BETHLEHEM LIGHT SECTIONS

The Key to important economies in design

Frequently it is desirable to have close spacing of structural members with relatively light loads which do not call for the amount of steel involved in the use of regular heavy sections. Bethlehem Light Sections are the solution of this problem.

One of the best examples of the advantages offered by Bethlehem Light Sections is to be found in the floors of buildings designed for relatively light live floor loads. To use regular heavy beams efficiently they would have to be spaced widely apart. This would mean a thick floor slab—not only expensive in itself but also making extra dead load for the steel to carry.

With the use of Bethlehem Light Sections, beams can be spaced closely and still use only as much steel as the load dictates. Economical thickness of floor slab, reduced dead load, follow.

Bethlehem Light Sections also afford worth-while economies when used for purlins and struts between columns, as well as for columns in upper stories where loads are lighter.
Eugene Schoen & Sons, interior architects, found the Soviet Embassy at Washington an interesting project. The architecture must remain the same, and there were certain prized possessions which must be retained in the decorative scheme; yet a new freshness, simplicity and warmth were needed for today's background. Summing up a few of their problems, the architects comment as follows: "In reconstructing the Soviet Embassy, we had to take into consideration the classical backgrounds of the Louis XV and XVI periods; and therefore in furnishing it, we used furniture of the period. We found some of the most interesting models in W. & J. Sloane, and worked with them on all the furniture.

“When the problem of the carpets came up, we found that we had to harmonize in the plain carpets the rich colors of the Beshir Bokhara rugs with which the Embassy is furnished. These are among the most beautiful in existence, and a perfect harmony was established with the various red broadloom colors that were obtained from Sloane's.

“We found Sloane's very cooperative and understanding in all phases of the work.”

* * *

The facilities of W. & J. Sloane . . . available to architects through the Sloane Contract Department . . . include furniture, draperies, office partitions, wall-covering or floor-covering, and collaboration by Sloane consultants with architects on the decorating and furnishing phase of any project. Complete information on request.
THE ROME PRIZES

THE American Academy in Rome has announced its annual competitions for fellowships in architecture, landscape architecture, painting, sculpture, and musical composition.

In architecture the Daniel H. Burnham fellowship is to be awarded; in landscape architecture the Garden Club of America fellowship; in painting the Jacob H. Lazarus fellowship of the Metropolitan Museum of Art, New York, established by Mrs. Amelia B. Lazarus and Miss Emilie Lazarus; and in musical composition the Frederic A. Jullliard fellowship.

The competitions are open to unmarried men not over thirty years of age who are citizens of the United States. The stipend of each fellowship is $1250 a year with an allowance of $200 for transportation to and from Rome. Residence and studio are provided without charge at the Academy, and the total estimated value of each fellowship is about $2000 a year.

The Academy reserves the right to withhold an award in any subject in which no candidate is considered to have reached the required standard.

The term of the fellowship in each subject is two years. Fellows have opportunity for extensive travel and for making contacts with leading European artists and scholars.

The Grand Central Art Galleries of New York City will present free membership in the Galleries to the painter and sculptor who wins the Rome prize and fulfill the obligations of the fellowship.

Entries for competitions will be received until February 1. Circulars of information and application blanks may be obtained by addressing Roscoe Guernsey, Executive Secretary, American Academy in Rome, 121 Park Avenue, New York.

OCTOBER BUILDING PERMITS

BUILDING permits issued during October in 215 cities of the United States valued at $67,013,939, according to the monthly report compiled by Dun & Bradstreet, Inc. This was the largest monthly total reported so far this year and set up a new high mark in the building industry since October, 1931. The October figure compared with $47,475,644 in September and $37,580,122 in October, 1934. There is here shown an increase of 41.1 percent over September, which greatly exceeds the normal seasonal gain of about 2.5 percent expected for this period.

The group totals of building permit values for the 215 cities for October, this year and last, together with percentage changes, are shown in the following table:

<table>
<thead>
<tr>
<th>Group</th>
<th>October</th>
<th>October</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>New England</td>
<td>$3,831,057</td>
<td>$2,939,449</td>
<td>+ 31.1</td>
</tr>
<tr>
<td>Middle Atlantic</td>
<td>$4,124,950</td>
<td>$1,884,982</td>
<td>+130.7</td>
</tr>
<tr>
<td>South Atlantic</td>
<td>$6,034,210</td>
<td>$4,681,950</td>
<td>+32.0</td>
</tr>
<tr>
<td>East Central</td>
<td>$7,787,062</td>
<td>$7,749,062</td>
<td>+0.5</td>
</tr>
<tr>
<td>South Central</td>
<td>$4,999,091</td>
<td>$3,757,155</td>
<td>+37.4</td>
</tr>
<tr>
<td>West Central</td>
<td>$2,880,000</td>
<td>$2,012,120</td>
<td>+44.2</td>
</tr>
<tr>
<td>Mountain</td>
<td>$1,066,102</td>
<td>$611,080</td>
<td>+68.8</td>
</tr>
<tr>
<td>Pacific</td>
<td>$3,097,500</td>
<td>$1,616,102</td>
<td>+91.1</td>
</tr>
<tr>
<td>Total U. S.</td>
<td>$55,133,039</td>
<td>$37,891,122</td>
<td>+44.2</td>
</tr>
</tbody>
</table>

The dollar volume of building permits during each month of 1934 has shown considerable increase over the corresponding months of 1933. This has resulted in an estimated building outlay for the first ten months this year amounting to $477,466,315, against $299,805,958 last year. This was the largest for any similar period since 1931, and represented an increase of $93 per cent above the corresponding ten months of 1934.

MODERNIZING COMPETITION

In the recent contest conducted by The Architectural Record, with Kenneth K. Stowell as professional advisor, prizes were offered by the Libby-Owens-Ford Glass Company in each of four classifications of modernizing old business buildings. J. Andre Fouilhoux was chairman of the jury, other members being Albert Kahn, Melvin T. Copeland, William Lescace, John W. Root, F. R. Walker, and Kenneth C. Welch.

The prizes were $1,000 for the first award in each of the four classifications, with $500 and $250 each, second and third prizes in each group. The first was a food-store modernization: G. Foster Harrell, Jr., New York, first; A. Waldorf and S. T. Katz, Brooklyn, second; J. R. Sproule, Seattle, Wash., third. Drug store modernization: M. R. Swicegood, New York, first; G. Foster Harrell, Jr., New York, second; N. B. Vassiliev, New York, third.

Apparel-shops modernization: Suren Pitfan and Maurice Lubin, New York, first; Lester Cohn, Chicago, second; R. L. Dubrul and H. J. Trivisonno, New York, third. Automobile sales and service station modernization: Alfred Claus, Knoxville, Tenn., first; Suren Pitfan and Maurice Lubin, New York, second; Isadore Shank, St. Louis, Mo., third. Forty other entrants received Honorable Mention and $50 each.

CHICAGO ARCHITECTURAL CLUB'S TERRA-COTTA WALL BLOCK COMPETITION

The Chicago Architectural Club announces the winners of the Terra-cotta Wall Block Competition, under the joint sponsorship of the American Terra Cotta Company and the Norwestera Terra Cotta Corporation. The two separate design problems required by the competition program called for the design of a one-story shop building with 100-foot frontage and also a two-story shop and office building with 50-foot frontage. The program required the use of machine-made terra-cotta blocks in any color, with an allowance of 20 per cent of terra-cotta areas for ornament.

The awards for the one-story shop building were as follows: First prize, Evald Young; second prize, George Recher; third prize, Roy Anderson; Honorable Mention, A. A. Zakhare­off; Mention, A. A. Zakhare­off; Mention, C. Koncev; Mention, G. W. Munson, Jr.

The awards for the two-story shop and office building were as follows: First prize, A. A. Zakhare­off; second prize, Herbert Rodde; third prize, Charles Koncev.

The jury of awards: Alfred Shaw, Andrew Reboli, Hugh Garden, Oscar Gross, and F. O. Turper-White.

FHA MODERNIZATION CREDIT

The bulk of the work being done under the Modernization Credit Plan of the Federal Housing Administration is concentrated on single-family residential property. A breakdown of loans reported during August and September to the Housing Administration from financial institutions making modernization loans indicates that 57.1 per cent of the total amount of money involved was spent on this type of property.

(Continued on page 16)
quarried block. The marble, after it had passed through the shop, was transformed under the direction of the sculptor, James Earle Fraser, into the gigantic figures which guard the Court's main entrance.

Aside from its rare beauty, the recently opened Courthouse at Washington is a striking example of large work in marble. No other American building has called for so many blocks of unusual size. It's to the credit of the Vermont quarries that the marble came through on time and went together without defect or delay.

VERMONT MARBLE COMPANY
PROCTOR, VERMONT

Branches in the Larger Cities

See Sweet's Catalog for Specifications and Other Data
"NEW AMERICAN" HOME WIRING SYSTEM

GENERAL ELECTRIC WIRING SYSTEM


GE
PRESENTING

THE G-E RADIAL WIRING SYSTEM

To Satisfy The Electrical Requirements of Your Modern Homes

On drawing boards of architects the country over, modern homes are being designed. Whether their architecture is modern or traditional, they have one thing in common . . . They are all-electric homes. Your clients demand electric kitchens, laundries, air-conditioning, and other labor-saving appliances. Perhaps they cannot install them all now, but they want all-electric homes as soon as possible. To do that economically and efficiently, the architect must carefully plan the wiring system, through which the electricity flows . . . consider the electrical requirements for present and future needs.

To help you meet such broad specifications, General Electric Engineers have developed a revolutionary new wiring system. It is being built into all the General Electric sponsored “New American” Homes now under construction throughout the country.

The New G-E Radial Wiring System

The G-E Radial Wiring System offers many advantages to home owners. It is simple in design and construction. It reduces voltage losses to the minimum, making the current paid for do useful work without waste. It provides new-type, efficient circuit breakers at convenient points throughout the house. These circuit breakers act also as switches and are so compact as to actually fit in standard outlet boxes. And when additions or changes are necessary in the future, they can be made easily and inexpensively.

The Radial Wiring System is based on the principle of sub-circulating branch circuits arranged in radial runs from circuit breakers. This decentralized distribution system eliminates the obviously poor practice of placing a large number of outlets on a branch circuit. It substitutes back feeders to convenient points throughout the house where it places controls for the radial circuits. It is adequate in copper, using wire sizes suited to modern loads. All details, of course, conform to National Electrical Code requirements.

In the schematic drawing, you can see exactly how the G-E Radial Wiring System functions. The specifications call for an all-electric home with major fixed appliances and a complete outlet and lighting system with modern switching. The wires marked A designate the service entrance cables going through the meter to the Totalizing Unit in the cellar. For all-electric homes, these should never be less than three No. 4’s. The circuit marked B is a sub-feeder to the range and water heater made up of not less than three No. 8 conductors properly fused at the Totalizing Unit. A limiter device in this circuit cuts off use of water heater while range is in operation. The sub-feeder circuits C of No. 10 wires lead from Totalizing Unit A to the Air-conditioning Panel from which the air-conditioning equipment is run.

The risers, labeled D consist of No. 10 conductors. They lead direct from the Totalizing Unit A to all Flush Branch Circuit Breakers. These Circuit Breakers or control units must be of suitable capacity to properly protect the wires which fan out into the devious circuits over the house. You thus see that we have 4 points of sub-control conveniently located around the house. These breakers are no more obtrusive than is the standard switch in the circuits of today. The home owner does not object to them because in their operation of protecting the circuit there is no fuse blowing — they are operated the same as a switch. The Circuit Breaker locations are centered to minimize all circuit lengths.

These sub-circuits of No. 12 conductors, labeled E are fanned out from the Circuit Breakers to the lighting or convenience outlets. Wherever possible, convenience outlets are circuited separately from lighting outlets. The kitchen circuiting is particularly noteworthy. Appliance outlets are protected by a 20-amp. Circuit Breaker served by one of risers D. From it, sub-circuits are fanned out to individual appliance outlets. Thus each of the No. 12 wires are subjected to the load of only one outlet. Such is the basic design of the G-E Radial Wiring System. Additions and modifications can be made to meet all conditions encountered in specific designs.

The Advantages

The sub-circulating of branch circuits and radial runs, which are characteristic of the G-E Radial Wiring System, is adequate from every standpoint. There are full provisions for fixed electrical appliances for lighting and convenience outlets. There is copper adequacy which prevents voltage losses in the system. Electricity is carried efficiently to appliances and outlets with minimum loss of current. Another important advantage is the ease of remodeling and extending the system in the future. The problem of breaking into a limited sub-circuit and its rerouting is simpler than where a long circuitous, concealed run must be revamped to suit changes.

This G-E Radial Wiring System utilizes only General Electric Wiring Materials. A booklet has been prepared giving detailed specifications of the new G-E Radial Wiring System as applied to one of the smaller “New American” Homes. Send for a copy of this manual at once. Write Section CDW-2210, Merchandise Department, General Electric Company, Bridgeport, Connecticut.
Architectural Drawing
A PRACTICAL HANDBOOK FOR STUDENTS AND OTHERS

The authors' aim in compiling the present work has been to condense within a reasonable scope, at a price within the reach of all students, such essential data as will form a solid grounding in this important and varied branch of architectural training.

There has hitherto been no satisfactory, concise text-book on the subject dealing with geometry from the point of view of the young architect, and it was with a view to remedying this deficiency that the volume was first conceived—gradually, however, the field was extended so that the book now covers the whole subject of Architectural Drawing.

With 96 pages of text, 8 pages of half-tone illustrations, and many line illustrations throughout, about 150 drawing figures in all. 6 x 8½ inches. Cloth, $3.75

Abstract Design
A PRACTICAL MANUAL ON THE MAKING OF PATTERNS

By AMOR FENN

Mr. Fenn's book is both constructive and analytical. It shows how the use of a few simple units may be elaborated indefinitely into original variants, and how even the most elaborate may be nearly always reduced to a judicious arrangement of quite simple motives. His long experience as a teacher has fitted him perfectly to produce what is the most concise yet comprehensive treatment of the subject of Abstract Design yet issued.

The author is a simple and explicit writer, and the thesis of the book is conveyed by a mass of comparative illustrations, nearly all of which have been specially drawn for the book by the author and assistants. A number of useful historical examples are reproduced photographically, and there are numerous diagrams and drawings of instruments, motives, methods, spacing, etc. Students, teachers, designers, craftsmen, and, in fact, all who have to do with the subject will find the book a wonderful repository of patterns, besides a succinct analysis of the fundamental principles underlying this type of designing, without a thorough understanding of which no really fine work can be evolved.

Price, $4.50

CHARLES SCRIBNER'S SONS, New York
For the floor of the Starlight Cafe of the S.S. Columbia, world’s largest cruise ship, Walter M. Ballard Co., interior decorators and architects, specified Sloane-Blabon Linoleum.

Here is what Walter M. Ballard Co. says of this installation:

"The Starlight Cafe is almost completely finished in white pigskin, including walls, furniture upholstery and outside of the bar. The ceiling is an atmospheric blue; the floor is black, highly polished Sloane-Blabon Linoleum. Draperies are black, white, brown and orange. On the dance floor the Sloane-Blabon Linoleum admirably stands the stress and strain of a boat at sea, which is a severe test. Sloane-Blabon was not used as a linoleum but as a medium of decoration."

The S.S. Columbia is but one of many recent outstanding Sloane-Blabon installations. We shall be glad to send you a list of others, together with linoleum samples and any information you may require. Write W. & J. Sloane Selling Agents, Inc., 577 Fifth Avenue, New York.
Wouldn't You Say

It Must Be Affording

Sir Christopher Wren

A Power of Amusement?

According to historian Kenneth Murchison, the last that Dwight James Baum heard from Sir Christopher Wren, he was redesigning the gates for St. Peter. Brick post ones at that. Which, although amusing of itself, isn't the instance had in mind.

What I am high-browning about is the considerable passel of our churches over here, not to mention all, William and Mary College, that are "attributed" to Sir Christopher. Not sure what "attributed" means, but Editor Saylor of Architecture assures me it is a good eight-cylinder word.

Of course, Inigo Jones would more than likely scoff at all such attributings. And as for Gibbs—well everybody knows he didn't look so kindly on keeping his light under any bushel either.

One authority—one of the many "undisputed ones"—claims Sir Christopher sketched William and Mary on the back of an envelope one night as he sat in Samuel Johnson's seat at the old "Cheshire Cheese." Coming away he carelessly left it on the table. A discerning waiter finding it, sent it straightway to friends at Williamsburg. There it fell into the hands of the College Building Committee, the chairman of which immediately "adopted it." It's a good yarn anyway.

As for our many churches claimed to be Wren's, when you come to consider the fifty or more he designed for London alone, and the thirty years he spent on St. Paul's, wouldn't you say he couldn't have had many Saturday afternoons off to make designs for us folks over here?

So have about made up my mind not to argue the matter any further. However, be that as it may, reckon it's easy enough to accept the claim that Virginia's Old Pohick and Christ's Church and a lot of others, are based on the same proportions and general design, as that famous one of Wren's in London, the name of which am free to admit, can't recall just this minute. But you know the one I mean.

One thing certain, Sir Christopher did a real brick job at Christ's Church at Alexandria where you recall, Washington and Lee both were Vestrymen, is proportioned after designs of Sir Christopher Wren. The same can be said of Old Pohick and many others throughout the South, Yes, and suspect up North as well.

Hampton Court and started the English appreciating brick as never before. That's a sure enough matter of history.

Always had kind of a notion that the hand brick mould Jefferson brought over from England was based on proportions by Wren. In any event, it's the same identical measurements, as the moulds in which we make our True Jefferson-size brick. The same for both our handmade and mould-mades. Furthermore, our brick are all born old. Wrinkled, crazed and a friendly time-toned color. No one so far has been discovered who makes anything like them. Maybe they can't. Plenty have tried. All of which are things worth your remembering.

Henry Garden
Brick Maker for Old Virginia Brick Co.
with Mr. Jefferson as a Guide.
Pipe . . . conduit . . . steel sheets . . . reinforcing bars . . . Youngstown's major contributions to architecture . . . Youngstown's major contributions to this building . . . Youngstown's major contributions to architecture, for the most part, unseen . . .

THE YOUNGSTOWN SHEET & TUBE COMPANY
Manufacturers of Carbon and Alloy Steels
Sand, Billet, Wire . . . Shapes . . . Tubing
HERE at last is a book on colour which recognizes the fact that the colour of the physicist—the beam of light broken by a prism—is an entirely different matter from colour as used by the painter and decorator in pigment form. For instance, there is no separate colour purple, nor blue-green, in the solar spectrum. Then too, the spectrum colours are colours in the raw, not colours with which to work.

Here is an abandonment of the solar spectrum primaries for a new series of twelve pigment primaries, which make easily understandable an intelligent use of colour.

Moreover, the twelve colours which form the pigment primaries are not theoretical, but are colours that may be bought "in the tube."

Nor is the author satisfied with making clear the various relationships between these pigment colours. He connects them up with the colours of woods, marbles, fabrics and the other materials used by the decorator, bringing them all on one palette. In all the literature of colour, there has been no such book as this, sound in theory, but also practicable in making easy a proper use of colour.

The volume consists of 92 pages, 8\(\frac{3}{4}\) by 12\(\frac{3}{4}\) inches, profusely illustrated in full colour. There are supplementary illustrations of colour schemes by well-known architects and decorators for various interiors. $7.50
This illustration shows one end of the Main General Reading Room of the United States Supreme Court building, Cass Gilbert Jr., architect. The paneling from floor to ceiling, including entablature, pilasters and carved woodwork, was executed by Matthews Bros.

**Paneling in the**

**UNITED STATES**

**SUPREME COURT BUILDING**

WASHINGTON, D. C.

Wood paneling throughout this magnificent building is American Quartered White Oak. All of it was built, finished and erected by —

**MATTHEWS BROS.**

**MANUFACTURING COMPANY**

**Fine Woodwork**

PORT WASHINGTON ROAD - MILWAUKEE, WIS.
FOR such an outstanding building as the U. S. Supreme Court, it was eminently fitting that VENETIAN BLINDS BY WILSON were selected.

A background of 60 years' experience assured a combination of durability, utility and good taste in keeping with the best traditions of architectural design.

Wilson is still making interior and exterior Venetian Blinds of a quality not obtainable elsewhere.

Wilson-engineered aluminum blinds 8 feet wide and 54 feet high in the International Building at Radio City, the largest and handsomest blinds in the world—

Wilson-designed Venetian Awnings in the U. S. Embassy at Tokio, Japan—

Such are just two of the many installations where the ultimate in perfection was obtained.

To assist the architect in giving that final touch which spells character, we are still at your service.

THE J. G. WILSON CORPORATION
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OFFICES AND AGENTS IN ALL PRINCIPAL CITIES
Premiated drawings in Modernize Main Street Competition suggest the effective use of Libbey-Owens-Ford Polished Plate, both plain and colored, Vitrolite, Tuf-Flex and Blue Ridge Figured and Wire Glass.

The architectural profession generally acclaims the Modernize Main Street Competition recently sponsored by Libbey-Owens-Ford one of the most interesting and helpful efforts of its kind in many years.

To make the results even more far-reaching, the 52 prize-winning designs have been published in book form and are now being distributed to logical prospects for modernizing. This should result in even more business for architects, for, while floor plans, specifications and other pertinent data are included, there are no working drawings and each store operator or real estate owner is urged to retain an architect in working out his individual problem.

A generous use of glass dominated practically all designs submitted by the 3,000 and more architects and designers who entered the competition. Since there is a Libbey-Owens-Ford product for almost every purpose where flat glass can be employed, architects specifying it are assured of one undeviating standard of higher quality throughout. The L·O·F label on every light guarantees your client's satisfaction, as well as your own. Look for it. It is advisable to instruct contractors and builders to leave the labels on until final inspection has been made.

LIBBEY - OWENS - FORD GLASS COMPANY . . . TOLEDO, OHIO.
ARCHITECTURE

GEORGIA MARBLE

UNITED STATES SUPREME COURT BUILDING
WASHINGTON, D.C.

David Lynn, Architect of the Capitol
Cass Gilbert
Cass Gilbert, Jr.
John R. Rockart
Architects

View
in court yard looking toward Supreme Court Room

This is one of four similar court yards. The four walls of building forming these courts are faced with
WHITE GEORGIA MARBLE

THE GEORGIA MARBLE COMPANY - TATE - GEORGIA
1328 Broadway   NEW YORK
Bona Allen Bldg.   ATLANTA, GA.

THE BULLETIN - BOARD Continued

(Continued from page 4)

Next in line is other residential property, including apartment houses, hotels, and similar structures. The amount spent on these is 24.7 per cent of the total. The amount being borrowed for the improvement of retail stores is 7.8 per cent; that going for the improvement of commercial property, 3.4 per cent; for industrial property, 2.5 per cent; and for institutional property, 2.7 per cent. The remainder of the money, 2.8 per cent, is going for the modernization and repair of miscellaneous property not falling within the above classifications.

FHA APPOINTMENT

HOWARD LELAND SMITH, of New York, has been appointed chief architect of the Federal Housing Administration, succeeding F. Leo Smith, who died recently.

Howard Leland Smith is a graduate of Carnegie Institute of Technology. Returning to the United States after service in France, Mr. Smith entered the architectural offices of Cass Gilbert. In 1921 he opened his own office, and was made consulting architect for the Hudson River Bridge Company; he also holds the honorary position of Advisory Architect of the National Council on School Building Problems in America.

A. S. T. M.

ON the recommendation of a number of standing committees of the American Society for Testing Materials, there has been approved for publication as tentative, twenty-eight new proposed standards and fourteen approved revisions in existing tentative specifications.

Recommendations on new standards were submitted by committees functioning in the following fields: steel, iron-chromium-nickel and related alloys, copper and copper alloys, cement, hollow masonry building units, paints, petroleum products, road and paving materials, textile materials, methods of testing.

Architects will be interested in the recommendations of Committee C-10 on Hollow Masonry Building Units, a revision involving the tentative specifications for structural clay load-bearing wall tile, which provides for the inclusion of the following:

"Where tile is used in interior construction or as back-up for exposed walls with a facing of 3 inches or more of stone, terra-cotta, brick or other facing, the requirements for average and individual maximum absorption shall be waived unless otherwise specified by the purchaser."

AMERICAN WATER COLOR SOCIETY EXHIBITION

THE Sixty-ninth Annual Exhibition of the American Water Color Society will be held in the galleries of the Fine Arts Society, 215 West 57th Street, New York City, from Friday, January 3, to Tuesday, January 21, inclusive.

Exhibits received at 210 West 58th Street, New York, on Saturday, January 23.

(Continued on page 24)
Economy, comfort, convenience! Those are the results usually sought when automatic temperature control apparatus is considered. Incidentally, those are the results attained when the regulation equipment is Johnson. But beyond that, there are many instances where accurate dependable control of temperature and humidity is essential for protection. Museums, art galleries, and certain industrial processes are examples of such applications, where exhibits and products must be protected against insufficient or excessive temperatures and humidities. . . . In the beautiful Joslyn Memorial, a gallery of valuable art treasures, some 120 Johnson dual thermostats operate Johnson valves on 244 direct radiators. A comfortable temperature during occupancy periods and a safe, reduced temperature at other times! Humidifying and ventilating are Johnson controlled, as well.

JOHNSON SERVICE COMPANY: Milwaukee, Wis. and Direct Branches in all Principal Cities
Service Records show where to SPECIFY Wrought Iron

Office of HOLLIS FRENCH

Pipe services differ—no one pipe material will fit all conditions. Substituting some other material for the job wrought iron has done so well for years is an expensive mistake. Neither should fine buildings be made a "testing ground."

Back of every pipe material should be a service record showing where it should be specified. A review of the specifications written in the offices of leading architects and engineers will show you that wrought iron is used in those services where its long, satisfactory record proves it best and most economical.

Examples of "Pipe Prescription" from the OFFICE OF HOLLIS FRENCH Boston

Illustrated are examples from the office of Hollis French where specifications are based on service records—we call this engineering procedure, "Pipe Prescription."

Specifications from the offices of other leading architects and engineers covering practically every section of the country are available through a Byers engineer or our Engineering Service Department at Pittsburgh.


BYERS GENUINE WROUGHT IRON PRODUCTS

Pipe - Welding Fittings - Rivets - Special Bending Pipe - O.D. Tubes Plates - Sheets - Culverts - Forging Billets - Structural - Bar Iron

Specify Byers Genuine Wrought Iron Pipe for your corrosive services and Byers Steel Pipe for your other requirements.

- Genuine Wrought Iron was specified for all waste lines and vents, gas and refrigeration pipes and heating supply and return lines in John W. Winthrop House—Harvard University.
- In Founders Hall, Wellesley College, Genuine Wrought Iron was specified for heating supply and return lines, and refrigeration lines.
- Genuine Wrought Iron was specified for main water supply, hot, cold and drinking water, sterilizer lines, waste lines and vents, fire and refrigeration lines; also heating supply and return lines in the Buffalo City Hospital.

• Genuine Wrought Iron was specified for all waste lines and vents, gas and refrigeration pipes and heating supply and return lines in John W. Winthrop House—Harvard University.
Frontispiece: The United States Supreme Court Building, West Front

The United States Supreme Court Building

By Cass Gilbert, Jr.

Recent Developments in Dwelling Construction

(CONTINUED FROM THE NOVEMBER ISSUE)

By the Technical Division, FHA

The Reflecting Pool

By Edwin Bateman Morris

Book Reviews

Better Practice: Electrical Work

By W. F. Bartels

The Editor's Diary

PORTFOLIO: SHUTTERS AND BLINDS

SOFTWARE: BUSINESS OF ARCHITECTS

When changing addresses, subscribers must give four weeks' advance notice and both their old and new addresses.

ARCHITECTURE is published monthly, appearing on the 25th of the month preceding date of issue. Price mailed flat to members of the architectural and allied professions, to any address in the United States, $3 per year in advance; to all others, $6; add $1 for Canadian postage and $2 for foreign postage. Single copies, 50c. Advertising rates upon request. Entered as second-class matter, March 30, 1900, at the Post-Office at New York, N.Y., under the Act of March 2, 1879. Copyright, 1935, by Charles Scribner's Sons. All rights reserved.

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GEORGE R. S. SCHIEFFELIN, TREASURER

JOHN HALL WILLIAMS, SECRETARY

NEW YORK: 597 FIFTH AVENUE AT 48TH STREET

THE BUILDING TREND

By E. L. Gilbert

SUBSTANTIAL gains in all three main classifications of building are shown by the October figures for the whole United States. Residential building, higher by more than 100 per cent compared with last year, leads the gainful showing for all branches of the industry. Commercial, industrial and related work revealed substantial improvement over both last year and last month, while heavy engineering, public and miscellaneous projects—classified as "Other Work"—increased slightly over last month's report. Total construction, approximately 50 per cent greater than for October, 1934 or 1933, reached a new high for the six months' period at $2.29 per capita. The sustained upward movement in all branches of building construction at this season indicates, perhaps, an exceptionally strong background for 1936 volume, especially in privately financed construction.

MONTH OF OCTOBER

(Dollars per capita, entire U.S.)

<table>
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<th>CLASSIFICATION</th>
<th>1933</th>
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Building Material Prices,
U.S. Dept. of Labor,
first week in November

* Index number based on 1926 = 100.
The windows and the window trim are of durable Bronze

in the United States Supreme Court Building

In the new United States Supreme Court Building, bronze was used for the windows and the ornamental trim around them. Bronze...ever popular...implies a stately dignity that defies time.

In fabricating this metal work, General Bronze Corporation utilized 175,000 pounds of Anaconda Extruded Shapes and Anaconda Drawn Shapes.

From the standpoint of lower original cost and of metal work that is always up to date, Anaconda Extruded Bronze in standard shapes eliminates die cost and offers almost endless possibilities for the faithful execution of even the most original designs. Thousands of extruded shapes may be had in Architectural Bronze and Nickel Silver, while Copper and various Copper alloys are available in a wide range of standard drawn shapes.

... BUILT FOR ALL TIME.—The Building Committee held to the view that the masterpiece of the late Cass Gilbert "was to be built for all time—as men know how to build." Significant, then, was the use of Anaconda Red-Brass Pipe in the CARRIER air-conditioning system, installed by the Riggs-Distler Company of Baltimore. Anaconda Red-Brass Pipe is the most durable obtainable at reasonable cost. General Contractor: George A. Fuller Company.

Anaconda

EXTRUDED SHAPES

THE AMERICAN BRASS CO.
General Offices: Waterbury, Conn.
Offices and Agencies in Principal Cities
UNITED STATES SUPREME COURT BUILDING

The west front from Maryland Avenue.
Sculpture in the pediment, by Robert Aitken

ARCHITECTURE
DECEMBER, 1935
The UNITED STATES SUPREME COURT BUILDING

By Cass Gilbert, Jr.

A attempt to describe the beauty of the new Supreme Court Building in Washington, D.C., would require the experience and knowledge of a master writer, just as the production of the building required the experience and ability of a master designer. Only through illustrations can the beauty be depicted.

In 1928, an Act was passed by Congress providing for a Supreme Court Building Commission. The late Chief Justice William Howard Taft was the first chairman, and upon his death he was succeeded by the present Chief Justice, Charles Evans Hughes. The other members of the Commission are Associate Justice Willis Van Devanter, Senator Henry W. Keyes, former Senator James A. Reed, Richard N. Elliott, former Chairman of the House Committee on Public Buildings and Grounds, now Assistant to the Comptroller-General, Fritz G. Lanham, Chairman of the House Committee on Public Buildings and Grounds, and David Lynn, Architect of the Capitol, who is Executive Officer of the Commission.

The first contract awarded by the Commission was for the design, which included a model to be made in plaster to show what the building would look like. This contract was awarded to Cass Gilbert.

There were many discussions, during the course of making the designs, regarding the location, and the site finally selected is somewhat triangular in shape bounded by First Street, N.E., on the west side, Maryland Avenue on the north side, Second Street, N.E., on the west, and East Capitol Street on the south. The main axis of the building is located on the continuation of the east-west axis of the pediment of the Senate Wing of the National Capitol.

After the type and style of the building had been determined and the site had been selected, a subsequent contract was made by the Supreme Court Building Commission for architectural services, which was signed by Cass Gilbert, Cass Gilbert, Jr., and John R. Rockart. Work was started in 1931, and the building is now virtually completed. On October 7 the United States Supreme Court held its first session in its new home.

As yet the site lacks trees and other planting to give the building its proper setting, but landscaping plans in contemplation give promise that this lack will be remedied.

In the structure itself, Mr. Gilbert developed an adaptation of the Greek classic, with an impressive approach to the building from the west. A short flight of steps, between white marble candelabra, leads to a broad terrace upon which are two monumental flagpoles with sculptured bronze bases.

Dominating the west façade and framing the main entrance facing the Capitol is a double row of sixteen white marble Corinthian columns supporting a sculptured pediment.

Inside this west entrance one enters the Main Hall, monumental in its proportions, lined on both sides with white marble columns against white marble walls. It leads directly east on the main axis through an entrance vestibule to the massive doors opening into the Supreme Court Chamber. The location of the Chamber itself, in the very heart of the structure, symbolizes the
importance of the room in which the Court presides. Contrasted with the old Court Room in the Capitol, the new chamber has 60 per cent more floor area with seating for 238 spectators—about 10 per cent more than in the former quarters. The Chamber, which is 82 by 91 feet from wall to wall, and 44 feet high, is dominated by the Bench at the east end facing the entrance, and by twenty-four Ionic columns—four flanking the entrance to the room, four directly behind the Bench, and two rows of four columns each on either side. Although the Court Room is nearly in the center of the building, it lacks no sense of openness and light, for the side colonnades open upon courtyards.

Just in front of the Court Room a transverse corridor divides the building from north to south. On the west, the building is devoted to offices to which the public may have constant access. On the east, the building is given over to the Court Room itself and to offices and conference rooms of the Justices, to which portion of the building the public is not admitted except on specific business. On the first floor these suites of offices for the Justices surround the east half of the Court Room. In the center, immediately in the rear of the Supreme Court Room, is the suite of offices occupied by the Chief Justice, together with a conference room in which the members of the Court meet for their private deliberations. Each Justice has a suite of three rooms, one of which is his private office, a room approximately 20 feet square, with walls finished in American oak from floor to ceiling and with a wood-burning fireplace at one end. Another room of the suite is for the secretary to the Justice, and the third room is for his law clerk. There is a toilet, lavatory, and shower for each suite.

In addition to the conference room of the Court, which adjoins the suite of the Chief Justice, there are two other large conference rooms in proximity to the Justices' suites, but for the present these will probably be seldom used. These rooms are designed for international conferences or arbitrations.

One particularly interesting feature of the plan lies in the fact that the Justices are assured of complete privacy, not only in the building, but upon their arrival and departure. Their automobiles proceed directly down a ramp into the basement and are there parked, while the Justices ascend in private elevators to a corridor closed to the public, connecting all the suites and the Court Room itself. Their dining-room is on the second floor.

The building has the traditional classic mass of a comparatively low building, yet there are four floors and a basement. On the first floor, reached by the monumental approach from the west, there is the Court Chamber, the Justices' suites, offices for the Attorney-General and Solicitor-General when they come to court, conference rooms, a robing room, rooms for the Clerk, the Marshal, and rooms for various other purposes.

On the second floor the law library is housed, with its stack and document rooms, the librarian's offices, dining-room, court reporters' offices, conference and reading-rooms for members of the bar. For the first time, the library of the Court is brought together under one roof. Hitherto the many volumes that comprise it have been scattered over Washington. Some of them have been in the basement of the Capitol, some in the Office Building of the House of Representatives, and some in the Congressional Library. Incidentally, there is provided an underground passage leading to the Congressional Library, together with pneumatic tube service, providing quick access to information which the Law Library may not afford.

On the third floor are large reading-rooms, with open shelves, together with further rooms for the use of the Bar, and several conference rooms.

The fourth floor is reserved for future stack rooms.

On the ground floor are the storage and filing rooms, the cafeteria and kitchen, rooms for minor officers and employees of the Court, and space for the press.

For the first time, at the insistence of the late Chief Justice Taft, adequate provision for the press is made in the Court Room and below stairs. Directly in front of the Bench there is a space for as many as six press association members. Each correspondent has a chair and a table, to which latter is attached a pneumatic tube leading to a space reserved for the press on the ground floor. Obviously, this pneumatic-tube service had to be specially designed for absolute noiselessness and, incidentally, the messages it carries are outgoing only. Correspondents of individual newspapers have provided for them three tables with four chairs each, located be-
tween the columns at one side of the room, and there is similar pneumatic-tube service here. On the ground floor, adjacent to the wire service, are two press rooms, one for correspondents of the press associations, the other for correspondents of individual newspapers. Both are equipped with chairs, tables, lounge furniture, lockers, telephones, and bookcases.

Public buildings usually are profusely inscribed, giving assurances of one kind or another to various constituencies. In the Supreme Court Building there are only two brief inscriptions: one over the main entrance on the west, \textit{EQUAL JUSTICE UNDER LAW}; and, over the center of the east façade, \textit{JUSTICE, THE GUARDIAN OF LIBERTY}. Originally an inscription had been contemplated for the Court Room, in accordance with the tradition that similar rooms in great public buildings usually provide for inscriptions upon the walls. None has been written for the Supreme Court Room. The Court speaks for itself.

In accordance with the ruling thought that the home of the Supreme Court must be as enduring as man can build it, the entire exterior is of white Vermont marble, the pieces varying in size from two hundred pounds to sixty-six tons, and averaging nearly a ton apiece. These larger stones appear in the sculptured pediments. In the courtyards Georgia marble has been used.

The marble for the interior of the building is from Alabama, with the exception of the marble in the Supreme Court Room itself. Here, because of Mr. Gilbert's desire for a warm color tone, Ivory Veine was used for the walls and frieze, and Old Convent Quarry Siena marble was used for the columns. Mr. Gilbert personally went to the Old Convent Quarry and examined many of the drums for these columns to be sure that only the suitable material might be selected.

In the larger offices the walls are panelled in American white oak, and the floors are of the same material. In fact, all the materials, with the exception of the marble in the Supreme Court Room itself, are American, and even the imported materials were finished in the United States.

Congress appropriated for the general construction of the building the sum of $9,740,000. Construction cost was approximately $9,000,000. On the authorization of Congress, the furniture and furnishings of the building were bought out of the unexpended balance, and the total cost of the building ready for occupancy was more than $500,000 under the original appropriation for construction alone.

How well Mr. Gilbert interpreted the United States Supreme Court in his design and decoration of its new home was expressed by Chief Justice Hughes to his colleagues on the Building Commission in deplothing the death of Mr. Gilbert in 1934: "The country is deeply indebted to Mr. Gilbert for what he has done in the United States Supreme Court Building, the last monumental work of his career. The building will be a lasting memorial to his great ability which has placed him in the front rank of architects not only of this country, but of the world."

A preliminary study to show the relation between the Supreme Court Building and the Library of Congress to the south.
Plan of the third floor, given over largely to the General Reading Room, open to members of the Bar. In the Special Library at the east end a collection bequeathed by Senator Gerry of Rhode Island is housed.

Below, plan of the first floor

Below, plan of the ground floor
Plot plan and first floor. The east-west axis extending from First to Second Streets is a continuation of the axis of the entrance to the Senate wing of the Capitol. On the first-floor plan it will be noticed that the Supreme Court Room is the heart of the whole composition, flanked on either side by a courtyard and reached from the main entrance on First Street through the impressive Memorial Hall.

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Three from among the many preliminary studies of the front elevation, in pencil on tracing paper. It will be noticed that on the upper one of these there was a flat dome provided in the composition. Each successive step in the study is marked by simplification and by the omission of decorative detail; the acroteria of the pediment, for example, disappeared before the building was erected.

* ARCHITECTURE *

DECEMBER, 1935

306
A detail of the south side of the west portico from the terrace. Incidentally, the marble paving of this terrace and the others is laid with an open joint of one-quarter inch between the slabs, to provide for expansion and contraction.
Looking straight up into the ceiling of the west portico. White Vermont marble is used throughout the exterior of the building—Imperial Danby

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One of the marble candelabra flanking the west front entrance steps. Modeled by John Donnelly, Jr., in collaboration with the architect.
One of the preliminary studies for a corner of the wings. It was felt that the slope of the tile roof would approach closely the angle of the pediment in appearance when viewed from the street. Compare this with the photograph of the wing on the facing page.
The south entrance on East Capitol Street, leading to the ground floor. The Maryland Avenue entrance opposite is identical.

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It is interesting to compare this study for the rear or east elevation with the photograph opposite. The photographer has caught the shadows at almost the same angle as those mechanically cast in the drawing.

A later study of the lower portion of the rear elevation, widening the steps and inscription on the base. Compare with the photograph, which indicates a later decision to omit the inscription.
The east end of the main building. The sculptured pediment is the work of Hermon A. MacNeil.
A detail of the main cornice where a wing joins the main structure. The photograph is taken from the roof of the wing looking over one of the courts.
One of the flagpole bases on the west terrace—sculptured in bronze on a marble base. Modeled by John Donnelly, Jr., in collaboration with the architect.
A detail of the urn, steps, and balustrade flanking the east entrance. Urn modeled by John Donnelly, Jr., in collaboration with the architect.
The east end of the main building, showing the juncture of the lower portion with the higher, taken from Second and A Streets, N.E.

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A preliminary study in pencil for the elevation of a rear courtyard. Behind the free-standing columns of Georgia marble is the Supreme Court Room.
In the southeast courtyard, looking toward the Supreme Court Room. There is an indication on the plan (page 305) that a simple treatment of planting was contemplated in these courts.
A preliminary study in pencil for the wall of the front portico. In front of it there is a double row of columns. Here again the projected inscriptions were finally omitted.

A close-up detail of the bronze doors in the west front, as shown on the facing page.

Photograph by Louis H. Dreyer.
The bronze doors of the main entrance on the west front. Modeled by John Donnelly, Jr., in collaboration with the architect.
Preliminary studies for Memorial Hall—the main approach to the Supreme Court Room

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Looking directly up to the ceiling immediately in front of the entrance to the Supreme Court Room. The marble throughout the interior, with the exception of that in the Supreme Court Room, is Alabama marble.
In the main entrance hall, first floor. At the left, a main transverse corridor extends across the building.
A general view of the Memorial Hall from the entrance door at west. At the far end is the entrance to the Supreme Court Room. The ceiling decoration is by Paris & Wiley.
A preliminary study for the Supreme Court Room. Here again the idea of an inscription on the frieze of the order has been abandoned.
A preliminary perspective of the Supreme Court Room. The drawing was made by J. Floyd Yewell.
Models of the sculptor, Adolph A. Weinman, for the frieze in the Supreme Court Room. At top of page, "Majesty of the Law and Power of Government" (over the east wall above the Bench). Next below, "Triumph of Justice with Divine Guidance." In the center, a detail of "The Lawgivers." Below, two panels, "The Lawgivers."

Photographs by De Witt Ward
The Supreme Court Room, looking toward the Bench on the east side. In the furnishing of the room, draperies have been hung behind the columns at the rear of the Bench. The room is dominated by twenty-four Ionic columns of Light Siena Old Convent marble; walls are of Ivory Veine. The column bases and a border running around the walls are of darker marble, Levanto. The sculptured frieze is the work of Adolph A. Weinman.

A detail of the ceiling in the Supreme Court Room. Decoration by Paris & Wiley.
A detail of one of the two self-supporting marble staircases of oval form, running from top to bottom of the main central portion of the building.

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331
Details of two portions of the ceiling in the Main General Reading Room on the third floor

ARCHITECTURE

DECEMBER, 1935

332
In the Main General Reading Room the walls are of American white oak. Ezra Winter has brought to this room a ceiling rich in color.

Another detail of the ceiling in the Main General Reading Room.
Special Library on the third floor, east end. Walls are of American white oak. The ceiling, decorated by Mack, Jenney & Tyler, is in shades of brown to harmonize with the oak and gilded ornament.

One of the two main conference rooms on the first floor on the north side of the building. Woodwork is slightly darkened American white oak. The ceiling, decorated by Angelo Magnani, has dull gold rosettes in coffer soffits of varying blue and old rose.
Recent Developments in Dwelling Construction

Technical Report No. 1 (Continued), as Prepared by the Technical Division, Federal Housing Administration

Wood

In spite of its cheapness and ease of handling, the advantages of wood for more complete factory fabrication would not seem to have been realized.

Ready-cut wood frame houses have been on the market for a number of years. These are usually ordered from a catalogue or plan and the seller ships all the wood (and in some cases other materials also), with each individual piece cut to length and size. While a large number of such houses have been built, their market has been mainly in rural localities and small towns and villages where the immediate supply of building materials and labor is small.

Factory fabricated panels have been largely used for portable buildings. These generally follow the usual wood framing methods. Various modifications of this idea are coming into use for factory fabricated houses.

In Sweden, the City of Stockholm, in its housing development, uses large factory fabricated panels, one and two stories high, consisting of two-inch-thick tongue-and-groove planking, wood-chip insulation, sheathing paper, and siding, the panels being made up complete with windows and doors.

While large sheets made of pressed wood pulp, fiber, or of plywood are finding increasing use, as interior finishes, the new technique has, until quite recently, generally neglected the use of wood. Now, with the development of thermosetting artificial resin glue and hot presses especially adapted to its use, plywood and other laminated wood construction can be made more durable and weather resistant.

Structural units made of plywood glued to opposite sides of a wood frame develop much greater strength than nailed-up panels having the same size members. Such construction utilizes the "stressed covering" principle used in aeroplane construction, and permits of much lighter construction. Such units in large panels are used for the structural enclosures of buildings, forming, either in connection with steel framing or without other framing, the walls, floors, and roof with the plywood acting as interior and exterior finished surfaces if desired. Insulation is usually included within the units.

Structural units may also be formed of plywood panels and strip-steel channels, the flanges of the channels being restrained in grooves in the edges of the plywood.

The objection raised against wood is that, unless treated, it is combustible, subject to attacks by rot and termites, and it shrinks and warps. Much work is being done today in the field of wood preservation to overcome these objectionable features, but the durability of such treatments and of the synthetic resin glues remains to be proven.


Forest Products Laboratory, U. S. Department of Commerce, Madison, Wis. Structural enclosure of glued-up plywood structural units, joined by splines. Experimental.

Haskelite Manufacturing Corp., 208 West Washington Street, Chicago, Ill. Structural enclosure of plywood. Inner and outer walls, floors, and ceilings held together and stiffened by 18-gauge strip-steel channels and "I"s" whose flanges fit into grooves in the edges of the plywood sheets.

Hodgson Company, Boston, Mass. Structural enclosure of panels made of wood frames covered with a wood finishing material on one side and insulation board on the other. Additional insulation and waterproof paper may be included in the panel. A large number of such houses built over a considerable period of years.

Jasper Wood Products Company, Jasper, Ind. Structural enclosure of glued-up plywood structural units, bolted together.

Concrete

Many systems have been developed using precast concrete units, usually reinforced. They may be divided into certain general classes as follows:

- Systems using bearing units laid up as a masonry wall—usually without reinforcing.
- Systems using thin slab units—up to a few feet long or high—secured to steel, or poured-in-place or precast concrete studs. Similar construction is used for floors.
- Systems using large thin reinforced panels—a story high and any width—sometimes an entire wall. Similar construction for floors.

In the two latter systems, flanges are often cast on the units, and these sometimes serve as a form for poured-in-place concrete studs or columns, or act as studs or joists themselves.

Other systems use stucco or concrete applied to metal lath secured to a steel frame or reinforcing members, or to poured-in-place concrete studs or columns, beams, and joists.

The Portland Cement Association’s “Report on Survey of Concrete House Construction Systems” contains extensive lists and descriptions of concrete systems, and only those systems not included in that report are listed here.

Dextone Company, New Haven, Conn. Precast slabs resting on precast joists.

John J. Earley, 2151 G Street, N.W., Washington, D.C. Large precast wall slabs fastened to poured-in-place studs. The concrete is made from colored aggregates with the aggregates exposed on the outside surface as a decorative finish. Two houses built near Washington, D.C.

Goldsmith Metal Lath Company, Cincinnati, Ohio. Panels of metal lath secured to metal pans which act as forms for poured-in-place columns, beams, and floor joists and slabs.

Stucco and plaster is applied to the metal lath.

Haco Construction, Harry Cole, 492 West Pine Boulevard, St. Louis, Mo. Small precast slabs with steel channel flanges cast in the slabs, bolted to steel framework.

Insulrock, John F. Downing, 150 Hughes Avenue, Buffalo, N.Y. Precast slabs for inner and outer walls and ceilings used as plaster and stucco base and secured to precast studs and joists.

Makeco, Matthews & Kenan, Smith-Young Tower, San Antonio, Tex. Double bearing walls of large thin slabs tied together.

Arthur H. Olmsted, Rye, N.Y. Precast studs around which concrete exterior wall is poured and to which interior finish is fastened.


Gypsum and Other Plastics

Precast gypsum units have been made which are generally similar to concrete units. Gypsum, however, when used in an exterior wall or roof, must be covered with a waterproof finish of other material.

Gypsum is also cast into thin sheets or boards for wall finishes and as a backing for plaster.

Boards or slabs made of insulating material coated with plastics of various kinds, such as asbestos cement, are used for curtain walls, the plastic acting as interior and exterior finish.

Thin sheets of synthetic resinous materials are used for wall finishes.

Reinforced Brick

Steel reinforcing rods are used in the brick joints to increase strength and make possible the use of thinner walls.

One system uses precast brick panels one brick thick, made on the site by laying the brick and reinforcing rods in a form laid horizontally on the ground and pouring mortar in the joints.

In another the brick are laid up in the wall with reinforcing rods in the joints. Reinforced brick columns, beams, and curtain walls are thus formed.

Holsman & Holsman, 140 S. Dearborn Street, Chicago, Ill. Reinforced brick walls made of precast panels.


Foreign Practice

Great Britain


Athon Steel Houses, Ltd. ½-inch steel plates with angle and tee frames. About 650 such houses built.

Braithwaite and Company, Telford System, West Bromwich. ¾-inch steel plates on wood frame.


France


Société de Construction Multicellulaires, Paris. Panels of cellulose, asbestos, and silica on corrugated steel box sections, filled with sawdust insulation with interior panels of sawdust and binder.


M. M. Mopin. Exterior walls of precast reinforced concrete panels secured to steel frame.

Germany

Heinrich Blecken, Duisburg. ¾-inch steel pans and steel framing. Over 700 houses built.

United Upper Silesian Iron Works Company. Steel sheets on steel frame.

The Reflecting Pool

Ewen Bateaman Norris

IN the August Reflecting Pool I made what I thought was a very clear statement in regard to the matter of architectural huts dressed up with modern improvements to give them the semblance of civilized homes. I have reread it—a painful process—and I discover that I said I simply did not approve, either from a sociological or from an architectural standpoint, of houses so compact and so tiny that they were neither comfortable, nor decently private, nor in any way suitable for the functions and purposes of a home.

But what do I find? They are still going on building such houses. A news note furnishes the information that in a certain city five men erected the entire steel frame for a residence complete in thirteen hours.

There is another news item which furnishes the information that one of the mail-order firms offers a prefabricated house that can be erected and finished in two weeks. This baby-grand house is not much for size, or number of rooms, or place to receive guests, but it has steel kitchen cabinets, automatic hot water, winter air conditioning, automatic oil-fired heating, complete with humidifying, filtering and forced circulation of air. Just as beautifully equipped as a Pullman car and about as spacious!

It is difficult to know what to do about the matter. When one takes all the trouble to explain that houses ought to be bigger, then there they go making them smaller. Sometimes I think people don’t understand what they read.

About ten years ago, when in Savannah, a casual acquaintance explained that the only improvement in that city in the previous twenty years was a shuttle-car that ran from the street-car line to the boat. I hope that is true. At any rate, they have now discontinued the shuttle-car, which lends an air of verisimilitude to the item.

Savannah is really one of the most comfortable towns. I don’t know how they keep it just like that. It feels as though its citizens had decided that they would like to have it always be like Savannah, and not like any other town.

You walk through a square at an intersection of streets, not formally planted (and with signs “Grass! Please!”) but gently shaded and arranged so that it is easier to go through it than not. You have the pleasant feeling of having been invited to walk through someone’s private grounds.

Then there is a bit of city and presently another square at an intersection of streets, somewhat like the first square. There is no statue to kill its sylvan aspect—no monument to the Second Division or similar cemetery reminder. I think it would be a good idea for these Resettlement fellows who are building up cities to go down and look around Savannah.

I went there to see a Federal building in which a scheme of wall facing had been used that is a very effective Yankee way of getting something really expensive for a relatively small outlay of money.

If you are required to build a marble building, as in the case of this Savannah structure, for the price of a limestone one, make the ashlars of marble and the ornamented work of terra-cotta finished to match marble.

It is the scheme Hornbostle used in the New York State Educational Building, but it is still good—gets better with every trial perhaps. The Savannah building has been constructed for four or five years and it requires the utmost concentration and use of technical experience to make certain which is the terra-cotta and which is the marble.

Care has to be taken in using the two materials in juxtaposition not to let any weight be transferred from the marble to the terra-cotta, as very unfortunate things result, such as chunks of terra-cotta bouncing down to the sidewalk. This did happen in the case of the Educational Building, and to a minor extent at Savannah, in places where the joints were filled solid or some of the lesser steel did a better job of shrinking than the terra-cotta.

I think it would be an excellent idea, next spring or next fall, for a lot of us to jump on a boat and go down to Savannah and plant a tree in a selected spot in one of the squares to commemorate the end of the Depression.

+++ A nice young fellow, with a degree in architecture from one of the foremost universities, came to see me the other day and made the statement that while he was more than glad to have the job he did have, working alone on minor architectural work for a large institution, he felt that he was stagnating, out of touch with his fellow architects, and making no professional progress whatsoever.

I hastened to tell him, though he could by no means agree with me, that he was, on the contrary, having some of the best months of his educational career, since he was in a position where he could make drawings and see the drawings put into execution, where he could get the three-dimensional feel of structural growth.

This is especially true now with the bacillus modernus floating about ready to enter the system of any young unprotected person. The bacillus carries with it a high fever and a frenzied urge toward functionalism, which is a word that reads big to youth. The word is forward-looking and pregnant with change, but they are unable really to understand it because they have only the gossip and not the feel of function.

A man who wishes to live healthy with Moderne and even to thrive upon it must know functionalism and not merely converse about it. If he desires to prune out illogical forms of the past, he must know the logic of the present. He must have an outdoor knowledge of the qualities and erection possibilities of stones and steel sash, tile, marble, and terra-cotta. Moderne is not a thing that can be taught in the schools. When a man begins imposing in any art, he has to have the background, not the mere theory.
BOOK REVIEWS


It will be recalled that in 1934 three distinguished European housing experts came over, and, with Henry Wright and Ernest J. Bohn, visited nearly forty cities to study our housing problems. Over twenty-five thousand copies of a summary of their findings have been distributed. Here, however, is the complete report as made to the National Association of Housing officials.


This is not a skeleton specification, nor a list of selected trade names, nor an attempt to indicate the superiority of one material over another. It is a comprehensive check list, conveniently arranged with alphabetical and classification tabs, designed to be used as a reminder of items to be considered and also for final checking purposes against specifications, estimates, or bills of materials.


Professor Agard, who is in the Department of Classics at the University of Wisconsin, has interested himself in the sculpture of today which is directly related to buildings, rather than to sculpture which falls frequently in the line of classic, Renaissance, and Gothic prototypes. Professor Agard includes also some of the modern memorialors. In a word, the book concerns itself with the closer relationship of architecture and sculpture along the lines of work that is being done by such men as Lee Lawrie, Eric Gill, Rene Chambellan, Henri Bouchard, Hans Panzer, and others.


In these days when new alloys of steel are bringing into use a host of what are practically new metals, this volume is particularly timely and helpful. It is a scientific treatise dealing with the various grades of steel; the particular kinds of steel used for specific purposes; testing and properties of the metal; the working of steel; and many reference tables, definitions, and other concise information that will insure the volume an easily accessible place on the shelves of the architect's and engineer's working library.


A concise compilation of data for use in the design of concrete floor spans of various types, together with recommendations for live loads, tables of building material weights, etc.


A survey by The Studio of the arts in Soviet Russia; architecture, painting, sculpture, poster and cartoon, theatre, cinema, and handicrafts. To each section a Soviet authority contributes an article describing the changes that have taken place in these arts during the Soviet régime. The section on architecture makes clear the fact that every architectural production in the U. S. S. R. is now carried out in accordance with a unified general plan. Most of the new architecture, of course, consists of public buildings and residential groups. In this category of shelter, the Soviets neither build skyscraper tenements nor individual cottages, but rather several types of residential housing.
1—GENERAL

ONE of the truisms in the building trades is that "you find out mistakes at your own expense." Much of this useless expense can be avoided if electrical specifications are not copied verbatim from previous jobs. This does not mean that certain helpful general clauses should not be used, but the architect should try to visualize and then accurately describe the entire electrical work of the building.

The electrical contractor must be made responsible for turning on and off the current during construction. This will include turning current on for motors, pumps, and other apparatus and equipment. The electrician must be made responsible for all apparatus and equipment that he switches on; too often electricians will burn out motors, bearings, and other parts when not made responsible for them. The electrician must also be made responsible for the maintenance of temporary light and power, and the lighting of bridges if these are necessary. He must comply with the rules of the Electrical Code, as well as with the local ordinances. The architect should ascertain to what place the utility company brings in their service. He should inform the electrician whether or not the owner will provide a watchman. But even if one is provided, it should be decided immediately above the plate pierced with holes the size of the risers. The risers should be supported by regular hanging plates, while a small item in them.

2—SPECIFICATIONS

The architect should remember that low maintenance costs are the result of good wiring and good insulation. Too often the phrase is used: "The wiring shall be of sufficient size to carry the load intended for it." The architect should make it his business to find out what size is required, and call for it to be installed. The complete specification should be ready for the electrician when the job is first started. In many cases work is held up because lines that are to be buried in concrete cannot be placed because of lack of information. A good grade of wire should be called for in order that proper insulation may be obtained. If the job can afford it, it is more desirable that conduit work be used rather than the more common armored cable. The cable or conduit should be properly supported as called for in the code, and the heavy risers be supported by regular hang- ers. In running heavy risers in steel or concrete buildings, they may be readily supported by means of a plate pierced with holes the size of the risers. The risers should be joined immediately above the plate by a coupling which supports them. The plate may rest on the concrete of iron beam (Fig. 2A).

Transformers should be called for in place of the usual dry-cell batteries for bells, annunciators, etc. Flush plates, while a small item in themselves, should be ordered to harmonize with the room in which they are placed; there are many kinds available. Provision should be made for unit prices on work done and that not done, so that at the end of the job there is less conflict about extras and allowances. Besides furnishing all certificates and approvals, the contractor should be required to furnish 10 per cent cartridge fuse containers with 25 per cent refills and 25 per cent screw plugs. It might be well for the architect to call for the approval by his superintendent of the position of panel boxes, fuse boxes, bells, annunciators, etc., in order that they will come out properly in relation to kitchen cabinets, etc.

3—PLANS

Plans for electrical work, it seems necessary to add, should be so laid out that switches will be conveniently placed. Switches should be provided to control wall brackets. Doors should swing so that switches will not be placed behind them, or in other equally inaccessible places. Likewise, radiators should be shown, so that on completion of the electrical work it will not be found that base outlets are behind them.

Base-plugs and wall outlets are doubly useful when of the duplex type. In locating basement light outlets, it is important that one be placed near the water gauge of the boiler so that there will be no excuse for letting the water level become dangerously low. Lights are a great boon in closets that do not have a reasonable amount of natural light when the doors are open. Fuses or circuit-breakers should be placed in convenient and handy places, such as in foyers, so that in case of a short circuit they may be readily accessible. In the panel box there should be a typed list showing which rooms are on each circuit so that in
The quality of materials going into a job is important. The conductivity of the copper, the quality of the rubber, and the type of insulation all are important. Lead sheathing is absolutely essential if there is apt to be any moisture present. The improper connection of this cable in the box may damage the rubber insulation. To avoid this, the lead is rolled back on itself (Fig. 4A). In conduit work the type and size should be specifically mentioned. Whether the conduit is to be black or galvanized should be specified. That buried in concrete must be galvanized. Stranded wires are preferable, and are required where larger sizes are needed. Outside lights should have moisture-proof outlets, lead-covered wires, and moisture-proof glass covers when erected outside. Moldings of metal for wire raceways should be submitted for approval. Bells for doors, dumbwaiters, etc., should be shown. Conduits placed in damp places should be painted. Proper ground connections should be specified. One of the more desirable types is shown in Fig. 4B.

5—SIZES
In figuring mains and feeders they should never be computed for less than the full load. The feeders should also be large enough to take care of normal future loads.

In plumbing, a percentage of the total possible load is figured for the water supply to be used; but it must be remembered that there is only inconvenience at stake should there be no water; with electricity figured undersize there is danger. The false economy of using small wires cannot be stressed too much. Where the run is long, a size larger than normal should be used, particularly where the distance is 80' or more. Where power loads or loads requiring high
starting current are present, separate circuits should be provided. Extra conduits should be installed in stores which may be used as barber shops and in apartments which may be used by physicians, dentists, etc. Provision should also be made for telephone wires. It is preferable in low-tension work to use the same size wiring as for the electric work. It must be remembered that there is also considerable inconvenience entailed when the low-voltage system is out of order, as well as when the high-voltage system does not work.

6—WORKMANSHIP

Provided proper materials are used, the success of the installation of an electric system depends on the workmanship. The architect should therefore call for and permit only first-class labor to be used on his job. In using BX cable, difficulties generally originate at the boxes, due to improperly spliced wires or poor insulation. Proper bushings should be installed in the boxes to prevent damage to the wires (Fig. 6A). No loose cables should be allowed in shafts or similar places. This is particularly true in repair work, where the slip-shod electrician will take the easiest course regardless of future safety from short-circuits.

Where BX cable is run through stud or beam where there may be danger of nails penetrating it, the cable should be protected by means of pipe or iron plates (Fig. 6B).

Conduits should be installed as a complete system and no splices allowed within them. Where conduits are used in reinforced concrete arches, they should be placed above the used rebar with and not through it. Then, too, they may be placed between sleepers if these are present, or along the walls in a chase if possible. All electrical lines should be kept clear of plumbing and heating lines. The conduits should be kept clean and dry by being capped or suitably plugged as soon as they are installed (Fig. 6C). Conduits should be securely joined to boxes. In conduit work, only such bends or offsets as are absolutely necessary will be permitted. Where they are required they should be made by an approved bending machine or hickey, and in no case should they be allowed to be made with a pipe tee or vise. Bends should have not less than a 3½" inside radius (Fig. 6D). Conduits should be cut with a hacksaw and have the ends reamed after threading, instead of having the burrs brushed off with nippers as many mechanics are prone to do (Fig. 6E). All connections should first be made mechanically secure without solder, and then be soldered. Only graphite should be used to ease the pulling of the wires in conduits. The use of grease should be strictly prohibited, because it will cause the eventual rotting of the covering and of the rubber. Cables in vertical risers should be held by cone-shaped plugs made especially for this use (Fig. 6F).

Before acceptance the architect should call for a complete test of the system to prove that it functions properly and is free from grounds and shorts. At the time the test is made it would be well for the architect to have one of his men check up on the system to see that all outlets have been installed, since it is not uncommon for contractors to leave jobs without completing all their work.

7—PRECAUTIONS

Where outlets are provided for ironing-boards, such as in the base-ments of apartment houses, care should be taken so that the cords will not come in contact with a wet or damp floor; in other words, a wood floor should be provided.

Where ground clamps are put on water lines, they should be installed on the street side of the meter or valve. Failure to do this may result in a ground not being provided when the water supply is disconnected for the winter (Fig. 7A).

Electric grounds should never be attached to gas lines. While the architect should call for a test to be made to prove that the work is free from grounds, some electricians are not above employing a subterfuge that will make the splicing of an armored cable difficult to detect. This is done by connecting the armor of the cable with a wire (Fig. 7B). Nor should the architect be fully satis-
installed through a switch if the receptacle is installed after the fixture. Some electricians unworthy of the trade may carry the "hot leg" down to the receptacle, and, instead of connecting the neutrals, ground the receptacle to the outlet box. This again is undesirable and unfortunate (Fig. 7D).

On large jobs the metal gauge of the fixtures should be stated. It should be specified whether they are to be cast or spun. So too, when fixtures are made of compositions, the percentages of the alloys should be definitely mentioned.

Fixtures
Even though the architect calls for the fixtures to be furnished by the owner, and stipulates a certain amount to be set aside for the fixtures, it should be definitely set forth that the electrical contractor shall hang them or allow a certain stipulated amount for not doing so.

For the convenience of those who wish to refer occasionally to specific sections of the Better Practice series, these were published as follows:

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The Editor's Diary

Tuesday, October 1.—Philip Sawyer packs a lot of wisdom into a few words when he says: "If a designer is convinced that his allotment of the divine afflatus will enable him to create unquestioned masterpieces, he should lock himself in a room as a protection from all outside influences, and produce the said masterpiece. If, however, he has any doubts as to his ability to do this, it would seem only the part of wisdom for him to look about the world a bit to see what other good men have done."

Thursday, October 3.—Samuel Yellin was telling me today of a fine old fourteenth-century lock that had come into his possession, lacking, however, its key. He made a key for it, and was surprised and gratified to find that every spring in the lock's action was as effective, apparently, as it had been five hundred years ago. "That," said Samuel Yellin, "is what I would honor by the name 'Functionalism.'"

New York City is fairly bristling with new bars and new restaurants. This evening we went up to Madison Avenue at 50th Street for a preview of the new Longchamps which Winold Reiss and Albert C. Schweitzer, in collaboration with Louis A. Abramson, have designed. As new as this morning's newspaper, its brilliance and sparkle depend not so much on the clichés of bright metal, rounded corners, and the like as upon an intrinsically interesting combination of American Indian motifs, of which Winold Reiss is such an able interpreter.

Saturday, October 5.—The Simonds Saw & Steel Company built a windowless factory; Sears, Roebuck, a windowless department store; and now the Hershey Chocolate Corporation is to put up a factory, without windows. They are very thoroughly convinced of the reasonableness of such a structure from many viewpoints: the lack of windows makes for cheaper heating; the equable temperature in teressor. —As new as this morning's newspaper, its brilliance and sparkle depend not so much on the clichés of bright metal, rounded corners, and the like as upon an intrinsically interesting combination of American Indian motifs, of which Winold Reiss is such an able interpreter.

Wednesday, October 9.—Concerned by a rumor that Clarence Stein had abandoned all of his activities in connection with housing, I lunched with him today to learn about the facts. Far from giving up his interest in housing, he tells me that the resignation of R. B. O'Connor, and himself from the Red Hook architectural group appointed by the New York City Housing Authority was prompted by the thought that this action might further the cause of housing.

The resignations offered to Commissioner Langdon Post because of a combination of circumstances which, in the opinion of Stein and O'Connor, made it impossible for the architects of the group to produce satisfactory results. Some of these circumstances were: P.W.A. refuses to sign a contract with the architects now, nor will they indicate what form of contract they may eventually sign; P.W.A. will take no responsibility for the cost of producing drawings, though these drawings must be completed, under the President's executive order, in time for letting contracts by December 15, 1935; the Housing Authority will not make itself responsible for more than a limited part of the cost of preparing drawings, and, moreover, it would be necessary to prepare the drawings with craftsmen from the relief rolls—a handi-cap of uncertain scope; in spite of the short time for the preparation of drawings, these are required to be on linen and inked, a method that is not customary in private practice; even if drawings could be made within the time limit, the architects are not permitted by P.W.A. to supervise the work even to the extent of seeing that it is carried out in appearance in accordance with the design.

This whole experience is corroborative evidence that housing cannot properly be carried out as an emergency measure; it should be a long-range, carefully studied, and systematically promoted effort.

Saturday, October 12.—William Orr Ludington's article, "Are We Building too Well?" seems to have raised a number of his readers to comment. Anthony F. Inserra, a New York architect, feels that practically all of the blame should be laid upon antiquated building codes, and that there should be some way of putting an official stamp of approval upon new materials and methods that will avoid the delays and other red tape involved in carrying a question up to the Board of Appeals in the Building Departments.

Monday, October 14.—A talk with D. C. O'Connell reinforced my conviction that the designers of America must come from the ranks of those trained in architecture. O'Connell, who works in the studios of Lurelle Guild, designing everything from silver spoons to hot-water boilers, says that the most difficult phase of the work is the abrupt change in scale required by the variety of products. The man who can turn readily from the job of designing the exterior appearance of an electric locomotive, to that of a bit of table glassware, must necessarily have a grounding in the fundamentals of design that, in the present makeup of the world, is to be had only in the educational system we have evolved to create architects.
until late in the afternoon. When Kohn arrived at his office, he ventured to say that he was glad to know an architect so busy—what was it, architectural jobs or outside activities that had filled his day? "Interviews with clients, ten or twelve in all," was the reply. It seems that the architect had developed a practice not unlike that of the general practitioner in medicine. The clients were entirely free to consult him about the planning of an outbuilding, the laying of a small concrete pavement, the renewal of Venetian blinds—all minor problems which, of course, entailed only a minor fee.

Saturday, October 19.—Upon seeing the reproduction of the painting which received the thousand-dollar prize at the Carnegie Exhibit in Pittsburgh, one casually muses upon the reasoning and somewhat startling preferences of juries. It is difficult to find, in a representation of a young, dark-skinned couple seated on an Empire sofa—much in the manner of a honeymoon photograph of the late 90's—the elements of a great work of art. However, our own architectural juries do some inexplicable things too, for I see that the small house which has been chosen most frequently from among the results of the recent G. E. Small House Competition, is a house by Royal Barry Wills which, at the hands of the eminent jury, received neither prize nor honorable mention.

Monday, October 21.—Hobart Upjohn, as president of the New York Chapter, A. I. A., has what seems to me a great scheme for the Chapter's activities during the coming year. We do a lot of talking about how impossible Manhattan Island is getting to be as a place in which to live, but apparently, as Mark Twain said of similar endless discussion about the weather, "nobody does anything about it." Hobart Upjohn thinks it is possible for the Chapter to tackle the problem as a whole, leaping all hurdles of law, tradition, various entrenched interests, etc., to make a workable plan for this island. Of course, probably nothing will ever be done about carrying out the plan, but we shall have some fun in making it, and besides, isn't it the sort of thing the public has a right to expect of the profession?

Tuesday, October 22.—Harry Francis Cunningham is most apologetic for having said in his appreciation of Harold VanBuren Magonigle that the latter was the first Doctor of Architecture in America. The degree was conferred upon him by the University of Nebraska in 1911. However, it now appears that our good friend Irving K. Pond was honored with the degree of Doctor of Architecture by the University of Michigan in 1909. At any rate, the matter of chronology is decidedly less important than the fact that both men were so fully deserving of the honor.

Thursday, October 24.—I dropped in at a regular meeting of the Architects' Emergency Committee today after lunch to join in the discussion when the Committee presented Julian Levi with a beautifully engrossed expression of the Committee's appreciation of his loyalty, devotion, and unselfish services to the interests of the unemployed draftsmen during the last few years.

Incidentally, as I listened to the reading of a summary of the Committee's routine activities by its present chairman, Lucian Smith, there appeared the best news I have heard for many a long day. The Emergency Committee has had registered on its rolls for assistance, a regular or made work, over 4500 draftsmen and architects. The enrollment has now dwindled to 164, of which number not one man is in need. In other words, the efficiency, in so far as architectural draftsmen in the Metropolitan District is concerned, seems to be over. This does not mean that the Committee's work is at an end, by any means, for most of its activities now, instead of finding jobs for draftsmen at their request, consists in finding draftsmen for jobs at the architect's request.

Lawrence Kocher brought Le Corbusier to the Architectural League for luncheon today, when I had the pleasure of meeting him. The man whose name has been of such significance in the modern movement is here in America for a lecture tour under the auspices of the Museum of Modern Art. Since Le Corbusier knows little English and Lawrence Kocher little French, their continued conversation together at luncheon provoked considerable discussion as to how they were making themselves understood—possibly through the use of some new international language.

Tonight Le Corbusier, whose real name is Charles-Edouard Jeanneret, lectured in French at the Museum upon his theories of building and town planning. My own difficulty in following his French was somewhat offset by his habit of drawing on a great pad of paper at the rear of the platform, illustrating almost every thought. In this drawing he uses a fistful of colored chalks, and in the time it would take one of the great sheets of paper behind him, the pattern is interesting even if one does not know just what it is all about.

Saturday, October 26.—Sir Giles Gilbert Scott, who is now president of the R. I. B. A., put a great deal of significance into a very few words when he spoke some months ago before a convention of British architects at Glasgow: "In architecture there are usually two main schools of thought, due to the importance attached by different individuals to two qualities latent in every human being, the intellect and the emotions. ... The extremists, being more vocal, form around them schools of thought which I might broadly dub the 'Thinkers' and 'The Feelers'; 'The Thinkers' being those who favor the scientific, logical and practical approach to architecture; and 'The Feelers,' those who are guided more by their instinctive feelings, emotions, and reactions. ... The old battle of the styles has existed with us ever since a live tradition in architecture ceased to exist— as for instance, the Classic versus the Gothic struggle of my grandfather's time. ... The present controversy of Modernism versus Traditionalism is the same issue under other names. ..." "Of course, neither school is entirely right nor entirely wrong. The scientific approach to architecture, in so far as it concerns planning, construction and materials, is the purely artistic approach to architecture enough, but it is just in deciding where and how this quality that appeals to man's feelings, call it art or what you will, can be brought into that we find ourselves in difficulties. ..." "One wonders what escape there is from the apparent cul-de-sac into which modernism seems to have found itself. Of the change that comes from new methods of construction and materials will be too slow to keep pace with the demand for relief from monotony; is it possible that we shall again see the introduction of useless ornamental shapes and decoration eventually developing into a Baroque Functionalism?"
Below are the subjects of forthcoming Portfolios

**Fireplaces**
(MEDITERRANEAN TYPES)
JANUARY

**Pediments**
FEBRUARY

**Balcony Railings**
(INTIOR)
MARCH

**Gothic Buttresses**
APRIL

**Corner Windows**
MAY

**Self-supporting Stairways**
JUNE

Photographs showing interesting examples under any of these headings will be welcomed by the Editor, though it should be noted that these respective issues are made up about six weeks in advance of publication date.
Detroit's modernized demonstration house
D. Allen Wright

Modern work in
Stockholm, Sweden

Living quarters over a garage
Old Norristown (Pa.) Presbyterian Church (1710)
House just outside of San Francisco
Masten & Hurd

Old house at New Castle, Del.

Unusual panelling, New Castle, Del.
James W. O'Connor

House at Brookville, N. Y.

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House at Englewood, N. J.
Caretto & Forster

House at Mill Neck, N. Y.

House at Radburn, N. J.
Clarence S. Stein

House at Scarsdale, N. Y.

House at Mill Neck, N. Y.
William Lawrence Bottomcy
Château d'Odre,
Pas de Calais, France

House at Cincinnati, Ohio
Charles F. Cellarius

House in Connecticut
Frederick J. Sterner

House at Pleasantville, N. J.
James Renwick Thomson
Bank at Lexington, Mass.
Thomas M. James Company

House at Easton, Md.
Henry Hopkins

House at Kingsport, Tenn.
Clinton Mackenzie

House at East Hampton, N. Y.
Aymar Embury II
House at Cincinnati, Ohio
Charles F. Cellarius

House at San Antonio, Tex.
Adams & Adams

Veterinary Hospital, Washington, D.C.
E. Barton Corning

House at Warrenton, Va.
Bottomley, Wagner & White
House at Orléans, France

House at Springfield, Mass. Clifton C. West

House at Morristown, N. J. Greville Rickard

House at Pelham, N. Y. Pliny Rogers
House at Fieldston, N. Y.
Dwight James Baum

House at Middleburg, Va.
Peabody, Wilson & Brown

House at Wynnewood, Pa.
Henry D. Dagit & Sons

House at Los Angeles, Calif.
Ralph C. Flewelling
House at Atlanta, Ga.  
Hentz, Adler & Shutze

House at Ithaca, N. Y.  
LeRoy P. Burnham

Club house, Lake Sunapee, N. H.  
Prentice Sanger

House at Mt. Vernon, N. Y.  
Lewis Bowman

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House at Ithaca, N. Y.
LeRoy P. Burnham

House in Southern California
Gordon B. Kaufmann

House at Scarsdale, N. Y.
Westchester Little Estates, Inc.

House at Needham, Mass.
Charles S. Keefe

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House at Lake Geneva, Wis.
Howard Shaw

House at West Hartford, Conn.
John M. Bell

House at Oreland, Pa.
Tilden, Register & Pepper

House at Summit, N. J.
Clark & Arms
House at Chestnut Hill, Pa.
Magaziner & Eberhard

House at Los Angeles, Calif.
Paul R. Williams

House at Bethayres, Pa.
Leigh French, Jr.; Harold D. Eberlein

House at Montclair, N. J.
Wallis & Goodwillie
House at Los Angeles, Calif.
Meyer & Holler

House at Veere, Holland

House at Winchester, Mass.
Boat design in relief

House at East Aurora, N. Y.
Office of John Russell Pope

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House at Monikendam, Holland

House at Wantagh, N. Y.
Walker & Gillette

House at Watertown, Mass.

Sliding blinds, Burford, England

ARCHITECTURE
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House at Gloucester, Mass.
Henry Sleeper

House at Southampton, N. Y.
LeRoy P. Ward

House at Monticello, Calif.
George Washington Smith

House at Enkhuizen,
Holland
DECEMBER,
1935
Building Product News

Your design and specification will benefit by this service

All indications are that the Spring of 1936 will see the real resumption of building throughout the length and breadth of the country. The surplus of distress really in the hands of banks, trust companies, insurance companies, building and loan associations, and individuals, is diminishing with each successive week and with the take-over of these properties by responsible purchasers, the shortage of immediately available housing increasing. There are those who will be glad to know about NATIONAL HOUSING ACT LOANS UP TO $50,000.00 to Modernize Apartments, Multiple Family Dwellings and Stores, Hotels, Hospitals, Schools, Colleges, Orphanages, Manufacturing and Industrial Plants. Shall we send you the very latest information? Address ARCHITECTURE, 597 Fifth Avenue, New York.

Flagg Fittings
Catalog No. 57 supersedes all previous issues. Malleable iron and cast steel fittings, with full descriptions, dimensions, figures, prices, and complete index. Special products include fuel oil and gasoline line tank fittings, caps, nipples, boiler stand tees, and concrete hangers. Stanley G. Flagg & Co. G. 207

Catalin for Architecture
Catalin prepared, shaped, cut, and patterned in all sizes to fit individual specifications by architects for interiors and exteriors of buildings. Also supplied for sign facades and lighting fixtures. Available in all standard colors, either opalescent or translucent, and will scale, molded or grained. Easily sewed, turned or lathed like hard wood. Fabricated Catalin, Inc. G. 214

Special Boilers
Various types of oil-burning boilers, installation diagrams, ratings, capacities, specifications and foundation particulars. H. B. Smith Co. G. 215

Electrical Refrigeration Products
Air and water cooled compressors, domestic evaporators, complete descriptions and M & E line of refrigeration products. Merchant & Evans Company. G. 216

Vita Glass
Ultraviolet glass having a permanent final transmission of approximately 90 per cent of the short ultraviolet rays in natural light — the rays which tan people. Particulars presented in most complete manner, with specifications, illustrations, and index. Spray oils and fertilizers also included. Andorra Nurseries, Inc. G. 223

Lurie Steel House
New construction bringing floor quality fireproof building within cost range of wood frame. Combination both metal and concrete construction with channel iron and Catalin light steel base for all surfaces. Clear floor space permits unlimited floor layout. Descriptions and plans for houses, schools, churches, etc. Metal Lath Manufacturers Assoc. G. 218

National Unit Heaters
Advantages, application, photographs, basic ratings, B.T.U., construction diagrams, pipe sizes, technical problems. National Radiator Corp. G. 219

Silver Anniversary
Commemorating Twenty-fifth Anniversary of the Bakteile Corp., they have issued a bulletin, "History Of Their Recent Progress In Development and History of Bakteile, especially the advent of the Bakteile Rockhale." Various building uses of Bakteile gone into in great detail. Bakteile Corp. G. 220

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Further details of the requirements laid down for exhibitors may be had by addressing the Exhibition Secretary, 215 West 57th Street, New York City.

METROPOLITAN MUSEUM LECTURES

AMONG the free gallery talks and lectures at the Metropolitan Museum of Art in New York there is one course now in progress on "Design and Color: Applications." The group assembles on Thursdays at 4 P.M. in Classroom K and the Galleries. The series started on October 24, and concludes with the talk on December 19.

JOHN DEVEREAUX YORK, 1863-1935

MAJOR JOHN DEVEREAUX YORK, architect, died in a hospital in Phoenix, Ariz., October 26. Major York was an associate of Henry Ives Cobb, designing the Fisheries Building at the Columbian Exposition in Chicago in 1893. For several years he was connected with the firm of McKim, Mead & White in New York.

SIR WALTER JOHN TAPPER, 1867-1925

SIR WALTER TAPPER, known particularly for his ecclesiastical architecture, died in London on September 22.

Sir Walter has been surveyor of Westminster Abbey since 1928. Among his best-known works are the London Church of the Annunciation in Old Quebec Street, the War Memorial in the lower chapel at Eton, and the restoration of several of Great Britain's country houses, Penshurst in Kent, being a familiar example.

Sir Walter also held the post of consulting architect to York Minster and the Manchester Cathedral.

He was president of the R. I. B. A. in 1927 and 1928.

PERSONAL

Clifford H. James, architect, formerly of the firm of James & Zorn, architects, which was dissolved in 1912, has moved his office from Lubbock, Tex., to 1710 Guadalupe Street, Austin, Tex.

Wesley S. Bessell, who has been serving for some months as a designing architect with the Procurement Division in Washington, announces that he has opened new offices at 16 East 52d Street, New York City.

The Department of Architecture, Syracuse University, Syracuse, N. Y., requests that manufacturers' catalogues be sent them for their files.

William E. Hunt, architect of Torrington, Conn., formerly of Watertown, Conn., died in Torrington on October 13, after a long illness, in his sixty-third year. Mr. Hunt's architectural practice will be carried on by James H. Bruffee, architect, of Torrington, Conn.
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