The Architectural Record

JULY 1924

ARCHITECTURAL RECORD

JULY 1924
In order to insure a high degree of service the sale of Riddle Fitments is restricted to Authorized Riddle Dealers, with facilities to give adequate assistance in the selection of a suitable lighting installation. Name of nearest dealer sent on request.

The Edward N. Riddle Company
Toledo, Ohio
A Hanger for Every Door that Slides

There is an R-W Door Hanger suitable for every door that slides—from great car shop doors, large enough to admit a box car, down to the light sliding doors of show cases and pantries. We are America’s foremost makers of door hangers for elevators, for factories, for warehouses and pier sheds, for garages, for barns and for use in the home. The extreme durability, ease of operation and permanence of adjustment of R-W Door Hangers has long since made them standard equipment of their kind.

No matter how puzzling your door hanging problem may be, don’t hesitate to put it up to this famous organization of door hanger specialists. Write to Department O for particulars of this free consulting service, as well as for literature describing the complete line of R-W Door Hangers.
Truscon Copper Steel Basement Windows

Better Home Construction

Tremendous advances have been made in modern building. Owners realizing this are demanding better and more permanent construction for their homes.

They prefer Truscon Home Building Products because they know they get quality and service at economical cost. Truscon Products, the result of years of development, insure permanence and satisfaction. Included are Standard Copper Steel Casement, Copper Steel Basement Windows, Metal Lath, Corner Beads, Lintels, Steel Joists, Concrete Reinforcing, Garage Doors and Frames, etc.

Dealers everywhere handle and stock Truscon Home Building Products, insuring immediate delivery. Truscon Warehouses and Offices in principal cities supplement this service. The Truscon organization of building experts will gladly give helpful service to Architects and Builders.

Let us send you full information about the Truscon Home Building Products. Write today.

TRUSCON STEEL CO.
YOUNGSTOWN, OHIO

Sales Offices and Warehouses from Pacific to Atlantic.

Two No. 416 Kewanee Firebox Boilers with Fess System Oil Burners

**Kewanee Oil-Firebox Boilers**

built by the largest steel heating boiler firm

In the Wells Fargo Nevada National Bank Building, San Francisco, Oil Burning Kewanee Firebox Boilers furnish warmth with highest efficiency from the spick and span boiler room shown above.

**Kewanee Boiler Company**

**KEWANEE, ILLINOIS**

Steel Heating Boilers, Radiators, Tanks, and Water Heating Garbage Burners

In the formation of steam, each globule of water heated to point of ebullition, is suddenly expanded 1600 times in volume. Priming will result if the disengaging area over which this body of steam may be liberated, is too small.

In Kewanee Firebox Boilers the disengaging area is twice as great as in any other type of steel heating boiler.
Wood is by religious tradition and historic association the ideal material for the church interior. It is ideally responsive to artistic expression and symbolic treatment. The Bishop’s Prie-Dieu here shown is an example.

In the adornment and furnishing of the church edifice, from sanctuary furniture to pews, our Ecclesiastical Studios are equipped by years of experience to serve. Correspondence is invited.

American Seating Company

New York
670-119 W. 40th St.

Chicago
1211-B Chestnut St.

Philadelphia
16 E. Jackson Blvd.
American Walnut

adds beauty and charm to the dignity of this handsome church

DIGNITY, charm and the beauty of true simplicity were the aims of Coolidge & Hodgdon in designing the stately new Fountain Street Baptist Church at Grand Rapids, Michigan.

So they selected American Walnut as the one wood most perfectly expressing all these requirements.

They also sought a wood that would endure through the ages. And they found in American Walnut the wood of preference over all others. For the hundreds of years of walnut history have been all too short to define the limits of its durability.

Walnut does not suffer from scratching or marring as do other woods, for its tawny brown is nature's own color, and is not due to surface staining. So scars and dents don't show. It is easiest to keep looking its best, and age only mellows its loveliness.

Architects and decorators find the infinite variety of designs in walnut grain a constantly renewed inspiration in planning its uses.

Send for the "Walnut Book," useful information and history of American Walnut. Also specification notes for interior trim. Both are free. Write today.

AMERICAN WALNUT MANUFACTURERS' ASSOCIATION

Room 1001, 616 South Michigan Avenue, Chicago, Illinois
FOR every effect there is a cause; for the efficiency effected by PEELLE Freight Elevator Doors, there are a number of definite reasons: Because of their exclusive Truckable feature, PEELLE Freight Elevator Doors are the only doors that provide a smooth uniform passage between building floor and elevator car. Because of their vertical, counterbalanced operation, the PEELLE Doors allow full clearance of door opening for loading and unloading elevator car. Because of their scientific construction, they are fire-proof and insure long, efficient and economical service.

The PEELLE catalog describes these and many other reasons why PEELLE Doors were specified for the Fisher Body Factory and hundreds of other prominent buildings. A copy will be gladly sent upon request. Or a PEELLE representative will be glad to discuss your freight elevator door problems with you, without obligation.

THE PEELLE COMPANY . . . . . . Brooklyn, N. Y.
Boston - Chicago - Cleveland - Philadelphia - and 12 other cities

PEELLE Freight Elevator Doors
Counterbalanced-Truckable
Save Daylight Every Day In the Year

NOTE how this modern window equipment utilizes 100% of window area for lighting purposes. Perfect "daylighting" is accomplished by means of an ingenious arrangement of adjustable slats. Each ray of light is reflected to the ceiling where it is again reflected and diffused. All glare is eliminated, and soft restful daylight is distributed throughout the room.

Western Venetian Blinds save daylight every day in the year. Moreover, they save money by giving satisfactory service for ten to twenty years without replacement and with negligible maintenance cost.

Write for our 50-page illustrated catalog and special booklet "Details and Specifications". See our catalog in Sweet's—pages 1081 to 1085.

Western Blind & Screen Company
General Offices, Los Angeles, Calif.

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MORE LIGHT~MORE AIR~LESS GLARE
The new Sanymetal Interlocking Construction marks what is probably the greatest single development ever made in metal toilet partitions.


Catalog 5 shows toilet and shower partitions
Catalog 4 shows office and factory partitions

THE SANYMETAL PRODUCTS COMPANY, 1784 Urbana Rd., Cleveland, Ohio

Sanymetal
Toilet and Office Partitions
Unless you have watched a modern home in process of building, you may have only a vague notion of the various pipe-lines, valves and connections permanently buried behind the walls and beneath the floor.

Yet the health and happy comfort of your household depend as much on the smooth working of these hidden necessities as on the convenience and fine proportions of the Crane fixtures whose visible beauty adds to the charm of the well planned home.

It is the business of Crane service to supply this need for complete sanitary and heating systems as dependable and enduring as they are inviting in form. Branches and offices in 145 cities make it easy to choose plumbing materials satisfying both your taste and your building budget.
Screens that do not mar architectural treatment

WINDOW screens are an essential utility to which the architect must give consideration, not only from the standpoint of durability, but also to prevent obtrusiveness and to safeguard his architectural effects. The artistry of screen designing lies in the degree of inconspicuousness attained.

Higgin designers and Higgin fitters work to this end. They are masters of "the art of the unobtrusive." Higgin Screens, with their narrow all-metal frames and soft-finished antique-bronze wire cloth, easily become a part of any architectural treatment.

Higgin-trained specialists in all principal cities render helpful advisory service and estimates without obligation; and Higgin fitters install every job without assistance or supervision.
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TRUSCON STEEL CO.
YOUNGSTOWN, OHIO

The Architectural Record—July, 1924—No. 310. Published Monthly—$3.00 a Year—119 West 40th St., New York, N. Y. Entered as second-class matter May 22, 1902, at the Post Office at New York, N. Y., under the Act of March 3, 1879. Printed in U. S. A.
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Kewanee Boiler Company

Kewanee, Illinois

Steel Heating Boilers, Radiators, Tanks, and Water Heating Garbage Burners

BRANCHES

ATLANTA, 1522 Candler Bldg.
CHARLOTTE, N. C., 125 Howard Court
CHATTANOOGA, 1226 James Building
CHICAGO, 422 W. Washington Blvd.
CINCINNATI, P. O. Box 73
CLEVELAND, Superior Ave. N. E. at 17 St.
COLUMBUS, 219 Commerce Building
DALLAS, 889 Southwestern Life Bldg.
DENVER, 1226-1228 California St.
DORS MOINES, 213 Hibbard Building
DISTRICT, 1772 W. LaFayette Bldg.

EL PASO, 220 Mesa Avenue
GRAND RAPIDS, 1023 1/2 Michigan Trust Bldg.
INDIANAPOLIS, 221 Indiana Terminal Warehouse
KANSAS CITY, 2011 Wardotte Street
LOS ANGELES, 220 E. Third Street
MILWAUKEE, 435 Merchants & Mfrs. Bldg.
MINNEAPOLIS, 788 Buildings Exchange
PITTSBURGH, Empire Building
ST. LOUIS, 4200 Forest Park Blvd
SALT LAKE CITY, 204 Deady Bldg.
SAN ANTONIO, 511 Caldeanes Bldg.
SAN FRANCISCO, 210 Pine St., Room 210-11
SEATTLE, 1810 Pine, Central Building
SPokane, 596 Empire Street Bldg.
TOLEDO, 1121-22 Nicholas Building
NEW YORK CITY, 47 W. 42nd Street
PHILADELPHIA, 519 Real Estate Trust Bldg.

Symbolism in Wood

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Boston • Chicago • Cleveland • Philadelphia • and 12 other cities

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Western Blind & Screen Company

General Offices, Los Angeles, Calif.
Factories, Los Angeles and Kansas City

Chicago, Ill., 326 W. Madison St.
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537 Hicks Bldg., San Antonio
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Western Blind Co.
Kansas City, Mo., 14th and Montgomery
Portland, Ore., 213 Firestone Bldg.
Seattle, Wash., 1445 Fifth Avenue

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PEOPLE who operate modern hotels provide many kinds of personal service and minister to many human needs, but fundamentally they sell shelter.

The best shelter calls for the best roof. Naturally architects are turning to Carey Asphalt built-up roofing because it is a finer form of shelter. It is the product of 50 years of research and experience.

It means better felts, better quality of asphalt, better method of application, longer service without repairs, more years of protection per dollar of cost.

THE PHILIP CAREY COMPANY
506-526 Wayne Ave., Lockland, Cincinnati, Ohio

ARCHITECTURAL RECORD.
Tarry Here and Consider

Many delight to linger in the reflection of those days of powdered wigs and silver buckled shoes. Our hearts are stirred with desire for the simplicity, dignity and quiet comfort of the Colonial home. There we forget the rush, struggle and worry of the modern day and in the charm of our surroundings gather new courage. With our architect lies the responsibility of guiding us aright. The shoddy, showy or ugly must not enter here; our home must reflect us — the character of our thoughts and taste.

Union Metal Porch Columns are correct architecturally, truly classical in design and will last a lifetime. They do not warp, crack, rot or open at the joints, but continue through the decades to adorn the structure of which they are a part.


The Union Metal Manufacturing Company: Canton, Ohio
Eliminating the Element of Chance in Mortar

In important masonry work, where the integrity of the wall must be assured, BRIXMENT is used with the definite knowledge that it will more than fulfill every demand for strength and endurance. BRIXMENT is a standard mason's cement of scientific manufacture and unvarying composition that eliminates all chance in mixing and automatically produces a mortar with an ultimate strength equal to that of the brick itself. Architecturally more adaptable. Ask for list of well-known buildings in which BRIXMENT has been used for mortar.

LOUISVILLE CEMENT CO., Incorporated, LOUISVILLE, KY.
Maximum Daylight Easily Controlled

Windows that provide maximum area of daylight are desirable even in the highest types of building. But maximum brightness of daylight is not always desirable. There are times when shades are needed.

The Reversible Ventilator type of Architectural Fenestra not only supplies a window of extra large glass area, but it provides, as well, a detail which makes shading easy.

The Shade Bracket Clip, shown in the illustration above, is exclusively a Fenestra fitting. It is supplied at slight extra cost and is screwed to the steel framing member of the window, near the top, where tapped holes are provided. These clips are slotted to accommodate any standard shade roller bracket and hold the roller far enough back from the window (3½' minimum) to easily clear the operating hardware.

Another shading advantage — Type "A" Reversible Ventilator Windows are standardized with a row of fixed glass lights across the top. This prevents the shade from blowing out or flapping, when only partially drawn.

The next issue of this magazine will show another one of those small refinements which mark the difference between ordinary steel sash and Fenestra.

DETROIT STEEL PRODUCTS COMPANY
Division of Architectural Construction
R-2264 East Grand Boulevard Detroit, Mich.

ARCHITECTURAL FENESTRA
Education

Every phase of our educational system is building for the future. The choice of

STANLEY
BALL BEARING BUTTS

for this Washington School, New Britain, Conn., was likewise a recognition of their unlimited dependability at all times and under all conditions.

THE STANLEY WORKS
New Britain, Conn.
New York Chicago San Francisco
Los Angeles Seattle

Architect
Delbert K. Perry
New Britain, Conn.
Only when each detail is perfect, can perfection be achieved. By using "38" Preservative Varnish on the standing trim in the new Union Station, Chicago, the architects have secured perfection of finish. "38" Preservative Varnish is valued because it is outstanding in appearance, durability and ease of application.

The Pratt & Lambert Architectural Service Department is at your service. Let us help you with your wood-finishing problems.

PRATT & LAMBERT VARNISH PRODUCTS
American Tube Works
Boston, Mass.

Established 1851

Original Manufacturers in America of Seamless Drawn Brass and Copper Pipe for Plumbing and Steam Work

All Manufacturers of Seamless Drawn Brass Pipe in this Country use a process that is Entirely Different from that of the American Tube Works

We use our own Exclusive Process, producing the Famous Green Label A.T.W. Guaranteed Brass Pipe which has been stamped "A.T.W. BOSTON" on each end, labeled with our green Trade Mark as shown above, and guaranteed for the past fifty years.

Quality vs. Price

Our Brass pipe is produced NOT to meet the low prices of other makes of Brass Pipe, but to keep up the superiority of our product, which has been maintained for over half a century as endorsed by the leading architects, plumbers and jobbers who have specified and installed it during that period.
"GLAZED TILES AND TRIMMERS," a new handbook on Tiles published by the Associated Tile Manufacturers as Publication No. K-400, is now ready for architects and members of their staffs.

This is the latest of the well-known "K" series. It contains the results of years of co-operative work on the part of Tile manufacturers, architects and Tile contractors.

It will give valuable service in any drafting room, and prove helpful in the preparation of specifications. In the use of this handbook it is possible to specify Tiles by pattern numbers, which are applicable to the product of the various Tile manufacturers.

Each Tile shape is shown in dimensioned detail. The information in the book is complete. Selection is made easy and convenient by means of index sheets. Typical uses of the various shapes are shown in numerous application sketches.

Please send requests for this handbook on your stationery, addressing the Associated Tile Manufacturers, Beaver Falls, Pa.

The Alhambra Tile Company, American Encaustic Tiling Co., Ltd.
Beaver Falls Art Tile Co., The Cambridge Art Tile Co.
The Alhambra Tile Company, American Encaustic Tiling Co., Ltd.
Beaver Falls Art Tile Co., The Cambridge Art Tile Co.
Cruesby Faience & Tile Co.
Matawan Tile Company
The Mosaic Tile Company
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ARE THE
ASSOCIATED TILE MANUFACTURERS
'BEAVER FALLS' * 'PENNSYLVANIA'
THIS is the largest marble building in the United States—700 feet long, 350 feet wide, and about 90 feet high with a terrace 60 feet wide surrounding the building. The entire exterior is of white GEORGIA MARBLE.

BEAUTY        STRENGTH     DURABILITY
THE GEORGIA MARBLE COMPANY
TATE, GEORGIA

NEW YORK       ATLANTA      CHICAGO
1328 Broadway  804 Bona Allen Bldg.  456 Monadnock Bldg.
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Catalogues of concerns marked * will be found in the 18th Edition of Sweet's Architectural Catalogue.
The Best Equipped Terminal Plant in the United States—and SWARTWOUT VENTILATORS WERE USED

Every modern appliance for the protection of the product and the efficiency of the workers is provided in this huge terminal plant.

It is worthy of note that 268 Swartwout Rotary Ball Bearing Ventilators, in 12, 18 and 24 inch sizes, were selected and installed, to provide complete, positive ventilation—day and night—without operating cost.

For 15 years Swartwouts have been giving this needed ventilation in structures of every type. Architects now regard them as standard.

The long experience of Swartwout ventilating engineers is at your service in helping solve your ventilation problems. Their advice is yours for the asking.

THE SWARTWOUT COMPANY
General Offices: 18501 Euclid Avenue, Cleveland, Ohio
Factories: Cleveland, O., Orrville, O.
Acoustics.
See "Plaster—Acoustical."

Architectural Faience.
Associated Tile Manufacturers.
Butcherfield-Wilson Co.
California Clay Products Co.
Rockwood Pottery Company.

Architectural Supplies.
American Lead Pencil Company.
Dixon, Joseph, Crucible Co.
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Strathmore Paper Co.

Artstone.
Ruckle, George, & Sons Co.

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Detroit Steel Products Co.

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James & Kirtland.
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Majestic Steel Cabinet Co.
White Door Bed Co.

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Edison Portland Cement Co.
Louisville Cement Company.
Lawrence Cement Company.
Portland Cement Association.
Sandusky Cement Company.

Cement, White.
Sandusky Cement Company.

Chain Sash.
Detroit Steel Products Co.

Chimney.
Doogan, Inc., J. C.

Church Memorials.
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Clamps—Lock Joint.
Hyde-Murphy Co.

Closet Connections.
Greinerig Mfg. Co.

Closet Seat.
See Seat—Closet.

Closet, Steel Linen.
Majestic Steel Cabinet Co.

Columns, Porches, Etc.
Hartmann-Sanders Co.
Union Metal Mfg. Co.

Concrete Construction—Reinforced.
American Steel & Wire Company.

Concrete Hardware.
Somebarn, L., Sons, Incorporated.

Conduit for Underground Heating Pipes.
Rie-Wil Company.

Conduits—Electric.
Youngstown Sheet & Tube Company.

Corner Beads.
See "Beads—Corner Metal."

Covering—Pipe and Boiler.
Curry, Philip, Company.
Rie-Wil Company.

Decking.
See "Flooring."

Disappearing Dining Room.
Fain Manufacturing Co.

Dishwashers.
Chicago Hardware Foundry.
Noise disturbs a busy man!

An important factor towards eliminating the unnecessary noises prevalent in the average office or store is a Blabon floor of Inlaid or Plain Colored Linoleum. Aside from its good looks, it has a direct effect upon the quality and efficiency of employees’ work, as well as contributing to their comfort. Its resilience makes it quiet, thus eliminating much of the noise and confusion. Its springiness also makes it comfortable for the office force. And there is its economy, which makes a strong appeal.

The approved way to lay linoleum is to cement it over a layer of builders’ deadening felt paper, which has been pasted to the floor with linoleum paste. This overcomes bulging and stretching, makes the seams watertight and practically invisible. Then you have a permanent floor that is adapted to fireproof construction. And with patterns and colors that go through to the burlap back it will give many years of service.

The upkeep of a Blabon floor is low. Its smooth, sanitary surface is easy to keep clean. An occasional waxing and polishing makes cleaning still easier. No expensive refinishing is ever necessary.

The George W. Blabon Company, Philadelphia
Established 73 years

Equally Suitable for Office, Gymnasium or Factory

Rodd floors of California Redwood Blocks are many-purpose floors—equally suitable for the private office, fine residence, school, or store, or for heavy duty service in factories and foundries.

They are light in color and may be sanded smooth and given a wax or varnish finish. The exposed end grain and the shape of the blocks give the appearance of mottled tiles, without strongly defined parallel lines to accentuate room shapes.

Quiet and dustless, the surface becomes harder and stronger under heavy traffic without either cracking or developing corrugations. Moisture does not cause Redwood floors to swell and heave or dryness make them shrink and open at the joints, because properly seasoned Redwood is unusually still wood. Every Redwood block is seasoned by a special drying process.

During growth Redwood is permeated by a natural, odorless preservative which protects it against all sorts of fungus rot and decay. Redwood floors do not rot. They are odorless—suitable for installation even in food warehouses. In factories and foundries Redwood block floors have stood the test of long, hard service.

Rodd specifications for floors to meet any condition of load or service, or for replacing old floors, together with estimates for complete installations, gladly submitted. Inquiries are invited.

THE RODD CO.

Eastern Contract Engineers for Redwood Block Floors Manufactured by The Pacific Lumber Company

Door Bed. See "Bed Door."


Door Frames. See "Window and Door Frames."


Drinking Fountains. See "Fountains (Drinking)."


Electric Refrigerators. Deko Light Company.


Engineers—Illuminating. National Lamp Works of G. E.


Expanded Metal. North Western Expanded Metal Co.


Fireproofing. See:

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Where cost is the first consideration, conductor pipe, gutters, roofing, flashings and valleys of Horse Head Zinc should be the first choice.

There is no more durable metal. Its first cost is but half that of any equally durable metal. Its final cost is far less than that of any less durable metal.

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TRAGESER COPPER HOT WATER STORAGE TANKS are made of very heavy material. The copper is 3/16" thick in the body and 3/4" thick in the heads.

The longitudinal seam is double riveted with 1/2" copper rivets. The outlets are of heavy bronze castings. All seams and outlets are heavily backed up with solder.

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Foiling Ironing Board.
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Fountains—Drinking.
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Fountains—Wash.
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Garage Hardware.
Corbin, P. & F.
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Hartmann-Sanders Company.
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Glass—Wire.
See "Wire Glass."

Granite.
National Building Granite Quarries Assoc.
Rockport Granite Company.

Hardware.
American Brass Company.
Corbin, P. & E.
Hollbrook Co., H. E.

Richards-Wilcox Mfg. Co.
Sargent & Company.
Soss Manufacturing Company.
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Vonnegut Hardware Company.

Heat Insulation.
Carey, Philip, Company.

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Cox Abram Stove Co.
Dole Valve Co.
Dunham, C. A., Co.
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Gill & Geoghegan.

Hot Water Tanks.
See "Tanks."

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Belflor is an entirely new type of Nairn Inlaid linoleum. It revels in color—two, three and four decorative tones combining in perfect harmony. The outlines of the patterns are fixed. Chance determines the arrangement of colors and tones within the tiles. No two blocks are ever exactly alike.

Belflor comes in colors and designs which proclaim their suitability for use in any room in any building. Cemented to a concrete or wooden base, Belflor makes a noiseless, resilient, and sanitary floor whose permanent beauty and low upkeep recommend it to architect and client alike.

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Italian Chandelier in bronze and etched glass

One of the many lighting effects now being installed in the Kansas City Life Insurance Bldg., Kansas City, Mo., Wight & Wight, Architects.

Our designing staff and experience in producing unusual lighting effects are placed at your disposal.

Architects and owners will find this service of great value in solving lighting problems.

Recent Installation Brochure upon request.

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Designers and Makers exclusive lighting fixtures
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Chicago, Ill.
Unusual Structural Features in This Philadelphia Theatre

In designing the "Earle"—Philadelphia's largest and most up-to-date "movie"—the architects, Hoffman Henon Company, found themselves confronted by unusual structural difficulties which their experience enabled them to most cleverly overcome without detracting from the harmony of the design.

The theatre, seating 3,000 on the first floor and 2,000 in the balcony, is of exceptional width. The main carrying member, spanning the whole width of the house, is probably the largest ever used in a Philadelphia building. It is concealed by the ornate sounding board shown in the small insert.

The dome in the main ceiling, the center of which is about 8 ft. higher than the main ceiling, is beautifully conceived, and incidentally, a remarkably fine piece of Metal Lath construction. The plastering on the face of the balcony is also noteworthy, and for this, also, KNO-BURN Metal Lath was wisely chosen as the base.

Architects who are designing theatres or other buildings which are to be finely decorated will find, as did Messrs. Hoffman and Henon, that the rigid, easily formed and plaster-saving KNO-BURN Metal Lath is a most satisfactory plastering base. Shall we send your specification writer a copy of "Recommended Specifications" and a sample of KNO-BURN?
By “staggering” WEATHERBEST Stained Shingles and using those curved against the grain at ridges and eaves, Architect B. E. Brooke has achieved a novel, picturesque and unusually pleasing effect for the roof of his home at Youngstown, Ohio. A soft brown tone was selected for the color scheme.

For roof treatments of simple dignity, avoiding all trace of the stiff or stereotyped, there are unique advantages in using WEATHERBEST Stained Shingles. In their adaptability they match the creative imagination of the architect himself.

The wide variety of WEATHERBEST colors available is suggested by the set of color samples which will be sent on request.

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Formerly Transfer Stained Shingle Co., Inc.
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Appalachian Tennessee marble tile is especially desirable for floors because its per cent of absorption is low in comparison with other marbles. Absorption is an extra important factor, when considering floor tile, because of its bearing upon the ability of the tile to withstand exposure to oils, dyestuffs and other liquids.

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We are the largest producers of finished interior marble in the Knoxville district. Interior marble is our chief product, and floor tile is but a by-product with us. Consequently, our prices are exceptionally reasonable. Deliveries are prompt.

We have furnished floor tile for many leading banks, public institutions, department stores and other buildings.

Write for list of Tile we now can supply on immediate notice. Send blue prints and specifications for cost estimate.

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KNOXVILLE - TENNESSEE
NATIONAL FOLDING IRONING BOARD

Complete in a Cabinet
Ready to Set in the Wall

SPECIFICATIONS:
Dimensions: 6 ft. 9 in. high, 14 in. wide, 4 in. deep. Fits between standard studding (even with 2\(\frac{3}{8}\) in. studs).

DESCRIPTION:
The Cabinet is made of Douglas Fir or Redwood with Pacific Wall Board back.
The Ironing Board is the patented National Folding Ironing Board—which folds back and down into the cabinet—safe against falling out.
There is an ironing surface 4 ft. 6 in.—and a folding sleeve board—also a steel iron stand.
The cabinet has three shelves for holding supplies. It is made of dovetail jointed Lindermannized stock that is guaranteed not to warp.
Ends are cleated to prevent splitting.

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THERE is a mediaeval grandeur of scale and ruggedness of construction in this Tudor Stone Roof, and how well its rough texture harmonizes with the stone work of the building.

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THE MEDAL BRICK & TILE CO., CLEVELAND

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Windows, Door Frames, Anderson Lumber Co.

Wires and Cable, American Brass Company, American Steel & Wire Company, Chase Metal Works.

Wire Glasses, Mississippi Wire Glass Company.

Wire Lath, National Steel Fabric Co., Wirewire Spencer Steel Corp.

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Zinc, See “Metal.”
Some of the most charming dining rooms take their hospitable atmosphere from the warmth and richness of color that the right wallpaper lends to any room. For how may hospitality be more graciously expressed than by adding beauty to good cheer?

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**WALLPAPER**

MANUFACTURERS ASSOCIATION of the United States, 609 EIGHTH AVENUE, N.Y.C.
RECENT PUBLICATIONS of ARCHITECTURAL INTEREST

Under this heading is listed a selection of (1) new catalogues, monographs and reports published by manufacturers, manufacturers’ associations, technical societies, educational institutions and government departments, and (2) books on architecture and the allied arts. The manufacturers’ publications may be secured by architects from the firms who issue them free of charge except where otherwise noted.

BOILERS. Heine Cross-Drum Boilers. Bulletin No. 53, Heine Boiler Company, St. Louis, Missouri. 6% x11 in. 30 pp. Illustrated.

BRACKETS, NEWELS AND LANTERNS. Circular 1671, Westinghouse Electric and Manufacturing Company, C. C. Curry Works, South Bend, Indiana. 8% x11 in. 32 pp. Illustrated.


CABINETS. Platter Universal Cabinets for Bathrooms, Bedrooms, Apartments, etc. Office Furniture Executive and Dealers’ Book. The Platter Cabinet Company, Division of North Vernon Lumber Mills, North Vernon, Indiana. 5% x7% in. 24 pp. Illustrated.


CONVEYING SYSTEMS. Cleveland Electric Tramway System of Hoisting and Conveying. Catalogue No. 3, Division of Cleveland Crane and Engineering Company, Wickliffe, Ohio. 8% x11 in. 220 pp. Illustrated.


DOORS. Evans Vanishing Door, Catalogue H. W. L. Evans, Washington, Indiana. 8% x11 in. 24 pp. Illustrated.


FURNITURE, LABORATORY. Supplement of the Kewannee Book of Laboratory Furniture—A Special Review of the Linein Type Physics and Chemistry Desks. Kewannee Manufacturing Company, Kewannee, Wisconsin. 9x12 in. 32 pp. Illustrated.

HANGERS, RADIATORS. “Hanging Radiators in the Home.” Healy-Ruff Company, Plymouth Building, Minneapolis, Minnesota. 8% x10% in. 4 pp. Illustrated.


JOINTS, EXPANSION. Illustrated Folder Describing the Hooser Expansion Joint for Boilers, Sidewalk Trams, Guttering, Bridges, Roofs and Floors. Hooser Asphalt Company, Alexandria, Indiana. 6% x9 in.

KITCHEN UNITS, PORCELAIN AND MEDICINE CHESTS. Illustrated Folders Describing Complete Kitchen Units and All Porcelain Enamel Steel Medicine Cases. Cabanette Corporation, 506 North Michigan Avenue, Chicago, Illinois. 8% x11% in.


PAVEMENTS, BRICK. “The A. B. C. of Good Pavings.” The National Paving Brick Manufacturers’ Association, 536 Engineers Building, Cleveland, Ohio. 6x9 in. 16 pp. Illustrated.


SASH CORDS. Samson Solid Braided Sash Cord, Window Sash Cord, etc. Samson Cordage Works, Boston, Massachusetts. 5% x9% in. 24 pp. Illustrated.

SLATE. Looseleaf Folder Describing the Different Uses of Slate. Slatecraft Studios, Old South Building, Boston, Massachusetts. 9% x11% in. Illustrated.

TERRA COTTA. “Old Mexico.” Atlantic Terra Cotta Series, Volume VI, Number 12. Atlantic Terra Cotta Company, 350 Madison Avenue, New York City. 8% x11 in. 16 pp. Illustrated.

TILES, Architectural Monographs on Tiles and Tiletow. No. 5—A Survey in Architecture. Associated Tile Manufacturers, Beaver Falls, Pennsylvania. 7% x11 in. 27 pp. Illustrated and Priced at $1.50. (Free to architects and their staff.)

TOILET SEATS. Illustrated Folder Describing the “Evernu” Hard Rubber Toilet Seats. Never Split Seat Company, Evansville, Indiana. 6% x9% in.

TREES, PLANTS, Etc. Little Tree Farms Year Book. American Forestry Company, Framingham Centre, Massachusetts. 8% x11 in. 64 pp. Illustrated.


ZINC. Zine as a Paint Pigment. The New Jersey Zinc Company, 100 Front Street, New York City. 6% x9 in. 16 pp. Illustrated.

ZINC. Zinc Oxide Specifications. The New Jersey Zinc Company, 100 Front Street, New York City. 8% x11 in. 4 pp.
If it's Granite you want, then for economy, design for granite not just for stone. In the accomplishment of this we can assist you.

NATIONAL BLDG. GRANITE QUARRIES ASS'N.
31 STATE STREET, BOSTON, MASS.
H. H. SHERMAN, Secy.

On request a complete folio of these Granite Studies will be reserved for you

The occasion for this book was the situation that faced the chemical industries of this country in 1913-1918. No collection, so far as the authors could discover, was then available of the known data on the action of industrial chemicals on construction and other engineering materials.


The book contains eight full-page half-tones and two special etching pages. Though all of its contents will prove of value to the artist, the particular aim of the book is toward increasing the number of persons who appreciate prints and etchings and who desire to obtain a better understanding of the artistic principles and mechanical methods by which they are produced.

American Artists, by Royal Cortissoz. New York: Charles Scribner’s Sons, 1923. xii, 363 pp., illus. 5½x8½ in. Cloth. $3.00.

Many of the most significant figures in American painting are discussed in this volume, which forms thereby a striking contribution to the history of our art. It deals with such types as Abbott Thayer, Winslow Homer, Elihu Vedder, A. P. Ryder, Frank Duveneck, William M. Chase, Edwin A. Abbey, Frederic Remington, A. B. Frost, Childe Hassam, J. F. Peto, MacMonnies, Mary Cassatt, Kenyon Cox, and Arthur B. Davies. Mr. Cortissoz also pays his compliments to the readers of “Good Housekeeping” during the recent months.


A convenient little pocket volume intended to serve as a handbook for travelers and as a reference guide for those who are making a study of art in America. “No attempt,” says the editor, “has been made, except in the case of architecture, to measure merit. But certain works which by common consent are reckoned of superlative worth, have been starred.”


A book for the average home, with chapters on color schemes, textiles, rugs and carpets, shades and curtains, draperies, choice and placement of furniture, etc. Some of the material has appeared in the columns of “Good Housekeeping” during recent months.


The author gives a bird’s-eye view of the efforts which have been made and are being made in Great Britain, Holland, Belgium, Italy and France, to do away with slums and tenements, and house each family in a home of its own. The very encouraging results which have been obtained by means of private initiative, municipal effort and national legislation in these countries are thoroughly described and dealt with, while notes on the state of affairs in Spain, Switzerland, and Portugal are given in an appendix.


Students and others who take a practical interest in old or modern furniture and its construction will appreciate this book, which will save them hours of research and labor. To collectors and others whose interest is more general, the plates will prove an invaluable aid in questions of age or authenticity. Full-size dimensions and all other particulars are available on one plate, and the number and variety of examples illustrated make it an invaluable comprehensive guide.


This constitutes an extra number of the American Journal of Archaeology. “The purpose of this annual,” says the editorial statement, “is to offer better facilities than have heretofore existed in America for the publication of studies in the Medieval, Renaissance and Modern fields.”


A textbook, based on the author’s teaching experience at Cornell University, on the fundamentals of concrete and reinforced concrete. The chapters on the elementary theory of reinforced concrete give sufficient development of the theory with illustrative problems to insure the beginner’s securing a thorough understanding of essentials. Complete designs of the most important features of the more common concrete structures are given in order to furnish a vehicle for the bringing together of all of the theory involved.
"U.S." TILE FLOORING

This is Style T-3 of "U.S." Tile Flooring. It is known as "Black-White Heather". It is one of thirty-five attractive color combinations and plain tones in which this modern floor material is available.

You assure your client durability, quietness, beauty of decoration, and sanitation when you include "U.S." Tile in your plans.

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The question of Town Planning discussed in a very broad way, beginning with its sociological aspect and the relation of large productive centers to their recreative and residential areas. Next, the question of extending most usefully towns already in being, which naturally leads to the important subject of transportation, traffic requirements, roads and road administration. Various laws already in being, which naturally leads to the$5.00.


to the Architect and the lay public. In "Smaller Houses", all the work illustrated is by distinguished architects, and combines to show the best practice in modern English domestic architecture. The utmost catholicity of taste has been exercised in the selection of examples, which vary from the trim regularity of the Georgian model to the informality of the "picturesque." Plans and interior views are given, showing interesting treatments for living rooms, drawing rooms, entrance halls, staircases, etc.


Collected from the National Competition conducted by the Community Arts Association of Santa Barbara, California, and contains sixty designs of houses costing about $5,000. There are also articles on building, financing, building economics, etc.


No branch of architectural design in England has been more profoundly affected by post-war conditions than that of the small house. Many factors have combined to bring about what amounts to a revolution in planning, design, and construction, prominent among these being the difficulty of securing domestic servants, the introduction of labor-saving equipment, and the necessity for strict economy in building costs. A collection of illustrations of houses and bungalows is therefore of the greatest interest and value both to the Architect and the lay public. In "Smaller Houses" all the work illustrated is by distinguished architects, and combines to show the best practice in modern English domestic architecture. The utmost catholicity of taste has been exercised in the selection of examples, which vary from the trim regularity of the Georgian model to the informality of the "picturesque." Plans and interior views are given, showing interesting treatments for living rooms, drawing rooms, entrance halls, staircases, etc.

Standard Practical Plumbing—An exhaustive treatise on all branches of Plumbing Construction, including drainage and venting, ventilation, hot and cold water supply and circulation, showing the latest and best plumbing practice, special attention being given to the skilled work of the plumber, and to the theory underlying plumbing devices and operations, including a chapter on examinations for plumbers and fitters, and features of government plumbing—by R. M. Starbuck. New York: The Norman W. Henley Publishing Co., 1924. Seventh Revised and Enlarged Edition. 432 pp., illus. 6x9¼ in. Cloth. $3.50.

This book, which for years has been a standard authority on plumbing practice, has been thoroughly revised, and brought strictly up-to-date. Not only has the text been revised, and many new illustrations added, but considerable additional text, profusely illustrated, has also been added to the new edition, including a special chapter on "Features of Government Plumbing," with illustrations.


A readable and extremely useful book, written by an expert of one of the largest manufacturers, giving in an elementary way, the most recent knowledge that the amateur and householder need to know. The author enters quite fully into the details of painting and varnishing the proper materials to use to accomplish the best results. The appendix includes formulas for an ample number of colored paints, the mixing materials being one or two, and never more than three, in a formula. A majority of house-owners should learn to do their own painting; in fact, they are doing it; and they save money and property by doing it in the right way.


Sixteen Brangwyn illustrations in color, with numerous pieces in black and white, picturing historic windmills of the South of England and of Belgium and Holland, etc., accompanied by a descriptive text by Hayter Preston.


A work of reference for students and travelers, analyzing the historical atmosphere of Rome and seeking to do justice to that atmosphere through a study of its monuments and buildings, as well as the classical art of Rome. It deals with classical Rome, Papal Rome, and, in the final chapters, Christian Rome in early days, in the light of its development, accompanied by an account of half a dozen typical churches.
An interesting example of the adaptability of Indiana Limestone to sculptural treatment is shown in the illustration of the Carved Group which terminates the bay over the main entrance of the Education Building, University of Illinois, at Urbana, of which James M. White is the Supervising Architect.

The figure holding the sphere symbolizes Science and the one with the lyre represents the Arts. Between them is the Book of Knowledge, of which Science and Art are the sponsors. The Lamp of Learning is so located as to illuminate the Book of Knowledge.

Symbolic figures in Indiana Limestone used in buildings of the same material afford ornamentation that maintains harmony of design, and furnish a means of expressing perfectly the ideals for which a building stands.

Our handsomely illustrated booklet which tells the story of Indiana Limestone will be sent free upon request. Address, Indiana Limestone Quarrymen's Association, Box 705, Bedford, Indiana.

BUILD THE NATION SECURELY WITH

INDIANA LIMESTONE

The Nation's Building Stone
News of the Field

CARL KLEIN wishes to announce the removal of his photographic studio to more spacious quarters at 9 East 59th Street, New York City.

THE offices of George and MacLucas, architects and engineers, have moved from 1152-55 Consolidated Building to a suite of offices at 501-2-3 in the new Meyer-Kiser Bank Building, Indianapolis, Indiana, and will continue business under the new name of George and Zimmerman, Mr. MacLucas retiring, his place being taken by Mr. D. J. Zimmerman, a former Detroit man. The members of the firm now will be Mr. Lawrence W. George and Mr. D. J. Zimmerman. Manufacturers' samples and catalogues requested.

A. F. GILBERT, architect, announces the removal of his offices to 358 Fifth Avenue, New York City, and requests manufacturers' samples and catalogues.

H. WANETICK, civil engineer, of Pittsburgh, Pennsylvania, is leaving for Palestine to engage in the practice of building construction, and he would be very much interested to receive catalogues, communications, etc., from manufacturers of articles in that line. His Palestine address is in care of District Engineer, Jerusalem, Palestine.

FREDERICK H. REIMERS, architect-builder, announces the opening of an office at Tribune Tower, Oakland, California, and requests manufacturers' samples and literature.

H. HERMAN R. KAPLAN, architect, announces the opening of an office for the practice of architecture at 1628 Aeolian Hall, New York City, and requests manufacturers' samples and catalogues.

COURTENAY S. WELTON, architect, announces the removal of his office from 211 Richmond Trust Building to 701 Grace-American Building, Richmond, Virginia, and requests manufacturers' samples and catalogues.

FRANK C. NEWCOMER, announces removal of his office to 1756 Union Trust Building, Cleveland, Ohio, and requests manufacturers' samples and catalogues.

RANKIN, KELLOGG & CRANE, registered architects, announce their removal to 1805 Walnut Street, Philadelphia, Pennsylvania. Manufacturers' samples and catalogues requested.

A. T. BENGTSON, architect, announces the formation of a partnership with A. F. Wysong (formerly Wysong & Jones, Charleston, West Virginia) and will continue the practice of architecture under the firm name of Wysong & Bengtson, 310 Professional Building, Charleston, West Virginia. Mr. Bengtson will also continue his practice of architecture at Richmond, Virginia. Manufacturers' samples and catalogues requested.

WILLIAM VAN ALEN, architect, formerly of Severance & Van Alen, has opened an office in the Prudence Building, 331 Madison Avenue, New York City, on the 14th floor, in which he will continue the practice of architecture. Manufacturers' samples and catalogues desired.

E. W. NIBLET announces the removal of his office to 3406 Floyd Avenue, Richmond, Virginia, and requests manufacturers' samples and catalogues.

GEORGE W. YOHE, architect, announces the removal of his office to Landefeld Building, 235 Main Street, Monongahela, Pennsylvania. Manufacturers' catalogues and samples requested.

ILLINOIS SOCIETY OF ARCHITECTS announces the removal of their executive offices to Suite 735, Burnham Building, 160 North La Salle Street, Chicago, Illinois.

MATSUMOKE MORIYAMA, architect and member of Institution of the Japanese Architect, announces the opening of his office at No. 17, Ginza 3-chome, Kyobashiku, Toyko, Japan, for a general practice. Manufacturers' catalogues and samples requested. Mr. Moriyama recently wrote us, saying, in part: "Almost the main part of the city of Tokyo, having been destroyed by the fire and earthquake in last September, is now in course of reconstruction; and I believe American manufacturers' catalogues are invaluable in this busy occasion, and would bring opportunity for their products to be imported here."
"The science of acoustics properly applied will make a success of any auditorium regardless of size, style, or construction."

-MacDowell

In the handbook "Acoustics in Building Design" the Architect will find facts not only of interest to him, but of great importance to owners, building committees and others interested in obtaining good acoustics. This book will be mailed upon request.

MACOUSTIC ENGINEERING COMPANY, Inc.
BULKLEY BLDG., 1501 EUCLID AVENUE
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"That wonder building of the West"
The Mercantile Arcade of Los Angeles, is equipped with

Westinghouse Gearless Traction Elevator Motors

The Westinghouse Elevator motors in the Mercantile Arcade are satisfying every up-to-date service requirement of the modern office building—a service which is duplicated by many successful installations scattered from Coast to Coast.

Quiet operation and the required smoothness in starting and stopping are attained. Operating and maintenance costs are the minimum.

Westinghouse Gearless Traction Elevator Equipment places elevator service in the spotlight of public commendation. Sold and installed by

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Sales Offices in all Principal Cities of the
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We have interesting booklets for Architects, Contractors and Dealers. Tell us which booklet you want.

Home of Martin Peterson, Hudson, Wis.
Andersen Frames delivered Sept. 6, 1905.

**Andersen Frames Last A Lifetime**

**Martin Peterson** never had to worry about window frames. He built his home in 1905, using Andersen White Pine Frames. For 19 years those frames have given good service without costing a cent for repairs. Every joint is still tight so that wind or water cannot enter the house, yet the windows run smoothly in the frames.

Remember that Andersen Standard Frames are the kind you can put into a building and then forget them. Repairs or replacements are unnecessary.

**Reasons Why Andersen Frames Are Preferred:**

1. Immediate delivery — no expensive delays waiting for special frames.
2. 121 sizes ready for every purpose.
3. Delivered in two compact bundles plainly marked for size and easily handled.
4. 7 units instead of 57. No small parts to become lost or broken.
5. No sorting, measuring or refitting. The complete frame nailed up with pockets and pulleys in place in ten minutes.
6. Accuracy gives smooth running windows, yet excludes weather.
7. Modern machinery, methods and specialization lower costs at the factory; quickness of assembly saves you time, labor and money on the job.
8. Better results in frame, brick or stucco buildings.
9. White Pine preserves original accuracy and gives continuous service.
10. Made by largest exclusive standard frame manufacturer. The trade-mark is absolute protection.

Andersen Lumber Company
Dept. Q-7 Bayport, Minnesota

Andersen FRAMES
Building Statistics

The following figures, prepared by the Statistical Division of F. W. Dodge Corporation, cover the construction record of the first five months of this year and are based upon the contracts awarded during the period in 36 Eastern States (which include about seven-eighths of the total construction volume of the United States).

Table X gives the percentage of each valuation figure that may be taken to represent the work planned by architects.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Number of Projects</th>
<th>New Floor Space in Square Feet</th>
<th>Valuation</th>
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<tbody>
<tr>
<td>Commercial Buildings</td>
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<td>49,510,800</td>
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<td>Hospitals and Institutions</td>
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<td>Religious and Memorial Buildings</td>
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<td>*Residential Buildings</td>
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<td>206,183,200</td>
<td>943,934,300</td>
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<td>Social and Recreational Buildings</td>
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<td>Total</td>
<td>54,471</td>
<td>331,553,700</td>
<td>$1,934,240,800</td>
<td>61.1%</td>
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*74,884 Buildings.

Total Contracts by Months

<table>
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<th>Month</th>
<th>Proj.</th>
<th>New Floor Space in Square Feet</th>
<th>Cost</th>
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<td>January, 1923</td>
<td>6,518</td>
<td>43,568,200</td>
<td>$244,137,600</td>
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<td>7,080</td>
<td>49,978,600</td>
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<td>March, 1923</td>
<td>11,499</td>
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<td>April, 1923</td>
<td>13,709</td>
<td>73,999,600</td>
<td>404,613,000</td>
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<tr>
<td>May, 1923</td>
<td>13,235</td>
<td>73,271,100</td>
<td>433,292,000</td>
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<td>Total, 1st 5 Months, 1923</td>
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<td>56,558,100</td>
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<td>March, 1924</td>
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<td>433,340,300</td>
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<td>73,340,100</td>
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<td>May, 1924</td>
<td>13,337</td>
<td>68,783,900</td>
<td>419,272,600</td>
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<tr>
<td>Total, 1st 5 Months, 1924</td>
<td>54,471</td>
<td>331,553,700</td>
<td>$1,934,240,800</td>
</tr>
</tbody>
</table>
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SO. NORWALK   CONN., U. S. A.
The ARCHITECTURAL RECORD

Vol. 56, No. 1  JULY, 1924  Serial No.

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Contributing Editors:
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  J. A. Oakley, Business Manager

Published Monthly by
F. W. DODGE CORPORATION
115-119 WEST 40th STREET, NEW YORK CITY, N. Y.


Yearly Subscription: United States, $3.00; Canada, $3.60; Foreign, $4.00; Single Copy, 35 cents.

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THE PORTICO OF THE PROPYLAEA, ATHENS
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In view of the greatly increased interest in museums in America, as evidenced by projects for the erection of such institutions devoted to science, art, history, industry, an important addition to the list such as the Field Museum of Natural History at Chicago should be given close study.

This study can be profitable only if it begins with certain matters of museum theory, too large a territory to be explored here yet one that must at least be known to the architect, for it implies a radical change from the general conception of the newer uses of museums. Suffice it to say the modern museum plan accounts for a working institution, functionally active, employing to the fullest extent every means to make its collections available, demonstrating them, publishing them, even circulating part of them.

Such an institution is today a complex educational machine, one in which the finding, preparing or acquiring, exhibiting, protecting and demonstrating of material must have their special places, which means for the architect special representation in plan. The larger museum of the immediate future may be visualized as one in which the function of education will dominate the entire design, and in which there will be a wing devoted to such educational work as may be represented in class rooms, study rooms, headquarters for lending collections and other services.

The exhibition gallery is now but an
educational instrument. It can be made more than a source collection of collateral material; it can be and in some museums has been made something akin to a textbook with tri-dimensional illustrations.

This, it may be said, is a matter of internal administration. Not only that; the modern museum, especially of science, recognizes that to show all it owns is to show too much. Nothing so well encourages 'museum fag' as a superfluity may be properly related. Will such revision of theory bring with it a new interpretation of design? Must a museum be a temple or a basilica or a palace in appearance? Will the future museum be a humbler appearing, harder working institution, looking its part, and perhaps situated in a crowded district?

The Field Museum of Natural History at Chicago is an example of the temple type. It is situated on Lake Michigan of similar objects in serried, defiant ranks, when one such object with a carefully worded, easily read instructive label will do the work. What work? The educational work, not the mere exhibition work. So this does touch the architect, for he must account for reserve collections, called study or research collections, which are often, and reasonably should be, larger than those that the public sees.

This is but one aspect of the newer concept of museum work; many more could be cited and in another place will be, so that these active functions of museums and is a definite factor in the great plan of the city, in which it is to form a group with an amphitheatre, a new railroad terminal and other structures in the lakefront park area. As it now stands, judgment of the building cannot be fair, for it is isolated on a dirt flat, from which its Georgian marble mass gleams like a white growth in black loam.

The building measures 706 by 337 feet, but has a general height of only 80 feet. Its great area and especially the long ridge and attic lines emphasize its squat appearance, an effect contrary to that of
FIELD MUSEUM OF NATURAL HISTORY, CHICAGO, ILLINOIS
Graham, Anderson, Probst & White, Architects
THE ARCHITECTURAL RECORD.

FIELD MUSEUM OF NATURAL HISTORY, CHICAGO, ILLINOIS
Graham, Anderson, Probst & White, Architects

the old temple form which was its inspiration, but undoubtedly one both desired and necessary in accordance with height restrictions laid down for property between Michigan Avenue and the lake.

To most architects the building will be a satisfaction and a solace. It is a splendidly studied piece of work, its proportions please, its detail has a finesse that is inspiring. But is not the detail lost in sharp shadows against shrill marble reflections? Time will help to alleviate the contrast. Meanwhile, though the man in practice can sense its fineness, the man in the street loses it, one might almost say, for the same reason.

It is a monumental structure, awe-inspiring as to size and splendor. Is that an advantage in museum buildings? Does it encourage the idea of usefulness? Or does it add another monumental pile to the city's list of fine buildings which too few citizens enter? Not in criticism do we write this, but as a question based upon museum theory, for it is obvious that museums, especially of natural history, should be admired more within, as to their contents, than without, as to their appearance.

Next is the matter of circulation and exhibition space. A building of this kind must necessarily be larger than its present collections require. So for some time there will be long distances to traverse. But assume that it is filled with exhibits, cases, groups and other material, will circulation then be a simple thing? The plan of the main floor is broken by structural units only. The great nave and parallel end wings are connected by close lines of seven galleries on each side, solid exhibition space. The height of the hall will help the architect again in determining that he is in a main or a minor hall; structural features will also show a way to the main hall or to a stairway.

[6]
THE ARCHITECTURAL RECORD.

First Floor Plan
FIELD MUSEUM OF NATURAL HISTORY, CHICAGO, ILLINOIS
Graham, Anderson, Probst & White, Architects

Key
2—Egyptian and Classical Archaeology.
3—Eskimo and Northwest Coast of America.
4—Salish, Plateau and Woodland Tribes, North American Archaeology.
5—Indian Tribes of the Great Plains.
6—California and Nomadic Tribes of Arizona and New Mexico.
7—Sedentary Tribes of Arizona and New Mexico.
8—Mexico, Central and South America.
9—Philippine Islands.
10—Melanesia, South Pacific.
11—Horned and Hoofed Mammals.
12—Mammals—Synoptic.
13—American Mammals—Habitat Groups.
14—Osteology—Skeletons.
15—Fishes, Reptiles, Marine Fauna.
16—Shells—Insects.
17—Birds—Habitat Groups.
18—Birds—Synoptic.
19—African Game Animals.
Second Floor Plan
FIELD MUSEUM OF NATURAL HISTORY, CHICAGO, ILLINOIS
Graham, Anderson, Probst & White, Architects

Key
23—Chinese Paintings and Screens.
24—China.
25—Plant Economics.
27—Foreign Woods.
28—Plant Life.
29—Plant Economics.
31—Gems and Jewels.
32—Africa, India, Korea, Japan, Thibet, Java and Siberia.
33—Japanese Prints and Paintings.
34—Systematic Minerals, Meteorites, Physical Geology.
35—Relief Maps, Systematic Rocks, Physical Geology.
36—Petroleum, Coal, Clays.
37—Ores of Precious and Base Metals, Marbles, Alkalies.
38—Historical Geology.
But for the public there must be something more logical, a passage, a corridor. This plan has such passages, four of them running north and south, but not sufficiently obvious although fortunately leading directly to stairways.

The fact remains that an exhibition structure, to be favored by the public, requires a plan suggesting a route arrangement of exhibits, or, failing that, at least a suggested route of travel for the visitor. The architect maintains that if he provides an attractive gallery, the museum curator can take care of the internal route arrangement. No, it must begin in the plan, and it must be further emphasized by disposition of structural members and by the arrangement of collections last. In museums of natural history this is especially necessary because their educational purpose, above all in the public or exhibition collections, is served best by a route arrangement of exhibits which shows development in nature, or, by other sequential dispositions of material, which indicates uses of the products of nature.

If the material is of a kind, brought together in terms of geographic grouping, in terms of nature's own groupings, as of animals and plants customarily found together, or in terms of species or other biological standard, the architecture of the interior should, if it is possible to allocate space in anticipation of museum growth, indicate such classifications—not as to what they are but as to where they begin and end. The interior may reasonably circumscribe classifications, especially in so large a building.

It is yet too far in advance to speak of such close association between skilful
South End of Stanley Field Hall
FIELD MUSEUM OF NATURAL HISTORY, CHICAGO, ILLINOIS
Graham, Anderson, Probst & White, Architects
Interior View of Main Entrance

FIELD MUSEUM OF NATURAL HISTORY, CHICAGO, ILLINOIS
Graham, Anderson, Probst & White, Architects
Looking South from the Main Entrance

FIELD MUSEUM OF NATURAL HISTORY, CHICAGO, ILLINOIS

Graham, Anderson, Probst & White, Architects
Circulation on both sides of central hall, leading to exhibition halls
FIELD MUSEUM OF NATURAL HISTORY, CHICAGO, ILLINOIS
Graham, Anderson, Probst & White, Architects
practitioner and architecturally intelligent curator, but the results in this great building of the Field Museum will be eagerly watched for by the museum fraternity throughout the country. As these develop the architects will discover certain sciences called museology and museography, which are but branches of the large field of museum theory and practice. Also, as they develop, museum people will discover that there are certain things which they ought to know and which they can with profit learn, about architecture as best used to express their purposes; they will discover that there are some shortcomings of their own which it will not be fair to lay at the architect's door, and certain shortcomings of the architect which he can remedy if they themselves have a better idea of the heft of a brick, the thickness of a wall, the mysteries of ventilation, the power of light, natural and artificial, to make or destroy their collections. A great building like this one in Chicago is a sort of experiment station: young museums study it, older ones envy it the opportunity to start afresh absolved of past missteps and the sins of omission, which in the museum field today loom larger than conscious errors.

Among the features most closely observed will be the effect of the plan upon the public in terms of what the architect calls circulation, whether the visitor will readily find himself and at the required moment discover the way to the exit. It is a curious sidelight upon museum—and their use that to delay the quick exit of a visitor is as bad as to delay the time when he first enters. Museum fog is a serious menace to the progress of educational work in museums; enormous galleries, vast floor areas, the need for constant dodging around cases in a large room, a small number of stairways, a lack of rest rooms—which means rooms with comfortable chairs and no exhibits of any kind—all help in limiting the number of times the visitor will come to the museum on his own initiative. That initiative leads him to information and to pleasure and for the general public that is the purpose of the museum. An endless circuit leading perhaps through galleries containing scientifically or artistically or historically valuable material which is not of a kind to demand attention from this general public will inspire the visitor to no further effort. To be sure, the fault is greatly that of the visitor himself, for it is his policy to look without seeing or noting, not realizing that his eye cannot do for him unconsciously, what the ear can, in bringing him sensations and emotions.

In these large galleries of the Field Museum on the main floor there are vast distances, which presuppose certain interests on the part of the public. We venture to say on the second floor, the visitor's interest will find more fertile ground—that is, so far as the plan quite apart from the contents of the halls, is concerned. The sum of it is that a museum building of such dimensions is egregious, no matter how beautiful. A group will do the work better, or at least a plan definitely subdivided at the main floor level. In the Field Museum such subdivisions occur at the second floor, where four of the seven longitudinal galleries rise above the others, thus forming three courts on each side, the first floor galleries at the bottoms of these courts being skylighted.

In the end, we pay homage, nevertheless, to a splendid piece of architecture. The building is an inspiring structure. The effect of the nave interior is one of majesty. For the present writer there is but one question—will it work? In other words, is it functionally planned? We need think little about style of architecture, if the plan will work; for here is an educational institution whose aim is service and of that service the collections are but the vehicle. One book is a library, one object a museum—if it is put to work. In this great edifice is a gigantic educational machine of service: the architect's interpretation of that service is the completed monument. In closing we may be permitted to prophesy that in the future—and within a generation's time—architects will so conceive museum buildings that the last thought that could be associated with them will be that of "monument."
Duffryn was built about forty years ago by the late Sir John Cory, the well-known philanthropist, whose statue now adorns Cardiff's famous Civic Center.

The Duffryn Estate, which is situated about seven miles southwest of Cardiff, is extensive, mostly undulating pasture lands, picturesquely timbered with fine forest trees, many of which are of great age, possessing all the beautiful characteristics which centuries of our moist climate, with its alternating wind and rain, alone can impart. Modern forestry has not, however, been neglected and there are about one hundred acres of vigorous young plantations, composed for the most part of larch, Scotch firs, sycamores and elms, growing with vigour. In addition there is an experimental fruit farm run on scientific principles on which almost every well-known variety of apples, pears, plums and cherries has been tested.

The estate includes the charming old-world village of Duffryn, with its quaint church, whilst a new village, illustrated and described in my work on "Civic Art" has been begun on the western boundary of the property some three miles distant. Duffryn stands in a sheltered valley, almost in the centre of the estate which, however, does not command any of the splendid prospects afforded elsewhere on the estate; there were, however, associations attached to the site outweighing all those important considerations which usually operate in the choice of a site for a large mansion like Duffryn.

The design of the residence is reminiscent of an Italian villa, as interpreted by English architects forty years ago, and may be described as a picturesque and even stately pile. The entrance front faces north, with a fine view across the park. The large and numerous entertaining rooms face east and south, whilst the kitchen and service wings are to the west. The south front is supported by a balustraded terrace, which is adorned in the summer time by myrtles and other plants requiring shelter in this climate during the winter months. At the east end of the house is arranged a formal panel garden and on the south front a large sunken tennis lawn. The vegetable and fruit garden, enclosed by high fruit walls, was laid out on the higher ground beyond the service wing. The remaining part of the garden, as originally laid out, consisted of the usual winding walks with shrubbies and lawns dotted over with specimen trees.

On the death of Sir John the property passed to Mr. Reginald Cory, the youngest son, and his sister, Miss Cory, and although the broad outlines of our scheme had been approved, it was principally during this joint ownership that the extensive improvements I am about to describe, have been carried out.

Mr. Reginald Cory is a typical example of the English enthusiast for horticulture and arboriculture at its best. He is a member of the Council of the Royal Horticultural Society, a liveryman of the Ancient Guild of Gardeners, a well-known author on horticulture, his pet subject, and an experimenter whose researches have greatly enriched our store of knowledge in a vastly interesting field of human enterprise. His collection of dahlias, to name but one class of popular flowering plants, includes over six hun-
dred varieties, whilst his collection of conifers and ornamental and flowering shrubs, has been brought together from every quarter of the globe. Today the gardens extend to about fifty acres, requiring a staff of twenty gardeners.

Our work at Duffryn has consisted, in the first place, in the preparation of a comprehensive design for the central and more important part of the gardens and to the detailing of special parts, but many other developments have been evolved by our client, himself an amateur landscape architect, and a keen draughtsman and expert planter.

The work of planning began with the improvement of the approach roads and the design of a carriage court, supported by a balustraded wall with wrought iron entrance gates on the park side; the east side of the court enclosed by a high wall architecturally treated, and the west side by the service wing, which in turn has its own service road and space for turning. Although one of the first parts of the scheme to be planned, this will probably be the last section to be carried out. (See plan.)

Our next care was to plan a great lawn extending from the old part of the garden on the south front, the object being to gain a sense of scale, a restful base to the house and a compensating expanse of view from the principal rooms to make up for the lack of more distant views of landscape. To secure variety, we formed a long central canal and lily pond, extending from the second balustrade to a small lake, to receive which we made use of a natural depression. The end of this canal is to be completed in due course by the erection of a water pavilion overlooking the lake. To ensure the success of this part of our plan, we diverted a running stream which ran down one side of the lawn. This had to be carried for
Figure 4

PANEL GARDEN—GARDENS AT DUFFRYN, NEAR CARDIFF, WALES

Thomas H. Mawson & Sons, Landscape Architects
a part of its length, beginning at the in­
take at "A" on plan, to point marked
"B," in a reinforced concrete culvert, but
we made provision for diverting the
storm floods which at times are very
strong. The general effect of this part
of our scheme is well illustrated by
Illustration No. 1 and the cross section
which shews the raised banks on each
side, with hedge of cupressus macrocarpa
enclosing the central part of the garden.
To the east and west we felt at liberty
to indulge in every phase of garden
design which the site and my client's
catholic views seemed to suggest. Thus
we have Japanese and rock gardens, rose
gardens, Pompeian gardens, cloistered
and terraced gardens, pond gardens,
shrubberies and lawn gardens, Iris gar­
dens, herbaceous borders, fruit and
vegetable gardens and lastly, but in some
ways most important of all, the pinetums
and experimental gardens, in which have
been planted one of the choicest and
most interesting collections of conifers
and shrubs to be found within the con­
fines of Great Britain.
Naturally, deviations have been made
in the plan from time to time, but in
the main it has been followed. It is true
there are startling contrasts and surprises,
but as each garden is enclosed in its own
screen of architecture or foliage, it seldom
clashes with its neighbor.
Illustration No. 3 shows part of the
east end of the house with the original
gardens on east and south front, along
with the new balustraded wall and new
lawn embankments and hedges beyond.
The panel garden (Illustration No. 4) lies
behind the hedge and screen of trees on
the west side of the garden. Certain
modifications were carried out in this
part, for the purpose of securing greater
breadth of treatment.
Illustration No. 5 shows new develop­
ments at the west end of the south front.
Beyond the pillars, sundial and steps, a
Herbaceous borders
GARDENS AT DUFFRYN, NEAR CARDIFF, WALES
Thomas H. Mawson & Sons, Landscape Architects

walk leads off at an oblique angle in the direction of the kitchen garden and the herbaceous borders shewn in the next illustration. There is a fine collection of Japanese plants arranged on the paved platform leading to the steps. The semi-rustic character of the paving and base walls are interesting.

Illustration No. 6 shows the herbaceous borders from the west end, with the park in the distance. The wall on the left of the picture divides this section from the fruit and vegetable garden. The central grass walk is spanned at intervals with strongly constructed arches for roses and clematis, whilst the border to the right of the picture is enclosed by a colonnade of trellis rose arches rising from stone pillars.

Illustration No. 7 shows part of the wall at the east end of the herbaceous garden, along with the pillars supporting the trellis arches. Here the great use made of these walls for choice climbing plants, and ornamental vines give variety and interest to the gardens as a whole.

Illustration No. 8. At the west end of this wall, but on a lower ground level, an experimental garden has been laid out. Here also on the simple framework are tested the newest introductions in climbing roses and ornamental vines.

Illustration No. 9. Passing southwards, the gardens are protected by a number of yew hedges, some of which are pierced to permit of vistas onto the lawns and shrubberies beyond.

Illustration No. 10 shows a view in the circular Rose Garden, looking crossways towards the raised mound on each side of the great central lawn.

Illustration No. 11 shows the Pompeian Garden, arranged on a level about 5 ft. below the central path, the roofs of the colonnade being arranged as roof gardens. All the columns are in cast cement, delicately coloured and finished with a surface which gives a delightful texture and softness to the general effect.

Illustration No. 12 is the bathing pool, arranged as a panel garden to the west of the central walk leading to the rose garden. During the summer months this
Figure 7
Wall at west end of herbaceous garden

Figure 8
EXPERIMENTAL GARDEN—GARDENS AT DUFFRYN, NEAR CARDIFF, WALES
Thomas H. Mawson & Sons, Landscape Architects
[23]
Figure 10

VIEW IN CIRCULAR ROSE GARDEN—GARDENS AT DUFFRYN, NEAR CARDIFF, WALES

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Figure 11
Pompeian Garden

Figure 12
BATHING POOL—GARDENS AT DUFFRYN, NEAR CARDIFF, WALES
Thomas H. Mawson & Sons, Landscape Architects

[26]
garden is decorated with myrtles, choice Japanese maples and other plants, arranged in tubs. The general level of this ground is about 2 ft. higher than the level of the central walk.

To the south of these three gardens are two other garden courts, one surrounded by an open brick arched cloister with a view opening onto the lake, and the other as a trellis garden with the somewhat unusual treatment of raised beds planted with dwarf lavender and baby roses, whilst in both this and the previously described garden, lily troughs have been arranged as part of the design. These lily troughs are now planted with a very fine collection of the newest hybrid nymphaeas, which not only give a note of interest to the garden as a whole, but minister to its owner's love of those plants, which are specially rare and beautiful.

Illustration No. 13. It is always difficult to give in a free manner by photographs a proper conception of a landscape garden design as so much of the effect depends upon the colour and general form of growth, and the contrast arranged between the lower ground shrubs and the towering pine and other trees. It should also be remembered that a garden of this character tends to become more or less in the nature of an arboretum. Notwithstanding, it has been proved at Duffryn that the contrasts between the strict formalism of the major portion of the garden and the landscape environments, give an added value to the appreciation which visitors always show for this interesting garden.

Figure 13
GARDENS AT DUFFRYN, NEAR CARDIFF, WALES
Thomas H. Mawson & Sons, Landscape Architects
LOUIS H SULLIVAN — His Work

By

Frank Lloyd Wright

LOUIS SULLIVAN's great value as an Artist-Architect—alive or dead—lies in his firm grasp of principle. He knew the truths of Architecture as I believe no one before him knew them. And profoundly he realized them.

This illumination of his was the more remarkable a vision when all around him cultural mists hung low to obscure or blight every dawning hope of a finer beauty in the matter of this world.

As "the name of God has fenced about all crime with holiness" so in the name of Architecture the "Classic" perpetually invents skillful lies to hide ignorance or impotence and belie creation.

But the Master's was true creative activity—not deceived nor deceiving. He was a radical and so one knew, always, where to find him. His sense and thought and spirit were deep-rooted in that high quality of old and new which make them one and thereby he was apprised of the falsity of outward shows that duped his fellows, and that dupe them still.

The names, attributes and passions of earth's creatures change, but—that creation changes never; his sane and passionate vision leaves testimony here on earth in fragments of his dreams—his work.

He was of infinite value to the country that wasted him because it could not know him.

Work must be studied in relation to the time in which it presented its contrasts, insisted upon its virtues and got itself into human view. Remember if you can the contemporaries of Louis Sullivan's first great work, the Chicago Auditorium. Those contemporaries were a lot of unregenerate sinners in the grammar of the insensate period of General Grant Gothic.

Imagine this noble calm of the Auditorium exterior, the beautiful free room within, so beautifully conceived as a unit, with its plastic ornamentation, the quiet of its deep cream and soft gold scheme of color, the imaginative plastic richness of this interior, and compare both with the cut, butt and slash of that period—the meaningless stiffness that sterilized the Chicago buildings for all their ambitious attitudes and grand gestures. They belonged to a world to which the sense of the word "plastic" had not been born.

That the word itself could get itself understood in relation to architecture is doubtful—and then see what Louis Sullivan's creative activity from that time on meant to Architecture as an art.

Back of that first great performance of his was a deepening knowledge, a tightening grasp on essentials. Much in the great effort got away from him; it wore him out; it was all at tremendous pressure, against fearful odds—but the Chicago Auditorium is good enough yet to be the most successful room for opera in the world. I think I have seen them all. His genius burst into full bloom with the impetus of the success and fame that great enterprise brought to him and to Adler. Dankmar Adler, his partner, was a fine critic, a master of the plan and of men. His influence over Louis
Sullivan at that time was great and good. The Getty tomb was a work that soon followed the Auditorium as did the Wainwright Building in St. Louis to greater purpose. The Getty tomb in Graceland Cemetery was a piece of sculpture, a statue, an elegiac poem addressed to the sensibilities as such. It was Architecture in a detached and romantic phase, a beautiful burial casket, "in memoriam" but—a memorial to the architect whose work it was. His "type," the "form that was peculiarly his was never better expressed."

When he brought in the board with the motive of the Wainwright Building outlined in profile and in scheme upon it and threw it down on my table, I was perfectly aware of what had happened. This was Louis Sullivan's greatest moment—his greatest effort. The "skyscraper," as a new thing beneath the sun, an entity with virtue, individuality and beauty all its own, was born.

Until Louis Sullivan showed the way the masses of the tall buildings were never a complete whole in themselves. They were ugly, harsh aggregates with no sense of unity, fighting tallness instead of accepting it. What unity those masses now have, that pile up toward New York and Chicago skies, is due to the Master-mind that first perceived one as a harmonious unit—its height triumphant.

The Wainwright Building cleared the way and to this day remains the master key to the skyscraper as a matter of architecture in the work of the world. The Wainwright and its group were Architecture living again as such in a new age—the Steel Age—"living in the work of the world!" The Practical therein achieving expression as Beauty. A true service rendered humanity in that here was proof of the oneness of Spirit and Matter, when both are real—a synthesis the world awaits as the service of the artist and a benediction it will receive when false ideas as to the nature and limitation of art and the functions of the artist disappear.

The Transportation Building at the Columbian Exposition cost him most trouble of anything he ever did. He got the great doorway "straight away," but the rest hung fire. I had never seen him anxious before, but anxious he then was. How eventually successful this beautiful contribution to that fine collection of picture-buildings was, itself shows. But the Transportation Building was no solution of the work of the world as was the Wainwright Building. It was a "picture-building"—but one with rhyme and reason and, above all, individuality; a real picture, not a mere pose of the picturesque. It was not architecture in its highest sense, except as a great theme suggested, an idea of violent changes in scale exemplified, noble contrasts effected—meanwhile its excuse for existence being the enclosure of exhibition space devoted to transportation. It was no masterful solution of a practical problem. It was a holiday circumstance and superb entertainment, which is what it was intended to be. It was original, the fresh individual note of vitality at the Fair—inspiring, a thing created but—something in itself, for itself alone. Except that if here—where a mischief was done to architectural America from which it has never recovered, by the introduction of "the classic," so called, in the Fair buildings, as the "Ideal,"—had that note of individual vitality as expressed in the Transportation Building been heeded for what it was worth, that mischief might largely have been averted. Only the Chicago Auditorium, the Transportation Building, the Getty Tomb, the Wainwright Building are necessary to show the great reach of the creative activity that was Louis Sullivan's genius. The other buildings he did are blossoms, more or less individual, upon these stems. Some were grafted from one to the other of them, some were grown from them, but all are relatively inferior in point of that quality which we finally associate with the primitive strength of the thing that got itself done regardless and "stark" to the Idea: sheer, significant, vital.

As to materials, the grasp of the Master's imagination gripped them all pretty much alike. As to relying upon them for beauties of their own, he had
THE ARCHITECTURAL RECORD.

no need—no patience. They were stuff to bear the stamp of his imagination and bear it they did, cast iron, wrought iron, marble, plaster, concrete, wood. In this respect he did not live up to his principle. He was too rich in fancy to allow anything to come for its own sake between him and the goal of his desire. It would have been to him like naturalistic noises in the orchestra.

Where his work fell short, it fell short of his ideal. He could not build so well as he knew nor so true to his thought as he was able to think—often. But sometimes he did better than either.

I see his individual quality in that feature of his work that was his sensual ornament—as I see the wondrous smile upon his face—a charm, a personal appealing charm. So very like and so very much his own. It will be cherished long because no one has had the capacity to produce out of himself such a gracious, beautiful response, so lovely a smile evoked by love of beauty. The capacity for love, ardent, true, poetic, was great in him as this alone would prove. His work in this was interior, esoteric, peculiar to himself. It is none the less precious for that. Do you prefer the Greek? Why not? Do you admire the Chinese? Why not, as a matter of course? Do you prefer the Romanesque? It is your privilege. Perhaps you respond to old Baroque? Your reactions to Gothic you find more satisfying? Doubtless. But do you realize that here is no body of culture evolving through centuries of time a "style," but an individual in the poetry-crushing environment of a cruel materialism, who, in this, invoked the Goddess that hitherto whole civilizations strove for centuries to win, and won her with this charming smile—the fruit of his own spirit.

Ah, that supreme, erotic, high adventure of the mind that was his ornament! Often I would see him, his back bent over his drawing board, intent upon what? I knew his symbolism—I caught his feelings as he worked. A Casanova on his rounds! Beside this sensuous master of adventure with tenous, vibrant, plastic form, Casanova was a duffer; Gil Blas a torn chapeau; Bocaccio's imagination no higher than a stable-boy's. Compared to this high quest the Don's was as Sancho Panza's ass. The soul of Rabelais alone could have understood and would have called him brother. How often have I held his cloak and sword while he adventured in the realm within, to win his mistress; and while he wooed the mistress, I would woo the maid! Those days! And now, I say, this caress that was his own should be his own, forever sacred to him and treasured high for its own sake—this rhythmic pulse of the wings of America's creative genius. Whoso has the temerity to undertake to imitate it will fail. Take his principle who will, none may do better—and try the wings that nature gave to you. Do not try to soar with his. Has the time come when every man may have that precious quality called style for his own very own? Then where, I ask you, are the others? Eros is a fickle god and hard to please. Musing with blinded eyes he has heard from earth the music of an immortal strain; henceforth will take no less.

Genius the Master had—or rather it had him. It possessed him, he revelled in it, squandered it and the lesser part of him was squandered by it. He lived! And compared to what came to him in life from his effort, the effort itself being a quality of it, the greatly successful careers were, I imagine, relatively lifeless.

Yes, genius he had in most unequivocal sense—true genius—there is no other kind—the effect of which is not seen in his own time, nor can it ever be seen. Human affairs are of themselves plastic in spite of names and man's ill advised endeavors to make them static to his will. As a pebble cast into the ocean sets up reactions lost in distance and time, so one man's genius goes on infinitely forever because it is always an expression of principle. And therefore, in no way does it ever run counter to another's genius. The Master's genius is perhaps itself a reaction, the initial force of which we can not—need not—see.

Of one thing we may be sure—the in-
tuitions of such a nature, the work to which he put his hand, no less than the suggestion he himself was to kindred or aspiring natures, is worth more to the future in any conservative or progressive sense than all the work of all the schools, just as example is more valuable than precept.

Is it not true that individuality is the supreme entertainment of life? Surely it is the quality most precious in it and most worthy of conservation; veritably the visible hand of the Creator! Here in Louis Sullivan was an example as clear and convincing as any, anywhere, at any time, under conditions as unpromising to fulfillment as ever existed.

Is it not probable that the social solidarity that produced the great "styles" exists no longer in the same sense and that never more will such a manifestation appear, especially in a nation composed of nationalities like ours? But, as free opportunity offers, when America awakens spiritually or is awakened by Spirit, individuality will come to flower in almost as many styles as there are individuals capable of style. And there will arise more and more men who are capable of it. Until we have a wealth of vital expression. We will then only need order in the aggregate—an "order" which will be established eventually by the nature of the individual intelligence capable of style—itself perceiving the necessity for it and making it therefore a veritable condition of every such individual expression. The nature capable of style is more capable than any other of the appropriate conduct of that power when and wherever need be.

Is not that a more desirable and logical conclusion to draw from the principle upon which this country was founded than that the dead level of a mongrelized version of the "Classic," a renaissance of Renaissance, should be allowed to characterize the mongrel as mongrel—and nothing more?

H. H. Richardson, great emotionalist in architecture that he was, elected to work in the "style" Romanesque. The Master dug deeper and made style for himself out of the same stuff the Roman-esque was made from, and the Gothic too. With all these examples before us of "styles," surely man may penetrate to the heart of Style and unveiling its secret be master of his own. And as a master of this type was Louis Sullivan—esoteric though his synthetic style may be. The leadership of Stanford White was exoteric, his mind that of a connoisseur. His gift was selective and we owe to him and his kind the architectural army of "good taste" that smothers the practical in applied expedients—an army whose beauty-worship is content with the beauty of the painted lady, the henna, paste and rouge; or the more earnest kind, the avid antiquarian or the far too credulous historian. What does it matter if Tradition's followers fail to see that Louis Sullivan's loyalty to Tradition was wholly complete and utterly profound? His loyalty was greater than theirs, as the Spirit transcends the Letter. What lives in New York architecture is little enough, and in spite of its grammar and far beyond the style-mongering it receives in the Atelier. It is the force of circumstance piling itself inexorably by mere mass into the sky—the darkening canyons that are paths leading into darkness, or to Death! It seems incredible now, but such unity as those tall masses may have is due to the master-mind, that first conceived and contributed one as a unit. The Wainwright Building cleared the way for them—and to this day remains the master key to the skyscraper as Architecture the world over. Why is it so difficult for standardization to receive to a greater degree the illumination from within that would mean Life instead of Death? Why is the vision of such a master-mind lost in the competitive confusion of so-called ideas and jostling ambitions? Why is the matter, except for him, still all from the outside—culture nowhere sane nor safe except as the imitation or the innocuous is safe—which it never is, or was. Look backward toward Rome!

Yes, the great Master's contribution as to form may die with him. No great matter. This Way-shower needs no piles of perishable granite, no sightly shapes to secure his immortality or make good his
fame. It is his fortune that in the hearts of his fellows his gift was real. The boon to us of his journey on this earth, in the span of life allotted to him, is beyond all question, all calculation. His work was the work of a man for men— for sincere humanity. The look of the thing he did may or may not appeal to the imagination trained to regard certain rhythms, spacings, forms and figures as architecture. Many faults may be laid to him, but they are the rough hewn edges of the real thing. And what he did, even more than the way he did it, will always repay painstaking study if it is free study. It can only vex and puzzle the pedantic mind and end in its hostility—the hostility that never more than entertained and amused him although eventually it did destroy his usefulness. That hostility of the provincial mind is found on the farm, in the small town, on Main Street, on Fifth Avenue, in the Seats of the Mighty, in the Church, in New York and in Hollywood. Wherever that type of mind is found it will accept no radical, because anything radical is the death of the provincial. Instinctively the provincial mentality feels this, and fears it and therefore hates. And Louis Sullivan was a radical in the same sense that the Ideal-Man was the consummate radical of human history.

Not long ago—weary—he said to me in a despondent moment that it would be far more difficult now to do the radical work he did—more difficult to get accepted than when he worked. The dead level of mediocrity had risen to the point where herd-psychology had accepted as normal the "good form" of the schools, and stopped thinking. The inevitable drift had set in. But no, it is not so!
Entrance to Museum
LA JOLLA PUBLIC LIBRARY, LA JOLLA, CALIFORNIA
Wm. Templeton Johnson, Architect
Floor Plan
LA JOLLA PUBLIC LIBRARY, LA JOLLA, CALIFORNIA
Wm. Templeton Johnson, Architect
Reading Room

Librarian's Room

LA JOLLA PUBLIC LIBRARY, LA JOLLA, CALIFORNIA
Wm. Templeton Johnson, Architect
Main Façade
SUMMIT HIGH SCHOOL, SUMMIT, NEW JERSEY
Guilbert & Betelle, Architects
Main Façade

SUMMIT HIGH SCHOOL, SUMMIT, NEW JERSEY
Guilbert & Betelle, Architects
Main Entrance

"DIAS DORADOS"—ESTATE OF THOMAS H. INCE, ESQ., BEVERLY HILLS, CALIFORNIA
Roy Seldon Price, Architect
Main Stairway

"DIAS DORADOS"—ESTATE OF THOMAS H. INCE, ESQ., BEVERLY HILLS, CALIFORNIA

Roy Seldon Price, Architect
Entry to Living Room

Dining Room

"DIAS DORADOS"—ESTATE OF THOMAS H. INCE, ESQ., BEVERLY HILLS, CALIFORNIA

Roy Seldon Price, Architect
Old Well, Laundry Yard, and Service Entrance

Rock Stair Leading to Wading Pool and Lake Plunge

"DIAS DORADOS"—ESTATE OF THOMAS H. INCE, ESQ., BEVERLY HILLS, CALIFORNIA
Roy Seldon Price, Architect
GATEWAY—CEMETERY OF THE GATE OF HEAVEN, MOUNT PLEASANT, NEW YORK

Charles Wellford Leavitt, Landscape Engineer
Bloodgood Tuttle, Architect
Last month we traced the progress and development of certain economic experiments in Low Rental Housing in New York City, in contrast with the housing experiment of the Metropolitan Life Insurance Company that was more fully reviewed the previous month. This article is designed to give further information on the present housing situation in a city the size of New York, so that a clearer comprehension may be gained of its relation to these newer types of buildings. Added to this is a detailed analysis of a housing experiment in the city of Boston.

In this connection, mention of some of the surveys that have been undertaken in several of our cities might be of interest, primarily one conducted in New York by the Evening World during the fall and early winter of 1923, by a special staff of housing investigators. In the course of this investigation individual reporters lived for several days at a time in certain of the worst congested districts, and so were able to name house after house in which they themselves had lived under indescribable conditions, and under which hundreds of thousands of the population of that city must today be existing. Their records show that this situation exists not alone in "down-town" New York, as is generally supposed. The lower east side, Cherry Hill, "Hell's Kitchen," Mulberry Street, and Harlem, along with many of the cross-town streets in upper New York, were included in this survey, and it was declared in the published résumé that more than half the population of the city lived under similar conditions. Other large American cities are in better positions only in so far as the proportion of tenements is necessarily limited by the size of the community.
the cost to the builder, and allowed so little margin of return, that no building could be done upon any profitable basis. The owners of such property settled down, determined to make only the repairs absolutely necessary to keep their tenements occupied.

Next, of course, they found it desirable to jack up their rentals to recoup themselves for the expenses of these repairs, a move assisted by the fact that these new laws had at once begun to reduce or prevent any enlargement of the supply of low cost tenements, while the demand was steadily increasing. Today, we find all the old tenements of a dozen years ago still doing business, with the rentals about twice what they were then, and no new tenements built; while the population still forced to live in this class of housing has at least doubled. Hence the still worse conditions we find today!

The only relief has come through the removal of families from certain old sections of the city to more expensive types of residential property in newer portions of the municipality, resulting in the adaptation of these older properties to the uses of tenement-housing; and the law, which should have been applied to their alteration to their new use, has generally been avoided. Instead of attempting to alter these structures to meet the new requirements of tenement housing, they have in the guise of “rooming” or “lodging” houses, managed to accommodate three or four times as many tenants as they could possibly have housed as new-law tenements. Their owners have been saved the required and expensive reconstructions, and have secured for themselves a net income many times greater than otherwise possible.

But a new and ironically interesting factor has entered to complicate and make the situation still more unendurable. In some part, at least, these abandoned dwellings had been partially renovated to meet the needs of their previous better class of occupants. They had frequently been altered into smaller apartments, with fewer rooms than before. In doing this, the number of rooms allotted to sleeping purposes had been largely reduced and the kitchens and dining rooms proportionately increased (the kitchenette was, at this time, just coming into vogue; and the dining alcove or breakfast room had not yet risen upon the horizon).

When the poorly paid inherited these cast off dwelling habiliments they had to make shift to utilize them as they were. In so doing, they found that the kitchen, as such, was the most uncompromising part of their inherited problem. The class that had formerly used these dwellings had use for but few bedrooms, and more use for dining room and kitchen. A parlor and one or two bedrooms sufficed. Of these rooms, the new tenants found that all but the kitchen could be used for sleeping equally well as for their original purposes. But the kitchen, largely filled with stove, sink, wash tub, doors and shelves, left little room for beds, even of the most movable cot variety.

When the cast-off apartment came to be one of three rooms, a kitchen, combined living and dining room, and one sleeping room, a third of the whole space was of little use to the new occupants. Nevertheless, they were being charged rent upon a room basis, and for this purpose the kitchen was as much a room as any other, even if less available. For this reason we find, in all our larger cities today, a more congested condition than previously prevailed in living conditions in the tenements. In older buildings, the toilets are in basements or yards, with sinks in halls and kitchens the only places available for washing by entire families and their numerous boarders. In the newer reverted sections more toilet facilities exist, but in the endeavor to fit a family into the confines of a three or four-room apartment, one of which is a kitchen, the crowding becomes even greater.

All this is merely by way of reminder. Other conditions, smallness of rooms, lack of windows, dirty and dark hallways, small light wells, remain as bad as of yore, and most of all remains the crowding of the block area with buildings. Every one of these blocks, now eighty to a hundred per cent overbuilt, could house
more people than it now contains in new buildings, that need cover only about one-half the block area, leaving the rest for light and air, and providing good rooms, sanitary conditions, and much better fire protection than now exists.

But the stringent housing requirements exist to prevent the owner from even attempting to better conditions. From a selfish, practical point of view, it is far better for him to contend with the old buildings, than to attempt to replace them with new structures that must comply with all the expensive factors of the Tenement House Law. The sole outcome of the law, combined with the annual increase in building costs, which have more than doubled during the last ten years, has been to hinder or prevent the construction of new and better tenements. It has actually so worked as to even bring about the preservation and continuance of the identical buildings that were the cause of the original housing legislation. Today matters are actually many times worse than they were then, not only in individual examples, but throughout the entire class of tenement dwellers compelled to live under these or similar conditions.

The old buildings are now in worse repair than ever, and more crowded. Others previously taken over for varied purposes have been later conscripted to help out. They in turn were less well adapted to meet the requirements of housing, and again no attempt has been made to build them over or to adapt them to their new use.

No permanent improvement can be expected until the same forces that united to obtain the legislation originally are willing to help modify these laws sufficiently to again place the matter of possible improvements in this class of realty in a more favorable light to the individual owner or investor, or until the City, State or national Government enters the field, in some one of the various ways that have proved effective in European countries.

Meanwhile we must recognize that a considerable amount of the damage caused by this class of legislation can never now be repaired. The fact that building costs have more than doubled during the period since these laws were passed, can only mean that the new building that was stifled by this legislation, which otherwise might have been undertaken on a small margin of profit, has now become forever impossible for individual investors on any feasible financial basis whatever.

Last month's article contained two incidental points that should perhaps again be touched upon before taking up the detailed description of the building to which we give principal consideration this month. First, the fact was noted that the matter of fireproof construction should be given more consideration. This point should be stressed. In the case of the two buildings by Mr. Emerson illustrated last month, the structure was entirely fireproof; the same thing is true of the building we are illustrating in this article. The Metropolitan Life Buildings are not so built, wooden floor joists and studs being freely used. Quite aside from the factor of fire loss, this means greater deterioration, and consequent increased cost for upkeep.

The other matter was to call to mind that the plan of the Metropolitan Life Buildings for a 6% net return, with an additional 3% to refund the original investment, is almost precisely the basis upon which the principal "Open Stair" buildings have been constructed and maintained in New York, over the last ten years. The costs and rentals of these may be compared with the following data concerning the Charlesbank Homes of Boston. Care has been taken to secure exact and definite data of the individual experiment made in Boston, even though conditions have since so changed that, from an economic point of view, the financial status under which the venture was initiated can no longer apply. Nevertheless, as a practical attempt to solve the problem of providing low-rental apartments on a basis to make the enterprise independent of further philanthropic support, it has achieved an extent of actual accomplishment that equals, if it does not better, other existing housing schemes.
More than twelve years ago, Mr. Edwin Ginn, the publisher, recognizing the difficulty of providing wholesome and sanitary houses for working people at a moderate cost, undertook to construct a building for that purpose. He set apart a fund sufficient to pay for a plot of land and to build upon the site a structure of maximum capacity and practical economy within the limits of area and height established by himself and his advisors.

A lot of about 13,550 square feet area was obtained in one of the most congested sections of Boston, facing on the lower basin of the Charles River, a location that had been recently improved by the development of a parkway and an embankment along both sides of the river. The plot of ground was situated a few hundred yards from a fine open-air playground and gymnasium; the first municipal institution of the kind to be established in this country.

This structure is known as the "Charlesbank Homes," Fig. 15, and is managed by The Charlesbank Homes Corporation, under the direction of a group of trustees. The Corporation is not allowed to divide among its members the income or profits derived from the building, which are to be applied to the purchase of land and the erection of other buildings of like character.

As originally planned, the building was divided into 103 apartments, arranged around two courtyards, with five shops along the principal street frontage, for the sake of the income to be derived from them (Fig. 16). The apartments are divided into suites of two, three and four rooms, the building having thirteen two-room, eighty-one three-room, and nine four-room suites, arranged around six central staircases and halls, all reached from the courtyard, three of them being also approached by means of entrances opening upon the street frontages.

The majority of the suites have cross ventilation, and the two- and three-room suites have a toilet and shower. Some of the three-room, and all the four-room suites, have a full bathroom, (Figs. 16 and 17). In addition there are, on the first floor, a group of shower baths and tubs for the use of the tenants. All suites have dumbwaiter service, telephone connections with the entrances, water, heat and janitor service. The gas is paid for by the tenants, and the suites are provided with gas stoves. The hallways are lighted by electricity.

Not only was the building planned for economy of space, but also for economy of maintenance. The staircases are all of iron, with iron railings; floors are cement, and walls are hard, painted plaster. The building is of non-burning construction throughout, brick and concrete. The cellar has storage and steam drying facilities. The heating plant is oil-burning. The relatively small size of the courtyards has made it necessary to pave them with concrete. The larger central courtyard is 62 feet long by 38 feet wide, and the smaller court (located at the southern end, to obtain cross draft for the apartments at the inner end of the lot) is 38 feet by 21. They are connected by wide passageways on the first floor; both courts open on the narrower rear street, and the larger on the Charles bank in front, through a spacious archway, (Fig. 16).

It remains but to state that the building was completed in 1912, and to give the present scale of rentals. The prices charged are based partly upon location, whether on the front, toward the river, or on the courts or narrower street at the rear. The two-room apartments on the front rent for $6.00 a week, those on the rear for $4.00 a week. The rent of the three-room suites is partly affected by the location, and also by the fact that some have more plumbing than others. The front ones vary from $7.25 to $8.00, the rear from $6.50 to $7.25. The four-
room suites rent on the front for $8.50; in the rear for $7.75. This is at the rate of $33.50 to $36.75 a month, or $8.35 to $9.20 a room for the four-room suites; $28.20 to $34.70, or $9.40 to $11.35 a room for the three-room suites, and $17.35 to $26.00, or $8.67 and $13.00 a room for the two-room suites.

On this basis the property at the present time nets only about 3% profit, and it of course has no interest charges to pay, as it was given into the hands of the trustees clear of debt by the donor. The original investment stood between $295,000.00 and $300,000.00, and the construction was done at a time when building prices were at about their lowest.

At the present time there is a long waiting list, and all applicants are investigated carefully before being accepted. Only those with a reputation for good housekeeping and good character are admitted. Of course, the small size of the apartment makes the tenancy of large families impossible, but there are a number of tenants with two children, and one with three, the latter all born in the building.

The fact that the building stands in a neighborhood now largely Jewish, accounts for the greater part of the tenants being of that faith. Other nationalities are Italian, Irish, Swedish, Scotch, English and American. It is considered that 60 per cent. of Jewish occupants would be the desirable maximum.

In the beginning the suites were not at all popular with those native to this district. Their bareness and their extremely clean and sanitary aspect were perhaps not so inviting as the older, more atmospheric quarters then most populous in that neighborhood. The feeling was intensified, perhaps, by the fact that the interior walls were cold and gray in tone, suggesting too much the hospital. It was afterwards found advisable to ameliorate this condition by using warmer colors on walls and ceilings, and from these first years on, the building has easily been kept full at all times.

At the beginning, a scale of rentals had been determined that ran from $1.25 to $1.75 a room, or from $10.75 to $15.20 a month for the two-room; from $15.25 to $22.75 for the three-room, and from $21.20 to $30.30 for the four-room apartment. Since then, however, increased costs of fuel, taxes, and labor have made necessary an increase in rentals. As will be seen, the increases have been made mostly in the lower rental suites of two rooms, being about 70% advance on the lowest priced, smallest suites, to almost 85% on the lowest priced three-room suites and dropping to 50% advance on the higher priced three-room and lower rental four-room apartments, while the highest priced four-room suites were advanced only about 10%. The average increase is about 50%, and the variation in percentages came about from an endeavor to equalize the original rentals and still keep the totals down as low as was possible, in order that the occupants would still remain in the class of tenantry desired.

Now an examination of the plan may be made with advantage, in order that we may discover another means by which the economy of this particular venture was greatly aided. The building covers about 10,509 of the entire area of 13,529 square feet, leaving 3,020 feet in the two courts, or about 22% of the total area.

A look at the typical floor plan (Fig. 17), will show that the structural supports of the reinforced concrete floors are the walls and a series of piers. All the intervening partitions, except the four cross fire walls, are of plaster on wire lath, both sides. This is so much an economy of floor area that the saving of the 1,985 to 2,000 running feet is sufficient to give six or seven more rooms to the floor, or eleven additional three-room apartments to the entire building, thus increasing the income by an average of $340.00 to $350.00 per month.

Attention should also be directed to the fact that great pains have been taken to provide cross draft for as many suites as possible, a matter that was given some consideration last month. In the case of several suites, it is apparent that considerable passage space has been taken in order to make this possible. It is problematical as to what can best serve the life and use of the building, a rigid economy
of arrangement that might disregard this consideration, or a less strict economy in construction that would provide this additional comfort for the tenants.

The other debatable point is in regard to how many apartments can be reached from one staircase without too much waste of passageway, and too great inconvenience of arrangement. In the typical floor plan, (Fig. 17), it appears that of the six staircases, two reach only two apartments on a floor, two connect with four apartments on each floor, and the other two reach five apartments. It is in these latter cases that we will find the plan separates the toilet in some cases from the private hall; or that it becomes necessary to go through one bedroom in order to reach another, neither arrangement desirable, but the latter not so objectionable as it at first seems when adequate resident control is maintained over the occupants, as is true in this case. Such an arrangement is often an actual convenience, when the entire occupants of the suite are a couple with small children.

In the first of these articles particular examination was made of the newest and largest experiment in obtaining low rental housing in New York City, and it was found that with all things considered, the whole experiment was finally made possible only by an economically unsound, tax exemption law operating as a bonus, a combination of circumstances not always available for such purposes.

In contrast to that venture, we have here had an opportunity to even more carefully examine a similar operation that has been in use since 1912, fully twelve years, also on an unusual financial basis. All the usual building charges were saved in this instance. The property runs with no mortgage interest overhead, it is managed by trustees who draw no salary, and yet on the scale of rentals given, it has been unable to make a net profit of more than 3½% in any one year, and for a large proportion of its operation there has actually been no profit at the end of the year. This was true of the earlier years of its existence, either from the fact that rentals were first established at too low a rate or from vacancies occurring too frequently, especially during the summer season; also from necessary expenses incurred in perfecting the heating and drainage systems, or other unexpected repairs and replacements, incurred despite the fact that the building was originally made as permanent and indestructible as possible.

It is true that this building is non-combustible in type of construction. But it is also true that, if it were to be built under present-day conditions, it would be at a cost of more than double the original. And this, on any equable basis of return, would therefore necessarily almost double the present scale of rentals. And so again we find we have been turned by the inevitability of the facts involved into another blind alley, and have once again found low rental housing to be an elusive myth, an economic fallacy.
General view, showing the wall promenades

THE ALCAZAR GARDENS, SEVILLE
SEVILLE offers, in the park of its Alcazar, the most complete early Spanish example of the level type. In addition the city contains the gardens of the Alba and Medinaceli palaces and the modern Parque de Maria Luisa; while in the way of very small gardens and patios there are any number that will amply reward the searcher who is bold enough to bribe his way into them.

From classic times the site of the Alcazar has been important in the history of Seville. After the Romans, the Moors built their citadel (Arab, al-Kasr) here; this was towards the end of the twelfth century, Seville's most prosperous Moorish period. Of this building nothing remains. Its precincts were vast, having extended down to the Guadalquivir and included the ground now occupied by the Fabrica de Tabacos, the Palacio Santelmo, and the Torre del Oro. For the rebuilding of the destroyed Alcazar, Peter the Cruel (1350-69) deserves the credit. As his architects and craftsmen were Moors and as the palace is proof that they were following their own oriental tradition in architecture, we may safely presume that the garden they made for him was also after their own manner.

How much of their layout was preserved by Christian monarchs can never be more than a matter of conjecture. Charles V meddled with both palace and garden; considering practically all the tiles seen in the latter date from the sixteenth century and onwards, one would not be far wrong in assuming that Peter the Cruel's garden was without them and thus truer to precedent. Within the palace, however, and dating from his time are fine early examples—cuerdas secas, cuencas, and even mosaics—which those who are interested in old tiles should not fail to examine. The garden was again remodeled but only in part by Philip IV and Philip V. The latter is said to have added a fish pool; if this means the main pool on the uppermost level it is likely that it was on the site of a former reservoir, for from this point the whole garden is, and apparently always was, irrigated.

As to scheme, it is chiefly absent. The layout is made up of the usual series of walled enclosures falling haphazardly in line. Even with so much ground at their command the gardeners never thought of creating long vistas nor planting alleys of trees. The main point to observe in the plan is that the enclosures nearest the palace are smallest, averaging seventy-five by a hundred feet, and admitting of more intimate treatment; while in the larger ones the set out plot units remain much the same but are repeated in order to fill a given area and thus keep all in the same scale. Where the plan shows, as it does on its outer edge, greater motivation even the layman's eye will instantly detect the eighteenth century. Of the vapidity of those decadent "Philippine days" nothing could speak more eloquently than the ambitious but fortunately unfinished project in the northwest corner beyond the courts of Maria Padilla.
General layout

THE ALCAZAR GARDENS, SEVILLE

[76]
The Alcazar grounds are entered at the uppermost level, which brings one immediately to the main irrigation pool, backed up by the rococo wall or rather, rococo facing to Peter the Cruel's fortified wall. From this eminence one descends at once to the main level. The first parterre parallel to the palace is known as the Jardines de María Padilla. Opening on this are the several vaulted grottos where, if legend be true, this mistress of Peter the Cruel used to bathe. The paths of contrary axes lead to the so-called baths of Jane the Mad and the pavilion which her son Charles V built. The Padilla parterre and the plaisance of Charles V are, to our mind, the best of the Alcazar Gardens.

These gardens, being fairly large, offer a special chance to appreciate the effectiveness of long stretches of pleached white walls. Those contiguous to the palace extend up to the second story terraces, and their tops are turned into promenades and provided with a continuous parapet seat. Thus the inmates may step out and walk through the garden at second-story level, so to speak. Where walls of different height abut, the two levels are connected by parapeted steps. The top of the north or fortified and buttressed wall is likewise connected with the palace terrace by means of an arched passage over the entrance to the gardens; while the arcaded gallery built in the thickness of the wall can be reached either by a stair from the garden or a passage from the palace. Facing south, as it does, this wall gallery is sheltered from cold winds in winter and hot sun in summer—a practical as well as a decorative feature. Although none of the garden walls have fine iron or wooden gates there are several recessed window openings, treated in tile, that are particularly beautiful.

The only decorative accessory is the azulejo. Indeed, these gardens are a veritable museum of fine mellowed sixteenth-century azulejos; yet for all their prodigality there is a restraint as compared with the new Sevillian work. This is particularly noticeable in the pavements, mostly in unglazed dark red with-out colored insets. On the other hand fountains, basins, benches, stairs, and the Emperor's pavilion, are all in polychrome. Best among the fountains are those at the intersections of paths—low, star-shaped, and treated in yellow, green, and blue. These appear to have been taken as the model for every new fountain placed in Seville in the last ten years.

The polychrome bench is here seen at its best because, being of considerable length, it has not the abruptness of the short park bench of three or four seats. In combination with walls that measure from fifty to seventy feet long, or set against an equally long hedge, it almost achieves monumentality. Near the pavilion so often referred to is a rond point featured with a circular bench in four sections, which is particularly interesting for its color. Unbacked, the bench is set against a high mass of box with whose deep green the brilliant yellow, blue, and light green sixteenth-century pisanos make delightful harmony. The French
Pool and Entrance Loggia

THE ALCAZAR GARDENS, SEVILLE

[78]
Garden of Maria Padilla, adjacent to the palace
THE ALCAZAR GARDENS, SEVILLE
Planting forms a green background for the polychrome tile accessories
THE ALCAZAR GARDENS, SEVILLE
Differences of level have been purposely created to add interest

THE ALCAZAR GARDENS, SEVILLE

[81]
The walled enclosures are connected by grilled openings

THE ALCAZAR GARDENS, SEVILLE

[82]
A paved patio between two planted plots

THE ALC AZAR GARDENS, SEVILLE

[83]
Gallery in the thickness of Peter the Cruel's wall, forming a sheltered promenade overlooking the garden

THE ALCAZAR GARDENS, SEVILLE
gardener who arranged the Ronda place already illustrated did something of the same sort with very good results.

As a tile creation the Emperor's summer house and the court in which it stands are a chef d'œuvre. The former we have described, calling attention to the fine lustre tiles, of which not many remain today in Seville. It is set in the center of the court covering about half an acre, and this whole space is paved with unglazed red tiles laid in herringbone. Innumerable little circular beds for orange trees are edged with colored tiles, and around the enclosing wall runs a continuous tile bench. The trees, well clipped into spherical form and neatly set in their round earth pockets, appear dwarfed, as if they belonged to an embroidery or tapestry. When thick with fruit nothing could be more decorative than the golden green spotting in conjunction with the colored tiles. As a garden this spot has somewhat the quality of a primitive painting—perhaps for the same reason. It has no drawing, all is off axis and askew for no apparent reason, yet the result is charm.

Commenting on the plan of the Alcazar gardens it was observed that the walled enclosures nearest the palace (de Maria Padilla) were smaller and treated more intimately; meaning that they were more like outdoor rooms. As an extension of the living apartments they were kept very formal, mostly in tiles. Practically the only planting is against the white walls which are made beautiful by vines and pleached trees. The only bloom is that provided by potted plants set freely about (en passant, the large pots of cream glaze with the royal arms in blue are commendably unpretentious and do not try to rival the polychrome of the tiles). The first section, practically flowerless except when its immense and very impressive oleander tree is in bloom, offers an enchanting play of soft color as one enters from the upper level. Glossy, purplish green in the oleander leaves, waxy yellowish green in the lemon trees, and all the shades between; brilliant yellow and blue in the tiled fountains and benches, and their reflections in the broad basin heightened by the potted carnations that stand around. Out of these simple elements plus a few lordly peacocks a masterpiece of coloring has been created.

A great deal of interest is added to these courts by their being at slightly different levels and connected by tiled stairs. The whole garden terrain was probably equally flat, and these differences were intentionally created. Another effective detail that deserves mention and which we also suspect to have been intentional is the slight deflection of the main axis; by this trick, in the long vista through the several patios one always gets one side of the arched reveal beyond instead of merely the blank opening.

In the next and much larger parterre parallel to the Padilla, planting is the main feature; eight big plots set out in mazes of box and myrtle. These mazes
Pavilion of Charles V. The colored tiles are among the finest in Seville

THE ALCAZAR GARDENS, SEVILLE
Baroque pavilion and the so-called Pool of Joan the Mad

THE ALCAZAR GARDENS, SEVILLE
Photograph by Lacoste
General view of the Alcazar gardens taken twenty-five years ago, before new trees were planted

are of every conceivable design, geometric and scroll. Here are found the previously-mentioned insignia of the military orders outlined in box. Above these densely planted beds rise lofty date palms—the whole forming a green shade garden.

A more attractive garden than this of the Alcazar is hard to imagine. One feels the simplicity of the plan and is convinced that it must date back to Peter the Cruel’s reign, if not earlier. Charles V’s half-trained Spanish Italianists, had they started with virgin soil, would have attempted an ambitious partie and felt it necessary to dissimulate the irregularities of the site by some recognized academic solution. Confronted by an existing Moorish layout they wisely took the line of least resistance and did but little to modify it. Philip IV and Philip V’s gardeners were less prudent; their trivial rococo revetment, à la Boboli, to the sturdy old medieval wall and their effort to Louisize the garden area to the west are distinctly unpleasant anomalies.
CONVENTION NOTES

IMPRESSIONS OF THE FIFTY-SEVENTH ANNUAL CONVENTION
OF THE AMERICAN INSTITUTE OF ARCHITECTS,
WASHINGTON, D. C., MAY 21-22-23, 1924.

By HUBERT G. RIPLEY

In the days of the "roaring nineties," Washington was a city of many fine buildings. Broad streets and bathukolpian sidewalks offered opportunities for splendid vistas. Today the genius and wealth of the nation, the product of the foremost painters, sculptors and architects have been lavished on its adornment and upbuilding, until it has become a city rivaling the glories of Ancient Rome and the grandeur of Tarshish and Carthage.

To attempt an impression of the fifty-seventh annual convention of the American Institute of Architects without the background of the city constantly in mind and view would be like a pageant without panoply—the songs of Ossian in the Morse Code. Full stenographic reports of the proceedings will reach every member of the Institute in due season, and exact information of all that transpired will be reported faithfully in handsome pica with nonpareil footnotes. This is merely a divagation that will, we fear, serve the statistician poorly. The continuity of the various events in these impressions is not guaranteed, and there are of necessity many omissions. Perhaps undue emphasis may be observed where undue emphasis is not called for. If such be the case the decisions in the official report are to be regarded as final.

The convention began on Tuesday evening at the Washington Hotel. The Washington Hotel is a pleasant place, large, airy and comfortable, with a refreshing absence of exotic marbles, magniloquent murals and period furniture. The prices are only slightly more instead of three or four times too much, which is comforting, and one soon learns that a two-bit tip for such services as bringing a bottle of White Rock with a pitcher of cracked ice and two tall glasses to Room 610, is from the recipient's point of view, the ideal amount. (We always suspected that a dime was not just the thing, and now we are sure of it.) The registration committee was busily engaged in the "Spanish Garden" room (why so called is difficult to understand) and somebody (we cannot now recollect who) was circulating a cabalistic paper in behalf of Stanley Parker, that everybody seemed most anxious to sign. We were not told what it was but as we all love Mr. Parker and trust him implicitly, we were proud to be asked to add our name to the list.

Wednesday morning dawned gray and opaline, like one of Whistler's "Arrangements," with a fine Scotch mist as the delegates met for breakfast in the café. The café serves a "Club" breakfast, also "Club" lunches and "Club" dinners. In the old days these used to be called "Combination" breakfasts and "Table d'Hôte" lunches and dinners. You could choose a meal of the simplest, coffee and rolls (Combination No. 1—35c.) or you could have strawberries and cream, cereals, sirloin steak with a rasher of bacon, hashed brown potatoes, poached eggs sous cloche, finishing with waffles and strained honey (Combination No. 9—$1.75). In "The Washington" the rules of the Club Breakfasts are strict, any deviation is heavily penalized. But as long as one plays the game one gets on very well. Upstairs in the Restaurant more freedom is allowed.

It is a delightful stroll across the park to the Corcoran Hemicycle, where arrangements had been made for the convenience of the delegates. The walls of the coat room had been tastefully hung with a series of genre paintings that were well worth studying, and seemed to afford a gratifying degree of interest to all. The human amenities had not been forgotten. Adjoining the coat room was the "Journal" book shop, where Mr. Whittaker had arranged a display of the most fascinating books, prints, etchings, sketches and posters that we have ever seen gathered together for sale. The temptations of Saint Anthony were not
more potent than those of the ingratiating editor. Fine bindings at ridiculously low prices, splendid and exotic editions of belles-lettres from Roman times to the present day, side by side with the linest folios and monographs of the masters of the ages, intoxicated the senses and acted like a dose of heroin on the customary caution of the delegate with slender purse. During the entire convention the space reserved for the book shop was thronged with a crowd of excited buyers.

Promptly at 10.32, President Faville declared the Convention in session. Every seat in the Hemicycle was filled, numbers standing at the top of the bank of seats where openings in the Doric colonnade permitted. There were eight regular sessions of the convention in two and one half days, besides numerous informal sessions of varying character. The house was sold to capacity at every performance, though the audiences were apt to be somewhat tardy in assembling. A small percentage of the fair sex, and a larger percentage of bald heads were noted. The gathering as a whole was dignified, austere and cosmopolitan in character.

The president's address was listened to with attention, and at its close the impressive tributes to the passing of Henry Bacon, Louis Sullivan and Bertram Goodhue were received with deep feeling. The great loss that the Institute has sustained in the death of these noted men within a few short weeks, is irreparable.

The treasurer and the secretary each presented reports that indicated how intensive is the self-sacrificing and conscientious performance of the multitudinous duties of these officers. It is estimated that by 1926 there will be 10,000 architects in the United States and that a fitting proportion eligible for membership in the Institute would be 4,000. The present membership is nearly 2,800, leaving 1,400 to be taken in during the next two years. How best to interest these men so that they will join us is one of our problems.

An interesting, though not illuminating discussion on the plans for the Octagon House brought out a strong sentiment for the restoration of the entire group of buildings to its pristine condition.

The Wednesday afternoon session was given over to the consideration of public building problems and addresses were delivered by Lieut. Col. Clarence O. Sherrill, who spoke on the need of more adequate housing of Government Departments and in support of legislation sponsored by Senator Smoot, and Brig. Gen. Herbert M. Lord, director of the Bureau of the Budget, who gave an illuminating and picturesque exegesis of the problems that confront this most necessary department. "A year ago," said Gen. Lord, "corrections in authors' proofs cost the government the appalling sum of $240,000, just to change a 'which' into a 'that,' or the re-phrasing of the subjunctive into the past definite. It reminds me of the man who found two needles in his soup and reported discovery to the waiter who had always served him with scrupulous attention. The offending dish was removed and the waiter shortly returned with the explanation—'Beg pardon, sir, but that soup was a typographical error,—it should have been noodle soup instead of needle soup.' This year the expense for proof corrections will be but $60,000, and next year, we'll cut that figure in half if we have to split every infinitive in the English language."

The fag-end of the afternoon was consumed by Mr. Kelsey's illustrated lecture on "Rome! Radiating Rome." There were two things worthy of note—the speaker's delivery was in a loud, clear resonant voice and he did not (as Heyward Broun remarks) fall off the platform. This is as far as we care to go.

The evening session, presided over by Mr. Dunning, was in the nature of a report on the curriculum of our foremost architectural schools, and an earnest appreciation of the devotion of the late Lloyd Warren to the ideals of the Beaux Arts Institute of Design. The founding of this Institution which has exercised such a profound influence on recent American architecture, is due mainly to his efforts. Its astonishing progress is shown in the last thirty years by the increase from forty rendus to over three thousand during the current year. Where-
as twenty-five years ago about one hun-
dred architects returned each year from
the Paris ateliers, now there are none
coming back. The work is being done in
hundreds of ateliers scattered all over
this country from Seattle to Palm Beach.*

Thursday morning was magnificent.

The perfume of the rose gardens, the
ekaleidoscopic masses of iris, the shovvi-
ness of the salpiglossi and the brilHancc
of the FVunus Japonica, the fleecy clouds
accentuating the azure of the sky, formt-d
a background for the stately marble and
tawny limestone palaces lining the boule-
vards of the Capital. In any other but an
American city, flower stands would
abound on the street corners and banks of
blossoms would greet the eye in the public
squares, just as in the piazza d'Espagna or
the flower stalls of Nice and the islands
ot Picadilly Circus. Perhaps we are too
busy to bother with nosegays or a camellia
for the boutonniere, though there was
evidence of floral and faunal research
by some of the delegates who arrived
late at the convention hall. At least a
genial air of wild thyme hung over cer-
tain ones, indicating an instinctive love
of the humanities.†

Our duties were of such an absorbing
nature that we had little time to take no-
tice of new buildings since the last convention.
Mention must be made, however, of
Arthur Heaton's new building for the
Washington Loan and Trust Company, on
Seventeenth Street opposite the inchoate
mass of the State War and Navy Depart-
ment. Its façades are of dazzling Ken-
tucky limestone (which seems to weather
so exquisitely in the climate of Washin-
gton). There is a Spanish tile roof and
bright bronze in the windows and door-
way. A highly polished stylobate of
lavender syenite or igneous hornblende
surmounted with a noble torso moulding
completes the façade, and carries out a
color scheme that is most entrancing when
lighted up at night. Well proportioned

mouldings frame the great windows and
the interior is chaste and inviting. One
feels that perfect and implicit trust
may be placed in such a depository.

On Sixteenth Street at the very
top of the hill is the New All Souls
Church by Coolidge & Shattuck. This
firm won the Harleston Parker Gold
Medal in Boston last year for excellence
in design and construction of the Boston
Lying-In Hospital. Should they ever
build such a beautiful church as All Souls
in the Metropolitan District of Boston,
the medal would be given them again by
acclamation. It is a generous though
modest group of buildings in red brick
and light gray stone with a noble spire
that pierces the vault of high heaven.
In design it satisfies the soul, and one is
constantly finding delightful surprises in
detail of exterior and interior. Wren,
Bulfinch, Vanbrugh, or MacIntyre would
be proud to have the church attributed to
them.

Beautifully situated on B Street fronting
the Lincoln Memorial is the new
building of the National Academy of
Sciences and the National Research
Council. This splendid Temple of the
Sciences dedicated scarcely a month ago,
is, as all know, the work of the lamented
and well-beloved Bertram Grosvenor
Goodhue, ably seconded by Lee Laurie.
It would be hard to imagine a finer struc-
ture for such a purpose or one where the
sister arts are more closely interwoven
and inter-dependent. It is the ideal union
of architecture and sculpture. Each is
the complement of the other, and the
beauty of both is an imperishable tribute
to the immortal gods of High Olympus.

The morning session was thirty-seven
minutes late in starting—in fact all ses-
sions were behind schedule—but the
machinery worked efficiently as soon as
the throttle was turned on. The report
of the Committee on credentials showed
that out of some fifty-five chapters only
six were unrepresented, the total number
of delegates being two hundred and six-
teen. The method proposed by the Board
for a change in the by-laws relating to
the election of Fellows brought out an
interesting discussion, especially the reso-

*Is this wholly a cause for congratulation, and will
the results of the next twenty-five years show the
commensurate progress in American Architecture
that the leaven of the Paris School has been so
largely instrumental in bringing about?
†The wild thyme and the date palm live nut all
winter in sheltered locations in the mild climate of
Washington. As Horace remarks, "Ille terrarum
mihi praeter onmes angulus ruder."
lution that "no member who fails of elec-
tion (to Fellowship) shall be eligible for
renomination for at least two years." By
amendment, it was finally voted to change
this to one year, at which Mr. Magonigle
inquired if this pendency "might be
termed a period of purification." Shortly
before noon Mr. Robert Jones gave an
illustrated lecture on the work of the
Small House Service Bureau. We have
heard of Mr. Robert Jones' prowess as a
golfer, but have never before had the
opportunity of hearing him speak. As a
golfer he will add prestige to his chapter,
and as a speaker he is a wonderful golfer.
Either the lantern or the slides themselves
must have been in a terrible condition.
The projections were distressing and were
for the most part regarded in gloomy
silence. If the work of the Small House
Service Bureau is to continue under the
control of the American Institute of
Architects and the indorsement of the
United States Department of Commerce,
it is high time that better designs were
"duly promulgated" and a lot of unworthy
daggle eliminated.

The afternoon session on Thursday
was one of those rare occasions that
happen at Institute Conventions about
once in ten years. The subject for dis-
cussion was "What is Precedent Doing to
American Architecture?" though Mr.
Magonigle (presiding chairman of the
meeting) told us that his preference for
a title was "Plagiarism as a Fine Art."

Carefully prepared papers by H. Van
Buren Magonigle of New York, William
A. Boring of Columbia University,
W. R. B. Wilcox of Eugene, Oregon,
Dr. Ralph Adams Cram of Boston, and
William L. Steele of Sioux City, Iowa,
were read, and for nearly three hours a
capacity audience gave them its absorbed
attention, time after time bursting into
spontaneous applause. The tribute was
a notable one, and the speakers were
well worthy of it. It would be possible
to give but the faintest and most tenuous
outline of the five inspiring papers. They
will all be published in full, and it is
hoped that a separate volume, in 40
telliere sur papier vergé pur fil Lafuma-
Navarre, may be prepared so that every
architect and all the cognoscenti in the
United States may have one for constant
reference. We venture to say, without
fear of contradiction, that this discussion
will do more for the cause of American
architecture than any treatise since the
days of Jacques François Blondel. As
an example of team work, the literary
quality, the wit and the wisdom displayed,
the inspiration and the promise, the
occasion was unique. There is still balm
left in Gilead.

There were two more sessions of the
Convention for the necessary transaction
of routine business, and a number of in-
formal luncheons and dinners.

Friday afternoon was devoted to a
reception at the Bureau of Standards by
the Hon. Herbert Hoover, Secretary of
Commerce, and others. Through a mis-
understanding or contretemps of some
sort, there developed a static condition, a
polarization of the ray-tracks, a sort of
thermal emission of negative electrons,
to use the jargon of the radiophile,
that fooled the approach, and pre-
vented the full consummation of the pro-
gramme. A number of the delegates had
a nice ride in sight-seeing lorries at a
moderate charge and an opportunity for
social intercourse which the exigencies
of the convention had hitherto denied
them. Many of us meet old friends and
former acquaintances on these occasions.
We overheard one man greet another
cheerily "How do you do, Mr. Stokesby?"
Stokesby, who is from one of our metro-
poli, looked over his man slowly and
said "I don't believe I know you."
"Pardon me," said his questioner, "Didn't
I meet you two years ago at the conven-
tion in Chicago?" "I've never been in
Chicago," replied Stokesby. "Neither
have I," said the first man. "I guess it
must have been two other fellows."
SAVING THE FINE ARTS BUILDING

Chicago is in the throes of another popular movement to save one of its "Historic Monuments."

Some years ago a similar sentimental uprising during the widening and extension of North Michigan Avenue prevented the razing of the "wedding cake Water Tower" at Chicago Avenue and the Drive so that today the city's busiest thoroughfare is pinched in the middle with the Tower, a serious obstruction to traffic.

The latest movement has to do with the Fine Arts Building in Jackson Park, the last great survivor of the World Columbian Exposition. It is proposed to attach a public auditorium to the old building, restore the ruins and thus preserve this epochal work for future generations.

Intermittent agitation, growing by organized propaganda over a period of fifteen years has, at last, reached such force that a final decision as to the fate of the structure is about to be made by public sanction in the form of a bond issue authorizing the expenditure of five million dollars.

A while back, the Chicago Chapter of The American Institute of Architects appointed a special committee to report on ways and means for the preservation of this "monumental work." The committee reported favorably on anything from a zoological garden to a home for indigent architects. To lend zest to the local architects' response to the people's sentiments, a successful national convention of the American Institute of Architects was recently held in Chicago with ceremonies ending in a grand and effective banquet under the rotunda of the old building.

Public sentiment thus encouraged lashes itself to frenzy, so much so that should there be raised a single voice in protest, nothing short of the guillotine would be "the punishment fitting the crime."

During the war, the Government made a thorough investigation of the "Old Fine Arts Building" with a view to re-building it into a reconstruction hospital for the overseas forces. The report as to its structural condition was unfavorable and the project was abandoned.

Now comes this unbridled inspiration of turning the old building into a huge public auditorium. Mr. Ernest Graham was authorized to report on the feasibility of this latest aberration. He frankly and fearlessly states in his report that it will cost more to reconstruct the old building than to build a new one.

Despite Mr. Graham's adverse findings—and he does swing a mighty club—the Chicago Association of Commerce goes on record "in favor of the preservation of the Fine Arts Building in Jackson Park and the construction of a great Public Auditorium in connection thereto," pledging itself to work for the project.

Let us take a sane view of the matter and see what all the commotion is about.

The Fine Arts Building fulfilled its purpose as a temporary "Picture Building" to house the fine arts exhibits during the World's Columbian Exposition in 1893. It was built of staff on a framework of wood and common brick walls and, obviously, was not intended to be permanent.

Surely at Fair time it was strikingly effective with its chaste detail and lily white exterior set in formal gardens, with multi-colored banners flying in contrast with its austere Greek beauty, its south front further enhanced by being mirrored in the waters of the lagoon which quietly lapped against the very base of the structure, reflecting sky, trees, banners and building intermingled in a two-fold picture of dazzling contrast.

But Time has passed its cruel hands over the holiday scene and the Fine Arts Building stands today a scaly, wormy pile, only sug
gestive by its form and mass of a one-time grandeur. Even an attempt to restore one end of the building does not help the picture. Yet memory is tenacious and the suggestion lingers like a mother weeping over a lock of cherished baby hair.

After the Fair the building was maintained to house a permanent collection of natural history exhibits, forming the nucleus of the present Field Museum of Natural History, and was temporarily used for that purpose until the new building was completed in Grant Park. Thus the old building prepared the way as it were for the new Field Museum recently completed at a cost of approximately eight millions. Before the change was effected, however, many of the valuable exhibits were damaged and in constant danger of destruction owing to inadequate protection from the elements afforded by the condition of the rapidly disintegrating Fine Arts Building. With a permanent home finally established through the generosity of a group of Chicagoans of means, the old building, having outlived its usefulness, was doomed.

But not yet—the "antiquarians" raised their faint cry for preservation and the pilgrimage was on. This feeble cry had its echo, and the echo became a voice and then a roar, so that even the architects of Chicago heard and joined in the chorus, succeeding finally in seducing the national convention of the American Institute of Architects to meet amidst the relic of Antiquity.

Now what, may I ask, has the old Fine Arts Building contributed to the cause of Architecture?

To begin with, its design was not inspired. Turn to the Grand Prix d' Rome for the year 1867 and see the original drawing by Bernard "un Palais Pour l'Exposition des Beaux Art." Bernard's design was a capable student's contribution of merit and distinction and as such can bear serious consideration. But imagine the French people putting a school problem in lasting material. Banish the thought. No:—the French Government sends its Grand Prix d' Rome men to the very source of Antiquity, orders faithful measured drawings made of the historic monuments for documentary study, and we copy them in toto.

But to return to the Fine Arts Building, we find that the imagination and enthusiasm of Bernard's design is here expressed in the refined detail of the Erechtheum, thereby out-Greeking the Ancient Greeks and nothing more as far as real potent value to the City of Chicago is concerned.
Let those who cherish this "classic" and worship at its shrine put their resources in a common fund, cause an accurate scale model to be made together with measured drawings and hand these down to the coming generation instead of patching up a crumbling ruin.

The world is moving rapidly in thought and deed. Science and discovery open the way for development of a new order along rational lines. There is a great future for real architecture in America.

Will the Greek style, which came to full bloom and died during the Periclean age, be held in the same light henceforth? Time alone will tell. In the meantime, let's quit being a lot of sentimental idiots and try to grow up!

A. N. Rorshach.

Inferno—There are giant objects which sprout telescopic wings like bats.

**A PROJECT FOR A THEATRICAL PRESENTATION OF THE DIVINE COMEDY OF DANTE ALIGHIERI**

**BY NORMAN-BEL GEDDES**

This book is a *tour de force* of the creative imagination, by that most fertile and versatile artist in the theatre, Norman-Bel Geddes. Having conceived the idea of presenting Dante's Divine Comedy in such a way that it should appeal to the emotional nature through the eye and ear, he sweeps aside all the time-hallowed devices and conventions of the theatre, and creates "once and for one only" a new theatre, a new stage, a new art form of which light is the dominant and controlling element. I say he "does" this, and the doing of it is no less amazing than the concept itself. Denied—up to the present—the opportunity to realize his vast, ambitious dream concretely, with actors, and an audience, he proceeds to make (with the assistance of his pupils) a small scale model of his stage, peoples it with hundreds of little clay figures, lights it with elaborate art, and then, summoning to his aid a photographer of genius, Francis Brugière, he is enabled to present some twenty scenes to the reader with such clarity and completeness, that were it not for the clue afforded by the text, one could easily be deceived into believing that these were photographs.
taken of an actual production, enacted by living human beings.

Indeed, one cannot but question if a regular production would be, in all ways, as good. Might it not lack some of the admirable abstractness and mystical quality here in evidence? Might not Dante be shoved aside by the mere showman in Mr. Geddes that dogs the footsteps of his genius? But such speculations are vain; suffice it to say that this book represents a very real achievement.

Many artists are preoccupying themselves with light as a means of emotional expression, and Mr. Geddes has gone along to the dramatization, but free from any conspicuousness in itself, an organic part of the whole production.” A third medium of expression he discovers in the mass movements of many human figures up, down and around the stairs, platforms and pylons which constitute his stage. What he is striving for is “to express emotional beauty through the unification of certain elements, each element translating into its own medium the quality of each varying moment and produce this sensation simultaneously with the other elements.”

Without the cooperation of Francis Bruguière, the photographer. Mr. Geddes could never have communicated his dream. The plates are interesting from the standpoint of photography alone. How some of the effects were achieved one cannot imagine, but not easily, or by chance, one feels assured. The Introduction is by Max Reinhardt. In it he pays a deserved tribute to Mr. Geddes’ genius—and well he may, for the chief excellence of the Miracle—the transformation of a theatre into a church—was solely of Mr. Geddes’ devising. The book is handsomely printed and would make an appropriate and unique addition to any architect’s library.

Claude Bragdon.
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