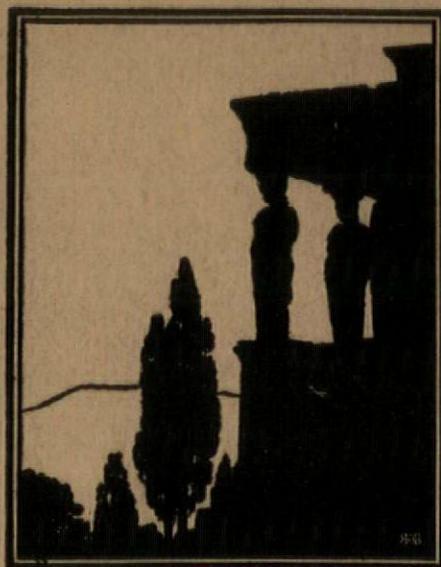


ARCHITECTURE

November 1932



The Smaller Public Library

BY WALTER H. KILHAM

Craftsmanship in Metal Grilles

BY GERALD K. GEERLINGS

“Alice in Blunderland”

BY WILLIAM ADAMS DELANO

Inventory in the Night, by St. Elmo Tower Piza

Portfolio: French Stonework

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"A few houses, to be sure, fortunately placed near the growing urban centres, early attracted visiting students. Westover and Shirley owed their exclusive early fame little more to their own magnificence than to their being within reach from Richmond for a hasty trip with camera and rule. Blandfield and Stratford were as imposing in their distant retreats; Rosewell, Mount Airy, and Cleve were once as richly finished, before fire gutted them in their succorless isolation.

"The pioneer student of a generation ago made hasty measurements, guessed heights, finished his drawings far from the possibility of verification, forgot out-buildings, neglected to note materials and colors. To this day architects using the older works generally suppose the doorways of Westover to be of wood. Pretty are the theories which have been built on such premises! The vast plane surfaces of houses like Carter's Grove have seemed barren to those who were not informed of the rich variety of color and gauging in their brickwork, and which, unlike mouldings, did not appear in summary outline drawings.

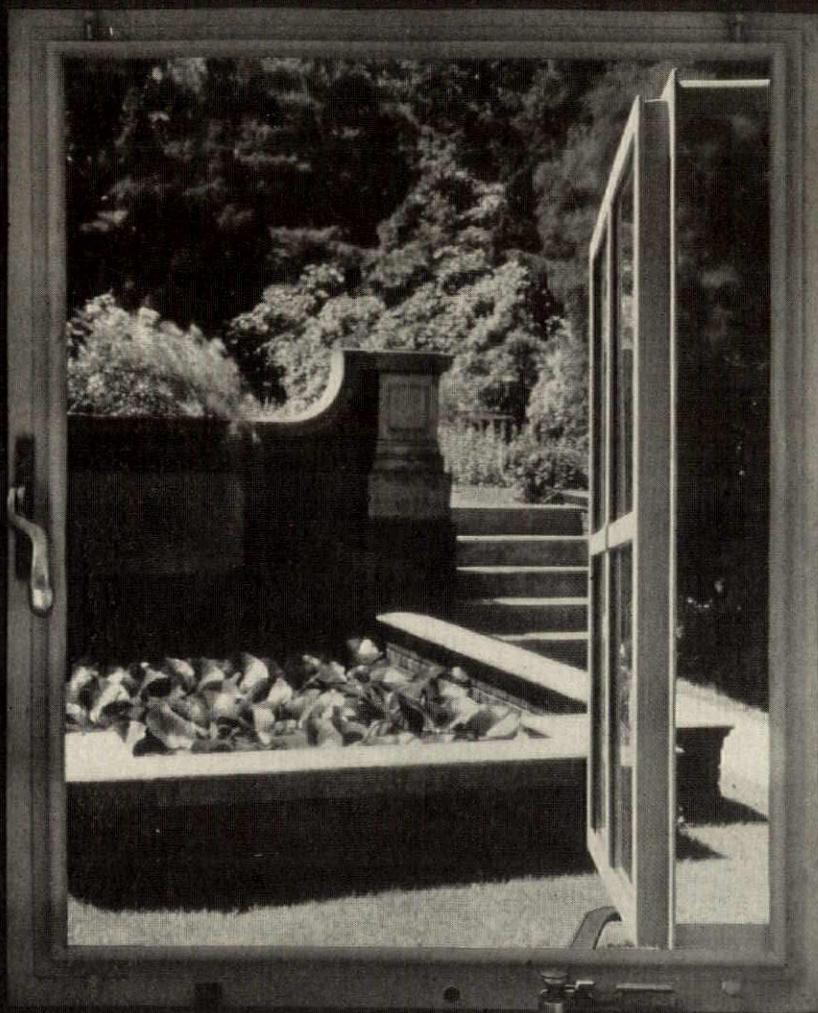
"A whole province of great mansions, most of them never drawn or published before, is rediscovered. The background of a vanished civilization is exactly set forth."—FISKE KIMBALL

210 pages, 11x14; illustrated with photographs and measured drawings reproduced at scale; double-page drawings opening flat on guards; bound in blue linen, in labelled slide case; price, \$15.

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SMALL-HOUSE COMPETITION

ANNOUNCEMENT is made of the third annual small-house architectural competition conducted by Better Homes in America, Inc., in co-operation with a Committee on Awards appointed by the president of the American Institute of Architects.

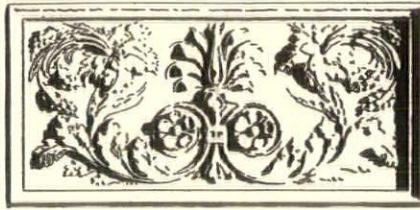
The purpose of the competition is to discover the best examples of small-house architecture through awarding medals and honorable mentions to the architects whose designs of houses erected during the past five years attain the highest standards in the estimation of the awards committee.

The conditions governing the entries stipulate that the competition is to close December 15, 1932. Awards of three gold medals are to be made to practising architects for the best design submitted for each of three types of houses, a one-story house, in which storage space but no living accommodations may occur in roof space; a story-and-a-half house, with living accommodations partly in the second story which is actually a "half story"; and a two-story house.

The awards are aimed to discover and call attention to the best small houses actually constructed during the given period, and thus to stimulate interest in overcoming the faulty design and construction of the really small house. To this end the actual cube of the house, above the level of the first floor, is not to be greater than 24,000 cubic feet except for two-story houses, for which a cube of 26,000 cubic feet is permitted. Open porches are to be estimated at one-half cube.

The documents to be submitted include floor plans, blue-prints or otherwise, showing the first floor, and second floor if it has living accommodations; two elevations; and one or two photographs of exterior, preferably two. Two photographs of the interior may be submitted if desired, but as the award is to be based upon the design of the structure, not on its furnishings, interior photographs if submitted should be selected with this in mind.

Houses entered in the 1932 competition are to be those the construction of which was finally completed between the years 1927 and 1931 inclusive. Designs of houses which have been submitted previously cannot be resubmitted to the committee in 1932.



The awards will be announced about January 1, 1933. Exhibits, shipped to Better Homes in America, in care of the American Institute of Architects, 1741 New York Avenue, Washington, D. C., must be received not later than December 1, 1932.

The jury is not required to make any or all of the awards should there be no houses submitted which in its opinion deserve a medal. In addition to the medals, however, the committee may also grant honorable mention to designs which are deemed worthy. In awarding honorable mention the jury will give special consideration to the suitability of the designs to the climatic conditions and local traditions of the geographical regions in which they were built.



DELANO & ALDRICH TRAVELLING SCHOLAR

JEAN FRANÇOIS MEUNIER, of Paris, winner of awards in several French architectural competitions and of the Stillman prize at the Ecole des Beaux-Arts, has been named the Delano & Aldrich Travelling Scholar by the Committee on Education of the American Institute of Architects, it is announced by Charles Butler, chairman of the committee.

The fellowship, established by William A. Delano and Chester H. Aldrich, of New York, enables a foreign architect, sculptor, or painter, or a student in one or more of these arts, to spend a year of travel in the United States. Meunier will study American architecture and building methods.

Meunier is a graduate of the Ecole des Beaux-Arts, having received during his course there first medal in construction and second medals in design. He has taken part in numerous competitions, both on his own account and for other architects, and has received honorable mention in the competition for the Prix de Reconnaissance des Architectes

Americains, founded by former American students at the Beaux-Arts in appreciation of the free education given them by France at the school.

Meunier has been chosen twice among the ten final competitors for the Prix de Rome, and he expects to compete again next spring. Among the important projects in which he has had a part are the plan of the City of Beyrouth, the Credit Foncier of Brazil, the Galeries Lafayette in Paris, the Casino at Forges les Eaux, and various factories and hospitals.

The Stillman prize, established by the late James Stillman, New York banker, in recognition of the services rendered to American architecture by the Ecole des Beaux Arts, and the Chenavard prize were awarded to Meunier on a program of city planning.

The French committee which represents the Committee on Education of the American Institute of Architects in Paris made the selection for the Delano & Aldrich fellowship award. The committee is headed by Andre Arfvidson and includes in its membership Gustave Jaulmes, Camille Lefevre, Auguste Pelechet, and Georges Gromort.

DOUGLAS FIR PLYWOOD

AT a general conference on October 17, held under the auspices of the Department of Commerce, Bureau of Standards, a recommendation was drawn up for the commercial standard applicable to the Douglas Fir Plywood industry. This has now been sent out to producers, distributors, and users, seeking approval through the signature of an acceptance form such as is common in the establishment of various standards by the Bureau.

PHILADELPHIA ATELIER OF MURAL PAINTING

THE chairman of the Department of Mural Painting, Beaux-Arts Institute of Design, has asked Edith Emerson, a member of the National Society of Mural Painters, to conduct an atelier of mural painting in Philadelphia. Professional artists, graduates of art schools, and advanced students are eligible for membership. Eight monthly projects as issued by the Beaux-Arts Institute, are to be developed, beginning September 19, last. There will

(Continued on page 6)

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THE BULLETIN - BOARD *Continued*

be criticisms by leading Philadelphia architects and mural painters. Final judgments and honorable mentions will be given monthly in New York. The registration fee is five dollars; monthly fee, ten dollars in advance. Further information may be had from Miss Edith Emerson, St. George's Road, Mt. Airy, Philadelphia, Pa.

NEW YORK STATE'S DISPLAY AT CHICAGO

ARRANGEMENT for New York State's display at the Chicago Century of Progress Exposition next summer will be in the hands of three men named by Senator Cosmo A. Cilano, of Rochester, chairman of the State Commission on the Fair. Eugene Schoen, of New York City, will be technical adviser and will have as assistants, Gilmore T. Clarke, of Pelham, and Frank W. Darling, of Larchmont.

Mr. Schoen is an interior decorator, a professor at New York University, and one of the technical advisers for Rockefeller Centre.

Mr. Clarke, a landscape architect, is the man who has developed the famous Bronx River Parkway, a member of the National Commission of Fine Arts, and one of those planning the reconstruction of Pennsylvania Avenue in Washington and the Highway to Mount Vernon.

Mr. Darling is the man who made

the plans for the midways at the Paris Exposition and the English Exposition at Wembley. He also planned spectacular features for Coney Island and Playland at Rye Beach.

PHILADELPHIA TECHNICAL SERVICE COMMITTEE

THE Philadelphia Technical Service Committee has found a noticeable increase recently in the requests for engineering personnel and in the number of men returned to work through its efforts. A total of 150 men have been definitely placed to date. Of this number 40 are now on made work with municipal and civic organizations, financed from a fund subscribed by individual engineers and engineering societies of the Council. A movement is now on foot to raise \$60,000 and it is planned to extend this type of service until 200 engineers with dependent families can be cared for. The State Employment Commission of Pennsylvania, The Engineers' Club of Philadelphia, which sponsored this committee, and the local sections of twelve national engineering societies constitute this council.

EDWARD A. RENWICK RETIRES

HALF a hundred old employees and close friends of the architectural firm of Holabird & Root attended a dinner in Chicago early last month honoring Edward A. Renwick. Mr. Renwick was a partner of the old firm of Holabird & Roche, and more recently of the firm of Holabird & Root, and is retiring from active participation in business after half a century of association with the original organization and its successor.

Mr. Renwick, whose home is in Evanston, Ill., has been actively identified with many notable achievements in Chicago covering a period of many years, beginning with the Tacoma Building, pioneer skyscraper, of which he was superintendent of construction. He devised the deep basement method of construction first used in the Tribune Building. The best wishes of many friends follow him in his retirement.

PERSONAL

P. B. Fleming, who has, for the last seven years, had active charge of the Ernest Szekely Company, consulting engineers, of Cleveland, Ohio, has taken over the practice under his own name, continuing at 308 Rockefeller Building.

Our New Printing Process

IN turning over the pages of this issue of ARCHITECTURE you will notice, we trust, the new physiognomy of the first section of sixteen pages, including Mr. Cameron's frontispiece. Compare it with the other pages of the magazine and tell us how you like it.

Reproduction of illustrations concerned with architectural matters has certain requirements not common to the presentation of other material. The process must reproduce detail in the sharp fidelity of the original photograph or drawing; it must show deep, rich blacks where these occur, without sacrifice of delicate highlight modelling; and it should bring to the reader, in common with other subject matter borne upon the printed page, a pleasing appearance, avoidance of reflection from highly glazed paper, and submergence of the mechanical factors in the process. For instance, the most common process utilizes the "half-tone" plate—a sheet of copper from which tiny dots project to

catch ink from the roller and deposit it on the glazed paper. Half-tone reproductions are pleasing only when the dot itself is lost to the eye.

In contrast to the raised dot, our new process is planographic. That is to say, the printing is done from a perfectly flat surface, with neither raised dots nor intaglio cutting (as in the photogravure process). The printing surface is sheet zinc which is "grained" by means of revolving marbles and very fine quartz. This slight tooth is given the zinc surface so that it will hold a gelatine coating. This coating is hardened by alcohol and formaldehyde, then baked.

Photographic negatives of the subject-matter, both pictures and type, are grouped on a large glass plate, spaced to make a "form" of sixteen pages, and all space not occupied by the negatives is blocked out with opaque. Through this form

negative a "print" is made on the zinc plate, meanwhile sensitized to light on its gelatine covering. The light passing through the transparent portions of the form negative causes the bichromated gelatine so exposed to become insoluble in a developer of alcohol and water, the bichromate not affected by light being dissolved. The plate is then baked to harden it, curved for a cylinder press, and is ready to print. In the inking, water is fed over the plate. Remembering that the light-hardened bichromate image is insoluble in water, it follows that only the gelatine unaffected by light will absorb any water. The ink, therefore, being repelled by the dampened gelatine, is deposited only upon the dry portions of the image. But there is one more step before we get that ink on the paper; a rubber blanket first receives it from the zinc, then transfers it to the paper. The resilience of the rubber permits perfect contact with paper that is in itself full of little hills and valleys.

ARCHITECTURE

REG. U. S. PAT. OFFICE

THE PROFESSIONAL ARCHITECTURAL MONTHLY

VOL. LXVI, NO. 5

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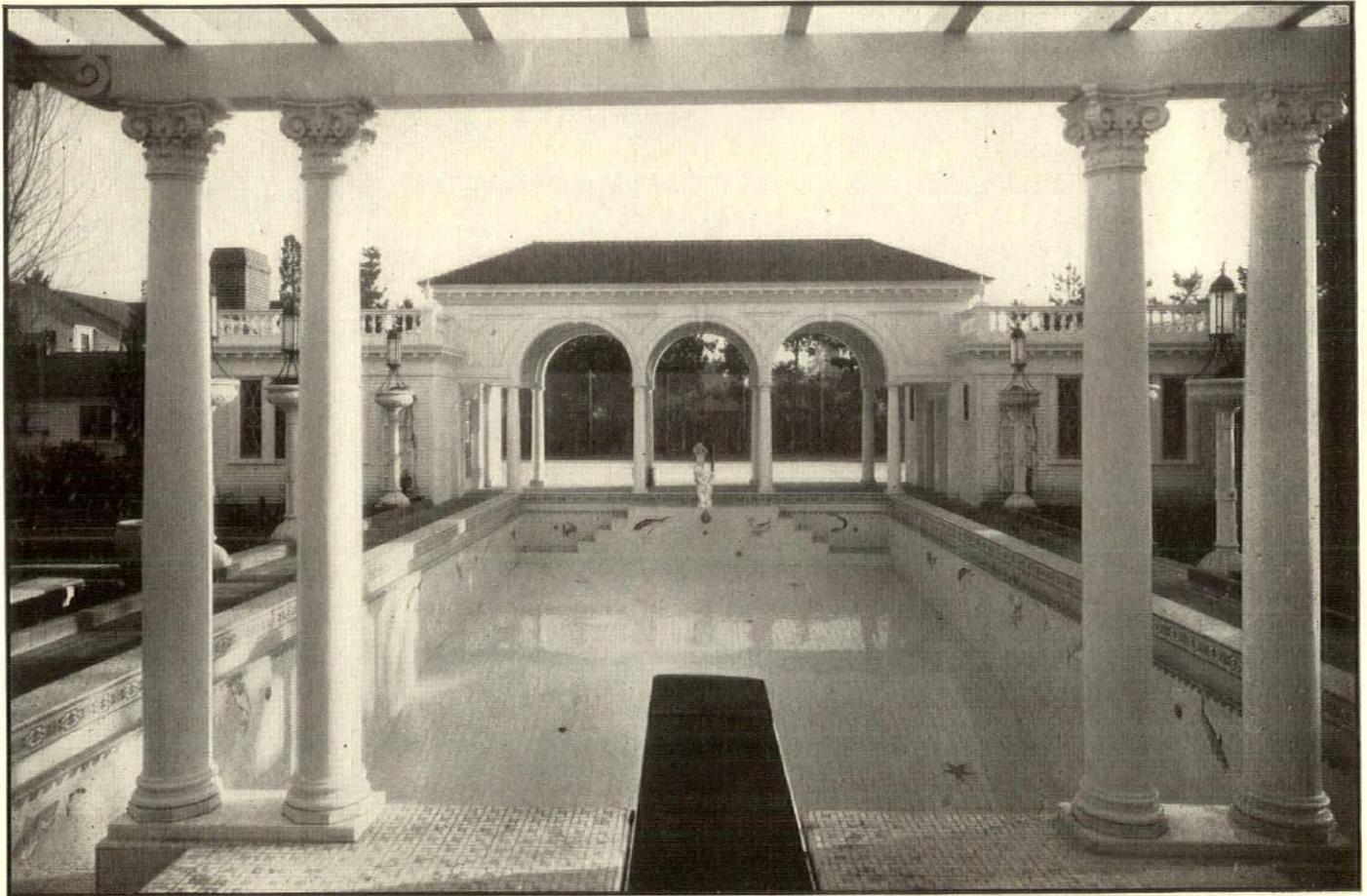
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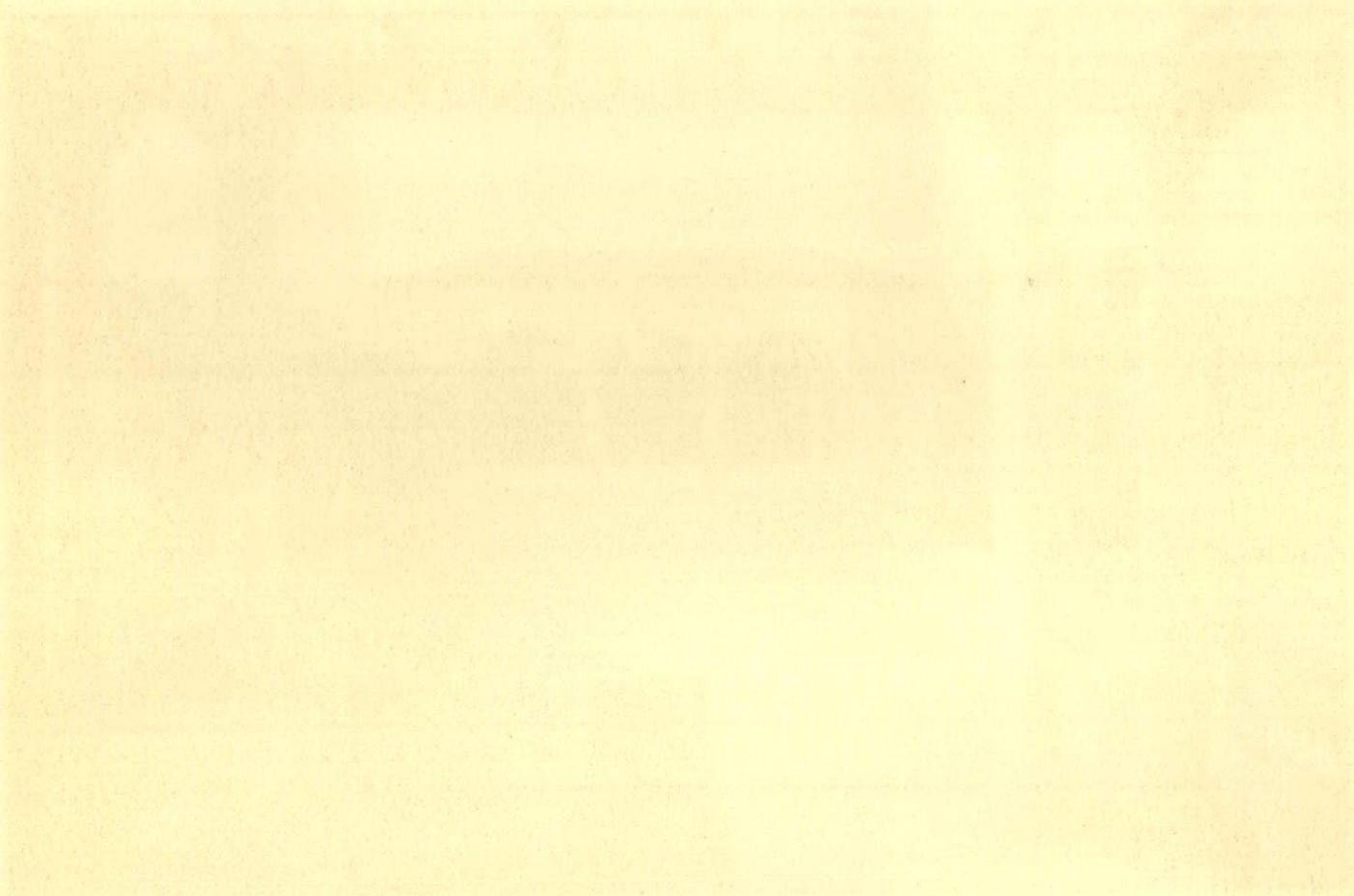
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[Faint text at the bottom of the page]



FARMHOUSES, VOGOGNA
From the pencil drawing by
Malcolm P. Cameron

« ARCHITECTURE »

ARCHITECTURE

❖ VOLUME LXVI

NOVEMBER 1932

NUMBER 5 ❖

The Smaller Public Library

By *Walter H. Kilham*

WITH ILLUSTRATIONS FROM RECENT WORK BY
KILHAM, HOPKINS & GREELEY AND ROBERT COIT

ANY critical study of public-library plans is of slight value unless it follows an analysis of the purposes to which the library building is to be devoted, for while no type of building is more standardized in general than the average public library, there exist here and there communities of individualistic character whose wants vary from those of the usual class; and these buildings cannot be judged by the commonly accepted standards. It would be ill advised for a mere architect to question the conclusions at which the librarians' organization has arrived after years of study and practice; nevertheless over-standardization is apt to lead to stagnation and outside ideas have a not intangible value in introducing variety and atmosphere into a typical library plan.

The usual purposes of a library are about as follows, though their relative importance may not be in the order listed:

- (a) *Book Storage.* Light, dry, accessible, fire-proof.
- (b) *Lending Books.* System must be rapid.
- (c) *Reading and Study within the Building.* Good light, easy supervision, and comfort.
- (d) *Cultural Uses* other than reading, such as art exhibitions and lectures.
- (e) *Work Rooms and Staff Accommodations.*

The book-storage section of a modern library has been the subject of a great deal of study both by library experts and by manufacturers of stack equipment, and much progress has been made, especially in the matter of ventilating under and back of the books, so that the well-known stale book smell has been practically banished from modern libraries. New developments in lighting fixtures also prevent the glare of the unshaded electric-light bulbs, which make it difficult to read the titles in the older stack rooms. In the Winchester Library the problem of read-

ing titles of books on the lower shelves has been helped by tilting these shelves backward so that the book backs are presented to the eye at a better angle. In this building, too, a bay window is arranged at the end of the stacks which forms a pleasanter place to look through a book than the aisle; an arrangement totally unstandardized but much appreciated by users of the building.

Lighting the reading-room for comfortable reading in the evening has long been a difficult question. Imagination formerly did not extend beyond lamp standards in the middle of the table, in a position which caused light rays falling on the printed page to be reflected directly into the reader's eyes. If the reader attempted to turn his back to the light, the book was plunged into darkness beyond the cone of light from the lamps. Overhead chandeliers were clumsy, caught much dust, and concentrated the light in certain areas. The use of built-in lighting obviates all these difficulties and provides a soft, diffused light over the entire room, easy to read by and not disturbing to its architectural proportions. There is no part of a library building more deserving of study than the reading-room lighting arrangements, and nothing has caused more discomfort in the past than the bad conditions which have usually prevailed.

Easy supervision of all parts of the building to which the public has access is highly essential, as the size of the staff is limited in most public libraries. To this end all projecting bookcases or stands must be low, not over 3 ft. 6 in. high if possible, so that heads of readers are visible from the charging-desk. An air of informality is desirable but difficult to attain. Seats and easy chairs about the fireplace are inviting and look well on the plan, but lose their charm if there is no fire, and if conversation is absent. Judging by the great preponderance of works of fiction circulated by the average library, one is led to ask whether the actual purpose of the public li-

brary is not to furnish free entertainment rather than to facilitate study. If such is actually the case, the facts should be squarely faced and a quiet section reserved for serious students, while greater informality could be given to the fiction and periodical departments. Reading a novel or a magazine requires a little more effort than watching a motion picture, but otherwise it is mostly in the amusement class of occupations. This question is respectfully referred to librarians for answer.

Or, to take another line of thought, why should a town develop the literary side of culture exclusively? Art and music have equally good claims to consideration. Music, for obvious reasons, cannot be given continuously, at least in a building devoted to other uses, but art certainly has a place in connection with a library, and the average American community probably needs more acquaintance with art than it generally gets. Most libraries are equipped with lecture-rooms, and these can easily be designed, as was the case in Winchester, to serve as exhibition galleries. Good pictures for exhibitions are not hard to obtain; the American Federation of Arts keeps several exhibitions continuously circulating about the country, and various publishers of prints, etc., are glad to co-operate. Most librarians try to give as much color as they can to the interiors of their buildings by tacking up magazine covers and such colored prints as they are able to lay their hands on, but these efforts fall far short of anything like a serious art exhibition, and cannot go very far toward giving the people much idea of either historical or contemporary art.

Standardization of library plans may accomplish much good in certain ways and much harm in others, as it has done in schoolhouse planning. There is always a tendency of organized bodies in any profession to think that simplification will follow standardization, but that it really does has yet to be proved, and if it results, as it often does, in the loss of atmosphere, the price is too high. Among the larger libraries, the Boston Public Library, built by McKim about 1890 on a preposterously impractical plan from an administrative point of view, yet possesses so much charm with its unexpected vistas and curious sequences that one feels himself in some old Italian palace rather than in a modern institution, and by the time he has climbed the stairs to the delivery room, passing the mellowed Puvis de Chavannes murals, he has acquired a receptive frame of mind and seems miles away from

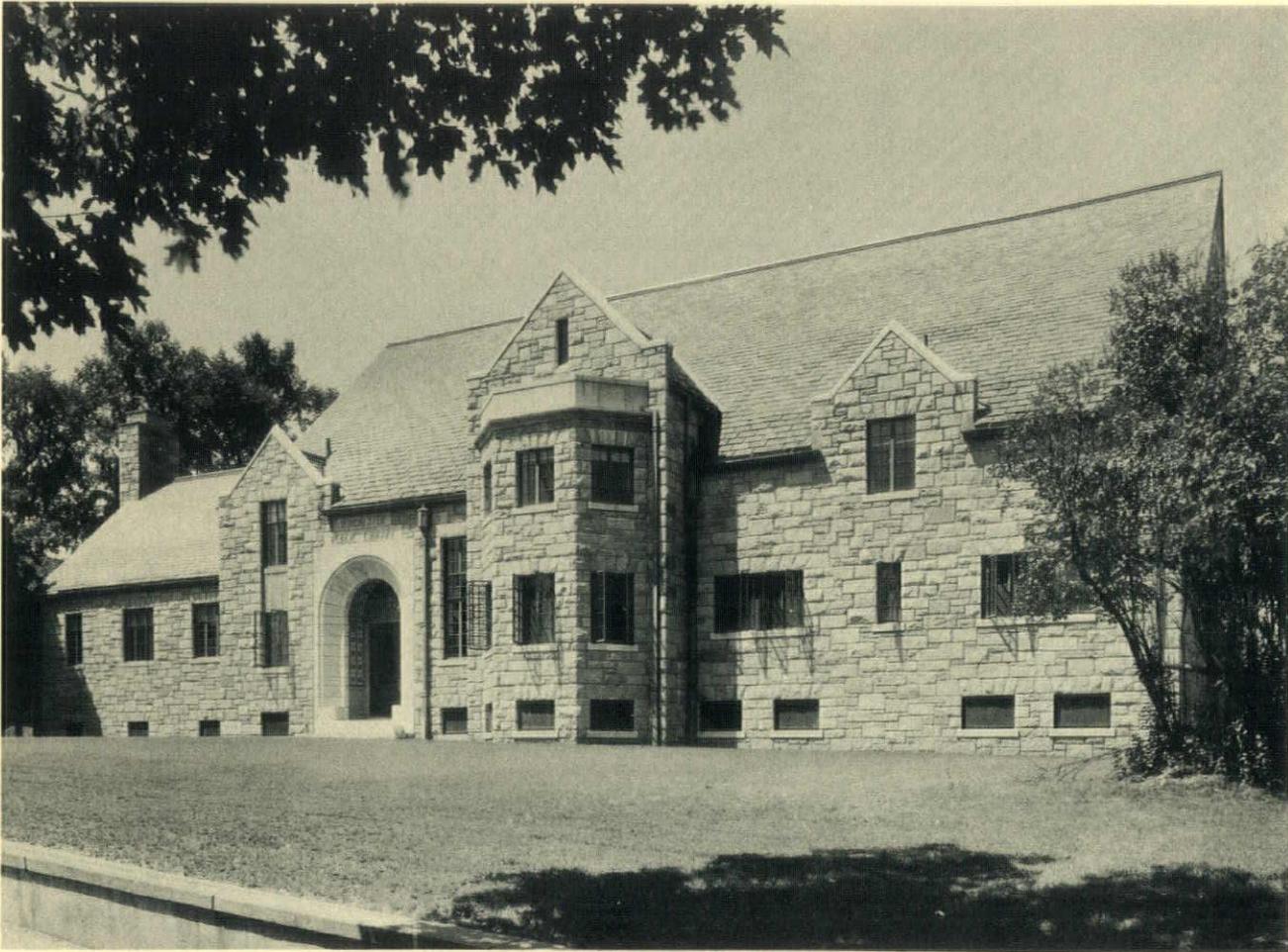
the busy street. The most impressive library I know of in North America is that of the School of Fine Arts in Mexico City, one immensely long and lofty room, not too well lighted, the inner wall lined with long ranges of shelves packed with priceless folios of every age, and the director's desk at the end, accessible to all, and to all an inspiration. It takes more than filing systems or steel stacks to make a library.

However, to those who have read the foregoing with an indulgent smile, I must admit that present-day customs must be met. Appropriations are small and attendant service costly, and the "richest nation in the world" must get its culture as cheaply as it can; therefore the system of getting the books from the stack to the reader must be as efficient as it is possible to make it. The charging-desk itself requires much care in design; its position must command the entire floor in a small library, and the route to the stacks must be short and carefully laid out to avoid conflicts.

Thought must also be given to the comfort of the staff, which is usually composed of women and girls. Beside the librarian's private office, there are one or two work rooms with toilet and closets for street clothing. Somewhere there must be a pleasant rest room and a kitchenette for serving lunches, usually provided with an electric or gas refrigerator and cupboards for dishes, etc. Space must be allowed for public telephones, for receiving and unpacking books and for the janitor.

One library we have built has a smoking-room for the men, with a fireplace; practically every library has a children's department with a special attendant and charging-desk, and a separate entrance. Not enough attention is usually given to comfortable seating for this room, and the children are generally seen reading in unimaginably contorted attitudes. Special care ought to be given to the lighting of this room, but seldom is. Unless a fire can be kept in the fireplace, I would recommend leaving it out.

Most libraries suffer from over-monumental design. Even for small buildings, architects seem to think that impressive columns and arches are needed for the front, and domes, modillions and what-nots for the inside. Culture, however, seldom flourishes in surroundings of this sort. Good air, sunlight, and ventilation are essential, but the human touch in library architecture is worth more than all the architectural details ever invented, and no effort of the designer can make up for its absence.

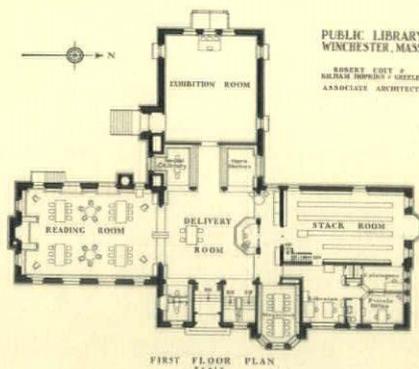
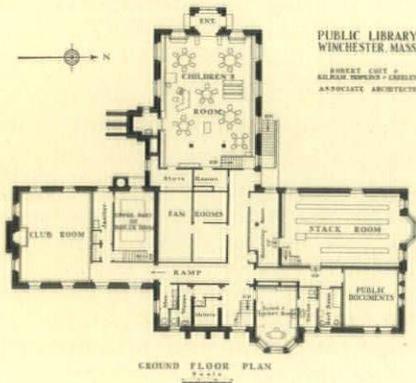


The exterior is built of split-faced Townsend (Mass.) granite. On account of the nature of the surrounding buildings a somewhat domestic type of architecture was adopted

WINCHESTER (MASS.) PUBLIC LIBRARY

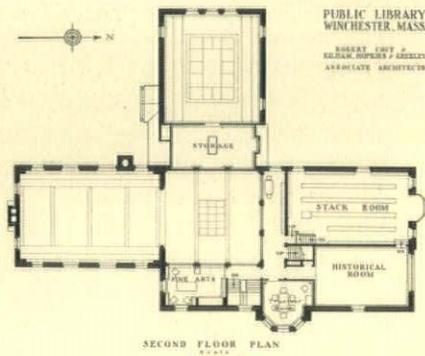
ROBERT COIT AND KILHAM, HOPKINS & GREELEY, ARCHITECTS

By reason of the slope of the lot to the rear, a well-lighted children's room with a special entrance was easily arranged. The heating and ventilating system includes dust arresters. A stairway done in blue, gray, and chromium leads down from the main lobby



Winchester wanted a library the people could use for different purposes and were not inclined to adopt the standardized type. They wanted a picture gallery for exhibitions which would also be a lecture-room, also a series of alcoves for special collections and study

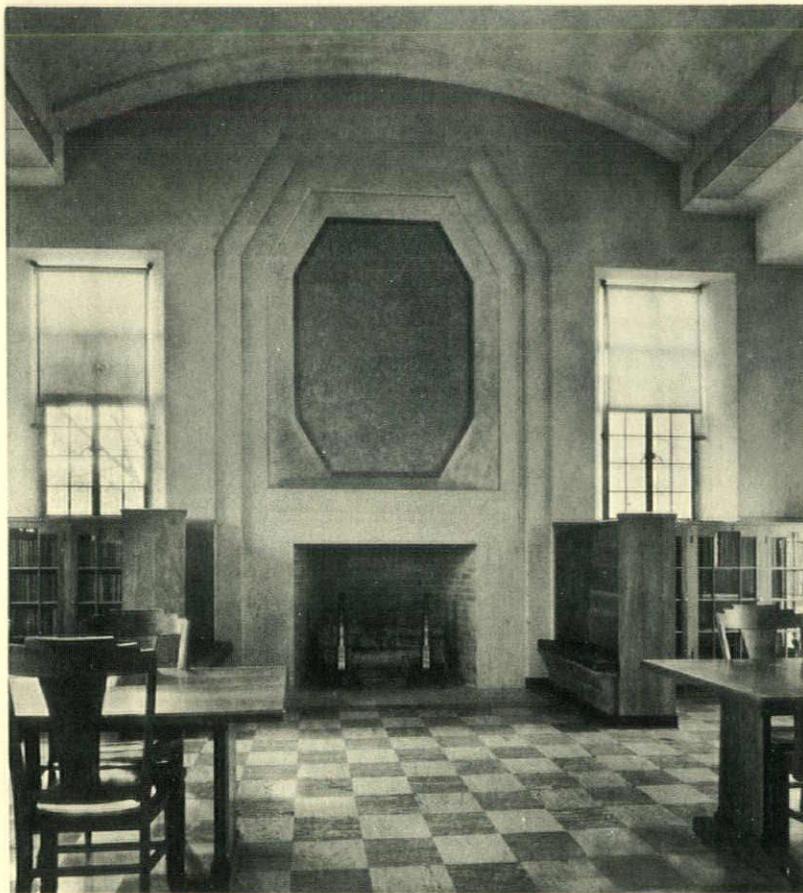
Special collections of maps and music are accommodated on this floor, as well as the trustees' room and a room for the Historical Society. A booth reached by a disappearing stair will accommodate picture machines. The stacks have a storage capacity of 75,000 books



◀ ARCHITECTURE ▶

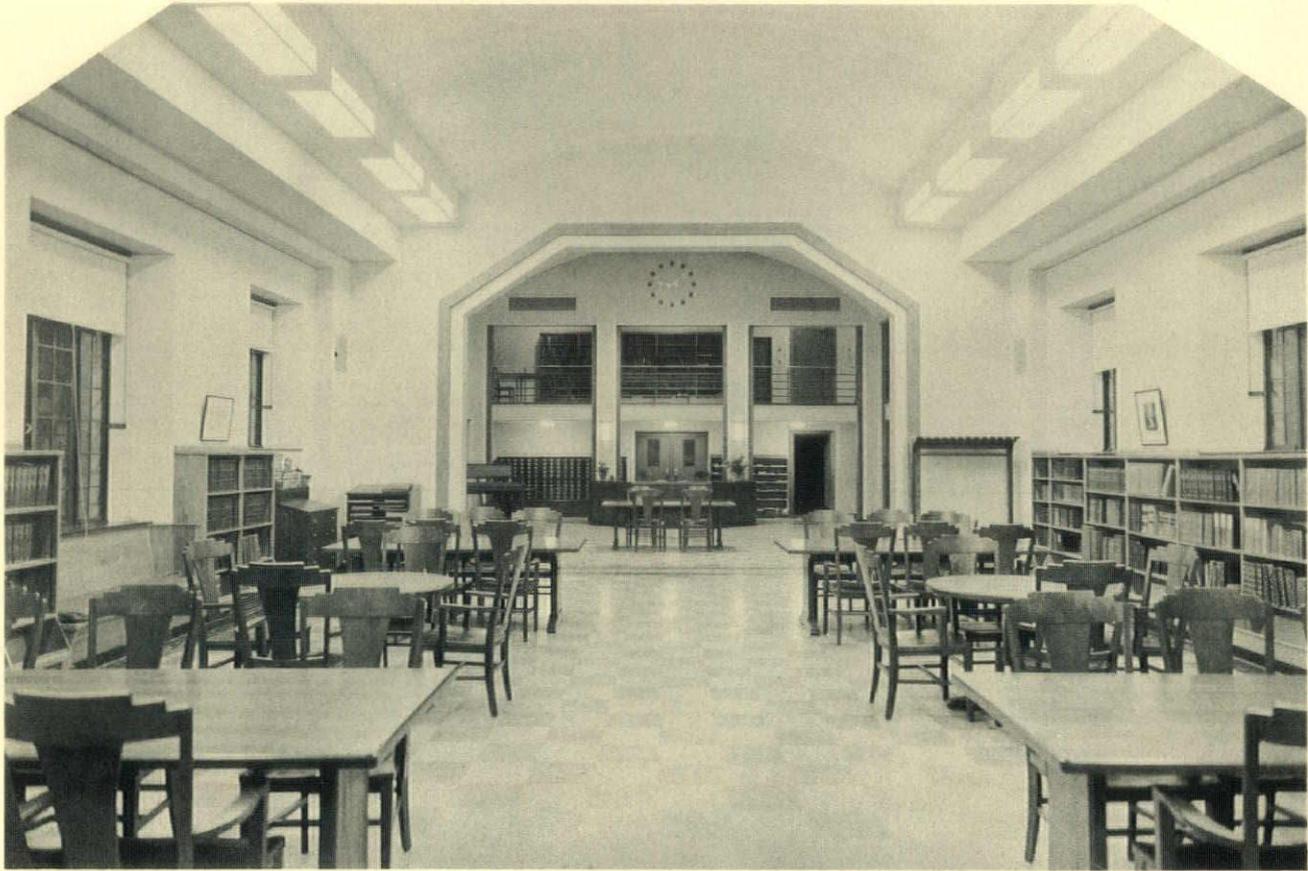


Reading-room at night. Built-in lighting in the ceiling is an innovation proposed by the architects which has proved to be very successful. It eliminates both lights on the tables with their resultant eye strain and clumsy and inefficient chandeliers. Neighbors leave their homes in the evening to come and read in the library on account of the good light



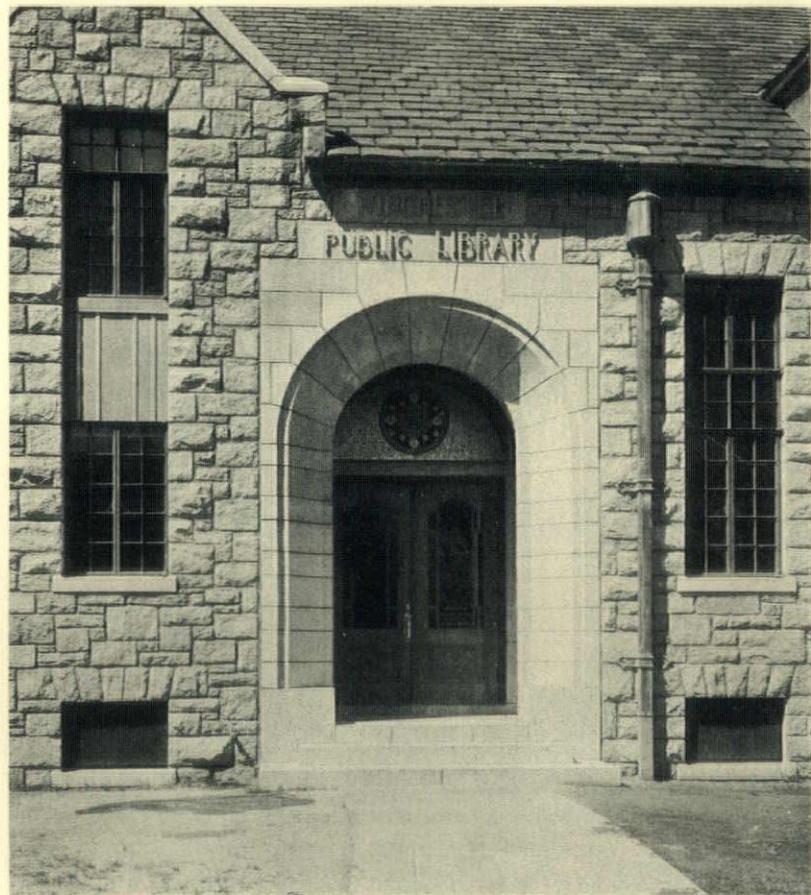
WINCHESTER PUBLIC LIBRARY,
WINCHESTER, MASS.

Fireplace end of the reading-room. The panel over the mantel is awaiting decoration. Its border is of gold with Chinese red lacquer fillet, the field temporarily filled with a clouded color. Finish is walnut, with rubber tile floor and travertine mantel facing



Reading-room, with delivery-room beyond. The latter is also finished in walnut, with rubber tile floor. Balcony rails are painted Chinese lacquer red with chromium top rail, the color scheme completed with mulberry, gray, and silver

ROBERT COIT AND KILHAM,
HOPKINS & GREELEY, ARCHITECTS



Detail of main entrance. Lettering is of polished aluminum, the rain leaders being of lead-covered copper. The windows are steel casements with cast aluminum spandrels

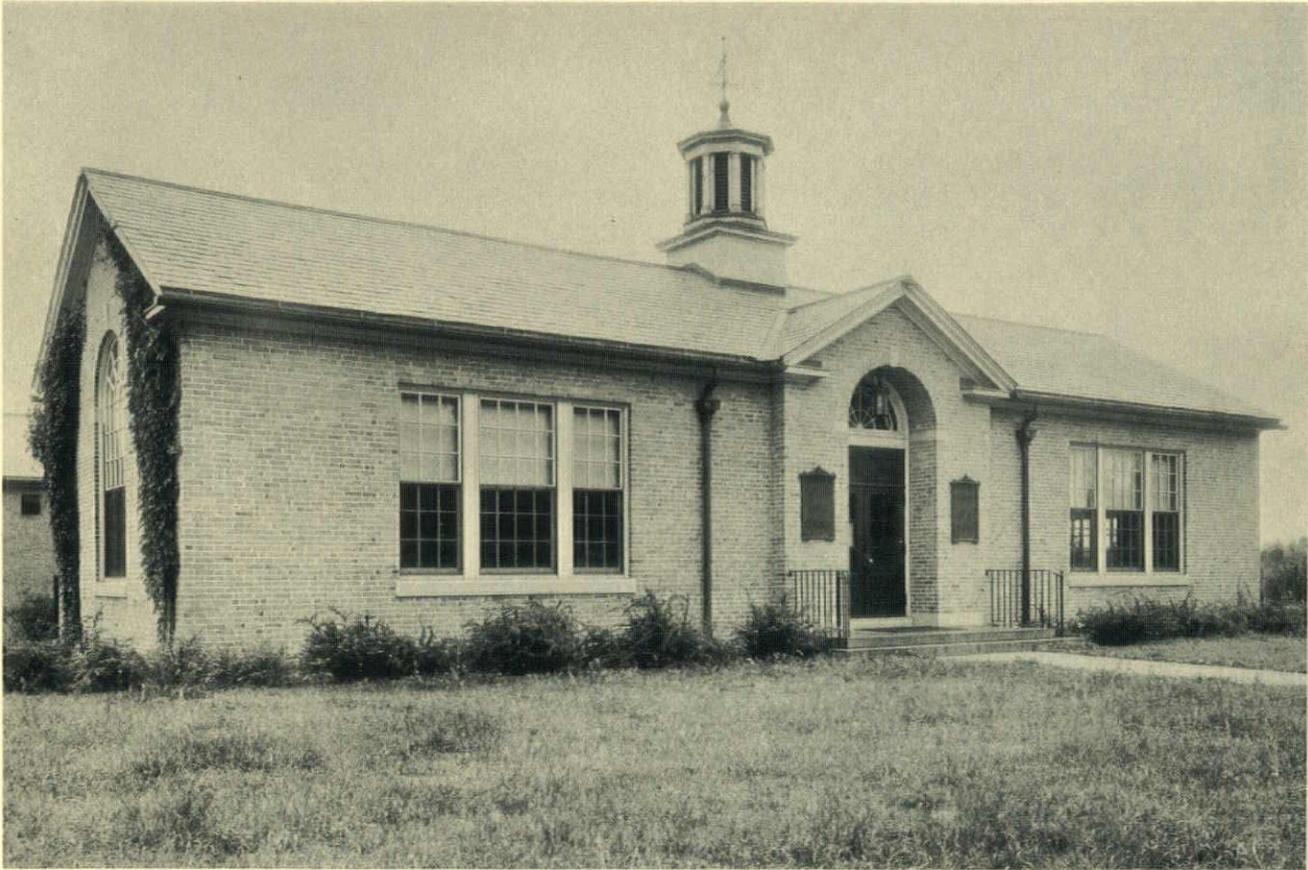


The art gallery at night, Winchester Library. Monk's cloth walls and soft gray rubber tile floor constitute the background for the picture exhibitions. The memorial stained-glass windows were transferred to their new location from the old library. This room is also used as a lecture-room, with separate entrance

The delivery-room, Winchester Library. The walls are gray, with mulberry and silver bands on the pilasters. At the left, the blank wall is intended later to receive a decoration. Behind the charging-desk the doors lead to the stack-room

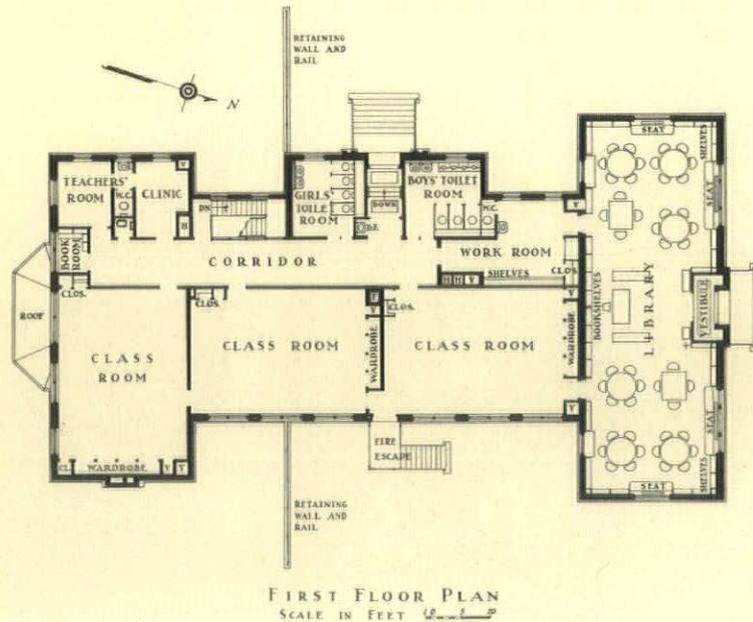


❖ ARCHITECTURE ❖



Another instance of departure from standardized forms is the Chestnut Hill Branch Library, which is built under the same roof with a school, though its administration is separate

CHESTNUT HILL BRANCH, BROOKLINE (MASS.) PUBLIC LIBRARY
 KILHAM, HOPKINS & GREELEY, ARCHITECTS



With the Branch Library is combined the George S. Baldwin School. With the exception of lim-

ited storage space in the workroom the books are all contained on the library's open shelving

« ARCHITECTURE »



Reading accommodations of the Chestnut Hill Branch Library are contained in one large room finished in fumed oak, the east end for the children and the west end for adults, with the charging-desk located in the centre



COOLIDGE
CORNER
BRANCH,
BROOKLINE
(MASS.)
PUBLIC
LIBRARY
KILHAM,
HOPKINS &
GREELEY,
ARCHITECTS

Reading-room and its charging-desk. A good-sized mansion was acquired by the Library Board and turned into a serviceable branch library by removing partitions and reconditioning

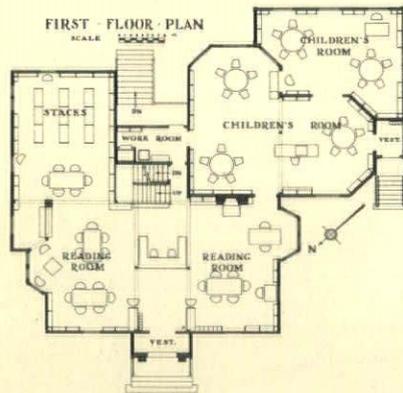
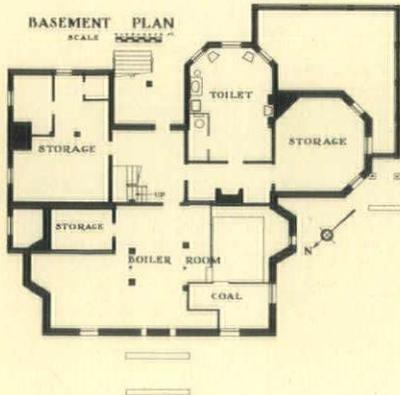
« ARCHITECTURE »



The stack, in its immediate adjacency to the reading-room, has a flavor of domesticity that is quite marked

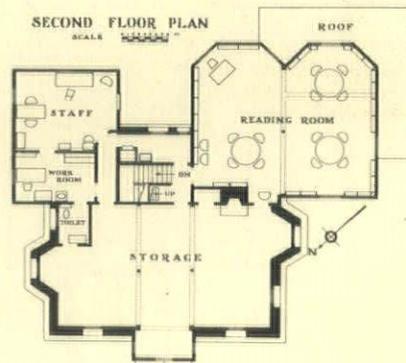
COOLIDGE CORNER BRANCH, BROOKLINE (MASS.) PUBLIC LIBRARY
 KILHAM, HOPKINS & GREELEY, ARCHITECTS

The basement affords considerable space for storage, unpacking, etc., in addition to the area needed for heating equipment and coal

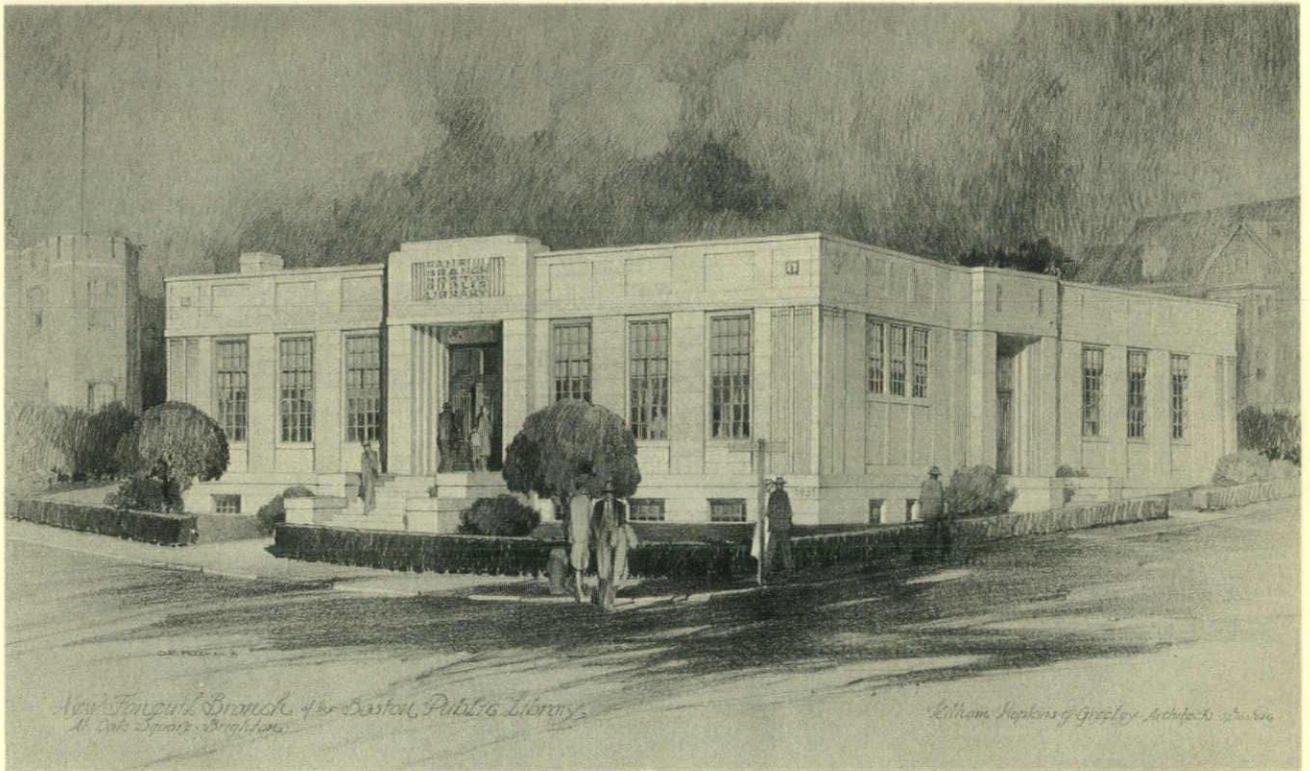


The rambling, cut-up plan of the old mansion, robbed of many partitions, gains an abundance of light and an atmosphere of library quiet in spite of a lack of monumental space forms

On the second floor there is a large and pleasant reading-room for adults, with storage space into which expansion of other features may be fitted



◀ ARCHITECTURE ▶

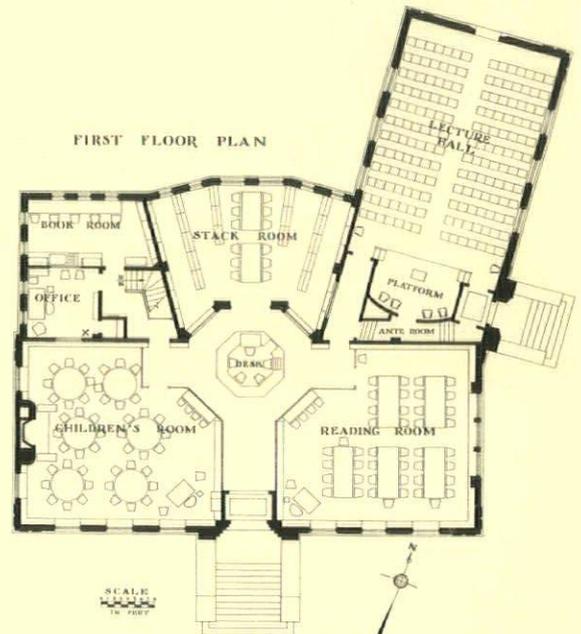
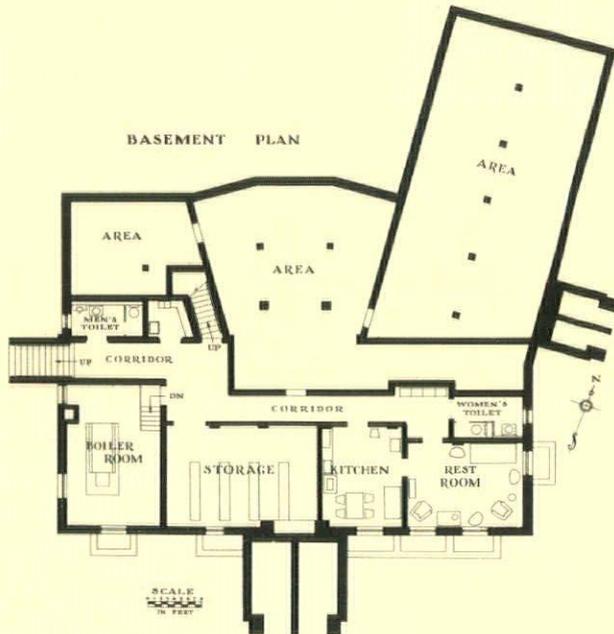


The Faneuil Branch, on its corner site, is built of Indiana limestone with steel windows, in a simple and direct expression of the plan

FANEUIL BRANCH, BOSTON PUBLIC LIBRARY. KILHAM, HOPKINS & GREELEY, ARCHITECTS

In addition to the boiler-room and toilets, a kitchen, lunch-room, and rest-room for the staff are located in the basement, with easy extension possibilities for the stack

The plan of the main floor is distinctive in having a lecture-room with separate entrance. As for most branch libraries the stack is comparatively small





*A night view of Faneuil Branch entrance,
showing the integral lighting and its effect in
accenting the architectural treatment by direct
and reflected light*

FANEUIL BRANCH, BOSTON PUBLIC LIBRARY. KILHAM, HOPKINS & GREELEY, ARCHITECTS

« ARCHITECTURE »



The Faneuil Branch's reading accommodations are in one large room, children at one end, adults at the other. The glass screens enclosing the central passage from entrance to charging-desk are a requirement of the Boston Library administration, to check pilfering of books. The desk itself is of walnut trimmed with chromium

FANEUIL BRANCH, BOSTON PUBLIC LIBRARY. KILHAM, HOPKINS & GREELEY, ARCHITECTS

◀ ARCHITECTURE ▶



*Night view of the Faneuil Branch lecture-room.
Color scheme is silver and gray, with stencilled
ornaments in black, green, and red*

FANEUIL BRANCH, BOSTON PUBLIC LIBRARY. KILHAM, HOPKINS & GREELEY, ARCHITECTS

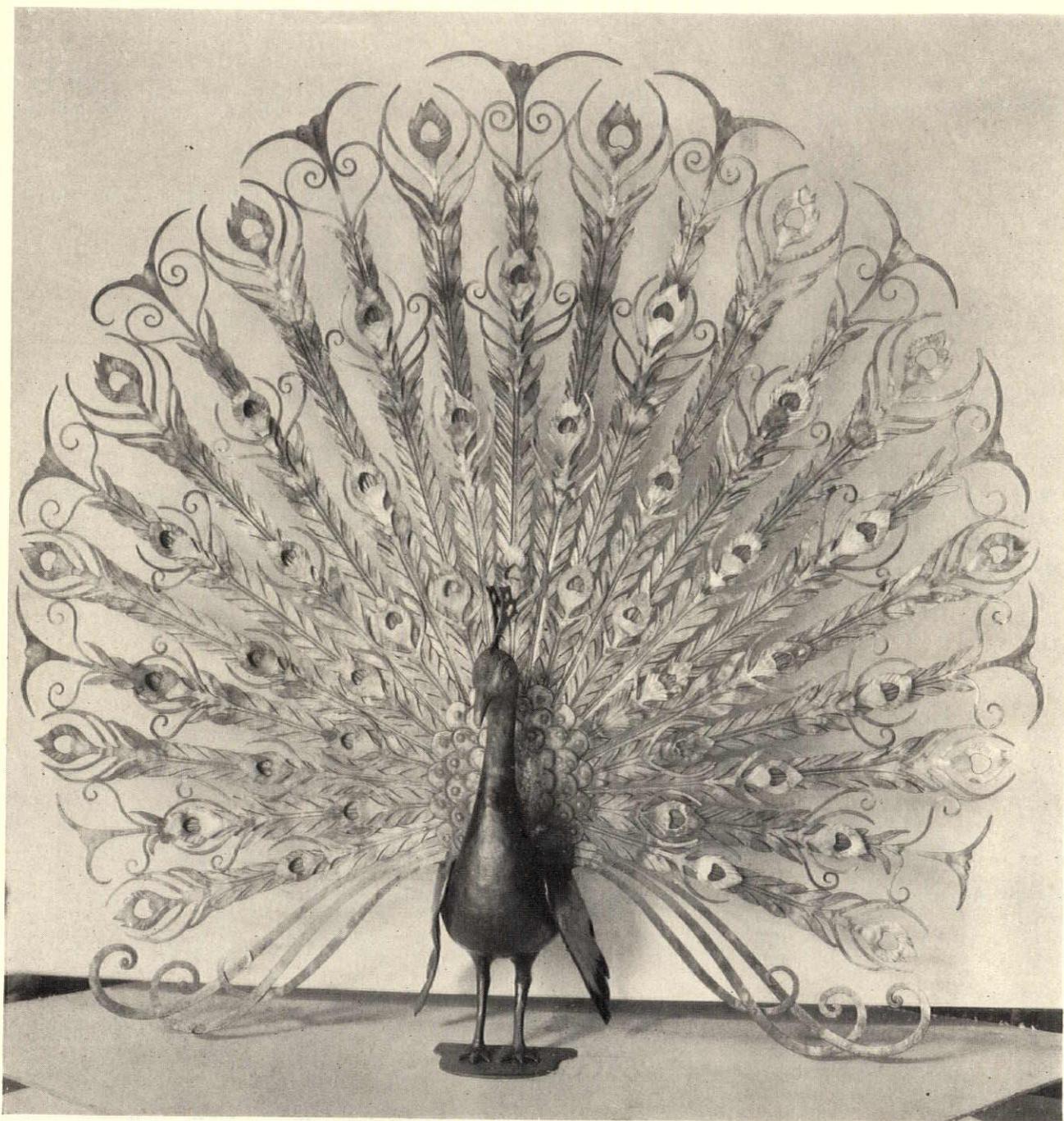
◀ ARCHITECTURE ▶



Night view in the children's end of the Faneuil Branch reading-room. Here the mantel facing is of Belgian black marble. Above it the decoration is by O. R. Freeman, of the architects' office. Wall colors are graded, in oil paint, darker at bottom

FANEUIL BRANCH, BOSTON PUBLIC LIBRARY. KILHAM, HOPKINS & GREELEY, ARCHITECTS

◀ ARCHITECTURE ▶



An unusual cock of the walk, wrought of copper, graces the pergola of the residence of W. S. Farish, Houston, Texas. H. T. Lindeberg, architect; executed by The Iron-Craftsmen

A SELECTION OF MODERN CRAFTSMANSHIP,
SHOWING WHAT OUR METALWORKERS ARE DO-
ING WITH TRADITIONAL MATERIALS AND FORMS
AS COMPARED WITH THEIR WORK IN NEW MA-
TERIALS AND NEW FORMS. SELECTION AND
CAPTIONS BY GERALD K. GEERLINGS



Craftsmanship in Metal Grilles

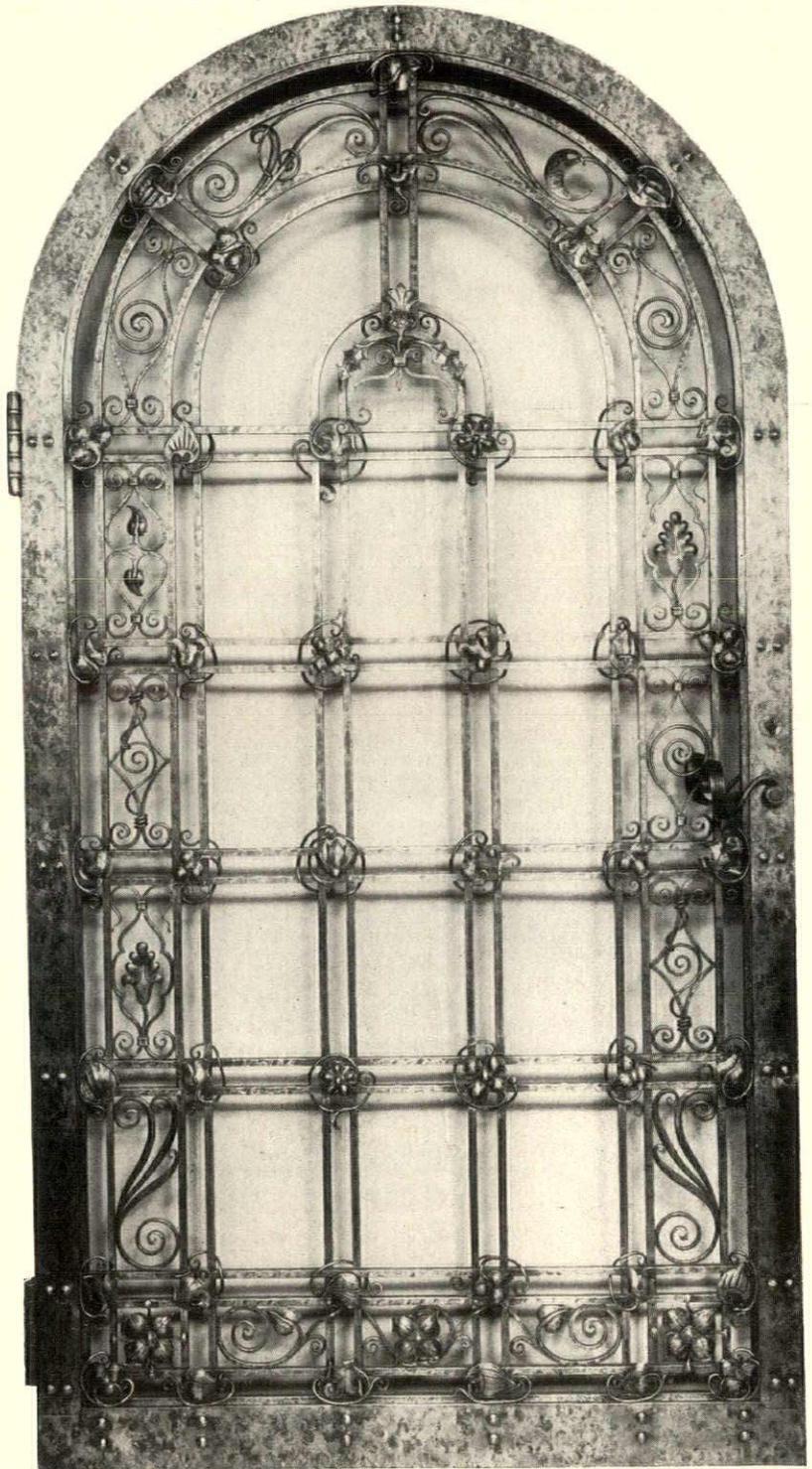


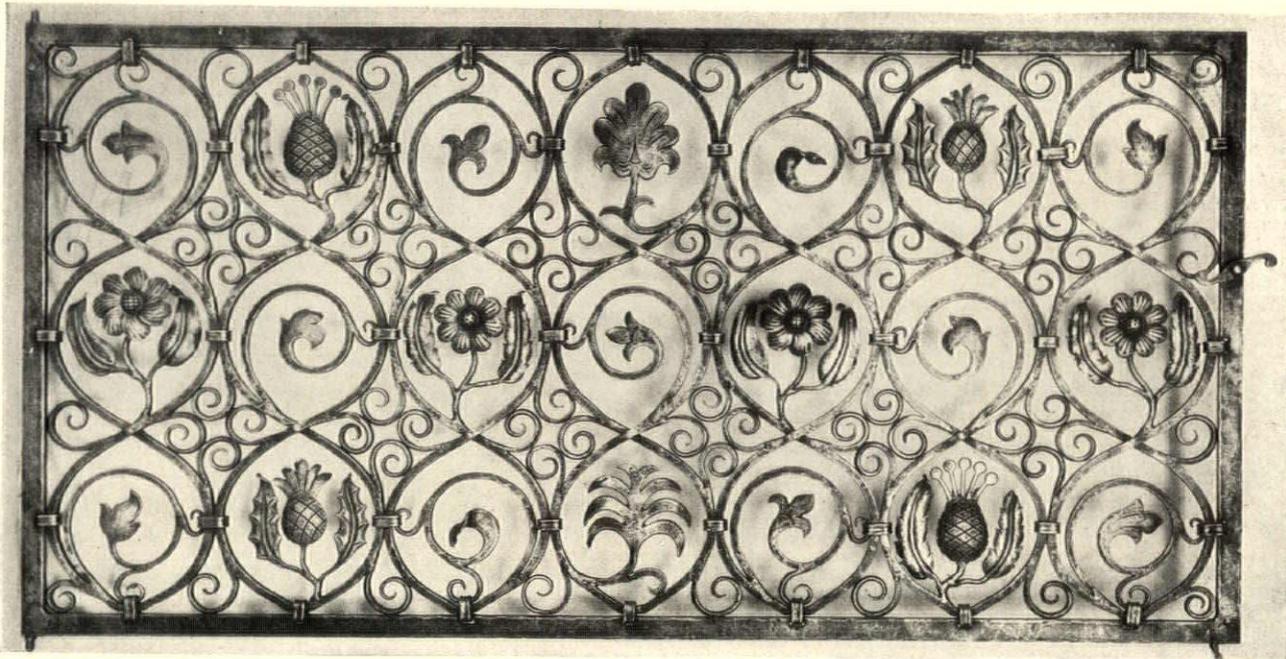


The work of the great French craftsman, Tijou, whose influence was felt in England from 1688 until the advent of the Brothers Adam, 1758-1794, is traceable in this pair of wrought-iron grilles in the home of Lowell M. Chapin, Lake Forest, Ill. H. T. Lindeberg, architect; executed by The Iron-Craftsmen

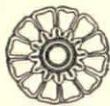


The traditional wrought-iron grille formed of straight bars is given a new interpretation by rhythmic spacing, with intersections overlaid by leaves and tendrils, in this vestibule door below, in the residence of F. G. Achelis, Greenwich, Conn. H. T. Lindeberg, architect; executed by The Iron-Craftsmen





While the details of this little radiator grille in the residence of H. V. Newhouse, Houston, Texas, borrow some traditional traits in its floral forms, the design conception is as original as it is ingenious in its wrought-iron variations. It is 2' high by 4' wide over-all. H. T. Lindeberg, architect; executed by the Iron-Craftsmen



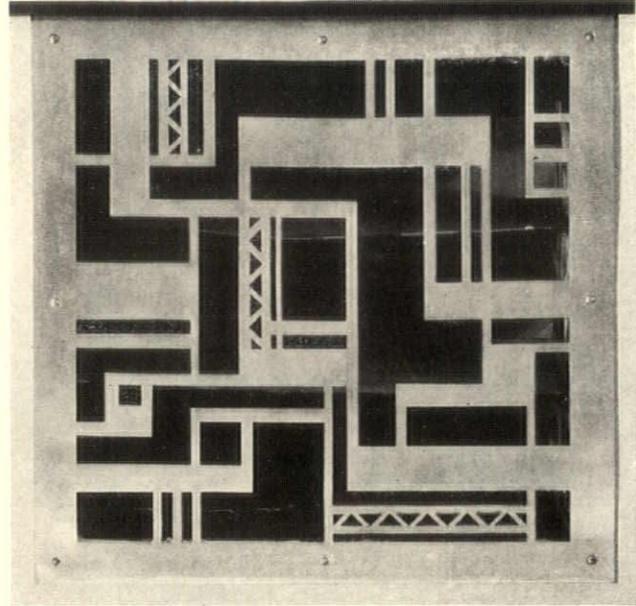
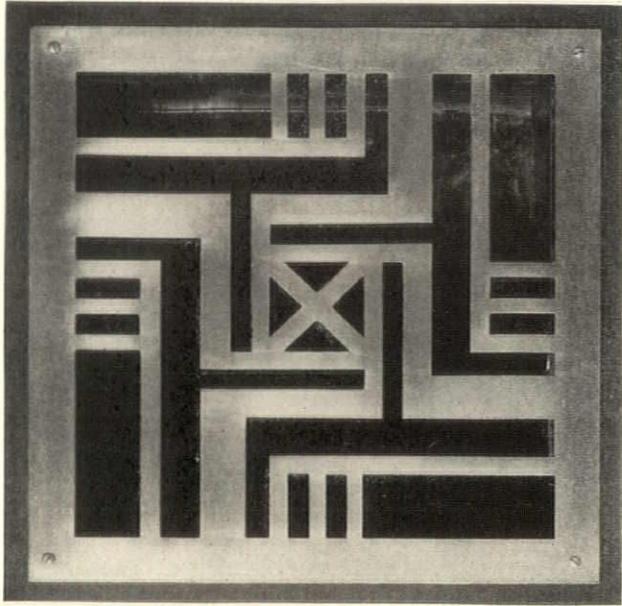
An echo grille of hand-wrought German silver in the residence of J. Arnot Rathbone, Elmira, N. Y., is distinguished for its unity of design, which combines the traditional with the modern. It is 31" wide by 43" high. H. T. Lindeberg, architect; executed by The Iron-Craftsmen



While the grille below is another version for a radiator enclosure (from the residence of I. H. Kempner, Galveston, Texas), it could be readily adapted as a door. The naturalistic forms and the double rinceau motif are most skilfully managed. John F. Staub, architect; executed by The Iron-Craftsmen

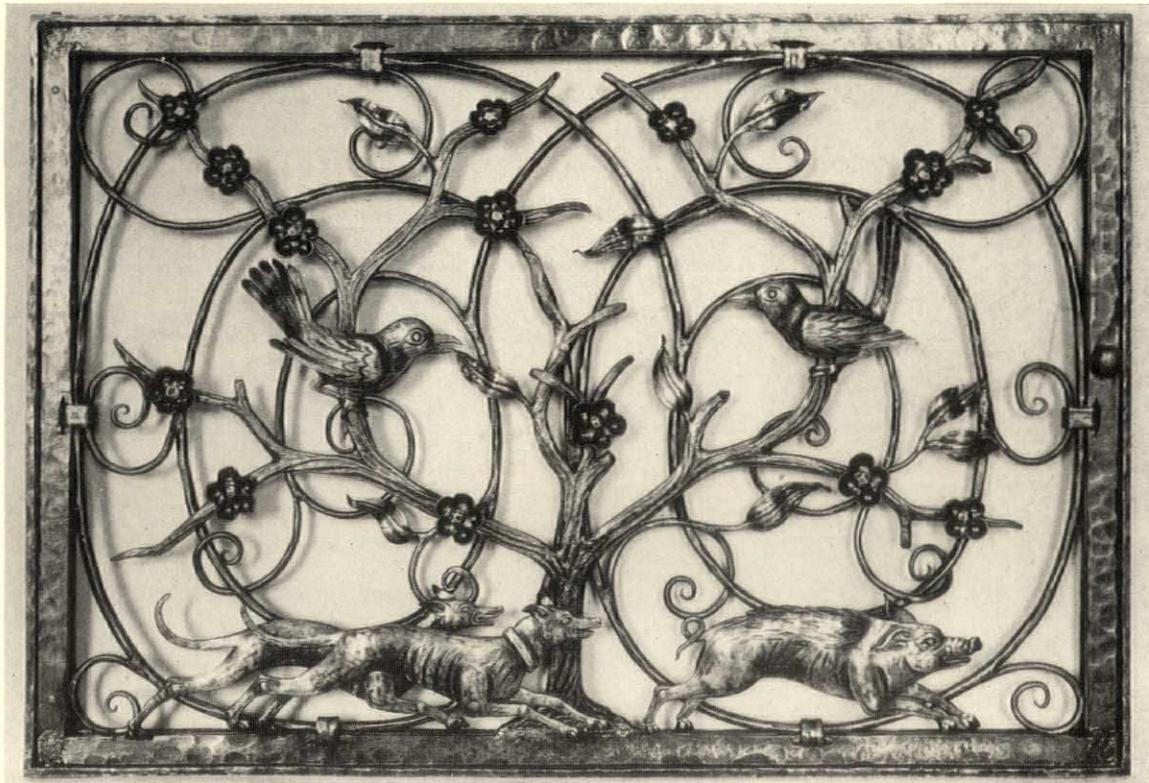


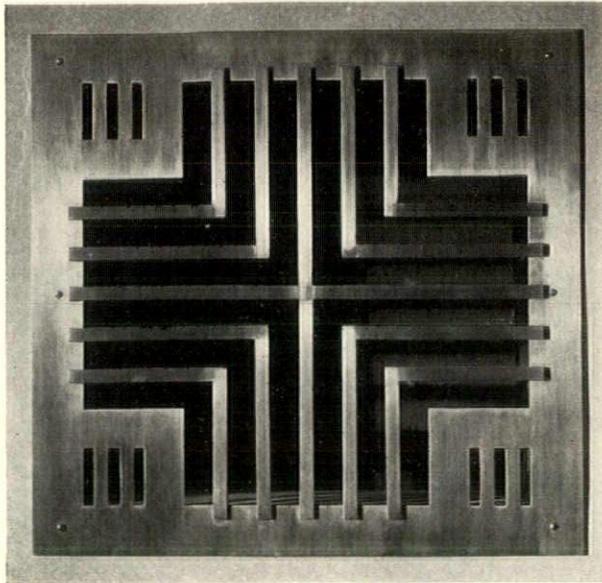
◀ ARCHITECTURE ▶



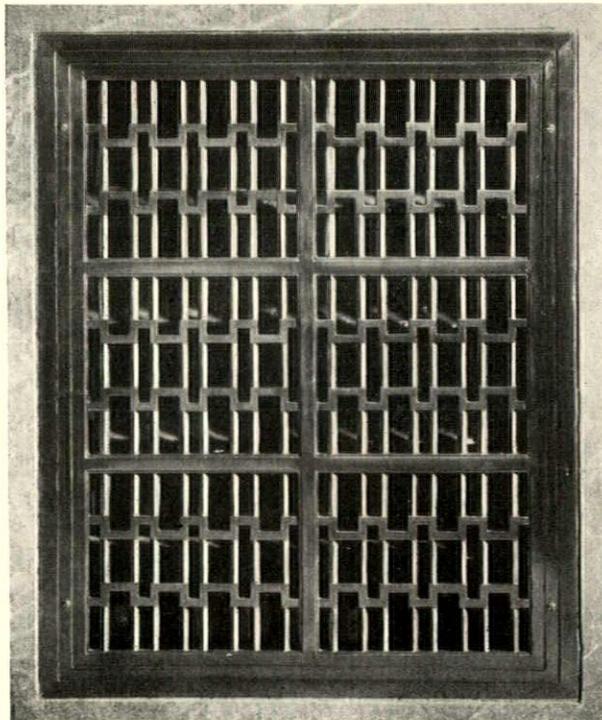
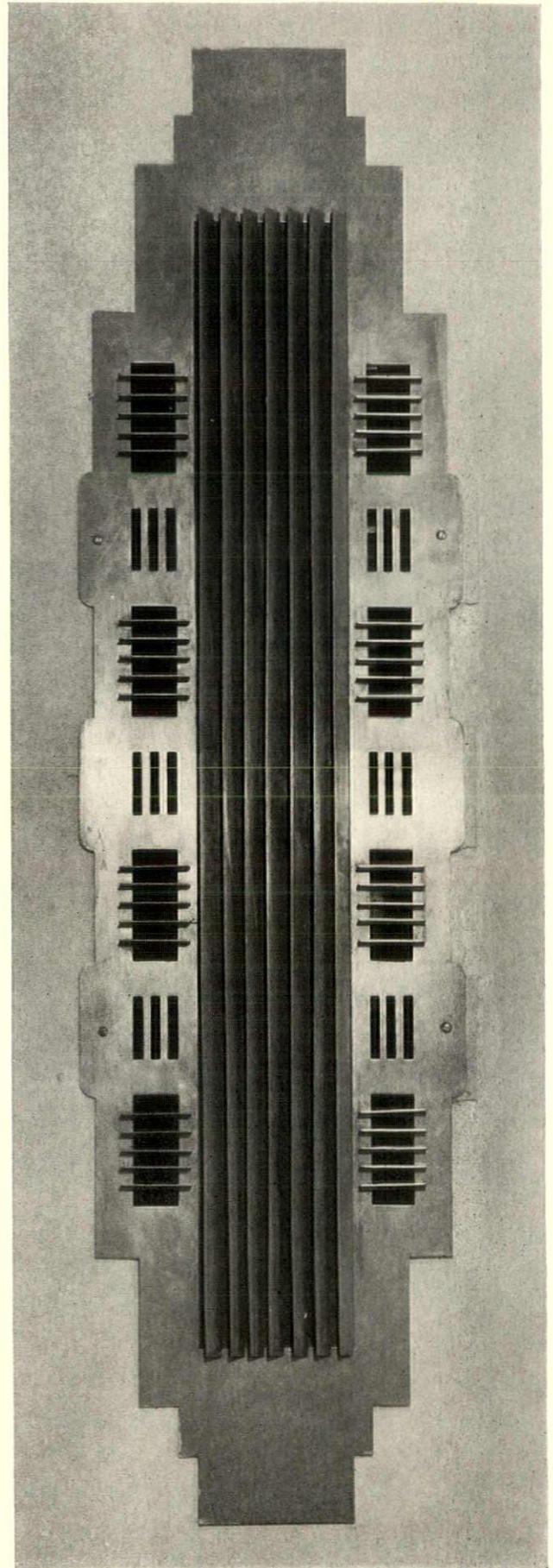
The hunt room in the residence of F. B. Patterson, Dayton, Ohio, has its radiator enclosed by this wrought-iron grille. The speed of the chase and the angular emphasis of the surmounting design are quite in harmony—if one is not bothered by the naïve shift in scale between birds and animals. H. T. Lindeberg, architect; executed by The Metal-Craftsmen

Both the grilles above have been stamped from a single sheet of monel metal. While the patterns are not structural, they are satisfactory because they are relatively small and no great strength is necessary. In metal work such as this it is to be hoped that designers will appreciate the limitations of non-structural forms, avoiding them where strength is essential to satisfy the eye. Ross & MacDonald, architects; Sproat & Rolph, associated. Craftsmanship by The Architectural Bronze and Iron Works

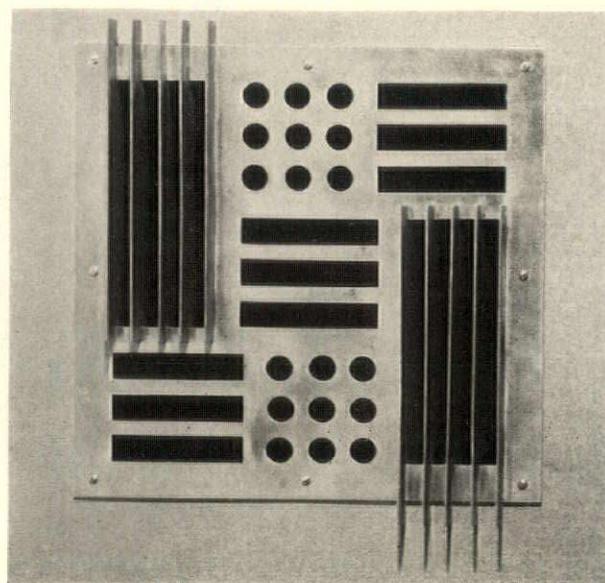
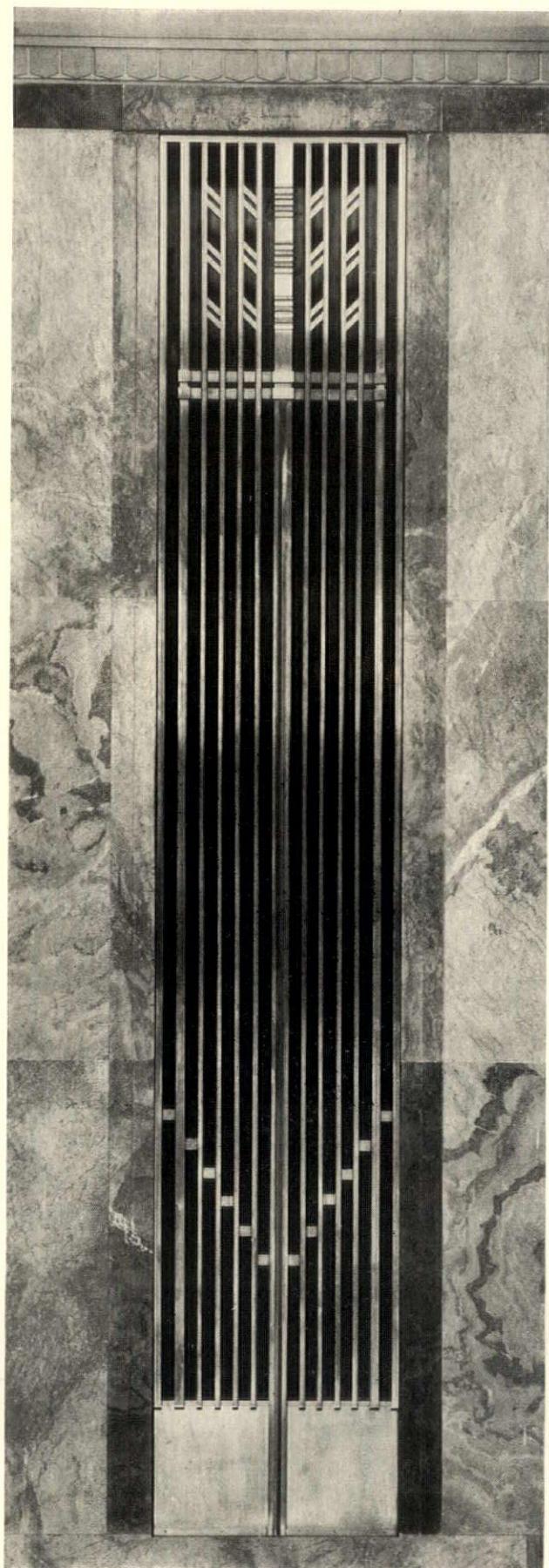




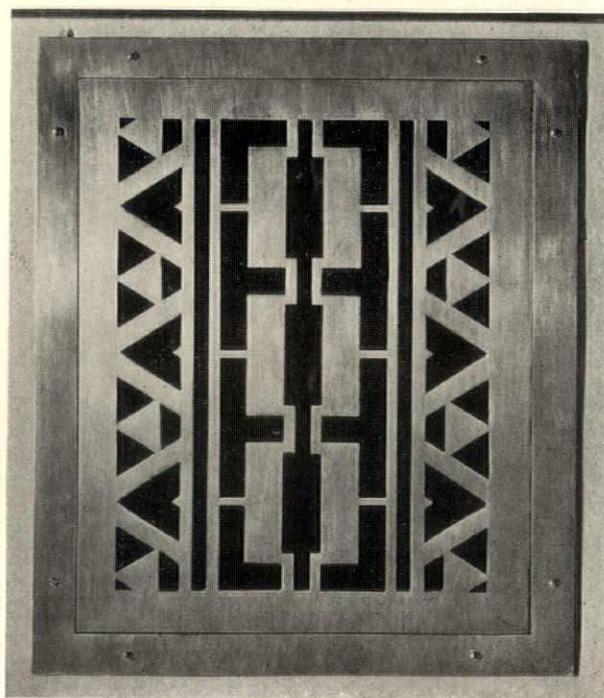
The grilles on this page are fabricated from monel metal in the manner moderne. The one above is composed of sheet material and bars, the one to the right of sheet and strips, while the one below is cast. In addition to not rusting, another advantage of monel metal is that certain parts can be polished brilliantly like nickel, while others can be left a dull gray; practically no upkeep is necessary. Made for the store of T. Eaton & Company, in Toronto, as are those on the opposite page

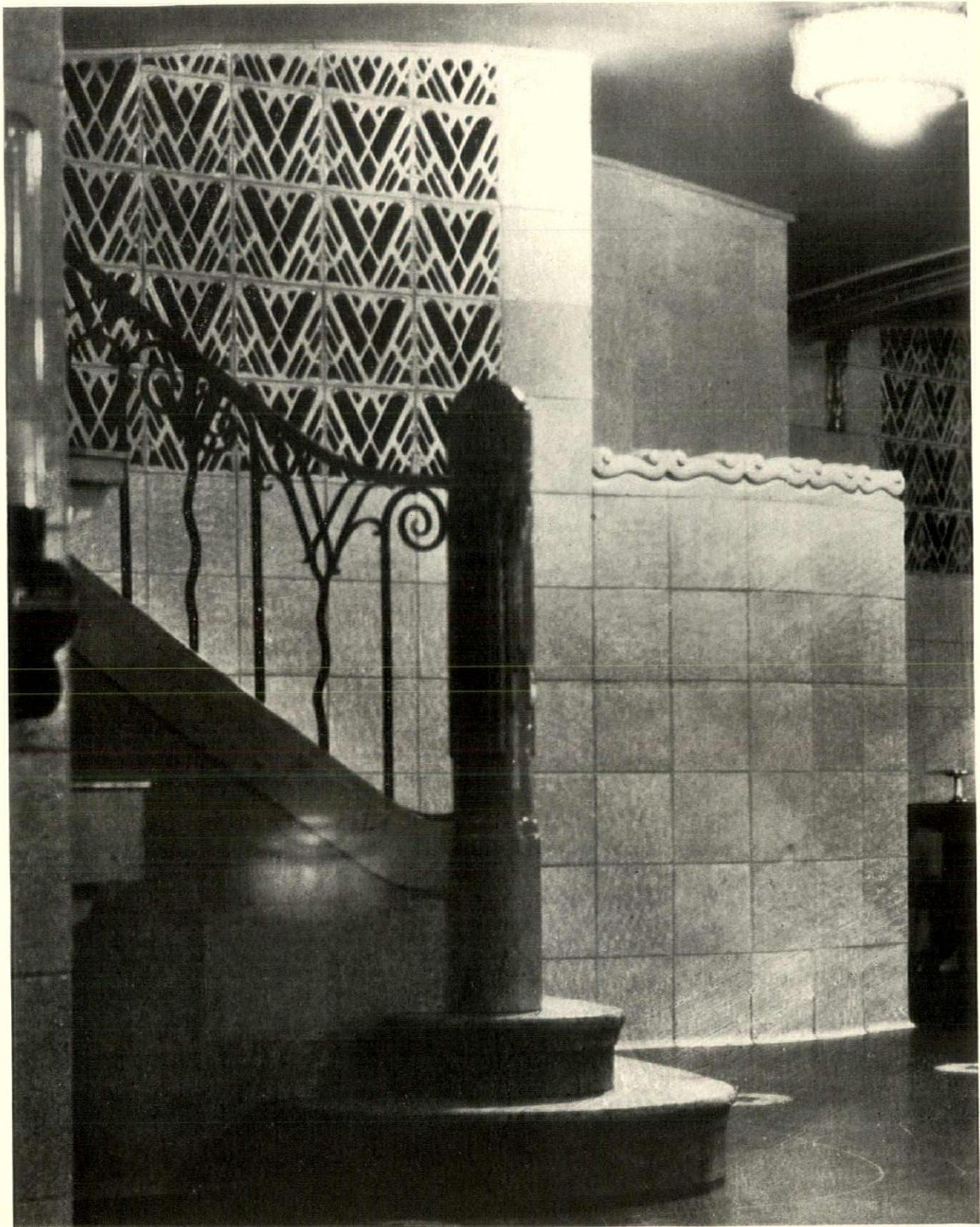


◀ ARCHITECTURE ▶

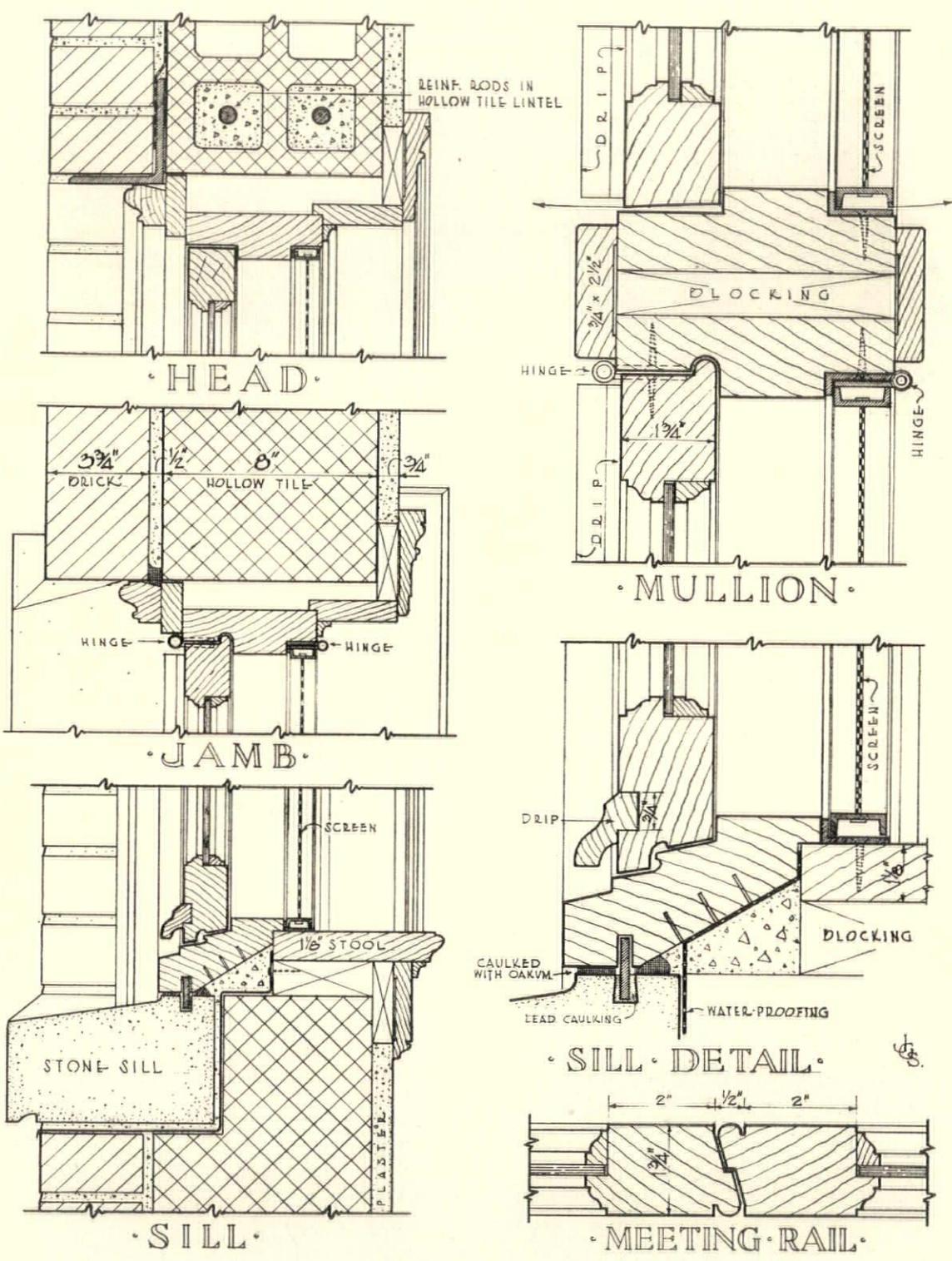


Like the grilles on the opposite page these are also made from monel metal; the one above is stamped from a single sheet with the vertical fins made from strips, the one to the left is made from sheet and rod stock, the one below stamped from a single sheet. The designs are stimulating, to say the least, and display a faculty for contrasting voids with solids, and dissimilar geometric forms with one another. Ross & MacDonald, architects; Sproat & Rolph, associated. Craftsmanship by the Architectural Bronze and Iron Works





Stair balusters with a German-silver handrail, and the wrought-iron wall grilles, in a Horn & Hardart Restaurant, Philadelphia, puts geometry to work in forming a pleasing pattern. The wall grille uses an over-all gridiron with good effect, particularly since the wall surface is similarly divided and the ceiling curves the top of the design. Ralph B. Bencker, architect; executed by The Iron-Craftsmen



CASEMENT WINDOW IN BRICK & HOLLOW TILE WALL
 OPENING OUT

A SERIES OF WORKING DRAWINGS BY JACK G. STEWART

SCALE 0 1 2 3 4 5

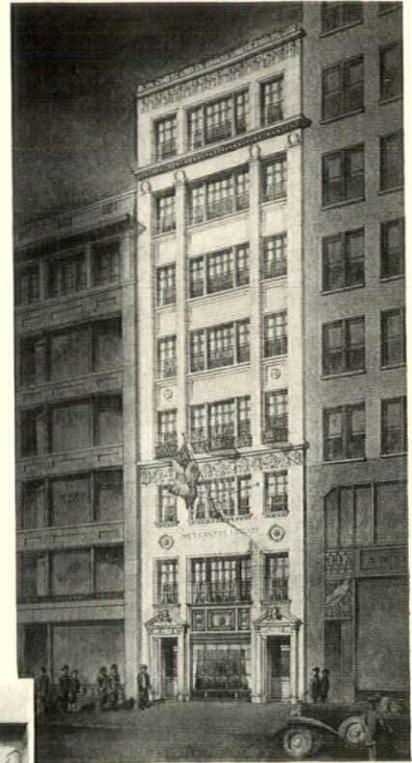
PLATE No 30

Architectural News in Photographs



Paul Manship's new statue of Lincoln as a youth of twenty-one, recently dedicated at Fort Wayne, Ind. The sculptor appears second from right

The new building for the Mercantile Library Association, 17 East 47th Street, New York City. Office of Henry Otis Chapman, architects



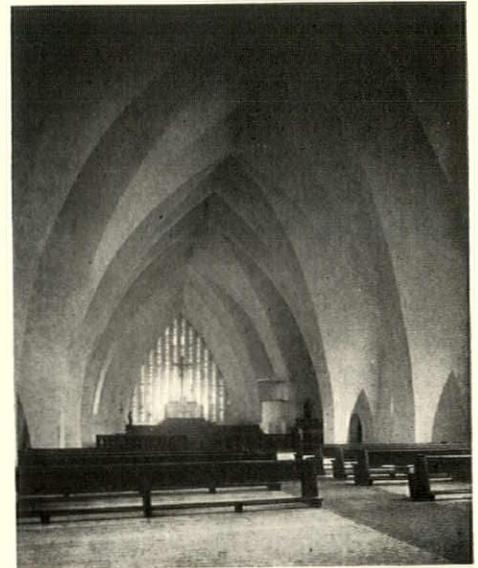
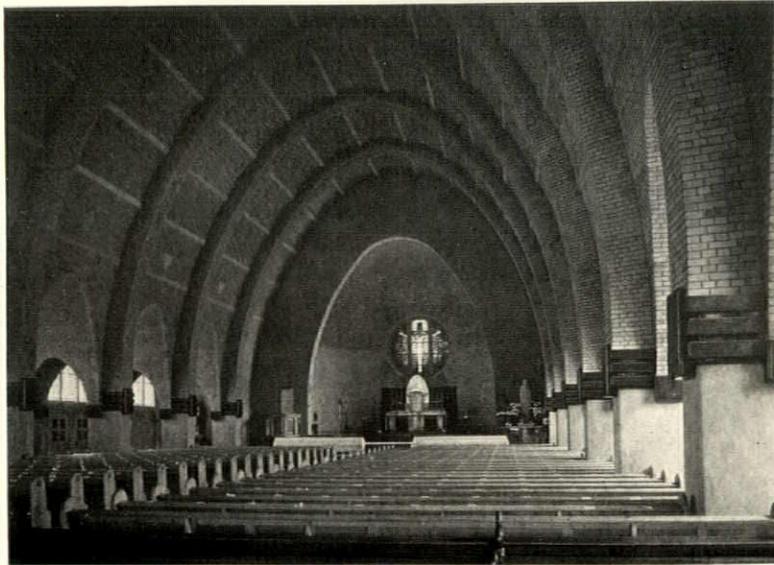
One of the newly finished exterior panels on the Folger Library at Washington. John Gregory, sculptor

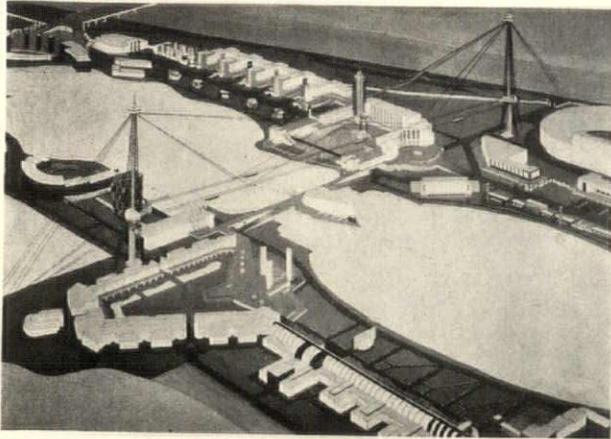


*Falstaff:
"This chair shall be my State,
This dagger my scepter,
This cushion my crown."*

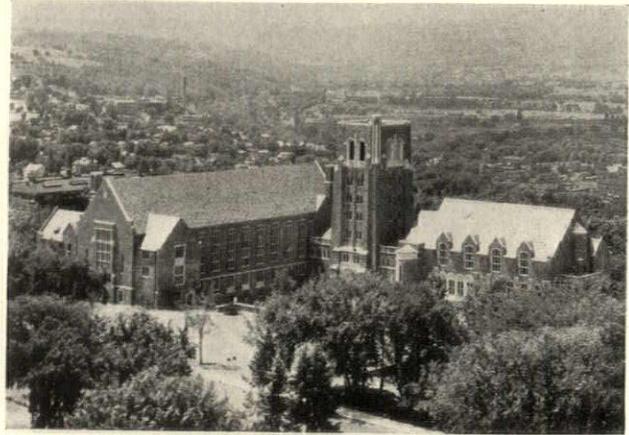
Roman Catholic Church at Halfweg, 1929, built with reinforced concrete arches faced with brick. Jan Kuijt, architect

Catholic Church, Freilingsdorf, built with thin concrete vaults, reinforced with self-centering metal lath. Dominicus Böhm, architect





1893's Ferris Wheel will become 1933's "Sky Ride" at the Chicago Fair—rocket cars shooting between the two towers



The recently dedicated \$1,500,000 Law School for Cornell, gift of Myron C. Taylor. Jackson, Robertson & Adams, architects



Putting up the frame for the Agricultural Building, Century of Progress Exposition. Edward H. Bennett, architect



The Texas and Pacific Railway and Terminal Building at Fort Worth, Texas, lighted by its combination of street and flood-lighting luminaries

Model for Lew Lawrie's sculptural treatment above the main entrance to a Rockefeller Center Building, New York City



Bank of Montreal Building, Ottawa, Ont., the design for which was the subject of a competition in 1929, won by Barott & Blackader, architects



BOOK REVIEWS

MODERN PRACTICAL STAIRBUILDING AND HANDRAILING. By GEORGE ELLIS. 256 pages, 7¼ by 10¼ inches. Illustrations from photographs and line drawings. Printed in Great Britain. New York: 1932: J. B. Lippincott Co. \$7.50.

An especially elaborate volume on this much discussed detail of design and construction. The book is written primarily for the craftsmen who would build the most elaborate forms of ramps, easings, twists, and volutes. It seems a curious turn of events that such an elaborate work should appear at a time when stairs are being greatly simplified by economic pressure.

CITY PLANNING AS A PROFESSIONAL CAREER. By HENRY V. HUBBARD and HOWARD K. MENHINICK. 9 pages, 5½ by 7¾ inches. A reprint of an article which appeared originally in the January, 1932, issue of *City Planning*. Pamphlet binding. Cambridge: 1932: Harvard University. Sent on request to the Harvard School of City Planning.

THE COLLEGE LIBRARY BUILDING: Its Planning and Equipment. By JAMES THAYER GEROULD. Foreword by FREDERICK P. KEPPEL. 116 pages, 5½ by 8½ inches. New York: 1932: Charles Scribner's Sons. \$2.

Doctor Gerould, who is librarian of Princeton University, gives us the fruits of his wide experience, which experience has been increased through the help of the Carnegie Corporation in enabling him to visit many colleges and study their library problems on the spot. The architect will get from this book the practical facts that he seeks.

STRENGTH OF LIGHT I BEAMS. A Report of an Investigation conducted by The Engineering Experiment Station, University of Illinois, in Co-operation with Jones & Laughlin Steel Corporation. By MILO S. KETCHUM and JASPER O. DRAFFIN. 44 pages, 6 by 9 inches. Illustrations from drawings and photographs. Bulletin No. 241. Pamphlet binding. Urbana, Ill. 1932: University of Illinois. 25 cents.

PLANS FOR CITY POLICE JAILS AND VILLAGE LOCKUPS. By HASTINGS H. HART. Preface by SHELBY M. HARRISON. 27 pages, 9 by 12 inches. Illustrations from plans, perspectives and details. New York: 1932: Russell Sage Foundation. \$1.50.

The author, who died last May, was a penologist of note who collaborated frequently with various architects in the design of jails. The requirements are neither complicated nor numerous, which fact this little volume makes clear.

THE DESIGN OF LETTERING. By EGON WEISS. 174 pages, 8¾ by 11¾ inches. Illustrations from the author's drawings, many alphabets, and photographs of typical examples of executed lettering. New York: 1932: The Pencil Points Press, Inc. \$5.

A workmanlike addition to the plentiful literature on lettering. Mr. Weiss brings to the subject a system of his own devising by which he simplifies the spacing of letters and inscriptions within given areas—the sort of work in lettering that the architect is most often called upon to do.

HANDBOOK OF DESIGNS AND DEVICES. By CLARENCE PEARSON HORNUNG. Foreword by TALBOT FAULKNER HAMLIN. 204 pages, 6½ by 9 inches. Illustrations from the author's drawings. New York: 1932: Harper & Brothers. \$6.

Mr. Hornung has achieved an enviable name for his many designs for trademarks and similar decorative spots for the printed page. In this book he has brought together an amazing variety of variations upon the basic forms—the circle, square, triangle, swastika, cross, fret, etc. An excellent source book.

SAFETY FOR THE HOUSEHOLD. 102 pages, 6 by 9 inches. Illustrations from photographs and drawings. Circular of The Bureau of Standards, No. 397. Pamphlet binding. Washington: 1932: U. S. Department of Commerce. 15 cents.

RECENT ADVANCES IN TOWN PLANNING. By THOMAS ADAMS in collaboration with F. LONGSTRETH THOMPSON, E. MAXWELL FRY, and JAMES W. R. ADAMS. 400 pages, 7¼ by 9¾ inches. Illustrations from photographs and drawings. Printed in Great Britain. New York: 1932: The Macmillan Company. \$6.50.

When Thomas Adams speaks on the subject of town planning we may all profit by sitting at his feet and listening. So many of his shorter writings lately have been concerned with the local problems of New York City that it is refreshing to take up this book with the civilized world as his palette.

THE PRACTICAL BOOK OF ARCHITECTURE. By MATLACK PRICE. 367 pages, 6½ by 8¾ inches. Illustrations from photographs, drawings, and colored frontispiece. Philadelphia: 1932: J. B. Lippincott Company. \$7.50.

The fact that a new edition of Mr. Price's book is demanded after sixteen years, indicates that the work fills a definite need on the part of the public, a need which is growing. The present edition adds a supplement, mostly of drawings and photographs, bringing the book up to date in the spirit of contemporary architecture.

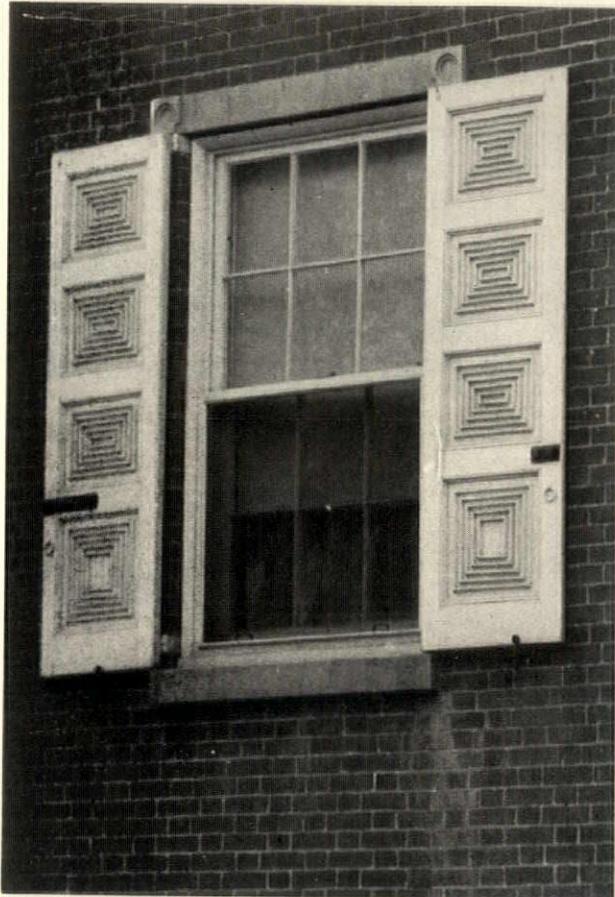


The Architectural Observer



HERE is another one of those startling things one occasionally comes upon—apparent evidence that the modernist is not the very latest flower of civilization, since he must have been

and the normal spacing of the lines is 4" apart. When the wood form is removed, the rope comes with it, leaving an undercut groove which gives a key to the plaster when this is applied.



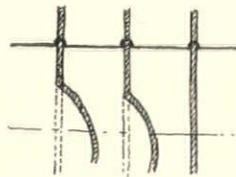
here before. In the case of the shutters shown herewith, they have graced this brick house in New Castle, Del., since some time in the first half of the nineteenth century.

SPEAKING of shutters, here is an unusual use of them on one of the late George Washington Smith's houses in California, in Montecito.

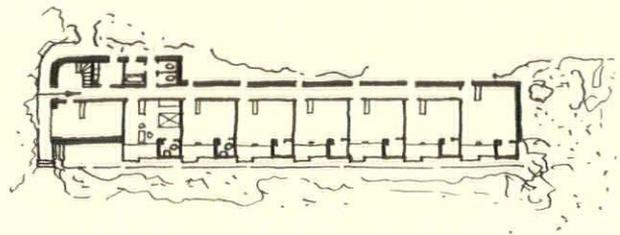
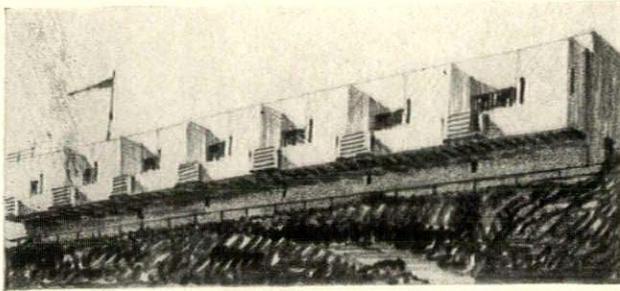


The wrought-iron grille serves as the protecting member below, giving excuse for the brilliant color spots of the flower-pots, and the shutters when closed cut off the sunlight without also cutting off the breezes.

PLASTERING the underside of a concrete floor slab presents a problem of adhesion which has not been easily solved. *The Architect and Building News*, of London, announces a scheme which seems promising. A specially spun and impregnated rope is secured in the bottom of the wood forms in parallel lines by ordinary half-inch staples. The rope is $\frac{5}{16}$ " in diameter,

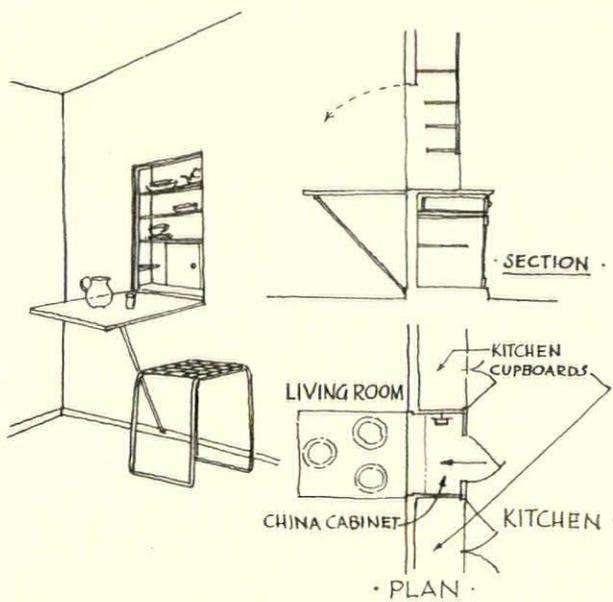


HERE is an ingenious bit of planning by André Lurçat, Paris architect. The problem was an artist's hotel in Corsica, providing individual studies perched on the top of the rocky cliffs of the island. The repetition of the



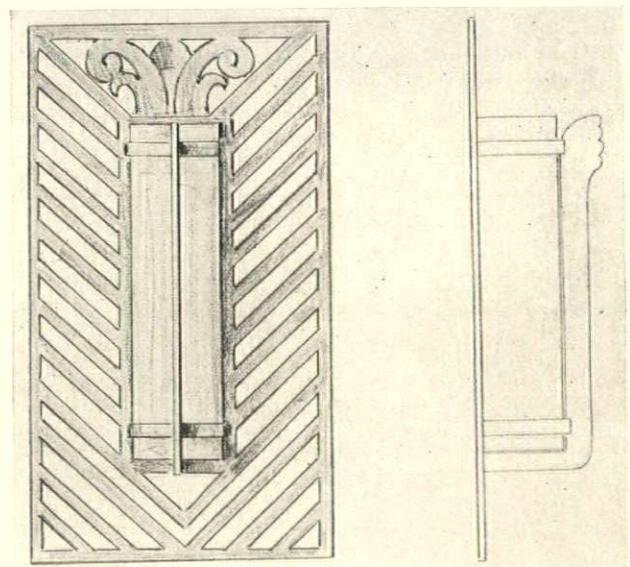
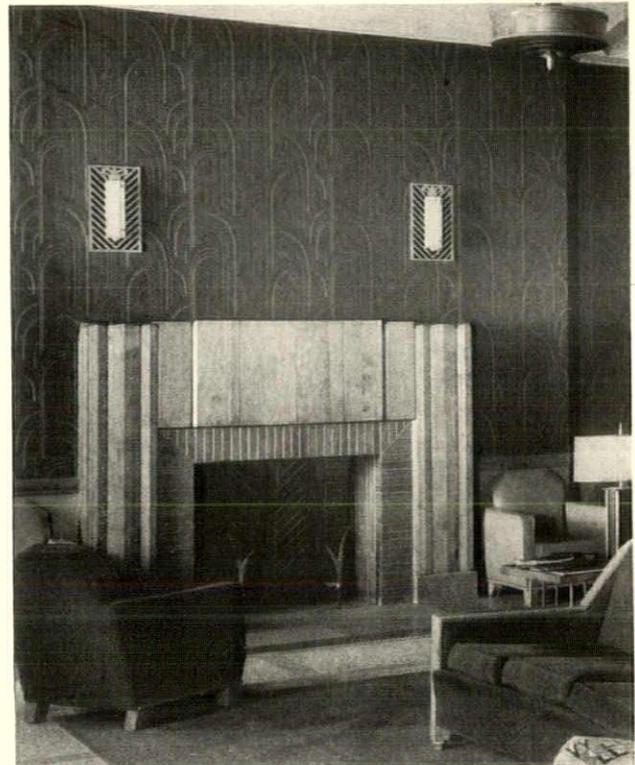
room unit, with its lavatory projecting the depth of the individual balconies, screens the latter in a very simple way. Incidentally, there is only one public room, a small restaurant located in the basement.

THOSE who are obliged to make use of the last inch of space in house or apartment planning will find an ingenious scheme in the



work of Gottfried Schramm, an architect of Hamburg. *Moderne Bauformen* shows this folding dining-table which drops down into the living-room, and is served through the opening in the thickness of the kitchen cupboards from the kitchen itself.

MORE and more frequently one sees the designer attempting to combine his outlets for heating, ventilation, and lighting, and usually with a considerable degree of success from the esthetic side, if not always so pleasing to the engineers concerned. Here are a pair of fixtures in Seamen's House, New York City, in which Shreve, Lamb & Harmon, with the collaboration of Black & Boyd Manufacturing Co., combined light sources with ventilating grilles.



Monday, August 29.—I hope there will be wide publication of the A. I. A.'s draft of a housing law for each State. The Emergency Relief and Construction Act of 1932 empowers the Reconstruction Finance Corporation

"To make loans to corporations formed wholly for the purpose of providing housing for families of low income, or for reconstruction of slum areas, which are regulated by state or municipal law as to rents, charges, capital structure, rate of return, and areas and methods of operation, to aid in financing projects undertaken by such corporations which are self-liquidating in character."

The elements of a housing law have been well stated by the A. I. A. committee, and for the most part are of self-evident merit. Dr. Edith Elmer Wood, however, feels that the committee's suggested limitation of approved projects to those that may be rented, not sold, is unfortunate. Such a plan of operation might prove unacceptable to large parts of the country in which home ownership is the custom and aim. Nevertheless, experience in many group housing projects seems to indicate that only by a centralized ownership can the character and quality of a development be maintained over any considerable period.

Tuesday, August 30.—Raymond Hood and John R. Todd are sailing within a few days to discuss with English, Italian, French, and Spanish artists the problem of murals in the great hall of the seventy-story RCA Building in Rockefeller Centre. The work evidently is not to be an all-American job, though the names of American painters and sculptors thus far employed include Edward Trumbull, Ezra Winter, Lee Lawrie, Hildreth Meière, Barry Faulkner, Boardman Robinson, and Robert Garrison.

Wednesday, August 31.—New York State is building a memorial highway up Whiteface with an architectural memorial at the top. To get the best design for this, the commission held a competition among unemployed draftsmen of Albany and the vicinity, and put the successful competitor on the payroll of the commission as a draftsman. Well, that is one way to get a memorial designed.

Thursday, September 1.—Lunched with Ely Jacques Kahn and Leon Solon, discussing the parallel progress of the various arts in any civilization. Solon contended that the art of the painter always lags behind the progress of the other arts—the painter paints what he sees being done in these arts but never anticipates progress in them. At any rate, there seems to be a very definite connection in any given epoch between the fundamental bases on which work is done in literature, painting, sculpture,



The Editor's Diary

architecture, and possibly even music. Under the title "The Gothic Revival," by Kenneth Clark, this analogy has been traced very clearly in the period marked by Walpole's exaggerated romanticism.

Saturday, September 3.—August contracts for new construction, according to the Dodge statisticians, show a gain of 4 per cent over the July figures of this year. Nevertheless, the August figure of \$133,988,100 compares very unfavorably with \$233,106,100 for August of 1931. The first eight months of 1932 lag far behind 1931, with \$929,836,500 total construction as compared with \$2,311,598,100 for the corresponding eight months of 1931. Of the current year's total to date, slightly less than one quarter was for residential buildings, slightly more than one third for non-residential buildings, the balance being for public work and public utilities.

Monday, September 5.—Technocracy, Howard Scott's group of engineers, makes a startling statement—that the American worker is the poorest paid in the world. This is figured, of course, on the production basis. In comparison with the highly paid American workman, the Chinese coolie, long the symbolic victim of economic oppression, is richly awarded for what he produces. Naturally, in making comparisons of payment for production, the great factor of machinery comes into the picture. It is said to have taken one hundred thousand men twenty years to build one of the great pyramids. Recently a handful of American laborers, working on the Mesabi Range, moved a greater tonnage of ore in three weeks. As a matter of fact the human being has become insignificant as an energy-producing unit. There is one billion installed horsepower in the United States today, for which nine million men are required in the direction of this tremendous force. In other words, these nine million men and the horsepower that they direct can do the work that would have required ten billion men under any previous industrial system.

As Scott points out, the standard of living in any civilization depends upon the energy per capita applied to the raw material used by that system. This fac-

tor of energy per capita as exerted in America today is seventy-seven times greater than it was one hundred years ago. As a matter of fact, this production of energy per capita, the barometer of our standard of living, has gone down more than thirty per cent during the present crisis, all of which goes to show that practically all social, political, and economical theories that have proven themselves good in past eras are by no means for that reason good today.

Tuesday, September 6.—Yale is to have an experimental laboratory for the investigation of ventilation, cooling, and heating, with their effect upon human health and comfort. The laboratory is to be known as the Thermo-Hygiene Laboratory and will be built by the John B. Pierce Foundation of New York. Dr. Leonard Greenburg, Dr. L. P. Herrington, and Dr. C. E. A. Winslow will be in charge of the work. Part of the scheme calls for two suspended experimental rooms in which it will be possible to produce and maintain any desired temperature, humidity and air motion.

Thursday, September 8.—R. G. Dun & Company point out that the continued downward trend of the building activity has necessarily weakened the financial position of the builders. The liabilities involved in failures recorded for the first six months of the current year run to about \$25,500,000 as compared with liabilities of about \$23,000,000 for the whole twelve months of 1931. Nevertheless, during the past two months a much better feeling has prevailed. There has been a moderate advance in material prices, a steady increase in modernization work, a speeding up of the federal construction programme, and a very definite hope that the operation of the Home Loan Banks will release funds still tied up in building-and-loan associations.

Saturday, September 10.—In good times the problem of equalized appraisal on property is not so acute—we accept inequalities as a more or less necessary evil. When we get down to bed-rock financially, the question becomes more acute. At present the Associated General Contractors of America are considering the possibility of sponsoring a model uniform state law for the establishment of a system of certified building appraisers. Possibly each state would set up a board of five members appointed by the governor, whose duty it would be to regulate the practice of building appraisals, and to examine and register those qualified to practise as certified building appraisers. New York, and possibly some other States, already have an equalization law under which the appraisals of property in each county are compared with those in other counties, and an equalization penalty levied

upon the county where appraisals are too low. In spite of these and various other steps towards equalization, appraisal figures continue absurdly low, in some cases as little as one third of the acknowledged value. It is an interesting speculation to consider what would happen if each property owner had to swear to a value of his property and put the figures on public file, thereby being taxed upon the same value and being willing to accept this value in purchase.

Monday, September 12.—Gerald Geerlings back from London with six etchings, three of which have already been acquired by the Victoria and Albert Museum. I was particularly impressed with an aquatint he had made showing the skyline of New York as seen from Governors Island in the evening—a subject to which he has given the amusing title “Civic Insomnia.”

Tuesday, September 13.—Robert Kohn invited the editors of the professional journals to lunch with him today at the City Club for the purpose of discussing the progress, if any, being made by the profession in assuming leadership in local and state efforts to utilize the benefits of the recent Emergency Relief and Construction Act of 1932. New York is the only State which at present has a state housing law enabling it to go right ahead with housing projects permitted under this act. Illinois and Ohio seem to be well on the way towards passing such laws. Pennsylvania and Indiana have voted upon such laws adversely, due largely to the efforts of the real estate and banking interests, who feel that further expense in housing on government credit is not needed. Wisconsin and New Jersey are at work in attempting to pass the required laws. In the other forty-two States, there seems to exist at present a deep sleep. Here is an opportunity for the architectural profession, if sufficient members of it can rouse themselves from the attitude of watchful waiting long enough to seize the reins. It would be unfortunate, indeed, if our building efforts in the immediate future should again be under the leadership of the real estate men and speculative builders. Under their leadership in the past we have certainly moved through diverse and disillusioning paths. If the architect, however, does not take the lead now, it will probably fall into the same hands, with another unstudied, unscientific fumbling of the task ahead of us.

On Monday, November 14, in Pittsburgh, there is to be held a meeting of the National Conference on City Planning. Coincident with this, a small group of those who are interested in having the architectural profession take its place in the driver's seat will meet around a table to discuss ways and means. Any one who is really desirous

of doing something either in a state or a municipal movement along these lines would, I feel sure, be welcome at this gathering. Frederick Bigger, chairman of the A. I. A. Committee on Economics of Site Planning and Housing, is the man from whom to get further particulars.

Wednesday, September 14.—There seems to be an amazing difference of opinion as to the value of the September issue featuring new products of 1932. For the most part, the profession seems to approve of the scheme, although there are such widely differing opinions as those of Magonigle and Dwight James Baum and others on the one part, who have taken the trouble to telephone their enthusiastic approval, as contrasted with the opinion of an architect in Oklahoma City who feels that 95 per cent of the profession was familiar with 85 per cent of the products listed. Oklahoma seems to be very much up to date.



Thursday, September 15.—The Architectural League honored at dinner tonight Charles A. Platt, president of The American Academy in Rome, and James Monroe Hewlett, who is about to leave for Rome to take up his duties as director of the Academy for at least the next three years. Julian C. Levi presided, and among those who discussed the present and future of the Academy were Mr. Platt; James K. Smith of McKim, Mead & White, president of the alumni association; Eugene Savage, Cass Gilbert, and Mr. Hewlett.

Friday, September 16.—Spent the evening studying Leicester B. Holland's theory of creating a hardy garden border. I always knew that Holland, now chief of the Division of Fine Arts, Library of Congress, was a versatile architect and other things, but I had forgotten that he is also so profoundly imbued with a knowledge of gardening as to have written “The Garden Blue book.” It, by the way, is the *vade mecum* of the amateur gardener who wants to do something a little more than plant a few posies.

Monday, September 19.—Volume VIII of the final reports of the President's Conference on Home Building and Home Ownership appears today to accent the fact that poor housing is an expensive luxury for a people. As a cause of disease, degeneracy, and delinquency, all the evidence points to the combination of poor housing with poverty, ignorance, vice, and uncleanness. Just what share of this indictment poor housing must bear is something that we shall have to imagine, since there is no scientific way of separating these tangled

causes. Incidentally, it is interesting to find that of ninety-nine thousand accidental deaths occurring annually in the United States, thirty thousand occur in the home, thus nearly equalling the thirty-three thousand caused by motor accidents. Among the causes of these fatal accidents in the home, falls rank first, and fires, second. The architect assuredly can find means to lessen both of these.

Tuesday, September 20.—We made a note in these columns some time ago with regard to the development of a patina on copper. John H. Freeman, Jr., and P. H. Kirby, writing in *Metals and Alloys*, tell of a new process of developing a patina, but the process, as at present used, must be applied to copper shapes before installation. Patina has usually been referred to as a basic carbonate. Recent analyses, however, indicate that it is a basic sulphate rather than a carbonate. Exposing the copper to sulphur dioxide was tried, but proved to be too slow. Ammonium sulphate sprayed upon copper, or with the copper dipped into the ammonium sulphate solution, resulted in the formation of the patina in about twenty-four hours.

Wednesday, September 21.—The American Institute of Steel Construction customarily decorates the three bridges adjudged to be the most beautiful erected in the United States and Canada within the year, with commemorative tablets. This year they are using a combination of stainless steel and colored glasses fused together.

Thursday, September 22.—Wesley Bessell and I made a pilgrimage today into Connecticut to see and photograph a house that he has just completed in which, for the first time, he has used, as a point of departure, Mediterranean motives. We rambled about the place all afternoon, finding shot after shot that might almost have been mistaken for one of the hill towns. Mrs. La Forge, wife of the composer, for whom the house was built, has picked up some lovely old Spanish panelling, ironwork, and tiles, which Bessell, as is his wont, has used in the most effective and surprising ways. The interior, with its magnificent music-room and built-in organ, had to remain for a further photographic expedition.

Saturday, September 24.—The Newark Museum and The Newark Public Library's little bulletin, *Design in Industry*, points out an abrupt falling-off in the number of articles published in the technical press stressing the importance of color. It makes the point also that the literature relating to architecture and interior decoration consistently leads the field of industrial design. The Museum is doing a good job in annotating the current literature in industrial design.

Some Pitfalls in Supervision

CROOKED or double-curved glass must not be used. If a glass has a slight curve in the sheet it should be installed so that the convex side

is out. By certain methods in manufacturing some window glass, curved sheets are eliminated, but sometimes at the expense of including other defects.

Waves in both single and double strength glass of "A" quality should be such that when the glass is viewed at an angle greater than 20 degrees, they are not visible to the eye. In "B" quality no waves should be visible except near the borders when the glass is viewed at an angle of 45 degrees or more. In heavy sheet window glass "glazing quality" is the same as "A" quality in regular glass. The other grade in heavy sheet window glass is called "factory run," which is self-explanatory.

Care must be used in setting glass. It should be well secured with a good grade of putty after it has been securely fastened by points into the frame. These should be spaced about six inches apart. In windows of ordinary size, plate glass is often set on soft wood strips. These provide a rest for the glass and allow it to set evenly. In large plate glass work leather or soft lead rests are used. Two of these are used, because of the impracticability of getting any more than two at the same exact level and having them settle the same. It is necessary that no undue strain be put on the glass, because while it is a fact that the bend of large pieces may be measured in inches, an uneven settlement might readily cause the plate to snap, due to some undetectable tension.

Window glass should be well taken care of during construction in order that it may be turned over to the owner in good condition. It is often marked or pasted with paper to eliminate breakage. It is well, however, to apply a paraffine coating to the window glass, or else have a muslin protection hung over it, particularly if the glass is installed before the plastering is done. The sand in the plaster will scratch the glass, and if this does not, the removal of the dirt and paint with putty knives will do the glass no good.

Putties, although capable of many variations, are generally made with a pigment of

By W. F. Bartels

XXV. GLAZING

CONTINUED

either whiting or white lead and whiting. The pigment of whiting putty should be made of 95 per cent finely powdered natural chalk (CaCO_3). White lead-whiting putty should con-

tain 10 per cent white lead, with the total of whiting and white lead not less than 95 per cent of the pigment. The other element making up the putty should be pure raw linseed oil. The final resulting putty should be a uniform, dough-like material, free from any lumps or grit, and easily workable. Its consistency may be tested simply by smearing a small specimen on a piece of glass. In no case should the putty be "short" or mealy.

Before putting wood sash it is essential that the sash have a priming coat of paint, otherwise the wood will absorb all the oil from the putty, which will, despite the final coat of paint, then work away from the glass and wood, and finally fall out. In making a putty for steel sash there is of course no wood to absorb the oil and therefore such putties are generally made with a boiled oil, drier or similar hardener, to enable the putty to set better. Sometimes the architect will call for back putting, which means that the putty is to be put on both sides of the glass.



STEEL STAIRS

Steel stairs are not restricted alone to fireproof structures, but can be used to advantage in the non-fireproof type of large buildings, and small houses as well. But wherever employed they should be made of accredited materials, well put together, and accurately set. Their dimensions should be carefully checked well in advance against possible discrepancies, for at the last moment many a builder has found himself with stairs that refused to fit their appointed places. The anchorage locations should be carefully inspected by the superintendent in order to make certain that such points are exactly as specified. In fireproof buildings it is generally customary to support the stairs on the steel beams by means of rods hanging down to catch brackets securely fastened to the stringer

or platform, or else a support may rise vertically from the beam to fasten to a designated place on the riser or platform. If it is only a short run the bottom of the risers will rest on the lower floor, while the top will be placed on a beam in the upper floor. The hangers should be accurately placed where called for. Leaving them out not only endangers the stairs, but putting them in afterwards causes much cutting and patching of the concrete or fireproofing. Where hangers are used the nuts should be drawn up tight. Where angles or similar shapes are used as supports they should be well secured by having the bolts drawn up tight and any hollow spaces between the support and the riser properly adequately taken care of by suitable fillers fastened to either.



Stair stringers are generally supported on beams or other supports by means of shims which allow the stringers to be raised to the correct level and height. As a rule small shims are used, the idea being that concrete or grout will be placed under the end of the stringer and thus secure a good base. But, as can well be imagined, not all irregularities will be so filled in that a suitable bearing for such an important part of the work as the stairways is obtained. The fill may be of thin cinder concrete or similar material, and it is obvious that the workmen doing this job are not apt to be conscientious about ramming it in in every crack and crevice in order to make up for all possible contingencies in the work of other sub-contractors. The ornamental iron contractor cannot afford to depend upon other trades to perform the ground work for his own, and the superintendent should insist on this point. It is well to make sure that good-sized shims are used, and that they are self-supporting, so as not to topple over. Many an attempt is made to shim an iron stair with washers, bolts, and other odds and ends, not to mention wood wedges as well, only to be discovered by the superintendent. Often the stair contractor will want to leave out supports—particularly if the stringer is a long one—on the plea that he has made the stringer heavier than called for. The superintendent should be careful not to accept such a seemingly plausible substitution without careful inspection. He should first ascertain whether the stringer has actually been increased, and second, investigate whether the increased size is capable of carrying, without

the supports specified, the load intended to be put on the stairs. Stringers are generally made of 12" by 1/4" steel plates bent to form 10" channels, with their treads and risers supported by angles 1 1/4" by 1 1/4" by 3/16" riveted to the stringers. The treads and risers will differ, of course, depending on whether they are to receive marble or cement, etc. It is well to have the treads, and particularly the platforms (if they are to be of cement), reinforced. This is generally done by laying a piece of galvanized mesh over the screed coat before the finish coat is applied. This is a great factor in preventing cracking of the treads and platforms, because when the tread hardens it literally becomes a small reinforced concrete slab. This practice is well worth the trouble involved, and if specified the superintendent should see that the mesh is installed. The stair contractor is not unlikely to order a roll of the mesh to the nearest size smaller than the stair width and attempt to use it. This will save him not only the added cost of a wider roll but also the labor of cutting down the mesh to the exact width required. Then, on the platforms, instead of one continuous piece, he is apt to use two pieces with a 6" space between them at the centre. It is obvious that it is at the centre where the greatest amount of tension will be and hence there should be a continuous piece of mesh at this point. The superintendent must prohibit the usage of such narrow strips, unless they are adequately lapped and wired together.



A practice the superintendent must vigilantly guard against is that of pushing wheelbarrows up and down the stairs. It sometimes appears as though the workmen were testing out the treads to see how much pounding is necessary to bend them. While the results are not as noticeable on the stairs which will have marble treads as those having job-installed cement treads, it should not be allowed in any case. It bends the nosing and thus causes an unsightly finish. Rolling heavy barrels down the stairs is another undesirable practice. Nothing of this type of treatment should be allowed unless suitable skids are put in place to protect the stairs. Sometimes it may be advisable in place of mesh on the platforms to use pencil reinforcing rods. The cost of these is negligible, but they effect tremendous savings in cracks.

(To be continued)

75 Federal Street Building, Boston, Mass.



THOMAS M. JAMES COMPANY, ARCHITECTS AND ENGINEERS



Main elevator lobby



"Thrift," one of the column caps in the Second National Bank's quarters



Transportation over land and sea and through the air are represented in three panels; here is the Old Prospector in the desert

Below at the left is the Miner, in a series representing Agriculture, Manufacturing, and Mining

Directly below is one of a group representing Power and its sources



◀ ARCHITECTURE ▶



"Honesty," another of the column caps in the bank's quarters



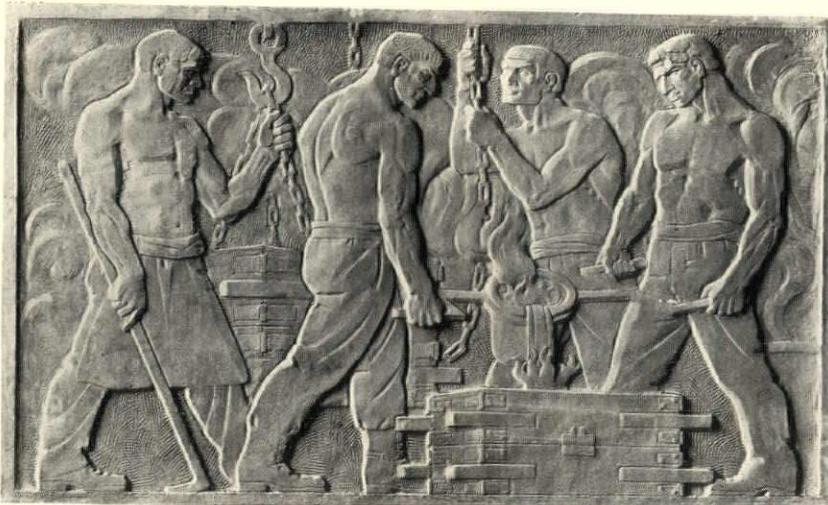
Above, the panel representing Agriculture which, with Mining, are the end panels flanking the one shown below, Manufacturing

Below at the extreme right is one of the panels in the series of three representing sources of Power, this one being Electricity

All of this sculpture is the work of Paul Fjelde



Public space in the Second National Bank





Bronze panel for the Second National Bank, "Fruitfulness"

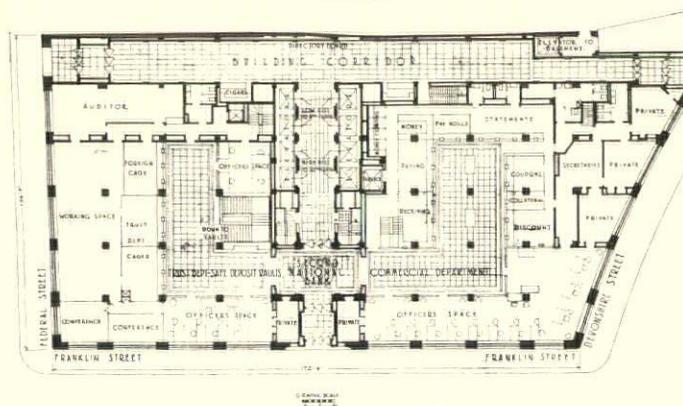


One of three panels representing Finance, a sober figure of conservative investment recording the deposit of a bag of gold



Another of the three panels in the series on Finance, this one a representation of "Thrift"—the maiden offering to the bee sweets of the summer blossoms

Below, the first-floor plan of the 75 Federal Street Building, devoted largely to quarters for the Second National Bank



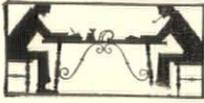
A bronze panel in the lobby of the Second National Bank's quarters—"Harvest"

Paul Fjelde is responsible for all of this incidental sculpture, collaborating with Thomas M. James Company, architects and engineers

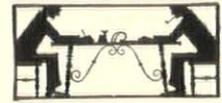


◀ ARCHITECTURE ▶

CONTACTS



DEVOTED TO A BETTER UNDERSTANDING OF THE BUSINESS SIDE
OF ARCHITECTURE AND ITS RELATION TO THE INDUSTRIES



Moisture Penetration Through Masonry Walls



THE Boston Society of Architects, through its Committee on Materials and Methods, has been investigating the causes, and corresponding preventive measures, of leaky walls. The report, here printed in a slightly abridged form, is signed by the committee: G. H. Burr, chairman; Felix Burton, secretary; Francis V. Bulfinch, Chester N. Godfrey, Wendell T. Phillips, S. Winthrop St. Clair, and Frederick W. Wead.

Most of the troubles are undoubtedly due to three principal causes: lack of cohesion between the masonry units and the mortar, shrinkage of the mortar, and improper filling with mortar of the end joints between masonry units.

Brick should be of good dense material with water-resisting qualities and should have a fairly low percentage of absorption. By using the formula $\frac{W}{V}$ bricks can be roughly classified as to density into three classes: .95 — 1.15 — 1.3, W representing weight of the brick and V representing volume; that is, the length \times height \times width. These classifications are from the results of tests given by Professor Voss of Massachusetts Institute of Technology. The absorption varies inversely as to the density, the hard, dense bricks not absorbing as much water as the softer bricks, but they will absorb more rapidly to capacity. A hard, smooth brick where used with rich cement mortar seems quite certain to cause trouble, because the mortar does not adhere properly to the masonry unit, causing hair cracks through which moisture can penetrate, these shrinkage cracks being due to the rapidity with which the water is taken from the surface of the mortar in contact with the brick.

A. In the case of stone walls the same comments apply as for brick; that is, the harder and more impervious the stone, the more trouble because of lack of adhesion of mortar to the masonry units.

B. Artificial stone is frequently the cause of leaky walls. We be-

lieve artificial stone is extremely difficult to control in its manufacture and that special care against the penetration of moisture through the stone joints must be taken where such stone is used.

In addition to the difficulty of securing good stone, artificial stone is subject to shrinkage the same as any other Portland cement product and this makes it very difficult to obtain permanently water-tight joints. The greater part of this shrinkage takes place during the first six months after the stone is made and it continues to shrink to a more or less extent for five or six years after the time of manufacture.

Where economy necessitates the use of artificial stone special provision should be made to thoroughly fill all end joints and all joints should be raked and pointed with an elastic compound. Such elastic pointing compounds can be obtained in almost any color to match the stone work. The Cast Stone Institute has published very complete specifications for the setting and pointing of cast-stone work. [ARCHITECTURE, Dec., 1930; Aug., 1931.]

C. A solid brick wall is preferable to a wall having a backing of terra cotta or cement units, and in buildings where the exposure is at all severe the small additional cost would seem to be justified.

Where feasible, a brick wall of hollow construction, if properly built, may be used to good advantage.

We would recommend strongly the necessity of furring the inside of all masonry walls which are to be plastered. Terra-cotta tile, metal furrings, or wood strappings are the most commonly used forms of fur-

ring, and we find that comparatively little trouble from moisture penetration occurs where such furring is used. Furring, however, in itself will not stop the penetration of water through the wall. It tends to stop the capillary attraction between the wall and the plaster so that if dampness penetrates the wall it does not show on the interior plaster. No one of these types of furring can be relied upon to overcome defects of the wall construction.

A. Many specifications call for a liquid damp-proofing applied with a brush or gun to the back of masonry walls. It is doubtful if this is of value and may tend to seal the wall so that moisture may accumulate and eventually penetrate the seal at localized points in sufficient quantity to appear as dampness on the plaster walls. If interior damp-proofing is to be used, a mastic applied with a trowel seems to be the most efficient, but again we would point out that damp-proofing on the interior of a wall will not overcome defects in the wall construction.

Our committee recommends that lime cement mortar be used for all masonry work where the greater compressive strength of cement mortar is not required, and we believe that in comparatively few cases is the additional strength necessary.

A great deal of research work is being done at the present time by the Bureau of Standards and in various engineering schools to determine the essentials of a good mortar. These are strength, workability, adhesion, and lack of shrinkage. In view of investigations and tests which have been made to date it would seem that mortars consisting of not less than one part lime to one part cement and six parts of sand by volume are to be recommended.

The tests being made also would seem to indicate that there is a very delicate relation between the mortar and the brick. Eventually we may

find that mortar proportions may have to be varied to meet different classifications of bricks.

A. All mortar should be thoroughly mixed and the lime should be well slaked and added in putty form; this putty should be mixed at least twelve hours before using. The quality of the sand materially affects the mortar and proportions must be varied to meet conditions.

If the work is of great importance and the building is in extremely exposed location, the subject of mortar mix should be carefully determined in relation to the character of brick and sand delivered on the job. Hard brick absorbs relatively little moisture but absorbs that little very rapidly, a very dangerous characteristic when used with cement mortar which depends upon continued moisture for proper crystallization and setting. For this reason, if for no other, a mortar comparatively rich in lime has a distinct advantage. In addition to this advantage, the less cement that mortar contains, the less contraction the mortar will have (due to the fact that Portland cement shrinks continually for a number of years after it is set), with a consequent less liability of breaking its bond with the brick work.

The strong cement mortars which have been used so much during the past years are extremely hard to work. They lack entirely the plasticity and easy workability that the old lime mortars possessed, and as a result the workmanship, as far as density of walls is concerned, suffers greatly. The bricklayer naturally exerts himself as little as possible to make tight, densely filled joints owing to the difficulty of working the cement, whereas with the far more plastic lime cement mortar the easy working material almost takes care of this important feature automatically.

B. In dry, hot weather it seems advisable to have at least some dampness in the brick before laying. Climatic conditions and the human element make this a difficult situation to control. Porous bricks require considerable water, whereas a hard, dense brick if wet will tend to slide on the mortar and cause difficulties in laying. Tests are being made to solve the problem of the water content for bricks in laying either through scientific wetting or

by the mortar mix. Here again the lime content in the mortar is of value, as it tends to hold the water better than cement.

C. A matter in which there is more or less controversy among architects and builders is as to whether stone walls should be pointed up at the time the wall is laid or whether the pointing should be done afterwards.

The committee believes that, owing to the fact that some settlement takes place in a masonry wall, due to the weight of the material, up to the time and even after the mortar gets its initial set, the best results are obtained if the pointing is delayed until the wall can secure its full set.

The above would also apply to brick work except that of course it increases the cost very much, and is not justified except in comparatively few cases where exceptional means are being taken regardless of cost to get a perfect structure.

D. In pointing masonry walls, mortar should be retempered between one and two hours after mixing to allow for initial shrinkage of the cement but should not be retempered after two hours, as initial set has then begun.

E. Water repellants such as powdered calcium stearate or the liquid ammonium stearate are being used in mortars. These seem to have some advantages but do not appear to be uniformly efficient with all types of brick. Tests are being made in the use of these materials, but for the present the committee does not feel competent either to approve or condemn their use.

F. Tests have been made indicating that the use of non-staining Portland cements in the mortar mix will tend to eliminate the development of efflorescence on brick work. The use of such cements will, however, increase the cost of the mortar.



The committee recommends that the back of all face brick be parged with mortar of the same mix as that in which the brick is laid, as the wall progresses in height; that is, after five or six courses of face brick are laid, parge the back of this brick before placing the backing. This work should be thoroughly done so that no

voids may be left which may permit the passage of moisture into the backing. This will also tend to fill up the end joints of masonry work.

A. The committee recommends that too wide a joint be avoided and that all joints should be ruled with a jointing tool. The most weather-tight type of joint seems to be formed by a pipe jointer making a slightly concave surface. The committee appreciates, however, that this more efficient type of joint has objections as far as architectural appearance is concerned and that in many cases a weathered joint would be preferable. Where such a joint is made it should be done with a square joining tool that presses the mortar back from the edge of the brick and the weather angle should not be too great.

B. Window and door frames in exterior walls should be detailed to permit of effective caulking. Because of the human element we believe that proper caulking by means of the so-called "gun method" will give the most satisfactory results.

C. During construction it is wise to protect the tops of all unfinished masonry wall sections while they are not being worked upon. This will tend to prevent the walls from becoming waterlogged and reduce the liability of efflorescence.

Where leaky walls occur after completion of the building the most lasting and efficient means of correction seems to be the cutting out of joints and repointing with a good retempered water-proofed mortar. If leaks are coming through shrinkage cracks, as is most often the case, a surface covering of water-proofing compound cannot be relied upon to stop such leakage. The liquid water-proofing compounds also seem to lose their efficiency after a few years. These compounds, however, seem to stop surface penetration of water, and where the masonry units are of a very porous material a proper application of such liquid water-proofing will at times prove satisfactory. In the case of soft brick units we believe that application, at the completion of the building, of linseed oil diluted about one third with gasoline has proved an excellent remedy for moisture penetration and tends to make the brick darker and richer in color.

(To be continued)

Inventory in the Night

By *St. Elmo Tower Piza, R.A.*

IN any protracted emergency or period of stress, it is in the nature of each individual to think of himself or his group as the most sorely tried of all suffering humanity. The confidential admissions of the broker, the manufacturer, the salesman and the barber leave one groping daily for enough sympathy to go round, while predictions of experts with uncommentated statements of banks and large corporations in the daily press prove only that nothing is immune to the prevalent paralysis.

In general, the professional man is less hard hit than his once-prosperous clients. The mercenary maxim that an established professional practice, while less remunerative, is also less fluctuating than an equally well-established business, seems, in the main, to hold. Bills may be more difficult to collect and fees perforce reduced, but the volume of work demanded of the doctor and the lawyer is at least measurable in the same units as before and the total variation downward is probably borne in a disproportionate degree by the younger, less established group.

In the professional class, the architect finds himself in a uniquely unenviable position. His service does not function upon needs as fundamental nor as constant as the health of the race or the routine of law and order. The art of building, in an earlier day the concomitant and index of civilization, has become, in this highly mechanized age, a function or by-product of industry, inseparable from and dependent upon the processes of commercial production and expansion.

Of the total volume of work issuing from architects' offices in modern times, more than one half is of a commercial character, *i.e.*, designed for commercial purposes and direct monetary return. Commercial building today is a purely capitalistic operation to accommodate sudden expansion, to exploit land values, to market a new material or process, to invest profits acquired or to display a comfortable surplus for advertising value.

With each rising market, commercial and speculative building recurs in a crescendo of prodigality quite unrelated to population or to any actual need. At the first sign of deflation this resultant or functional activity is abruptly

halted. Because of the primary relation of borrowed funds to all building enterprise, it is the first luxury curtailed, but unlike other luxuries, when the volume of business shrinks and the standard of living recedes, the glut or excess of building remains and even augments while no production occurs. As a result, building is subject to shorter, more spasmodic periods of high activity and longer periods of quiescence or depression than any staple industry. Thus as the profession of the architect becomes more specialized and intricate, it becomes in the same degree, more unstable and dependent for its very existence upon each contributing business and trade and more inseparably tied to the economic weather-vane.

The residential field, in which I do not include apartments and speculative houses, is hardly less implicated. When mortgage money is scarce and high, the small, conservative home-builder is eliminated, while the large number of foreclosures and sacrifices thrown on the market in all urban and suburban localities spreads a heavy surplus over a very reduced demand.

There remain three categories of activity, which together, in good times, comprise only a small fraction of a year's building operations, but which, though suffering considerably in the ebb tide, have afforded a few architects in the past their only subsistence and salvation. These, briefly, are government work, institutional buildings and personal hobbies for the securely rich. As all security is relative and intangible before the test, and as the total amount of work under this last head is inconsiderable in bad times, each architect must weigh its possibilities with his own measure. On the other hand, buildings for federal, State or city governments and institutions such as hospitals, churches, and schools, in the face of the most drastic retrenchment, are never entirely eliminated from the nation's building programme. A necessary courthouse, departmental office or prison, built in hard times, represents a handsome saving in cost—and is sometimes promoted especially to help depressed labor conditions. Churches, hospitals and educational buildings, born of timely bequests and endowments, besides being the most coveted of all work, are no respecters of times and are less sensitive to the financial barometer.

Business men and professionals who have lived through recurring cycles of business activity should presumably have learned to gauge the probabilities of each new wave and trough. But in the eight years previous to 1929, extraordinary opportunities had augmented the number of listed, practicing architects in Manhattan Island alone by 20 per cent. If we except the period of the World War, during which most of the trained men found an outlet for their usefulness, the last major depression was that of 1907. Estimating the duration of an average practice at thirty years, it is certain that at least three quarters of the architects of today are facing conditions comparable to nothing in their previous experience.

Under unfavorable conditions, large corporations seek (1) to reduce their overhead, (2) to restrict or modify their output, (3) to stimulate sales and (4) to revise their price schedule. The steel company may shut down one or more of its mines or mills, cut its payroll accordingly, reduce wages of those remaining and lower the price of its commodity. The department store slashes the payroll and changes its merchandising policy to include fewer luxuries and a greater number of low-priced necessities. Each may "run behind" for one or more bad years, with volume of business varying as much as 50 per cent down from peak years. The deficit is met from surplus put aside in good years in proportion to its overhead or the corporation goes under.

To the architect, no analogous procedure is possible. His commodity is service only, but service for which the demand is more volatile than the demand for diamonds. Assume an office employing twenty-five in staff, turning out \$3,000,000 worth of work in a good year. Estimate its payroll at \$70,000. Such an office might occupy 3,000 square feet in a midtown office-building at \$4.50 per foot. Rent, \$13,500 per year. Assume that this architect gets his full 6 per cent cash fee for all work,—fortunate fellow! Gross yearly income, \$180,000. Under most efficient management, additional overhead, blue-printing, telephone, engineers' fees, etc., may allow him to net 50 per cent of the gross, or \$90,000. In the majority of cases 40 per cent is more accurate,—say \$75,000. A comfortable stipend, admittedly, for a professional man. Of this, let him take one half into his personal account (a wise and provident architect!) leaving \$37,500 surplus for the business. Give him two such years with no slack

periods. Then suppose the next year is 1930. His gross income drops from \$180,000 to exactly nothing, barring a few part-payments carrying over from 1929, and these are probably in default. The architect is not too old to be optimistic ("it can't last long!") and, mindful of his own drafting days, he cuts the force sparingly—a stenographer, an office boy, a telephone girl and a few draftsmen at a time. He keeps his key men, sure that things will pick up. At the end of the year his payroll has been reduced to \$35,000 which, with \$13,500 rent, totals \$48,500 disbursements for the year. There is still one, perhaps two or three years to run on his lease. The payroll is cut again—this time to the bone—only the chief draftsman or manager, secretary and one office boy remaining:—say \$8,000. It is 1931 and rent still running at \$13,500. Yearly disbursements, \$21,500, or \$70,000 deficit for two years, with not one penny of income to the boss for living expenses.

In other words, if he has halved his net earnings conscientiously for two good years prior to 1929, and if he has lived on only half the remainder, putting the rest in savings bank or government bonds, he is then in 1932 the proud owner of a lease and a collection of office furniture with no income and exactly as much capital as he started with in 1927. If that amount is found to exceed \$13,500 plus his estimated minimum living expenses for the year, he can possibly keep the office boy to answer the 'phone while he compiles a monograph, in the strictest sense, of his life's work, which might well begin "Once upon a time there was an architect."

Consider a younger man, to whom the recent orgy and a few well-placed married friends supplied an opportunity to "go into business for himself." Suppose that, starting at scratch, he has worked up a practice of residential work and has done as many as ten houses per year varying in price from \$20,000 to \$100,000. Place his average output at \$450,000 per year for several years and admire him for the clever, energetic fellow he is. He is even talented enough to demand—and get—8 per cent for his work. That man has a future! He manages his own office, supervises the design and even finds time occasionally to draw a detail, write a specification and share the duties of the outside man. Give him a staff of seven, including secretary, office boy, and one well-paid "practical man." Payroll, \$20,000. His rent is more modest, but he must have an attractive study or conference

room in which to hypnotize his feminine clients. Say, \$3,500 per year. Gross fees at \$36,000 leave only \$12,500 per year from which blue-printing, telephone, and miscellaneous office expenses are still to come. He may salvage \$11,000 per year for himself. His position and that future of his demand that he entertain if married, or, in any event, circulate where the money is. Entertain and circulate ever so little on \$11,000 per year and estimate the balance in bank as of December 31. And then, 1930. His future has arrived! The draftsmen have gone before many months but the first year's deficit is probably \$8,000 for office alone. As to his living expenses—and 1931—but why go on? Possibly he is writing articles for *Better Homes and Gardens*.

These examples, unfortunately, are neither arbitrarily chosen nor exceptional. Each is representative in its class with income figures chosen purposely above average over a period of years. Together they compose a picture of the busy medium-size and small offices that are turning out the larger slice of commercial and residential building in our cities and suburbs.

There are two other types of organization: the large office of national reputation employing in good times a hundred men or more, and what may be called the one-man office. In the former class there are a scant half-dozen in the country. The latter includes every small architect in a large or small town, who "does his own work" with one, two or three temporary draftsmen to help when, as, and if he needs them. Both of these classes are in a stronger position in the zero hour than the unfortunate middle.

The large office may be geared, in busy times, to an output of \$20,000,000 or more per year—profiting the firm half a million or upwards annually. This leaves ample margin for a sinking fund over a period of good years to tide over the inevitable slump. Such an office may cost \$300,000 to run at full capacity but the firm is able to reduce its overhead, by keeping only department heads, to \$100,000 or less. Four years of total idleness can be covered then by one good year's profit and the firm is in a position to survive. Furthermore it is the office of this calibre that is best able to get what there is of government and institutional work in the hardest times, and, with a nation-wide reputation, is likely to pick up any sporadic commercial activity in distant parts or even foreign countries.

What, then, of the individual? His income

is assuredly cut off—perhaps before the last job of his busier confrere peters out. He has, however, one great advantage:—he travels light. With no work in hand he needs not even a secretary and if he forfeits his small office in the darkest hour, his landlord will probably just be sorry. If he has saved two or three thousand a year, he may still be able to meet the mortgage payments at home and also pay the grocer and the Telephone Company. And a lot of good reading, writing, and drawing can be done in the guest-room even without a 50 cents per month telephone extension. Or again, if he happens to be one of those perfectionists who never found an heiress and realized that he could never marry without one, he may profitably take the next cabin boat to France, Italy or Germany and there pursue knowledge or pleasure with far less ravaging effect upon his conscience and pocketbook than can be here.

Now, as the last to be considered is always the draftsman, we must give him his proper place, which, continuing the metaphor, is briefly filled as always. A New York office which in 1927 employed eighty in the drafting room has cut its force to two. Another with a staff of three hundred and fifty today retains only its associate members, numbering fourteen. There are twenty-four hundred applicants registered with the Architects' Emergency Work Bureau in Manhattan and there is, relatively to population, more building activity in New York than in any other large city in America.

It is possible that the number of bond salesmen or bricklayers out of work may be proportionately as large compared to their total numbers prior to the debacle, but the bond salesman with a following or clientele may qualify as a salesman for any other commodity when an opening occurs, while the bricklayer, without union aid, may be able to tide over with manual labor of some other kind. The draftsman's trade or profession gives him little experience which he can put to use elsewhere and no contacts by which he might re-orient himself temporarily or permanently. A designer with sufficient versatility may find bread and butter in commercial art, poster design or other fields according to his talents. A good detailer may be fortunate enough to locate with some still extant affiliated trade making shop drawings. But the average C. O. D. man, as a disdainfully independent designer once dubbed the common, ordinary draftsman, is out of work and of luck until the wheels of his small world begin again to turn.

This condition is as hopelessly unsatisfying to the employee as the cause is to his employer, but until the organization of the profession and the conduct of building are radically altered, is not likely to change. Every architect who takes his practice seriously would like to build and hold a permanent organization to carry out his wishes. Organizations in architecture take the mould of forceful, creative minds even more definitely than in business. Best results are obtained with minimum waste and friction from a seasoned staff. Conversely the cost of breaking in one new man in a busy office is disproportionately high, be he ever so capable. Thus it is to the advantage of every employer to keep at least one tried and proven helper in each department as a nucleus or skeleton (how apt a simile!) about which to rebuild a depleted force. These fixtures are fortunate in weathering the lesser ups and downs of office fortune. But even the best designer, building-law expert, specification man or mechanical engineer is a dead liability during a three-year period of zero income. And if it is a choice between the survival of the architect or his employees, the latter should view their predicament at least philosophically in the event that the old man considers himself the most indispensable of the office fixtures.

The repercussions of these recurring crises are far-reaching and self-perpetuating. Salaries are cut for the few who can still be employed to one half or one third of their former value. This establishes a new wage scale at which any employer who gets work may profiteer mercilessly until business as a whole picks up. Large numbers of trained men forsake the field permanently for opportunities of more stable employment, and a definite quantity of talent and experience is periodically dumped into other fields. A scramble ensues when the horizon clears and good men again move from one office to the next on a rising salary market. This draws a new crop of younger men to the most interesting of the creative professions and every trade school in the country adds to the output of the far too numerous "legitimate" architectural schools, and turns out half-baked draftsmen by the score. By the time a few of these have been assimilated and made useful and, yes, even acquired wives and children on forty dollars per week, the cycle has run its course and the heart-break begins anew.

If every thesis must have a conclusion and every analysis a constructive remedy, I beg only

that these few pages be filed under some less exacting category of prose. There is, for the moment at least, no visible remedy;—and no architect, draftsman or business expert, to my knowledge, has yet proposed any programme short of revolution and government regulation of all industry which could effectually reach the causes of a basically wasteful system. The widely propagated advice of big business that architecture be taken over by and departmented within large corporations efficiently run and organized to design and carry on all industrial building and housing work holds no solution to the problem, for the large corporation is just as prone to indulge in and profit by over-expansion as the individual, and while the corporation has a better chance of survival, the architect thus employed and mechanized would fare just as badly as before, if not worse.

Unionizing the draftsman seems also to fall far short of its intended purpose. Unpleasant conditions in a few unpleasant offices might be alleviated and a minimum wage scale dictated for a standard time-schedule with overtime payment stipulated and enforced. But this is nowhere near the root of the trouble. Under unionized conditions, production would be regulated to the output of the average, and individual initiative correspondingly hampered. Production would necessarily suffer and "standard practice" become more rigidly codified to the detriment of progress in building. And no union yet seen has been able to provide for 95 per cent of its members unemployed for two years.

One may point to the futility of seeking a remedy for any one symptom in a world condition so universally demoralized as the one we now face. On the other hand, to reach causes would necessitate analyzing the entire political and economic scheme far beyond the scope of architecture, and leading, perhaps, to conclusions so far-reaching as to render obsolete the entire substance of this article. That such conclusions may in time be reached and generally accepted, I deem not improbable but I think it more pertinent, if not more practical, to limit this discussion to the narrower scope of existing professional experience.

Three separate causes may be examined as contributing to the unfortunate plight of the architect. They are: (1) Overcrowding by unqualified members. (2) Poor organization and insufficient regulation of the profession, and (3) a seemingly inescapable dependence upon the economic machine.

It may justly be said that these factors bear upon other professions as well. The answer is, they do, but the Bar Association and the American Medical Association have, in their years of existence, done a great deal to raise the ethics of practice and to bring some order out of the chaotic conditions arising from the separate educational and legal machinery of forty-eight sovereign States. In most, if not all of these States, the passing of carefully supervised examinations is now necessary to admit a medical or legal candidate to practice.

The American Institute of Architects has gone far in the last quarter century toward improving the erstwhile deplorable conditions of architectural practice in this country and has also set in motion, in the various States, legal machinery intended to exercise some degree of selection over prospective practitioners. But the results are sporadic and far from uniform in efficiency. Licenses to practice are granted in adjoining States by reason of a Regent's examination, a university degree, or an apprenticeship in any architect's office. In many States no license at all is yet required. Laws pertaining to the validity of one State's license within the jurisdiction of another are nowhere alike. Much remains to be done in unifying this ridiculous patchwork before the profession can be raised to a standing comparable with that of law or medicine.

Why can we not go further? In France and Germany higher education is endowed, organized and carefully meted out by the central government to conform to the needs of the state. This means that, not only is the quality of instruction rigidly supervised and maintained at a uniform level in all centres of learning, but matriculation is limited by *competitive* entrance examinations to a number predetermined by the government. Thus the number of doctors, lawyers, architects or engineers graduated each year cannot exceed and may drop below a prescribed quota based upon population, industrial conditions and other variable factors.

The benefits of a system so rational must be at once apparent when viewed from the chaos of our own State-supervised or entirely unsupervised educational programme. In the first place, a standard of scholarship is maintained to which only that of a very few of our foremost universities can compare. When subsidized education, free to those who qualify for it, is regarded as a natural function of government, the necessity of large enrollments to balance the in-

stitutional budget does not exist. In our system of private competition among universities supported by their alumni and gauged by the prowess of their football teams, concessions must be made to the varying norm of intelligence in every class. Thus a yearly crop of bachelors, masters, and doctors is spawned into all professional walks of life from institutions of first rank, third rank, and no rank at all, in numbers unrelated to any standard of scholarship or ability, or to their usefulness to organized society. This, in a nation which prides itself upon the efficiency and organization of its industrial scheme, seems appallingly haphazard and wasteful.

If it be argued that any such departure would constitute an un-American interference in the right of vocational choice, the fallacy is obvious. Choice of a vocation requiring an outlay of several thousand dollars is not a free choice. Yet this is the price of a professional degree today from any institution whose degree is worth having.

Obviously it would not be expedient for any government to try to educate all of its citizens to the professional class, even if it were possible. Competitive elimination to the number required solves the problem with mathematical impartiality and to the immeasurable benefit of the whole. Further, it may be pointed out that the United States military and naval academies are conducted upon exactly this basis. Why should we choose and train our peace-time officers with less scientific care?

Now, if we must accept the fact that the great majority of practicing architects are and must be tied to the wheels of the industrial machine, is it not reasonable to anticipate and press for a more efficient hook-up, a more effectual liaison which will place the professional mind nearer to the controls, instead of being merely an integrated function which becomes valueless as soon as the machine gets out of order?

If the usefulness of the architect is limited to eras of industrial expansion, it is clearly to the interest of the professional body to be aware of the conditions which circumscribe its usefulness, and equally to the interest of the community at large to be informed and advised when those conditions approach a danger-point.

A Central Bureau of Building Statistics, maintained by or allied with the American Institute of Architects, could do much to mitigate the violence of the waves in the curve of build-

ing activity. Such an organization might be conceived to include a central bureau in close touch with the U. S. Department of Commerce, and with branch offices in every representative industrial centre, collecting and disseminating all information pertaining to the building market. These, in conjunction with local Chambers of Commerce, would analyze and chart their statistics each week for publication by the central bureau. All of the variables entering into the business of building would be subjected to continuous scrutiny. Costs of many materials, labor costs and its relative efficiency in all trades, volume of building activity—commercial, residential, speculative, and institutional for each representative area of the country, perhaps for each large city by itself. With these charts should go others of a more general nature showing the rental curves for buildings of each type and the growth of population in each locality. In all cases a mean or norm could be computed and plotted, based upon past records and normal growth. For, even if advance computations of economic movements are never entirely accurate, they can serve at least as pointers or criteria from which severe deviations can be measured, and the architect and his client thereby warned.

These, it seems to me, are the most vulnerable spots in our present position, and the foregoing suggestions are offered not in the nature of a panacea, but as stop-gaps at the points of greatest weakness. Other than these, and until some concerted action is taken, the few obvious facts that stand out in the blackness are in the nature of fixed stars that have always been there, but unnoticed in the brightness of the abnormally protracted day.

Without dwelling upon or stressing the order of their importance:

1. Severe licensing requirements, stringently enforced, will promote the economic welfare as well as the professional standing of the practicing architect by limiting the number and tending to eliminate the half-trained, irresponsible, speculation-minded individual. The position of the employee will become more secure in exactly the same proportion as the employer's chances of survival are improved.

2. Universities and architectural schools can aid the process of selection by strengthening their courses, raising graduation requirements and discouraging, as soon as possible, those un-

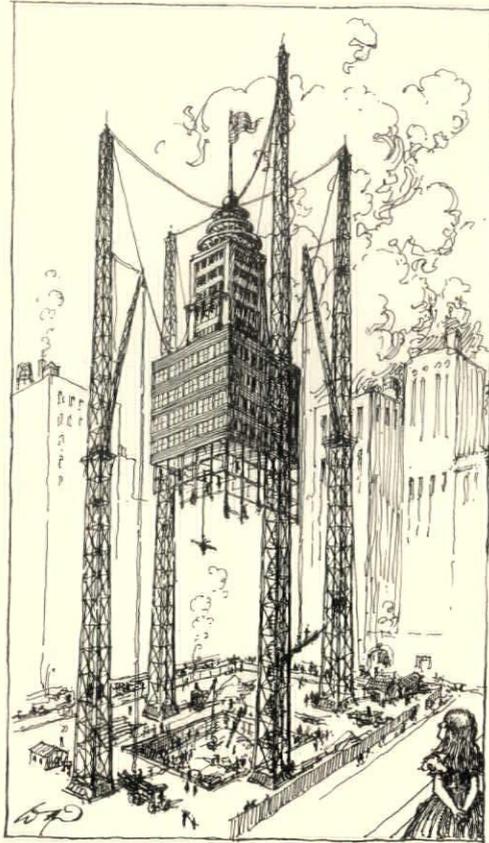
fit to continue. Trade schools and lesser institutions can help their pupils, the profession, and the community by making clear to each young aspirant the enormous difference between a draftsman and an architect and by disabusing the youthful mind of any fatuous notions as to the potentialities of a night-school course in drafting.

3. Every speculative building, whether commercial or residential, is likely to become a burden to the community and a deterrent to normal business some short time in the future. If the architect who designs such buildings further handicaps himself by participating financially, *i.e.*, accepting stock in lieu of cash fees, he is doubly jeopardizing his chance of survival.

4. Every dollar of office overhead above minimum requirements of housing, cleanliness and efficient working conditions is a perilous overload under storm conditions. An office which can show a profit six years out of eight is exceptional. A yearly surplus must be set aside in proportion to the overhead carried. Leases should be short except for the largest offices; high priced space avoided, and permanent equipment kept down to the efficient minimum.

5. A diversified practice which can include some institutional or public buildings holds a decided advantage during slack times, over a larger, specialized, commercial or residential practice.

6. Every architect with a small or medium-size office and every employee, however secure in his position while the sun shines, must contemplate the outcome of at least one sabbatical year in seven, in which his income will be zero. Let him travel, if he can, live with mother-in-law if he has to, and try lecturing, writing or sign-painting as his talents permit. Some are re-decorating the hall bedroom with old certificates of payment or draftsman's overtime slips, sized onto the wall and glazed or stippled over in a variety of pleasing effects. Here and there a beautiful, green-engraved share of P. D. Q. oil, bought in 1929, or a defaulted coupon may be introduced for color contrast or historical interest. It all helps to fill in the time and conduces to reflection which may be beneficial. And if the young hopeful should interrupt to inquire what an architect does, anyway, and why,—don't hesitate or look embarrassed, but explain to him gently what a wonderful thing it is to watch one's ideas blossom into reality, and that one meets such interesting people.



“Alice in Blunderland” or “Perhaps We’re All Mad”

By *William Adams Delano*

“In my youth,” Father William explained to his son,
“A house was built up from the ground,
But now that the Modernists say that’s all wrong,
We build them the other way round.”

“But aren’t they afraid,” the young man remarked,
“That their buildings may fall to the sky?
The Modernist Architect’s awfully rash
And he builds them excessively high.”

“In my youth,” Father William replied to his son,
“I always was taught to think that,
But I’m a Conservative, so they now say,
And they tell me I think through my hat.”

“How advanced they all are!” the young man exclaimed,

“WHAT’S a Modernist?” interrupted Alice. “What’s a Conservative? What’s the difference?”

“What,” retorted the Carpenter, “is the difference between a Democrat and a Republican?”

“I’m sure I don’t know,” said Alice. “Per-

haps it’s because Democrat has eight letters and Republican has ten.”

“Well, STUPID, if you can’t tell the difference between a Democrat and a Republican, how can you ever expect to understand the difference between a Modernist and a Conservative?” snapped the Carpenter.

“You might be civil, anyhow,” retorted Alice, who felt very much like crying.

“Well, it’s like this,” said the Carpenter, relenting. “A Modernist *says* he grows from the inside out and a Conservative grows from the outside in. That’s one difference. That’s clear, isn’t it?”

“But we all grow from the inside out,” said Alice. “That’s how we get bigger. If we grew from the outside in we’d get smaller and smaller—just what happened to me in the rabbit-hole.”

“*Exactly!* that’s what the Modernists say,” remarked the Carpenter. “They say the higher up the fewer, like a mouse when he spins. You know about him, don’t you? It’s like this—”

"No, I don't," snapped Alice, "and I don't want to know. You promised to tell me the difference between a Modernist and a Conservative."

"But I'm trying to, only you won't listen," cried the Carpenter. "But I'll try again. Here's another difference: The Modernist encloses space."

"But I thought all architects enclosed space, don't they?" asked Alice, bewildered.

"Yes, but the Modernists said it first. It's like Russian Bank: the one who says 'STOP' first wins."

"That sounds silly to me," said Alice.

"It *is* silly," agreed the Carpenter, "but that's the *real* difference, if you understand what I mean."

"I think I do," said Alice. "If I say ENCLOSED SPACE first I'm a Modernist but if you say it first I'm a Conservative. Is that right?"

"Yes, that's it. You're not so stupid as I thought," reflected the Carpenter. "Now there's another difference between the Modernist and the Conservative. The Modernist does not believe in the law of gravity: he says it's Newtonian and out of date. He believes in the law of 'APPLY AND BE DAMNED.'"

"I'm probably stupid," said Alice humbly, "but I really don't understand that."

"No, I thought you wouldn't. It's very difficult. You'll have to give close attention," warned the Carpenter. "The Modernist believes that if you seem to let the law of gravity apply you'll be damned. Now is *that* clear?"

"Not very," said Alice.

"Well, I'll explain it another way. They say that if you steel——"

"But that's not honest," interrupted Alice.

"Who said it was?" retorted the Carpenter. "But don't keep breaking into my train of thought, if you really want me to explain. They say that if you steel construct a building the law of gravity doesn't hold good any more."

"But it did last week, when I fell down the rabbit-hole," said Alice.

"Yes, but that was *last* week. Things move fast these days. It's hard to keep up to date," replied the Carpenter. "What they believe in this week is Einstein's law of relativity—that things aren't what they seem to be."

"I wish you wouldn't use such long words," complained Alice. "It gets more and more confusing instead of simpler and simpler."

"*Exactly!*" shouted the Carpenter. "If I

explained it all in words of one syllable there wouldn't be anything to explain. You wouldn't want to know the difference between a Modernist and a Conservative and ask all these silly questions. It's because they use queer words that you and the public have gotten all stirred up. Let's go on to the next difference: The Modernists make it a rule to have no more rules. 'SCRATCH AS SCRATCH CAN' is their motto. You'll find it all explained in that magazine they publish, called *Helter Shelter*. I advise you to read it if you want to know."

"What a silly rule," said Alice.

"Why is it silly?" asked the Carpenter.

"It's silly because it's not possible."

"Why isn't it possible?"

"*Because*, if you make a rule there's ONE rule anyhow, and you said they wouldn't have *any* rules," replied Alice.

"Oh, but that's their own rule," replied the Carpenter. "What they object to is rules made by somebody else."

"That sounds to me very much like Arcady or Anarchy. Dear me! I never can remember which is which. I always get those two words mixed up," said Alice.

"Don't bother," said the Carpenter. "They mean almost the same thing to the Modernist, so we will go on to the next difference."

"Is there *another* difference?" asked Alice, who was getting rather tired by this time.

"Yes, a very important one, and to make it really clear I'll have to illustrate it," said the Carpenter. "The Modernists say that beauty is purely a matter of function."

"I'm afraid you're getting philosophical or æsthetical or something," sighed Alice. "I never could understand philosophy."

"Oh, but this is easy," said the Carpenter. "I'll make it clear by an example. It's like this: If you have a plumbing pipe coming right through the middle of your drawing-room, it's beautiful because it's useful. You can see that, can't you?"

"You mean the plumbing pipe?" asked Alice. "I think it's hideous."

"But not if it's useful," replied the Carpenter.

"But suppose it gets stopped up and doesn't work any more. Is it still beautiful? Plumbing pipes do sometimes, you know."

"I shan't answer that question," snapped the Carpenter, beginning to yawn. "You're too inquisitive. You'd better ask a Modernist. I'm going to bed."

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

ARCHITECTURE'S PORTFOLIO OF FRENCH STONEWORK

❖ 1926
DORMER WINDOWS
SHUTTERS AND BLINDS

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

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

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

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

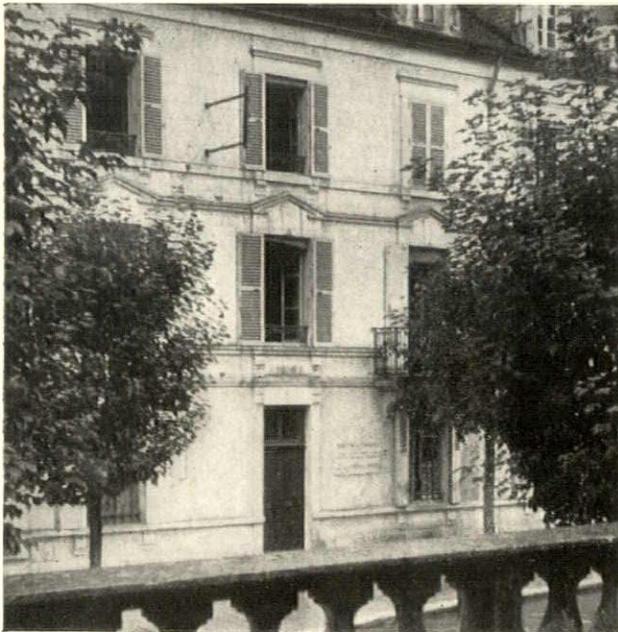
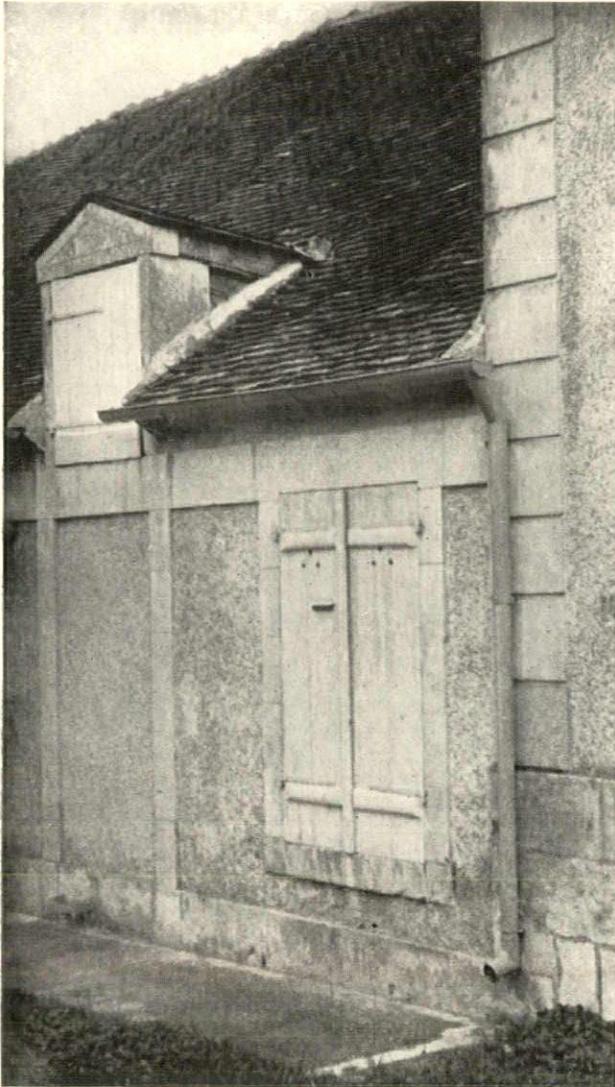
❖ 1931
BANKING-ROOM CHECK DESKS
SECOND-STORY PORCHES
TOWER CLOCKS
ALTARS
GARAGE DOORS
MAIL-CHUTE BOXES
WEATHER-VANES
BANK ENTRANCES
URNS
WINDOW GRILLES
CHINA CUPBOARDS
PARAPETS

❖ 1932
RADIATOR ENCLOSURES
INTERIOR CLOCKS
OUTSIDE STAIRWAYS
LEADED GLASS MEDALLIONS
EXTERIOR DOORS OF WOOD
METAL FENCES
WOOD CEILINGS
MARQUISES
WALL SHEATHING



Subjects of Previous Portfolios Are Listed at Left

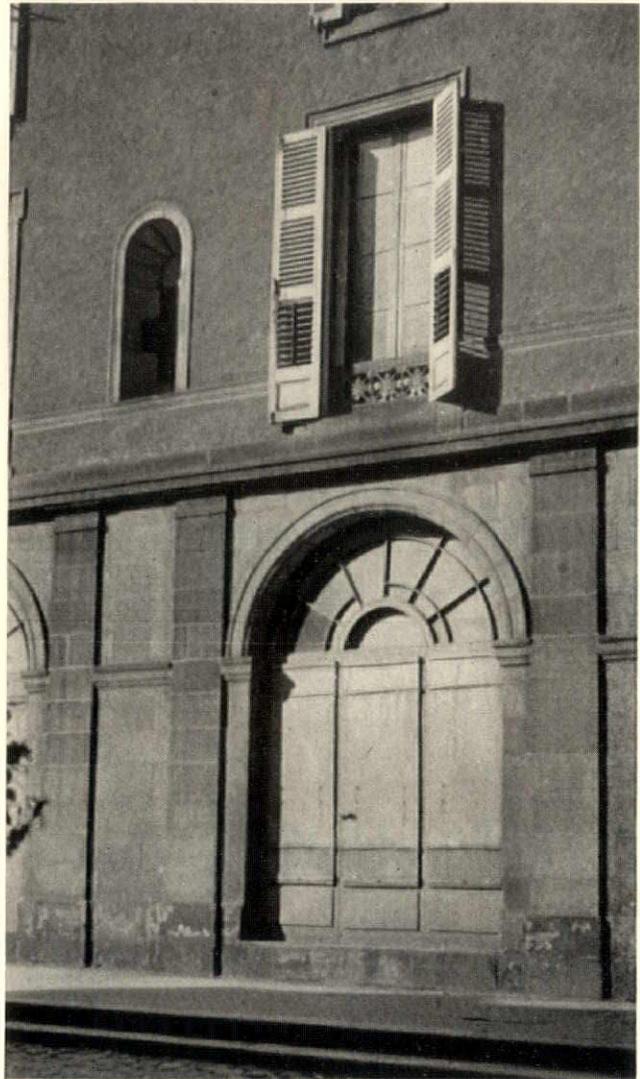
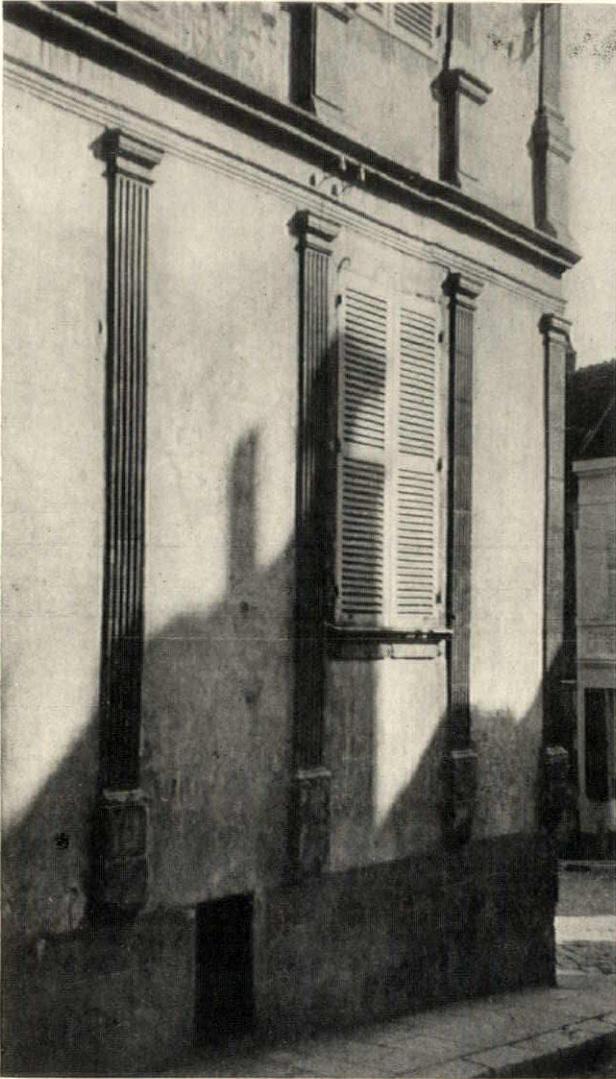
Forthcoming Portfolios will be devoted to the following subjects: Overmantel Treatments (December), Bank Screens (January), Interior Doors (February), Metal Stair Railings (March), Verandas (April), and The Eagle in Sculpture (May). Photographs showing interesting examples under any of these headings will be welcomed by the Editor, though it should be noted that these respective issues are made up about six weeks in advance of publication date.



Above to the left—Pouges-les-Eaux, lying between Nevers and Bourges, specializes in springs and frugal usage of warm-colored stone. The simplicity of pilasters and dormers is noteworthy for its modern trend. Woodwork is gray and tile is plum-colored

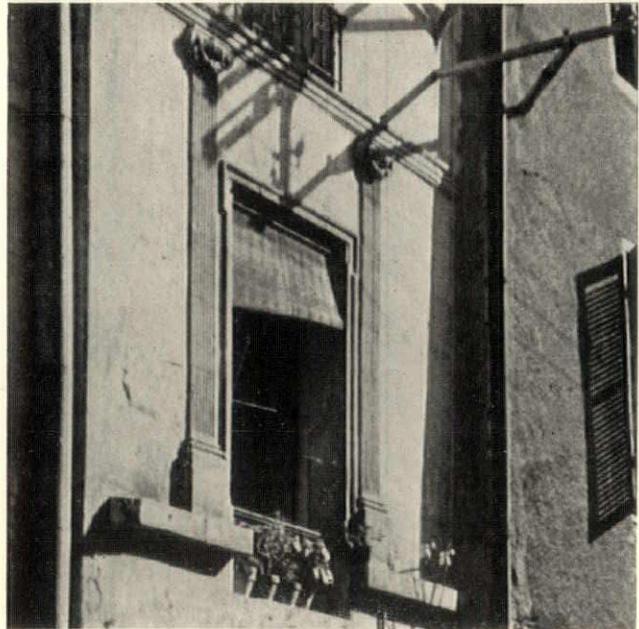
Above—another house at Pouges, with cream-buff stone and plaster, and gray woodwork, offers suggestions for inexpensive stonework. The lintel of the right dormer is one solid unit; its close-cropped tiles are in character with other details

Left—this house, which faces on the Cathedral park at Bourges, is significant to modern design because of horizontal bandcourses which solicit repose, and the abbreviated finesse of the pediment. The stone, plaster, and shutters are pearl gray



Above to the right—the side façade of the Limoges theatre introduces an unusual niche motive above Spartan-like pilasters and a minimized entablature. Stonework is of gray granite, darker than the gray plaster; woodwork is tan below and gray above

Above—the idea of stone pilasters and horizontal courses is not new, yet here at Auxerre their effectiveness is reasserted because of contrast in color. The continuity of wall surface is made possible by shutters being flush with the plaster



Right—while the pristine glory of this Auxerre house is dimmed, the pilasters are still models in having the best possible projection. In terms of 1932 a cast substitute might be offered instead of the stone. Shutters gray, flower-pots orange



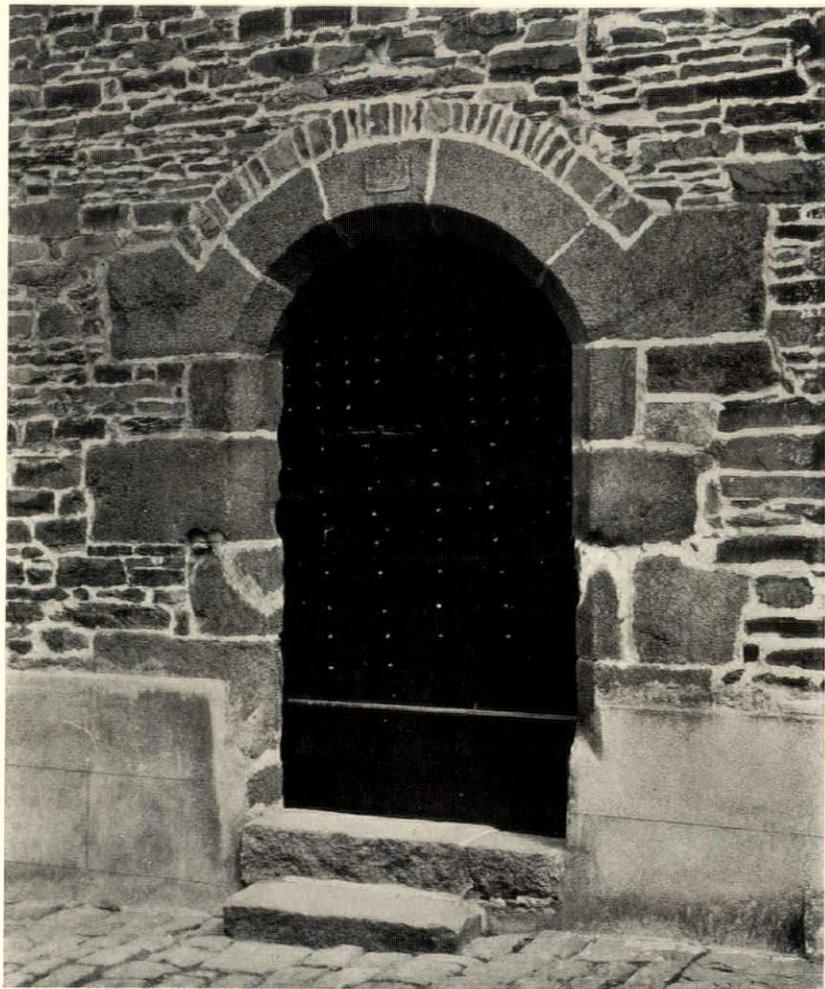
Left—this simple Gothic door-window motif at Saulieu employs several economic means of securing an expensive effect. The chamfered jambs and carved heads could be translated into modern terms; a "Dutch" door carries along the window-sill line. The gray stone has been whitewashed; plaster is gray

Below to the left—when there are no funds for ornamenting an entire stone doorway, this humble one from Concarneau may offer a solution. The body of the wall is laid up of granite, mostly brownish, with buff joints. The molded lintel is so simple that even a mason's apprentice should be able to execute it

Below—this old lady's shop at Lannion should serve as an example of what may be done with basement bargains in stone. Note how horizontal joints are carried through about every foot in height; at first glance the small units may seem thrown together. The daisies, carnations, and fuchsias are colorful ideas always

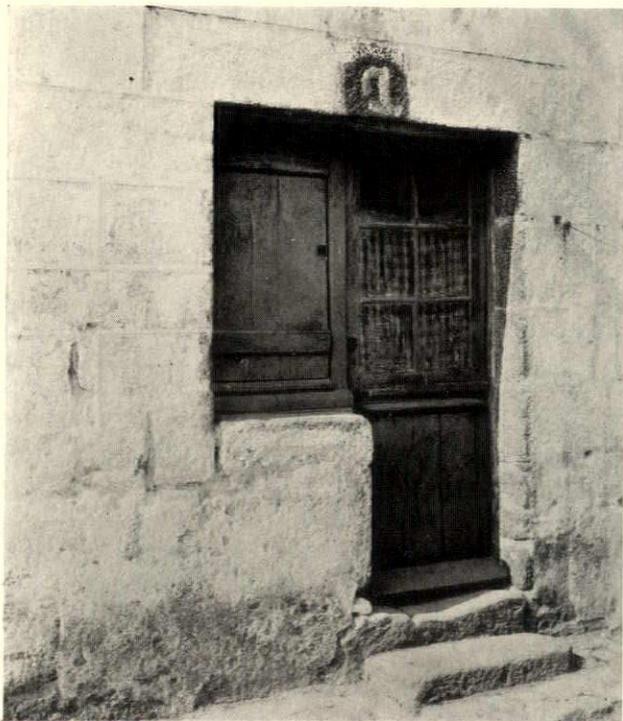


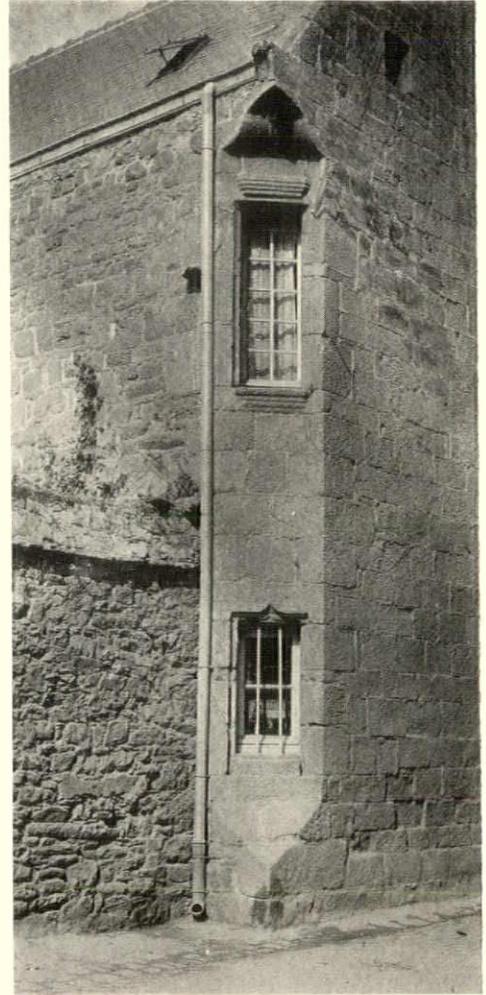
Right—stonework which is both decorative and structural is not often better illustrated than by this doorway from Dol, Brittany. The voussoirs at the spring of the arch, and the relieving arch, are particularly unusual. Note the horizontal emphasis and the use of very small units. The color is varied



Below to the right—the French seem always to have appreciated the value of windows and shutters forming a frieze, binding them top and bottom with band courses, as here at Orléans. The simplicity of the dormer pediment is most modern. Plaster and woodwork are gray, band courses cream, and door olive-green

Below—the white-painted granite of this house at Concarneau suggests interesting surfacing for stucco—very much like coarse travertine. As a combined door-window motif it is wisely improved by the divided door carrying out the window-sill, as in a previous illustration; it is suited for opening off a garden



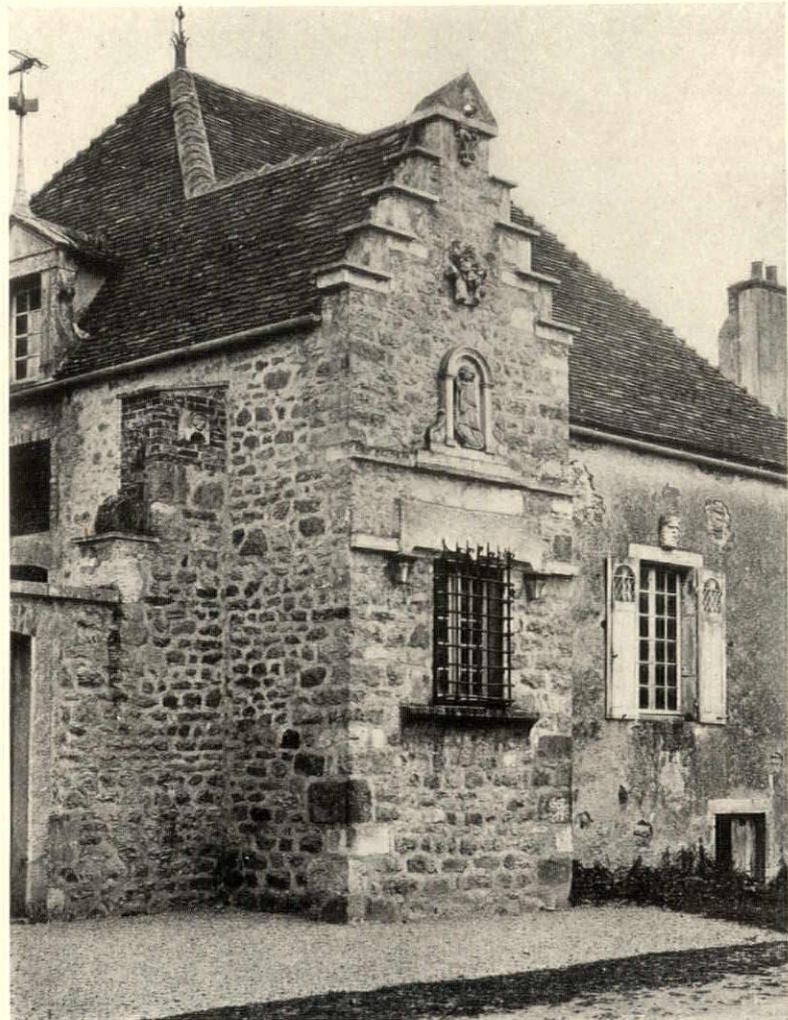
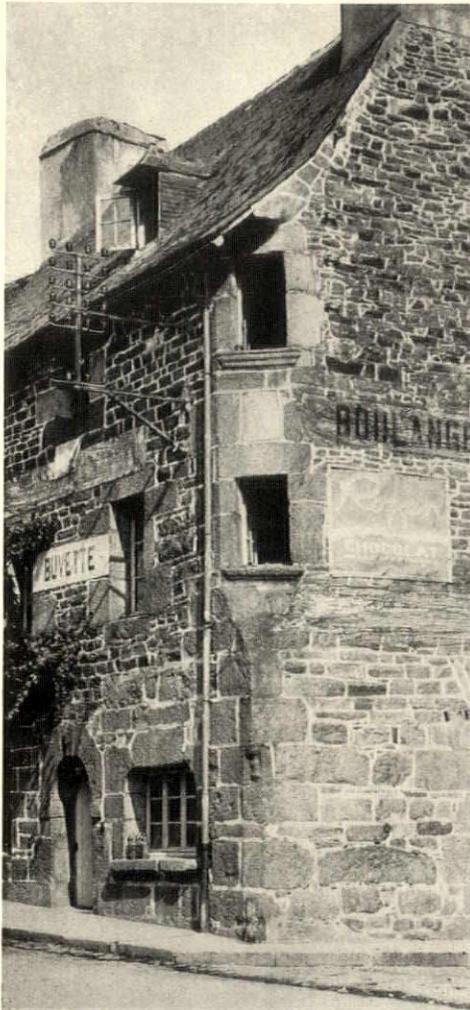


Above to the left—when first and second floor windows do not line up vertically, this means of using a double band course at Nevers is worth recalling. The bull's-eye transom is a certain means of making the door distinctly different from windows



Above—during the period of Victorian monstrosities the cut-off corner was not unusual, but unfortunately it failed to draw upon a house such as this at Roscoff for ideas which are pleasing from top to bottom. The splayed dimension is $2\frac{1}{2}$ feet

Left—quoins on a formal house are more easily forgotten than accurately remembered, hence this detail from Tours. Shutters are hinged so that they fold back within the jamb reveal. There is nice discrimination between the first and second floor sill courses



Above—another cut-off corner motif hails from Brittany at Pont Aven, with the roof corbelled out to permit an unbroken gable end. The gray to rich brown stone grades from large units below to small ones above. The jointing makes for horizontal emphasis

Above to the right—in the Burgundy district the clearly defined jointing found in Brittany gives way to mortar being carried partially over the face of the stone, as here at Sémur. Stone runs to shades of yellow, mustard and rose, with mortar buff



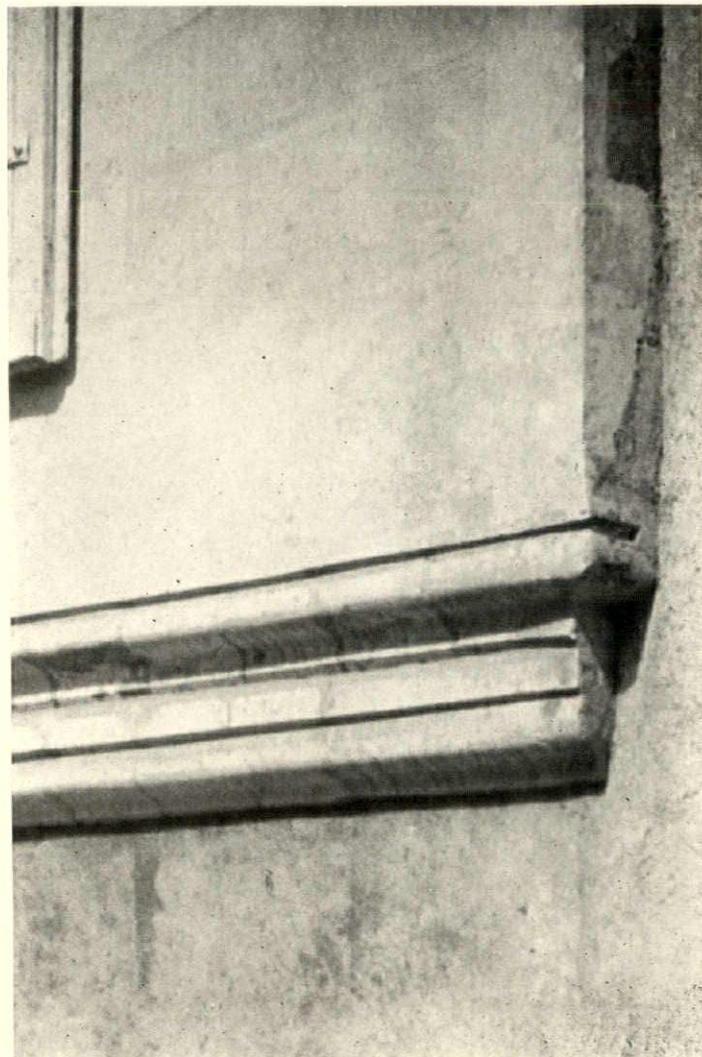
Right—from Plouaret, Brittany, comes this cottage with its dull gray and sometimes tan granite, setting a good example in using stone of varying sizes. No decoration other than the joints is necessary. The little dormer is irreplaceable



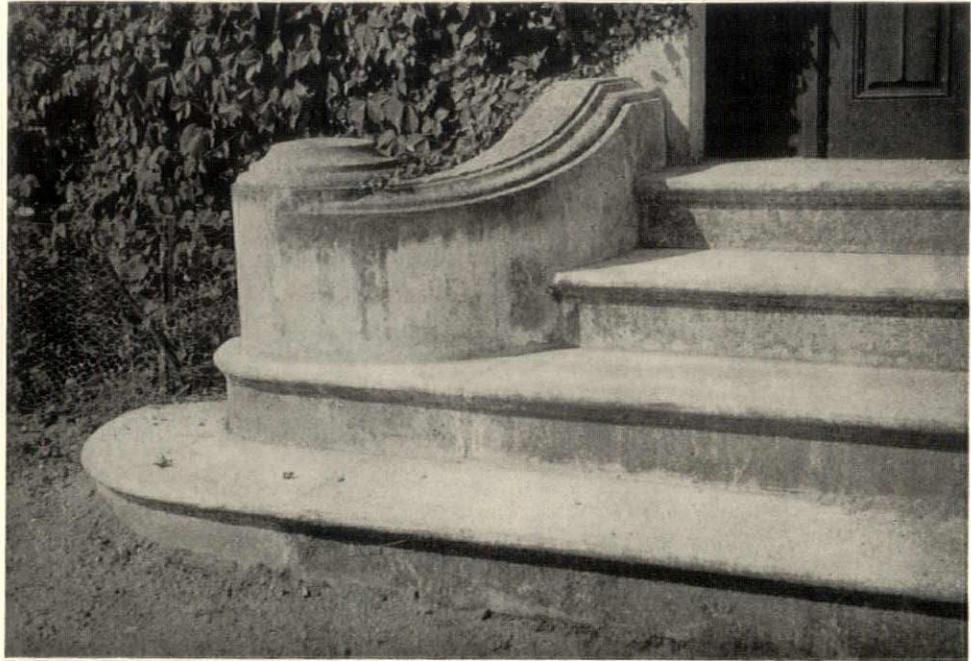
Left — the outstanding feature of this house at Saumur, details of which are below, is the overhanging second floor. Without it the house would have no particular emphasis, and lack of vertical alignment would be unpleasant

Below—the overall height of moldings forming the overhanging motif is 16". They are so undercut that the amount the second floor projects beyond the first seems twice what it actually is. There is cream stone above, gray plaster below

Below—except for a few moldings the stone is quite plain and the joints perfectly regular. The effect is that of an enriched detail, yet there are only such simple features as the bevelled arch jamb, the cut-off corner (seen in profile at the left), and plain facias around the window



Right — There is something pleasant psychologically in being welcomed up a flight of steps which has curved cheeks. This one near Saumur is of cream stone, weathered greenish-black in places. The top curved moldings die out at the left

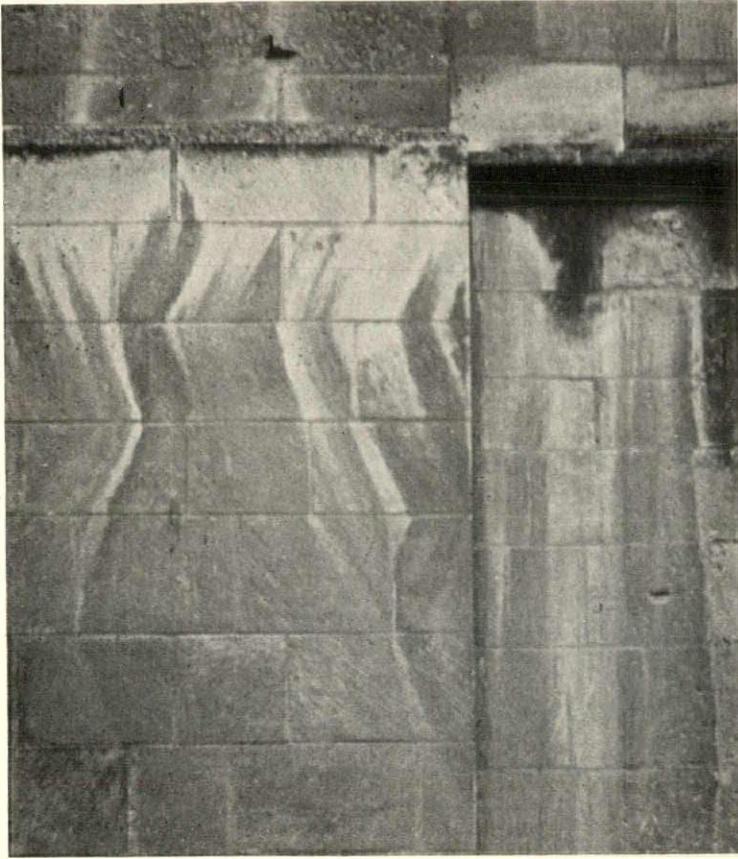


Below—we are prone to overlook the ability of projecting quoins to make any other form of ornamentation unnecessary. As is shown by this house at Saumur, deep window reveals allow heavy shadows to contrast with lesser ones



Below—this house at Auxerre was in the process of having its old plaster removed when photographed, but it suggested the possibility of allowing painted common brick to weather with an enviable effect. Stone is buff, mortar cream-buff; first-floor shutters fold within the jamb



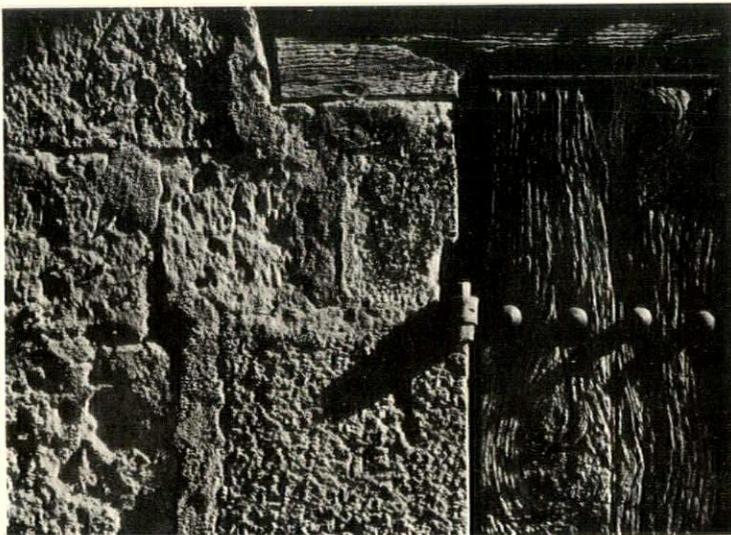


Perhaps one of the least expensive and least appreciated means of stone ornamentation is that of tooling. This detail, from the left nave of Nevers Cathedral, shows how the direction of tooling varies the weathering stains

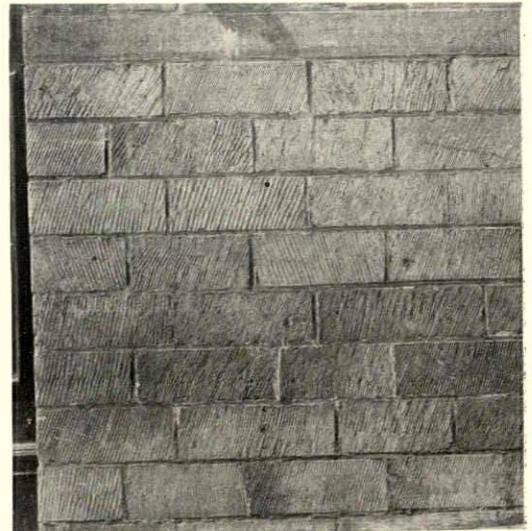


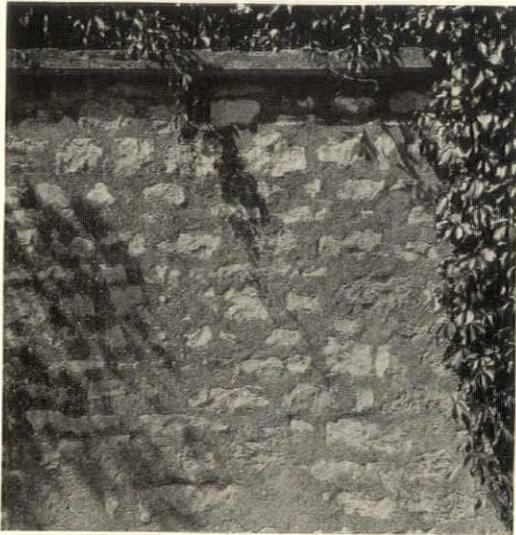
The Cotswolds are rivalled by the Loire in this type of masonry. Note the lack of projecting eaves and the carrying through of horizontal joints

Raking light brings out some of the possibilities in securing decoration by means of textural differences. Vertical grain of a weathered door at Loches contrasts with quoins less vigorously tooled than the adjacent stone

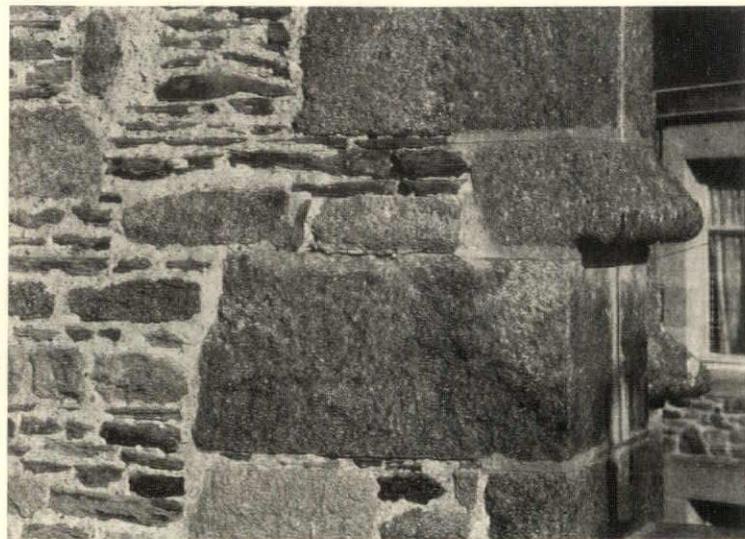


Although the wall is new and the courses uniformly 6" high, due to vigorous tooling there is great variety which will increase with time



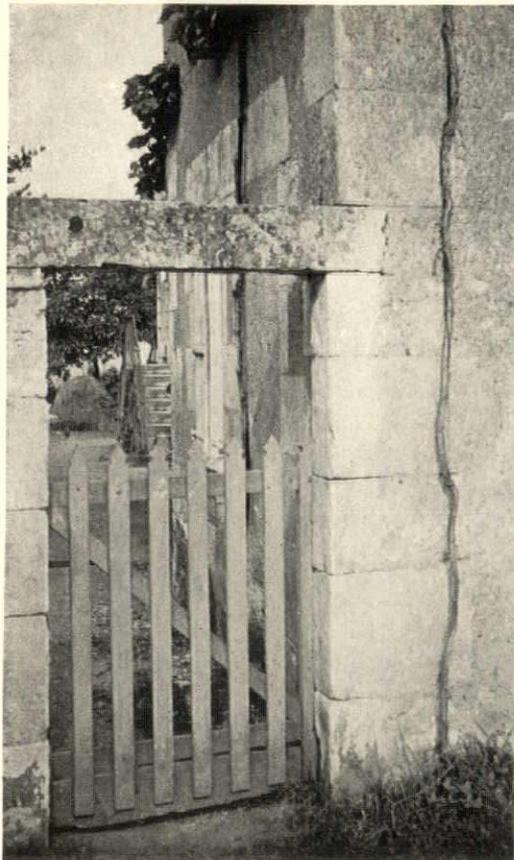


An economic method of using irregular pieces of stone, as well as a means of improving poor jointing, is shown by this warm-toned wall from Vézelay



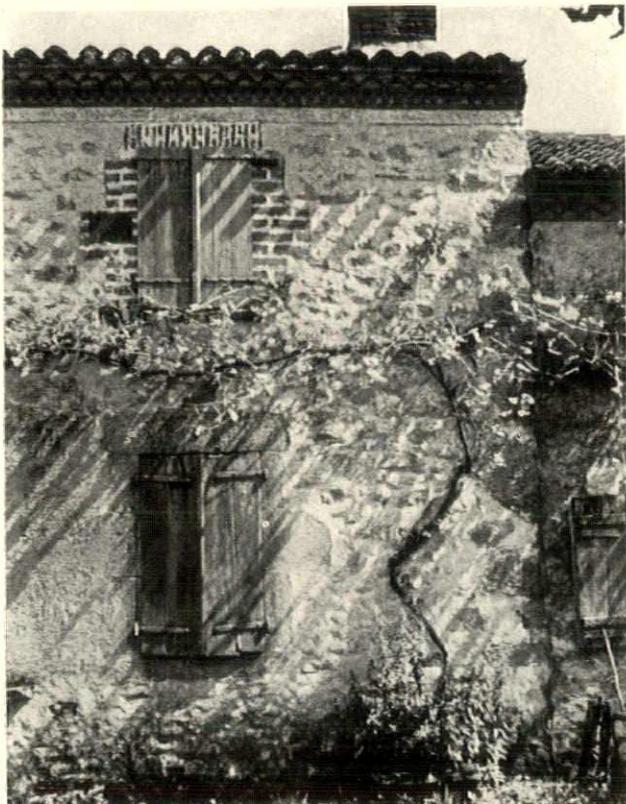
This detail, from a turret on the picturesque ramparts of Mont St. Michel, has coarse, buff mortar, golden-brown granite quoins from 9" to 10" high, and small units of shale varying from slate-colored gray to deep rust

A refreshing type of simple gate is suggested by this detail from Pouges-les-Eaux. Stone and plaster are gray-to-buff, and woodwork is gray



The anatomy of a typical French wall is illustrated by this one at La Charité-sur-Loire, with large quoins and lintel holding in leash a field of small, odd bits. Plaster is then applied so as to finish flush with the quoins

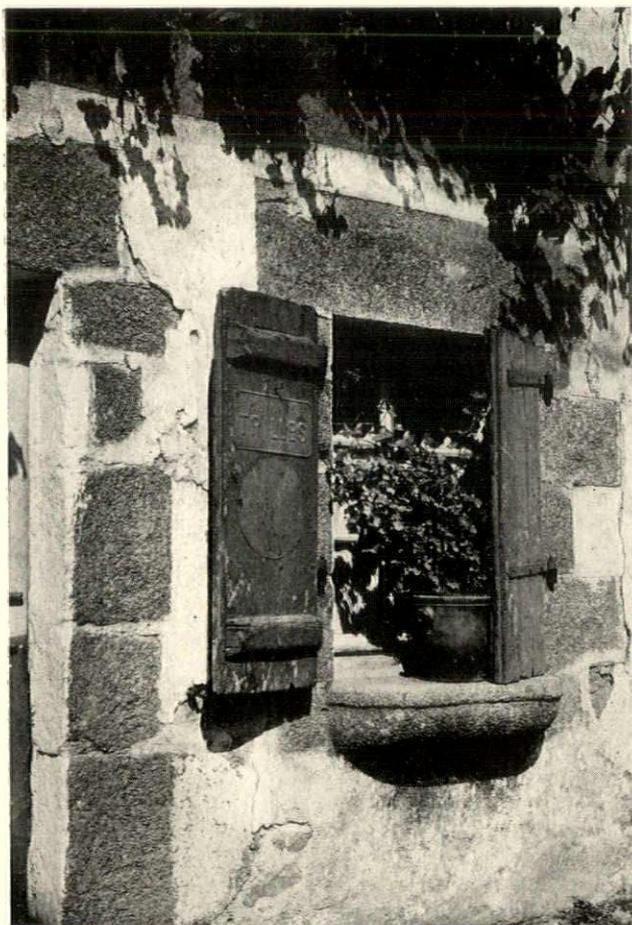




Left—aside from the commendable texture of mortar carried over the stone on this house at Betoulle, south of Bellac, there is a noteworthy cornice composed of a brick soldier course, two rows of curved tile, and one stretcher course. Stone is brown, mortar warm-toned, brick soft red, and shutters brick-red below



Above—near Bellac (which lies between Limoges and Montmorillon) it is not uncommon to see such cornices as this, of red tile alternating with brick stretcher courses. The interstices of tile ends are filled with gray mortar of the same shade as that which covers the rubble stonework. Gable ends are close-cropped



Left—Pont Aven in Brittany abounds with sensible details, such as this projecting sill for accommodating potted plants. To take advantage of all the light possible, the gray-to-buff granite door jamb is painted white. The rubble between quoins is covered with white plaster—an excellent foil for the grape vine

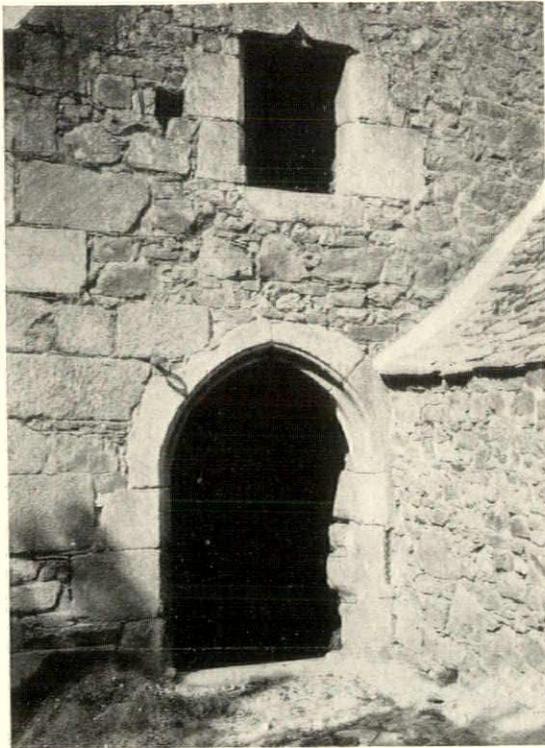
Right—the combination of materials on this farm group at Bellac has some present-day application: curved tile used for a flat coping, as well as on the hip ridges in combination with flat, plum-colored shingle tile; brown rubble covered by cream plaster; and the decorative value of even a scraggly peach tree



Above—also from Bellac is this detail of a most harmonious and mellow combination of colors and materials: door is weathered brown, granite quoins are in general warm gray, and brick are a soft vermillion. The grape vine has been sprayed with a copper-sulphate solution so that faded emerald green is also present



Right—adjoining the Cathedral at Avallon is this vigorous garden wall of warm brown stone, above which is a simple iron arbor framework with woodbine and grape vines. While the wall itself is not particularly fine, it is much improved by the vines, arbor, and shadows—a solution for the not-too-good wall already built



Left—the lintel and bevelled jambs of this little window at St. Jean du Doight are both good design and good masonry. Where roof and wall meet, only cement is used



Above—no more graphic example could be given of Breton masonry than this house at Plouaret. The strong horizontal emphasis is a perfect lesson in ashlar jointing



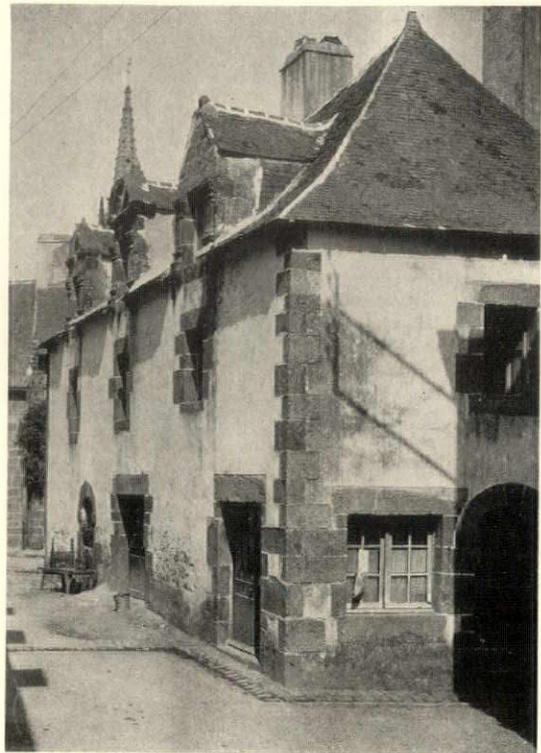
Left—this Concarneau maison is extremely colorful: white plaster, gray-buff quoins, grass-green blinds, tan base, and golden lichens on the black slate roof

Below—the story-and-a-half house which needs vertical emphasis may profit by this Concarneau design. Both dormer design and granite texture are worthy of note





Above—the Plouaret pharmacy combines white plaster with gray granite, but the walls might well be pastel shades of any color, with plaster quoins darker

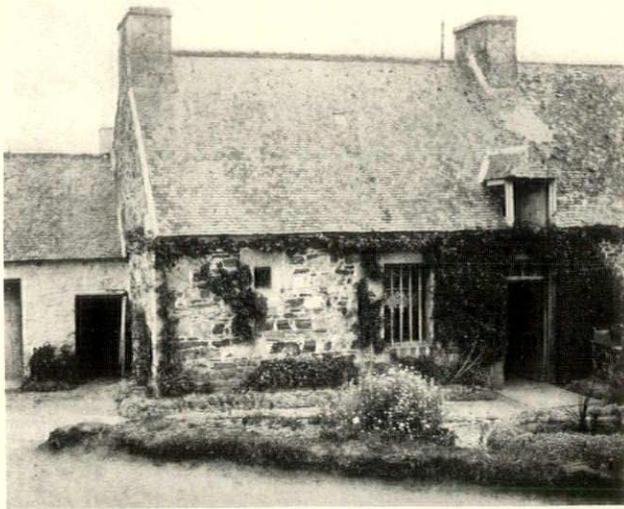


Right—there are so many imitation corner quoins nowadays that this example from Pont Aven freshens one's memory as to how and why quoins make a sawtooth pattern

Below—the second-floor masonry at the right is the most commendable part of this house at Guingamp, Brittany, because of the pattern of tan granite with light joints



Right—if we are coming to the concrete house, it may be a solution to leave beams and struts exposed (after surfacing them with a pneumatic hammer), plastered between

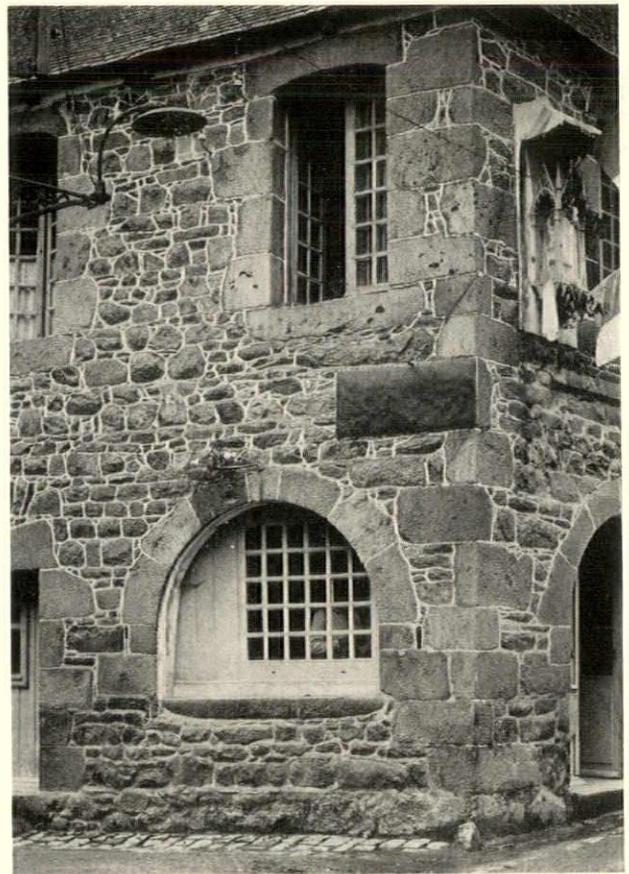


As a line drawing this cottage would be very ordinary, but its color and materials make it delightful: at the left the wall is pale pink, woodwork is apple green, stone tan and rust-colored



This house at Dol, Brittany, runs true to type, plaster being a light gray with a trowelled surface, while gray-to-buff quoins are bevelled at jamb openings. The door is a poor replacement

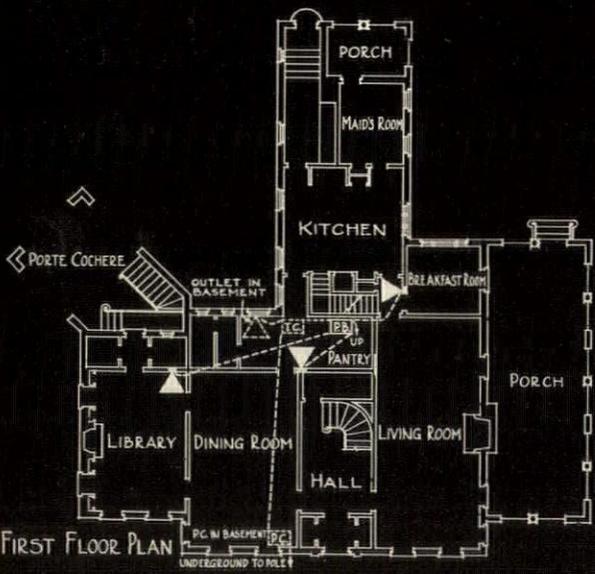
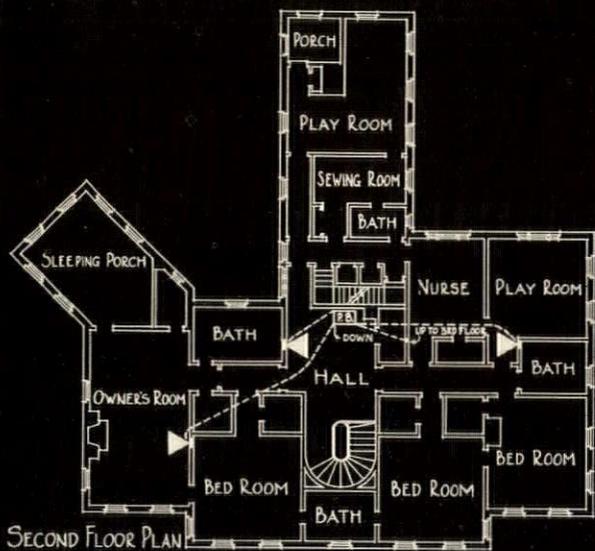
The chief interest which this gate to the inner citadel of Concarneau has for modern work is the suggestion of building garden dry-walls with large enough joints and properly designed soil pockets



While the large corner quoins are typical of Breton masonry, the ashlar field might be mistaken for Pennsylvania colonial work, or even walls farther west laid up by nineteenth-century masons



The residence of Mr. Donald Ganiard, 714 Michigan Avenue West, Jackson, Michigan, is equipped with built-in telephone conduit connecting eight outlets, including one in the third-floor hall. This provision for greater telephone comfort was made during a remodeling of the residence. CLAIRE ALLEN & SONS, Architects, Jackson.



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Such conduit layouts should be carefully planned in advance to assure the greatest measure of convenience. Your local telephone company will help you, advise you, without charge. Just call the Business Office and ask for "Architects' and Builders' Service."





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RESIDENCE ELEVATORS

The latest catalogue from the Sedgwick Machine Works, of 140 West 15th Street, discusses the application and resultant comforts of their various types of residence elevators. The latest Sedgwick equipment is electrically operated. A Sedgwick installation provides freedom of the whole house to all—the burdens of age or invalidism are alleviated.

SYNTHETIC STONE

From the Stonelite Corp., of 15722 Detroit Avenue, Cleveland, Ohio, comes an article by J. W. Murphy that gives rise to interested speculation on the revolutionizing of the building industry through the use of synthetic stone. "Mail Order Houses in Synthetic Stone" makes good reading.

FROM WESTINGHOUSE

From the Technical Press of the Westinghouse Electric & Mfg. Co. come three interesting catalogues. Two cover the latest facts on Westinghouse Industrial and Commercial Lighting Equipment. Each unit is described plainly and listed in a manner for easy reference. The third is a 24-page publication entitled "Micarta, a Decorative Material for Buildings." It lists and illustrates many of the uses to which this material may be put. A section devoted to the methods of installing Micarta is accompanied by diagrams and specifications.

FROM EUROPE AND ORIENT

For your files the Kent-Costikyan Co., of 485 Fifth Avenue, New York City, have compiled an elaborate guide, illustrated in color, to the proper selection and specification of fine floor coverings for private residences, hotels, clubs, banks, and offices. The book contains detailed information concerning the qualities, designs, and colors available in hand-woven rugs and carpets to fit various styles of architecture and decoration. The explanation and illustrations of decorative possibilities of made-to-order rugs make specification simple for the architect and with the help of the yardage table approximate estimates can be easily calculated. An interesting rug map gives many typical Oriental designs in color.

AMMONIA-CHLORINE PROCESS

Wallace & Tiernan Co., Inc., of Newark, N. J., have prepared a useful handbook on the Ammonia-Chlorine Process as employed in waterworks practice. Starting from the slogan premise that "The Only Safe Water is a Sterilized Water," the book offers definite claims for the ammonia-chlorine process which make interesting reading.

LINOLEUM UNDERLAY

A new product on the Armstrong list. The hard composition wood fibre board is designed to eliminate board markings or unevenness in the subfloor showing through the finished linoleum floor. Linoleum Underlay can also be used as a backing of Linowall, the new Armstrong wall covering. The

Armstrong Cork Co., of Lancaster, Pa., will be glad to send details on direct request or through this bureau.

TRY THIS TEST

The U. S. Gypsum Co., of 300 West Adams Street, Chicago, Ill., offers Insulating Sheetrock—a new product—that insulates because it is slow to radiate heat and quickly reflects heat. With their literature describing this product and its application comes a compact test kit with which you can demonstrate for yourself the efficiency of Insulating Sheetrock.

CARPETING SERVICE

The Bigelow-Sanford Carpet Company, 385 Madison Avenue, New York City, have issued a bulletin covering their specific services—styling, estimating, and supervision of installation—together with specification directions to guide you in choosing the right fabric for each kind of space. The bulletin contains illustrations in color of carpets created for unusual installations.

ELEVATOR CABLES

Data from the A. B. See Elevator Company, Inc., of New York, shows the reduction obtainable in cost of car mile operation through the use of A. B. See Equalizers. The company will be glad to furnish you with Equalizer information and specification directions.

NEWTON PIVOT CHECK

The latest Newton development is a pivot check for single-swing lavatory stall doors. Leaflet from the C. H. Newton Co., of 247 Atlantic Avenue, Boston, Mass., includes illustrations of this new product and carefully prepared dimensional diagrams.

INEXPENSIVE GARAGE DOOR

Announcement has just been made by the Kinnear Mfg. Co., of Columbus, Ohio, of the addition of a new, low-priced push-up door to their list. It is to be known as the "Standard Model Rol-Top" and be similar in operation to the Rol-Top Door which they have been marketing and which hereafter will be labelled as the "Deluxe Model Rol-Top." The Standard Rol-Top is a sectional wood door, with sections rabbetted and hinged. It is equipped with ball-bearing rollers and counter-balance springs for easy operation. A special sealing device assures weather-tightness.

CABINET SINKS

The trend toward cabinet sinks in both large and small kitchens has resulted in the development of a line of monel-metal models in ten different double and single drainboard sizes by the International Nickel Co., of 67 Wall Street, New York City. You will be interested in their latest literature which contains dimensional charts and detail drawings of longitudinal and cross sections.

(Continued on page 13)



WE WISH to direct your attention to this photograph because it illustrates an important building trend of today, namely, the use of escalators to supplement elevators. These escalators handle the heavy traffic of lower floors and leave the elevators free to serve upper-floor tenants. Photograph of the new Cities Service Building, of New York City. Sixty Wall Tower. Escalator and elevator installation by Otis Elevator Company.

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Librarian of Princeton University

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The architect will find herein the answers to a host of questions as to what and how and why in plan and materials.

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ARCHITECTURE and ARCHITECTURAL BOOKS

STATEMENT OF THE OWNERSHIP, MANAGEMENT, ETC.,
REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

Of ARCHITECTURE, published monthly at New York, N. Y., for October 1, 1932.
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.)

Charles Scribner's Sons . . . 597 Fifth Ave., New York, N. Y.
Charles Scribner . . . 597 Fifth Ave., New York, N. Y.
E. T. S. Lord . . . 597 Fifth Ave., New York, N. Y.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: . . . None.

4. That the two paragraphs next above giving the names of the owners, stockholders and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

CARROLL B. MERRITT, *Business Manager.*

Sworn to and subscribed before me this 1st day of October, 1932.

JOSEPH H. POLI,
Notary Public, Nassau County
Certificate filed in New York County
Clerk's No. 114, Register's No. 4P65
Commission expires March 30, 1934.

[Seal.]

*(Continued from page 10)***IDEAL MAGAZINE BOILER**

For the use of home owner, architect, builder, and heating contractor the American Radiator Co., of 40 West 40th Street, New York City, issues a catalogue on the Ideal Magazine Boiler. Besides the descriptive argument the catalogue includes measurements and performance data.

"SHIELD-ARC" WELDER

A pamphlet from the Lincoln Electric Company, of Cleveland, Ohio, describes the formation and uses of the new Lincoln "Shield-Arc" Welder. It is designed to meet the requirement for fast, economical and improved welding with both shielded arc and older types of electrodes. The booklet explains how and why.

THE ENAMELIST

Is the monthly trade publication of the Porcelain Enamelling Industry. Its current issue has an interesting article on the recommendation of porcelain enamel for a large Cleveland housing project. It regularly contains useful information on the application of the industry's products to building construction. The Enamelist Publishing Co., of 2100 Keith Building, Cleveland, will be glad to add your name to its mailing-list.

PORTABLE HOME HUMIDIFIER

The Emerson Electric Mfg. Co., of 2018 Washington Avenue, St. Louis, have ready to mail to you, if you are interested, a descriptive circular on their new Home Humidifier. They claim simple and positive operation, attractive appearance and no installation cost.

"INNERSEAL" FITTINGS

Catalogue No. 34 has just popped in from the Parker Appliance Co., of 10320 Berea Road, Cleveland, descriptive of their new "Innerseal" Fittings—a commercial plumbing product. A heat sensitive color band is characteristic of these fittings and they do not depend upon capillary attraction of solder. The catalogue covers the many attractive features, contains data tables, charts, and make-up directions.

FROM TRUSCON

Two folders of interest, one describing Truscon Ferrocoustic Roofdecks and the other, Silentaire, a new non-mechanical muffler for double-hung windows. The roofdeck is a combined Insulated and Waterproofed Steeldeck Roof and Acoustical Treated Ceiling. Welding simplifies its erection and adds security. Silentaire is a non-mechanical window muffler keeping out noise without obstructing the window view. You will want the details on these. Send to Truscon Steel Company, Youngstown, Ohio, or this bureau.

NU-WOOD TILE

The Wood Conversion Co., of Cloquet, Minn., have added Nu-Wood Bevel-Lap Tile. This wood fibre product is claimed to be a perfect acoustical treatment as well as an insulation against extreme heat and cold. Offered in various sizes and shapes, it is adaptable to numerous artistic designs.

FROM KOHLER

Comes the announcement of a new Ledge Sink which has double compartment conveniences without sacrificing the drainboard area. It is to be known as the "Dalcross," and will take up no more kitchen space than the average sink.



*Section of Hand-Wrought Iron Radiator Grilles.
Residence of L. M. Chapin, Lake Forest, Ill.
H. T. Lindberg, Architect, New York.*

ARCHITECTURAL ART METAL WORK

The Iron-Craftsmen

12 S. Orianna St. - Philadelphia, Pa.

**METAL
GRILLES**
of
Distinction

*See Pages 263-270
this issue.*

THE CUTLER MAIL CHUTE

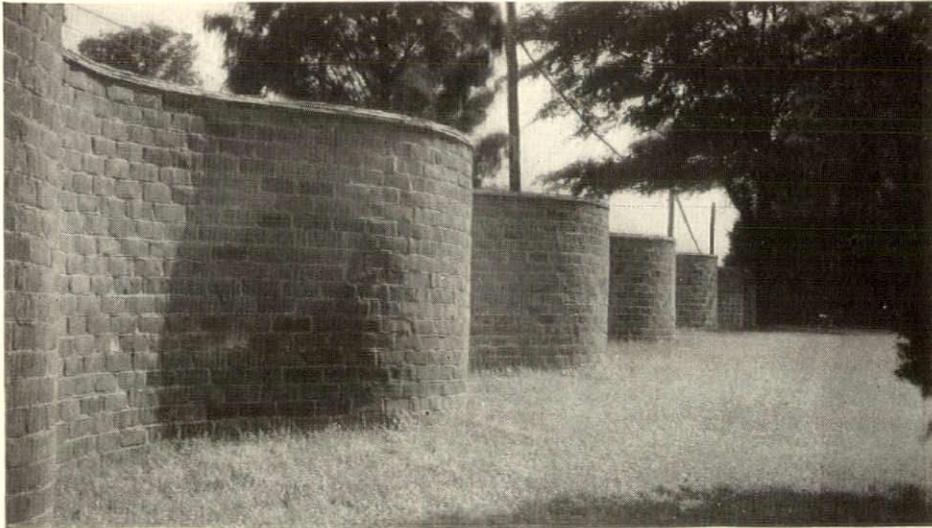
TO INSURE standard, dependable equipment installed promptly at moderate cost, the Cutler Mail Chute should be specified by name. If desired, approximate estimates will be furnished in advance.

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

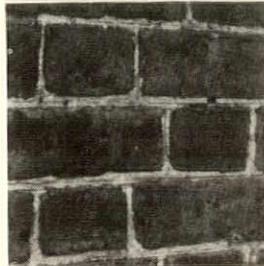
Full information, details, specifications and estimates on request.

CUTLER MAIL CHUTE CO.

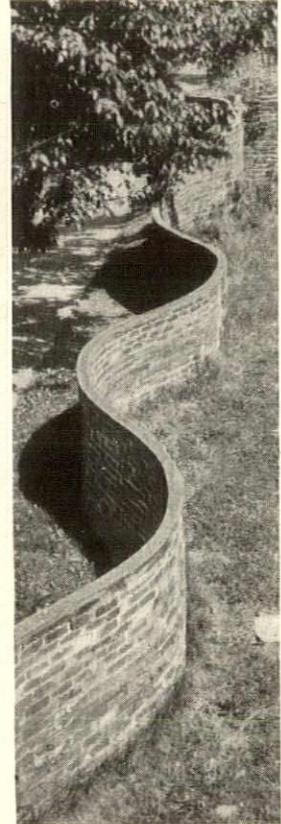
General Offices and Factory
ROCHESTER, NEW YORK



Looks a hundred years old, doesn't it? In fact, it was laid up not so long since. You see the Jefferson size bricks are laid running bond. Mr. Jefferson, however, always laid his Serpentine with bats, Flemish bond.



A close-up of Jefferson's bonding on the University of Virginia Serpentine.



Around the professor's gardens go these walls. They have a way of belonging to gardens.

Jefferson's Serpentine Wall Will It Stand Up North?

IN the first place, why did Mr. Jefferson build them that way, just a single brick thick? Was it for effect, or a matter of economy? Unquestionably the latter.

So interesting, however, were those walls, and so successful were they structurally, that Jefferson used them for many garden enclosures on the places he later designed.

For going on three years now, we have been furnishing to you architects, blue-print measurements of the University of Virginia wall. Nine out of ten of you have a way of writing back to know whether a single brick wall built that way, would stand up North.

If I were you, wouldn't let its

standing worry me a minute. We have some right stiff freezing, and plenty of quick thawing, going on some Winters down here. If those walls at Charlottesville have stood those quick weather changes for a considerable over a hundred years, seems like that's your answer.

As for effects, it is a noticeable thing that when a Serpentine wall is made of standard size brick, they somehow just don't look right. Seem to need the squarish header over-size, that Jefferson used in pretty much all his brick work. Which was by the way, no mean amount.

And another thing is important. These walls are a disappointment

when made of usual brick. To be right, they crave a brick having a certain amount of rounded edges and slight off-shapeness, combined with a something about them, that gives a sure enough age-old effect.

That's just where Old Virginia Brick shines. *They are born old.* Hand-mades or mould-mades, whichever you like. If anyone else could make brick like Old Virginia's they would have long ago been doing it. A thing kind of worth remembering.

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

OLD VIRGINIA BRICK

Old Virginia Brick Company
Salem, Virginia



ADVERTISERS' INDEX



WHAT TO SPECIFY

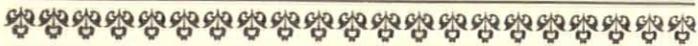
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REFER TO PAGE 10 FOR ANNOUNCEMENTS OF THE MOST UP-TO-DATE PUBLICATIONS OF MANUFACTURERS.



The December ARCHITECTURE

Presents for your use

Rutherford Boyd delves into the mysteries of the ratios of three-dimensional forms—interesting results in word and picture.

Interiors of the Marshall Field Building, Chicago—an impressive example of the work of Holabird & Root.

Carleton B. Ryder on Acoustics for the smaller and intimate interiors.

Photographs of Private Business Offices

Visions of Steel

Picturesque home by Frank J. Forster
Over-mantel Treatments

Diary — Observer —

Working Drawing — Contacts



ARCHITECTURE

CHARLES SCRIBNER'S SONS

597 Fifth Avenue, New York City

"BANKING ON GRANITE"



In cutting shed parlance, the stone cutter "works at his banker." Many a stone cutter working "at his banker" is preparing a piece of Granite wall that will some day house a banker.



It is more than a coincidence that so many of our fine banking houses present their outward symbol of strength and dignity in the form of pleasing Granite structures.

Granite is a natural medium for achieving soundness, permanency and "LONG-RUN"

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