

THE ARCHITECTURAL RECORD



Vol. XLIX. No. 1

JANUARY, 1921

Serial No. 268

Editor: MICHAEL A. MIKKELSEN

Contributing Editor: HERBERT CROLY

Business Manager: J. A. OAKLEY

	PAGE
COVER—Interior of St. Séverin, Paris. Water Color by William Lawrence Bottomley	
THE RESIDENCE OF HEATLY C. DULLES, Esq., Villa Nova, Pa.: Mellor, Meigs & Howe, Architects	3
<i>By Edmund B. Gilchrist</i>	
THE VILLA FRULLINO, near Florence, Italy	19
<i>By Harold Donaldson Eberlein</i>	
THE EARLY ARCHITECTURE OF PENNSYLVANIA. Part II	31
<i>By A. Lawrence Kocher</i>	
THE SAN ANTONIO COUNTRY CLUB, San Antonio, Texas: George Willis, Architect	49
<i>By I. T. Frary</i>	
TRAINING FOR THE PRACTICE OF ARCHITECTURE	56
<i>By Charles H. Moore</i>	
A LOUIS XVI SHOPFRONT	63
<i>By Charles Over Cornelius</i>	
BUILDING MATERIAL PRICES IN 1921	66
<i>By Willford I. King, Ph.D.</i>	
THE NEW PLANS FOR PARIS	71
<i>By Jacques Gréber</i>	
PORTFOLIO OF CURRENT ARCHITECTURE	79
NOTES AND COMMENTS	91

Yearly Subscription: United States, \$3.00; Foreign, \$4.00; Single Copies, 35 cents. Copyright, 1921, by The Architectural Record Co. All rights reserved. Member Audit Bureau of Circulation.

PUBLISHED MONTHLY BY
THE ARCHITECTURAL RECORD COMPANY

115-119 WEST FORTIETH STREET, NEW YORK

T. S. MORGAN, Pres. W. D. HADSELL, Vice-Pres. E. S. DODGE, Vice-Pres. J. W. FRANK, Sec'y-Treas.



THE ENTRANCE COURT, FROM THE SERVICE GATE—
RESIDENCE OF HEATLY C. DULLES, ESQ., VILLA NOVA,
PA. MELLOR, MEIGS & HOWE, ARCHITECTS.

THE ARCHITECTURAL RECORD

VOLUME XLIX

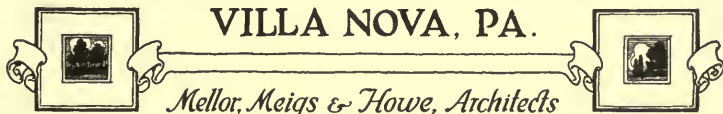


NUMBER I

JANUARY, 1921

The RESIDENCE OF HEATLY C. DULLES, E^{sq}

VILLA NOVA, PA.



Mellor, Meigs & Howe, Architects

BY EDMUND B. GILCHRIST

A VERY low, sinuous and flowing outline enclosing a mass, sombre though warm in color, is my first impression of this house. From the lower road it stands upon a firm, long line of wall so generous, simple and sturdy in its purpose of retaining the scheme that were there little else of accomplishment the house would have that comfortable stability so much to be desired and so seldom had.

How often we see dry and loosely laid walls retaining terraces and garden arrangements immediately adjacent to the house—surely a very crumbling and unconvincing substructure to encounter at the base of a solid house mass. It is good to observe that the architects, alive to this

pitfall, have not only felt the wisdom of establishing a simple, solid surface of wall to carry their scheme and give telling value to the details of the building, but that they have strengthened the impression of stability with the appropriate use of buttresses. Beyond are the screen walls of the garden and connecting link 'twixt house and garage, sheltering all from the north and adding firmness and final conviction to a total scheme of good sense and real beauty.

It is not for us to say this style or manner of building is appropriate and that one is not. Nor is it for us to exclude from consideration manifestations in the field of art that fall without the limited realm which is closest to the heart and

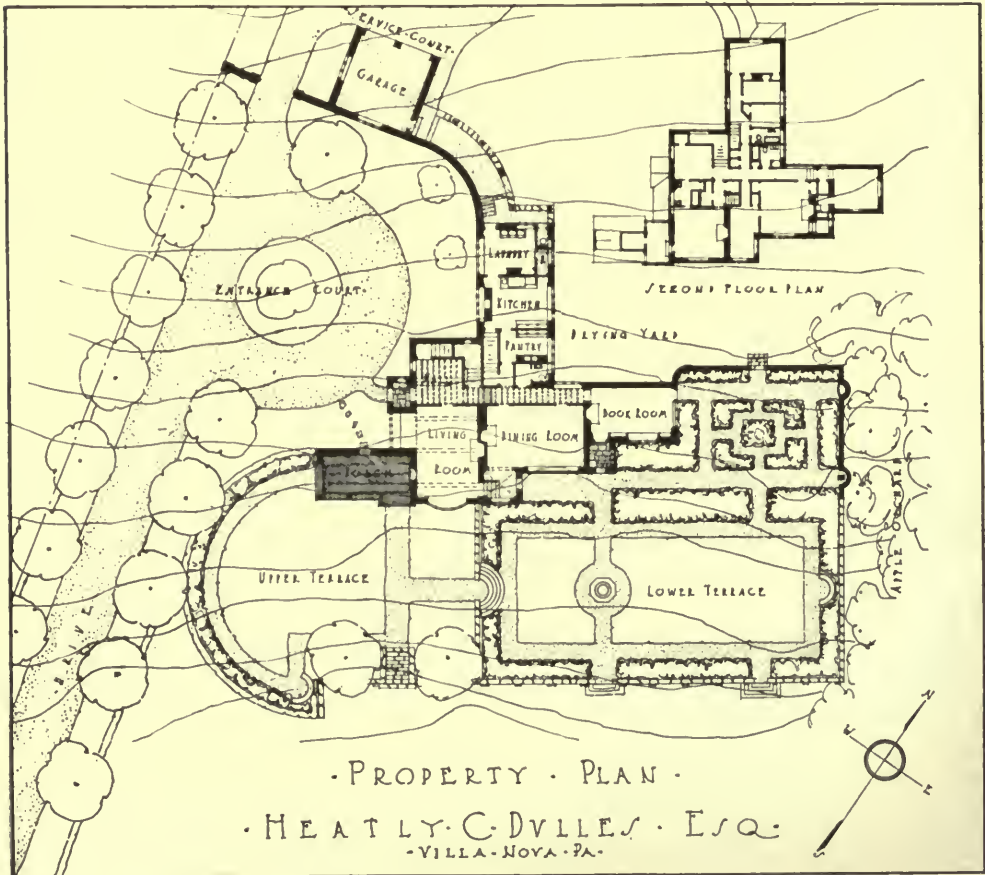
which we think to be our own. But it is for us to be quick to see the fruits of minds working with sincerity and enthusiasm, and I confess that I do not find a line in this building which does not possess these qualities in generous measure, refreshing indeed in days of mingled pedantry and doubtful originality.

The exterior is a direct reflection of the interior, and at no point is there any evidence of forcing the one to suit the other. In fact, what intimacy and charm has gathered round the garden front is simply an indication of what is taking place inside.

I have often thought how meaningless, in their effort to be quaint, are the exteriors of many of our houses. I think it is because one forgets that the chief excuse for a house is to shelter the life within it.

So soon as we conceive our design from the outside in, or view outside and inside as separate problems, then does architecture become the shallow thing it too often is. An architect of some eminence once told me that it was quite possible to clothe a given plan in any "style." Judging from the examples of his work, this has evidently been his guiding principle; but with what success I forbear to say. Beauty is not a quality that can be applied "on the side."

We hear it said without qualification that what our architecture lacks is color. Surely this is true enough if we observe that for the most part we seem able to do little better than waver between stupid and broadcast use of grey and the garish juxtaposition of broken colors. In this little house, however, we have color and





THE HOUSE FROM THE ENTRANCE DRIVE—
RESIDENCE OF HEATLY C. DULLES, ESQ., VILLA
NOVA, PA. MELLOR, MEIGS & HOWE, ARCHITECTS.

surface quality playing a most important and satisfactory rôle. The rough stone walls have been pointed or almost completely hidden by a material evidently composed of cement, lime and a light neutral brown gravel. The surface is not for-

tages. With the exception of woods to the east and a very pleasant meadow and distant prospect to the south, the architects have had little within or without the bounds of the property to assist them, and much in the way of suburban mediocrity



THE HOUSE, FROM THE ENTRANCE COURT—RESIDENCE OF HEATLY C. DULLES, ESQ., VILLA NOVA, PA.

biddingly rough and affected, nor is it without feeling and hard. It has been produced by using a rather crude tool in skilled and thoughtful hands. The inconspicuous metal casement windows and their plain oak frames, left without finish to gather the patine of time, are modest and beautifully subordinated to the wall surfaces.

The site offered little in natural advan-

around them and rubbing shoulders with their scheme. A rather fortuitous absence of seclusion will be overcome when the plan for the development of the property is carried out. Here, indeed, is a delightful opportunity for both architects and owner. With the most provident existence of finished levels and walls, there remains that most illusive and sensitive task of gardening and planting. If this



THE MAIN ENTRANCE — RESIDENCE OF
HEATLY C. DULLES, ESQ., VILLA NOVA, PA.
MELLOR, MEIGS & HOWE, ARCHITECTS.



THE PORCH, FROM THE ENTRANCE COURT—
RESIDENCE OF HEATLY C. DULLES, ESQ., VILLA
NOVA, PA. MELLOR, MEIGS & HOWE, ARCHITECTS.



SOUTHWEST WINDOW OF LIVING ROOM—RESIDENCE OF HEATLY C. DULLES, ESQ.,
VILLA NOVA, PA.

Mellor, Meigs & Howe, Architects.

be accomplished in the spirit and manner which has inspired the building, I shall have had restored my faith in the American mind to conceive, beyond a few admitted exceptions, anything of note in landscape architecture. How much of inspiration we are able to draw from the continent in our buildings, and how little in that endless field of activities beyond their walls.

Within, as without the house, there is evidence of the same eagerness for interest in a balanced informality of composition. As the plan will show, all the rooms are nicely distributed along the southern side of a narrow hall, whose axis is fortunately terminated in a wall niche across the garden. Each room is discovered in pleasant sequence and according to the privacy it should enjoy. This rather loose arrangement of plan is no simple task, and it is rarely indeed that we see it ac-

complished with such reason and evident meaning. The bookroom is properly found in the most private quarter of the house, giving onto a diminutive and secluded garden; the broad facing of modern tiles in the Flemish character surrounding the fireplace is a very conscientious piece of work and lovely in color. more lovely, I feel, than the circular tile medallions in the masonry above the garden wall niches.

To me the dining room is quite the *chef d'œuvre* and, barring a slight tendency toward too much movement in the plaster ceiling pattern and the unfortunate position of the impost in the large window, completely obstructing the horizontal plane of vision, it is one of the most satisfying rooms in this manner that I have seen short of England. It is unfortunate that a photograph cannot be had that will give adequately the impression of this



LIVING ROOM FIREPLACE—RESIDENCE OF
HEATLY C. DULLES, ESQ., VILLA NOVA,
PA. MELLOR, MEIGS & HOWE, ARCHITECTS.



DINING ROOM VESTIBULE—RESIDENCE OF
HEATLY C. DULLES, ESQ., VILLA NOVA, PA.
MELLOR, MEIGS & HOWE, ARCHITECTS.



LOOKING DOWN THE HALL TO THE BOOK ROOM—RESIDENCE OF
HEATLY C. DULLES, ESQ., VILLA NOVA, PA.



FROM NORTHEAST WINDOW OF BOOK ROOM—RESIDENCE OF
HEATLY C. DULLES, ESQ., VILLA NOVA, PA.



THE HOUSE, FROM THE APPLE ORCHARD—
RESIDENCE OF HEATLY C. DULLES, ESQ., VILLA
NOVA, PA. MELLOR, MEIGS & HOWE, ARCHITECTS



THE HOUSE, FROM THE LOWER TERRACE—RESIDENCE OF HEATLY C. DULLES, ESQ., VILLA NOVA, PA. MELLOR, MEIGS & HOWE, ARCHITECTS.



THE HOUSE, FROM THE UPPER TERRACE—RESIDENCE OF HEATLY C. DULLES, ESQ., VILLA NOVA, PA. MELLOR, MEIGS & HOWE, ARCHITECTS.



UPPER TERRACE, WITH PORCH AND SLEEPING PORCH
—RESIDENCE OF HEATLY C. DULLES, ESQ., VILLA
NOVA, PA. MELLOR, MEIGS & HOWE, ARCHITECTS.

room. The view here given, looking into the corner of the dining room, showing the steps rising to the living room, is a beautifully imaginative composition in iron, oak and stone, and is only one of three such delightful little vestibules that persistently punctuate the plan and reoccur in most musical fashion.

How few rooms we see that are beautiful in themselves without furniture or decoration. Probably this is why so many of our rooms are difficult to furnish. And when we do provide the rooms, what an onslaught of this "Vogueishness" (I know of no other word for it) takes place. We are told that the walls would be better bare; or if we must hang pictures, then some puerile copy of an ancient still life that will take its proper place in the decorative scheme. No; I hope the time will soon be here when all this rubbish that is chiefly the label of the

decorator will take its place in kingdom come and the spaces in our homes now given over to shrine-like arrangements of one hooked rug, a barren table and a tall candlestick posed in exaggerated simplicity will be cleared for a little that is intimately ours, a little to reflect the best of our own endeavors and times and reveal to some extent our skill to create and do rather than to collect, restore and fake.

The rooms within this charming little country house would stand by themselves; they are interesting and lovely in proportion, arrangement and detail, and to the grounds without has been given that simple development of line and mass and form that alone can impart the feeling of completeness to a scheme; ample proof, indeed, that a skilled and dominant professional force has been working in conjunction with a very sympathetic and gracious client.



ENTRANCE TO DINING ROOM VESTIBULE—RESIDENCE OF HEATLY C. DULLES, ESQ., VILLA NOVA, PA.



ENTRANCE—VILLA FRULLINO,
NEAR FLORENCE, ITALY.

THE VILLA FRULLINO NEAR FLORENCE, ITALY



By Harold Donaldson Eberlein

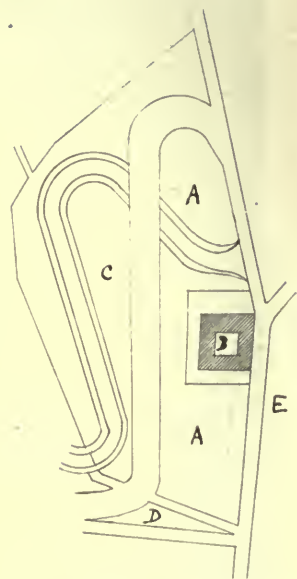
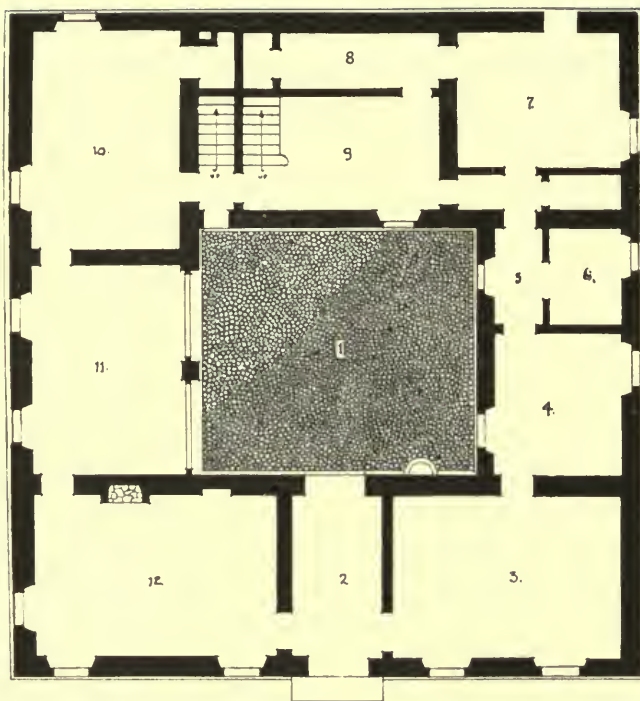
THE Villa Frullino, about half way between Florence and Fiesole, is characteristic of one of the types of the smaller Tuscan villas—so many of which were built in the neighborhood of Florence in the fifteenth century. As the plans show, the house is a rectangle in mass, built about a central *cortile*. The Tuscan villa of the fifteenth and sixteenth centuries was often the final result of a succession of earlier growths, the tower being usually the oldest portion.

The stuccoed walls of the Villa Frullino are covered with a dull reddish brown wash, and the shutters are painted a light green. With the exception of the glazed triple arcade on the first floor of the south front—just above the house door—which is a modernization, the villa presents virtually its original appearance.

The garden arrangements are exceedingly simple, but effective, the charm lying chiefly in the massing of foliage and in the incisive contour and placing of the cypress trees. The scheme is generally symmetrical, but not at all formal. Of course, the garden, in accordance with

Italian custom, is enclosed by a high wall. Within the villa the glazing of the loggia on the west side of the *cortile* is a recent addition. Barring this the *cortile* is quite unspoiled. The *sgraffito* decoration on the west wall of the *cortile*, above the arcading of the loggia, is in dull buff and brown. In the drawing-room the hood of the fireplace is a restoration. The floors are paved with brick and painted, generally a deep brownish red. In several of the rooms not shown the ceilings, instead of being vaulted, are of greater height and beamed, in some instances disclosing touches of colored decoration.

Just as the window trims outside are of the grey *pietra serena*, so also inside such features as door and window trims, the shell-headed niche in the drawing room (it was, in all probability, originally the dining room and the niche was meant for the lavabo) and the spiral-fluted and foliated corbels at the spring of the vaulting arches, of a pattern much employed by Brunelleschi, are all of the same stone, and afford some fascinating studies in well considered detail.



A, A. Garden of Villa Frullino.
C, D, E. Adjacent Properties.

GARDEN PLAN AND PLAN OF GROUND FLOOR—VILLA FRULLINO, NEAR FLORENCE, ITALY.

Key to Rooms on Ground Floor of Villa Frullino: 1. Cortile Paved with Gravel, Open to Sky. 2. Entrance Hall. 3. Dining Room. 4. Breakfast Room. 5. Passage Way. 6. Pantry or Serving Room. 7. Kitchen. 8. Closet or Store Room. 9. Stair Hall. 10. Library or Study. 11. Loggia with Arcade Opening into Cortile. 12. Drawing Room.



SOUTHEAST FRONT—VILLA FRULINO, NEAR FLORENCE, ITALY.



NORTHEAST SIDE—VILLA FRULINO, NEAR FLORENCE, ITALY.



DRAWING ROOM—VILLA FRULLINO, NEAR FLORENCE, ITALY.



DRAWING ROOM FIREPLACE—VILLA
FRULLINO, NEAR FLORENCE, ITALY.



DRAWING ROOM DOOR — VILLA
FRULLINO, NEAR FLORENCE, ITALY.



DOOR WITHIN LOGGIA — VILLA
FRULLINO, NEAR FLORENCE, ITALY.



ARCADE IN CORTILE—VILLA FRULINO, NEAR FLORENCE, ITALY.



NORTHEAST SIDE OF CORTILE—VILLA
FRULLINO, NEAR FLORENCE, ITALY.



WELL AND HOOD IN CORTILE—VILLA
FRULLINO, NEAR FLORENCE, ITALY.



ST. DAVID'S CHURCH, RADNOR, PA.
SHOWING WELSH CHARACTERISTICS.

The
EARLY ARCHITECTURE
OF PENNSYLVANIA

By
A. LAWRENCE KOCHER



PART II ~ Photos by Frank Cousins, William Rau & Others

AN analysis must be made of the nationalities composing the Pennsylvania colony in order better to understand the architectural development of this region. No part of colonial America was composed of more diverse national elements than was Pennsylvania. In no part of the colonies is there so interesting a demonstration of the influence of various peoples in the forming of an architectural style. In other localities the case is different. For instance, the Spanish in Florida, the Dutch in New York, and the English in New England present examples of unadulterated racial stock, which in time formed an architecture with clear racial characteristics. The population in Pennsylvania, however, was conglomerate. The Dutch, Swedes, English, Welsh, Scotch-Irish and Germans alike found a shelter and established a stronghold on the broad acres of the colony of William Penn. Out of so mixed a population it is to be expected that the resultant architecture would be colored and molded by the different national tendencies, or that there would be distinct and separate architectural manifestations within the colony.

The coming of the Dutch and Swedes preceded the founding of Pennsylvania. They had already settled in scattered groups on the lower Delaware River. The Swedes and Dutch were, however, in so small a proportion of the population that we can disregard them. No architectural effect can, with definite authority, be assigned to them unless it be the occasional

double "Dutch door" with the hospitable benches on either side, known familiarly as "the stoep."

The peoples of the British Isles came under Penn in 1681. The stream of immigration continued steadily until after thirty years the colony was, for the most part, a province of Englishmen. By 1710 the population in the thickly settled part of the colony was so thoroughly Anglo-Saxon that it could not be affected by the late coming of the vast hordes of Germans. The English possessed Philadelphia and the south eastern counties. The "hot-headed" Scotch-Irish, a frontier people forming a cordon of defense around the non-fighting Quakers, occupied the southern and western valleys. The Welsh chose the lonely banks of the Schuylkill and settled on the "Welsh Tract," comprising the townships of Haverford, Radnor and Lower Merion. The Germans, who became known as the "Pennsylvania Dutch," appeared in two waves of migration. The first, under the leadership of Pastorius, the schoolmaster, settled near Philadelphia and in 1683 founded Germantown, described as "a pretty, straggling village with substantial homes, roomy gardens and one long street bordered by blossoming peach trees." The second and main coming of Teutonic settlers occurred during the first half of the eighteenth century, and consisted mostly of religious sectaries from the Palatinate and Switzerland. The Germans were attracted to the heavily timbered sections in the central and north-

ern parts of the province. They reasoned, "where the wood grows heaviest the soil must be best."

The English held a decided advantage besides the advantage of numbers. They settled under the protecting arm of the British Government, which exerted a guiding influence over the progress of the colony. Even after the return of William Penn to England, the various governors, whether popular or unpopular, molded the policies and, indirectly, formed the taste of the province. The English, with a clear view of the future, knew that a stable empire could only be established with leadership. The Germans, on the other hand, not united as a single nation at home, appeared on the threshold of the new world, desiring land alone and not conquest.

These two nationalities were at first fairly distinct, and architecture of German derivation is found in one locality and English in another. In time there was brought about a blending of some of the two influences, but, in general, they continued separate and apart. Each produced

its own individual domestic dwellings and more pretentious structures, and each possessed certain peculiar features. The German style remained confined to small areas and was local, while the English soon became the adopted and characteristic style.

The line of demarcation between the two may be accounted for by the variance in their habits and thinking. The German trait was inclined to be clannish. The Germanic peoples were more or less amalgamated by religious bonds, and so sought their associates among their kind. They continued to speak the German language and evidenced a closer affiliation with the old world than with their fellow home-seekers, who were mostly Scotch-Irish.

This inclination toward clannishness by the Germans is clearly shown by such withdrawn and separate settlements as Ephrata, Lititz, Mannheim and Bethlehem. These places have retained a racial isolation, even up to the present day. Franklin complained to the Provincial Assembly in 1739 against the continuance of the speaking in German, which threat-



HANS HERR HOUSE, LANCASTER COUNTY, PA., 1719.



POWELL HOUSE, LANCASTER, PA.

ened to make of the settlement a German colony. In 1741 the German and Swiss Mennonites of Lancaster County were represented to the provincial government as being, "determined not to obey the lawful authority of the government—disposed to organize a government of their own."

This strong feeling of racial isolation on the part of the Germans, their local independence, and their feeling of self-sufficiency naturally led to an architectural product which had a characteristic local flavor. It became a thing apart, and not an amalgamated portion of the Pennsylvania style.

The well defined and separate architecture of German derivation is clearly stamped by racial attributes. The distinguishing features include the use of heavy stone and timber construction, the steep roof with rows of sloping dormers, small windows, the pent roof, and wooden hardware. There is a prevailing air of the medieval in the construction, the planning and the design. The existing examples unmistakably hark back to the Middle

Ages in Germany. The monastic halls of the religious communities at Ephrata, Lititz and Bethlehem might have been patterned after medieval buildings found in many a southern German town, such as Nürnberg and Mannheim. Even in habits and dress the "Brethren" of the Ephrata community, in early times, clung to customs of a previous century. The members wore a white habit with a hood resembling the dress of the Capuchins, their feet were shod with wooden sandals, they ate from wooden platters, drank from wooden cups and slept with their head supported on wood instead of pillows. Not having draught horses, the members themselves drew the plow.

It is of interest to note that the prevailing type of architecture of the cities and court circles of Germany in the seventeenth and eighteenth centuries was the Renaissance; while in the country districts and lesser towns the buildings erected were still Gothic in all but a few unimportant details. It is probable that the masses of German immigrants com-



HALF-TIMBER HOUSE IN LANDIS VALLEY, LANCASTER COUNTY, PA.

ing to these parts of Pennsylvania were from rural sections where the older building methods had lingered on into modern times. For example, the austere outline of the "Brothers' House" at the community of Seventh Day Baptists at Ephrata, illustrated on page 40, recalls the aisled basilicas of Romanesque Germany. Except for the haphazard arrangement of windows, we could reasonably expect an interior with a lofty nave, lighted with clere-story windows, and provided with aisles beneath the sloping side roofs. The building, however, has no relation of interior to exterior. Here is an instance of erecting a building by recollection and imitation without an accompanying understanding of the association of form to use.

Beneath the side sloping roofs there are remnants of a still lower pent roof, of which the supporting blocks may be seen in place. The explanation of this auxiliary roof has already been made. Here, instead of protecting the clay chinking from the weather, the overhang proved a serviceable feature in shadowing the lower windows and in aiding the shedding

of water from the wooden walls and the foundation.

The irregular application of clapboarding on the side walls of "The Sisters' House" (page 39) is worth noting. This uneven exposure of siding is somewhat similar to the "shingle thatch" made popular by certain architects of country houses of the present time. But on these old walls there is a better showing of logic in the method of using material, because boards naturally are of different widths and, when economically cut to the shape of the log, would be tapered.

The Moravian Sisters' House at Bethlehem, dating from 1748, is almost equally exotic. The building is planned in the shape of an U. This arrangement creates the effect of a courtyard, into which, in the seventeenth century, the cattle and sheep were driven to shelter from the storm. The flanking buttresses are without their original meaning, for they do not sustain the thrust of vaults nor of cross arches. Their presence here constitutes an architectural vagary. This misapplication of a once serviceable feature is a part of the same hazy depend-

ence upon the past as was alluded to above.

The half timber buildings erected by the Germans in Pennsylvania are interesting examples of the same medievalism. The existence of standing specimens of an indigenous half timber architecture is of considerable importance and is not widely known.

In the half timber house the walls are formed of heavy shaped wood, framed together. The space between the members is filled with lath and plaster or with brick. The structural parts are strengthened by horizontal pieces and braced with sloping struts. The framework is left visible and presents a pleasing pattern—the wood contrasting with the background of plaster or brick. The chief value of this method of building is esthetic, in that it satisfies the eye as to the stability of the fabric. The timber chosen for these structures is usually oak. The parts are fitted together with mortises and tenons, and locked with wooden pins.

The Moravian School at Friedensburg, Pennsylvania, illustrated on page 37, is

an example of this manner of framing. The building has floors at two levels. The ends of the floor joists may be seen extending through the walls. The second floor, which was originally two large rooms, has a higher ceiling than the several rooms on the ground level. The irregular spacing of the bays determined the unbalanced arrangement of the windows. The infilling between the timbers is brick and has been stuccoed and white-washed. There is no attempt made at adornment, and, yet, the effect is one of pleasing picturesqueness and of honesty in construction.

The views on pages 33 and 35 show two houses which at one time stood in Lancaster. The Powell House, demolished a generation ago, stood on the corner of Middle and Lime streets. The other houses were also on Middle street. They were erected by English workmen and were to accommodate the troops of General Forbes after the fall of Fort Duquesne.

The half timber house reflects the age preceding the advent of the saw mill.



HOUSES FORMERLY STANDING ON EAST SIDE OF MIDDLE STREET, LANCASTER, PA., SHOWING HALF TIMBER CONSTRUCTION.



END VIEW—HANS HERR HOUSE,
LANCASTER COUNTY, PA., 1719.



MORAVIAN SCHOOL, FRIEDENSBURG, PA. BUILT IN 1742.



WOODEN HARDWARE, MORAVIAN SCHOOL,
FRIEDENSBURG, PA., 1742.



14 TURK HOUSE, OLEY VALLEY, BERKS COUNTY, PA., 1767.



MENNONITE CHURCH, LANDISVILE, PA., 1742.



THE SISTERS' HOUSE, EPHRATA, PA.

With the coming of the water and the wind driven saw, a new era of building opened up. Saw mills were known in America before they were established in England.* Had the power mill for the rapid sawing of boards been delayed for a longer time, it is quite probable that the exposed and hand shaped construction would have been more firmly rooted in the colonies.

The Hans Herr House, built in 1719 near Lancaster, may be taken as a specimen of the "small dwelling" architecture of German origin. It is very well suited for study, because it has undergone no change since the staunch walls were reared, over two hundred years ago. The same Teutonic aspect, which was noted in the monastic settlement at Ephrata, is recognized here. The walls of brown sandstone are plastered and whitewashed. The roof is steep in pitch, resembling the "Brothers' House." The small windows, with primitive wooden shutters, are fitted

into frames of wood at the front and into stone enframements at the gable ends. The angles of the frames, both of wood and of stone, are mortised together. A chimney of large size, measuring over ten feet in width, divides the interior into two parts. After rising to the roof it contracts to a square to crown the saddle of the roof in the center. Dr. Schoepf, in his eighteenth century book, "Travels Through Pennsylvania," observed that "a house built by a German could, even at a distance, be readily distinguished from one erected by a Scotch, Irish, or Englishman. Had the house but one chimney and this in the middle, then it was a German's. . . . A house with a chimney at each gable end is recognized as having been erected by an Englishman."

The floor joists of the Herr House consist of round logs, grooved at the sides, and with narrow split boards fitted between and spaced so as to allow rye straw to be woven over and under the sticks. Beaten clay was then applied to the top of the straw, with a resulting floor of earth for each story.

The building is notable for its expres-

*Saw mills were erected by the Dutch and Swedes before the arrival of William Penn in 1681. (American Encyclopedia.) The first saw mill was set up in England in 1767. Thomas Budd: Pennsylvania and New Jersey, p. 45.



THE BROTHERS' HOUSE, EPHRATA, PA.



THE SAAL AND SISTERS' HOUSE, EPHRATA, PA.



WINDOW OF THE SISTERS' HOUSE, EPHRATA, PA.



ANGLE OF THE CLOISTERS, EPHRATA, PA.

sion of German tradition, and because of its substantial, straightforward simplicity. There is a distinct charm in the ancient windows, which rise story above story in what would, presumably, be only a first floor and attic. The trait of

look elsewhere for the source of Pennsylvania colonial architecture.

It was almost entirely to the English subjects that the early architecture was due. The Quaker colony, from the beginning, had looked across the sea for guid-

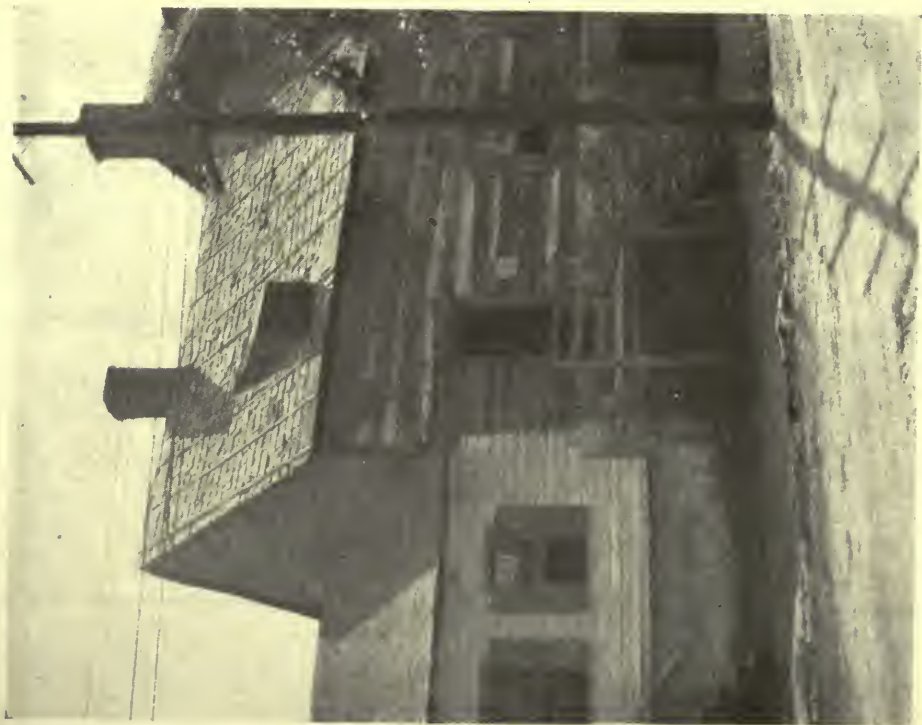


DOORWAY OF THE SISTERS' HOUSE, EPHRATA, PA.

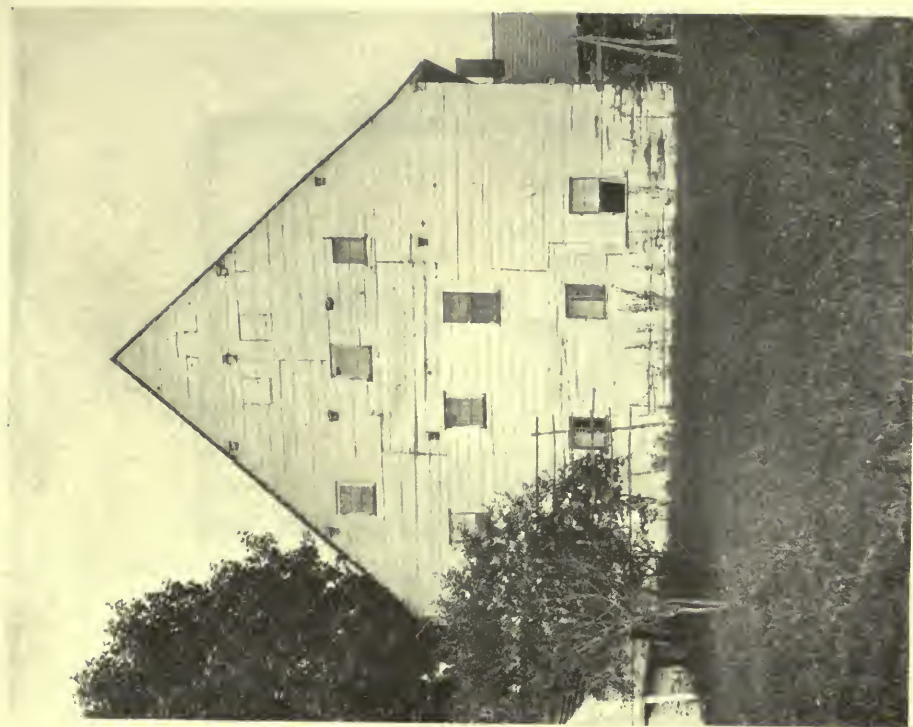
thriftiness and practicality is well expressed in this straining effort to put to use every available cubic foot of space.

The strongly marked individuality of all of these German buildings, with their irregular fenestration, and the strangely foreign aspect of walls and roofs and dormers, is in almost no respects similar to what we are accustomed to speak of as "The Pennsylvania style." This is argument enough to convince one that we must

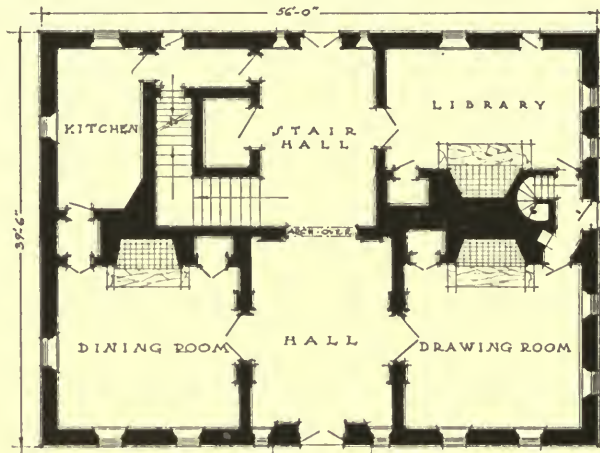
ance in customs, in dress, and in architecture. Philadelphia of the eighteenth century was not unlike a transplanted English city. Lesser towns, as well, were modeled after English villages. An English traveler in Pennsylvania in 1765 writes, "Most of the Houses bear an aspect of comfort and elegance, and in their Architecture much resemble the newer houses of London. At this I marvel not, since they tell me that the people of



EARLY HOUSE IN YORK, PA., SHOWING CHARACTERISTIC GERMAN DORMER.

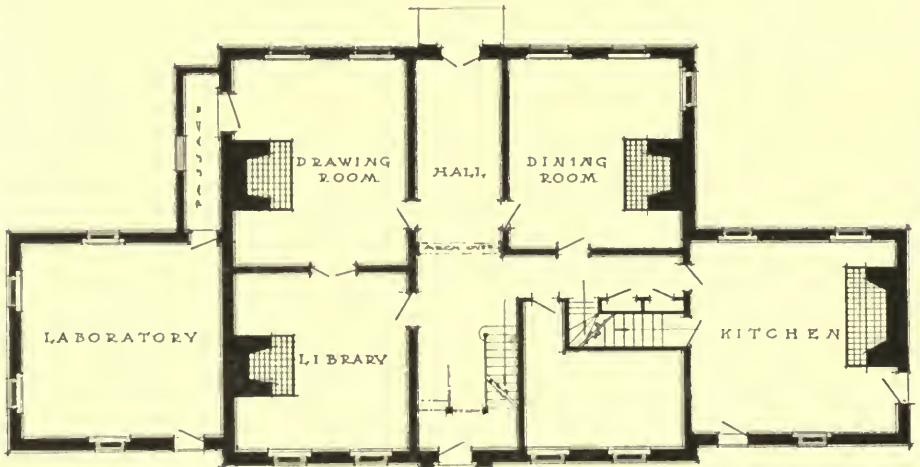


END VIEW OF COMMUNITY HOUSE, EPHRATA, PA.



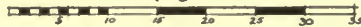
HOPE LODGE
1723

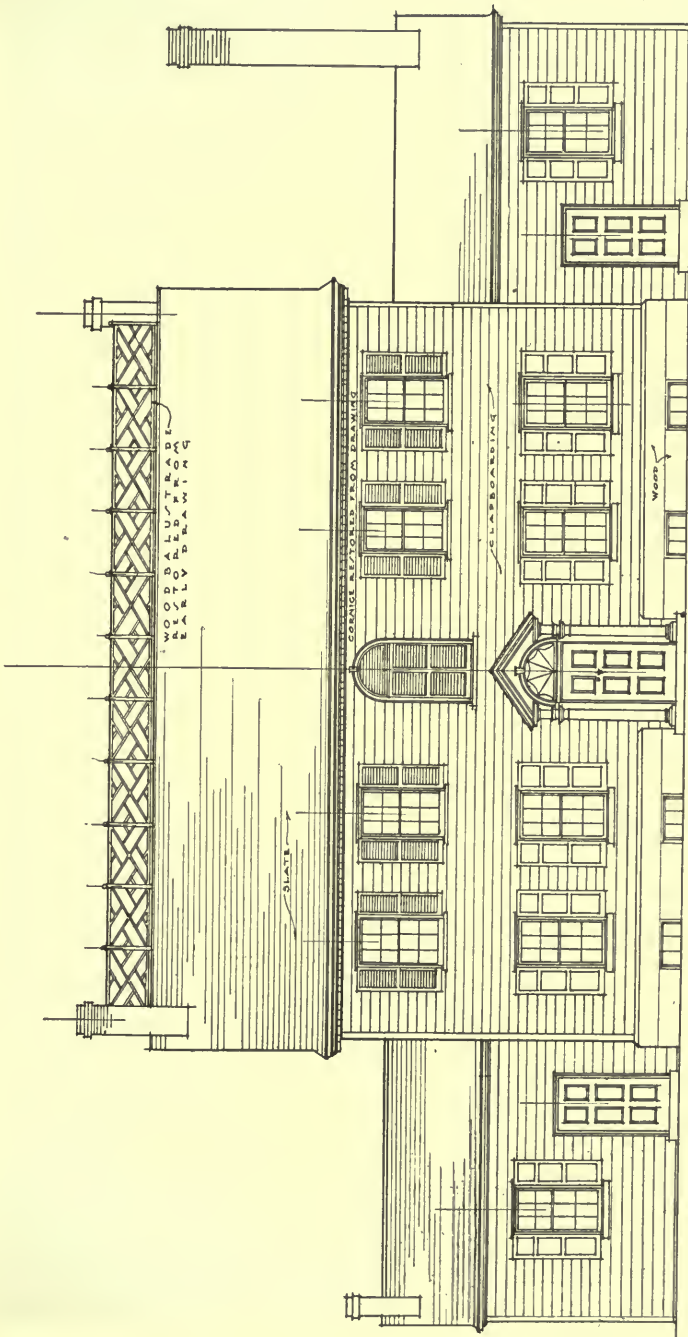
AT WHITEMARSH, PA.
BUILT FOR
SAMUEL MORRIS



J. PRIESTLEY HOUSE
1796

NORTHUMBERLAND, PA.
BUILT FOR
DR. JOSEPH PRIESTLEY





THE DR. JOSEPH PRIESTLEY HOUSE
 NORTHUMBERLAND, PA.
 1796



DRAWN BY ALKOCHEP



STENTON, SHOWING ENGLISH GEORGIAN CHARACTERISTICS,
WITH AN ACCOMPANYING SIMPLICITY ATTRIBUTED TO THE
QUAKER FAITH OF ITS BUILDER, JAMES LOGAN.

Philadelphia, and, for the matter of that, of all the other towns in the Colonies as well, are so scrupulous to observe every London fashion that, whenever a lot of dressed dolls is sent out and displayed by the Tailors and Mercers, both men and women hasten to inspect them and have their clothing closely patterned thereafter."

While considering the predominating English character of the provincial architecture, it is interesting and appropriate to contemplate what deterring effect the presence of Quakers in the new world may have had on architecture and art. Their religion forbade them from making vain display in their dress or in their homes. Henry T. Tuckerman speaks of the Friends as a "class distinguished, indeed, for moral worth, but equally remarkable for the absence of a sense of the beautiful, and a firm repudiation of the artistic graces of life and the inspiration of sentiment, except that of a strictly religious kind." Many of the choicest examples of colonial architecture were erected by and for Quakers, and yet one can perceive a sentiment of straight-laced opposition among a portion of the faith. For illustration, an anecdote is handed down concerning a Friend, Joseph Richardson, who, in 1738, erected a dwelling in Attleborough, Pa. The house was large and somewhat costly and extravagant for its day. As the house was under construction he brought a friend to view it. The friend expressed no enthusiasm and was about to leave without saying anything, when Mr. Richardson ventured the remark: "Thee does not say what thee thinks about it," to which the friend replied: "All I have to say is, take thee care thee does not get to the bottom of thy purse before thee gets to the top of thy house."

Benjamin West is an instance of a Quaker whose artistic instincts were not stifled by the strict requirements of his faith. When he first indicated a talent

for painting it was a debated question among the Quakers whether he should be permitted to exercise his art. By good fortune it was decided that he possessed a God-given talent and he was allowed to practice his skill. Some one has pointed out that the world owes to the matter of fact rather than imaginative manner of the Quaker, the revolution in art made by West in his portrayal of modern battle scenes, when he refused to dress General Wolfe and the Indians as Roman soldiers.

While it cannot be denied that the churches of the Anglican faith and of the Lutherans have an unquestioned superiority with such excellent examples as Christ Church of Philadelphia, and the Trinity Lutheran Church of Lancaster, for which the Quakers have no counterpart in any of their meeting houses, yet there were various degrees of Quakerdom. Many a protest against luxury and gaiety remained unheeded among some of the Friends. For instance, objection was raised, early in the eighteenth century, against the use of fans and snuff-boxes "even in the meeting houses," "where they diverted women's minds from spiritual exercise." In 1726 certain erring female Friends were publicly warned against "the immodest fashion of hooped Petticoats" and "the imitations of them by stiffened or full Skirts which we take to be but a Branch springing from the same corrupt root of pride."

An attempt has been made to analyze the national elements present in the Pennsylvania colony. Attention has been called to the detached nature of the Teutonic peoples, who created an individual architecture which did not become woven into the completed fabric of the Pennsylvania style. The commanding importance of the contribution of the English has been pointed out. A full description of the separate buildings that are of Anglo-Saxon origin will be the subject of the next article.



STAIRWAY TO ROOF GARDEN—SAN ANTONIO COUNTRY CLUB, SAN ANTONIO, TEXAS. GEORGE WILLIS, ARCHITECT.



The San Antonio Golf Club
San Antonio, Texas. Geo Willis, Architect
By
I. T. FRARY

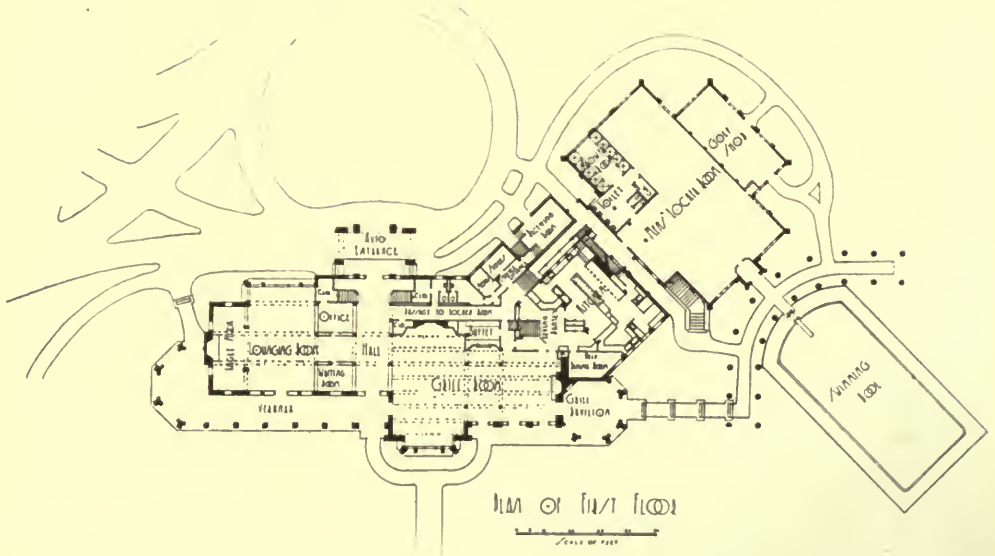
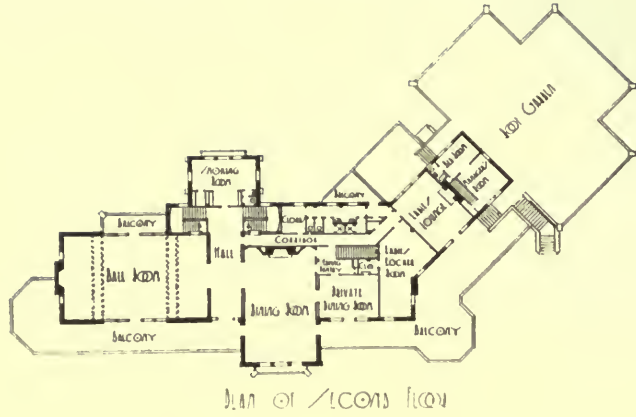
SOMEONE has said that there are two cities in the United States that have personality. The name of one had best remain unspoken lest contention be aroused; the other is San Antonio. A century of Spanish occupation left an indelible imprint upon this rare old city. As is usually the case, the distinctive features which set the city apart, in a class by itself, have until recently been accorded scant appreciation by its citizens and have been even regarded by some as handicaps to her commercial development. Happily this latter idea is giving away to a feeling of pride in the old structures which still remain as monuments of the city's picturesque past; and definite steps are being taken to safeguard them from the destruction with which they are being threatened by the city's rapid growth.

With so fine a source of architectural inspiration as San Antonio possesses in its group of Spanish missions and in its many smaller and simpler structures, one might expect that her architects would be quick to grasp the opportunity for producing a civic architecture that would reflect the old spirit and make the new city unique and individual. Unfortunately

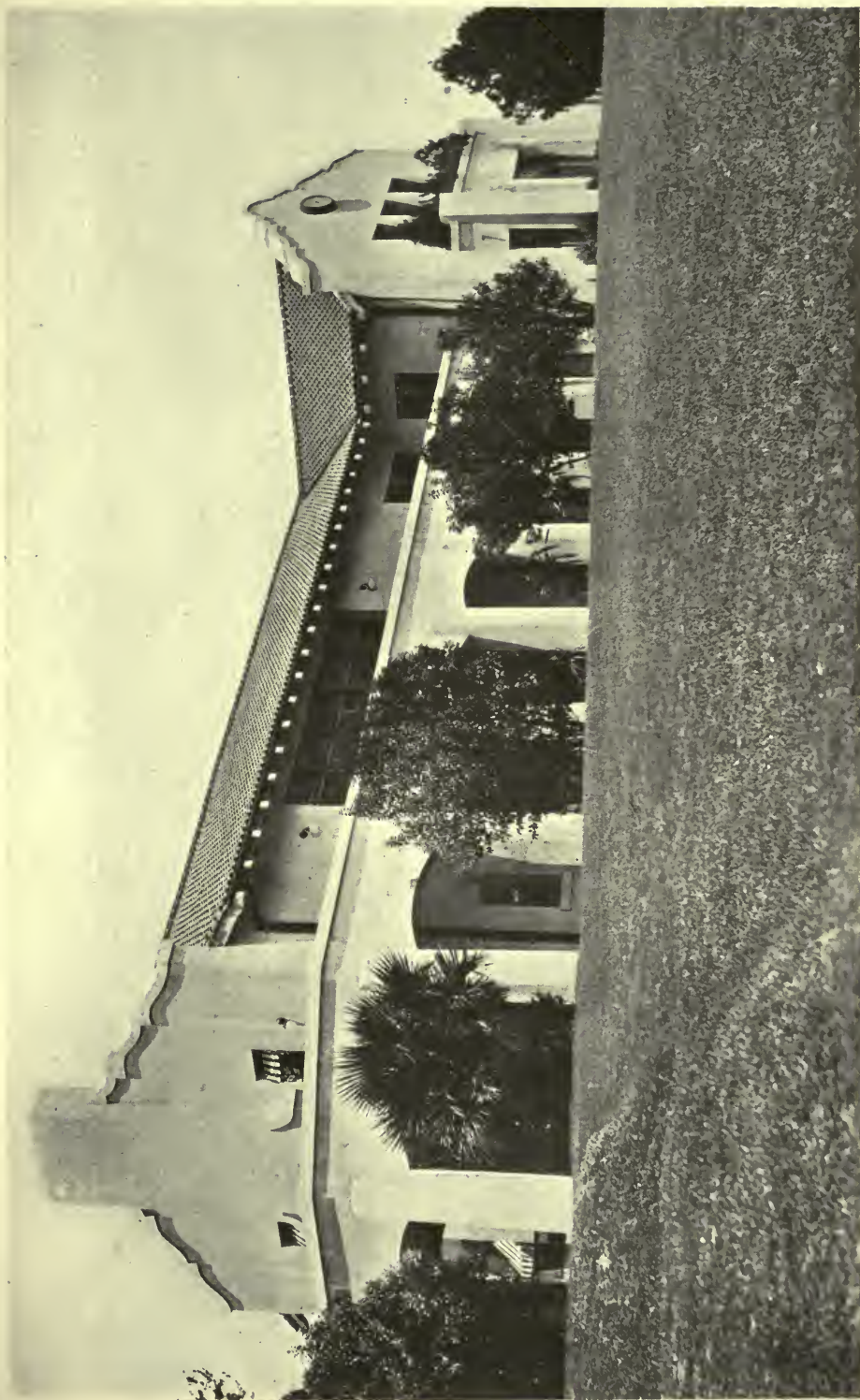
the obvious thought has not been grasped, and most of the modern buildings in the city are of the monotonous type that may be found in any growing community. A few men, however, have recognized the value of the old traditions and the adaptability of the Spanish style to climatic and other conditions existing in the city.

In designing the San Antonio Country Club, George Willis grasped these possibilities and adapted the Spanish mission type admirably to the requirements of his problem. A country club in a southern city would naturally suggest simplicity in both design and material. The stucco walls and the long, low lines so characteristic of the Spanish mission buildings are well suited to the location on a hill crest, while a rambling plan has the effect of corraling stray breezes. Compactness for economy of heating, which dominates so much of the planning in the north, is a negligible factor here, and Mr. Willis' design, although consistent in plan, indicates that he availed himself of the freedom which these conditions permitted and gave rein to his fancy and to his love for the picturesque.

As a result there is a diversity of



FLOOR PLANS—SAN ANTONIO COUNTRY CLUB, SAN ANTONIO, TEXAS. GEORGE WILLIS, ARCHITECT.



VIEW FROM TERRACE—SAN ANTONIO
COUNTRY CLUB, SAN ANTONIO, TEXAS.
GEORGE WILLIS, ARCHITECT.



SERVICE WING AND LOCKER ROOM ANNEX
—SAN ANTONIO COUNTRY CLUB, SAN ANTONIO,
TEXAS. GEORGE WILLIS, ARCHITECT.



SWIMMING POOL—SAN ANTONIO COUNTRY CLUB, SAN ANTONIO, TEXAS. GEORGE WILLIS, ARCHITECT.



LOUNGING ROOM—SAN ANTONIO COUNTRY CLUB, SAN ANTONIO, TEXAS.
George Willis, Architect.



BALL ROOM—SAN ANTONIO COUNTRY CLUB, SAN ANTONIO, TEXAS.
George Willis, Architect.

charm varying with every change of view. Seen from the golf links below the hill the building presents a simple, low lying composition of warm gray stucco and red tile, with masses of deep shadow under its overhanging eaves and arcaded veranda. As one approaches by auto the view is cut off largely by a heavy planting, which affords glimpses of stucco walls, touches of red tiled roof and openings made bright by window boxes well filled with flowers and vines. From the tennis court is seen a complex of swimming pool, pergola and inviting stairways against a rather bewildering background of gray walls, giving the general air of a stage setting which, when seen by daylight, makes one long for the evening shadows, well studied lighting effects and the music, brilliant costumes and drifting

groups of dancers and merrymakers.

The interior is quiet in color, relieved from monotony by the judicious use of gay cretonnes—a most comfortable atmosphere of harmony and of rest.

The Spanish architecture may not be in accord with the gray skies of the north; but under the brilliant sun of Texas the broad simple walls, the vigorous texture of tile roofs and the rich shadows of arcaded cloisters are wholly in tune. New England borrowed from old England, and the adaptation of the Georgian to its needs has developed the Colonial style that seems indigenous. The southwest, however, has different requirements, and buildings like the San Antonio Country Club are strong arguments in favor of the Spanish tradition in our semi-tropical climate.



VERANDA—SAN ANTONIO COUNTRY CLUB.

TRAINING FOR THE PRACTICE of ARCHITECTURE



BY CHARLES H. MOORE

IN our modern methods of training for the practice of architecture, we are losing sight of the fact that architecture is an art, and not either a learned profession or an applied science; and that a proper equipment for the vocation of an architect cannot be obtained by any purely theoretic education on academic and scientific lines. Our new schools of architecture are proceeding on these lines to the exclusion of nearly every natural mode of training.

A glance at the history of architectural training in the past may help to clarify ideas which are now confused, and point the way to more fruitful methods of instruction than those which have lately come into vogue. It is a significant fact that what we all recognize as the great architecture of the world was produced before the advent of what we call the educated architect. To appreciate this fact, we have only to consider that in the great ages of architectural production—as the fifth century B. C., when in Greece the fine arts* of antiquity reached their highest development—the architect was a practical craftsman, whatever else he may have been. Phidias, who directed the works on the Athenian Acropolis—and, if not himself the architect of the Parthenon, had, there appears every ground to believe, a considerable part in its design and construction—is said to have begun his career as a painter; and if the works of sculpture which

adorned that monument are correctly attributed to him, he was also a sculptor of supreme skill. What knowledge he had of letters or of the sciences of his day, we do not know; but with a background of building tradition, such as every architectural craftsman had, a working knowledge of his own language and an elementary acquaintance with geometry and statistics, would give all of such knowledge that his art required.

During the Middle Ages architectural design and construction were, as is well known, in the hands of guilds of building craftsmen. These bodies of men were organized under competent overseers, or master builders, who were themselves manual workers, though men of great intelligence, and often of highest artistic and intellectual capacity, as their works show. They thought on lines of current tradition and contemporary practice, but in free exercise of invention, which kept things moving, and produced the various mediaeval styles. Under this natural system a young man got his training by apprenticeship in the craft. He learned his art by putting his hand to such work as he could do under the master's guidance and the stimulating influence of quick-witted associates in the craft.

It was not until the sixteenth century that this system began to give place to the one which now prevails. The change has been gradual—following the general change of ideas that marked that epoch—and no complete divorce between theory and practice in the training of an architect was known until very recent times. It began with the advent of the amateur

*By the term fine arts, I understand arts in which the idea of beauty dominates. Thus any art is fine art to the degree in which this idea prevails. In purely utilitarian building the idea of what we call practical utility governs. In architecture all utilities are controlled by the sense of beauty, as the architect conceives beauty.

architect of the Renaissance, and was nourished by the dilettante and academic spirit that followed. Our present system in Northern Europe and America owes its tangible beginning to the French *École des Beaux Arts*. This school, which had been established for sculpture and painting, introduced courses of instruction in architecture early in the last century. It is organized on academic lines, provides courses of lectures, prescribes exercises on paper, and awards diplomas which give their holders practically exclusive privileges of government patronage. For entrance the student must pass examinations in design, drawing, modeling, mathematics, and history. But something of the idea of craft apprenticeship is retained in the requirement that a student must pass a year in superintending the construction of buildings under a government architect. The system is autocratic, and the teaching is based on the principles of design of classic antiquity and the neo-classic Renaissance, but it allows great freedom in what is considered the adaptation of these principles to modern ideas and conditions.

In England there has never been any authoritative academic school of architecture, and something of the traditional craft apprenticeship survived until recent times. While it may be said that the modern professional architect arose in England in the persons of Jones and Wren, neither of these men had any academic training. Inigo Jones began as a craftsman in carpentry, and Sir Christopher Wren was, as is well known, a mathematician and professor of astronomy in the University of Oxford. Wren was not a practical draughtsman. He had no office like that of an architect of today, but gave most of his time to personal superintendence of the works, and made changes as the work proceeded. It is instructive to learn that the scheme of St. Paul's Cathedral was never embodied in any set of drawings.

In the more modern English system prescribed courses of study have been established, but these were at first subordinated to the work of an office under a practicing architect. Of late, with the

introduction of the use of steel and the growing demand for steel structures, the study of engineering science has been introduced, and is now being enormously increased. So that now a four years' course of studies, supplementary to the office work, is prescribed, leading up to examinations conducted by the Royal Institute of British Architects—the passing of which is now a condition of membership as a Fellow of the Institute. This is in striking contrast to anything before known, and it is safe to say that no architect of the great ages of architecture could have passed such examinations; while, on the other hand, it may be said that the men now furnished with academic diplomas have produced no architecture that will compare with that of former times. This is a fact that may well give pause to the advocates of the new methods of architectural training.

In America, until the rise of the present schools, the architect's training followed very nearly on the lines that had prevailed in England before the development of the system just described. The beginnings of the American academic system may be traced to an influence from the French *École des Beaux Arts*, together with that of the growth in the universities of courses in technical subjects, including architecture. When, in the sixties of last century, Mr. Richard Hunt returned from a course of training in France, he opened an *atelier* in New York, conducted on the *Beaux Arts* lines. Among the students of this school was Mr. William R. Ware, who, after completing his course with Hunt, and spending a short time in Europe, was appointed professor of architecture in the Boston Institute of Technology—where he organized, if I am not mistaken, the first professional school of architecture in America. Mr. Ware was a man of scientific bent, and he naturally emphasized the scientific side of the curriculum. But having also strong classical and academic predilections, he laid stress, in accordance with modern custom, on the study of the ancient orders; yet holding, at the same time, what is called the catholic idea, he endeavored to include

some attention to other styles—thus, from the start, committing the scheme to confusion. At about the same time technical instruction in architecture was introduced in some American universities, which has developed into the fully equipped professional schools now connected with a growing number of these institutions. It was natural that when once associated with the universities, the academic idea should gather force in these schools; and this, joined with the growing scientific spirit in all education, has brought about a fundamentally mistaken idea of training for the practice of architecture.

Before we get further committed to a wrong course, it behooves us to take account of these things, and to subject the new educational scheme to critical examination. Let us look for a moment summarily at this scheme, and consider some of its features and consequences a little in detail. The courses are substantially the same in all the schools, and consist of lectures on design, on the mathematics of construction, on perspective, on shades and shadows, on stereotomy, and on the history of architectural styles. The practical exercises are in mechanical drawing and designing, and in free-hand drawing, with some practice in modeling. A large amount of time is given to work with the ruling pen, and to elaborate shading of orthographic projections. It will be seen that, save for the free-hand drawing and modelling, the course is mainly theoretical, scientific, and mechanical.

This is no proper training for the practice of architecture—as the history of the art shows. We forget that no architect of the great ages of architectural design had any knowledge of the science of building in the modern sense. Design and construction in architecture are governed by tradition, imagination, artistic aptitude, and practical experience, more than by science, or by any such knowledge as the collegiate schools impart.

The trouble with the schools is, among other things, that by the incorporation in the educational schemes, of engineering science, of the kind required in the

modern use of iron, the calling of the architect is confused with that of the mechanical engineer.

In masonry construction, mechanical engineering has no proper part; for in architectural masonry, the eye has to be satisfied; and in order to satisfy the eye, more than the bare needs of stability are required in construction. In architecture these needs cannot, in fact, be exactly determined. To calculate stresses and strains in stone masonry, with mathematical precision, is both unnecessary and impossible. The architect's ability to secure stability comes primarily of that constructive sense which is the first natural qualification for the vocation of an architect. The requisite knowledge of the strength of materials and their proper forms and adjustments, is acquired by observation and experiment, not by scientific theory. The present school system ignores this, and provides no proper exercise of those constructive and artistic faculties on which the right practice of architecture depends. It should, indeed, be obvious that such exercise cannot, in the nature of things, be provided in academic and scientific schools.

As for the mechanical drawing of the schools, there is too much of it, and it is too much elaborated. The ruling pen is used, where the lead pencil would serve as well, and time is wasted on the shading of orthographic projections. This shading has no useful purpose. Modelling of solid form on such projections is a barbarism, because form can only be properly developed in perspective, and to cast shadows on them is unnecessary, for all dimensions are shown on the plans, elevations, and sections. Perspective drawing need not be much elaborated, though shadows may be usefully cast on them, in order to give correct suggestion of the look of things; but time spent in working up architect's perspective drawings into pictures is wasted.

The free-hand drawing differs in different schools, but in hardly any of them is it what it ought to be. The great use of drawing for students of architecture

lies in the quickening of the sense of form and proportion. In many of the schools of architecture drawing is taught on the lines of the modern schools of painting—the chief model being the nude human figure. The wisdom of this is very questionable. For the human body, under present conditions, is hardly ever normal; and to habituate the eye to its manifold imperfections is an injury to the artistic sense. On this account it would be better, I think, to confine the study of the human figure to casts and photographs from ancient sculptures—which supply all that is required. But among these there is need for discrimination in the choice of models. The quality of ancient sculptures is very unequal. In the older European schools, the least excellent examples were used as models, and the same models have been largely retained to the present time, both in Europe and America. They are the later Greek and Greco-Roman works, and have the artificial graces and extravagancies as well as the petty naturalisms of decadent art. These were the only antiques that were known when the older schools were started, and they suited the tastes of those times. The only ancient sculptures that are worthy of unqualified admiration are those of the Greek carvers of the fifth century B. C., by whom the human form was represented with perfection in its normal beauty and grandeur—as in the reliefs and pediment figures of the Parthenon. These are monumental and nobly ideal works, and have every quality to be desired in models for drawing. In them we have nature corrected by nature herself, and presented naturally with unexaggerated grace of posture and movement, in terms of the proper conventions of art.

The same discrimination ought to be exercised in choosing models for practice in drawing from foliate ornament, and that of the animal figuré—whether natural or grotesque; and here the same principles of choice apply. The source of beauty in art is nature, which is expressive of the life that gives it being. This life is the first quality the expression of which should be sought. It will

be found, under whatever conventions, where men have worked with appreciation of the beauty of lines and surfaces in living things. To awaken and discipline the sense of this beauty, there is no means so good as that of drawing from nature itself—an exercise that ought to be constant in the training of an architect. Examples of the best that has been done, in foliate and animal carving, should be kept before the student, for these teach him how to grasp what in nature lends itself to effective ornamental treatment, and how the redundancies of natural things have to be simplified in art. The best foliate carving of the past—the best, because the most expressive of the vital principle of nature, subjected to the ordered rhythms and proper conventions of architectural ornament—is found in the French Gothic work of the twelfth century. Every school of architecture ought to be supplied with casts and photographs of this work.

The benefits of drawing are not limited to what concerns the carved ornamentation of buildings; they extend to everything that the architect has to do. The sense of proportion and all the amenities of the art are dependent on the training of mind and eye that drawing tends to give.

The historical courses of the schools contribute little to proper equipment for architectural practice. They naturally tend to create that promiscuous eclecticism which has been the bane of modern architecture. Students are bewildered by the multiplicity of styles, and get little exact knowledge of any style. The information supplied is mainly derived from books, and few books on the history and character of architectural styles are trustworthy.*

Such, in brief outline, are the main features of the courses of study now offered in the professional schools of architecture. When a young man leaves such a school, and enters the office of an

*I have discussed the use of books on this subject, in a paper on "The Study of Mediaeval Architecture," published in the "Journal of the Royal Institute of British Architects," 3d Series, Vol. XXIII, No. 3.

architect, he begins a routine of indoor work that allows little chance for either proper artistic training or for suitable contact with practical building operations, such as the old craftsman's experience gave. The office of an architect in large practice, today, is organized on the lines of a commercial establishment. A large corps of young men is here employed in mechanical draughting, which is uninspiring drudgery. The architect himself is largely occupied with specifications, contracts, and consultations with clients, together with matters of heating, lighting, ventilation, and plumbing, including many other matters of a kindred nature which, however useful, have nothing to do with architecture; and with which the architect ought not to be obliged to deal. The architect is an artist, and his art alone is his *métier*.

It may be worth while to consider for a moment what might, under existing conditions, be done in order to restore something of what has been lost, and to put the training for architecture again on normal lines. No great immediate change can, of course, be looked for; but as men reflect on these things, and come to see more clearly what architecture is, the need for a more natural and effective method will be felt. It will be seen that the scientific equipment necessary to the architect's calling is small, but that his artistic aptitudes and constructive faculties require the fullest development. Whatever contributes to his proficiency as an artist and a constructor must be his main preoccupation. As an artist he should be quick to perceive every possibility of design in proportions and dispositions of quantities, and in development of details, from largest things to smallest—including every quality of expression in the whole and in the parts—so that, whether simple or complex, the building shall be a harmonious unit. As a constructor he requires practical acquaintance with the manual processes of building, such as can be attained only by putting his hands to these processes. Therefore, besides the artistic culture that the habit of observation in drawing gives, every student of architecture ought

to be exercised in the building craft—even in bricklaying, in stone cutting, and in carpentry—as well as in superintendence of building. It should be obvious that this experience is necessary to competence; and to a man of constructive instincts it will be found delightful. A man who does not feel pleasure in such manual work is unfit to be an architect. Every process of design in architecture is governed by an imaginative sense of the material and manual means by which it is to be realized.

Some time for this manual work might at once be gained by lessening, if not wholly eliminating, the greater part of what now constitutes the main course of study. Mathematics, for instance, ought to be reduced in quantity, if not wholly omitted; for very little mathematics is required in the proper work of an architect. In place of mathematics, the student should be exercised experimentally in the principles of construction, and in critical analyses of structural systems. With unnecessary mathematics should go all that belongs to purely mechanical engineering, and all needless mechanical drawing—more particularly all shading of orthographic projections. Historical and archæological studies ought to be wholly stricken out, leaving it to the student himself to acquire any knowledge of these subjects that he may desire. Such knowledge must be gained, for the most part, by direct contact with the monuments. Where this is impracticable, photographs will supply information that will be reliable as far as it goes, but any complete understanding of a building requires examination on the spot. This does not mean that useful knowledge of the history and character of architectural styles can be gained only by exhaustive first-hand study; but it does mean that some contact with the buildings themselves is essential to such knowledge. It is important, however, to realize that successful practice of architecture calls for no particular knowledge of the history of styles. The great architects of ancient and mediæval times had no such knowledge. The common traditions of building—in the atmosphere of

which they worked—and their own inventive genius gave the best inspiration, and made their work their own in the proper sense. No good work can ever be produced when men undertake to build in any style of the past, save in so far as the principles of a given style are suited to their needs, and are made their own by rational understanding and assimilation.

In support of the new educational ideas, men speak of a need for meeting new conditions by new methods. But in architecture there are no new conditions, and therefore there is no call for new methods; though new forms may be evolved in the future, as in the past. The only materials suitable for architecture have been long established, and are the same now as in former times. The present use of iron and steel—which indeed requires new methods—comes of no needs of architecture. It is destructive of architecture if not kept apart from it. It comes of the passing excessive industrial and mechanical activities and commercial interests, that demand haste and cheapness in building for purely utilitarian ends. Utilitarian ends are good in their place, but they must not in building be confused with the ends of architecture—with which neither haste nor cheapness are compatible. In the present mixture of the two, the engineering of iron construction destroys the architecture, and the meretricious archi-

ture spoils the good engineering. In the tall office building of New York, for example, the whole structure is a steel frame hidden by a façade of other materials, which is not any part of the structure but only a revetment affixed to it, and dependent on it. True architecture is impossible in such a contrivance. If the building must be a steel frame, let it be frankly shown for what it is. It cannot be a pleasant object to behold, but it will at least have the merit of veracity. Overlaid with foreign materials, simulating architectural forms proper to stone masonry, it is neither true architecture nor honest engineering.*

If architecture be a fine art—an art in which the idea of beauty dominates design, according to the definition given in the footnote at the opening of this paper—it should be obvious that these steel structures are not architecture; for the idea of beauty does not enter into their formation; nor can architecture, in any proper sense, arise from any mendacious disguise of such structures by masking façades. These and all other departures from normal principles are fatal to architectural design. Before this noble art can again flourish, we must get back to conditions that will make it possible.

*Whether disguised or not, it will not be enduring, for iron is quickly perishable on exposure to weather; and even if not exposed it is still liable to deterioration from molecular changes by which its strength is impaired. I have heard an engineer say that he looked for collapses among the new steel structures in the not distant future.



DETAIL OF LOUIS XVI. SHOPFRONT, FORMERLY AT NO. 3 QUAI BOURBON, PARIS. PRESENTED TO THE METROPOLITAN MUSEUM OF ART BY J. P. MORGAN.

A Louis XVI Shopfront



By Charles Over Cornelius

THERE has recently been placed on exhibition at the Metropolitan Museum of Art, New York, the very interesting piece of French eighteenth century exterior woodwork illustrated herewith. It is a shopfront of oak, characteristic in design of the period of Louis XVI (1774-1793), which stood at No. 3 Quai Bourbon, Paris.

The weather-worn condition of the piece has necessitated a certain amount of restoration, in which work the measured drawing of César Daly¹ has been used as a guide. There has been no attempt to disguise the necessary restorations, which, indeed, have not in any way departed from the original form, and none of which is conjectural.

The basis of the design is an order of three Corinthian pilasters supporting an

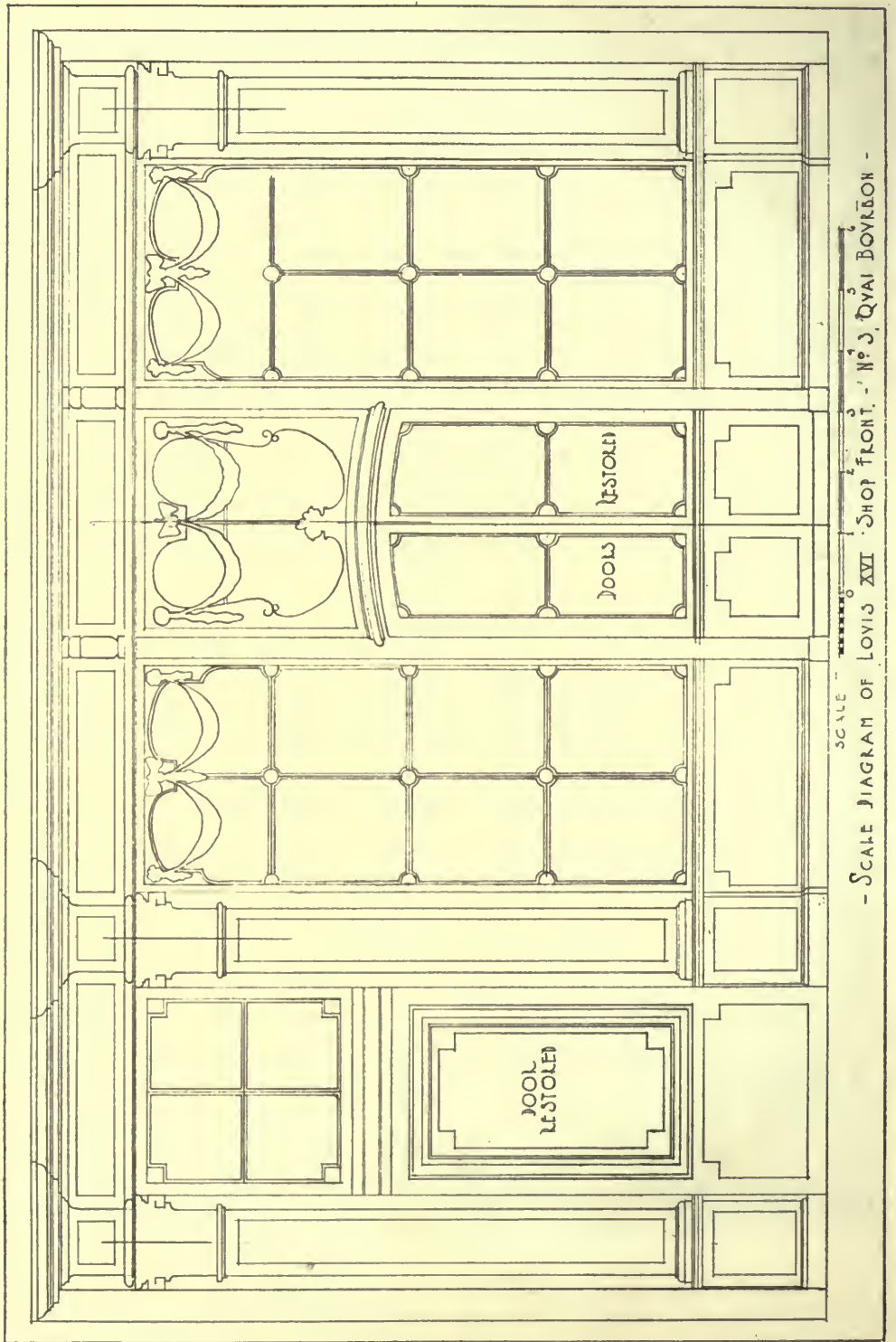
entablature. The door to the left, which gave into the dwelling portion of the building, is flanked by pilasters, while the larger remaining space is symmetrically treated with the doorway of the shop and the two show windows.

The piece shows to a remarkable degree the character and spirit of the period from which it dates, a period of small things done exquisitely, of humble things imbued with elegance. The lightness and grace inherent in the style are enhanced by their expression in wood rather than stone, while the scale is almost as fine as that of interior work.

An exterior of this sort is particularly rare by reason of its perishable nature and its exposed position. And it is of high value for the direct suggestion which it may hold for designers today.

The shopfront is a recent gift to the museum from J. P. Morgan.

¹César Daly, *Motifs Historiques d'Architecture et de Sculpture d'Ornement*. Paris, 1870. Vol. II. Louis XVI—pl. 23.



SCALE 1/4" = 1'-0"
 - SCALE DIAGRAM OF LOUIS XVII SHOP FRONT - N^o 3, QUAI BOULEVARD -



LOUIS XVI. SHOP-FRONT, FORMERLY AT NO. 3 QUAI BOURBON, PARIS, PRESENTED TO THE METROPOLITAN MUSEUM OF ART BY J. P. MORGAN.

BUILDING MATERIAL PRICES IN 1921

*By Willford I. King, Ph.D.
of the National Bureau of
Economic Research, Inc.*

THE question uppermost in the mind of almost every business man today is: "Where are we headed? Is the present fall in values to continue until we reach the level of 1914 or will prices rebound sharply in the immediate future?"

It is needless to say that no one can answer this question with any certainty that he is right. Although it is true that every cause must produce its definite effect, yet, nevertheless, in a world in which thousands of causes are operating and each cause is constantly changing, it is not within the capacity of human beings to fore-see much of what the future holds in store. True, there are a few events which are commonly predicted with considerable accuracy. No one is startled when the astronomer tells us exactly the time when the sun will rise tomorrow. We should instead be surprised if he failed to predict accurately even much more distant events, as for example, the occurrence of an eclipse. Astronomy, however, is the seer's paradise because only a few forces combine to produce the results studied in that field.

Most phases of human inquiry, however, offer far greater obstacles to the prophet's success. The meteorologist, in predicting the approach of a coming storm, is much more likely to err than is the astronomer in telling the time of occurrence of an eclipse. The meteorologist suffers the greater chance of error because he is compelled to work with the more complex set of causes. The economist is in the position of the meteorologist, except that he must deal with a group of forces even more intricate and involved. Seldom, therefore, is he able to forecast events except in a most tentative way. He can only pick out a few of the forces which commonly dominate the situation, study them, and then say that

if these forces continue to operate, and if other influences remain as usual in a subordinate position, the outcome will be as stated.

Some will feel that prediction, based upon such imperfect knowledge, is the height of folly. But is this true? Every business man, from the shoe cobbler to the greatest manager of the greatest industry, must have in mind a forecast of his own or he would not think it worth while to continue in business.

If prophecy is an essential to everyday business, it is not strange that there should be a demand for specialists in this field, for it seems reasonable to suppose that the man who makes it his business to study the causative forces and their effects is at least a little more likely correctly to forecast future events than is the man who must perforce devote nearly all of his time to other duties.

When, then, an economist has the temerity to discuss the business outlook, he does so, not on the premise that he can weigh and balance forces better than the man actively engaged in business, but only on the assumption that he has become more familiar with these forces because he has had more time to devote to their study. It is in this spirit that the following attempt is made to analyze existing conditions and to point out the results which are the normal outcome of the forces now at work.

The architect, estimator, or contractor, who wishes to forecast the future prices of building materials, has before him two distinct but related problems: First, what is the outlook for the price level in general? Second, will building material prices go along with the general trend or will they fall further, or begin to rise sooner? The logical procedure seems to be to deal with the larger problem first, and this procedure will be followed here.

The first prerequisite to an understanding of the price problem is to have in mind a clear cut mental picture of the distinction between an individual price and the general price level. In order to establish this concept, one can scarcely do better than to repeat the very apt simile used by Professor Irving Fisher to illustrate the phenomenon. He likens the price level to the level of the water in a lake. In the strictest sense, of course, such a thing as a lake level or a sea level can scarcely be said to exist, for, in practice, the surface of the water is nearly always more or less disturbed. Yet, nevertheless, even when this surface is wildly lashed by the wind, we still have no difficulty in forming a very definite mental concept of a position known as the lake level.

And we all realize that the variations in this level are very different in their nature from the waves caused by the wind. In the spring time, when the freshets occur, the lake level rises greatly, while, on the other hand, during a long-continued drought, it sinks to a much lower point; but neither the rise nor the fall has the remotest connection with the waves, which disturb the surface all the while.

Now the price level, like the lake level, is governed by a flow; but, in this instance, the flow is one of circulating medium rather than of water. The principal kinds of circulating mediums are money and bank deposits, the latter circulating by means of checks. When much water flows into the lake, the water level rises; when the volume of circulation increases, the price level likewise goes higher.

Now, if the lake is a very large one, a great inflow of water will raise the level but slightly. Similarly, if the amount of business transacted in a country is large, a given increase in the supply of money and bank deposits produces a smaller rise in the price level than would be brought about by a similar monetary increase in a country where little business is done. In a nation with business transactions as immense as those of the United States, an increase of even a billion dollars in the

circulating medium has only a moderate effect in raising the price level.

WHY PRICES ROSE.

During the period 1914 to 1920, the price level in this country more than doubled. What was the cause? The reason was partly that most of the European nations at the outset of the Great War abandoned the gold standard and substituted therefor a basis of paper or fiat money. This enabled them to use the gold formerly constituting a part of their circulation to buy supplies over here. This gold was not in itself sufficient in amount to greatly raise our price level. But every dollar of this gold could be used as reserves to support many dollars of bank deposits; hence, our total supply of circulating medium soon was increasing by leaps and bounds.

Still another reason, however, served to multiply greatly the volume of inflation. Congress twice amended our banking laws; first, by reducing the percentage of reserves required to be held against deposits; and, second, by requiring that reserves of national banks should consist only of deposits in Federal Reserve banks, in other words, a credit reserve was substituted for a money reserve, thus releasing the money for use in the circulation. More important by far, however, is the fact that both of these measures combined to make a dollar of real money serve as the basis of many more dollars of deposits than it could possibly do under the old laws. After the enactment of this legislation, therefore, the banks were enabled to expand their deposits enormously and, since this expansion meant great profits for the bankers, they of course did not fail to avail themselves of the opportunity presented. As a result of the expansion of loans and deposits, our supply of circulating medium was doubled and prices rose to a level approximately twice as high as that existing before the passage of the Federal Reserve Act.

It is, then, easy enough to see why prices thus rose, but why are they now falling? Most of the gold imported in 1915 is still here; the banking laws have not been amended to require an increase

in reserves; everything appears to remain just as at the close of 1919; and yet the price level has recently fallen off very sharply. Is there an explanation of this paradox?

WHY PRICES ARE FALLING.

To explain the cause of this recession in the general level of prices, one must consider a phase of the money problem not yet touched upon in this discussion—that is, the velocity with which money and deposits circulate. Money, in one respect, resembles a machine—the faster it moves, the more work it will do. When, therefore, the rapidity of circulation slackens, it is equivalent to a reduction in the volume of circulating medium; hence, the price level naturally tends to fall. Investigation seems to show that in times when business becomes dull, money and deposits circulate very slowly, and *vice versa*. How does this fact bear upon the present situation?

While the causes thereof are very incompletely understood, it is easily seen from charts of almost any business indicators, that prosperity goes in waves, the crests of which are normally three or four years apart, the intervening troughs representing periods of depression. These waves, however, are not very regular in shape, some being higher than others and the time intervals between them are unequally spaced. This irregularity makes it impossible to foretell future wave movements with the accuracy that would be possible if all the waves were symmetrical and of uniform height. However, a study of these waves does, nevertheless, reveal certain facts of moment. Let us, then, note some peculiarities of the cycle in recent years.

From 1914 to 1919 we had no marked business depression. The rise of the price level, under the influence of inflation, tended to carry even the least competent business men safely over the thin places in the financial ice. The number of failures, therefore, remained abnormally low during almost the entire period. The natural inference would be that the delayed weeding out process would probably begin with added strength when inflation ceased and that this might result in a de-

pression more severe than normal. This probability was pointed out by the present writer early in the spring of 1920.

At present, we are witnessing the normal culmination of the forces just mentioned. The depression has arrived. Failures are multiplying. The demand for bank loans has fallen off and the volume of deposits has contracted somewhat. With business dull and future prospects uncertain, the velocity of circulation has naturally slackened greatly. The price level has, therefore, fallen very sharply.

With this drop in the price level, everyone is familiar. The real question of the moment, however, is the outlook for the future. What is ahead? Are we well on the road to deflation and a permanent drop in the price level?

PRESENT "DEFLATION" NOT PERMANENT

To this last question, the answer is that there seems little reason to believe that there is any tendency whatever toward permanent deflation or that the downward price movement is to be long continued. Such a permanent decline might, however, be brought about by any one of the following three causes: first, the Federal Reserve Board might utilize the present opportunity to increase permanently its ratio of gold to deposits and circulation; second, Congress might amend the banking laws so that the national banks would be required to carry larger reserves against deposits; third, the European nations might call back gold to be used as a basis for the rehabilitation of their currency.

Congress appears at present to have no intention of increasing the reserve requirements of national banks. On the other hand, a movement of gold to Europe is quite likely to occur eventually, but it scarcely seems probable that it will assume very large proportions for several years to come. The Federal Reserve Board has made no statement of its policy, and hence it is folly to attempt to predict its actions. Since it is perhaps easier to follow the present course than to change, we shall assume tentatively that the Board will continue to strive, as it has during the past year, to maintain the legal re-

serve limit of 40 per cent. and nothing more. If such should be its policy, what is the most probable future course of the price level?

RECOVERY OF PRICES AFTER SOME MONTHS.

The indications are that the present decline is destined to continue for several months to come. The stock market has thus far shown no signs of recovery and it would be contrary to the history of most past cycles, if commodity prices were to rise materially until at least three or four months after the stock market reaches its lowest point. On the other hand, it is not probable that the decline in commodity prices will continue in the future with the same rapidity which has characterized the past few months. Already the prices of some commodities are rebounding forcefully, and others will probably do likewise as the weeks go by. However, there seems little reason to expect any marked rise in prices during the next six months. In general, if the cycle holds true to its usual form, 1921 will be a year of relatively low prices, while during 1922 the price level will presumably be climbing upward again, and the crest of a new wave should be reached about 1923. The fact that the 1919 wave was probably abnormally high makes it rather unlikely that the 1923 wave will attain as great an altitude as that reached in 1919-1920; indeed one need not be surprised should its summit prove to be very materially lower. But this is merely a probability—not a certainty. It is entirely possible that the next wave crest may bring prices fully as high as those prevailing in the early months of 1920; in fact, should the Federal Reserve Board decide to lower its reserve limit, prices might even rise far above any level that has yet been attained.

Such is the general outlook for the future course of the general price level. While specific dates have been suggested, the reader should keep the fact in mind that, as long as our knowledge of the business cycle is as limited as at present, these dates must be considered tentative and a considerable allowance must be made for error.

So much for the course of the prices

at wholesale of commodities in general. Are we justified in assuming that individual prices will all follow this same general trend?

On a previous page the price level was likened to the level of a lake. By analogy, a wave on the surface of the lake may be thought of as representing the price of an individual commodity. Evidently, a very high wave in one place must be compensated for by a depression at some other point much below the general level. Hence, at any particular price level, a high price for one commodity means a low price for some other. The reason for this is simple; namely, if a man spends his income for one article, he must economize on something else, and the resulting falling demand for this other article naturally lowers its price.

Since the money supply affects all commodities indiscriminately, there is a marked tendency for the prices of all articles to rise or fall to the same extent. But individual forces affect the supply and demand for different articles in different degrees, and hence, when the price level is doubled, some articles rise to more and others to less than twice their former height. Thus, we have waves on the price level just as on the surface of a lake. Since, however, most prices tend to fluctuate about a norm, there is observable a widespread tendency for prices which have departed far from the general level to return thereto. Thus, in the spring of 1920, clothing prices had risen much further than prices in general, and in recent months the declines in that field have been particularly violent.

SPECIAL INFLUENCES AFFECTING BUILDING MATERIAL PRICES.

Since the year 1914, the price rise has been relatively greater for building materials than for other commodities and the decline of the present year has not, thus far, been as severe in this as in many other fields. Under these circumstances, the natural inference is that a heavy fall in this group of prices is likely to occur before the present depression is ended. Two opposing forces, however, tend to hinder this downward movement: first, the shortage in the supply of resi-

dences; and second, the growing scarcity of timber. As regards the first, it may be said that the shortage of residences has probably been overestimated by most writers on the subject. New residences are needed primarily to accommodate our growing population, but, from 1914 to 1919, the diminution in immigration made our population grow more slowly than usual; hence we have not needed so many new houses. Furthermore, many barns, storebuildings, and the like, have been remodeled into houses, thus obviating the necessity of building completely new structures. It is not improbable, therefore, that much of our building deficit exists only on paper.

There are, nevertheless, certain forces which tend to prevent building materials from falling to the common level.

If the National Industrial Conference Board's reports are accurate, house rents have not risen to anything like the extent characterizing most other prices. They are, therefore, not likely to decline much and may even rise materially higher. In either instance, house building is likely to become relatively a more profitable industry than has been the case for the last few years. However, this opportunity is largely offset in certain states, like New York, by the enactment of rent laws which tend to make investment in residence property a hazardous undertaking.

Increasing scarcity in the national timber supply materially tends to make lumber prices rise more rapidly than the price level in general.

SOME FURTHER DECLINE OF BUILDING MATERIAL PRICES, FOLLOWED BY RECOVERY.

Were lumber the only building material this differential would be very great, but the continual increase in the substitution of steel, brick, stone, and concrete for wood makes this divergence

from the main trend slow rather than rapid.

In the presence of so many conflicting forces, it is impossible to predict with confidence the probable future course of the prices of building materials. If, however, no unusual circumstances arise, the prices of building materials should, like other prices in general, decline somewhat during the next few months and not ascend greatly before the end of 1921. It is possible that an active building campaign in 1921 may cause a rise early in that year, but the deadening influence of a business depression is so great that any large building program in 1921 seems hardly probable. The likelihood of 1922 being a year of active building is very much greater.

The fact has been often noted that the price of labor tends to follow irregularly the course of the prices of other commodities, though lagging a few months behind their general movements. There seems no especial reason for expecting in the present instance a departure from this normal sequence of events.

The statements just made describe the present price outlook as it appears to an economist. The whole line of reasoning may, indeed, be changed in the future by some unusual occurrence which brings to bear upon the price situation new and powerful forces. However, the market is only occasionally diverted from its normal course by extraordinary events. The chief obstacle to accurate forecasting is not in the danger of unforeseen cataclysms but in the incomplete state of human knowledge concerning past and present conditions. Until this situation has been remedied by many years of painstaking research by numerous statisticians, the economist can only predict future happenings in a much qualified way. Such is, then, necessarily the nature of the present attempt.

The NEW PLANS for PARIS

By Jacques Gréber

THE city of Paris, in spite of enormous sacrifices during the war, in spite of the increase of its debt during five years of a general paralysis of its activities, did not hesitate to take up again immediately after the war its program of embellishment and development, interrupted in 1914.

A law passed during the war compels every municipality of France to make a plan of its lay-out, embellishment and extension. The main principle in the making of a good plan for a city is not to separate the questions relating to sanitation or utilities from those that are purely esthetic. Examples such as Paris, Vienna, Dresden, prove beyond doubt that civic beauty is a most important factor in urban life.

Upon consulting statistics as to the value of land in Paris before and after the carrying out of improvements with a view to embellishment, it is seen that the more radical such improvements are the greater is the return, the expenses incurred always resulting not in a burden for the city, but in increased prosperity. Paris owes its world-wide reputation as much to the beautiful harmony of the Champs Elysées as to the care with which the public departments have carried out the works of a utilitarian character.

The recent public competition for the improvement and embellishment of Paris was divided into four sections, corresponding to the various works the city of Paris has to carry out in order to meet the necessities of its development.

The first section of the competition covered the general plan of the entire Paris region, including questions relating to canals, the river port and railroad lines as well as to housing and the creation of parks in a wide radius around Paris, the Administration of the Department of the

Seine having realized that the actual limits of the department do not contain the entire agglomeration of the population of the capital.

The second section of the competition touched only upon the embellishment or improvement of the interior of the city of Paris, at present circumscribed by the toll boundaries: making new avenues, building new public monuments, such as a central station or other architectural project of interest to the city itself.

The third section looked to the improvement of the immense plots now occupied by the fortifications and the exterior military zone surrounding the fortifications; that is, in round figures, a belt twenty-five miles long by approximately 1350 feet wide. As this belt of fortifications has become useless for the defense of Paris, a special law has been passed for its transformation into parks, playgrounds, and houses for large families.

The fourth section of the competition comprised various projects which might be suggested for the embellishment or improvement of any part of the Greater Paris region. In this section a victory memorial could be suggested quite as well as a packing house or a sea harbor or a garden city.

The various winners in the four sections were:

- I. General Paris ensemble: 1, Mr. Jaussely; 2, Messrs. Agache, Auburtin, Parenty and Redont; 3, Messrs. Molinié, Nicod and Ponthier; 4, Messrs. Faure-Dujarric, Barrington and Chaurès; 5, Mr. Delthil.
- II. Interior improvement and embellishment of Paris: 1, Mr. Pelée de Saint-Maurice; 2, Messrs. Molinié, Nicod and Ponthier; 3, Messrs. Faure-Dujarric, Barrington and Chaurès.

- III. Improvement of the fortifications: 1, Mr. Gréber; 2, Mr. Louis Boileau; 3, Mr. Lachenal.
- IV. Miscellaneous projects: 1, Messrs. de Rutte, Sirvin, Peyret-Dorthail and Bassompierre-Sevrin.

The plan by Mr. Jaussely and his associates shows what Paris may become in the future if the vast projects contemplating a city of ten million inhabitants can be carried out: a city where the housing problem would be done away with, where sanitary and practical living places would be the rule, where even large merchant ships could dock in Paris, making of the city a world centre from every point of view. A system of roads, con-

siderably enlarged and widened, suggested by Mr. Jaussely, would enable Parisians to live as in America, largely in the country instead of being packed together, as at present, in the most congested and most unsanitary parts of the city. This wholesome ideal comes to us direct from England and America, and if it has been impossible to follow it until now, it is because the administration of the city has had to contend with difficulties in connection with roads, which can only be cleared up through the recent law pertaining to the extension of the city. Mr. Jaussely made his general plan of Paris in the same masterly fashion as he made the plans for the improvement and embellishment of



GENERAL PLAN OF PARIS, SHOWING THE ENCIRCLING LINE OF OLD FORTIFICATIONS.



SECTION NORD-OUEST



ABOVE: PARKS AND HIGH CLASS RESIDENCES; BELOW: WORKMEN'S HOUSES AND PLAYGROUNDS—ACCEPTED PLAN FOR IMPROVEMENT OF OLD FORTIFICATION SITES OF PARIS.

Jacques Gréber, Architect.

Barcelona, which he had charge of several years ago.

The successful candidate in the second section, Mr. Pelée de Saint-Maurice, made an extremely interesting plan for the interior of Paris, which may be described as a modern "Haussmannization" of the great city. The main characteristic of this study is the breaking up of the centre of congestion by the removal of the terminal stations now situated haphazardly in the interior of the city without being even connected with one another. Mr. Pelée de Saint-Maurice is enabled to push these railroad terminals toward the periphery of Paris by availing himself of the wide roads which it will be possible to build when improving the fortifications; this will give a perfect circular connection between the future terminal stations.

Of this plan, which is above all else a study of existing problems, we shall

merely say further that the author misses no opportunity to combine traffic improvements with the creation of perspectives or decorative points contributing to the beauty of public roads. His plan is a renewal of Haussmann's great program, which was carried out so wonderfully by Alphand. The same program is now repeated under peculiarly different circumstances, due to the development of rapid transportation and to that irresistible attraction which, in Paris as in New York, results in a congestion that is almost without remedy.

The third section (improvement of the fortification plots) covers work that will have to be executed without delay, inasmuch as it is the object of a special law; and it enables the city of Paris, without too large a burden of expense, to solve rapidly the housing problem and improve the sanitary conditions of the city.



SECTION OVEST



ABOVE: PARKS AND HIGH CLASS RESIDENCES; BELOW: WORKMEN'S HOUSES AND PLAYGROUNDS—ACCEPTED PLAN FOR IMPROVEMENT OF OLD FORTIFICATION SITES OF PARIS.

Jacques Gréber, Architect.

Mr. Gréber tried in his plan to solve the housing problem as advantageously as possible for the finances of the city of Paris without, however, obstructing the natural circulation of air resulting at present from extensive open spaces. These two requirements, which seem to conflict with each other, could only be met by planning houses in the form of garden cities and completely eliminating six or seven story buildings, which would have choked Paris with a high wall, preventing good ventilation. Mr. Gréber's plans show houses of several stories only on each side of the broad roads leading to the capital; these relatively high buildings have their narrow side in the direction of radiation of ventilation of Paris. In spite of this concession to hygiene, it is still possible to house nearly 100,000 people on the fortification lands; the remainder is used for the construction of recreation

centres (pools, gymnasiums, covered tennis courts, etc.) surrounded by parks for out-of-door games, to which are added municipal vegetable gardens, making it possible to have gardening schools for all the housekeepers residing in the neighborhood. Generous spaces are also reserved for agricultural exposition palaces, auditoriums, libraries, playrooms and other social welfare activities.

A wide boulevard with a varied outline enables the city to make of this outdoor belt an excellent distributor of traffic, which will relieve the central arteries of the city. Mr. Gréber incorporated in his study for Paris the best examples of modern city organization which he analyzed while preparing for the city of Philadelphia the plan of Fairmount Parkway, now being carried out. The city of Philadelphia found it possible to make a large opening in the very heart of the city so as to have



SECTION SVD-OVEST



SECTION SVD-EST

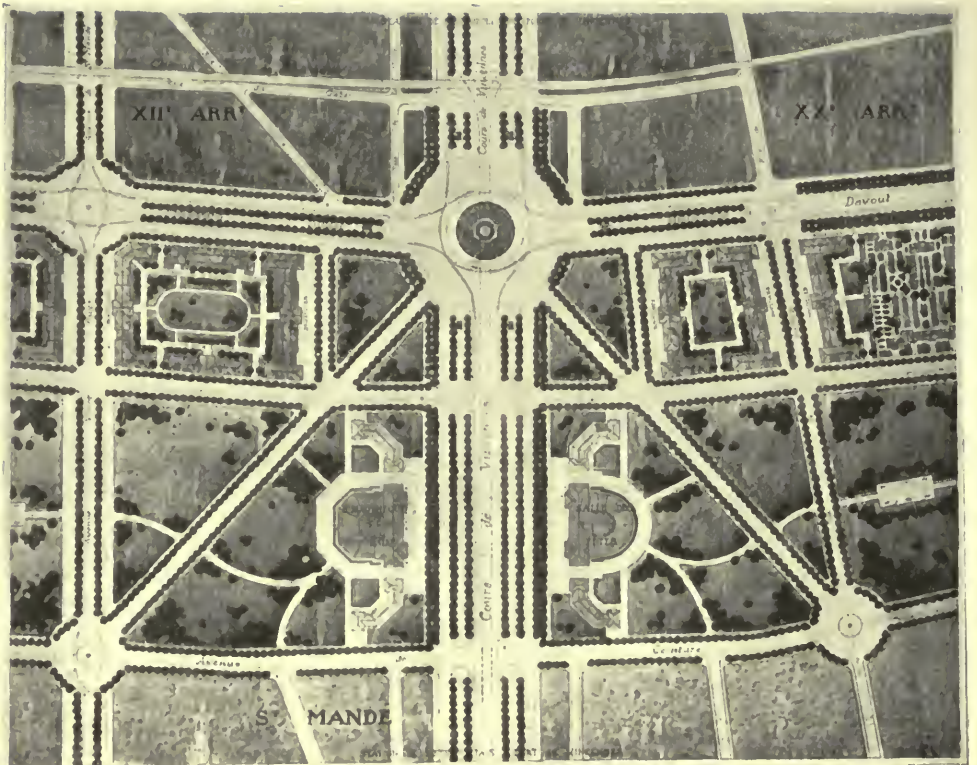
ABOVE: WORKMEN'S HOUSES AND PLAYGROUNDS; BELOW: SOUTH CANAL AND WEST WATER TERMINAL (INDUSTRIAL DISTRICT).



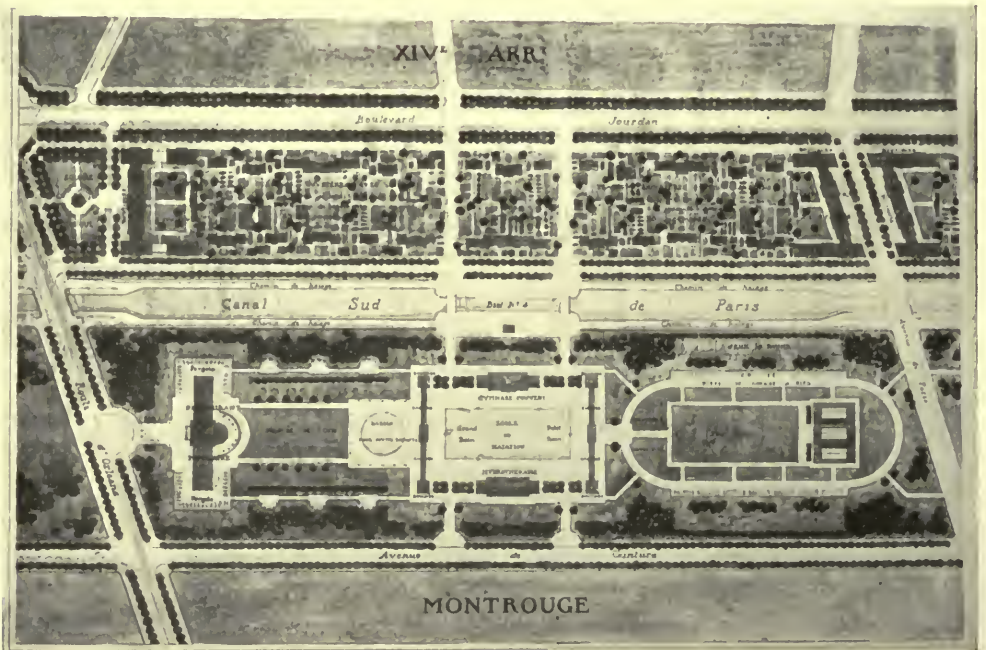
SECTION SVD



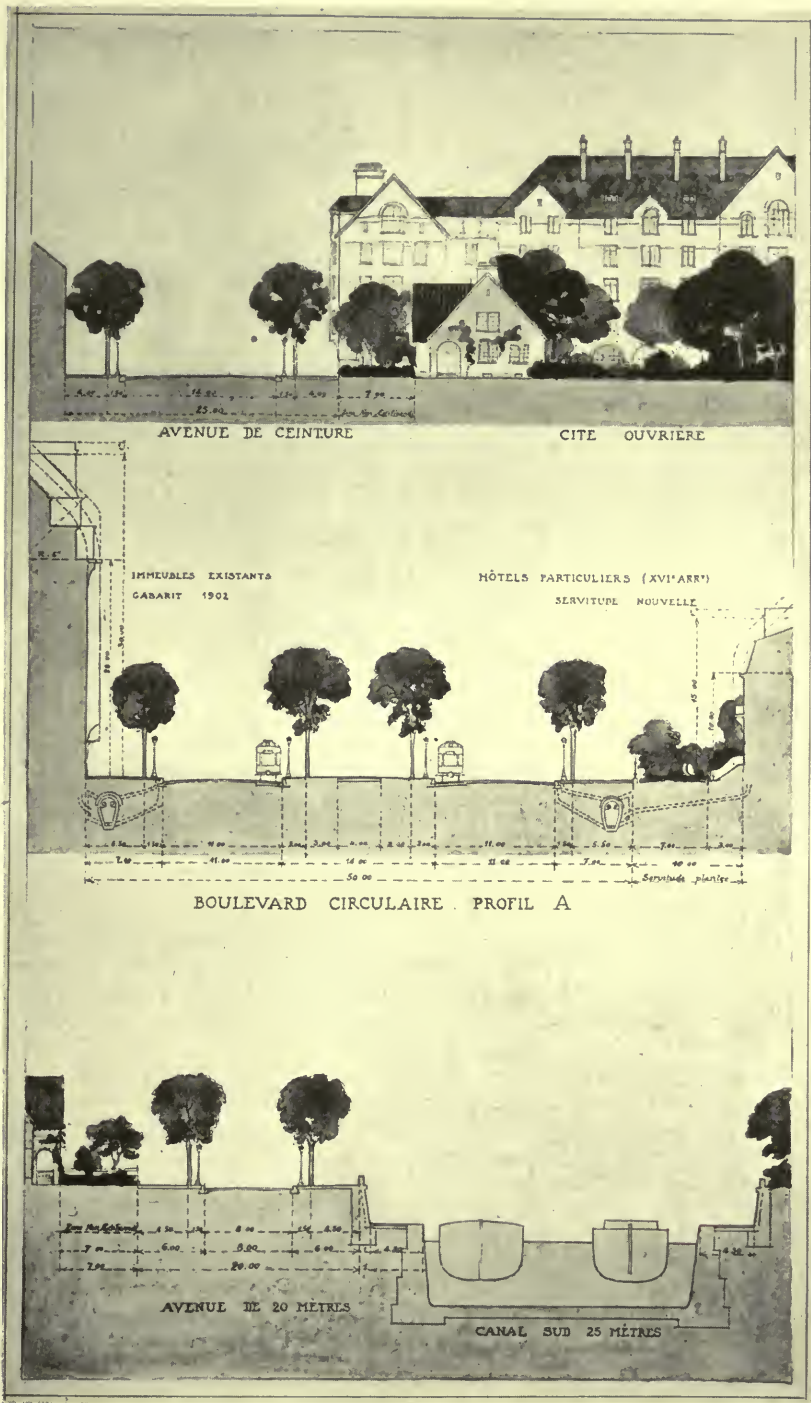
ABOVE: WORKMEN'S HOUSES AND PLAYGROUNDS; BELOW: SOUTH CANAL AND EAST WATER TERMINAL (INDUSTRIAL DISTRICT).



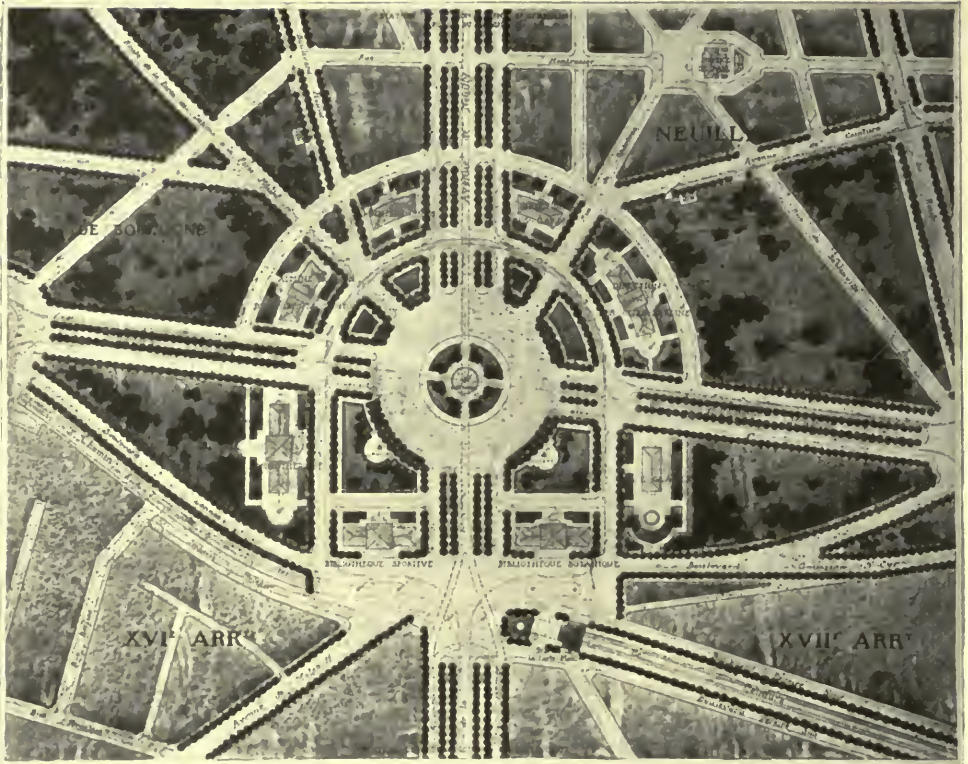
PORTE DE VINCENNES (EASTERN GATE OF PARIS).



TYPICAL HOUSING DEVELOPMENT: TENEMENTS, ON RADIATING THOROUGHFARES ONLY
 HOUSES WITH GARDENS; ATHLETIC CENTER, PLAYGROUNDS, AND
 RECREATION HALL.



TYPICAL BUILDING HEIGHTS—ACCEPTED PLAN FOR IMPROVING OLD FORTIFICATION SITES OF PARIS.
 Jacques Gréber, Architect.



PORTE MAILLOT (WESTERN GATE OF PARIS)—ACCEPTED PLAN FOR IMPROVING OLD FORTIFICATION SITES OF PARIS.

Jacques Gréber, Architect.

a large free space expanding toward the splendid park of Fairmount, around which the Philadelphia architects, Zantzinger, Borie, Trumbauer, P. Cret, Windrim and others are to erect public monuments which will make of this—the Champs Elysées of Philadelphia—a civic centre worthy in every way of the great metropolis of Pennsylvania.

Mr. Gréber found, while studying these two programs, that the two countries could very advantageously supplement the qualities of each; he gave evidence of this by bringing a little of the esthetics of Paris to the city of Philadelphia, and by adopting for the parks of the Parisian belt the great modern principles successfully applied to the improvement of the larger American cities.

In this connection, the project of the successful candidates in the fourth section of the Paris competition is very in-

teresting: a garden city for the Paris suburbs. Whoever knows America and is acquainted with the innumerable fine examples of garden cities recently created by American architects will not fail to see that Messrs. de Rutte, Sirvin, Peyret-Dorthail and Bassompierre-Sevrin have largely gone to American and English plans for their inspiration.

Another undeniable proof of the profitable co-operation which can be established between American and French architects lies in the fact that the Paris Ecole des Beaux-Arts is the alma mater of so many American artists of this generation. This is the reason why there is so much understanding between them and their French colleagues, and this Beaux-Arts teaching applied to programs that differ greatly implies an exchange of information between the two which is sure to have the happiest results.

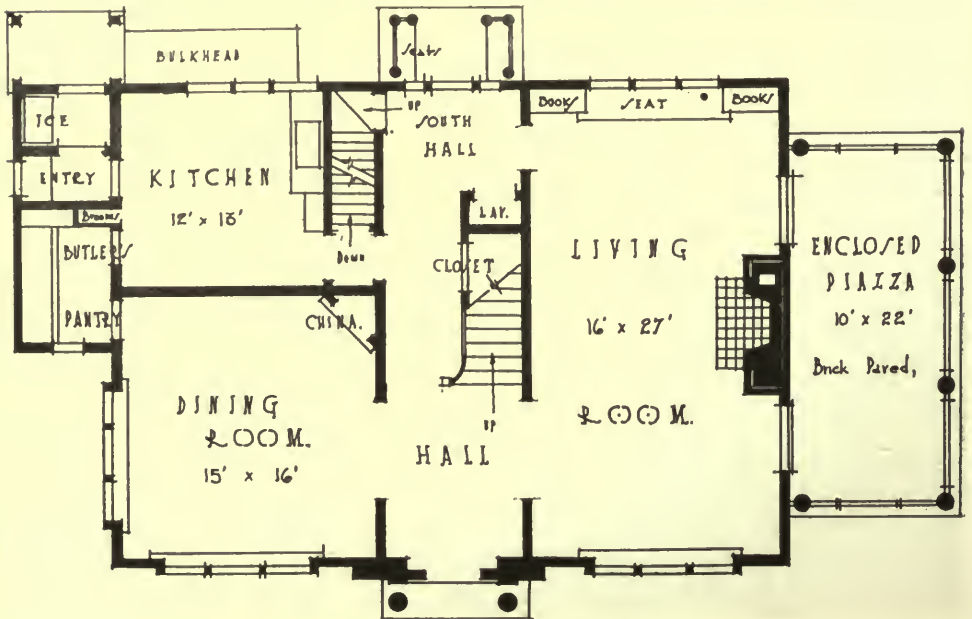
PORTFOLIO
OF
CURRENT
ARCHITECTURE



SOUTH DOOR—RESIDENCE OF HERBERT S. DREW, ESQ., BELMONT, MASS. GRANDGENT & ELWELL, ARCHITECTS.



SOUTH FRONT—RESIDENCE OF HERBERT S. DREW, ESQ., BELMONT, MASS.
Grandgent & Elwell, Architects.



FIRST FLOOR PLAN—
RESIDENCE OF HERBERT S. DREW, ESQ., BELMONT, MASS.
Grandgent & Elwell, Architects.



MANTEL DETAIL—RESIDENCE OF HERBERT S. DREW, ESQ.,
BELMONT, MASS.
Grandgent & Elwell, Architects.



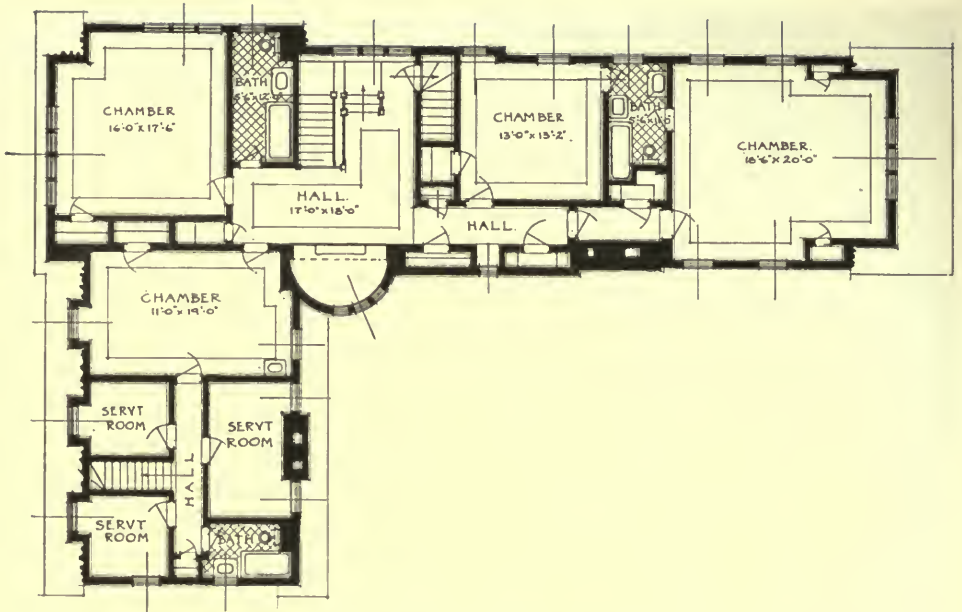
HALL DOORWAY—RESIDENCE OF HERBERT S. DREW, ESQ.,
BELMONT, MASS.
Grandgent & Elwell, Architects.



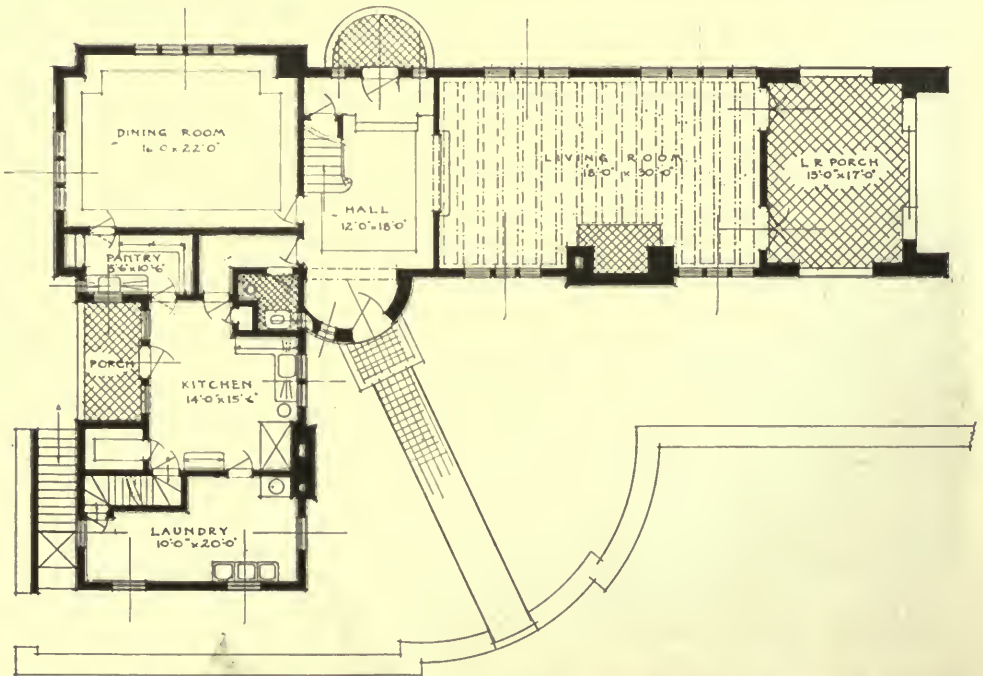
NORTH FRONT—RESIDENCE OF HERBERT S. DREW, ESQ., BELMONT, MASS. GRANDGENT & ELWELL, ARCHITECTS.



NORTH DOOR—RESIDENCE OF HERBERT S. DREW, ESQ., BELMONT, MASS. GRANDGENT & ELWELL, ARCHITECTS.



SECOND FLOOR PLAN—RESIDENCE OF JOHN R. HOYT, ESQ., GREAT NECK, L. I.
Caretto & Forster, Architects.



FIRST FLOOR PLAN—RESIDENCE OF JOHN R. HOYT, ESQ., GREAT NECK, L. I.
Caretto & Forster, Architects.



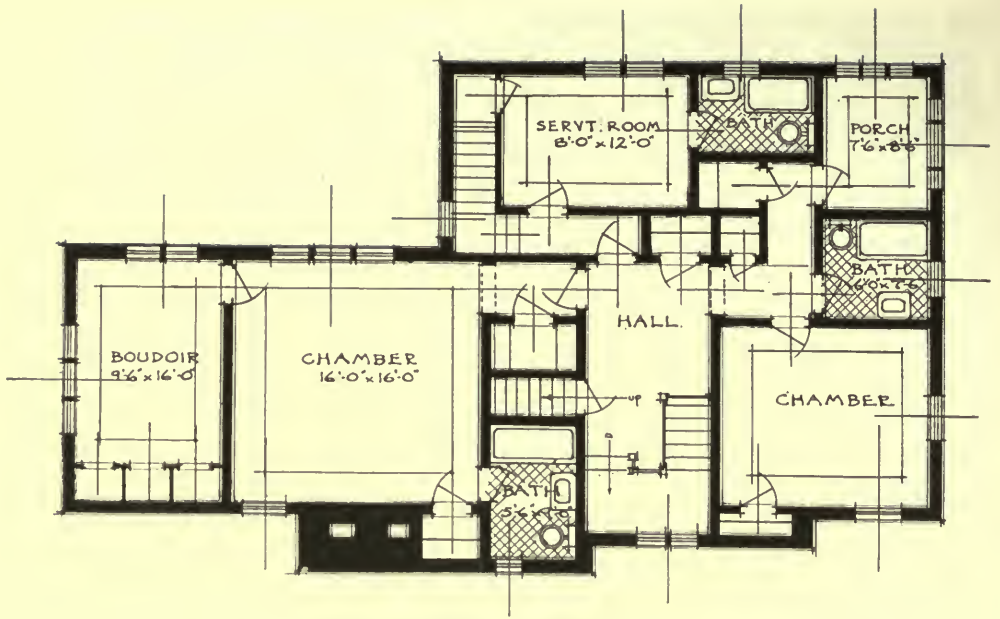
RESIDENCE OF JOHN R. HOYT, ESQ., GREAT
NECK, L. I. CARETTO & FORSTER, ARCHITECTS.



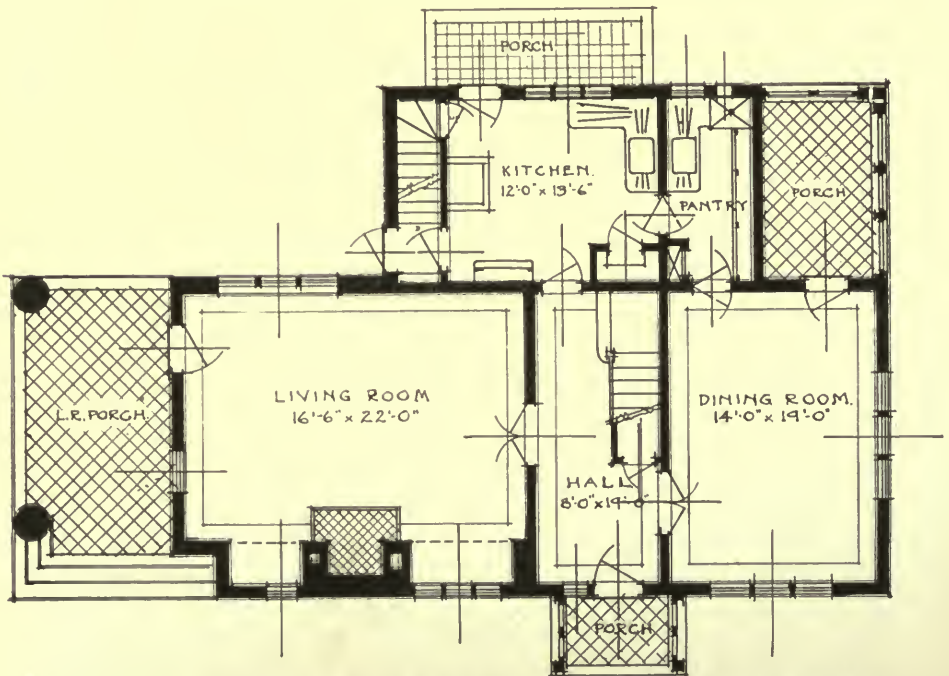
RESIDENCE OF JOHN R. HOYL, ESQ., GREAT
NECK, L. I. CARETTO & FORSTER, ARCHITECTS.



RESIDENCE OF JOHN R. HOYT, ESQ., GREAT
NECK, L. I. CARETTO & FORSTER, ARCHITECTS.



SECOND FLOOR PLAN—RESIDENCE OF MRS. C. O. BARING, HARTSDALE, N. Y.
Caretto & Forster, Architects.



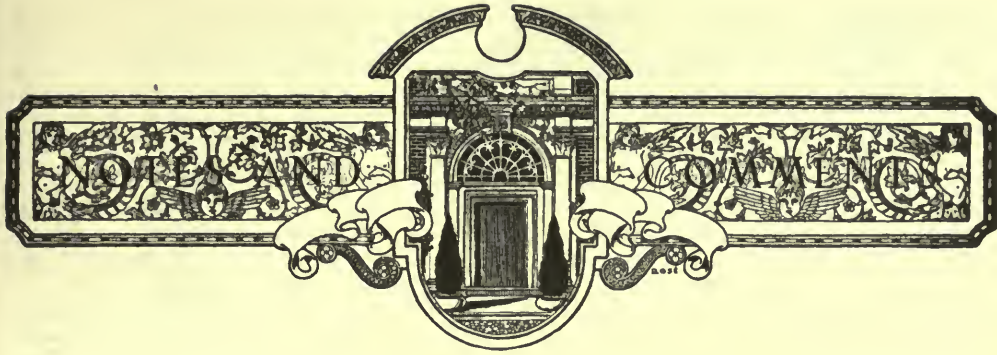
FIRST FLOOR PLAN—RESIDENCE OF MRS. C. O. BARING, HARTSDALE, N. Y.
Caretto & Forster, Architects.



RESIDENCE OF MRS. C. O. BARING, HARTSDALE,
N. Y. CARETTO & FORSTER, ARCHITECTS.



RESIDENCE OF MRS. C. O. BARING, HARTSDALE,
N. Y. CARETTO & FORSTER, ARCHITECTS.



**The Old Stone
Houses of
Esopus.**

The three earliest centers of population in Colonial New York were the Island of Manhattan; the region around Fort Orange or Albany, called Rensselaerwyck; and "The Esopus," half

way between the other two, in what is now Ulster county.

The Indians had preceded the Dutch in picking out fertile lowlands for cultivation. At Esopus, which was their name for "a place of small rivers," they had used the firebrand to clear away the forest and then planted their maize and beans along the valleys of the streams that converged there.

The streams themselves were highways which led into the interior, highways of the fur trade—for the Dutch had established a trading post at Esopus early in the seventeenth century.

About the middle of the century some dis-

satisfied tenants of Rensselaerwyck came down the river to the "Great Soopis," and on the invitation of the Indians they settled among them.

The little colony lived in peace with their "barbarous" neighbors for several years, but the Indians obtained "fire water" from Fort Orange, and then under its influence they finally committed a murder and destroyed property. So the whites, in their defenceless condition, had a panic, and the upshot was that Governor Stuyvesant came up the river to their assistance with a company of soldiers.

The Governor made a careful study of the situation and then proceeded to act. He tells what he did about it in a report to the Dutch West India Company, which has the freshness and human interest of something written yesterday.

After some argument with them he persuaded the colonists to move their scattered habitations to one place, where they could live in safety, protected by a stock-

ade, and the site for this new settlement he selected himself and then carefully planned its arrangement. While his troopers assisted the farmers in felling trees and driving the logs into the ground as staves for the defenses, he himself made a hurried trip up the river to hire carpenters at Fort Orange and buy a few hemlock planks for a guard house. This was in 1658; but there is still earlier evidence of a saw mill at Albany.

The site chosen for this palisaded village, named Wiltwyck, was an elevation with the land falling away sharply on three sides—the north, east and west. No buildings were allowed close to the stockade, hence four



KINGSTON, PRE-REVOLUTIONARY HOUSE ON PEARL STREET, WITH OLD SKYLIGHT.



THE OLD KINGSTON COFFEE HOUSE: A UNIQUE DOORHEAD.

streets followed the line of it just inside. Here was an instance of successful town planning in the seventeenth century—for the modern city of Kingston has indeed outgrown its ancient boundaries, but only on one side by spreading out toward the Hudson. Green street and North and East Front streets still contain the business center, yet they are practically on the outskirts.

The first few years of Wiltwyck's existence were eventful ones, because of a war with the Indians; and there was proof that these upriver troubles were fomented by the English, who wanted for their own purposes to keep the Dutch troops occupied as far away from Manhattan as possible. In 1664 the colony changed from Dutch to English rule, and the King of England carelessly turned the prize over as a gift to his ill-starred brother, who was Duke of York and Albany and Earl of Ulster.

The Wiltwyck of the seventeenth century, afterwards Kingston, was a town of thatched roofs, although tile might have taken its place on the more pretentious buildings. Yet, although thatch was in general use, it does not appear that the buildings erected were otherwise very primitive in their character.

In the Wiltwyck municipal budget for 1662, brick, tile, slate and wainscoting are mentioned among the articles in the bill of expenses for building the dominie's house. As boards were mentioned, too, the brick might have been used only for

chimney caps and oven lining; but in the court records of the year following there is mention of a debt for 2,000 brick. In the same year the defendant in a suit for wages by a mason claims that the latter "has still to plaster the walls."

One might have seen in Kingston the same quaint, chequered brick houses that were a common sight in old New York and Albany; but all the buildings of great antiquity that remain in the Esopus country are of stone, unless, perhaps there are some of wood.

Limestone was so abundant in this locality that probably the only expense of obtaining it was the carting. Hence, the houses were built to last through the ages—the old, stone houses of Esopus; but, as an old resident of Kingston said, "they are being torn down all the time, and business 'necessity' has worked more havoc than the British troops."

The last tragic event in Kingston's history was its burning by the British in 1777, shortly after the new republican state government had been organized there by a gathering of patriots. This happened four days after the defeat of Burgoyne at Saratoga, so the incendiaries had to flee as soon as their vindictive work was accomplished.

Everything was set fire to, but, of course, as the buildings were of stone, their walls were not destroyed, and most of them were afterwards rebuilt.



KINGSTON, NORTH END OF SENATE HOUSE, BUILT IN 1776.

Here the Upper Branch of the State Legislature was organized and held its meetings for a month.



REAR VIEW OF HOUSE ON HIGHWAY NEAR MARBLETOWN, WITH EARLY DORMER. LIKE OTHER LONG HOUSES, USUALLY HAVING THREE CHIMNEYS, ITS KITCHEN DOOR IS ON THE FRONT.

In spite of everything a number still remain, and it is almost surprising that, being of such simple design, they should have, apart from their historic value, so much character and interest.

The limestone used in their construction varies considerably in color. It is a blending of grays, in which a yellowish tone usually predominates, although "blue" limestone was used.

Speaking of the masonry, the frequent use of whitewash upon it (whitewash which is sometimes "colorwash," because ochre or other pigments have been added) may impress one as an unprincipled attempt to conceal the character of an object; but the effect is often good, and it has the sanction of tradition. Might not it have been applied for some practical purpose? I discovered that it was.

A country mason told me that the white-wash used for stone was of a different kind from the white-wash used for wood, for it had cement added; and the owner of an old house told me that it would last forever if the stonework were only kept pointed up. It was easy to see, as the stones of a wall were often rough and irregular and of many shapes and sizes, it was "a quicker and neater job" to splash the old-fashioned white lime mortar all over it. But the effect was even better when it was only loaded on in the hollows, and this was often done in old Ulster.

Besides the Dutch, large settlements were made by the Germans in the north of Ulster county during the reign of Queen Anne; and in the southern part a little later a number of English from Long Island came in and took ground along the Hudson. In the earliest-settled Esopus region, which included the Rondout and Walkill valleys, the Dutch predominated, with the French Huguenots coming next numerically, just as they did at Manhattan, but, oddly enough, what has come to be regarded as the Dutch Colonial type is hard to find in the Esopus region. The curved roof lines given by the overhang and the distinctive "Dutch" gambrel are lacking.



NEW PALTZ, OLD HOUSE ON MAIN STREET. THE OLDEST PART, ON THE LEFT, HAS AN EXTERIOR OVEN AND SLIDING WINDOWS.



KINGSTON, OLD HOUSE ON CROWN STREET. THE DORMERS AND DOORWAY ARE PROBABLY OF LATER DATE THAN THE HOUSE.

I saw but three gambrel roofs in Kingston and the Rondout valley. There may have been others, but those that I saw were on two-story structures, and only one of them could be called the Dutch type.

Nothing is really lacking, however, in the Esopus style of farmhouse, for it is quite distinctive, and there is a subtle curve in a roof that has stood two hundred years or so, for the ridge itself sags in the middle.

A rectangular structure of rough stonework, with the triangle at the gable end filled into save time and labor, with overlapping boards and sometimes a lean-to of the wide clapboards added, is, in itself, something that adds to the landscape; but the details are harmonious too. Everything was planned for comfort and use, yet it succeeds in being decorative.

The attempts to solve the problem of lighting the second story, which was nearly always in the roof, show the usual ingenuity of those early Dutch builders. A secondary gable in the middle in front was not uncommon; then there were sloping dormers, and gabled dormers as well. Some of the latter were large enough for two windows apiece. Windows, casement windows which opened on hinges, were popular in this region, and sometimes the hinges were at the top of the sash. There were also "sliding windows" which caught my attention in two places; they were square, small paned sashes, placed in line horizontally and were set in grooves, so that one could slide back upon

the other. Their low, broad effect, when used in the second story, as in an old frame structure in Stone Ridge, was remarkably quaint.

Still another experiment was that of laying an ordinary window, or what looked like one, on the slope of the roof to do duty as a skylight; and if a skylight could be made stormproof its advantages over a dormer are obvious. I saw several very old houses that had these skylights.

As for the doors, they are, or were, always horizontally divided, and had a combination door pull and knocker that was either imported from Holland or a good home imitation. The door hoods of Kingston are worthy of notice. The earliest hood was merely a continuation of the roof, like that on the Suydam house (250 years old) on "the good Esopus road" leading out of Kingston. The quaintest and best design is to be found on two buildings noted in Revolutionary days: the Kingston Coffee House and the Conrad Elmendorf Tavern. They have a Gothic look, these two; and their carving is evidently not the product of the jigsaw. Still, they might be relatively late work. The elaborate cornice on the Ulster county court-house, built in 1818, and one of the most important buildings, historically, in the state, was all carved by hand.

There is beautiful early-nineteenth century work in Kingston in striking contrast with the wilderness of frame architecture of later times; and instead of being



A WELL-PRESERVED OLD DUTCH BARN.

painted in the conventional white with green blinds, it is usually done in colors, which enables it to tone in with the older stone houses, whose historic interest is greater. Drab, with old ivory trim, is effective, and so is pearl color and gray.

The classic style continued in use in Ulster county until the middle of the last century—there are date stones to prove this—and perhaps the indifference to changing fashions, which this fact reveals, explains why Ulster county has so much tangible historic interest, something more than sites that have been marked with tablets.

In the Walkill valley, south of Kingston, is a very old French settlement, whose founders emigrated from Hurley, the second settlement in Ulster county, after Hurley was burned to the ground by the Indians in 1663.

New Paltz has a location of great scenic beauty, near Lake Mohonk; and down near the riverside, on Huguenot street, is a group of stone houses which were built early in the eighteenth century. There were originally about thirty of them, but now only five or six remain. One is a museum and contains many interesting relics.

All through this region, especially along the streams, or kills as they are called, are to be found quaint stone houses and occasional huge looking, wide-gabled, low-eaved barns, all of more or less real antiquity and worthy of their setting—the picturesque Shawangunks and foothills of the Catskills.

HELEN M. HASTINGS.

An interesting development of the times are the bureaus of architecture which church and civic and other national associations are establishing. The work of the architectural organizations of the Red Cross and kindred war activities is well known, and in the Record for March, April and May, 1919, will be found accounts of the admirable service of the Y. M. C. A. The latest addition to the series is the Bureau of Architecture of the Methodist Episcopal Church. This is, quoting the statement of the bureau, "under the joint control of the Board of Home Missions and Church Extension and the Board of Sunday Schools. It maintains a competent staff of technical men in Chicago and Philadelphia."

The bureau is to be commended for its statement of policy. It takes a most correct professional point of view of its relations to the local architect who is likely to be appointed for a particular church design. It leaves actual design and supervision of construction to him, aiming to aid and supplement him, not to supplant him. Its function is thus mainly advisory, and it aims to be a clearing house for information. It will undertake much needed research and study of the types and ideas of planning that express best the complex organism of the modern parish. Today most churches carry on a highly developed system of community activities—education, recreation, entertainment, cultural business—requiring a highly developed and efficient system of group planning. The bureau publishes the results of its studies in a series of monographs, the first one of which is in circulation. It is an excellent piece of make-up, well written and attractively illustrated. It deals with the general organization and administration of the local church of today, as expressed in an architectural plan.

The bureau further deserves great credit for emphasizing the artistic side of church design, even to furnishings and planting. This would seem to be a far-sighted step, except that here one doubt arises. That is, has the bureau been the least bit hasty in formally adopting Gothic as the "style" for the Methodist Episcopal Church? No doubt the bureau has pondered its decision well; but, if it has, it would do well to state the reasons for making this decision on a matter in which there is great disagreement among architects. There is an opinion which runs counter to the decision of the bureau. Gothic is a style to the superiority of which all bear testimony, but many of those who appreciate it most doubt whether it can be successfully cultivated here in the United States. Its mystic, subtle, mediæval spirit is almost impossible for the modern American personality; and, as a practical matter, its forms and details have almost no basis of reality in America. It is becoming clearer that architectural design is not an abstract, arbitrary invention on paper and out of books, but a more realistic process of founding motives and details of form upon fine models of buildings existing in the neighborhood. America has plenty of highly perfected models of her own tradition to serve the designer, furnishing ideal inspiration for the design of rural and small

neighborhood churches, and much more expressive, one would think, of the Methodist Church than Gothic could be. One recalls King's Chapel, Boston; St. Paul's, New York; the Baltimore Cathedral, and Bruton Parish Church, Virginia.

It is true, of course, that there are countless churches in America said to be "Gothic"; but all, except a few, are examples to be avoided rather than followed. The few are the work of a very small band of architects, notably Messrs. Cram, Goodhue, Day, Klauder, Newton, and Warren. Most of these men have been brought up in a carefully built-up Gothic atmosphere, much as children of wealthy people are brought up in French or English ways. Mr. Cram's own work proves this. He has borne testimony to the remarkable teaching of the late Professor Warren in Gothic forms, and it is fair to say that Professor Warren's students have done much to give Mr. Cram's work that ripeness and true-ness of form and detail which is evident in the graduate school of Princeton.

I cannot follow this argument further but am reminded of the reply that Professor Warren gave me when I asked him in conversation what he thought of the design of the College of the City of New York, then just completed. "It looks like the work of extremely capable men speak-

ing in a language they were not familiar with," he said.

Thus, although several unusual men have at last succeeded in reproducing something of the spirit of Gothic in twentieth century America, all the countless rest have failed. Gothic is the most signal failure of all the American examples of foreign styles. The success of a few with it rests on the creation of an artificial atmosphere which is completely beyond the power of the average architect to supply. It would seem therefore as if the Bureau of Architecture of the Methodist Episcopal Church had two immense doubts in its plans for the future. The first is, what practical methods will it adopt to introduce the training and methods and spirit of men like Cram and Warren and Goodhue and Klauder at short notice into hundreds of architects' offices all over the country? This is the only way to success in the Gothic style, for which success the bureau is in a measure responsible when it formally urges the style upon its church. The second doubt is, may not the swiftly increasing strength of our own American style make, after twenty-five years more of progress, other styles seem strangely out of place in American neighborhoods?

JOHN TAYLOR BOYD, JR.