new product, of high quality, machine-made, to meet today's demand for a glazed tile where uniform joints are preferred. Can be laid with considerable economy of time over Faience. Obtainable in 10 special colors and in any Flint Faience color on special order.

VITROCRAFT, a durable, hand-made unglazed tile. Available in four color ranges. Suitable for residential and public floors of every description.

SPECIAL DESIGNS. Our designing department, under the supervision of one of the foremost designers in the industry, is equipped to furnish on short notice sketches and colored designs to meet any special or unusual requirement.

PROMPT DELIVERIES. Flint Faience, Flintcraft and Vitrocraft tile orders are shipped promptly on the promised delivery date.

ILLUSTRATED LITERATURE, showing various adaptations of standard patterns, with complete architectural data, will be gladly forwarded upon request. Our modern production facilities enable us to deliver tiles of the kind you want when you want them. In writing please indicate the nature of your requirements.

District Offices:

103 Park Ave., New York City 1404 Tribune Tower, Chicago, Illinois

•

District Offices: 206 E. Grand River, Detroit, Mich.

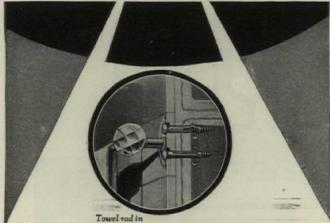
644 Martin Bldg., Birmingham, Ala.

Tint Paience & Tile Company

MAIN OFFICE AND FACTORY: FLINT, MICHIGAN



for these Four Reasons



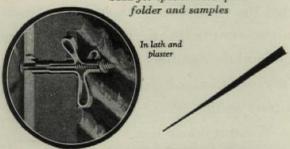
ollow tile Because it saves your time and "plan cost." You don't have to detail locations of fixtures with reference to studding or wall construction, nor plan for headers.

Because Ankyras provide a sure fastening for fixtures, trim, grounds, wall radiators, etc., etc. - a fastening as strong as the wall itself and one that will not work loose.

Because Ankyras save time and material. No need to put in headers, hunt or respace studding and can be applied faster and cost less, and finally

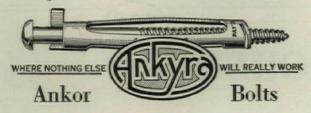
Because they hold in any wall, hollow or solid. There are many places where nothing else will really work.

> Send for special descriptive folder and samples



Wayne Junction

Philadelphia





THE NEW RCA

CENTRALIZED RADIO

is an essential service feature in modern buildings today

"Soon," prominent architects say, "RCA Centralized Radio equipment will be as necessary as wiring for electric light and power... The two principal forms solve the perplexing radio problem in all modern building construction.

All RCA Centralized Radio equipment is standardized and especially designed, as "adapted" material has been found unsatisfactory by RCA engineers. Approved by the National Board of Fire Underwriters, RCA Centralized Radio furnishes permanently adequate radio facilities.

Many special features and thorough radio engineering make RCA Centralized Radio installations convenient, simple and very flexible.

Two principal types

RCA Centralized Radio is available in two principal forms:

1. A single antenna connected with a distribution system to radio outlets throughout the building. As many as 80 radio sets of any make can be simultaneously and independently operated from one common antenna, by plugging into wall outlets. Additional central antennae can be installed, as required. This system eliminates an unsightly multiplicity of antennae, and enables the tenant to get far better radio reception.

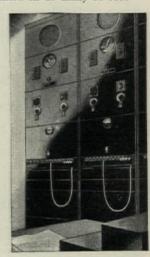
2. Centralized Radio receiving equipment to distribute broadcast programs to loudspeakers in as many as 5000

rooms throughout a building. Equipment can be installed to make available the choice of programs from as many as four broadcasting stations.

The first method is ideally adapted for apartment houses, dormi-tories, office buildings, etc., where tenants desire to have their own receiving sets. The second method is particularly designed for hotels, hospitals, sanitariums, schools, passenger ships, etc., where transient oc-cupants of rooms may enjoy radio programs or phonograph record entertainment from a central control.

Let us prepare estimates

Descriptive pamphlets of these two sys-tems, and of the special apparatus designed for them are available to architects, build-ers and building owners.



The Engineering Products Division, RCA Victor Company, Inc., at any District Office, named below, will answer inquiries and prepare plans and estimates for installations of any size.

ENGINEERING PRODUCTS DIVISION RCA VICTOR COMPANY, INC.

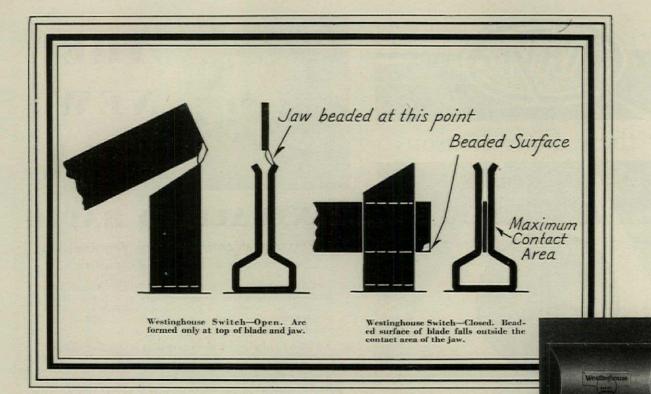
261 Fifth Avenue, New York City

100 West Monroe St., Chicago, Ill.

235 Montgomery St., San Francisco, Cal.

Santa Fe Bldg., Dallas, Texas

101 Marietta St., Atlanta, Georgia

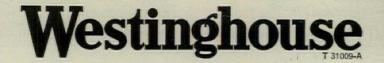


The Diamond Pointed Jaw gives a longer switch life

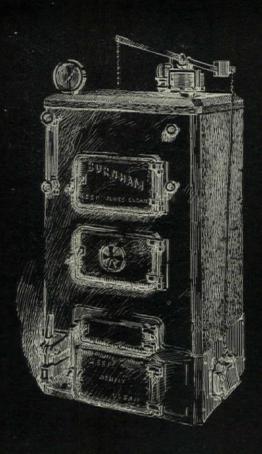
THE diagram shows how . . . and why the diamond pointed jaw and extended blade on Westinghouse Industrial Safety Switches prevent beading and burning of the jaw and blade, and give a cleaner, better contact. This better contact means that the temper of the jaw cannot be affected by overheating. It means an increased useful life of the switch.

The quick-make, quick-break mechanism; the arc quencher that quickly and effectively extinguishes the arc before it can damage the switch or endanger the operator; the simplicity of the Westinghouse design; and the facilities that assure prompt delivery of standard safety switches; also, contribute to the ever increasing popularity of the Westinghouse line.

Service, prompt and efficient, by a coast-to-coast chain of well-equipped shops







Now That Economy Counts For So Much

Burnham Boiler's long fire travel counts more than ever. Its long fire travel makes its short coal bill.

P.S .-

This same long fire travel is an additional insurance of economy, when oil is the fuel. It also has a way of muffling down combustion noises. P.S.-P.S.-

There's a booklet called Letters To and Fro that tells of eight people's successful solution of eight separate home heating problems. Send for it.

Burnham Boiler Corporation

IRVINGTON, NEW YORK

Representatives in all principal cities of the United States and Canada



Your Visions, in the Hollow of His Hands

Time—That Tough Old Tester—takes into the hollow of his hands the materials that go into the buildings you have visioned, planned, and supervised, and begins his work of destruction long before the structures are completed.

Nor do the attacks of Time, and of all his destructive forces, ever let up for a moment until those buildings are crumbled ruins or torn down to make way for the new.

But if you wish to have the structures you plan withstand the attacks of Time to the utmost, if freedom from repairs is desired as long as they last, then specify Reading 5-Point Pipe throughout.

For Reading 5-Point Pipe is made of genuine puddled wrought iron that has stood the tests of Time—That Tough Old Tester—as has no other pipe material. And the tests of Time are the only conclusive tests of the length of life of pipe materials that man has ever found.

READING IRON COMPANY, Reading, Pennsylvania

For Your Protection,
This Indented Spiral
Forever Marks

AU

POINT PIPE

READING
GENUINE PUDDLED
WROUGHT
IRON

THREADS EASTLY



Use only Reading 5-Point Nipples

with Reading 5-

Point Pipe-you'll know them by the

READING PIPE

Science and Invention Have Never Found a Satisfactory Substitute for Genuine Puddled Wrought Iron

AT CLIFF TOWERS
SHOW-PLACE OF THE
NEW SOUTHWEST

*COLOR MEANS

KOHLER

Dallas has a new apartment hotel, one of the finest and most beautifully appointed anywhere . . . developed inside and out in the Italian style . . . with all the warmth and color of an old-world villa. . . . The charm of the soft rich tones in marble, stucco, tiling and furnishings is carried on by Kohler color ware in the bathrooms. Hundreds of Kohler units were used—built-in tubs, vitreous china lavatories and closets, and white enameled sinks. The reasons for selecting Kohler fixtures are well expressed by Mr. Charles A. Mangold, Vice-president and General Manager:

"When we began the building of Cliff Towers we decided to procure the best products to be found in the nation.

"In plumbing, we naturally turned to Kohler of Kohler.

Others may be good, but Kohler qualities have set the pace for a number of years. We were confident that Kohler fixtures would render long service.

"Then there was the all-important question of beauty in the new type bathrooms. We decided upon colored fixtures, and the ready response from all who visit Cliff Towers, particularly from those who live there, has convinced us that our choice is a very wise one.

"We were influenced by the fact that we have used Kohler products in the past. We place our faith in the future upon our own most satisfactory experience."

High standards in plumbing are evidence of high ideals of service in other respects. Logically, Kohler fixtures are favored where hotel or home bathrooms must pass the most exacting requirements, both of beauty and efficiency. . . . Kohler Co. Founded 1873. Kohler, Wis.—Shipping Point, Sheboygan, Wis.—Branches in principal cities. . . . Look for the Kohler trade-mark on each fixture.



Typical guest bath at Cliff Towers. Equipped with Kohler Winthrov lavatory of vitreous china, Kohler Vicerov built-in tub, and Kohler Penryn syphon jet closet.



Cliff Towers, new apartment hotel in the Oak Cliff section of Dallas, Texas. Architects, Albert S. Hecht, Chicago, and Robert Williams, Dallas. Plumbing jobbers, Southland Supply Co. of Dallas. Plumbing contractors, C. Wallace Plumbing Co. of Dallas.

KOHLER OF KOHLER

PLUMBING FIXTURES

WESTINGHOUSE Elevators are an integral part of this striking new building -efficient in speed, safety and control. The operation, unusually smooth and quiet, insures perfect floor landings of automatic precision.

Any vertical transportation need is readily supplied by the Westinghouse Electric Elevator Company.

Westinghouse Elevators are the logical highways of modern architecture.

"DOWN-TOWN" ATHLETIC CLUB

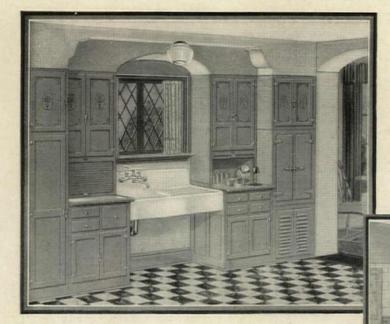
THOMPSON-STARRETT CO., INC. Contractors

NEW YORK CITY STARRETT-VAN VLECK Architects

Westinghouse Electric Elevator Company



Complete sets of these plates may be had for the asking



For largest or smallest kitchens

Your Best Prospect wants a modern kitchen

See the Sellers extras offered in convenience, sturdiness and beauty

Sell the wife. She is the key to most home sales. Give her what she wants—a smart, convenient, modern kitchen.

Sellers built-in Kitchen Furniture Units offer exclusive laborsaving convenience found in no nailed-together job. Also colorful beauty, sturdy durability and the superb finish of the finest furniture.

Every prospect will prefer this modern nationally advertised equipment to the old-fashioned, nailed-together kitchen. And you can give it at no extra cost.

Sellers Units come beautifully finished ready to set in place. To install them, you merely tighten a few bolts and the job is completed. Over 60 units enable you to equip the largest or smallest kitchen without extra millwork.

You are in a Buyer's Market now. That changes selling conditions materially. The builder who gives the greatest values will sell the most houses in 1930. Just remember that. Sellers Kitchen Units enable you to give the greatest kitchen value—at no extra cost. Write today for full information on this modern kitchen equipment.

G. I. SELLERS & SONS CO.
Dept. P-3
Elwood, Indiana

Furniture Construction

The Sellers wedged tenon dovctail joint is the strongest and most accurate of all wood joints. It is air-tight and dust-proof. Note how the tenon tapers its full length.

Convenience

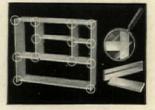
Open the base door of Sellers master unit and the shelf automatically slides forward bringing pots and pans within easy reach. This is but one of its 15 famous features.

Non-Jamming Drawers

The patented Sellers 3-point suspension drawers insure free movement even in the wettest weather. A Sellers drawer can be opened or closed from any angle at a touch of the finger. Compare this with the heavy drawers in a nailed-together job that stick with every change in weather.

Beauty and Durability

Five coats including 3 enamel bakedon coats insure a beautiful satin finish which will withstand years of abuse. Colors: Jade Green, Ivory, Gray and White—all handsomely decorated.

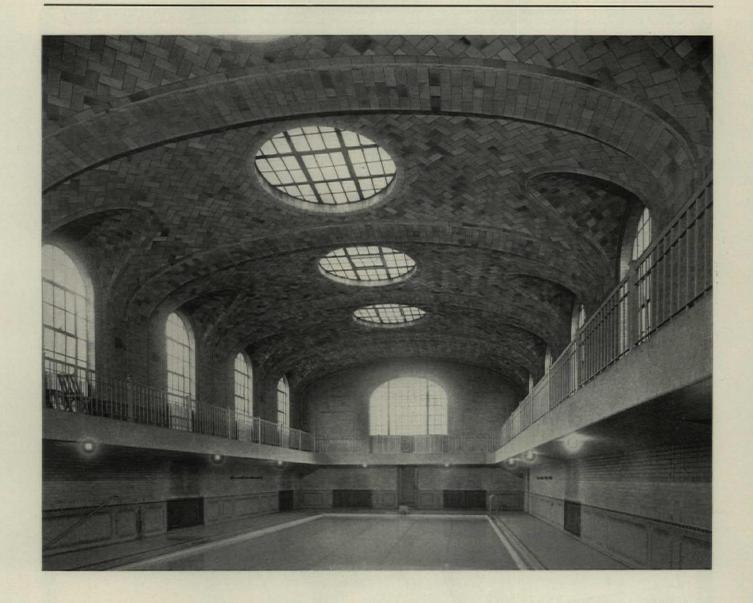












MASONRY VAULTING

SWIMMING POOL IN JERSEY CITY Y. M. C. A. BUILDING . . . CEILING OF GUASTAVINO CONSTRUCTION WITH A SOFFIT OF SPECIAL CERAMIC TILE, GIVING UNUSUAL FREEDOM FROM CONDENSATION.

JOHN F. JACKSON, ARCHITECT

R. GUASTAVINO COMPANY

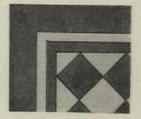
40 COURT STREET, BOSTON, MASS.

225 WEST 34th STREET, NEW YORK, N. Y.

R. GUASTAVINO CO., OF CANADA, Ltd., New Birks Building, Montreal, P. Q.





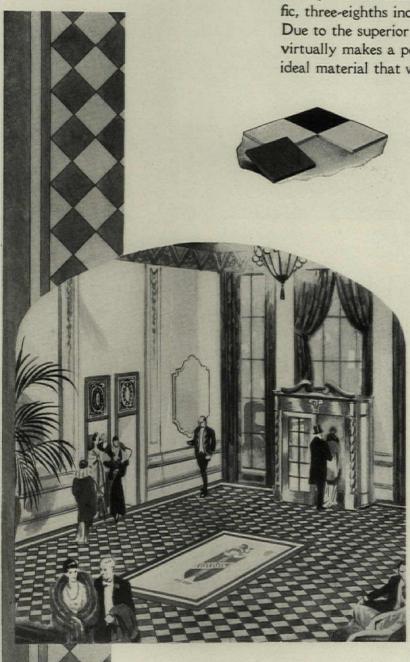


50% GREATER THICKNESS

Harmonious in Color and Design

Sanitary - Safe - Comfortable

DOUBLE LIFE



Three-Eighths Inch Rubber Tiling Ideal for the Spotless Lobby---

OR public lobbies and all places subject to heavy foot traffic, three-eighths inch thick rubber tiling is the logical choice. Due to the superior thickness, firmness and weight this tiling virtually makes a permanent floor and offers to architects an ideal material that will give lasting satisfaction.

A quiet and comfortable walking surface, due to the elasticity of the special rubber compound, has been provided; a feature that is particularly desirable.

Made in square blocks of solid color and offered in twelve rich shades. Colors are permanent and will not wear off as the color extends through the full three-eighths inch thickness of the rubber tile flooring. Selection of design and color can be made to harmonize with the general color treatment.

To specify New York Belting and Packing Company rubber tile flooring is to assure permanent beauty that blends with its surroundings.

Send for complete facts, including samples and form of specification.

VAV

NEW YORK BELTING & PACKING CO. 91-93 Chambers Street, New York

Boston Chicago Philadelphia Pittsburgh St. Louis San Francisco

RIBBERGE FACKING CO. TRING

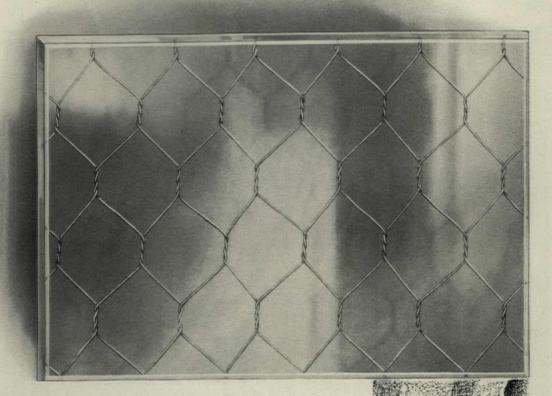


quiet dignity of tasteful office interiors is reflected in the unobtrusive beauty of Diffusex. It transmits a soft uniform light. Minute lenses present a comparatively smooth surface that does not collect dust readily, is easily cleaned with a damp cloth.

BLUE RIDGE

Kingsport,

CHICAGO 55 E. Washington Street



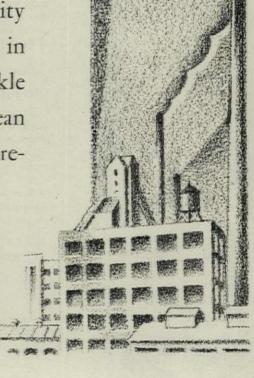
ALL

Blue Ridge Glass is made from plate glass batch. Nowhere is this superiority of quality more readily apparent than in polished wire glass. Its clear sparkle carries no hint of distortion. The clean wire mesh is entirely free from disfigurement of bubble clusters.

GLASS CORP.

Tennessee

NEW YORK 1 Madison Avenue



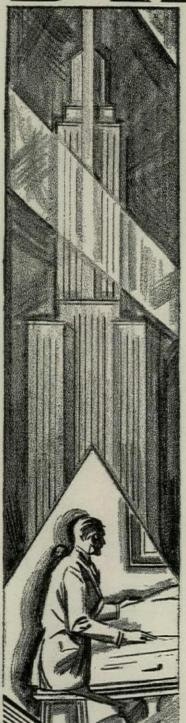






Standardize on

DIETZGEN



DRAFTING &-SURVEYING SUPPLIES

DIETZGEN today has a most complete and standard line of drafting and surveying instruments, supplies and furniture—superlative quality blue print paper to meet every requirement of architectural, professional, industrial or school drafting. The name DIETZGEN is a reliable guarantee of quality and satisfaction.

Our widespread distributing and service organization bears evidence of the success of the policy of ever being on the alert, constantly experimenting in research and design, and ever seeking new and better methods of producing finer products.

All DIETZGEN products have been standardized and simplified to meet the exacting needs for which they are intended. This gives you wide selection for specific purposes and great adaptability. Because of this standardization—repair and replacement parts and service can be readily obtained from any of our dealers or branches at any time.

Always Specify DIETZGEN to Insure Complete Satisfaction

Our Prompt Dispatch Service, good dependable quality, complete standard line and popular prices induce many to use DIETZCEN'S catalog exclusively for their drafting and surveying requirements.

Besides being one of the largest manufacturers of drafting and surveying supplies and leading coaters of fine blue print paper, DIETZGEN are distributors of:

HAMILTON DRAFTING FURNITURE WRICO LETTERING GUIDE FARRAND RAPID RULE HALDEN CALCULEX

EUGENE DIETZGEN CO.

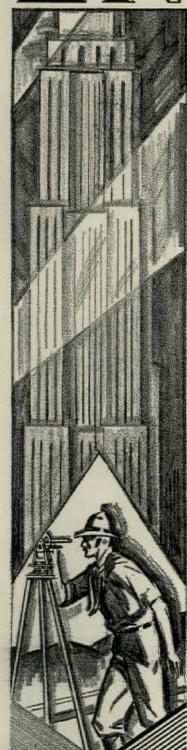
Enduring worth at rea

Chicago New York New Orleans Pittsburgh San Francisco



Philadelphia Washington Milwaukee Los Angeles Factory at Chicago

Manufacturers of Drafting and Surveying Supplies



STANDARD FOR NEARLY FIFTY YEARS

The K & E tracing paper that will not yellow with age . . will not leak oil . . will not retain dust . is extra transparent. is strong and tough.

I ONIC 197A will not turn yellow with age and cannot leak oil, because its impregnating medium is unchanged by time or atmospheric conditions and remains completely absorbed.

Ionic 197A is more highly transparent than papers hitherto obtainable—and STAYS SO.

Ionic 197A is strong and tough because it is made of 100% pure rag stock. Its surface takes pencil or ink perfectly.

K & E laboratories have been working at this problem for years. Time has tested their product.

Samples will demonstrate the great superiority of Ionic 197A over any tracing paper hitherto available. Write for your samples.



KEUFFEL & ESSER CO. HOBOKEN, N. J.

New York Chicago St. Louis San Francisco Montreal



American Radiator Heating keeps these churches COMFORTABLE..

West Side Presbyterian Church, Englewood, N. J. Hobert Upjohn —Architect





Oyster Bay Reformed Church, Brookfield, L.I. Delano & Aldrich —Architect

WHEN THESE churches were

Catonsville Presbyterian Church, Catonsville, Md. William Gordon Beecher—Architect

designed the architects not only planned beautiful, well-designed buildings but they insured perfect comfort for the con-

At the right is shown a typical "All-American" heating plant with Redflash Boiler, Hotcoil Gas Water Heater and Excelso Water Heater



gregation by specifying American Radiator heating equipment. They made sure that there would be just as complete satisfaction with the churches when they were finished as there had been with the plans.

In recommending "All-American" installations you give the best guarantee of satisfaction to your clients for a perfectly operating heating unit, where every part —boiler, radiators and accessories—are designed to work together efficiently and economically.

AMERICAN RADIATOR COMPANY

AMERICAN RADIATOR & STANDARD SANITARY CORPORATION

40 WEST 40th STREET, NEW YORK

To the architect who asks

"Where shall I use Pondosa Pine?"

You've read about this good wood. You know how easy it is to work. How it takes nails and screws without splitting; how it holds paint tenaciously, and gives a smooth, beautiful surface. If you've specified Pondosa on jobs before, we don't have to say anything else. But if you haven't, here are a few suggestions:

Pondosa Pine has been called a versatile wood. That's a pretty apt description, for it's certainly an all-purpose lumber. Recommend it for exterior and interior trim (it resists the rigors of storm and cold admirably) — siding, entrances, surbases, moldings, cornices, window frames, sash. For built-in features — breakfast nooks, window closets, cupboards, bookshelves, sun porches. For balusters, stairways, fireplaces, doors, newel posts. In fact, anywhere that a light, strong soft wood is required, Pondosa Pine is ideal.

There's another use for Pondosa that is becoming especially profitable. Knotty pine paneling. This good wood is clean in grain, and silky smooth,

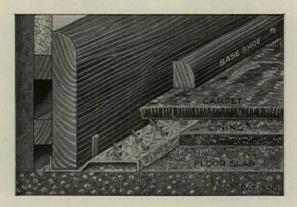


with a minimum of pitch, shake, warp and wane. The painted surface is free from ripples and ridges. Pondosa Pine makes a splendid choice both from the home owners' viewpoint and your own.

In short, Pondosa Pine gives complete satisfaction wherever you specify it. Specify by the mark of the pine tree. Pondosa does the rest. Western Pine Manufacturers Association, Portland, Oregon.

Pondosa Pine Pines

HOLDFAST TACKLESS CARPET STRIP

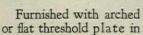


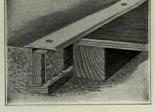
The ideal carpet installation must be free from exposed tack heads or depressions from tacking; it must permit carpets to be taken up for cleaning or replacement without injury to carpet or fastening; it must be convenient, strong and economical. All this and more is embodied in the Holdfast Tackless Carpet Strip—a simple, easy method that eliminates plugs or locating and burying wood strips; does away with tacking and provides a more beautiful and economical installation.

Completely catalogued in Sweet's-Page C-3538

ANKORTITE FLOOR JOINERS

Anchor assembly provides solid base. Any looseness of threshold plate is taken up by spacing collar and adjustable locknut.

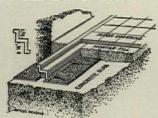




brass, bronze or galvanized steel, plain or grooved in all common widths—a very practical, economical and attractive joiner for abutting floors. See Sweet's, Page B-2119 for complete catalog description.

RECESSED BRASS BINDING BAR

A brass bar that forms an offset for applied coverings when joined to concrete or terrazzo. Square or cover base extended a few inches from wall gives a neat, attractive and sanitary joint and protects both materials

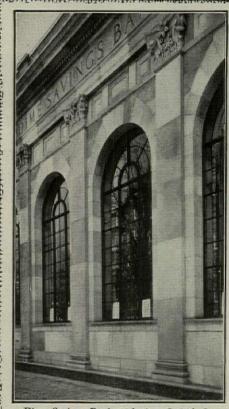


against chipping. An inexpensive method that gives highly satisfactory results. See Sweet's, Page B-2118 for complete catalog.

AGENTS IN PRINCIPAL CITIES

FLOOR ACCESSORIES CO., Inc.

Manufacturers also of Ankortite Floor Clips, Brass Stair Nosings, Linoleum Bindings and Counter Edgings. GENERAL OFFICE: KANSAS CITY MISSOURI



Dime Savings Bank, 19th Ave. & 86th St., Brooklyn, New York. Halsey, McCormack & Helmer, Architects. Bronze Sash by William H. Jackson Co.

PROBLEM No. 10 Third Series

Providing For Sash Operation In Relation To Draperies

IN this Brooklyn bank, the architects provided in their plans for both draperies and operating apparatus for natural ventilation.

The horizontal shafts and arm sets, of solid bronze to match the sash, were kept close to the mullions, while the vertical control rod and operating gear set were concealed in a chase at the side.

This early recognition of the mechanical requirements has resulted in a most practical and satisfactory solution of the problem of natural ventilation with draperies.

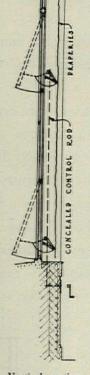
Lord & Burnham 6.

SASH OPERATING DIVISION

Graybar Building

New York City

Representatives in Principal Cities of the United States and Canada

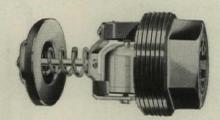


Vertical section through window at the Dime Savings Bank, Brooklyn, New

"CONGRATULATIONS

on solving a problem which has caused us a great amount of trouble and loss of time"

THE above is from a letter from C. E. Ricker, - heating contractor of Berwick, Maine. He goes on to say, "I have used a quantity of your No. 1 and No. 2 In-Airid Air Valves. I wish to take this opportunity to tell you that these valves have given most satisfactory results. I find that the radiators on which they are installed vent very quickly and completely."



The Invisible A

Heating contractors everywhere are enthusiastic about In-Airids because they not only insure complete venting but unlike any other air valve they do away with the air valves outside of the radiator, prevent tampering and add good looks and distinction to the installation. And every one of them carries our guarantee.

The famous time-tested Airid is still the largest selling external airvalve in the world, low in price, high in performance.

FOR STEAM

FOR VACUUM

No. 1 In-Airid

No. 2 In-Airid

No. 500 Airid

No. 510 Vac-Airid

AMERICAN RADIATOR COMPANY

Makers of a complete line of GUARANTEED HEATING ACCESSORIES

The Bull Dog Method Saves Time and Labor



THE Bull Dog Method of anchoring wood floors over concrete saves valuable construction time. No fill to dry—no beveling or shimming—sleepers and finished floor are laid at one time.

Other reasons for using The Bull Dog Process are: elimination of dry rot, doubling floor life; reduction of dead load 18,000 lbs. to 1,000 square feet of slab area; permanent and secure sleeper anchorage, preventing buckling, squeaking and doming. The Junior Clip (5/8" wide) may be used with or without a fill (dependent on the service duty of the floor.) When a fill between the sleepers is desired any chean inbetween the sleepers is desired, any cheap, in-expensive mix such as sand, cinders or cinder concrete can be used.

Millions of BULL DOG FLOOR CLIPS on over 8,000 jobs carry testimony of satisfaction. Made for 2, 3 and 4 inch sleepers. Regular and Junior Styles. Friction tight nailing facilities (nails gratis.) Write for catalog and samples.

THE BULL DOG FLOOR CLIP CO. 108 N. First Ave., Winterset, Ia 135 Representatives—15 Warehouse Stocks Winterset, Ia.



Original Patent granted June 14, 1921 Reissue Patent granted June 29, 1924 REGULAR CLIP— 3 sizes, 2, 3 and 4 in. 20 gauge gal-vanized iron. Process Patent granted May 19, 1925



JUNIOR CLIP-3 sizes, 2, 3 and 4 in. 18 gauge galvan-ized iron.

The Bull Dog Buck Anchor

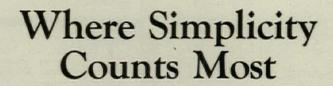




Von Duprin



Self-Releasing Fire and Panic Exit Latches

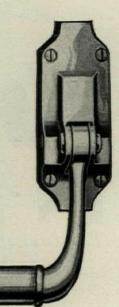


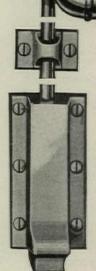
Simplicity is of the greatest value whenever it permits stronger and more reliable construction.

It does exactly this in the Type "B" Von Duprin devices. The remarkably simple design (fully protected by our patents) makes possible the use of actuating members far heavier than we have ever before been able to use.

The result is a durability, reliability and freedom from maintenance expense—and a consequent sureness of operation at all times—that mean everything in case of emergency. And these are the qualities without which any panic device is worse than useless.

When the genuine Type "B" Von Duprins are speci-





fied, particularly if specified as a separate item from the finishing hardware, you have the ideal solution to the problem of the best possible protection for the occupants of the building in case of panic.

VONNEGUT HARDWARE CO. Indianapolis, Ind.

Listed as Standard by Underwriters Laboratories

Designed to meet exacting needs

Floors laid with tiles of Stedman Reinforced* Rubber meet every decorative and practical need. They are individual. Twenty-six distinctive color types in squares and rectangles afford the utmost freedom in design arrangement. A floor of any shape or size can be made to express the architectural motif and purpose of an interior. You are not confined to "checker boards" when you floor with Stedman Tiles.

Designed also to be quiet and comfortable under foot, to always present

*REINFORCED: In the Stedman Process minute cotton filaments, uniting with the rubber under high pressure and heat, are responsible for its unusual resistance to wear, its lasting resilience and smooth impervious surface—characterized by color veinings of remarkable fineness and beauty.

a smooth, impervious surface easily cleaned, and to resist wear. New rubber properly reinforced with minute cotton fibre has demonstrated these superior qualities for more than a decade. This modern material is shown in its true colors in a book we wish to send you. There is no charge. STEDMAN PRODUCTS COMPANY, South Braintree, Mass.





How would YOU have planned this Room's Wiring?

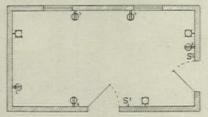
Consider this bedroom. Can its users easily have the beauty, comfort and convenience of electricity—the beauty of good illumination... the comfort of reading lights, fan, heater, hair curler, exerciser, sunlamp... the utility of cleaner, waxer, portable sewing machine? Are outlets and switches con-

venient?

Probably you find no electrical inadequacy, for this room exemplifies the G-E Wiring System which years of experience have perfected. It simplifies wiring problems for you . . . satisfies your clients. The G-E Wiring System makes electric service adequate in dwellings and business buildings great or small. It guarantees quality of materials . . . protects

against trouble and maintenance costs . . . adds property value.

Write to Section G-573, for descriptive matter.

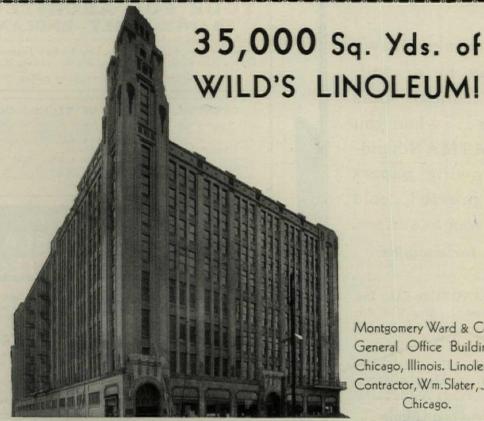




MERCHANDISE DEPARTMENT

GENERAL ELECTRIC COMPANY

BRIDGEPORT, CONN



Montgomery Ward & Co., General Office Building, Chicago, Illinois. Linoleum Contractor, Wm. Slater, Jr., Chicago.

HE beautiful new Montgomery Ward & Co. General Office Building, Chicago, has its floors equipped with 35,000 square yards of Wild's 6 mm Brown Battleship Linoleum. This is a record linoleum installation—one of the largest in the United States.

It is a significant fact that this great institu-

tion selected Wild's as the ideal floor covering - a fact that is self-explanatory when it is considered that Wild's is the original American linoleum - the first linoleum ever made in this country (1875), and still recognized today as the standard of linoleum quality and excellence.

BLABON-SANDURA COMPANY, Inc. FINANCE BUILDING PHILADELPHIA, PA.





Pen-and-ink drawings may be erased, scraped, redrawn, time after time . . . when you use WHATMAN handmade drawing papers ... hot pressed, cold pressed, rough surface.

Write for samples

H. REEVE ANGEL & CO., Inc. New York City 7-11 Spruce Street

Genuine Hand-Made DRAWING PAPERS



See our pages in SWEET'S

Whatever your needs in Chain Link, Iron Picket or Ornamental Iron Fence of standard or special design, you will find sure satisfaction in dealing with

The Stewart Iron Works Co. 504 Stewart Block, Cincinnati, O.



TOUR FOR ARCHITECTS FRANCE-ITALY-ENGLAND

Send for pamphlet: E. L. Hackes, Archeo Tours-Travel Dept., American Express Co., 65 Broadway, N. Y. City

Opportunity offered to organize parties

CARNEGIE INSTITUTE OF TECHNOLOGY

Six weeks' course, June 16 to July 26, in Architecture, consisting of design, outdoor sketching, descriptive geometry, shades and shadows, and perspective. Course arranged both for architectural draftsmen and for students of architecture.

Instruction by regular members of the faculty. Wide range of technical subjects offered by other departments. For catalog, address the Director of Summer Session, Carnegie Institute of Technology, Schenley Park, Pittsburgh, Pa.



BEAUX-ARTS INSTITUTE OF DESIGN 304 East 44th Street, New York, N. Y.

Nominal Fee for instruction in ARCHITECTURAL DESIGN, SCULPTURE, INTERIOR DECORATION MURAL PAINTING COMPOSITION

In cooperation with other educational institutions
COURSES IN SCULPTURE IN ALL ITS BRANCHES AT THE INSTITUTE
struction founded on the principles of the Ecole des Besux-Arts of Paris
Circular on Application







Your Standard and Standby for Half a Century

WATERPROOF (White Label)

GENERAL (Soluble) (Red Label)

TOR working drawings, tracings, elevations, perspectives and other types of work which must withstand handling and be otherwise exposed, HIGGINS WATERPROOF DRAWING INK (the original India Ink) has long shown its superiority.

For exceptionally fine line work, black washes, elevations, perspectives and other "show" and specimen drawings, HIGGINS' GENERAL DRAWING INK has, since its introduction, stood supreme.

In all probability both these inks are at this moment on your draughting table. Why not put them to all the uses for which they are intended?

The lavishly illustrated handbook "Techniques" contains many valuable suggestions. Just write for it on your firm letterhead and mention this magazine. No obligation.

CHAS. M. HIGGINS & Co., INC., 271 Ninth St., Bklyn, N. Y. Drawing Ink Makers for Half a Century

rawing lnks

ANNOUNCEMENT

MASSACHUSETTS INSTITUTE OF TECHNOLOGY COMPETITION FOR TWO SCHOLARSHIPS

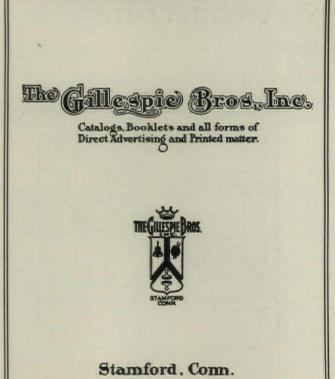
TWO scholarships of four hundred dollars Leach are offered in the academic year 1930-31 for special students in the third or the fourth year of the course in Architecture at the Massachusetts Institute of Technology. They will be awarded as the result of a competition in design under the direction of the Committee on Design of the Department of Architecture.

The competition is open to citizens of the United States of good character, who are between twenty-one and twenty-eight years of age, and who have had at least three years of office experience.

The competition will be held from May 17 to May 26.

Competitors are allowed to prepare their drawings wherever conditions conform to the requirements of the Committee, but these drawings must be sent to Boston for judgment.

Applications should be received on or before April 14, addressed to Professor William Emerson, 491 Boylston Street, Boston





IRVING HAMLIN, Manufacturers, 1504 Lincoln St., Evanston, Ill.

Full details on request



Metal Crafts in Architecture

By Gerald K. Geerlings



THIS book has been prepared with the purpose of creating a practical reference guide for the architect, craftsman, and layman, who is interested in either the historical or practical aspects of the various metals used for decorative effect. Interesting detailed studies are reproduced in well-printed illustrations and there is hardly a page without an idea or suggestion for those seeking suitable motifs, and designs which can be readily adapted from fine examples, old or new.

The pages on specifications will be especially valuable, as well as those dealing with recent developments in chemical surface treatments, electrical aids in depositing metals, etc. Great care has been exercised that the illustrations should be especially well reproduced so that the detail is clearly seen.

The different metals taken into consideration are Bronze, Brass, Cast Iron, Copper, Lead, Zinc and Tin. There is also a chapter on lighting fixtures and another on current developments, such as enamelling, monel metal, depositing copper on glass, steel, electroplating, and chemical surface action.

208 Pages, 9 x 12, 277 Illustrations, Cloth, Price \$7.50 Postpaid

Wrought Iron in Architecture

By Gerald K. Geerlings

THIS is a companion volume to "Metal Crafts in Architecture" by the same author. It combines for the first time a practical discussion of craftsmanship, of what can be justly expected of the metal with eco-

nomic limitations, of the inter-relations of client, architect, and artisan, with historical résumé of the craft in the various countries. The first chapter treats of craftsmanship and the architect's design and drawings, while succeeding chapters deal separately with the iron-work of Italy, Spain, France, the Lombards, England, Germany, and American Pre-Twentieth Century, and the Modern. The last chapter is given over to specifications. The book is a practical one, not only for the architect and his drafting-room, but for the craftsman and layman as well.

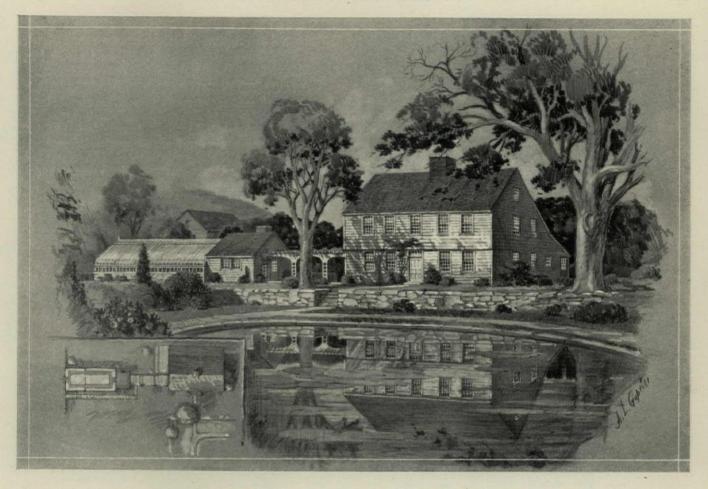
208 Pages, 9 x 12, 324 Illustrations, Cloth, Price \$7.50 Postpaid



THE PENCIL POINTS PRESS, Inc.

419 FOURTH AVENUE

NEW YORK



BUILT ABOUT 1670 For the Famed Captain Eaton

FAMED Cap'n Horatio Eaton built this Connecticut house about 1670. A decade ago it came into the possession of one who planned to demolish it as soon as his dream house on the hill was designed and built. Meanwhile he restored the old one somewhat and moved in.

He found in this sturdy old house a tranquilness. A simple comfort such as he had never



Here's a happy combination of a Sunning Room and a Plunge. It's the Swimming Pool in sort of a Junior form.

known. To exercise his hobby of growing things under glass he built a greenhouse, about 18' x 40', utilizing an ancient tool house for the workroom, and linking it up with the pergola.

Needless to add that the new house on the hill has never been built. And never will be.

It will soon be four score years since Lord & Burnham Co. first started building glass gardens.

New York Philadelphia Albany, N. Y. Chicago Boston Cleveland Denver Iord & Burnham 6.

IRVINGTON, N. Y.

Detroit St. Louis Greensboro, N. C.

Buffalo Montreal St. Catharines Toronto

FOR FOUR GENERATIONS BUILDERS OF GREENHOUSES

WITH AND FOR OUR ADVERTISERS

ADVERTISING OFFICE, 419 FOURTH AVE., NEW YORK, N. Y., PHILIP H. HUBBARD, Advertising Manager District Offices: 1050 Strauss Building, Chicago; 953 Leader Building, Cleveland; 703 Market St., San Francisco.

Adam, Frank, Electric Company Eolus Dickinson	$^{16}_{140}_{120}$
Aluminum Company of America American Bar-Lock Co. American Brass Co., The American Institute of Steel Con-	115 10 147
American Landscape School American Pencil Co	95 166 75
American Radiator Company American Seating Co. American Sheet & Tin Plate Co. American Steel & Wire Co. American Tar Products Co. American Telephone & Telegraph Co. American Window Glass Co. Andersen Frame Corp. Andersen Frame Corp. Ankyra Manufacturing Co. Arkansas Oak Flooring Co. Armstrong Cork Co. (Linoleum	161 129 20 58
American Tar Products Co American Telephone & Telegraph Co	2 57 46
Andersen Frame Corp 98, Angel, H. Reeve & Co., Inc Ankyra Manufacturing Co	99 166 141 166
Armstrong Cork & Insulation	45
Co. (Roof Insulation) Atlantic Terra Cotta Co., The	1
Earrett Co. Fayley, Wm., Co., The Leaux Arts Institute of Design Eerry Erothers	136 166 128
Eakelite Corporation Earrett Co. Fayley, Wm., Co., The Leaux Arts Institute of Design Eerry Erothers Eest Brothers Keene's Cement Company, The Habon-Sandura Co., Inc. Flue Ridge Glass Corp. 152, Eommer Spring Hinge Co. Eoston Acoustical Engineering Division of Housing Co.	35 165 153 61
Foston Acoustical Engineering Division of Housing Co. Erasco Manufacturing Co.	22 11 150
Frasco Manufacturing Co. Fraun, J. G., Co., Inc. Fruce, E. L., Co. Fryant Electric Co. Fall Dog Floor Clip Co., The Eurnham Boiler Corp.	39 7 161 143
Cabot, Samuel, & Co., Inc Carnegie Institute of Technology	
Carnegie Steel Company Casement Hardware Co., The Cellized Oak Flooring, Inc. Charlotte Furniture Co.	139 70 39 51
Casement Hardware Co., The Cellized Oak Flooring, Inc. Charlotte Furniture Co. Cheney Co., The Clow & Sons, James B. Congoleum-Nairn, Inc. 17, Corcoran Mfg. Co., The Cork Import Corp. Cowing Pressure Relieving Joint Co.	60 9 18 104
Cork Import Corp. Cowing Pressure Relieving Joint Co. Crittall Casement Window Co. Cutler Mail Chute Company	59 50 118 60
Dahlstrom Metallic Door Co De Long Furniture Company Dietzgen, Eugene, Co Dixon Crucible Company, Joseph	
Dietzgen, Eugene, Co. Dixon Crucible Company, Joseph Dunham Company, C. A. Duplex Hanger Co., The Du Pont, E. I., De Nemours & Co., Inc.	154 93 34 50
Darmon Co	125 54
Energy Elevator Co	69 107 6
Faber, A. W. Federal Cement Tile Company Federal Seaboard Terra Cotta Corp. Flint Faience & Tile Co. Floor Accessories, Inc. Frink Corporation, The Fulton Sylphon Company, The	76 140 160
	100 126
General Electric Co. Georgia Marble Co. Gilliespie Brothers, Inc. Gillis & Georgheran Inc.	164 78 167 67
General Bronze Corp. General Electric Co. Georgia Marble Co. Gillespie Brothers, Inc. Gillis & Geoghegan, Inc Gleason-Tiebout Glass Co. Goodyear Tire & Rubber Co. Guastavino, R., Co.	77 48 149
Hamlin, Irving Hartmann-Sanders Co., The Higgins & Sons, Chas. M. Horn, A. C., Co.	167 68 167 73
Illinois Engineering Co	122 ver 28
Inc Nickel Co., The,	24

Announcement is made by the Andersen Frame Corporation, Bayport, Minn., of a new line of window frames which incorporate several improvements over previous stock frame construction. The most outstanding improvement is a patented construction, which makes a permanently tight joint between sill and side jambs.

This construction is said to have the advantages of both former styles of joint—the jamb-dado and the sill-dado—with none of the drawbacks of either. The locked joint remains tight and insures proper sill drainage without danger of leakage through the joint in case of shrinkage of jambs or in case of stress upon the sill. With the old jamb-dado construction to make a permanently tight joint, it was necessary to block between sill and studding. With the old sill-dado construction, there is a tendency for the joint to open if jambs shrink or weight is placed upon the sill. The sill extends beyond the back of jambs so that the high front shoulder backs up the joint between side casing and sill. The jamb lugs extend below the sill, giving permanent support—no trimming or blocking necessary. The sill slope is steep amounting to three inches to the foot designed to give perfect drainage.

At the annual directors and stock-holders meeting of the Stedman Products Company, South Braintree, Mass., manufacturers of reinforced rubber tile floors, held on Feb. 18, it was voted to change the name of the concern from Stedman Products Company to Stedman Rubber Flooring Company. This change will go into effect immediately. At the same meeting, the following executives were re-elected to serve as officers of the company throughout the coming year. Herbert O. Phillips, President; James I. Finnie, Treasurer; Merton A. Turner, 1st Vice-President; Walter W. Rowse, 2nd Vice-President; George W. Bailey, Secretary.

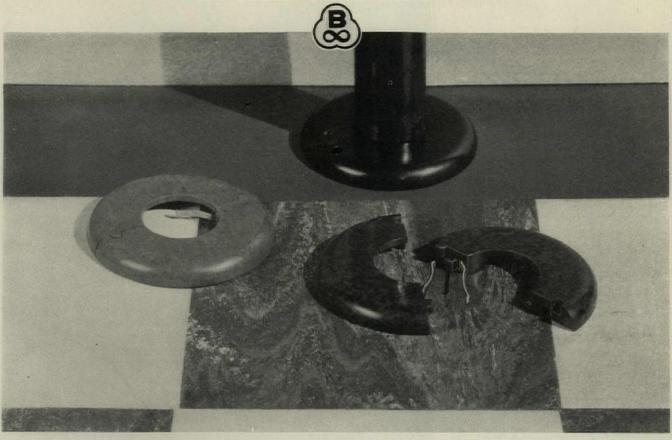
The Fulton Sylphon Co., Knoxville, Tenn., announce a new automatic radiator valve, No. 875, which simplifies air conditioning problems. This valve is a departure from the old style valve in that it is a combination packless radiator valve and temperature control unit, and is built around the Sylphon Bellows. It is thermostatically operated and gradually throttles the steam supply to individual radiators to meet the temperature changes within the room and is suitable for any two-pipe steam heating system using either floor or ceiling radiators.

The Kalman Steel Co., Chicago, Ill., anounces the election of Paul J. Kalman, Chairman of the Board of Directors; George E. Routh, Jr., President, and A. P. Clark, Vice President, in charge of sales.

The Oscar C. Rixson Company, Chicago, has placed on the market a new product to be known as the Rixson Casement Window Operator No. 194, for steel hinged windows swinging out. The new feature is that this operator is specially adapted to steel casements of both the close-up and offset hinge type. The sliding bar attached to the steel sash has standard perforations for screws, in accordance with the pattern accepted by most of the steel casement manufacturers through the mediation of the U. S. Bureau of Standards. The raised arm of the No. 194 clears window frames without the necessity of blocking up from the stool.

Jacobson & Co	44
Co	71 23
Jenkins Bros	119 133
Josam Manufacturing Co., The	47

Kalman Steel Co	100
Kerner Incinerator Co	32
Kewanee Boiler Company	8
Kalman Steel Co. Kawneer Company, The, 101, 102, Kemitex Products Co., The Kerner Incinerator Co. Keuffel & Esser Co. Kewanee Boiler Company Kewanee Mfg. Co. Kliegl Bros. Universal Electric Stage Lighting Co.	61
Stage Lighting Co	127
I Deale Garage	00
Libbey-Owens Glass Company . Long-Bell Lumber Co., The	108
Libbey-Owens Glass Company Libbey-Owens Glass Company Long-Bell Lumber Co., The Lord & Burnham Company, The Lord & Eurnham Co. (Sash Operating Div.)	169
Operating Div.) Louisville Cement Company	124
Operating Div.) Louisville Cement Company Ludowiei-Celadon Company Lupton's, David, Sons Co.	97 62
Mac Arthur Concrete Pile Corp. Mahon, R. C., Co., The Massachusetts Institute of	112
Massachusetts Institute of Technology	167
Mesker Bros. Iron Co Milwaukee Corrugating Co	105 172 49
Minwax Co., Inc. Missouri Portland Cement Co.	66
Massachusetts Institute of Technology Mesker Bros. Iron Co. Milwaukee Corrugating Co. Minwax Co., Inc. Missouri Portland Cement Co. Modine Mfg. Co. Mueller Mosaic Co. Murphy Varnish Co.	15 30 116
Nailcrete Corp., The 12.	13
Nailcrete Corp., The 12, Nashville Hdw. Flooring Co National Association of Flat	39
Rolled Steel Manufacturers	111
Association	130
National Terra Cotta Society .	27 117 41
Association National Fire Proofing Co. National Steel Fabric Co. National Terra Cotta Society National Tube Company Nelson, Herman, Corp 137, New York Belting & Packing Co.	138
Co	151
pany, The	65
Oak Flooring Manufacturers Association of the United States	53
Old Virginia Brick Co Otis Elevator Co	21 29
Pecora Paint Company Peelle Company	31 64
Raymond Concrete Pile Co Rail Steel Bar Assn	5 43
Rail Steel Bar Assn. RCA Victor Co., Inc., Engineering Products Division	141
Richards-Wilcox Mfg. Co., 3rd Co	ver 121
Reading Iron Co. Richards-Wilcox Mfg. Co., 3rd Co. Rising & Nelson Slate Company Rixson Company, The Oscar C. Roddis Lumber & Veneer Co.	74 135
St. Louis Fire Door Co	123
Samson Cordage Works Sargent, J. D., Granite Co	51
Sedgwick Machine works Sellers, G. I., & Sons Co	148
Sloane, W. & J	36
Sonneborn, L., Sons, Inc	55
St. Louis Fire Door Co. Samson Cordage Works Sargent, J. D., Granite Co. Sedgwick Machine Works Sellers, G. I., & Sons Co. Shevlin, Carpenter & Clarke Co. Sloane, W. & J. Smyser-Royer Co. Sonneborn, L., Sons, Inc. Soss Mfg. Company Staedtler, J. S., Inc. Stedman Products Co. Stevenson Cold Storage Door Co. Stevenson Cold Storage Door Co. Stewart Iron Works Co., The Structural Gypsum Corporation Structural Slate Co. Sturtevant, B. F., Co.	131 163
Stedman Rubber Flooring Co Stevenson Cold Storage Door Co.	163 23
Stewart Iron Works Co., The Structural Gypsum Corporation	166
Structural Slate Co Sturtevant, B. F., Co	110
Taylor Co., The Halsey W	25 134
Trane Co. Truscon Steel Co. Tyler Co., The 4th Co	26 over
United Metal Products Co., The	
Vermont Marble Co	$\frac{50}{162}$
Vortex Mfg. Co	40
Weber, F., Co	166
Westinghouse Electric Elevator Co.	159 146
Westinghouse Elec. & Mfg. Co. Wheeler, Osgood Co., The	142 56
Wheeling Metal & Mfg. Co Wheeling Steel Corp.	56 19 155
Co. Westinghouse Elec. & Mfg. Co. Wheeler, Osgood Co., The Wheeling Metal & Mfg. Co. Wheeling Steel Corp. Wilson Corporation, J. G. Wood Conversion Co.	$\begin{array}{c} 71 \\ 109 \end{array}$
Yale & Towne Mfg. Co., The	



Bakelite Molded floor plates made by Modern Utilities Co., Harrisburg, Pa.

Rustless Bakelite Molded floor plates in colors to match fine floors

CINCE the earliest days of steam heating, old style floor plates have been an unsightly necessity. Easily dented, quick to acquire a coating of rust, they mar the appearance of many well kept floors.

The new Bakelite Molded floor plates combine the advantages of lasting good looks and greater utility. Their smooth, lustrous surface cannot corrode and lasts indefinitely. They can-not be dented nor deformed. A choice of several colors makes it possible to of Bakelite Materials.

match various floor finishes, whether wood or tile.

Made in two interchangeable parts, Bakelite Molded floor plates are snapped around the pipe in an instant. Strong copper plated springs hold them firmly in place, and they do not slip on the pipe. This makes them available for ceiling plates too, where steam risers are exposed.

Write to us for a list of the manufacturers of various items of improved building equipment and fittings, made

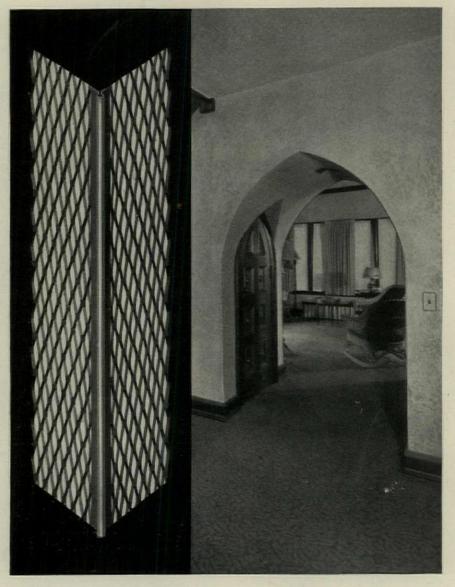
BAKELITE CORPORATION

247 Park Ave., New York, N. Y. Chicago Office: 635 W. 22nd St. BAKELITE CORPORATION OF CANADA, LTD., 163 Dufferin St., Toronto, Ont.

THE MATERIAL OF THOUSAND USES

The Expanded Wings of This Corner Bead Offer Advantages Found in No Other

DRACTICALLY indestructible plaster corners . . . lower erection cost due to faster application . . . are the major advantages offered by Milcor Expansion Corner Bead. It was developed by Milcor engineers to meet the demand for a corner bead that would give greater strength and simplify erection. Today its success is unquestioned and outstanding. The wings of expanded metal permit keying the plaster right up to the bead. Every square inch of these wings reinforces the plaster. There are no smooth surfaces to which the plaster may or may not "stick". The result is effective reinforcement where it is most needed . . . and substantial assurance that the plaster corners will withstand much more than the average abuse. There is no hunting for nail holes with Milcor Expansion Corner Bead. It goes up fast . . . and can be wired, stapled or nailed to any kind of



wall construction at lowest cost. Truly beautiful arches are encouraged by the use of *Milcor* Expansion Corner Bead. It lends itself easily to graceful curves . . . and assures lasting beauty.

Specify *Milcor* Expansion Corner Bead . . . it has no "equal". Use it on every exposed plaster corner . . . as giving greatest assurance of freedom from chipping or cracking. You may be interested in a sample section of this better bead. Shall we send one to you?

MILWAUKEE CORRUGATING COMPANY
1403 Burnham St., Milwaukee, Wis.

MILCOR PRODUCTS

Branches: Chicago, Ill., Kansas City, Mo., La Crosse, Wis.

Sales Offices: Boston, Mass., Detroit, Mich., Atlanta, Ga., Little Rock, Ark., Minneapolis, Minn., New York, N. Y., Los Angeles, Calif.

Eastern Plant: THE ELLER MANUFACTURING CO., Canton, Ohio



Milcor Stay-Rib Metal Lath has unusual strength and rigidity. Its design . . a Milcor patent . . . affords the maximum protection against plaster cracks.

MILCOR
Expanded Metal
Building Products
are Available in



Copperalloy Steel

Save with Steel