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Plate 3

In the Hudson Store, Newcomb-Endicott Building, Detroit, is a children’s barber shop known as Circus Land. The design, as created by the architects, Smith, Hinchman & Grylls, is unmistakably modern in character. Only the entrance is shown on this page, but that perhaps is the most unique feature of the interior. This entrance of Roman Travertine is but one part of a very large installation of marble, all of which was finished in our shops.

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Here Mr. Contractor . . .

Clay Products Company’s new carton packing gives faster and easier handling in trucking from car to job; more economical moving on the job and to the scaffold to say nothing of the satisfaction in having textured tile ready to go in the wall, fresh, clean and free from any damage which might occur in handling anywhere along the line.

With these tough, durable cartons, there is no searching for sizes and shapes. Each carton containing from three to six standard units is plainly marked with the quality, texture and size. The cartons are securely bound with two bands of wire. When these wires are cut on the scaffold, the cartons fall open of themselves exposing the tile ready for the mason to place it in the wall.

CLAY PRODUCTS CO., Inc.
OF INDIANA

FACTORIES AT
BRAZIL, INDIANA

THE STANDARD OF TEXTURED TILE
Did This Ever Happen to You ...or your clients?

Hey! What's the idea of hitting him in the eye—he wanted a drink, not a shower.

Well, well, where's the water? Oh, there it is, so low his lips will have to touch the jet—and that's serious—it's unsanitary.

The child, bless her heart. She likes to mess things up. You did, too, when you were her age. There goes the water squirting on the walls and the floor.

BUT—when Halsey Taylor Drinking Fountains are installed, there are none of these annoyances to you or your client,—because of practical, patented

AUTOMATIC STREAM CONTROL AND TWO STREAM PROJECTOR

This NEW YORK HOSPITAL

... takes its place among the most modernly equipped in the country. It is only logical that, in line with the completeness of its appointments and conveniences, the architects should choose Halsey Taylor Drinking Fountains for installation throughout. See Sweet's, or write for details of our line—plain or colored! • The Halsey W. Taylor Company, Warren, Ohio.

Doctor's Hospital, New York

No. 626
An attractive recessed Fitzroy China Wall Type Fountain used in the building shown. Practical automatic stream control, two-stream projector—water always uniform in height regardless of pressure, no lips need touch or contaminate source of supply!

HALSEY TAYLOR DRINKING FOUNTAINS
ON THE NATION’S SKYLINE

The finest examples of modern building design and construction use CARRARA GLASS

In lobbies and corridors—in washrooms and toilets of the country’s notable buildings—you'll find partitions and walls of Carrara, the modern structural glass. Some walls will be mirror-like black... others will shine with a highly polished, gleaming white surface... still others will be white with a slightly rippled surface.

Carrara has the sturdy strength needed for walls and partitions. But it is a decorative as well as a structural material. Carrara’s brilliant beauty is ideal in carrying out modern decorative effects. In addition, this glass has hardness, which makes it impervious to water, chemicals, oils and pencil marks. And density, too. It never absorbs dampness—or odors. Its surface is easily kept clean and sanitary.

Carrara can be handled and installed like marble. It comes in slabs of practical sizes. There are three types—Polished Black, Polished White, and Frostex, which is the white glass with a rippled surface. For full information on Carrara Glass and its uses, write to the Pittsburgh Plate Glass Company, Carrara Dept., Grant Building, Pittsburgh, Pa.
A few more notable Carrara Installations

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CARRARA
Modern Structural Glass
ONLY the most dependable and complete protection is adequate for banking institutions. A. D. T. provides that sure protection for most of the leading banks. The Midland Bank Building, Cleveland, Ohio, for instance, is safe against fire and theft with A. D. T. Central Station Watchman's Compulsory Tour, Fire Alarm and Vault Protection. A. D. T. Central Station Services are available in principal cities from coast to coast. Local systems for owner operation are also provided. Write for new catalog.

Controlled Companies of American District Telegraph Co.
155 Sixth Avenue, New York, N. Y.
Eberhard Faber Black Chalk and Sanguin Pencils are perfect for sketchers and designers. The above sketch was done by Elmer A. Stephan, Director of Art, Pittsburgh (Pa.) Public Schools.

Eberhard Faber

NEW PENCILS for sketching

With water and brush, these pencils give smooth wash effects.

Black Chalk Pencils—No. 231 Smooth—2 degrees

Black Chalk Pencils—No. 230 Rough—4 degrees

Also Sanguin—the Terra Cotta Colored Pencil

EBERHARD FABER

EBERHARD FABER PENCIL COMPANY
Dept. A11, 37 Greenpoint Avenue, Brooklyn, New York

Gentlemen: Enclosed is $1.00 for which please send me your special offer of:

1 Sanguin Pencil No. 2826
3 Black Chalk Pencils No. 220, Rough, H—HB—2B
2 Black Chalk Pencils No. 221, Smooth, HB—2B

Name ____________________________
Address __________________________
City ____________________________ State __________________________
Dealer's Name ______________________

(Please Print plainly)
This is 90 year old Sam. His daddy and great granddaddy before him made brick. He was born in a brick yard cabin. Lives all by himself in one now. A great old character who certainly does know hand brick making.

Now Comes Real Honest-To-Goodness Hand Made Brick From Old Virginia

Of course as you know, we always have made mould-made brick. Ones that have many of the ear marks of hand-mades, in their softened edges and natural off-shapeness. Interesting as these mould-mades surely are, still if you want a brick giving a true reflection of those fine old structures of Jefferson’s days, you just plain must have the real hand-made ones. Not the usual hand-mades that are speed moulded and smooth. But the real-honest-to-goodness ones made slowly with care. Made in the same way as they made them way back there. Back there, when a mule driven pug mill, a moulder in a pit, and two take-off boys were the factory.

Such brick made in the unhurried way of those long ago yester years, had natural sand seams and crazes. Likewise off-shape edges. All of which in such interesting variance and naturalness, as to give an effect just plain impossible to secure in any other way.

We have searched all over Virginia for old-time darkies who were literally “born in a brick yard.” These are the old-timers who are now making our honest-to-goodness hand-mades. We are calling them Jefferson Hand-Mades because they are so truly like those with which he built Monticello.

We are moulding them in both the standard and Jefferson over-size. Glad to send you a panel of either. Or a nest of five or six of the bricks themselves. Their colors are soft as any age old brick made a couple of hundred years ago. That’s just one of the ways in which our brick are unlike any other made in old Virginia.

Old Virginia Brick
Old Virginia Brick Company
Salem, Virginia
YEARS ago we started using a combination metal and cypress roof bar for supporting the glass in greenhouses and conservatories. For the last three years we have been perfecting it from a structural side, while at the same time making possible many refinements to the framing, giving an added lightness and attractiveness. Now that the series of tests have abundantly proven the superiority of the bar, we are seeking a suitable name. One that will mean something structurally to architects, while at the same time be short and easy for others to remember.

For such a name we offer outright, 250 dollars. All architects and any draftsmen now in employ of an architect are eligible.

Write at once for full particulars. Offer expires December first. Award made December tenth, in ample time for Christmas use.
THEY KEEP A-RUNNING

The motor illustrated is equipped with Double-row, Self-contained ball bearings.

200 Horsepower

Century 60 Cycle 440 Volt 1800 R.P.M.
3-Phase Squirrel Cage Induction Motor

Century Type SC Motors are built to insure the continuous operation necessary at high speeds required by centrifugal pumps and similar apparatus, and also—in slower speeds—to meet the hard service conditions encountered in the broad range of general purpose applications—particularly in chain and gear-drive installations... They are well balanced in design, sturdy and rigid in construction, thoroughly ventilated but not easily clogged, well protected, and can be easily cleaned with an air nozzle.

Century 3 and 2 Phase Squirrel Cage Induction Motors are built in standard sizes from 1/4 to 250 horse power.

CENTURY ELECTRIC COMPANY
1806 PINE ST. ST. LOUIS, MO.
40 U.S. and Canadian stock points and more than 75 outside thereof

SINGLE PHASE, THREE PHASE, AND DIRECT CURRENT MOTORS

MOTOR GENERATOR SETS, ROTARY CONVERTORS, FANS AND VENTILATORS

FOR MORE THAN 26 YEARS AT ST. LOUIS
The Ecclesiastical Department of THE GORHAM COMPANY is unrivaled for its distinguished execution of authentic designs.

The bronze tabernacle illustrated is an example of the beauty of execution which distinguishes church accessories by The Gorham Company.

The tabernacle was designed by Murphy & Olmsted, architects of Washington, D. C., for the Convent of St. Joseph at Brentwood, Long Island.

The intricately beautiful motif is carved in bronze—and the entire outer surface of the tabernacle is richly gold plated... This work of art is indeed an accessory to grace the main altar of the beautiful new chapel.

The Ecclesiastical Department of The Gorham Company works with architects all over the country in faithfully executing their designs and authentically reproducing master works and creating distinctive church accessories and equipment. The Ecclesiastical Department, The Gorham Company, 2 West 47th Street, New York City.
This building, completed in 1922, has just been cleaned for the first time, with satisfactory results, as shown by these illustrations. Of all the building stones, we believe that Georgia Marble is the easiest to clean because, due to its non-absorptive character, dirt rests on the surface rather than permeating the stone. Even in urban centers scrubbing with a stiff brush every few years keeps Georgia Marble bright. When dirt has been allowed to collect over a longer period of years until the marble is completely masked sand-blasting is usually resorted to as the most economical method of cleaning. But this method of cleaning so harmful to many of the commoner stones hardly "touches" Georgia Marble,—the dirt is removed, but all mouldings and carvings remain sharp and unpitted.

Federal Reserve Bank, Cleveland, Ohio. Walker & Weeks, Architects. Henry Herring, Sculptor.
The exterior and the colossal statues are of Etowah Pink Georgia Marble.

THE GEORGIA MARBLE CO. • TATE • GEORGIA
NEW YORK • ATLANTA • CHICAGO • DALLAS • CLEVELAND
THE FIFTIETH ANNIVERSARY OF THE FOUNDING OF THE ARCHITECTURAL LEAGUE OF NEW YORK WILL BE FORMALLY CELEBRATED BY THE FOURTH BIENNIAL EXPOSITION OF ARCHITECTURE AND ITS ALLIED ARTS TO BE HELD APRIL 18 TO 25, INCLUSIVE, 1931, IN THE GRAND CENTRAL PALACE, 46TH STREET AND LEXINGTON AVENUE, NEW YORK CITY.

The exhibition will be held under the auspices of the American Institute of Architects and of the Architectural League of New York and with the endorsement of the Society of Beaux Arts Architects and the New York Building Congress.

As the past fifty years has witnessed the greatest development of American Architecture, the committees in charge of the forthcoming exhibition are laying their plans far ahead to assemble the finest exhibition of contemporary architecture and its kindred arts of sculpture, mural painting, landscape architecture, and products of the crafts yet brought together in America, in cooperation with a representative exhibition of the industries which contribute to the construction, equipment, and adornment of modern homes and buildings. Foreign architectural exhibits will be shown in special sections.

The exhibition will be the fourth of the large architectural expositions to be held in New York. The first was opened in 1925 under the auspices of the American Institute of Architects and the Architectural League of New York.

Foreign exhibits will be in charge of the following committee: Julian Clarence Levi, chairman; Jacques Carlu, Ernest Peixotto, Raymond M. Hood, Ely J. Kahn, and Ferruccio Vitale. Architectural societies of France, England, Germany, Sweden, Italy, which co-operated in the prior expositions, will again be co-operating in this form of construction, in the exhibition of contemporary architecture and its kindred arts of sculpture, mural painting, landscape architecture, and products of the crafts.

The executive offices of the forthcoming exhibition are located at 105 West 45th Street, New York City.

THE BUSINESS SITUATION

JULIUS H. BARNES, chairman of the National Business Survey Conference, summarizes reports from all sections of the country in part as follows:

Short-Term Credit.—The decrease in money rates has continued during the summer months and into September. Short-term funds are now available in the open market at lower rates than have prevailed in several years.

Long-Term Credit.—Total capital issues, aside from refunding issues, totaled $5,600,000,000 in the first eight months of 1930. This total was about 35 per cent less than the figure for the corresponding period of 1929. Bond issues, however, exceeded those in the first eight months of last year by 50 per cent, while new stock issues were materially less.

Savings.—Available reports indicate that the gradual upward tendency in savings deposits, which has been apparent in recent months for the country as a whole, still continues.

Building and Loan Associations.—Reports from building and loan associations in twenty-four States through their national association indicate uneven but improved conditions. There are communities with a surplus of funds, little demand for loans, and normal withdrawals. In other sections there are some withdrawals, slow collections, and reports of some foreclosures. Generally, reports suggest a conservative attitude on the part of associations with respect to new commitments and a desire to care for all legitimate demands for the higher types of loans.

Constructive Industries.—For the period ended with September 19, construction of public works and utilities exceeded the volume in the same part of last year by $147,000,000, non-residential building this year was less in volume by $341,000,000, and residential building was less by $698,000,000. Total building contracts for all classes this year through September 19 were $3,574,000,000, to be compared with $4,467,000,000 in the corresponding part of 1929 and $5,126,000,000 in this part of 1928. The greatest decrease has been in residential building; in this form of construction there have been indications of a moderate revival, within the last few weeks, particularly in construction of detached one and two family houses.

August permits for additions, alterations, and repairs in 297 cities showed a decrease in value of approximately 24 per cent of the value in July. The value in July was 5 per cent over the value in June.

During August the cement industry operated at 81 per cent of capacity, including two new plants and extensions and improvements at old plants this year. As usual, August production and shipments of cement reached the high point of the year.

In structural steel, business has been reported as fairly brisk in New York and vicinity, and in the Middle West appears to have been over last year. A decided improvement in September is reported, with a good volume of new orders reported as in prospect.

A survey covering the United States indicated that the steel construction business to September 18 has this year practically kept up to the tonnage in the comparable part of 1929. Returns to date for this survey indicate shipments of structural steel this year have at least been equal to shipments in the same part of last year, and that new orders booked have been from 25 to 40 per cent below the booking of 1929.

The common brick industry reports that the season improvement of August is continuing in September.

(Continued on page 41)
On the Quarry Banks

In the Unfading Slate District of Vermont may be seen endless piles of Colored Roofing Slate, stored out in the open, day and night, winter and summer, in all kinds of weather without the least fear of disintegration or loss of color. They need no protection—for, their duty is to do the protecting themselves. And, furthermore this exposure is a thorough test of their ability to resist color change, so when unfading material is desired, your specifications will be assured of being properly fulfilled.

Residence of J. H. Reveler, Kansas City
E. W. Tanner, Architect

This Association issues a quality certificate with each shipment coming from its composing members.
The slates are also properly labelled

Unfading Slate Association
Of Vermont, Inc. Fair Haven, Vermont

Members of the Association
S. Allen's Sons, Fair Haven, Vt.
C. R. Beach, Fair Haven, Vt.
Mahar Brothers Slate Co., Inc., Fair Haven, Vt.
Fair Haven Marble & Marbleized Slate Co., Fair Haven, Vt.
Vendor Slate Co., Easton, Pa., and Middle Granville, N. Y.
O'Brien Bros. Slate Co., Inc., Granville, N. Y.
Penrhyn Slate Co., Hydeville, Vt.
Enterprise Slate Co., Inc., Fair Haven, Vt.
stocks have shown little change during the summer; operation was at less than 40 per cent of capacity, and stocks were 12 per cent below the low point of 1929.

In plumbing and heating supplies the volume of business to date this year is 60 per cent under the volume in the corresponding part of 1929, and 20 per cent under the volume in 1928, the business being affected by the decrease in residential construction. Inventories of distributors are reported as small.

Increasing curtailment in the lumber industry occurred during the summer, with production about 35 per cent under the level of 1929, but production and shipments in August were practically in balance. August sales to retail distributors showed no change from July. Stocks of retail dealers and industrial stocks showed further decreases in July.

Prices for building material held almost unchanged in September as compared with prices in August. There was a slight gain in the price of crushed stone, lumber, and hollow tile, but for all other materials were unchanged. Lumber was the only building material showing an increase in price for September this year over the price for September, 1929.

GOLD MEDALS FOR SMALL HOUSES

To aid in eliminating faulty design and inefficient planning, Better Homes in America, of which Dr. Ray Lyman Wilbur, Secretary of the Interior, is president, will each year award three gold medals to the architects who have designed the best small houses erected anywhere in the country during the preceding year.

The medals are the gift of Mrs. William Brown Meloney, of New York, who with the co-operation of President Hoover founded Better Homes in 1922, and still serves as its vice-president. The awards will be made by a committee of five architects appointed by the president of the American Institute of Architects. It is hoped that the awards will stimulate greater interest among architects in the practical and urgent problem of improving the architectural design and planning of homes of families of moderate means. The medals are therefore limited to houses one story, a story and a half, or two stories in height, and with a cubage of not more than 24,000 cubic feet above the level of the first floor. This virtually restricts the competition to houses of from four to six rooms, but leaves complete latitude in the design and planning of these houses.

CLINTON M. HILL, 1873–1920

CLINTON MURDOCK HILL, a member of the firm of Jardine, Hill & Murdock, of New York City, died September 21, at Los Angeles. Mr. Hill had been ill for several months.

Born in Massachusetts, Mr. Hill received his training in architecture at the Lowell School of Practical Design of the Massachusetts Institute of Technology. He practised architecture in Boston as a member of the firm of Bacon & Hill, and later of Hill & James. At one time he was associated with the late H. Langford Warren, former head of the Harvard School of Architecture. Coming to New York in 1910, Mr. Hill joined Messrs. Jardine and Murdock. He was a member of the Boston Society of Architects, and the New York Chapter, A. I. A. Most of his architectural work was in connection with the design of office buildings in New York.

UKRAINIAN STATE THEATRE

THE Soviet Union Information Bureau has addressed a letter to the American Institute of Architects, transmitting a copy of the prospectus for the International Competition for the Ukrainian State Theatre.

The prospectus, which is on file at The Octagon, is an extensive document, which states that drawings for the project, with all explanatory notes, should be mailed not later than December 25, 1930, to the Construction Committee, Town Council, Tevelyev Square, Kharkov, Union of Soviet Socialist Republics. The postal receipt should be sent under separate cover to the same address, and the date of the mailing of the drawings should be confirmed by cable.

As requested, this competition is called to the attention of the members of the Institute, who are advised that copies of the prospectus, and other information concerning procedure, may be obtained direct from the Soviet Union Information Bureau, at 1637 Massachusetts Avenue, Washington, D. C.

LAKE FOREST FOUNDATION AWARDS

TWO European travelling fellowships established by bequest of the late Edward L. Ryerson and two American fellowships, the gift of Condé Nast of New York, have been awarded by the Foundation for Architecture and Landscape Architecture, at Lake Forest, Illinois. The Ryerson fellowships went to Clifford W. MacCoy, architect, Toledo, Ohio, of Ohio State University; and Donald B. Partridge, landscape architect, Marshalltown, Iowa, of the University of Illinois.

The Condé Nast fellowships were awarded to Marvin R. Dobberman, architect, Chicago, of Armour Institute; and J. Martin Frizzell, landscape architect, Muskegon, Michigan, of the University of Michigan. Honorable mention was given to Russell T. Smith, architect, Concord, Massachusetts, of Harvard University; and Lawrence F. Murray, landscape architect, Wau­seon, Ohio, of Ohio State University.

Each fellowship carries a stipend of $1,250 for the purpose of travel and study during the next ten or eleven months.

The members of the jury were: David Adler and William J. Smith, architects, both of Chicago; Arthur Shurtleff and Fletcher Steele, landscape architects, both of Boston; and A. A. Carpenter, who served as the lay member of the jury.

A CORRECTION

In the advertisement of George A. Shedden Co., Builders (advertising page 17, October Architecture), the address was incorrectly printed. The correct address is 62 West 45th Street, New York.

PERSONAL

Sam Biderman, architect, announces the removal of his office to 1107 Browder Street, Dallas, Texas. Alexander B. Trowbridge, consulting architect, announces the removal of his offices to the Shoreham Building, corner H and 15th Streets, Washington, D. C.

Norman Hatton, architect and engineer, announces the removal of his office to 828 Higley Building, Cedar Rapids, Iowa.
STRUCTURAL STEEL CREATED THE SKYSCRAPER

INEVITABLE ... THE ALL-STEEL CITY

Today's breath-taking spires and spans of steel were "impossible" only a few brief years ago. Now walls of masonry are yielding to solid-section steel windows ... new beauty comes in steel shapes and new skill devises their application ... and on the horizon looms the amazing battle-deck floor.

Eventually, cities will be all steel. Not only the skyscrapers and great bridges, but the homes, schools, small apartment and mercantile houses, small factories and small bridges as well. For steel is the strongest, most versatile and fastest building material. Fabricated in mills, weather cannot delay its production—and rain, intense heat, or freezing does not impair its strength. It can be erected anywhere, at any time, as long as men can work—thus earlier returns on invested capital are insured, interest charges are saved.

In cities, too, there is constant change, growth. Small structures give way to larger ones—must be altered, added to or replaced. Steel facilitates alteration and addition—and no other building material has such high salvage value, is so economically recovered, or is so readily marketed afterward.

Before building anything find out what steel can do for you. The Institute serves as a clearing house for technical and economic information on structural steel, and offers full and free co-operation in the use of such data to architects, engineers and all others interested.

The co-operative non-profit service organization of the structural steel industry of North America. Through its extensive test and research program, the Institute aims to establish the full facts regarding steel in relation to every type of construction. The Institute's many publications, covering every phase of steel construction, are available on request. Please address all inquiries to 220 Madison Avenue, New York City. Canadian address: 710 Bank of Hamilton Bldg., Toronto, Ontario. District offices in New York, Worcester, Philadelphia, Birmingham, Cleveland, Chicago, Milwaukee, St. Louis, Topeka, Dallas, San Francisco and Toronto.

BUILDING THE CITY OF STEEL”—BY HUGH FERRISS. AN ENLARGEMENT, ON SPECIAL STOCK FOR FRAMING, WILL BE MAILED WITHOUT CHARGE TO ANY ARCHITECT, ENGINEER OR BUSINESS EXECUTIVE.

AMERICAN INSTITUTE OF STEEL CONSTRUCTION

STEEL INSURES STRENGTH AND SECURITY
Frontispiece: Exeter Cathedral, the Nave
The Liturgical Requirements of Churches: I
F. R. Weber contributes the first of a series of articles dealing with the intricacies of church design as affected by the varying demands of different denominations and their traditions
Blackstone Shop, Chicago
Philip B. Maher has designed a store building for North Michigan Avenue in which certain definite periods of design are simplified to conform to the decorative mood of to-day
Early American Windows: II
The second and final instalment in a series of pen drawings by Schell Lewis
The Jones Library, Amherst, Mass.
A successful effort on the part of Putnam & Cox to meet modern requirements and yet hold fast to the domestic flavor of a small town
Flower Market at Rouen
A boldly decorative pencil drawing by A. W. K. Billings, Jr.
Architectural News in Photographs
A bird's-eye view of architectural activities proposed and completed
Book Reviews
Halesite Grade School, Huntington, Long Island
The common school problem of four classrooms with a small assembly hall and gymnasium combined, as developed inexpensively by A. B. Sammis and Frank T. Cornell, associated architects
Bank of the Manhattan Company Building, New York City
Two photographs showing, from a distance and close-up, the treatment of detail at the top of a very tall building. H. Craig Severance, architect; Yasuo Matsui, associate architect
Working Drawings: VI, Details of Various Trims and Mouldings
Jack G. Stewart continues his monthly series of details covering practical everyday problems
Some Pitfalls in Supervision: IV, Cinder Concrete Floor Arches and Brick Work
W. F. Bartels continues his valuable series of informative articles for the supervising architect
Garage Group, Estate of M. Lloyd
Frank, Portland, Ore.
Herman Brookman develops in further detail one of the finest country estates in the Northwest
Gardener's Cottage, Estate of John J. Farrell, Darien, Conn.
Charles S. Keefe shows the possibilities in the design of a very tiny dwelling
Another of Mr. Keefe's carefully studied bits of domestic architecture
The Editor's Diary
Yesterday and To-day: Lighting Fixtures
Contacts:
What is the Structural Research Department, A. I. A.?
ARCHITECTURE's Portfolio of Fences of Wood
Seventy photographs covering a wide range of types
A Doorway of Remarkable Beauty

The doorway of the Mayo Building is a symbol of hope to sufferers. None are turned away. Under an impressive archway of Mankato stone stand the huge doors enhanced and beautified by cast bronze. The outer doors weigh nearly three tons. Closed or open they show a paneled design decorated by symbolic ornament. Each leaf is 16 x 6 feet in size. The doors are electrically operated and swing with remarkable ease. Behind the doors is a bronze and glass vestibule screen finished in brown patine on a green background. Bronze ornamentation gives the entrance an effect of thoroughness, completeness and sincerity which must inspire confidence.

Architects . . . . ELLERBE & CO.

Builders . . . G. SCHWARTZ & CO.

Modeler, LOUIS RICHARD KIRCHNER

All ornamental metal work executed by

GENERAL BRONZE CORPORATION

480 HANCOCK STREET, LONG ISLAND CITY, N. Y.

"DISTINCTIVE PRODUCTIONS IN ALL METALS"
Exeter Cathedral, the Nave

The old Gothic churches exhibit the three-fold division in every part: nave, crossing, and chancel; north aisle, nave, and south aisle; north transept, crossing, and south transept; nave arcade, triforium, and clerestory; choir, presbytery, and sanctuary.
The Liturgical Requirements of Churches

1. THEIR ORIENTATION AND GENERAL LAY-OUT

By F. R. Webber

When we build a church we try to put the altar in the east. This is a fundamental liturgical principle of most ancient origin. They do it almost universally overseas. Roman Catholics, Episcopalians and Lutherans observe it quite generally in this country. Other church bodies have begun to fall into line.

When an architect plans a church he assumes that it is to be built in this manner. He always refers to the façade as the west front. Kipling may have believed that east is east and west is west, but any architect is able to cause east to become west, and vice versa. Thus it is that we speak of the west front of St. Thomas’s and of St. Patrick’s, although these churches stand on opposite sides of the avenue.

The practice of orientation, or of placing a building so that its main axis runs from east to west, goes back to Old Testament times. Exodus 26 seems to say that the Tabernacle stood in just this position.

This practice, although very old, was never entirely universal. In the Eastern Church the altar was generally in the east. St. Sophia at Constantinople and St. Apollinare Nuovo at Ravenna are examples. In the Western Church the altar was often in the west end. Old St. Peter’s, St. Paul’s-without-the-Walls, St. Clement and St. John Lateran all had western apses. As late as the days of Wilfrid’s Ripon we find builders placing their chancels in the west. However, most of the great English churches were properly orientated. Rievaulx Abbey is an exception, but here there is a hill on one side and a river on the other, and it was necessary to turn the church from north to south. The peculiarity of the building site caused the same thing to be done in the case of the modern Liverpool Cathedral.

Church officers in this country often overlook the fact that there are advantages, not only from a traditional, but from a practical, standpoint, in proper orientation. The architect ought to point out these advantages. It is not always necessary to place a church with its façade toward the street. In fact, it is often decidedly better to place the church with a side elevation to the street, and to place it in such a position that there may be a broad stretch of green lawn, effective massing of shrubbery, walks of shale or gravel winding up to the main entrance, and great trees to complete the setting. Cement walks that meet the street at right angles, and that run straight up to a flight of cement steps, are never beautiful. By taking advantage of the eastward position of the altar, the architect may often persuade the people to build a church in the way just described.

There is plenty of precedent in Europe. The churches of the Old World may face the street squarely if the street happens to run directly north and south. But European streets have a habit of meandering picturesquely in almost every direction; hence it is that one often sees churches placed broadside to the street, or at an angle to it, or even with the chancel toward the street. Much is gained in the way of picturesqueness where this is the case.

Occasionally one sees churches with an apse in the east end and another in the west. St. Gall and the Anglo-Saxon Canterbury were built in this manner. Bonn, Fulda, Hildesheim, Laach, Trèves, and Worms are examples.

As time went on, the eastward position of the altar became the rule, and hence it is that all liturgical directions take it for granted that the altar stands in the east and that the main entrance is in the west, at the end of the church’s main axis. Churchmen defended this on the basis of Ezekiel 43:4, “And the glory of the Lord came into the house by way of the gate whose prospect is toward the east.” From this they argued that the east is symbolically the position...
The churches of the Old World are usually set well back from the street, with broad stretches of lawn, trees and shrubbery. Gravel walks wind through the trees to the church door of greatest honor. In medieval days, at the early morning service, the faithful churchman would first face westward where darkness was thought to be receding, and pray to the Lord to deliver him from the darkness of sin. Then he would face eastward toward the rising sun and pray that the glory of the Sun of Righteousness might be made known to him.

Even though one may disregard tradition and liturgical directions as well, yet there are practical reasons for placing the altar in the east. One instinctively turns his face toward the light. Since our chief church service is held in the morning, what is more natural than to face eastward as we worship? The light streams in through the windows high in the chancel wall and falls into the sanctuary. Symbolically and emotionally this suggests the glory of God. What can be more natural than to worship with our faces toward the light? Then if one considers carefully the practical arguments of lighting, of natural ventilation in summer and heating in winter, the odds will all be in favor of the proper orientation of the church, with its main entrance in the west end and its sanctuary in the east.

There is a certain symbolism connected with a church that is arranged according to liturgical traditions. Even the smallest church has a threefold division of its ground plan: nave, choir, and sanctuary. A larger church is usually cruciform in plan, the nave and chancel representing the upright member of the Cross, and the transepts the cross-arm. It will be seen that there is a threefold division in every direction. There is the division from east to west of nave, choir, and chancel. Across the transepts there is the division of north transept, crossing, and south transept. The nave has its north aisle, its clerestoried central portion, and its south aisle. Considered vertically there are the aisle arcade, the triforium, and the clerestory. Even the separate parts of the church often have a threefold division. The nave may have a narthex, a nave proper, and a crossing. The chancel has its choir, presbytery, and sanctuary. The sacred number three is found wherever we go. An ideal church will be about three steps above grade. The clerestory and altar windows are generally divided into three openings. In a church of moderate size there are three steps at the entrance of the chancel, one at the communicants' step, and three at the altar, carrying out the symbolical numbers three and seven. The great west window and the transept windows often have a sevenfold division.

A question which has caused much dispute among authorities is whether or not there is a liturgical reason for the deviation of axis so often found in ancient churches. It is well known that many an old chancel is not in line with the nave. Often there is a very slight inclination toward the north, occasionally toward the south. Some authorities argue that this was done intentionally to symbolize the inclination of Our Lord's head upon the Cross at the hour of His death. Others are equally sure that it happened only where a new chancel was added to an older church, or vice versa. Without accurate instruments of precision it was not easy to get the new chancel in exact alignment.

Liturgically speaking, there is a striking similarity between Solomon's Temple and the medieval and modern church. The Temple had a fourfold division. First there was the Court of the Gentiles, then the Court of the Israelites, then the Holy Place which only the priests could enter, and finally the Holy of Holies, which none
but the High Priest dared enter. In earliest times a Christian place of worship included four parts. There was the narthex, into which both believer and unbeliever might go. Then there was the nave, set apart only for believers in good standing. Then came the choir, which might be entered only by the priest and his assistants. Finally there was the sanctuary, which only the priest himself might enter. Gradually the narthex lost its importance and became a minor division of the nave.

The architect of to-day may find something fascinating about a church that is properly orientated and liturgically planned. However, he may encounter difficulties in carrying out his ideas. There are building committees and parish meetings to be considered, and every member of the parish with a right to vote will feel himself competent to sit in judgment or to offer suggestions. Often these ideas will run contrary to the architect’s intentions. Even the clergy are not always properly informed in regard to matters architectural and liturgical. But if the architect understands symbolism, and knows something of the liturgical customs of the church, it is often easy to win his point.

In acting in an advisory capacity toward some eight hundred or more church building projects, the writer has found that most building committees have a wholesome respect for symbolism. As a rule, they are very ready to accept a plan that includes the divisions of three, five, and seven, if told that three represents the Holy Trinity, five Our Lord and the Four Evangelists, and seven the Seven Churches of Asia Minor, or any other of the numerous sevens in the Bible. The danger sometimes is that they are tempted to carry sacred numbers to an absurd extreme. The chairman of a building committee is said to have pointed out with much satisfaction that the ten windows in the kitchen of the new church represented the five wise and five foolish virgins, that the twelve tracery bars in the rose window symbolized the Twelve Apostles, and that the twenty-seven steps leading from the boiler pit upward represented the twenty-seven books of the New Testament.

Before a church is designed, it is well for both

Parish Church at Adisham, Kent

European churches are almost always orientated with the altar in the east, even though it may mean placing them broad side to the street, or at an angle
Some years ago a beautiful church was designed for one of our large cities. Everybody concerned overlooked the fact that in the case of that particular denomination the pastor must stand before the altar throughout a large part of the service. The altar was planned so as to stand at the top of a flight of seven steps, with no platform whatever for the pastor. The mistake was discovered at the last minute, but the whole east end of the building had to be revamped in order to get sufficient room for a foot-pace thirty-six inches wide. Had the architect, pastor, and building committee taken into consideration the liturgical or service requirements, much time and expense could have been saved.

Before a line is drawn, there ought to be a clear understanding as to liturgical customs. Does the altar stand against the wall, or is it removed somewhat from the wall? Does the clergyman stand at the altar during a considerable part of the service? Does he turn toward the altar during prayer? Is there a daily, a weekly or a monthly celebration of the Eucharist? Are the sacramental vessels prepared for use at the altar, or does a server do this in the sacristy? Is the altar to be elevated three steps above the floor of the sanctuary proper, or is there to be merely a foot-pace? Do the communicants follow the curious Central-European custom of kneeling on the foot-pace proper, and then walking around the altar after receiving? Are the lessons read from the steps of the altar, or from the lectern? Is the rail provided with a gate, and is this left open when there is no celebration of the Eucharist?

All of these things govern the layout of the chancel. If the communicants encircle the altar after receiving, then the altar must stand three to five feet from the wall, and this means a deeper chancel. If they leave the rail directly upon receiving, then two side exits, with ambulatories, must be provided. If the clergyman stands at the altar, faces it during prayer, and prepares the sacramental vessels upon the altar proper, then there must be a broad foot-pace, not less than thirty-six inches deep, at the altar. If he has servers, then the steps upon which they stand must be sufficiently broad. If the Sacrament is celebrated monthly there will be a greater number of communicants at each celebration than in parishes with a weekly or even a daily celebration. Hence there must be a longer altar rail, and this means a wider chancel.

There are liturgical customs that will govern the arrangement of the nave. Do the people stand, sit or kneel for prayer? Do they rise frequently during the service? Is the service such that every communicant must be able to see the altar in order to take part intelligently?

These things are important. In Roman Catholic and Episcopal churches, the worshippers kneel for prayer. In the Lutheran church they stand for certain prayers and kneel for others. In many other churches the people merely bow their heads. This governs not only the spacing of the benches, but their very design as well. Most Lutheran and a great many Episcopal churches are badly arranged in that the benches or pews are too close together, so that kneeling is difficult. In the Lutheran church the Order of Common Service calls for frequent rising. The same is true to a certain extent in the Anglican communion. Hence, in such churches the pews generally have less inclination than in churches in which the people sit throughout the service. In Episcopal and Roman Catholic churches the congregation kneels facing the altar. Therefore the backs of the pews dare not be too high. In Lutheran churches the people often kneel for Confessional Service with their backs to the altar. In such a case a pew with a low back is not imperative, but there must be ample space between the rows of pews.

If the order of service calls for a processional and recessional, then the passage aisles must be more than the regulation fifty-four inches. In our day, when nearly all city churches have processions, this point is worthy of serious consideration.

In the churches which originated in Continental Europe, the singers and organ are commonly in the west gallery. Hence there must be a large west gallery and the chancel need not be more than twenty-five or thirty feet deep. But in the case of the churches originating in the British Isles, the choir is generally in the chancel, and a chancel from thirty to forty feet deep is necessary.

In the following papers of this series we will discuss these requirements in greater detail.
The base, window grilles, and spandrels are of gray Vermont marble; the sub-base of black granite; the main walls are of buff Bedford stone.

First-floor sales-room, looking toward front entrance. Walls, gray plaster; ceiling, light yellow; showcases of harelwood with black wood inlays.

The oval Millinery Room, in dark blue, silver gray, and black. The arched openings lead to dressing-rooms.

BLACKSTONE SHOP, CHICAGO. PHILIP B. MAHER, ARCHITECT.
Second-floor front sales-room, in green, yellow, and black. In the design a Directoire root has been modernized by simplification. Ventilating grilles over the doorways are of strips of mirror.

A sales-room in the rear of the one shown above. The black-column treatment terminates the long axis.

BLACKSTONE SHOP, CHICAGO. PHILIP B. MAHER, ARCHITECT.
The axial termination on the third floor, with its platform designed for fashion shows

Details in the elevator lobbies on third and second floors

BLACKSTONE SHOP, CHICAGO. PHILIP B. MAHER, ARCHITECT
A detail of the oval Millinery Room, its curtains of dark blue satin against the grayish white walls

Entrance to the stairway, which is opposite the elevator doors shown above

Blackstone Shop, Chicago. Philip B. Maher, Architect
Fur sales-room on the third floor; the color scheme of the room, Beidermier red with touches of gray, blue, and black.

A detail of the showcase on the first floor, of hardwood inlaid with black. The lighting fixtures are of frosted white crystal beads.

EARLY AMERICAN WINDOWS
A SERIES OF PEN DRAWINGS

Part II

AN OLD HOUSE ON THE ALBANY POST ROAD NEAR RIVERDALE-ON-HUDSON

A RUINED HOUSE IN COLD SPRING, N. Y.

THE MIXTER HOUSE, ACADEMY HILL, NANTUCKET

Part I appeared in the September Issue
WESTOVER ON THE JAMES RIVER, VA.

THE PENNSYLVANIA HOSPITAL, PHILADELPHIA

FROM A PHOTOGRAPH. LOCATION UNKNOWN

AN OLD HOUSE IN WESTCHESTER COUNTY, N. Y.
THE PHILLIPS HOUSE, SALEM, MASS.

THE LEE MANSION, MARBLEHEAD, MASS.

THE ROYALL HOUSE, MEDFORD, MASS.

THE HABERSHORN HOUSE, SAVANNAH, GA.
THE JONES LIBRARY, AMHERST, MASS.
PUTNAM & COX, ARCHITECTS

Photographs by Paul J. Weber
The children’s room with the children’s porch beyond

The Jones Library, Amherst, Mass.  Putnam & Cox, architects
Entrance to the stage; ground drops from front to rear

The Jones Library, Amherst, Mass. Putnam & Cox, Architects
A lecture hall over the children's room

Main entrance hall, periodicals beyond

The Jones Library, Amherst, Mass. Putnam & Cox, Architects
The main reading room, with study area and stack room beyond

The auditorium, looking toward the stage

THE JONES LIBRARY, AMHERST, MASS. PUTNAM & COX, ARCHITECTS
Flower Market at Rouen, from the pencil drawing by A. W. K. Billings, Jr.
The main quadrangle of the new University of Rochester, with the Rush Rhees Library in the centre. Gordon & Kaelber, architects; Charles A. Platt, consulting architect; Olmsted Brothers, landscape architects

Architectural News in Photographs

The recently opened Riverside Church, New York, in which Dr. Fosdick preaches to multitudes. Henry C. Pelton and Allen & Collens, associated architects

Bertram Goodhue's St. Bartholomew's Church on Park Avenue, New York, now has a new dome over the crossing. Mayers, Murray & Phillip, architects

New York State's new office building, recently completed in lower New York City. William E. Haugaard, State Department of Architecture

Ohio's proposed State office building in Columbus. Harry Hakes, architect; Frank W. Buhl, Alfred A. Hahn, consulting architects
The proposed Navy and Marine Memorial for Washington. Begni del

The design by Maginnis & Walsh for the Massachusetts War Memorial, to be erected on Mt. Greylock

The proposed bridge between San Francisco and Marin County, with a centre span of 4,220 feet and a total length of 8,043 feet. Joseph B. Strauss, engineer

A memorial to New York City's sons in the late war, presented by Colonel Freedman for the American Legion Memorial in Paris. Designed by Robert J. Hill, executed by Gorham

Airplane shelters at the Curtiss-Wright Airport, Valley Stream, Long Island. Kenneth Franzheim, architect
BOOK REVIEWS


It seems almost incredible that the long and laborious procedure which we all learned as first-year students was largely unnecessary. Yet Mr. Freese has developed a shortcut general method of perspective projection that seems simplicity itself. He supplements this basic process with further short-cuts showing how to project curved-line figures, how to achieve perspective division, and how to make enlargements or reductions in perspective.


A textbook for beginners in architectural courses, briefly covering shades and shadows, perspective, the orders, elementary principles of rendering, and architectural lettering.


A particularly comprehensive work for the estimator, with which the author has supplied, in profusion, graphic charts which facilitate the labor of combining quantities and rates.


The author, who is a member of the Duveneck Society of Painters, and Professor in the University of Cincinnati, is a chemist who has turned painter. His knowledge of pigments and their endurance must be of inestimable value to those who would paint for future generations.


The author, who is assistant professor of Egyptology in the University of London, presents a concise account of Egyptian sculpture as divided into its various styles and periods. Since Egyptian art must be measured by millennia rather than by mere centuries, these differences between periods and schools are wide, and give one a new conception of the unique splendor of Egyptian sculpture.


An intimate account of our early American furniture in the making, going behind the technicalities of changing types to the men who produced them: William Savery, Jonathan Gostelow, Thomas Tufts, Benjamin Randolph, John Goddard and his kin, Major Benjamin Frothingham, Colonel Marinus Willett, Andrew Gautier, Aaron Chapin, Webb & Scott of Providence, Duncan Phyfe, Samuel McIntire, the Willard clockmakers, and a host of others.

TERMITEs AND TERMITE DAMAGE. With Preliminary Recommendations for Prevention and Control. By S. F. LIGHT, MERLE RANDALL, FRANK G. WHITE. 64 pages, 6 by 9 inches. Illustrations from photographs and diagrams. Pamphlet binding, Circular 318, August, 1930. Berkeley, Calif.: 1930: College of Agriculture, Agricultural Experiment Station, University of California.

A comprehensive survey of the three groups—damp-wood, dry-wood, and subterranean termites—telling of their habitats, depredations, and how to prevent attack.

SHADES AND SHADOWS FOR ARCHITECTS. A Social and Biographical Study. By THOMAS E. ODONNELL. 245 pages, 7 by 10 inches. Illustrations from drawings and photographs. Pamphlet binding, Circular 318, August, 1930. Berkeley, Calif.: 1930: College of Agriculture, Agricultural Experiment Station, University of California.

A text-book for the student, prepared by members of the faculty at the Ohio State University. In its arrangement as to typographical format and illustrations, the book is well adapted for class use.


The early history and gradual development of the University plan as it stands to-day. The book should be of interest and help to those concerned with the educational group, either as architect or as building committee.
HALESITE GRADE SCHOOL, HUNTINGTON, LONG ISLAND
A. B. SAMMIS, FRANK T. CORNELL, ASSOCIATED ARCHITECTS

Basement Plan

First-floor Plan
One of the interesting bypaths of architectural achievement is an understanding of the effect of distance upon architectural detail. As an example, compare the apparent delicacy of the lantern top upon the Bank of the Manhattan Company Building with a close-up view of the same shown on the next page.

Bank of the Manhattan Company Building, 40 Wall Street, New York City
H. Craig Severance, Architect; Yasuo Matsui, Associate Architect
A close-up view of the pinnacle above the lantern, sheathed in lead-coated copper

Bank of the Manhattan Company Building, 40 Wall Street, New York City

H. Craig Severance, Architect; Yasuo Matsui, Associate Architect
NUMBER VI
IN A SERIES
OF
WORKING DRAWINGS
By Jack G. Stewart

This series, in which one drawing will appear each month, is designed to cover the smaller practical problems that confront the architect in his day's work. The subjects chosen are those which, while not uncommon, call for some experience and knowledge of approved solutions. Next month the subject is Telephone Booths.

PREVIOUS SUBJECTS IN THIS SERIES
I. Flagpole Holder on an Exterior Wall
II. Radiator Enclosures
III. Cigar Sales Counter
IV. Woodwork in a Library
V. Built-in Kitchen Cupboard
DETAILS OF VARIOUS TRIMS & MOULDINGS

PICTURE MOULDS

PAVE: MOULDS

TRIMS & DOOR HEAD

PLASTER CORNICE

PLASTER CORNICE

DOOR & WINDOW TRIMS

BASE MOULDS

CHAIR RAILS

STAIR HAND RAIL

SCALE

PLATE NO. 6
Some Pitfalls in Supervision

By W. F. Bartels

IV. CINDER CONCRETE FLOOR ARCHES

The architect often specifies cinder concrete floor arches and thinks he gets them. In nine cases out of ten he does not. If arches were to be made of well burned cinders, free from sulphides, there would be scarcely any arches poured. Often what passes for cinders actually is a mixture of ashes. As one New York superintendent says: “You can’t fool my arch foreman; when he wants cinders he frankly calls for ashes.” It is a situation not to be lightly dismissed.

The ash content of cinders for concrete should be minimized and, of course, any loads containing coke or soot should be summarily thrown out. Cinders are stored in the open and this is to their advantage. The rains leech them and the air oxidizes to some extent any sulphides that are exposed. Hot cinders should never be tolerated on any job. The proper amount of cement—generally 1:2:5—in the mixture should be strictly adhered to and the strength of the arch not left entirely dependent on the wire mesh and the reputation of the builder.

The superintendent should not be fooled by the number of empty bags on a job, because in some cases they are brought on the job as “props,” when a laborer seems never to tire of waving the same empty sack. Another trick used when it is desired to cheat a little is to pile some bags of cement in one pile over the machines and untie all the bags. Then if an inspector approaches the bags are obviously all ready to dump in the mix.

A wetter mixture may be allowed around the beams than is used for the main slab, and it should be well puddled to insure its flowing around the beam and its clips. The fireproofing of beams, however, should not be poured too far ahead of the slab proper, in point of time, as is sometimes the temptation when a thin and thick mixture is being run by the only machine, as this may interfere with the bonding. Only a minimum amount of paper stuffing should be allowed, and this only where the forms do not quite meet, and never so that the mixture is stopped from going where it should. If the forms are carefully made, there will be little necessity of putting much paper in the small holes between the steel frame work and the wooden forms. Needless to say, the practice of throwing in cement bags, old clothes, etc., to stop up the holes should not be tolerated.

Before the arch is poured, all sleeves for pipes should be in place. This not only makes a neater job, but reduces the expense of cutting...
and patching. The lather should spread the wire mesh around these sleeves by cutting only the lateral wires and spreading the longitudinal ones as shown. It is well to see that when the cinder concrete is poured some one lifts the wire mesh in the arch so that it may be embedded in the concrete and to a depth called for in the arch diagram. The Lathers Union in New York City requires the employment of a lather to perform this work.

Besides checking the concrete mixture to see that it is properly mixed and the correct amount of cement is used, it is also well to check the depth of the arches being poured. Properly mixed cinder concrete needs little tamping, but the contractor using little cement does not care to lose that little through forms which are generally poor; consequently he may put in a drier mixture, requiring much tamping to form a solid body.

When the cinder arch is properly finished, it is easily distinguished by its clear ring, its tendency to whiteness, and the irritation of the mechanics who must drill through it.

**BRICKWORK**

BRICKLAYING and stone-setting are indeed two of the most ancient arts. To-day they are as jealously guarded by their respective guilds or unions as they were in ancient times. The workmen take pride in their craft and the architectural superintendent, insisting on good work, is usually certain of their co-operation. However, in the contractor's desire to get the maximum work from the men, the latter are often forced to take short cuts, against their better judgment. It is against this that the superintendent must be on his guard.

While the good common bricks in general use to-day may vary slightly, the difference is small and scarcely noticeable. There is, however, a vast difference between good and bad bricks. A good brick should always be insisted on for every job, however small. It should be of even texture, hard, well burned, and give a clear ringing sound when struck. It should have a minimum amount of absorption and be free from foreign salts.

Face brick may vary in color, composition, and method of manufacture, but it should have the same general characteristics as those given for common brick. Before using the white sand-lime brick, its absorptive qualities should be carefully considered. Several brands of sand-lime bricks are now in the market which seem to be satisfactory in this latter respect.

So seldom does a bricklayer use tools other than his trowel and level that an experienced superintendent may well wonder whether he has any other tools. He has others, but makes his trowel do most of the work. Care should be taken to see that a line is carried across the work and the plumb level frequently used.

Naturally, it will be insisted that the mortar used in laying brick should be of the proportions and materials specified. Care should be taken, however, to see that it is uniformly followed over an entire job—nearly every one can recall brick walls having joints which dried out in patches of different colors. The contractor will usually claim that sand and lime without cement make a satisfactory mortar, but if the architect had not considered cement necessary he would have left it out of the specifications. A coarse sand, free from clay and loam, is generally better than a fine sand because of the latter's tendency to pack.

Once the mortar is in the bricklayer's tub the superintendent will be able to tell the caliber of the workman. If he keeps his mortar well mixed and concentrated in one spot his work will probably be good. Beware of the bricklayer who has his mortar scattered all over and who does not mix it thoroughly at intervals; his work will be below par.

When laying bricks it should be insisted that they be thoroughly wet except in freezing weather. The joints should be well filled on all outside walls. Failure to do so will result in dampness and leaks. A foreman tells the story of a large wall that he had built and which was condemned by the architect because of the various shades of color in the joints. The architect felt it was due to varying mortar mixes. This the foreman denied. Finally the architect agreed that if mortar mixed in his presence was used in a sample wall and did not turn out uniform he would accept the large wall. This the foreman was only too glad to do, knowing that the various shades were due to partly filled joints; and of course when the architect again arrived the sample wall had the same fault.

The next instalment will complete Mr. Bartels's notes on Brickwork and continue with Stonework.

---Editor.
The garage on its main axis

GARAGE GROUP, ESTATE OF M. LLOYD FRANK
PORTLAND, OREGON
HERMAN BROOKMAN, ARCHITECT

The main house was illustrated in the issue of January, 1928; the gardens, in the issue of August, 1929.
Aerial view of the estate. The house is in a great group of Douglas firs above at the right, the garden stretching before it at the left with its main axis pointing to the snow-capped Mt. Hood, one hundred miles away.
The garage group with the end of the greenhouse at the right

Looking across the garden toward the bath house

Garage Group, Estate of M. Lloyd Frank, Portland Ore. Herman Brookman, Architect
Looking across the front of the garage

GARAGE GROUP, ESTATE OF M. LLOYD FRANK, PORTLAND, ORE. HERMAN BROOKMAN, ARCHITECT
Gardener's Cottage, Estate of John J. Farrell, Darien, Conn.
Charles S. Keefe, Architect
Gardener's Cottage, Estate of John J. Farrell, Darien, Conn.

Charles S. Keefe, Architect
Estate of E. Hope Norton, Darien, Conn.

Guest House at "Homewood"
Charles S. Keefe, Architect
Guest House at "Homewood," Estate of E. Hope Norton, Darien, Conn.

CHARLES S. KEFE, ARCHITECT
Thursday, August 21.—Russell Colee took me into the York & Sawyer drafting-room to-day to show me the working drawings for the Department of Commerce Building in Washington, which should possibly be nominated as requiring the largest job of architectural drafting in the history of civilization. The building covers three city blocks, arching the intermediate streets. Even at sixteen-inch scale, the long elevation was made in four sections. With the inner courts added to the perimeter, the elevations themselves comprised a pack of tracings almost as extensive as a whole set of drawings for an ordinary building. When the innumerable sections and the plans of air conditioning, window cleats, etc. were added, together with the details at quarter scale, three-quarter scale and full-size, the total amount of draftsmanship required—the drawings being in ink on linen—was stupendous.

Friday, August 22.—Lunched with French Strooter, Administrative Assistant to the President, who told me among other things of what seems a brilliant idea this country has depended for its prosperity in recent years largely upon the activities of new industries such as the automobile, radio, electricity, refrigeration machines, and the like. Some new industry ministering to the multitude will probably spring up in good time. Is it not possible, however, to induce the lift that such a birth would bring to American business? For example, the time is coming—why should it not be brought near?—when the American home as well as small stores and offices will be cooled in summer as well as heated in winter. As a matter of fact, an industry which would bring this with the reach of most people would be producing not a luxury, but an economic necessity. Where air treatment has been adopted for its prosperity in recent years

Tuesday, August 26.—With all the ingenuity and technical knowledge available these days, we seem to have found no thoroughly satisfactory way to restore the surface of marble and stone from which bronze lettering has been removed. Fifth Avenue itself, theoretically the last word in fastidious eternalism, shows more and more instances, in these days of change, where the dowel holes for bronze letters have been filled in a rather unsatisfactory attempt to match the original surface texture and color. If any one knows how this may be done, he will confer a great blessing upon the profession by letting the facts be known.

Thursday, August 28.—Herbert C. Wise dropped in to see about additions and revisions to "College Architecture in America" in the new edition which will be needed shortly. He tells me that in building Boldt Hall at Cornell, he and Mr. Klauder secured several of the stones from the old Waldorf, now demolished, and incorporated them in the structure which came to Cornell largely through Mr. Boldt's generosity.

Monday, September 1.—The filing of plans for a dwelling to be built in the Borough of Manhattan is a rare event—people no longer build houses in Manhattan. However, Mrs. Graham Fair Vanderbilt is to build one at 6c to 64 East 59d Street, from drawings by the Office of John Russell Pope.
would be an architectural education in itself.

Willis Church comes back from his travels around the world with the conviction that we should have some traveling scholarships that will permit architectural students to see the world instead of merely Europe. We are spending all of our time on Europe and shutting our eyes to marvellous things in India, Africa, and the Far East.

Monday, September 15.—Lunched with Griffith Bailey, Coale and Carl Beck. The former has taken the top floor of the old Astor Library for a temporary studio in which he is painting a mural for the New York Trust Company banking-room, now being finished at 75th Street and Fifth Avenue. The mural shows the water front of Manhattan under the Dutch, English, and finally to-day—a fascinating panorama in which there is much real documentary material upon the early Dutch and English ships. Since Mr. Coale is secretary of the Ship Model Society, he paints ships that have real functional significance, and sheets that lead very definitely from grommet to cleat. Six months time in which to complete a mural two hundred feet long by thirteen feet high seems like crowding, even in these days, but Coale's system of making a scale drawing in pencil, photographing it and projecting it on the canvas at night, makes it possible to transfer this outline to the canvas in very short time. He has a group of fourteen young men, many of them from the Yale Art School, putting on the paint, all in flats, in two shifts. It is possible to work at night since the colors are definitely fixed and mixed in large quantities beforehand.

Tuesday, September 16.—Attended a luncheon of the American Institute of Steel Construction at the Engineers' Club, where Herr Otto von Halem was the guest of honor. Herr von Halem is director of the Beratungsstelle für Stahlverwendung, which corresponds to our A. I. S. C. I was particularly interested in his report of finding increasing use for steel in the construction of dwellings. Herr von Halem expressed his surprise that we in America continue to use brick and terra-cotta as protection for our steel frames, without apparently realizing the possibilities of other means of insulation which might prove more economical. With all of our vaunted leadership in steel, which other countries admit, we are not carrying on the research necessary to find further and better ways of using steel, such as prevails in Germany.

G. E. J. Pistor, treasurer of the A. I. S. C., told us of his recently completed tour of foreign countries, pledging their co-operation in the establishment of similar organizations.

Thursday, September 18.—The September 1st Strauss national building survey, covering five hundred eighty-five leading cities and towns throughout the country, shows for August a decrease of 15 per cent in the total of the preceding month, and from the corresponding month of last year, a drop of 37 per cent. There seems to be little change in prices of building materials, officially at least, though manufacturers generally are working on a reduced time schedule. For example, 33 per cent of the plants reporting to the Common Brick Manufacturers' Association are not operating.

There is evidence that although there have been no reductions in published wage scales, contractors are able to employ building workers at rates considerably below the union scale. Looked at in the large, however, building has been on the downward trend since 1926. Many of the factories exhibiting this about have now altered. It would seem to indicate that an up-swing is due.

Friday, September 19.—In connection with the large question of how we are going to build around the steel frame, there is a significant article in the September 9th issue of Brick and Clay Record. The clay products manufacturers are very much alive in spots to the desirability for a light, economical, durable, and beautiful material which will form curtain walls and protect the steel frame. Some of the attempts to supply this need consist in making a lightweight unit which may also be cut, carved, and turned; another lightweight unit which is glazed in ceramic color; still another, in terra-cotta, is a large slab put into the wall with mortar; sprayed metals protect and distinguish the surface of another lightweight slab; then there are various systems utilizing bricks of varying size to secure an ashlar surface and through bonding; salt-glazed and slip-glazed tile is rather well known. No single discovery is going to revolutionize building over night. Possibly out of the growing field of contenders one or more may emerge after several years of experiment and trial by use.

Saturday, September 20.—It is interesting to find that in Manhattan, which Mark Barr calls "the city of Babbitt wars," and which is always regarded as possessing more commercial buildings to the square mile than any other locality, there are residential buildings in this same area valued at 25 per cent more than the business and industrial structures. Office buildings in New York City represent only 6.3 per cent of the total value of building as against 25.3 per cent represented by one- and two-family dwellings. Even in Manhattan, values of purely residential buildings are about equal to that of all other buildings.

Monday, September 22.—Edward Buehler Delk stopped in from a motorizing circuit from Kansas City through New England and back. Like most observing architects, he was marvelling at the high plane of design in the New England work left to us from a century and a half ago. Considering the few and rather inadequate books of details in existence at that time, it would be surprising enough if a few outstanding designers achieved great results. Still more surprising is it, therefore, when all of the work that is left to us is so uniformly good in its proportions, detail, and scale.

Tuesday, September 23.—Lunched with Edwin H. Anderson, librarian of the New York Library, who is distress ed over the fact that the great plant at 42d Street and Fifth Avenue is already inadequate. The main reading-room seats nearly eight hundred people, on Saturdays and holidays there are sometimes as many as two hundred waiting for seats. The great stack, which is the feature of the Bryant Park elevation, is severely taxed to accommodate two million volumes. Extension of the present library would be a difficult matter, due to lack of land. Any encroachment on Bryant Park would probably be met by the usual vociferous objection to decreasing our park area. Probably the difficulty may be solved through the growing tendency toward branch libraries instead of increasing centralization. It would seem that libraries, like everything else in this generation, may become specialized, leaving to the branch libraries the task of supplying ordinary needs, and to special-subject libraries the satisfying of students and investigators along special lines.

Wednesday, September 24.—Exponents of the less-noise movement will be glad to learn that one of the features of this year's building trades exhibition in London is a "silent house." Trystan Edwards, which is the feature of the Bryant Park building still continues to hold the average for the New York Metropolitan area, which shows a gain of 11 per cent over July of this year, and 1 per cent over August of last year. Residential building still continues to hold the average down. Residential work contracted for during August was 62.7 per cent below the average for August of the years 1925 through 1928. It seems likely that we are at the low point of the cycle, and that the next few years will show a prosperity that is based on sound business procedure rather than on speculative manipulation such as brought the inflation of recent years.
Yesterday

A GLANCE AT SOME OUR PRESENT-DAY WITH SOME OF THE MENTS OF PAST ERAS LIGHTING

and To-Day

OF THE MINOR ARTS—EFFORTS COMPARED RECOGNIZED ACHIEVE—THIS MONTH, FIXTURES

The photographs of old examples are used by courtesy of

The Metropolitan Museum Art, New York City

Early Christian lamp of bronze with stand; fourth or fifth century

Fixtures in the living-room of Robert Mallet-Stevens, architect, in Paris

Italian candlestick of the early eighteenth century, in gilt bronze and crystal

Banking-room fixture. Dennison & Hiron, architects; executed by Sterling Bronze Co.
Integral lighting unit in an office-building lobby. The Firm of Ely Jacques Kahn, architects

One of a pair of candelabra, Empire Period, in bronze and marble

Pricket candlestick in copper gilt and rock crystal; French, thirteenth century

Brass chandelier from the Adam Period, 1750–1775

Integral lighting about a column in a department-store. Holabird & Root, architects
What Is the Structural Service Department, A. I. A.?

In spite of the fact that ten years have passed since the Institute became active in structural service work, there still remains a lack of knowledge among the architects as to the purpose and manner of functioning of this organization. The last annual report clears up both of these points, and its own words serve to answer the question of the above title.

In 1918 it became evident that the Institute should co-ordinate and expand its activities as structural service, and the Fifty-first Annual Convention passed a resolution creating a Committee on Structural Service whose duties were, "to co-ordinate and correlate structural phases of the Institute's activities, and to co-operate with departments of the Federal Government, states and municipalities, and with affiliated organizations in matters where the Institute may properly render service toward improvement in structural materials, their safe and efficient application, and toward higher ideals in providing for the health, safety, and comfort of the occupants of all buildings."

The duties, as outlined, have never been changed or modified. A Structural Service Committee was not once organized, and in 1919 was made a standing committee, and was charged with the additional task of advising and co-operating with The Journal in the continuation of its structural service work. Various changes in other committees were made in order to better co-ordinate the work.

The first activity of the Structural Service Committee was the undertaking of a survey to determine the scope and ramifications of the proposed work, and at the Fifty-second Annual Convention (1919) the chairman reported that there were at least eighty Government departments and bureaus, professional and technical societies, and trade associations directly and actively interested in subjects relating to the structural phases of architectural design, and that the task imposed upon the committee was one of gigantic proportions, so that it might be impossible to perform the duties with any degree of completeness through purely voluntary service.

In 1920 the committee asked for an annual appropriation of $8,000; the nominal appropriation of $203 was increased to $75, with instructions that the committee should cooperate in the preparation of standard specifications; revise the Symbols for Wiring; prepare Standard Indications for Materials; and prepare a Standard Construction Classification for Filing.

During the year 1920 contacts were established with a number of Governmental departments and bureaus, with independent and university laboratories, with associations of producers, and with committees of technical societies. The committee actively co-operated with other interested groups in establishing standard sizes and grading of lumber; in standardizing nomenclature for wrought-iron pipe; in preparing standard specifications for architectural terra-cotta, and in the formation of a safety code for elevators. The Symbols for Wiring Plans were revised and the Standard Construction Classification for Filing was prepared.

These activities were made possible through the active co-operation of the members of the committee, and through an arrangement with The Journal whereby the technical editor was permitted to devote approximately one-half of his time to the work of the committee. This arrangement was continued through 1921; new contacts were made, and membership on other technical committees was accepted.

The contacts that had been established between the architects and the producer seemed to have been beneficial to both groups. Joint conferences were held, and the board reported to the Fifty-fifth Annual Convention (1922) that these conferences demonstrated the great desirability of a better understanding among architects and producers as to their common interests, and a resolution was adopted, creating a Producers' Section of the Structural Service Committee as a sustaining body to collaborate with the committee in the following duties:

(a) To advise and counsel with manufacturers, who may so desire, on the character of their advertising as to size, form and content,
(b) To assist in furthering the use, by architects and producers, of the Standard Construction Classification adopted by the American Institute of Architects,
(c) To promote sincerity and reliability of statement in advertising.

A number of the more professionally minded producers identified themselves with the movement and enthusiastically supported it. The rank and file of producers did not, however, show the interest that was expected. Sufficient funds were not available to adequately finance the joint activity, and sundry objections were raised by both individuals and groups. Conferences seemed to indicate the desirability of an intimate contact between the producer and the architect. They seemed, also, to indicate that a different kind of set-up would be necessary in order to obtain the results desired.

The Executive Committee at its
July, 1923, meeting considered the reports of the joint meetings and passed a resolution requesting the president to appoint a committee of three to arrange for co-operation between producers and the Institute. This committee was appointed, and its report to the Board of Directors at its November, 1923, meeting was approved and adopted, forming the basis upon which both the Producers' Council and the Structural Service Department have since been operating. It expresses the opinion that because of the rapidly developing scientific nature of the art of building it seems highly desirable that a technical organization be established within the Institute not only to meet present relationships of their parts, to keep abreast with all new developments and relationships that may be desirable, and to keep the members of the Institute intelligently informed as to these new developments.

The organization that was set up was briefly as follows, and is substantially the same to-day:

The producers were to perfect an organization of their own members to be known as "The Producers' Council, affiliated with the American Institute of Architects."

The A. I. A. was to establish a Scientific Research Department with a paid technical secretary whose duty it would be to furnish the Producers' Council with such technical service as they might require; obtain group criticisms of their advertising, and group opinions on other matters, and in addition act as secretary of the Structural Service Committee.

The Scientific Research Department was to be at the disposal of standing and special committees of the Institute, and to make such technical investigations as any of these committees might require in the proper carrying on of their regular work. Since the Scientific Research Department was to serve both the producers and the architects, its activities were to be jointly financed.

In its report to the Fifty-seventh Annual Convention (1924), the board reported that the newly created Scientific Research Department was functioning smoothly and gave promise of becoming a most important Institute activity.

The convention also approved a resolution that the board appoint a committee of three architects to act as Advisory Council to the department.

As the activities of the Scientific Research Department became more widely known, so many requests for Institute co-operation were received that the November, 1924, meeting of the Board of Directors passed a resolution to the effect that the established policy should be not to enter into investigations or commit work of any kind where the presence of an Institute representative would be merely complimentary, or where the experience and training of the architect did not particularly fit him to be of value in such deliberations.

Requests were also beginning to be received for Institute approval of codes or standards in the preparation of which the Institute had not been officially represented. The matter was brought to the attention of the board, and at its May, 1926, meeting a resolution was adopted to the effect that as a general rule the official approval of the American Institute of Architects would not be given to specifications, codes, or standards in the preparation of which the Institute was not officially represented.

Gradually the functions and activities of the Structural Service Committee had been absorbed by the Scientific Research Department, and at the Sixtieth Annual Convention (1927) the name of the Scientific Research Department was changed to the Structural Service Department, the Structural Service Committee was removed from the list of standing committees, and a representative of the Structural Service Department was to be appointed in each Chapter of the Institute.

In its report to the Sixty-first Annual Convention (1928) the board stated that:

"The Institute, through the Structural Service Department, has been represented at many meetings dealing with problems relating to building construction. . . . The Board considers these contacts of great value to the profession and to the Institute. The results obtained are full justification and ample return for the annual appropriation of $5,000 which the Institute makes to the Structural Service Department."

"The Department has continued the work of rendering service to individual architects in their technical problems, and members are urged to use this service, for which there is no charge unless extensive research is involved."

In order to centralize the activities of the Institute, the board brought about the removal of the Structural Service Department from New York to The Octagon on April 3, 1929.

The Institute was the first group of consumers systematically to study and analyze the advertising that they were receiving, to the end that as trustees of the building public the building stock of building should not be increased through wasteful sales promotional efforts, but should be decreased through the employment of methods that would increase the efficiency of the architect and his prestige. To-day the principles for helpful and effective advertising to architects, as first promulgated by the Institute, are very generally regarded as basic, and have been adopted by many other groups exerting an influence over the character of advertising. The results are apparent even to the casual observer. Advertising to architects to-day is not only more reliable than formerly, not only contains more information of value to the architect, but not only is this information arranged more conveniently so as to conserve the time of the architect, but also in its presentation it indicates a rapidly growing appreciation of good taste.

The Producers' Council, representing some thirty-two billion dollars of invested capital, frankly admits that it has a selfish interest in doing what it can to maintain the architectural profession in a position of leadership in the building industry. The most cordial relations exist between this Department and the Council, which, in co-operation with the Institute, is promoting the ideals for which the Institute stands.
ARCHITECTURE'S PORTFOLIO OF

FENCES OF WOOD

THE FORTY-NINTH IN A SERIES OF COLLECTIONS OF PHOTOGRAPHS ILLUSTRATING VARIOUS MINOR ARCHITECTURAL DETAILS

Forthcoming Portfolios will be devoted to the following subjects: Gothic Doorways (December), Banking-room Check Desks (January), Second-Story Porches (February), Clock Towers (March), Altars (April), and Garage Doors (May). 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 a month in advance of publication dates.

Subjects of Previous Portfolios

1926-27
Dormer Windows
Shutters and Blinds
English Paneelling
Georgian Stairways
Stone Masonry Textures
English Chimneys
Fanlights and Overdoors
Textures of Brickwork
Iron Railings
Door Hardware
Palladian Motives
Gable Ends
Colonial Top-Railings
Circular and Oval Windows

1928
Built-in Bookcases
Chimney Tops
Door Hoods
Bay Windows
Cupolas
Garden Gates
Stair Ends
Balconies
Garden Walls
Arcades
Plaster Ceilings
Cornices of Wood

1929
Doorway Lighting
English Fireplaces
Gate-post Tops
Garden Steps
Rain Leader Heads
Garden Pools
Quoins
Interior Paving
Belt Courses
Keystones
Aids to Penetration
Balustrades

1930
Spandrels
Chancel Furniture
Business Building Entrances
Garden Shelters
Elevator Doors
Entrance Porches
Patios
Treillage
Flagpole Holders
Casement Windows
Stained lattice fence on a stone wall. Oswald C. Hering

California fence of the lattice type. W. Ava Hudson

With intermediate posts, North Scituate, R. I.

California lattice fence with added verticals near top
Heavier lattice type with bottom sloped. Gable & Wyant

Short pickets on a shingled wall. Patterson & King

Continuous light lattice in a California setting

Light lattice relieved by circles, in California
Two colors around a Los Angeles miniature golf course

Round pickets half engaged in rails. D. D. Merrill

Short, thick balusters over flat squares, in California

Round rails and posts in an old Nantucket fence

Slender balusters between concrete posts. Ray Sel- don Price
A curious mid-nineteenth century fence in East Taunton, Mass.

A simple type of rail fence on Long Island

From the sawn-work era in Chester, Conn.

Post-and-rail in a hunting country

Decorative high board fence in Connecticut
Picket type from Essex, Conn., partly on a stone wall.

Well-detailed low-pickets and posts.
Frederick H. Reimers

Square pickets, one side flush with rails. Pitkin & Mott

Continuous paling in northern New Jersey. Frederick T. Warner

Chestnut saplings bound with copper wire, here whitewashed.
Simple broad pickets in Cape May, N. J. A. Gregory Ogden

Round-top palings with curved top line, Plymouth, Mass.

Tall, closely set picket fence used as a screen

Blunt pickets in alternating lengths. Arthur G. Nelson

Perforated and sawn picket tops. J. S. Cote
The garden fence at Mount Vernon, on a brick wall

A fence and gate in Ampthill, Bedfordshire. Henry Holland

Woven sapling fence with stone wall and posts

Roadside fence on wall, old Board House, Hackensack, N. J.
High picket fence in brick wall. Dwight James Baum

Short, square pickets mortised through rails, Old Lyme, Conn.

Stained lattice panels in stone wall. J. Williams Beal

Woven saplings as a screen about a stable group. Roger H. Bul- tard
A type for which Salem is famous. A. G. Richardson

Square pickets in alternating lengths. Old Lyme, Conn.

A Salem fence from 1779, by an unknown builder

On a whitewashed retaining wall. Bagg & Newkirk
Square pickets with a midway brace of like section. James W. O'Connor

From the Berkshires, early nineteenth century

Round pickets with heavy rails and heavy posts

Widely spaced pickets on low brick wall. Paul R. Williams
Round pickets and round posts in Old Lyme, Conn.

Former Breese house, Southampton. McKim, Mead & White

Modelled upon a fence formerly around the Common of Westport, Conn. Electus D. Litchfield

Two types as joined at a Salem gateway

Unusual in bottom rail and base. Hubert E. Reeses
A variant of the double top rail with alternating picket heights

Unpainted cypress boards of alternating heights

The rail fence with a variation in horizontal spacing

About the old Warner House, Portsmouth, N. H.
A free employment of curved lines

Flanking the entrance of an old house in Nantucket, Mass.

Of somewhat unusual horizontals. James W. O'Connor

A mid-nineteenth century example from Massachusetts

The high board fence as a screen
Tall posts with low pickets. Godwin, Thompson & Patterson

A screen fence that permits air passage through louvres

The trellis type in unusual length

Wide low pickets with spaces half the picket width, in Virginia

Unpainted square-top board fence relieved by his painted gate
Dark-stained rough-sawn boards between stone piers. Jackson, Robertson & Adams

A simple variant in picket tops between vine-clad brick piers, little over two feet high.

The so-called "sheep hurdle" fence common in the Long Island hunting country. The sections are easily removable units, the pointed posts lightly driven into the ground.

Jig-sawn palings with capping, from Saybrook, Conn.

A variant in wide pickets, from Oyster Bay, Long Island.
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The U. S. Government makes readily and impartially available a veritable mine of facts about industries and commercial enterprises in the country. Facts for the constructive study of your distribution problem may be found in the 1930 Census, just out. These facts will serve as a basis for advertising and publicity campaigns.

BULLETIN 141

Write for the new bulletin describing Jenkins Standard Bronze Valves with the one-piece screw-over bonnet and the slip-on stay-on disc holder. The Jenkins Valves are always marked with a "Diamond" trade-mark.

FOR EMERGENCIES

The failure of regular current for power or light supply is a financial loss as well as an inconvenience. It disturbs the harmony of business, deranges schedules, and is detrimental to public welfare. Buildings should be equipped with independent and reliable emergency electric generating units. The Ensign Hydro-Electric System connects with the regular building water supply, starts automatically, and operates continuously—insuring safety of exits, etc.

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POWER UNITS AND EQUIPMENT

The National Power Show at Grand Central Palace, New York, December 1-6, will endeavor to carry enough interest and influence to serve for the next two years—making it unnecessary to hold a show in 1931. Realizing that business has taken an upward trend, the exhibitors have decided to present a programme of somewhat larger units, shown under actual operating conditions. Some of these will be in application to airplane and other modern industries. It is significant that many new concerns have signed for space in the forthcoming show.

ADVERTISING WITH VISION

R. Robbins and Staff announce the opening of offices at Robinson Avenue South, Pen Argyl, Pa. They offer facilities for developing, planning, and producing magazine and direct mail advertising, refreshing in individuality and high sales appeal.

TWO SPECIALTIES

The Seco Incinerator and the Hotel deLuxe Electro Kabinet are two products of the Welded Products Corporation, Kansas City, Mo. The Seco is easily installed in new or old buildings and comes in a full range of sizes. The Electro Kabinet is guaranteed to be Graceful and noiseless. The Electro Kabinet is substantially made of welded 18-gauge steel, plate glass mirror, and four electric outlets serviced by a single box. These bathroom cabinets come in several models.

AROUND THE FIREPLACE

"Grates, Franklin Stoves and Fire Frames" is the subject of Todhunter's latest booklet. The introduction and development of the coal-burning grate is told in interesting text amply illustrated. Authentic reproductions of antique originals bear the Todhunter stamp of character.

THE COMPLETE OIL BURNER

Most oil burners are efficient. Some have to operate under impossible conditions. It is not reasonable to expect the best results when the burner is handicapped with a boiler which was originally designed and fundamentally built for burning coal. Many failures can be ascribed to that cause. The Bryan Steam Corporation has cut aside the tradition of coal-burning furnaces and designed a boiler to suit oil. In this, they have achieved the heat absorption capacity essential to the satisfactory operation of an oil burner. It is your wish to know more about the construction of Bryan Copper Tube Boilers; send for full information.

WESTINGHOUSE PANEL-BOARDS

A book of typical specifications has been issued by Westinghouse Electric & Mg. Co. It offers a standard panel-board for every possible application and these standards are kept ready in stock. Special panel-boards can be promptly supplied from the assembly shops.

NEW REPRESENTATION

The Bradley Washountain Company, manufacturers of fixtures for group washing, announce the appointment of three new representatives, further strengthening their sales organization. Mr. H. J. Warren will push sales in the metropolitan area of Chicago. At Baltimore, Mr. John J. Taylor assumes charge of sales for the State of Maryland. The most important step is the establishment of a Southern factory branch at Dallas, Tex., to be operated by Hansen-MacGruder, Inc.

"KANVAS" WINDOW SHADES

The Kemixte process of water-proofing applied to special woven window-shade material has produced a heavy duty window shade that is impervious to sunlight, moisture, and soil. It can be washed without removing from the roller. In schools, hospitals, hotels, etc., Kemixte Kanvas is very desirable. It is also suitable for residences.

A SPREAD

Majestic Skylight Products are specialists in daylighting. The most effective natural lighting comes from overhead and the perfected simplified Majestic Lead Skylight with absolutely water-tight lead glazing construction makes ideal lighting conditions possible and safe. Ask for the spread sheet with details.

PENNSYLVANIA-DIXIE BOSTON OFFICE

Mr. H. E. Bernt has been appointed district sales manager to succeed Mr. E. G. Brick, who, however, remains with the company in another capacity. Mr. R. M. Penman has joined the Boston office as assistant district sales manager.

A BIG CONTRACT

The Swedish wrought-iron work for the new twenty-seven-story Brooklyn building for the New York Telephone Company will be furnished by the General Bronze Corporation. The order calls for lobby and elevator entrances, decorative fittings, grilles, etc. The work will be executed in the company's Minneapolis plant.

INDEPENDENT TEMPERATURE CONTROL

A new device launched by the American Radiator Company makes possible an individual heat control for each room. This accessory is called Radiatherm. It is attached to the radiator and set at the desired degree, works automatically, and maintains a constant room temperature regardless of weather conditions and changes.

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A NEW CATALOGUE

The latest developments in modern heating have been published in a catalogue by James P. Marsh & Co. The edition includes a description of the Marsh Weather Compensating System of Heating. Specialties of advanced design, recently produced by Marsh, are illustrated and described.

NEWBOOKLETS

Midwest genuine hand-wrought iron, copper, and bronze lighting fixtures and ornamental metal work are shown in a small booklet from the Midwest Metal Art Division. "Newmango Storefronts" names fourteen points of superiority and several exclusive features. Architects and builders are invited to use Newman's layout service in planning for new work or alterations.

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The Parsons "Puraire Kitchen" is built entirely of steel, sanitary and durable. It may be set against the wall, or recessed, and requires no partitions nor folding doors. This complete kitchen unit requires only 20 per cent of the floor area occupied by like conveniences in separate units. The Parsons Company will send you a leaflet with plans and specifications.

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Of ARCHITECTURE, published monthly at New York, N. Y., for Oct. 1, 1930. State of NEW YORK, County of NEW YORK.

Before me, a NOTARY PUBLIC in and for the State and county aforesaid, personally appeared CARROLL B. MERRITT, who, having been duly sworn according to law, deposes and says that he is the BUSINESS MANAGER of ARCHITECTURE, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business manager are:
   PUBLISHER: Charles Scribner's Sons . . . 597 Fifth Ave., New York, N. Y.
   EDITOR: Henry H. Saylor . . . 597 Fifth Ave., New York, N. Y.
   MANAGING EDITOR: None
   BUSINESS MANAGER: Carroll B. Merritt . . 597 Fifth Ave., New York, N. Y.

2. That the owners are: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)
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3. That the known bondholders, mortgagees, and other security holders owning or holding one per cent or more of total amount of bonds, mortgages, or other securities are: None.

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CARROLL B. MERRITT, Business Manager.

Sworn to and subscribed before me this 26th day of September, 1930.

[Seal]

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<tr>
<td></td>
<td>United Metal Products Co.</td>
<td>56</td>
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<td></td>
<td>United States Gypsum Co.</td>
<td>13</td>
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<td></td>
<td>Vermont Marble Co.</td>
<td>12</td>
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<td>Wallace &amp; Tierman Co.</td>
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<td>Wallpaper Ass'n, The</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Webster, Warren, &amp; Co.</td>
<td>9</td>
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<tr>
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<td>Wright Rubber Products Co.</td>
<td>55</td>
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</tbody>
</table>

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