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THE ARCHITECTURAL RECORD

AN ILLUSTRATED MONTHLY MAGAZINE OF ARCHITECTURE
AND THE ALLIED ARTS AND CRAFTS.

INDEX TO VOLUME XL

JULY—DECEMBER

1916

PUBLISHED BY

THE ARCHITECTURAL RECORD CO.

115-119 WEST 40TH ST., NEW YORK CITY

841 MONADNOCK BUILDING, CHICAGO

BESSEMER BUILDING, PITTSBURGH

1211 ARCH ST., PHILADELPHIA

114 FEDERAL ST., BOSTON

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The
**ARCHITECTURAL
RECORD**
JULY 1916



PUBLISHED IN NEW YORK
35 CENTS A COPY. 3 DOLLARS A YEAR

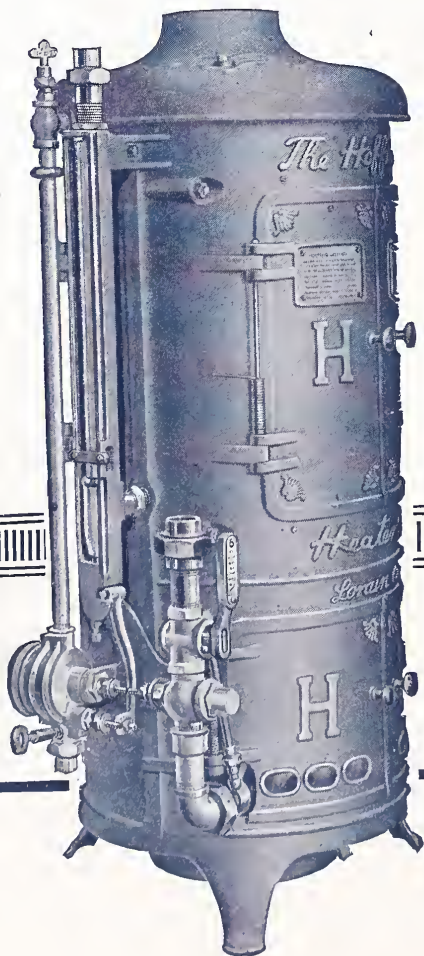
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Contributing Editor: HERBERT CROLY

Advertising Manager: AUSTIN L. BLACK

Yearly Subscription—United States \$3.00
—Foreign \$4.00—Single Copies 35 centsEntered May 22, 1902, as Second
Class Matter, at New York, N. Y.Copyright 1916 by The Architectural
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PUBLISHED MONTHLY BY

THE ARCHITECTURAL RECORD COMPANY

115-119 WEST FORTIETH STREET, NEW YORK

F. T. MILLER, Pres.

W. D. HADSELL, Vice-Pres.

J. W. FRANK, Sec'y-Treas.

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THE ARCHITECTURAL RECORD

VOLUME XL



NUMBER I

JULY, 1916

TWENTY-FIVE YEARS OF AMERICAN ARCHITECTURE



By A. D. F. Hamlin

FIFTY years ago the close of our Civil War was but one year in the past. If we divide the half century since then in two, the year 1891 may be fitly taken as marking the close of the early renaissance of American architecture and the beginning of a new period of activity and progress. If this period has been less remarkable than that which preceded, in the contrast between its earlier and later years, it has certainly been extraordinary in the extent and quality of the works it has seen rising from their foundations. Only when we consider concretely what was in existence in 1891 and compare it with what is in existence today, do we begin to grasp the extent and significance of this marvelous activity.

The first ten years of the half-century saw little or no emergence from the abysmal depths to which our architecture

had sunk in the Civil War period. It was in 1876 that the awakening began. Trinity Church in Boston, the Philadelphia Centennial, the rise of H. H. Richardson, the maturing of the work of architects like R. M. Hunt, George B. Post, McKim, Mead and White, Peabody and Stearns, Ware, Van Brunt and Howe, Burnham and Root and others; the entrance on the stage of architectural practice of scores of trained young men newly from Paris; the establishment of the Columbia and other schools of architecture, the opening of new art museums and schools and the expansion of old ones, all these imparted to the architecture of 1876-1891 an exhilaration, an enthusiasm as of a host winning new conquests, which the older men of the profession can recall, but of which the younger men can have little conception. That period was marked by the imma-

turity, the enthusiastic confidence of youth, less conscious of its deficiencies than of its opportunities.

The profession has in these last twenty-five years grown more mature, and also more sophisticated, more self-conscious. There are a hundred capable architects now where there were ten in 1891—and the ranks are beginning to be overcrowded. The actual achievement has been vastly greater than in the preceding quarter-century; its average performance is vastly superior, its greater masterpieces undoubtedly surpass those of that earlier time; the general public taste has notably risen to a higher level. But the earlier enthusiasm has largely evaporated. The requirements laid upon the architect have enormously increased the complexity of his task, and the struggle of competition has become intense beyond the limits of a generous and enthusiastic emulation. The commercializing of large building operations has raised new and often embarrassing problems of professional ethics and practice.

Moreover, the most pressing needs of the nation have been measurably supplied. In the earlier period, the extraordinary awakening of the country to its artistic destitution gave occasion for an equally extraordinary demand for new and better buildings for existing needs. A relatively small body of trained architects had all they could do to supply at the same time this new provision for existing needs, and also that for the constantly increasing new needs of growing communities and freshly-created institutions. The country was prosperous. The "New West" and "New South" were rapidly developing, and in spite of the activities of the Knights of Labor, building operations were not greatly disturbed.

All these conditions have changed in the last quarter-century. The "panics" of 1893 and 1907 sadly checked the tide of architectural activity. Strikes and lockouts on a colossal scale, and during the last two sad years the frightful war in Europe, have again and again thrown the financial and the architectural world into confusion. The tremendous tide of western development reached its flood years ago, and if it has not begun to ebb,

it is at least quiescent. The country has been fairly well supplied with buildings; overbuilding is complained of in some of the great centers. The relatively diminished demand for new buildings falls upon a greatly increased army of capable architects, among whom the prizes are very unequally distributed. It is much harder now than in 1891 for a young architect to start in independent practice, and his chances of securing important commissions are relatively smaller. There are more big firms to absorb these than there were then, and more young architects like himself to compete for what does not go to their big rivals. Undoubtedly the prospects are less certain, less alluring than they used to be.

On the other hand, the American architect of the last twenty-five years has enjoyed, and enjoys today in increasing measure, a host of advantages denied to the men of earlier days. The facilities for study, the educational resources, have been immensely increased. The volume of architectural literature available in libraries has grown tenfold. The Society of Beaux-Arts Architects has provided every section of the country with *ateliers* and stimulating opportunities for self-improvement in design and draftsmanship. A remarkable advance in the public taste and in standards of performance has made possible a quality of work which was out of the question twenty-five years ago except in a very few centers, and only in exceptional cases in these. The architect of today has at his disposal materials and resources both for construction and decoration, which have been created within the quarter-century. Competitions have been systematized under regulations which have greatly reduced the scandalous practices that used to be rife. The whole profession of architecture has been raised to a higher level in the public esteem as well as in the tone and standards of its own practice. The American Institute and other organized bodies of architects have developed, throughout the country, an *esprit du corps*, a solidarity, a community of interest, which have more than kept pace with the increasing intensity of competition.

II.

The most noticeable features of our architectural progress during the last twenty-five years have been the development of steel skeleton construction and the influence of several great exhibitions, especially of that at Chicago in 1893. The steel skeleton was born and first developed in Chicago. This statement is made despite the fact that in 1888 the late L. A. Buffington of Minneapolis patented a system of metallic skeleton construction which embodied many features of the present system. But most of these features were not new; each had been used in varying forms in earlier buildings, and the Buffington column was an unscientific laminated affair of flat plates, wastefully and inefficiently combined. Mr. Buffington failed to induce reputable lawyers to prosecute his suits for infringement against Chicago and New York architects. Whatever may have been the merit of his claims of priority in the conception of the steel skeleton, it was the Chicago architects Jenney and Mundie who first gave the conception practical form and carried it into successful execution: to them belongs the credit for its design in its essential features. Thus it is from the metropolis of the Middle West that the two most potent forces emanated that have transformed modern American architecture.

The steel skeleton was really born in 1889; but the year 1891 saw it accepted as more than a mere experiment, and we may say that from that year dates its definitive adoption in American architecture. It is fair to consider it as the fourth of the great structural advances which have given architecture really new resources. The Roman vault for the first time made vastness of unencumbered space attainable. The Gothic ribbed vault and flying arch and buttress created the masonry skeleton and made possible the majestic loftiness and airy lightness of the medieval cathedral: another new architecture was created. The metallic truss, developed towards the middle of the last century, permitted a wholly new spaciousness and lightness of construction: our vast exhibition halls,

train-houses and armories would have been impossible without it; again a new architecture came into existence, hardly recognized as a new architecture. The steel skeleton, the last of the four developments, has brought into being a new loftiness and lightness of construction; it has freed architecture from the limitations of massive walls which had for ages kept it from soaring otherwise than in the frail and beautiful but practically useless form of the spire. We have not yet solved the problem of the ideal artistic treatment of the sky-scraper, but we have gone a long way towards it; and meanwhile our architecture has been endowed with wholly new resources and possibilities.

If the influence of the Columbian Exhibition was less revolutionary than that of the invention of the steel skeleton, it was nevertheless very far-reaching. The ten architects who collaborated in that remarkable enterprise, in agreeing to adopt a uniform cornice line and a general neo-classic or Renaissance style for the exteriors of the chief buildings, signed the death-warrant of the still lingering Richardsonian Romanesque. The "White City" was scoffed at by many of our French visitors as nothing but "Ecole" *projet* architecture. In Europe the movement of protest against the academic and traditional had begun; the visitors were surprised and disappointed to find us still in the fetters of the bondage they were trying to throw off. They failed to appreciate the fact that we had never yet been under this bondage; that this was the first time in our history, at least since Thomas Jefferson's modest experiment at Charlottesville, that our architects had had an opportunity to design, or our people to see, a monumental group of buildings planned as an *ensemble*; the first time that they had seen such buildings set in an environment of gardens and architectural and sculptural adjuncts designed to enhance the total effect. The impression it produced was extraordinary. The grandeur of scale and the intrinsic beauty of the Fair alike elicited universal enthusiasm. There were some, it is true, who deplored the whole scheme and character of the

display, as false in principle, un-American, meretricious, and they regretted the imposition upon our people of French ideas and of a "façade architecture" of Renaissance forms as a substitute for thoughtful, original design proceeding logically from American requirements to solutions specially fitted to them. The late Montgomery Schuyler expressed this regret forcefully in his article on "United States, Architecture of" in the Sturgis *Dictionary of Architecture*. We of today feel that, whatever the justice of this criticism, there was a counter-veiling benefit in the impression made by the White City that outweighed its drawbacks. It was an object lesson in the possibilities of group-planning, of monumental scale, of public decorative splendor and harmony, and of worthy landscape setting, that was of incalculable value. The detail was neo-classic, and much of it was, as we now recognize, deplorably poor; but the harmony, the general picturesque effect, the union of all the arts in producing it, were merits quite independent of the styles used. Moreover, not all the buildings were in neo-classic styles. Adler and Sullivan's Transportation Building and Beaman's Fisheries Building, though in totally diverse styles, somehow fell into place in the general harmony, while uttering their declarations of independence of formal compulsion.

Other exhibitions since—at Omaha, Buffalo, Jamestown, St. Louis, San Francisco, San Diego—have followed the general methods of the Chicago Fair, two of them on a vaster scale, the later ones revealing more knowledge, more skill, greater resource, greater freedom and richness of treatment than their prototype. But none has exerted so potent an influence upon the national architecture, for each has had behind it a better-trained, a more knowing public taste; it has lacked the sensational effect of a new discovery, of an utterly novel achievement.

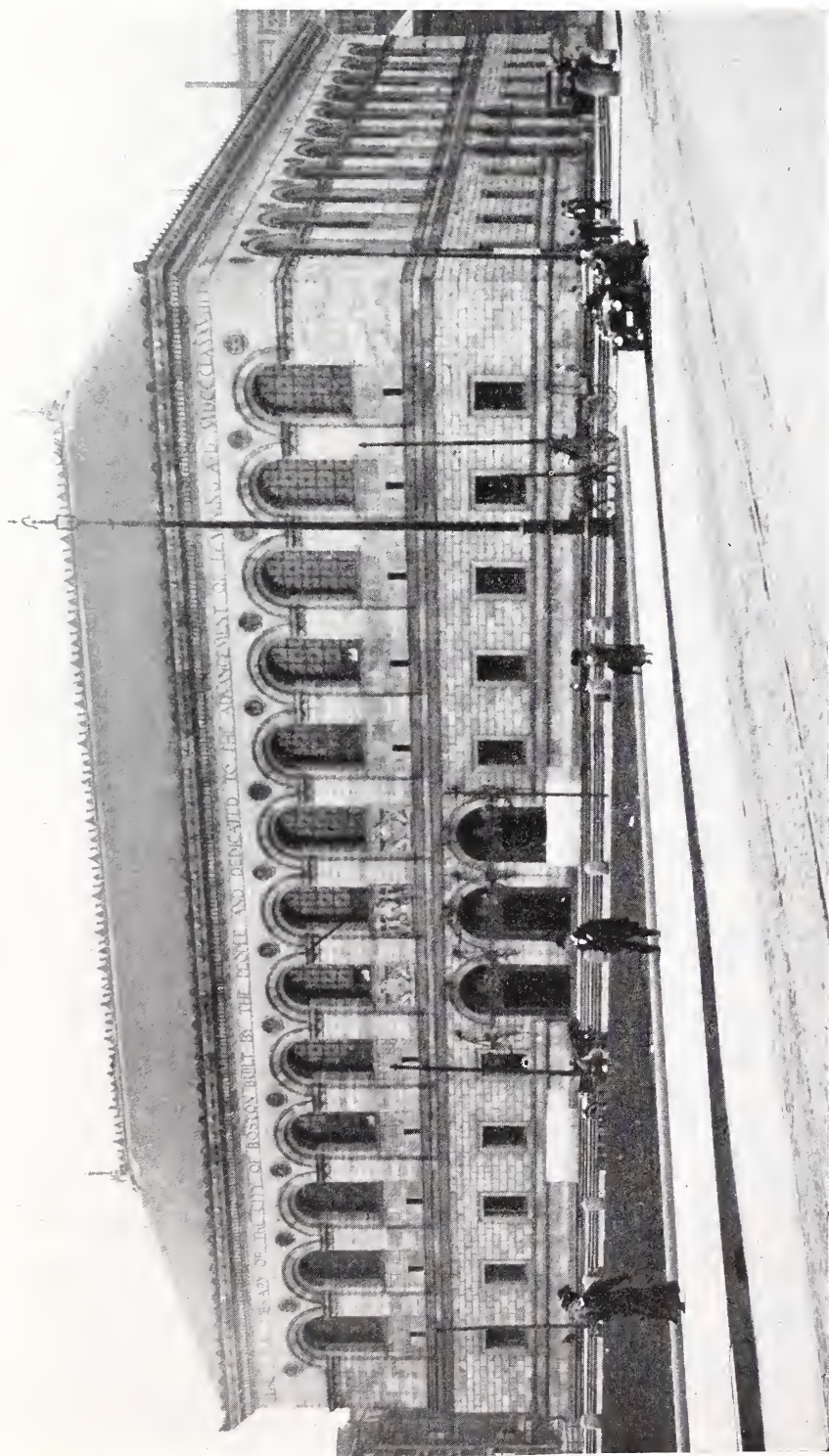
III.

Next in importance to these two epochal events in our architectural history we must certainly count the educational activities of the past twenty-five years.

The growing influence of the French school, which had contributed powerfully to the architectural awakening of the eighties, reached its highest mark during the last decade of the last century. The number of Americans in the *Ecole* at Paris rapidly increased, and the leading offices depended upon their return for the recruiting of their draftsmen. With each year some among the older Paris-trained draftsmen emerged from these offices to practice independently. In 1894 the Society of Beaux-Arts Architects began its remarkable campaign of education by the establishment of "ateliers" and "concours" of "projets," which have since been extended into all parts of the United States. Their success has been prodigious; and despite their tendency to dwell unduly upon clever draftsmanship and "paper architecture," they have done a great service in training competent draftsmen, in instilling sound ideas of planning, and in fostering the artistic spirit. The general quality of American design and of American draftsmanship has certainly been greatly raised.*

But the credit for improved design and draftsmanship does not by any means all belong to the labors of the Beaux-Arts Society. Since 1891 important architectural schools have been founded or developed in the Universities of Harvard, Pennsylvania, Syracuse, Tulane, George Washington at Washington, Washington at St. Louis, Michigan, and Minnesota; in the Carnegie Technical Schools at Pittsburgh, the Armour Institute at Chicago, Rose Polytechnic at Terre Haute, Ohio State University, Alabama Technical Institute and many others; while the older schools have been greatly strengthened and developed. Many traveling fellowships have been founded, and the American Academy at Rome has been built up into a strong institution. Countless night classes and "extension" classes have been established, and Princeton and Yale have built up departments of architecture which are excellent feeders for the more advanced professional courses in other universities. The influence of all these schools, conservative and aca-

*See discussion of the "Influence of the Ecole des Beaux-Arts," in the *Architectural Record* for April, 1908.



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demic in the main, but by no means narrow or superficial, has served to raise the standards of our architecture, and to bring it more and more into its proper place as a learned profession as well as an art; a profession in which science and general culture unite with imagination and trained taste to make it a worthy pursuit for men and women of high aspiration.

In this general raising of standards, the American Institute of Architects has played an important part. Through its conventions, the meetings of its chapters, its official representations and memorials to Congress and to other authorities on matters relating to public architecture, and its consistent efforts to improve the conduct of competitions and to systematize professional ethics and practice, it has rendered great services to American architecture. These activities have been prosecuted in no spirit of exclusiveness or trades-unionism, and the profession at large, both in and outside of the Institute, has profited by them.

IV.

It is not easy to characterize in any brief statement the architecture of the past twenty-five years. That it is extraordinarily varied, in subject, material and style, goes without saying. That it has made remarkable structural advances is evident to anyone who takes the trouble to examine many buildings erected before 1891. Taken as a whole, it is certainly more knowing, more competent than that of the preceding period, better in all four matters of planning, construction, composition and decorative detail. It could hardly be otherwise, given the vast increase in the number of architects and draftsmen trained in excellent schools in this country and abroad; and given, at the same time, the amazing increase in wealth, in general education, in resources of all kinds, of the nation at large during the same period.

Perhaps there is no better way of presenting the progress we have made than to call to mind what were some of the most noted buildings erected in the preceding quarter-century; and then to list a few of those of the later period. It is

most instructive to read the late Montgomery Schuyler's *American Architecture*, published in 1892. The notable buildings described in this book were various works of Mr. Richardson, the three Vanderbilt houses in New York, insurance buildings in Minneapolis and St. Paul, a number of Romanesque houses in those cities and in Chicago: not much else. Mr. Richardson's death in 1886 was not yet so far in the past that his influence had wholly lost its power; but Mr. Schuyler notes how personal to him were the excellences of his work, and deploras the weakness and ineptness of most of his imitators, who copied his mannerisms without his largeness of conception, good taste and imagination. The tall buildings of that time were eight or ten stories high; collectively they were referred to as "elevator architecture"; the steel-frame building had appeared it is true, but it had as yet made no impression when Mr. Schuyler wrote his book—at least upon him. If one had been asked to name the finest of recent buildings in America at that time he might have enumerated Trinity Church and the near-by terra-cotta Fine Arts Museum at Boston (now demolished); the County Court House at Pittsburgh, the Albany City Hall, some of Richardson's libraries and his Harvard Law School, the Harvard Memorial Hall, the Connecticut Capitol at Hartford, the Chicago Auditorium, St. Patrick's Cathedral, the Madison Square Garden, the three Vanderbilt houses, the "Villard houses" and the Mills Building at New York, Link's St. Louis railway terminal, and the Ponce de Leon at St. Augustine. Not another church, railway terminal, or library (except Hunt's Lenox Library at New York), not a museum or theatre or town hall could be named of any importance, that rose above absolute mediocrity; while in general our civic, Federal and ecclesiastical architecture was beneath contempt, and our railway stations were a disgrace. A sarcastic survey of American architecture in the London *Saturday Review* of that period excited considerable indignation; reading it to-day we cannot help recognizing in it a large element of just



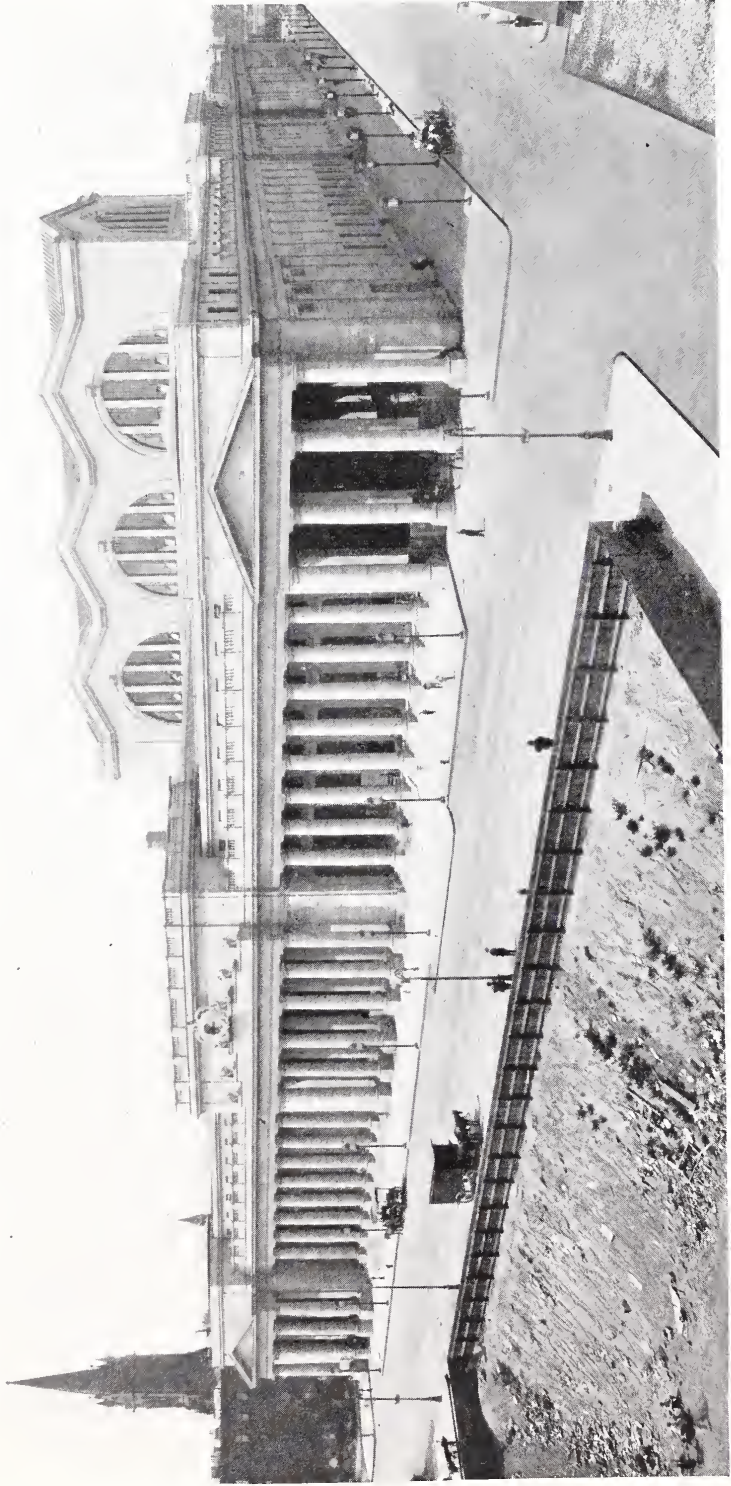
THE MASONIC TEMPLE, CHICAGO.
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criticism, though expressed with that airy superiority which Lowell so deftly satirized in his famous essay on "A Certain Condescension in Foreigners."

In Mr. Birkmire's *Skeleton Construction in Buildings*, published in 1892 or '93 (Second Edition, 1894), the early triumphs of the new system are recorded: the W. C. T. U. Building, the Owings Building, the Masonic Temple, the Schiller Building and the Auditorium, in Chicago; the Havemeyer, Home Life, Jackson and World buildings and the New Netherlands and Waldorf hotels in New York. Bruce Price's scheme for a 34-story tower for the New York *Sun* had appeared and been laughed at; twenty years later the 46-story Metropolitan tower embodied his idea on a still loftier scale. In 1892 in New York the talk was of the new Madison Square Garden, "the most beautiful building in America"; of the World building, the loftiest of inhabited edifices; a little later, of the Park Row building, over 300 feet high; of the competition for the proposed Episcopal cathedral, of Grant's Tomb on the Riverside Drive. Boston had just begun the erection of her new Public Library, and Washington that of the Congressional Library, two edifices destined to exert a powerful influence on our public architecture in the direction of interior decorative painting of the highest character. Philadelphia had but just begun to feel the stirrings of a new architectural impulse, led by a group of young architects who are now the veterans of the profession in that city, with a long list of excellent buildings to their credit. The Pacific Coast had not yet begun the development of that interesting domestic architecture which distinguishes it today. The Ponce de Leon and Alcazar at St. Augustine had but recently made the reputation of their young architects—Carrère and Hastings; there was at that time hardly another recent building of artistic importance in the South. Turn the pages of the RECORD in its first year; look through the columns of the *American Architect* and *Architecture and Building* for 1891-2-3, and you will realize how meagre, in those days, was the list of American buildings

of really successful design, or of any lasting importance. Taken as a whole, our domestic architecture was the best product of our offices—but how inferior even the best of that to the best that is being built in the same class today! And how much more numerous were the freaks—the conspicuous failures and blunders; *vide* the quarterly *Architectural Aberrations* published in the RECORD, if you doubt it!

A full or even a fairly representative list of the great and worthy works of our architects of the past twenty-five years would be too long for the limits of this article. But a few may be mentioned by way of example. There have been seven important exhibitions of national or international scope since the Columbian at Chicago in 1893; the "Cotton States" Exhibition at New Orleans; the "Trans-Mississippi" at Omaha in 1898; the "Pan-American" at Buffalo in 1901; the "Louisiana Purchase" at St. Louis in 1904; the Jamestown in 1906; and the two in California, at San Francisco and San Diego, in 1915. Each of these, with the possible exception of those at New Orleans and Jamestown, was of first-rate architectural importance. They were all scenic displays of "staff" architecture, decorations rather than durable buildings, but they all stimulated the imagination and developed the decorative resource of our architects, and for the first time in our history exerted a reflex influence on European exhibition architecture. The Boston Public Library was completed in 1895; the Congressional at Washington in 1897; the Public Library of New York in 1912. With the accession of Wm. Martin Aiken to the office of Supervising Architect of the Treasury in 1893 there began a remarkable reform in our Federal architecture, which continued under his successor, J. Knox Taylor, and was further stimulated by the passing of the Tarsney Act, unhappily repealed in 1914. The Custom Houses, Court Houses and Post Offices of this régime, at New York, Indianapolis, San Francisco, Cleveland and other cities, the Senate and House offices at Washington, and a host of lesser Federal buildings, have lifted our National offi-



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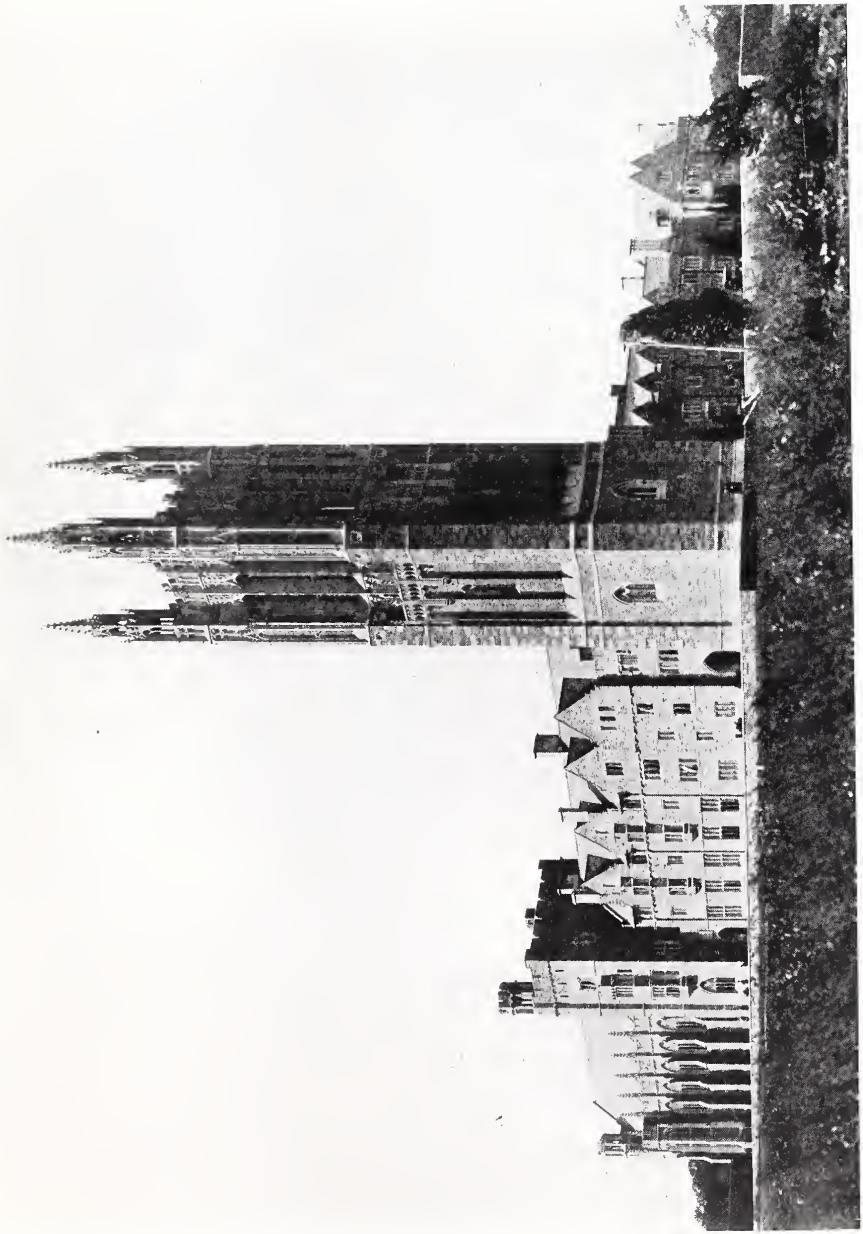
cial architecture from pretentious inferiority to a level of high artistic merit. The great railway terminals at Washington and New York and the Northwestern at Chicago, and others of less magnitude at Pittsburgh, Baltimore and other cities, have redeemed us from the former disgrace of the old-time shabby and disreputable makeshifts. University and collegiate groups have been created that are the envy of foreign professors and scholars: Palo Alto and Berkeley in California, the University of Pennsylvania, Chicago, Columbia, Johns Hopkins, Princeton, Washington at St. Louis, Bryn Mawr, Vassar and Sweetbriar Colleges, the College of the City of New York and others, represent a branch of architecture which hardly had any existence before 1891. At the same time a new architecture of public school buildings has been developed, based on scientific principles and the logical expression of plan and structure; witness the modern schools of New York, Boston, Chicago, St. Louis and a dozen other cities. Certain types of buildings have been subjected to a process of standardization, within well defined limits, as the result of prolonged and systematic study of their requirements; for instance, public libraries, hospitals, Y. M. C. A. buildings, office buildings, public schools. That is to say, a general consensus has been reached as to certain of their requirements and the best arrangements, proportions and dimensions of their fundamental elements, so that all architects have profited by the combined wisdom of those who have worked out these standards. The librarians were the first to attempt such a formulation of requirements, and American library architecture now leads the world, both in the larger buildings like those already mentioned, and such other important examples as the libraries of Milwaukee, Detroit, Newark, Springfield, Providence and Manchester (N. H.), and in the smaller libraries and branch libraries. In any American city the library is likely to be one of the handsomest buildings in town, and a creditable work intrinsically; and in any college or university the same is often true, as at Columbia (the Low

Library), Harvard (the Widener), Vassar (Thompson Memorial) and many others.

Our skyscraper architecture hardly requires the mention or comment of my pen. It is omnipresent and insistent, the most conspicuous, revolutionary and American architectural product of the last twenty-five years, from Jenney and Mundie's Home Life Building in Chicago and Bradford Gilbert's Tower Building addition in New York to the 750-foot Woolworth and the vast Equitable in New York, and Boston's much-belauded Custom House. It has been more "cussed and discussed" than any other modern type. It has changed the skyline of New York and of every large American city from Seattle to Bangor, from Los Angeles to Galveston. It has produced a new architectural style, irrespective of that of its varied decorative trimmings; and it speaks so loud for itself as to make further words on this page unnecessary.

The past twenty-five years have given us the fine State capitols of Rhode Island, Minnesota, and Wisconsin among others, and also, alas! the scandal of Harrisburgh; the great Municipal Building of New York; the choir and chapels and attendant buildings of the Cathedral of St. John the Divine; a large number of fine churches and the beginnings of several cathedrals; the design for the greatest court house in the world, at New York—but space forbids continuing the list.

This remarkable development exhibits an almost sudden substitution of Renaissance forms for the previously popular Romanesque, in the years following the Columbian Exhibition, and a rapid advance in the planning of buildings as well as in the design of their decorative details. During the last fifteen years there has been witnessed the growth of a very interesting phase of eclecticism in style, by which certain classes of buildings are habitually treated in various phases of neo-classic design; others in free versions of the Gothic. The neo-classic styles in use vary from the picturesque Francis I. Renaissance of the Biltmore château to the severe Greco-



THE GRADUATE COLLEGE OF PRINCETON UNIVERSITY, PRINCETON, N. J. CRAM, GOODHUE & FERGUSON, ARCHITECTS.

Roman of the Senate offices at Washington and the Pennsylvania Terminal at New York; the Gothic from the very free treatment of the New York City College or the Woolworth Building to the ecclesiastic Gothic of St. Thomas' at New York and the scholastic Gothic of the Princeton Graduate School. Even the Greek Doric appears in porticoes and façades of banks, libraries and museums. But this use of historic styles is, after all, for the most part a matter of dress and apparel of architecture. Underneath the Gothic, Greek and Renaissance details and through them all, one may discern the real American architecture—American in planning, construction and material; in conception and in spirit American, and nothing else.

V.

This paper is already too long to permit of doing justice to five other features of the architectural history of the period, which deserve several pages apiece. These are: (a) the various phases of the movement for civic improvement, in city planning, garden cities, civic centres and municipal art generally; (b) the great advances in mechanical equipment of buildings, with the attendant increase in the complexities of architectural design and practice; (c) the progress of domestic architecture and especially the Colonial revival in rural and suburban architecture; (d) the emergence of an American school of landscape design; and (e) the extraordinary increase in the variety and improvement in the quality of building materials. The temptation is strong to list the most important of the events in the nation-wide campaigns for better city plans, for improved tenement housing, for the artistic rebuilding of wrecked and burned cities, for reclaiming waterfronts, for grouping public buildings; but we must refrain. It is hard to have to omit all account of the new uses of concrete, hollow-tile, Guastavino vaulting, and new kinds and forms of brick, tile, glass and what not; of the development of the "bungalow" and "mission" types, and the influence of English rural architecture, and so on, and so on! The reader's patience and the

writer's time allowance and paper have limits.

VI.

A page or two on architectural literature must close this inadequate attempt to sketch the architectural achievements of the past twenty-five years.

In 1891 there were published in the United States, disregarding minor and ephemeral periodicals, two architectural journals: the weekly *American Architect and Building News* in Boston, and the monthly *Architecture and Building* in New York. In that year the ARCHITECTURAL RECORD first made its appearance, as a quarterly, hailed from the outset as a much-needed addition to our periodical literature, and marked by a seriousness of artistic and literary purpose which has ever since characterized it. Its change in 1903 to monthly issues was a natural result of its high quality, and it has constantly maintained that quality ever since. Meanwhile the *Technology Review* of Boston has entered the field, and that has developed into the excellent *Architectural Review*, filling a field midway between that of the RECORD and the other periodicals mentioned. The *Inland Architect* of Chicago long served the interests of the Middle West; the *Western Architect* came later, and in 1903 first appeared *Architecture*, another New York monthly, making a specialty of photographic illustrations. Occupying a field of its own, and standing at a very high level of scholarly, literary and artistic excellence, is the *Journal* of the American Institute of Architects, now in its third year; the latest comer in the field of American periodical literature on architecture. Other additional periodicals there is not now space to mention; they are many, and there are still others which, though not primarily architectural, devote a part of their space to architecture or issue special architectural numbers. All this has served to diffuse an interest in architecture among the public, and to provide the architect with information, instruction and suggestion. This periodical literature, much of it excellent, some of it commonplace, some distinctly inferior, is both a cause and a result of



THE WOOLWORTH BUILDING, NEW YORK CITY. CASS GILBERT, ARCHITECT.

the increased general interest in architecture.

Quite as significant is the increase in books on architecture, of which the output has been enormous of late years. These fall into three classes: technical-scientific books, among which the successive editions of Kidder's "Pocketbook" have been conspicuous; popular handbooks on house-design, stable-design, bungalows, house-furnishing, etc.; and books of scholarship, history and criticism, among which Sturgis's *Dictionary*, and *European Architecture*, Cummings' *History of Architecture in Italy*, Moore's *The Character of Renaissance Architecture* and *The Mediaeval Church Architecture of England*, Porter's *Mediaeval Architecture* and *Lombard and Gothic Vaults*, the Sturgis-Frothingham *History of Architecture*, Wallis' *How to Know Architecture*, my *History of Architecture*, Ware's *American Vignola*, Frothingham's *Christian Architecture of Rome*, Adam's *Mont Saint Michel and Chartres*, and several books by R. A. Cram may be mentioned among many others, as examples of the wide reach, variety and quality of American scholarship, research and literary skill in this field. They witness to the new position which architecture has reached in the public estimation since 1891. Such books could perhaps have been written before that date; surely but a fraction of them could have been published or could have had

any wide sale. Prof. Moore's epoch-making *Development of Gothic Architecture* appeared, it is true, in 1889, but that and W. P. P. Longfellow's *The Arch and Column* were almost the only serious books on architecture by American authors previous to 1891. It augurs hopefully for the future progress of our art that its literature is now firmly established in public favor, and that it has been of such generally high quality.

This brief and hurried survey of a vast subject leaves unsaid much that the writer would have gladly discussed had time and space permitted. The question of style has been left almost untouched. The monuments must speak for themselves; the subject is too big for mere passing mention. The writer hopes that even so inadequate a sketch may inspire its readers with a new respect for the work of our American architects, the veterans and the young men alike; and with a new hope and confidence in the future. Looking back to the architecture of 1865-91, and noting the progress made since then, we have good reason to hope that 1941 will see, throughout our great Republic, an architecture far nobler, purer, more serious and more beautiful than that of to-day, offering to the whole world models of good taste and sound construction, and making our cities and villages fairer and happier places to live in than they are in this year of grace 1916.

CHURCH PLANNING IN THE UNITED STATES

*Its Growth and Adaptation to Present
Needs. With Special Reference to the
Development of the Denominational Plan*

By Richard Franz Bach

LOGICALLY the antecedent of all church buildings in this country was the meeting house, an unpretentious structure representing rude beginnings in the establishment of a rugged faith in an alien and forbidding land. In form a simple block house with covering of gable roof, its plan presented no problems other than those of the interior arrangement of portable objects. It knew no architectural tradition; in fact its very essence was an appeal against the form of worship which its builders had foresworn. It humbly proclaimed the ambition that a new usage and belief would have its beginnings within its walls of logs, on its floor of earth, and perhaps its modest founders hoped that the House of God would take on a new semblance better representing the freedom of creed which infused a real hope into their remarkable pilgrimage.

This pioneer among churches was destined soon to pass, for the land slowly relinquished its forbidding aspect in the face of the relentless Colonial spirit; and as the dwelling hut gave place to the better built and better designed house of wood or stone or even brick, so the box-like meeting house was gradually superseded by the larger, dignified edifice more fitly called a church. But the church could not deny a conscious arrangement of parts for its internal needs, for ritual kept pace with life in the increase of its complexity, the development of its ceremonial and the traditions of plan in the structure devoted to its use. What were these traditions of plan? Our reply is found in two directions: first, that of the

first unconscious but later fully countenanced effect of the life that had been left at home by the founders of this country and which went on, undisturbed by their departure, and repeatedly asserted itself in their habits of thought and of life, not to mention its interpretation by visitors and proselyters from Europe; secondly, that of the slowly but indomitably crystallizing custom and practice of a new creed implanted upon a new soil, with the vigor of convictions behind it and with the daily conquest of menacing elements as a witness of its own ability and resource. Between the two channels of growth lies the wavering quality of formative art and style, of structural and form language, of architecture; and as all of the history and time-worn formality of ecclesiastic growth was laid in Europe and England, its effect was cast into the balance in favor of the artistic expression of religious tenets inexorably left behind. The fact that American church architecture throughout its development has been compelled to make the nice adjustment between old forms and new creeds is a consideration of greatest weight in a proper conception of its value and importance.

Assuredly, then, the uncouth meeting house cannot be credited with any observance of tradition, for any existing tradition was inseparable from the religious persecution from which the early settlers had fled. The meeting house was purely utilitarian; it stood for the desire of all men to unite in the worship of one God at stated times; it was the concrete evidence of the habit of regular worship to which

The Ritual Plan Type.

The ritual faiths were endowed with an architectural form sanctioned by centuries of historical growth, closely dependent upon a ceremonial and liturgy built up through the many vicissitudes of ecclesiastic history during the Early Christian, Romanesque, Gothic and Renaissance phases of art in Europe, each bringing its stylistic contribution, but always with its parallel affirmation of the fundamentals of what has come to be known as the basilican plan (Fig. 9, 10) because originally developed in its essentials in the Early Christian basilican type of church (Fig. 8) which ages of builders and churchmen had found good, and which has been frequently used and retained in its essentials, though freely modified in obedience to modern needs, by every denomination of our time.

The plan required that opportunities be offered for the best functioning of a splendid ritual service, for bringing out effectively the numerous stages of the ceremony of the mass or its counterpart in non-Catholic worship, and to carry home to the worshippers the impressive pageantry of the procession, which has been a chief reliance in all faiths of older times, both pagan and God-fearing. These purposes in time achieved the end of moulding the church plan to their needs; transepts, chapels, choir, ambulatory, narthex, all had their assigned role, together with a multitude of minor set features, to serve in the exposition of the faith and in the system of its government or administration, as well as in the gradual architectural formulation which expressed them.

What is more, the building which complied with these demands of ritual for the group occasionally gathered together, was also used at will and at any time by small numbers of persons convening for individual worship and reflection. From its early times this type of church had been planned to accommodate practically all persons within certain parochial limits, or, as was often the case, within a given manorial domain. Thus its size and the disposition of its parts were more or less automatically determined by the conditions of demand on the side of utility and

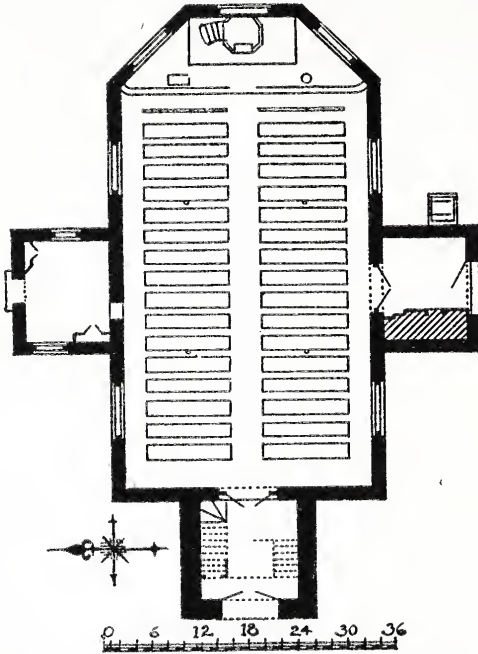


FIG. 1. OLD SWEDES' CHURCH, PHILADELPHIA, BUILT 1703. ADDITIONS OF SOUTH PORCH AND VESTRY MADE TO STRENGTHEN SIDE WALLS, 1702.

the colonists had long been accustomed and which urged them to promulgate, among the very first of their laws in the new land, a paragraph to the effect that all members must declare their faith in God and their willingness to attend church regularly.

Although the stern Non-Conformist Puritan was the forerunner in the religious field in this country, the many sects which the seventeenth century bred, as well as Catholicism and the worship of the Anglican Church proper, ultimately gained a foothold at various places along the Atlantic seaboard. Among these sects we may distinguish but two major groups with reference to church plan. We may consider as ritual or liturgic faiths the Catholic, Anglican and American Episcopalian creeds, and we may consider as non-ritual or denominational faiths the various Protestant persuasions other than Episcopalian, such as the Methodist, Lutheran, Baptist, and several others architecturally less distinguishable and for some time of negligible importance.

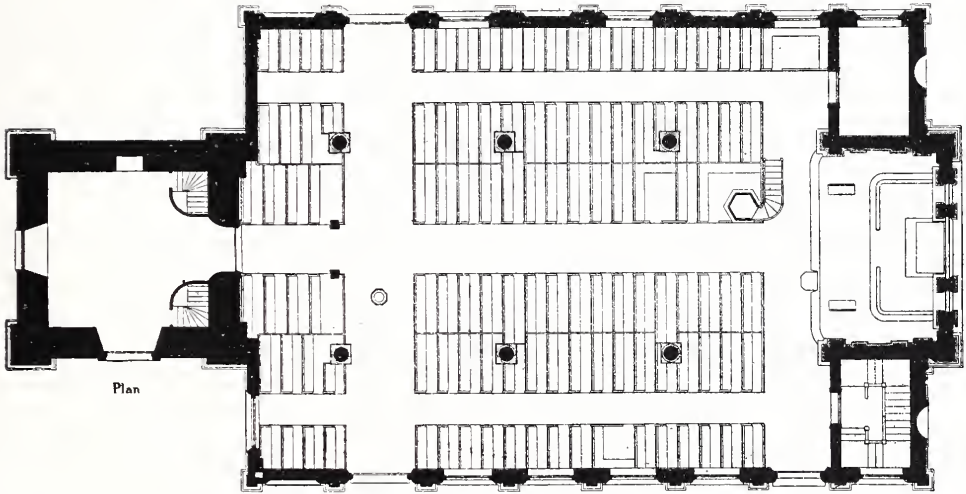


FIG. 2. CHRIST CHURCH, PHILADELPHIA, BUILT 1720; JOHN KEARSLEY, ARCHITECT. TYPICAL EXAMPLE OF ADHERENCE TO ENGLISH PROTOTYPE.

of tradition on the side of ritual form and art.

Above all, the church by its very importance in life, the vast area its influence finally dominated, the unlimited funds available from taxes as well as from piety, the ambitions of its clergy and especially of its administrators, presently won to its train the best builders of the various epochs, men proud to be considered church architects, often themselves ec-

clesiastics, and men conversant with every detail of historic churchly modes of thought, of teaching, and of building. Together with these must be counted the masons, carvers, metal and wood workers and designers in glass, and others from the various crafts grouped in their guilds, men whose occupations themselves were a tradition, whose charm of consecutive or family practice only the boldest son dared to break.

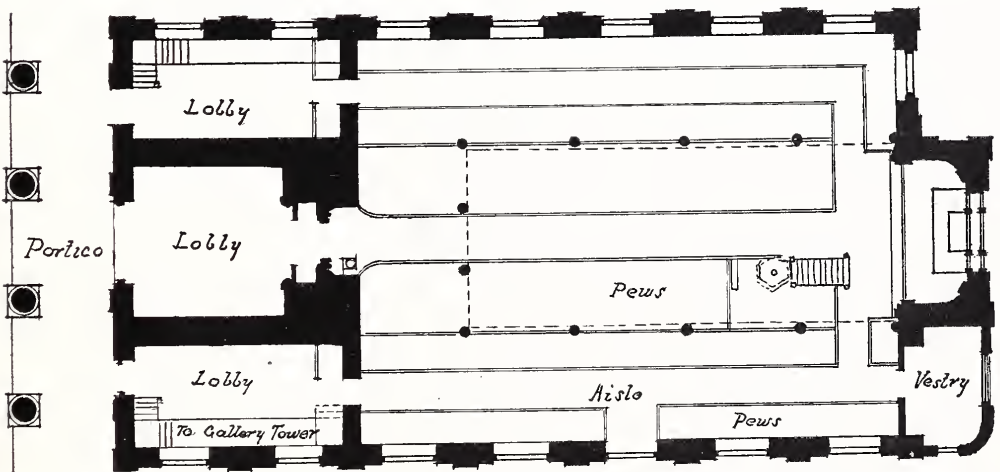


FIG. 3. ST. MICHAEL'S CHURCH, CHARLESTON, S. C., BUILT 1732-1761. MODIFIED ENGLISH RENAISSANCE TYPE.

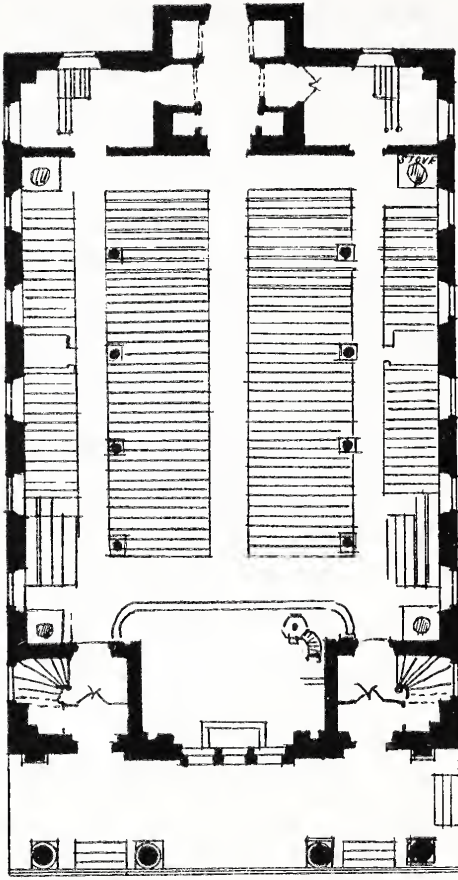


FIG. 4. ST. PAUL'S CHURCH, NEW YORK. DIRECT SUGGESTION FROM ENGLISH RENAISSANCE TYPE.

Then finally comes the capstone of this pyramid of the tradition of the ritual faiths: it is the fervid belief in the glorification of God by his work which coursed through the veins of architect and artisan alike in the ascetic Middle Ages as freely and as warmly as his very life blood, ennobling him and his product in the eyes of his time. His efforts are no less effectively religious than those of the prelates themselves; he feels the splendor of the edifice even as he lays his stones or builds up his stained glass window or cuts his foliated capital; he is awed by its majesty and rejoices that his humble hands should be granted a part in the fabric.

Out of such feeling, aided by con-

comitant skill and science, a customary usage in church building grew as a plant from rich soil. To hinder it would have been to strike at the quintessence of medieval life. Each workman gave of his best in ability and knowledge and labor. The result is the established frame into which the ritual faiths fit closely even now; it is the glorious precedent composed of many centuries of growth, responsive but measured, to which we turn freely and

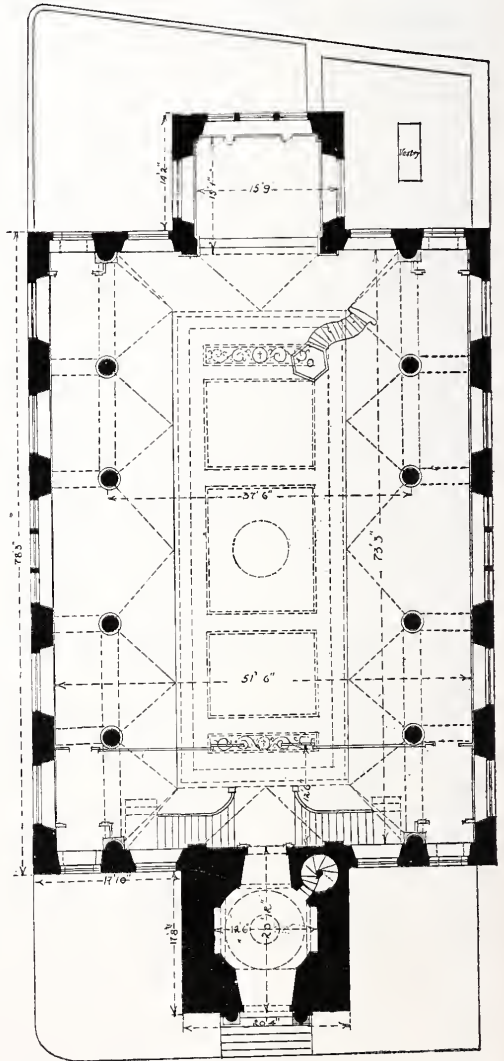


FIG. 5. ST. JAMES', PICCADILLY, LONDON. ENGLISH RENAISSANCE ORIGINAL. Sir Christopher Wren, Architect. Compare Plan Fig. 2.

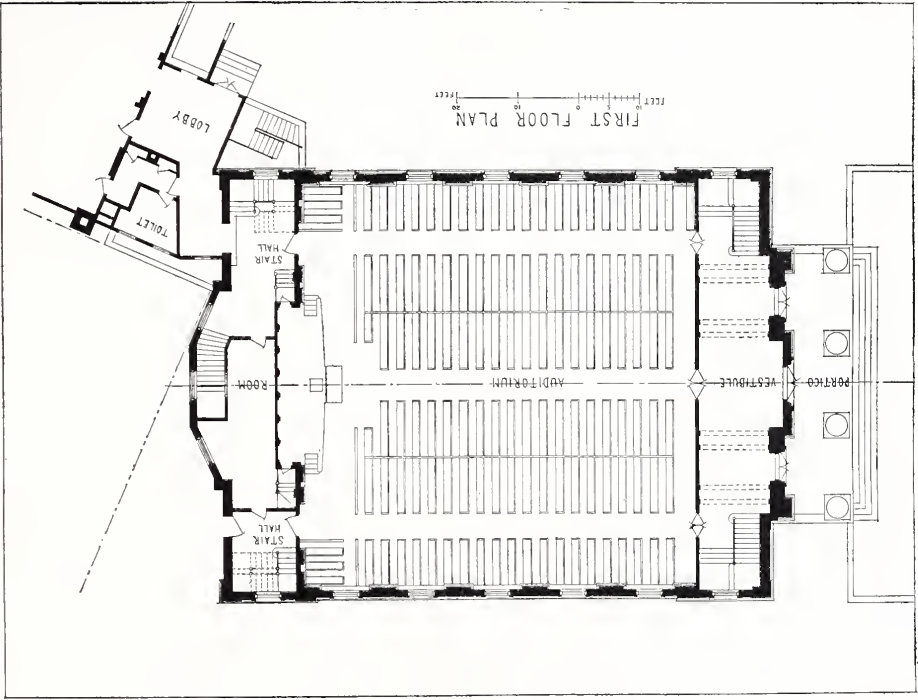


FIG. 7. FLATBUSH CONGREGATIONAL CHURCH, FLATBUSH, L. I.
Allen and Collens and Louis E. Jallade, Architects.
Modern Example of "Colonial" Plan Type.

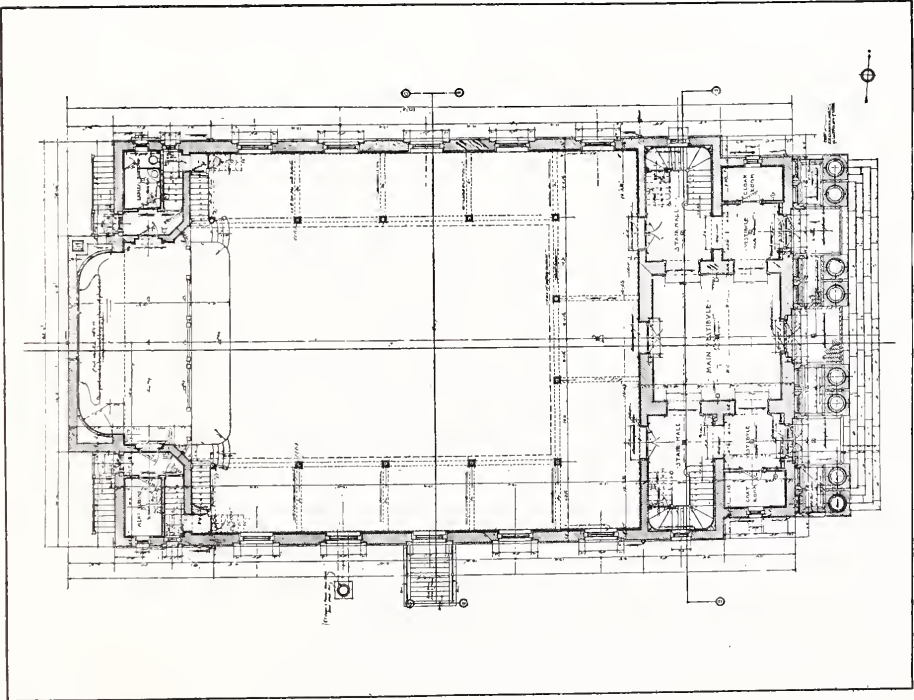


FIG. 6. FIRST CONGREGATIONAL CHURCH, DANBURY, CONN.
Howells & Stokes, Architects.
Modern Derivative of English Renaissance or American "Colonial"
Plan Type.

without apology (and justly so, for traditions form a lawful source of our advantage), when we do not brazenly imitate its monuments.

The Denominational Plan Type.

But what is the foundation of ecclesiastic history upon which the early American meeting house was built? To begin with, economy was at the bottom of all Colonial beginnings, for this is the cardinal virtue of the pioneer who opens the prospects of a new land. Simplicity was the keynote of the Protestant departure in religion; luxury was yet decried, in fact, simplicity was often mistaken for austerity, coldness and rigor. These characteristics were voluntarily accepted, for the first settlers had burned their churchly bridges behind them; to adopt any part of the tradition of the abandoned creeds of England or of the continent would have been a concession to the enemy. Little did they know to what degree their own shortcomings would ultimately make welcome a number of concessions to the forms of worship from which their own had sprung, concessions notably in the architectural expression of their new belief.

There is then, at the very beginning, in reality nothing whatever upon which to base a new ecclesiastic growth, but utilitarian needs slowly modified by new plan demands as the creed formulates its tenets and its order of service, and establishes a mode of government for its widely scattered units. In short, the architectural development so far as the various integral parts of the plan are concerned, must wait upon the setting down of a definite ecclesiology, which is the direct indication of ceremonial needs by the provisions made for them in the edifice. Architecturally the meeting house remains for a time an anomaly among churches, until the builders grow in wealth and, in their desire better to house their faith, cast about for a suitable stylistic language for it (Fig. 1, 2, 3, 4).

The meeting house represents the firstlings of architecture in this country as surely the first log cabin dwelling. If we carry our history back to the most remote of all American churches we shall find, according to the

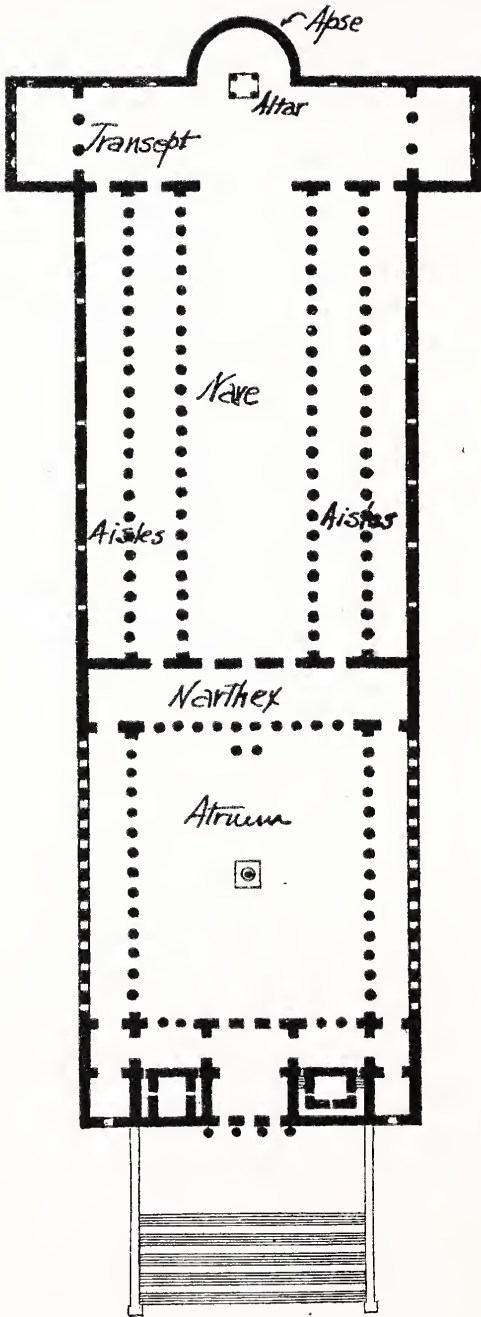


FIG. 8. PLAN OF OLD ST. PETER'S, ROME. TYPICAL EXAMPLE OF COMPLETE TRADITIONAL BASILICAN PLAN.

description left us by the doughty Captain John Smith, such a "church" as this: "When we first went to Virginia, I well remember we did hang an awneing (which is an old saile) to three or four trees, to shadow us from the sunne; our walles were rales of wood; our seats un-hewed trees till we cut planks; our Pulpit a bar of wood nailed to two neighbouring trees. In foule weather we shifted into an old rotten tent, for we had few better. * * * This was our church till we built a homely thing like a barne; set up on cratchets, covered with rafts, sedge, and earth; so was the walls. The best of houses (were) of like curiosity; but the most part far much worse workmanship, (that)

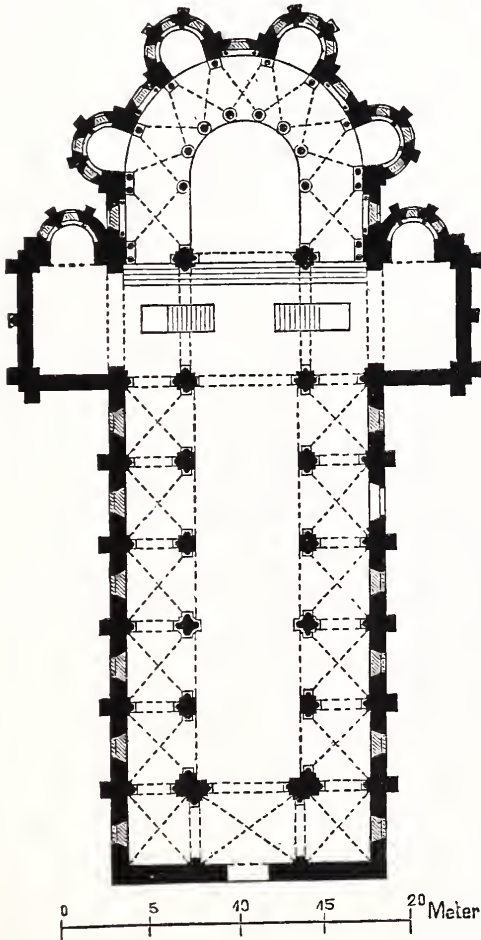


FIG. 9. NOTRE DAME DU PORT, CLERMONT, FRANCE. TYPICAL ROMANESQUE PLAN.

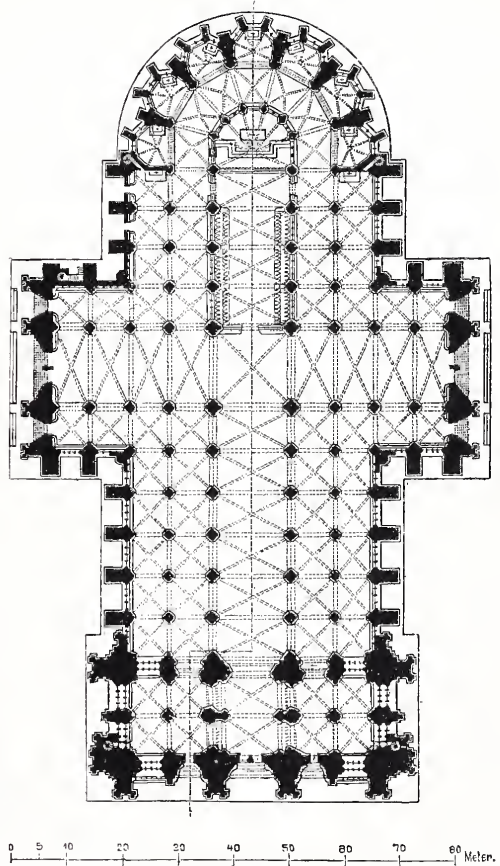


FIG. 10. CATHEDRAL OF COLOGNE, GERMANY. FRANCO-GERMAN GOTHIC PLAN. GOOD EXAMPLE OF FULLY DEVELOPED RITUAL PLAN. Compare Figs. 8 and 9.

neither could well defend from wind nor rains." But the beginnings in Virginia need not be considered thoroughly typical of the spirit of sturdy reformation that guided the sternest of the Colonists. Although Virginia may soon recall the precepts of the home land in form and in an echo of creed, the Pilgrims of Plymouth may be relied upon to cling to the convictions that brought them to face unpromised hardships and to show the colors of the new land. The New England meeting house is then the true beginning: the fairly large squarish building with a flat roof, placed upon a hill overlooking the approach from the sea (and surmounted by six cannon!).

It is here also that we find combined the service to God and to state; the secular and spiritual needs were so closely connected that an offense against the church was by the same token a political offense, while absence from church was tantamount to a minor crime, in general esteem even as serious as theft.

In the other colonies, however, we find at an early date a harking back to the types of the mother country, types already developed so well in the successful buildings of Wren, Gibbs and others and offering fully adequate provision for all plan requirements imposed by the American version or versions of worship (Fig. 5). But the work of Wren required the skill of hand of the full-fledged architect, a species of trained mind unknown in the early Colonies. So the Colonist is thrown back after all upon his own resources; he develops the carpenter-builder and the mason-architect, whose tribes have long outlived their utility at the present time, but whose service to early architecture in this country was of the utmost value; and the work of these *quasi* architects forms a definite architectural influence, especially in the field of church design, emanating chiefly from New England, in fact, at the very outset restricted entirely to New England and adjacent states. But the first churches have in almost all cases been superseded

by later buildings, the second or third in a sequence of building generations on the same site, which present altered plans, and it is therefore impossible to follow closely the accurate stages by which the plan was changed to meet in-

creasing needs. Of course, when the genus architect has won a place in general recognition, the plan itself becomes again a more flexible thing, satisfying church requirements and also expressing a chosen style of the past. Before this more or less ideal state has been achieved, however, we must follow church planning in this country through a multitude of essays along many lines, but all converging with fair directness upon the same first principle, that of the meeting house, the growth of which presents a tale of hard bought success in building accomplished in the face of keen-eyed economy, often of privation.

But the difficulties of economy may be gradually overcome; the bare and toneless simplicity may be warmed by use which lends the

glamor of small added accessories, and by desire for comfort which removes severity. There remains, however, the serious handicap of small numbers. When once the bonds of the ritual creeds had been rent apart, the pent up beliefs immediately scattered in many directions; unguided and formless, they were soon at vari-

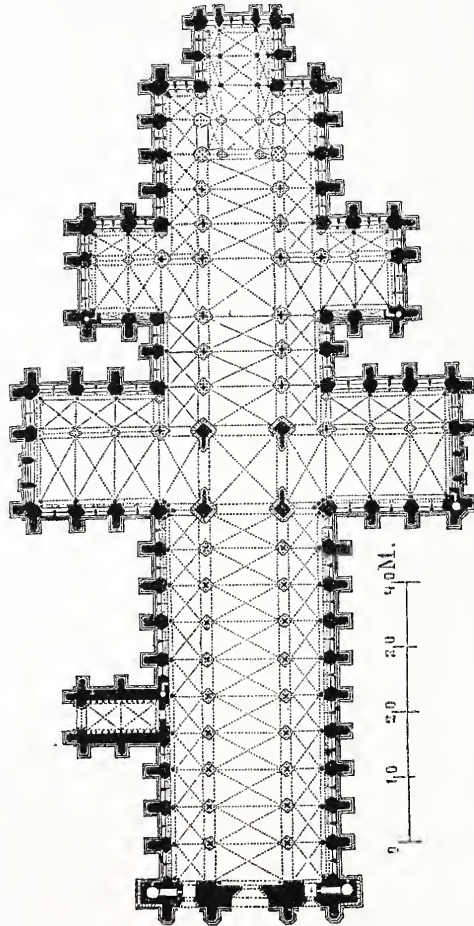


FIG. 11. CATHEDRAL AT SALISBURY, ENG. LAND. TYPICAL ENGLISH EXAMPLE OF DEVELOPED RITUAL PLAN.

Note Double Transept and Compare Fig. 10.

SAINT PAVL'S CATHEDRAL
DETROIT
 CRAM-GOODHUE AND FERGUSON ARCHITECTS ·
 BOSTON — NEW YORK
 GEORGE D. MASON ASSOCIATE ARCHITECT ·
 DETROIT—MICHIGAN

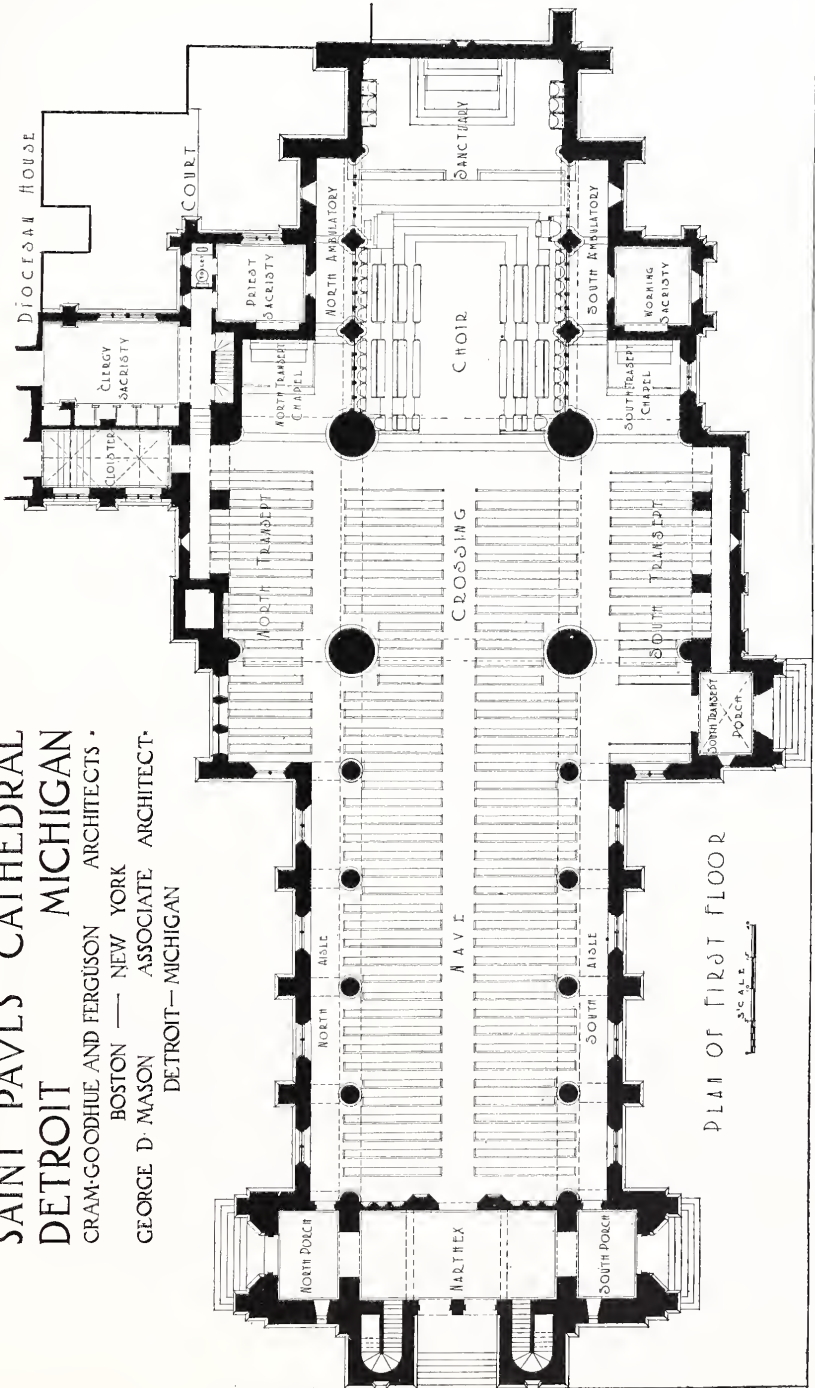


FIG. 12. ST. PAUL'S CATHEDRAL, DETROIT, MICH. CRAM, GOODHUE & FERGUSON, ARCHITECTS. GOOD MODERN EXAMPLE OF CLOSE ADHERENCE TO TRADITIONAL PLAN OF RITUAL TYPE.

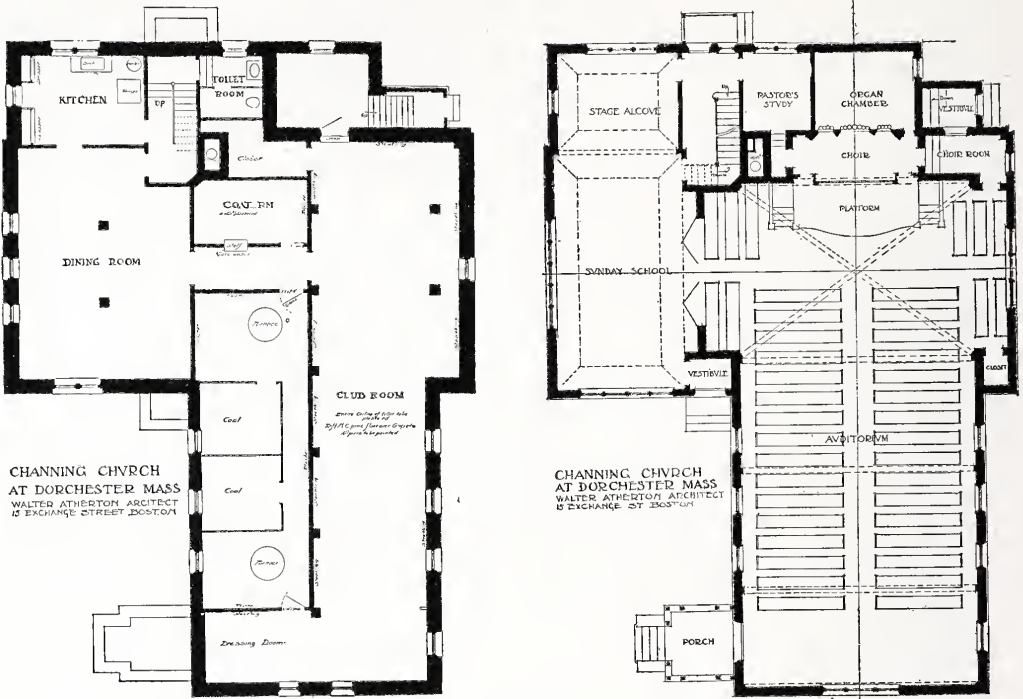


FIG. 13. BASEMENT AND MAIN FLOOR—CHANNING CHURCH, DORCHESTER, MASS.

Walter Atherton, Architect.

Good Modern Example of Use of Suggested Traditional Plan for Denominational Purposes. Note Provision for Sunday School in Exaggerated Transept.

ance with one another, lacking consolidation and therefore the unity in which there is the strength of growth. Thus an interior dissension among the limited numbers of the Colonists—the population of the United States in 1776 was but two-thirds of that of New York City to-day—presented a troublesome obstacle to plan development. The natural effect of such a camp divided against itself was the restriction of congregations to very small sizes, meagre groups of worshippers favoring this or that primarily minor difference, set themselves adrift as separate denominations, finally engaged in warring upon one another as bitterly as Luther had assailed the smug ecclesiasticism of Catholic Rome. Since antagonism is always stronger at the time of the initial rupture and also, because of its own thoroughly representative character, the church building itself is not permitted to recall the mother creed. There is then a volitional departure in form as well as in tenets, archi-

tecturally as well as in belief, and this departure is in turn subjected to denominational vagaries. Fortunately the plan differences brought about by these internal variations do not operate to alter the general outline, affecting only smaller portions, such as the chancel, the vestry, the baptistery, choir space, and similar details.

Thus since the same community or colony includes a number of sects, for freedom of religious belief is at the bottom of our national life, we find that early church buildings are always small in size. The smaller the sect group in a given place, the less financial aid may the church designers and builders expect. Whatever money is rendered available does not flow freely as the outcome of mandatory tithes or as the concrete effect of a goading penitence, but rather from voluntary contributions or from rentals of seating spaces or pews. The rapid growth of American church architecture becomes all the more remarkable when these ad-

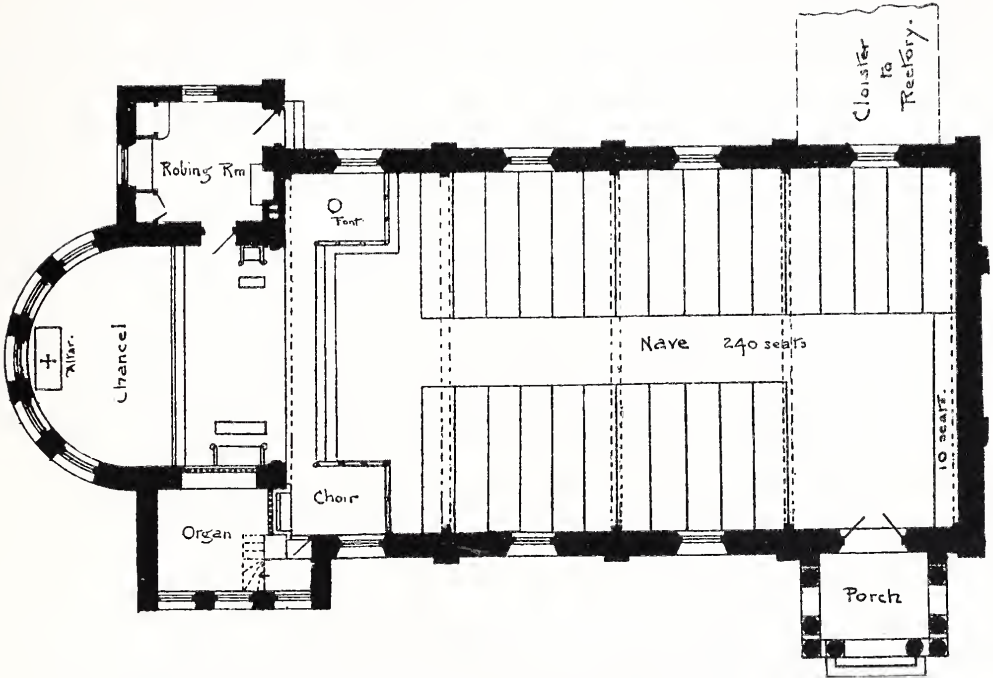


FIG. 14. MEMORIAL CHURCH, POMFRET, CONN. SIMPLE MODERN PLAN.
Howard Hoppin, Architect.

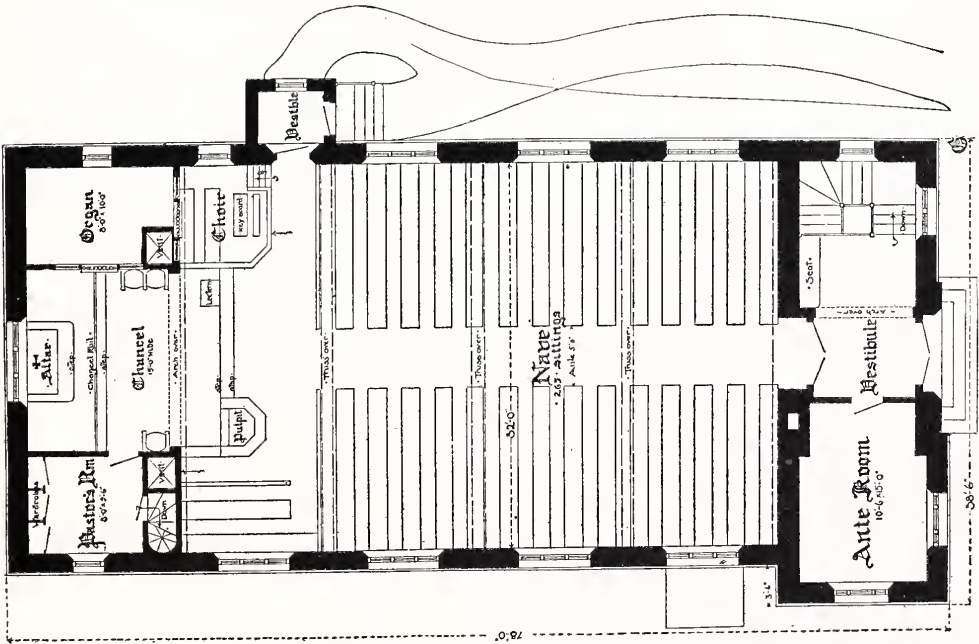


FIG. 15. ST. MARK'S ENGLISH LUTHERAN CHURCH, ROXBURY, MASS. SIMPLE MODERN PLAN.
Gay & Proctor, Architects.

verse conditions are granted their proper importance.

What is more, the builders of churches are now less numerous than those which the great eras in Europe had produced. Every man in the Middle Ages,—and many a man for several centuries afterward,—was potentially an architect, in so far as he possessed in practically similar measure, though not the skill, at least the fervid religious feeling. The learning of the time was largely the learning of the church, the writers were chiefly churchmen, and all things intellectual were of the church. But the ecstasy of the expression of faith was not present among the Colonial builders; had it been manifested it might even have been frowned upon as a sort of pagan exuberance of feeling. Intellectuality no longer connoted religiousness, not any more closely than the conviction of faith is implied by superior mental fibre to-day. This change was the work of the Renaissance, the rejuvenation of the individual as a thinking unit. In the absence of fervor, then, we must rely upon good will on the part of a small percentage of the population to produce our early church edifices. Thus in the end the Colonial church building had to be content to be a precedent unto itself, for behind it lay nothing conscientiously available for its purpose except the single tenet which it prized above all,

namely its absolute freedom of religious belief.

Economic difficulties also expressed themselves in the form of the combination of the church functions with those of the government, involving the use of the same building for both. This obstacle was but temporary and not a serious hindrance, because both types of usage required the open meeting hall, as well as a raised platform or rostrum, which would be the first necessities for the denominational church. Such buildings, even where the church function was finally set apart in its own structure, were put under strong guard during meetings in the earliest times; and the roads leading to the church were covered by pickets.

Had the Colonists been provided with the modern machinery of study, a school of architecture, text books, periodicals and a few experienced but untrammelled designers of church buildings, we might logically expect them to weigh their problem fairly and then, since the fates had granted them a *tabula rasa* architecturally for the creation of a new type of ecclesiastic edifice, to solve their difficulties adequately. But the conditions were diametrically opposed to such an ideal conception. There were no architects, at best some masons and carpenters with no experience as designers; for many years a volume of plates of architectural details was a rarity. The

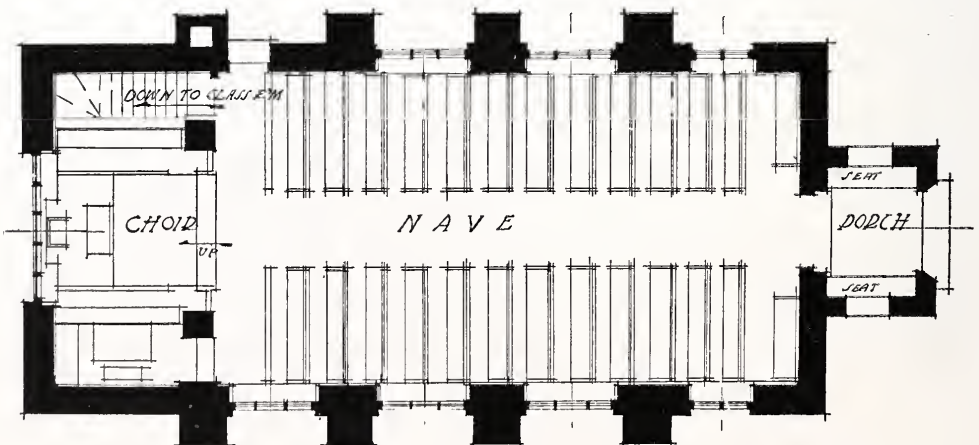


FIG. 16. CHURCH AT SOUTH INGOMISH, CAPE BRETON.

Bertram G. Goodhue, Architect.

Simple Modern Plan without Projection in Body of Structure; too small to make concession to tradition.

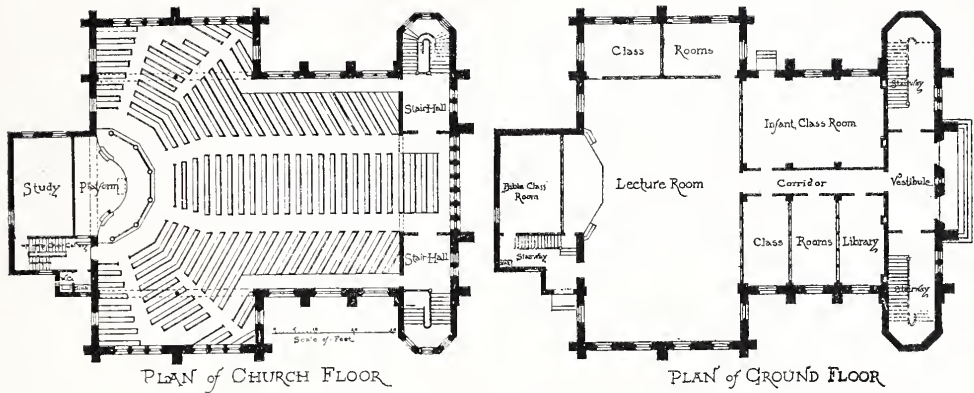


FIG. 17. ASBURY M. E. CHURCH, PHILADELPHIA.

John Ord, Architect.

Suggested Traditional Plan for Denominational Purposes. Note Exaggeration of Transept to Increase Seating Capacity, Absence of Interior Supports, Proportion of Width to Length. Compare Figs. 10, 11 and 12.

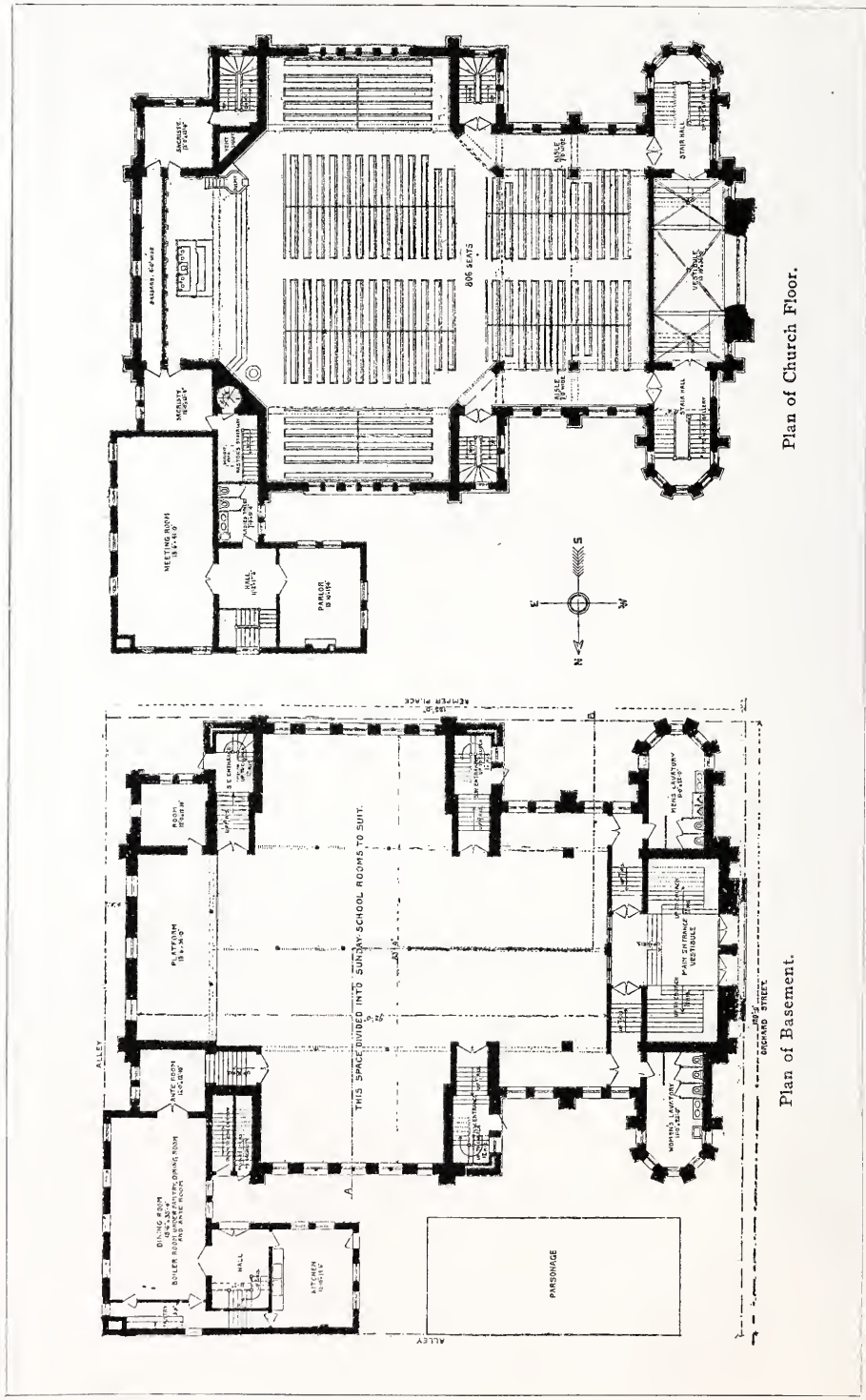
dilettante was the only easily recognizable type of architect and the architect as the actual governor of a building from first sketch to concrete results was a luxury—as he is to-day in too many parts of this country and in the minds of too great a number of the population. It was many years before a bold soul dared to announce himself as Architect and Carpenter, and Asher Benjamin—who thus proclaimed himself in his book in 1797, the first architectural work to be published in this country—would undoubtedly have been at a loss to say by which title he would prefer to be known to posterity. Out of such chaos naught but the inadequacy of ignorance may for many decades be expected to result. The usual and frequently irrelevant imitation of works elsewhere presently follows, with the concomitant descent from the sublime to the ridiculous, when greater works are made to fit the conditions of buildings wrought at much smaller scale.

We follow then a long time of stress, while architecture is gradually formulating a language of its own and until the solidification of the nation finally produces a mode of expression which succeeds by its variety. Suffice it to say that from the standpoint of design our difficulties were solved fairly well and that it is safe to assume that the problem, from that angle, is fully understood, after passing through many intermediate

stages. But from the point of view of the plan, as our future illustrations will amply demonstrate, the task of solution has many limitations, which grow more complex as the denominations crystallize their individual needs and the old meeting house type no longer suffices, even with many modifications, for the requirements of the day. Finally we witness the hegemony of the architect as one of the finest technical experts of our age, a wielder of styles and of plans and an adjuster of each to the other, so that the exterior may assume adequate beauty of expression architecturally and the plan may not lose in utility and convenience, nor in its response to denominational or ritual demands.

The Audience Hall and Its Controlling Features, the Altar and the Pulpit.

Consider now the internal needs of the denominations that produce churches in the course of our architectural history, that is, the earliest decided efforts in response to individual creed demands, as compared with the internal disposition of buildings of the ritual faiths. The latter have an obvious centre in the altar. This is consistently the most important point in the plan. (Fig. 10, 12.) About it moves the whole machinery of worship in centripetal channels, converging in significance, symbolism and practice upon the single spot above the tomb or relic of the martyr to whose memory the edifice is dedicated.



Plan of Church Floor.

Plan of Basement.

FIG. 18. ST. PAUL'S EVANGELICAL LUTHERAN CHURCH, CHICAGO.

Hill & Woltersdorf, Architects.

Suggested traditional plan used for denominational purposes. Note reduction of Latin cross proportions to approximate those of Greek cross to obtain greater width of transepts and to improve vision and hearing.

In the history of the ritual faiths a fine mysticism attaches to the altar, an aura of the superhuman, which makes of the church edifice a place of congregation for adoration and deep introspection. Space is also required for the processional parts of the service. The initiates and the congregation must during the service be kept apart; the clergy, being more numerous than in the denominational beliefs, require greater space for the transaction of their business, either as connected with the worshippers or as determined by the system of church government. Finally the complexity of the form of worship itself requires much space for the storage, care and preparation of objects used in the ceremony, and in the general work of the clergy. Account must also be taken of the numerous primarily extraneous features of the plan, such as the chapels around the east end, the separate lady chapel, and, where necessary, cloisters and other features made obligatory by the regular as distinguished from the secular form of clergy.

The denominational plan centers about the pulpit (Fig. 17), a motive not endued with an inherent sacredness in the same sense as the altar, although it may radiate the influence of a fine personality. Nor is it hedged about by such religious stories of suffering and glory represented by the relics beneath the altar, sanctioned and made part of a confession by ages of unquestioning belief. Nor again does the denominational church in most cases require space for processions,—beyond the small needs of circulation,—other than those accompanying the irregular occasion of the christening, the marriage ceremony or the funeral, and these functions are not integral parts of a formal mode of group worship.

The great choir and its tributary features, chapels and ambulatory, inseparable from the tradition of the ritualistic building, is likewise decreased in size and a small chancel suffices for ministerial and choral demands. The body of singers is smaller, the organ less significant, and the importance of the chant or of music generally as an incentive to right thinking is much reduced in the service, until

finally it is radically classified into the hymns rendered by the body of the congregation and anthems or solo singing rendered by hired trained voices. Thus the holy part of the church, which is the throbbing heart of the ritual edifice, is despoiled of its many accessory features, and as each is removed a corresponding stimulation and appeal falls away, until finally in the denominational building it retains no more than a semblance of the greatness encouraged for centuries—this more or less as a formal concession to an ingrown tradition which even the momentum gained from the prodigious mental force of a Luther could not completely erase. However much they may have smelt of clericalism and of popery, the minds of men were loath to set aside forever these externals of a belief,—however different its tenets or the place of its new establishment,—which had come to them as a heritage from a thoroughly religious time when going to church and going to meals held equal places in the daily routine. For this reason we soon note that a restricted path is laid down for meeting house development in this country. Its plan is repeated even to the present and with much success (Fig. 6, 7), but the traditional plan also repeats itself with more than equal frequency (Fig. 12, 13, 18), even though specific requirements of this or that denomination may not render its many accessories necessary. The real descendant is to be sought, not in the actual meeting house plan in duplication of that of the early Colonies, but rather in the hybrid and still in many cases formless building which has grown out of the first American church, has thrown aside the original plan and has attempted to achieve as a free lance its own solution of its own demands. It is in the proper treatment of such buildings that our ultimate hope must lie, for both the old traditional form and the meeting house proper, both in its American and in its parallel English manifestations, have given the last possible plan solution, while the denominational plan,—still in a state of entire uncertainty or flux—may readily be bent to the changing purposes of a rapidly moving age.

(To be continued.)



DINING ROOM LOGGIA—HOUSE OF SCHUYLER SCHIEFFELIN,
ESQ., MONROE, N. Y. BOWEN BANCROFT SMITH, ARCHITECT.



DINING ROOM LOGGIA, LOOKING SOUTH—HOUSE OF SCHUYLER SCHIEFFELIN, ESQ.,
MONROE, N. Y.

Bowen Bancroft Smith, Architect.

THE HOUSE OF SCHUYLER SCHIEFFELIN, ESQ. AT MONROE, N. Y.

Bowen Bancroft Smith, Architect.

By JOHN TAYLOR BOYD, JR.

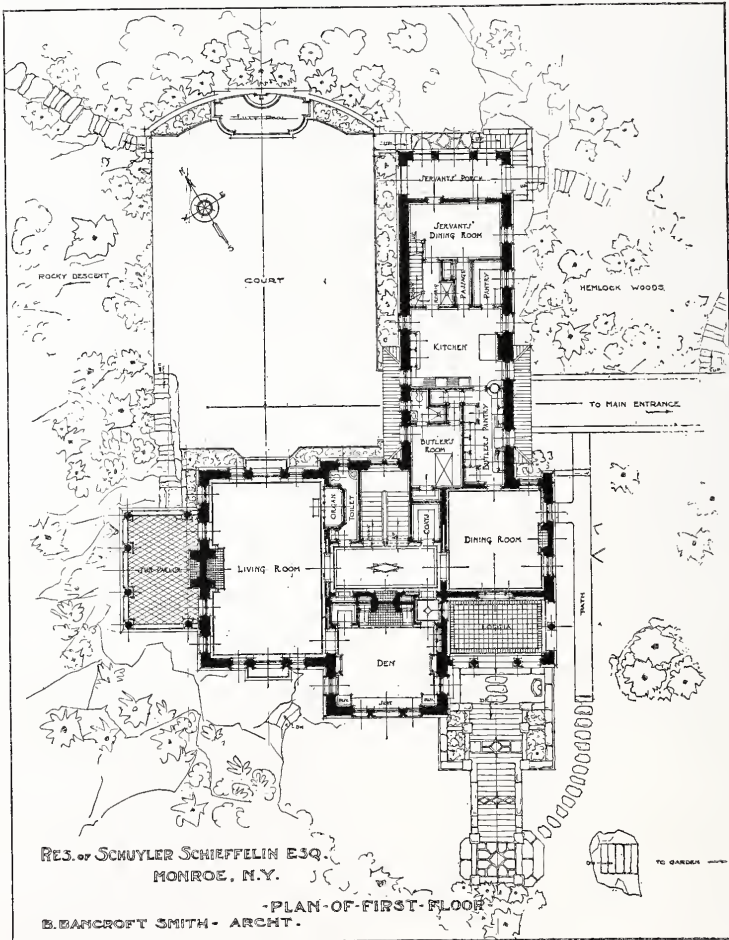
THIS work of Mr. Bowen Bancroft Smith, the country residence of Mr. Schuyler Schieffelin, in Monroe County, New York, may hardly be classed with the usual types of country houses that are erected in seashore or rural communities. It belongs instead with those occasional permanent dwellings located in wild and distant regions where only hunters and campers are wont to go. Indeed, that is what Mr. Schieffelin's house is—a permanent wilderness camp in the shape of a completely equipped house of the kind one finds near towns and cities. In Europe such houses are more common than with us, and in this case there is a certain resemblance to the more inaccessible villas hidden away in the Italian hills.

The resemblance of Mr. Schieffelin's house to the remote hill villas of Italy is

a striking one, occurring again and again in the various aspects of the scheme. It furnishes the keynote of the whole design, provided that one realizes always that this similarity does not result from imitation or even from adaptation, but arises instead from like conditions expressing themselves in analogous architectural forms. The house has been made as much a part of its site as it well could be, for it seems to grow right out of a bowl-shaped hollow on the side of a wild steep valley running north and south. A stream, with a waterfall thirty-five feet high, which courses through the valley, has been dammed up to form a charming lake, some forty-five acres in extent, of irregular shores and containing some sixteen wooded islets. Overlooking the lake stands the house itself at an elevation of one hundred feet at the level

of the sun parlor, which is perched on a precipice rising out of the water. Such are the unusual features of the site of Mr. Schieffelin's house, and one may conceive some idea of the great beauty of its location if one thinks of it as growing out of the dark rocks and partly

tion, both in themselves and in their carefully studied relation to the whole impression for which they are so carefully designed. It will cause no surprise to learn that this unity is the result of consistently following the conditions of the site and that some unusual effects were



built of them, its cement walls and reddish tile roofs enframed by woods of hemlock, spruce, and pines—most of them “old” growth of primeval trees—amid the sounds of the wind in the pines and the rushing of the waterfall nearby, all under the blue native sky. With this picture of the house in mind, its more particular features will repay careful atten-

arrived at in the course of the process which was carried so far as to influence the decoration of the interior walls of the house. On the exterior, the fine stonework of the basement walls is of especial zeal to preserve the natural face of the stone wherever it had been exposed to the weather. A fairly dark gray stone it is, covered in places with green moss



SOUTH FRONT—HOUSE OF SCHUYLER SCHIEFFELIN, ESQ.,
MONROE, N. Y. BOWEN BANCROFT SMITH, ARCHITECT.

and relieved by patches of black mica and reddish spots. Above the first story the walls are of concrete, water-proofed with a cement coating that preserves the color and texture of the concrete. The sub-basement for the heating plant under the porte-cochère was blasted out of the solid ledge and the excavated material used to construct all the house walls except for a few minor stud or brick partitions. The water table and all independent window sills are bluestone and the belt-course at the second story window sills is of cement. For the roof, S-shaped Spanish tiles were chosen to give a reddish tone, by selecting four hues of tile from deep brown to vermilion red, and mixing them at random to give a variation or "vibration" of color. The window blinds are painted a bright "mitis" green. Then there are the touches of the wrought iron railings and balconies, the cypress exterior woodwork treated with two coats of stain, the pink-and-green of the porphyry marble columns and the slab of the flooring of the loggia balcony.

Altogether the exterior of the house has been simply designed to provide large wall spaces and roofs as a contrast for the black green foliage of the pines and hemlocks. Herein does Mr. Schieffelin's house recall the Italian hill villas in the effect of offering a foil or background for the planting, rather than the opposite arrangement—to which in northern countries we are more accustomed—of having the planting act as a foil to set out the building. This feature of the villas of Italy is one too little appreciated, and is the result of the decorative character of the foliage of that country—the cedars, cypresses, and stone pines—which is extremely statuesque, and which may be used architecturally even more effectively than stone or brick or other materials of construction. Were it not for the trees that surround them the villas in Italy would be often a sad disappointment, for many of them consist merely of bare walls and roofs of slight architectural merit. Of course I am not speaking of those perfectly wrought works of architecture which the better

known Italian villas most certainly are, but refer more particularly to the countless villas which dot the hills throughout that country.

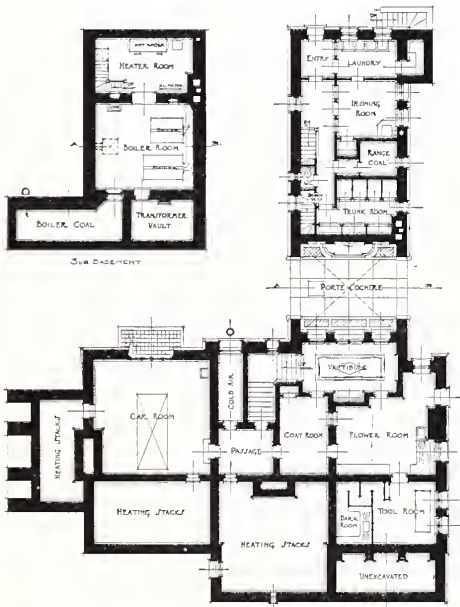
Such statuesque foliage is lacking in northern Europe, and in our own country for the most part as well, and consequently to get results, architects are forced to concentrate decoration and architectural features in the building, using the planting either to soften the contrast between building and site, or else to set forth the building itself more effectively. In California, where a statuesque flora is found similar to that in Italy, the architects have been quick to seize upon the advantages offered by the "architectural" foliage.

In the Schieffelin house, Mr. Smith seems to have chosen middle ground. He has created a simple house, yet at the same time endowed it with enough features of interest to set it out against the pine trees which count as decoration in masses rather than in individual specimens. The planting and landscape work around the house is naturalistic, consisting of steps, walks, etc., of rough stone set in small patches of green lawn immediately about the house. To the east is a formal garden in process of construction.

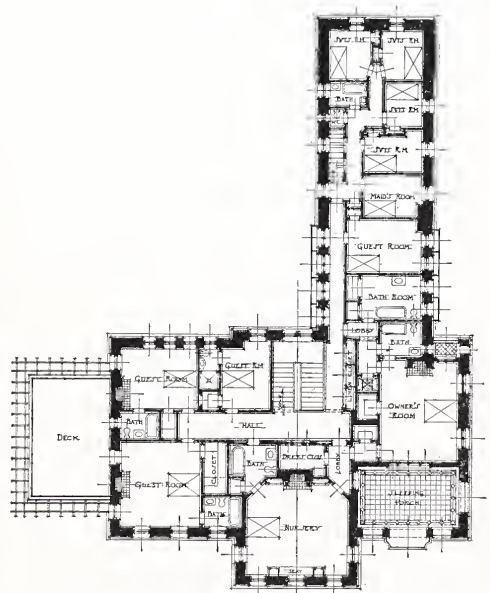
Such are the main features of the exterior as they have been schemed in intimate relationship to the site. The interior reveals the same controlling motive. Since the only approach to the house is by the roadway, entrance to it is found in the porte-cochère under the wing, whence one ascends to the main floor. Automobiles pass under the porte-cochère into a paved court, where they may turn around or else be left in the space marked "Car Room" on the plan. This "Car Room" is a touch of convenient planning; it is not the garage proper, which is located away from the house, but it is designed to allow the owner to keep one car always ready to be taken out at short notice without sending down to the garage. The porte-cochère is simply and skillfully treated, as the photograph shows, with a flat groin-vaulted ceiling set off by lines of inserted green tile. At the



COURT-HOUSE OF SCHUYLER SCHIEFFELIN, ESQ., MONROE, N. Y.
Bowen Bancroft Smith, Architect.



Plan of Basement.



Plan of Second Floor.

HOUSE OF SCHUYLER SCHIEFFELIN, ESQ., MONROE, N. Y.
Bowen Bancroft Smith, Architect.



PORTE-COCHÈRE—HOUSE OF SCHUYLER SCHIEFFELIN, ESQ., MONROE, N. Y.
Bowen Bancroft Smith, Architect.

level of this basement entrance are the usual conveniences of coat-room, toilet, etc., and on the opposite side, under the wing, the laundry equipment.

One ascends to the first floor to find to the left and east of the dining room, off which is the loggia referred to looking south over the lakes; then turning to the right one enters the large living room, with the sun parlor beyond hung over the precipice above the water on fine massive rough stone corbels; while ahead one sees a fireplace *en axe*, with doors at each side opening into Mr. Schieffelin's study. The kitchen wing stretches to the north from the dining room. Above, on the second floor, are the owner's room, with sleeping porch, four guest chambers of various sizes, with bath for each, and five servants' rooms, closets, etc. Taken as a whole the plan, like the house of Mr. H. H. Rogers of Southampton, Long Island, shows an arrangement that is symmetrical superficially, but which on account of the informal entrance has rather the effect of informality than of axial balance.

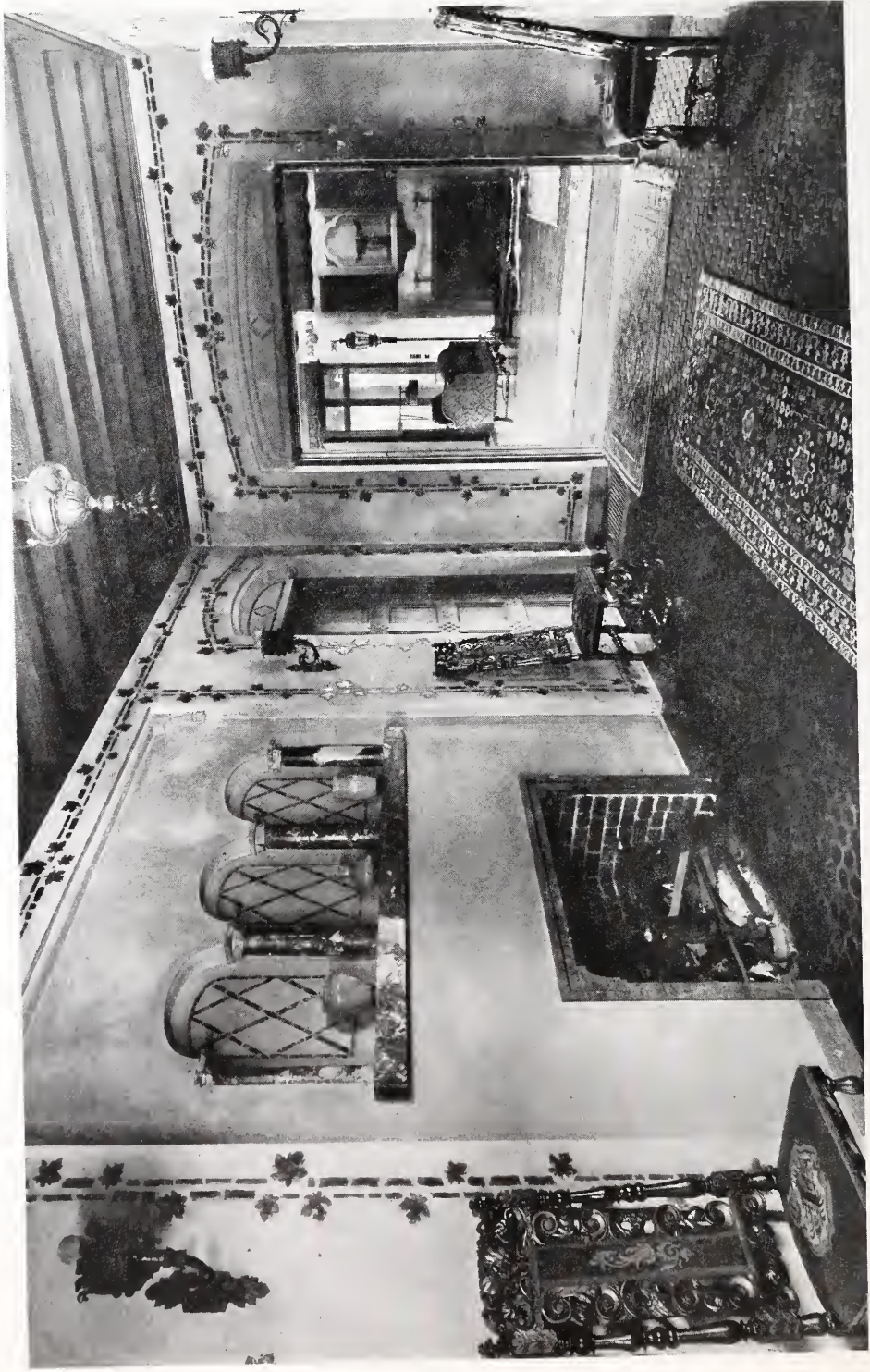
But in the whole design of Mr. Schieffelin's house there is nothing more significant than the interior decoration. Not only does the work show high artistic ability of conception, along with skill and sureness of execution, but, still more important, reveals the use of new methods which seem to point to new fields of imagination and effort in the architecture of interiors. In accomplishing these results, Mr. Smith has simply followed out the same honest, logical methods of treatment that find expression in the plan and exterior. What he has done is this—besides building the house of the stone and ledges found in the ground and using the material to construct the interior concrete walls, he has recognized the concrete surfaces of these walls and, refusing to hide them in plaster or paint or imitation stone work, has simply finished them off in a coat of cement and then decorated them with tile, tapestries, hangings, bits of marble, etc. The resulting effect, instead of being crude, is wonderfully finished, decorative, rich in color and texture. In a word, the architect has successfully



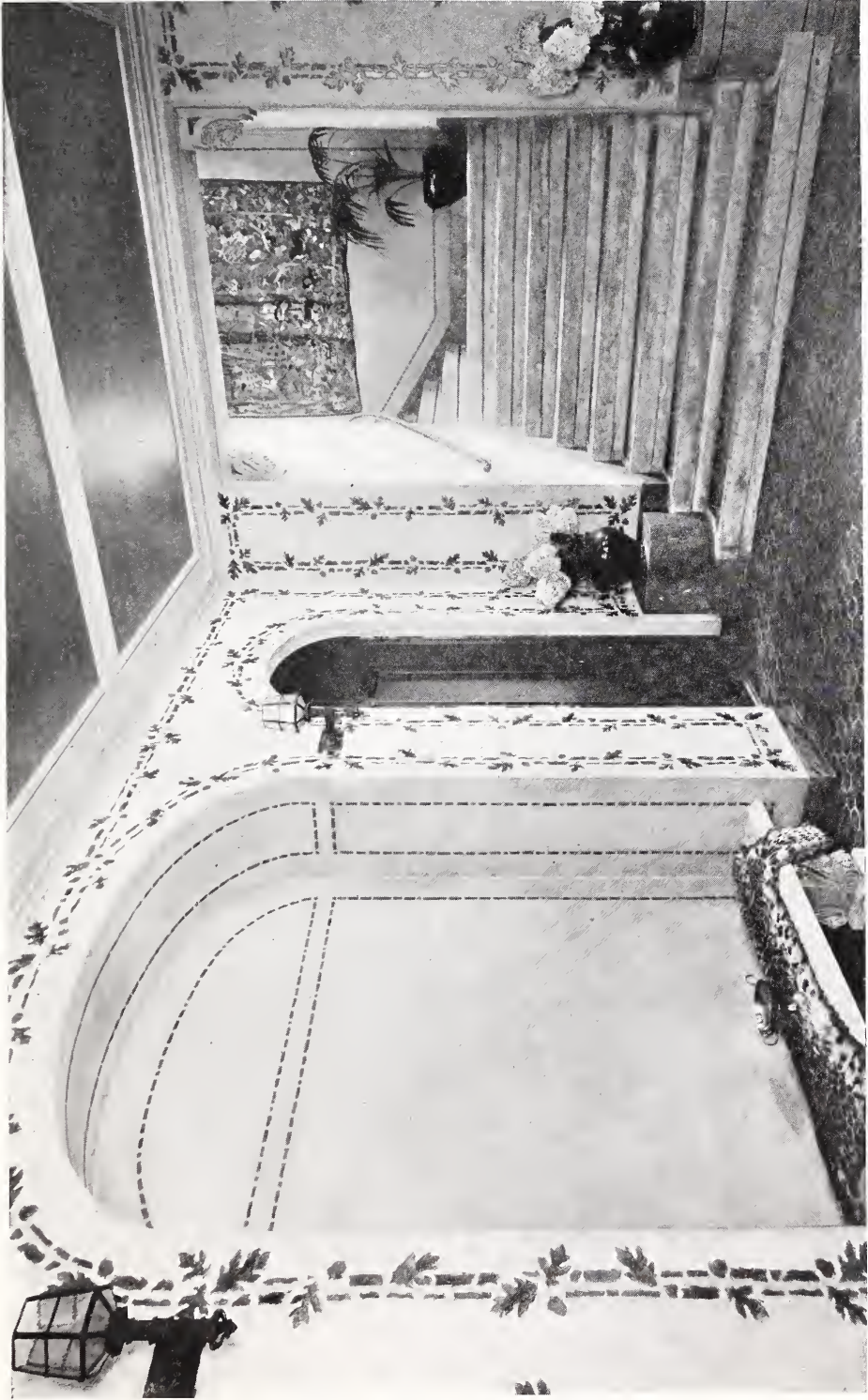
FORTE-COCHÈRE ENTRANCE—HOUSE OF SCHUYLER SCHIEFFELIN,
ESQ., MONROE, N. Y.
Bowen Bancroft Smith, Architect.



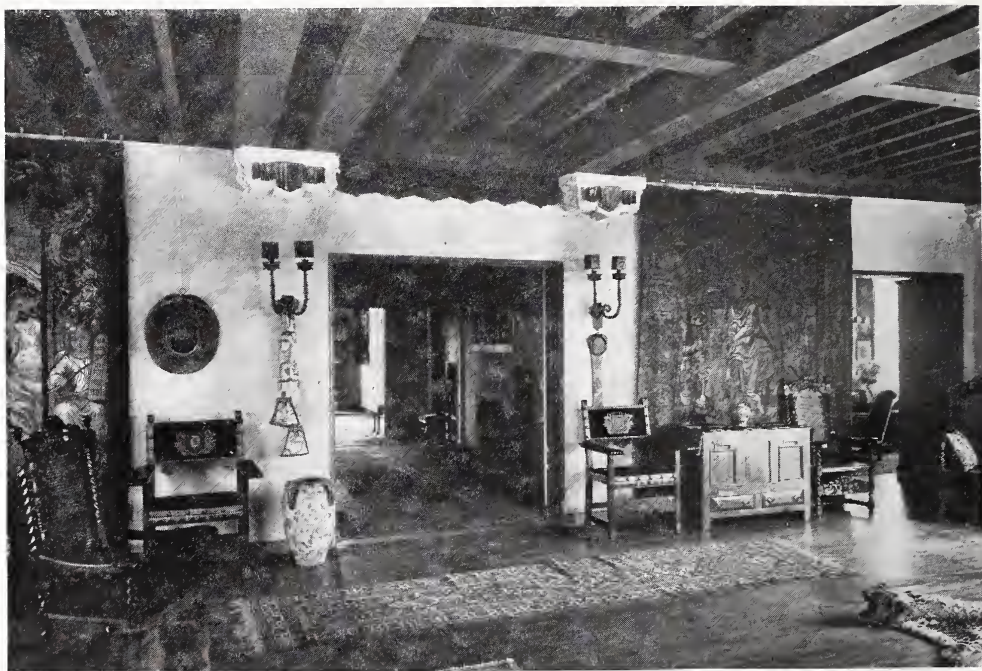
SUN PARLOR—HOUSE OF SCHUYLER SCHIEFFELIN, ESQ.,
MONROE, N. Y.
Bowen Bancroft Smith, Architect.



FIRST FLOOR HALLWAY—HOUSE OF SCHUYLER SCHIEFFELIN,
ESQ., MONROE, N. Y. BOWEN BANCROFT SMITH, ARCHITECT.



ENTRANCE HALL AT BASEMENT LEVEL—HOUSE
OF SCHUYLER SCHIEFFELIN, ESQ., MONROE,
N. Y. BOWEN BANCROFT SMITH, ARCHITECT.



LIVING ROOM—HOUSE OF SCHUYLER SCHIEFFELIN, ESQ., MONROE, N. Y.
Bowen Bancroft Smith, Architect.



DEN—HOUSE OF SCHUYLER SCHIEFFELIN, ESQ., MONROE, N. Y.
Bowen Bancroft Smith, Architect.

worked out a direct technique of treating interior concrete walls decoratively. It is a distinct achievement in architecture.

In thus designing what is practically a fireproof house and decorating it as such, it is to be hoped that a custom has been established that will become more widespread in the next few years. Not much longer will Americans be willing to risk large sums—and perhaps even their lives—in structures containing valuable furnishings which may burn in a night with slight hope of salvage, when for an expenditure of but a few percent more on the original cost a fireproof house might be obtained that would be reasonably safe from all but a very slight conflagration limited to a single room. Architects should heed the cry of "Safety first!" which deserves to be introduced into house architecture in this country. In fact, each year sees more fireproof houses built, and, with the increasing cost of lumber and skilled labor, we may soon come to a point where concrete or other fire-resisting materials will be cheaper in first cost than wood frame construction. With this increasing use of fire-resisting construction of concrete or cement coated walls architects will be inclined to give more attention to the surfacing and decoration of such walls.

In decorating the cement walls, Mr. Smith has depended largely on tilework, in which he takes an absorbing interest. The photographs show some features of the floor tiles, but give no idea of their fine qualities of color and texture. The hexagonal tiling in the halls, dining room, entrance hall and sun parlor are three-inch pieces of leathery reddish color, porous in texture, relieved by frequent but irregularly spaced figured tiles. The rectangular, tiles in the loggia are one inch by two inches of somewhat the same color, and varied with an occasional two-inch square ornamental tile. But the most interesting pattern of all is the maple and the oak leaf decorations in the entrance and first-story hall respectively. It would be impossible to exaggerate the beautiful color of these tiles or the truthful representation and remarkable vitality of their outlines, equalling

the most skillful carving. The stems are of exquisite glazed blues and bluish purples, while the leaves themselves have green centers, mottled and speckled as if by fungi, with yellow tips, resembling leaves in the first turning of autumn foliage. Mr. Smith experimented with the collaboration of several tile manufacturers for nearly a year in an effort to create tile work leaves before finally satisfactory ones were submitted to him. Once he obtained the desired samples no pains were begrudged to use them to best advantage. In order to arrive at geometrical patterns and yet preserve a free-flowing line and an appearance of naturalistic growth in the leaves and stems, full size drawings of the tiles were made in which a place for each tile was established. This work Mr. Smith did himself instead of leaving it to a draughtsman. After they were manufactured, the tiles were pasted on brown paper, and applied to the wall on grounds prepared for them, much as mosaics are set. Then a "brown" coat of cement was brought around the tile, and a final coat of cement applied over the whole wall and wiped off the face of the tiles. A long process it was, studied with greatest care and ability, executed with high technical skill, and consequently expensive. It will be readily seen that such work, however simple to describe, is not so simple to do, and that any who desire to practice such methods should use them warily, else what seems a fine beginning will be discredited by careless or unskilled imitators. Perhaps with experiment a simpler technique will be perfected which, at not too great expense, will put into common use new methods of wall design of great merit. There is nothing more beautiful than some of the tiling made by American manufacturers and it deserves greater attention from architects and decorators than it has hitherto received.

A few other features of the interior decoration of the Schieffelin house merit a brief description. In the entrance hall the ceiling is of gold leaf applied in one and one-half inch pieces to furnish a texture, which pieces were further lacquered to remove the



DINING ROOM—HOUSE OF SCHUYLER SCHIEFFELIN, ESQ., MONROE, N. Y.
Bowen Bancroft Smith, Architect.



SUN PARLOR—HOUSE OF SCHUYLER SCHIEFFELIN, ESQ., MONROE, N. Y.
Bowen Bancroft Smith, Architect.

shine usual in gold leaf. The stairs have concrete risers and tile treads. In this connection it will be recalled that in the Rogers house, referred to above, and built later, a house showing the same bold direct handling of materials decoratively, the main stairs were of brick treads and risers topped with a simple rail. The room base throughout the first floor of the Schieffelin house is red marble harmonizing with the floor tiles.

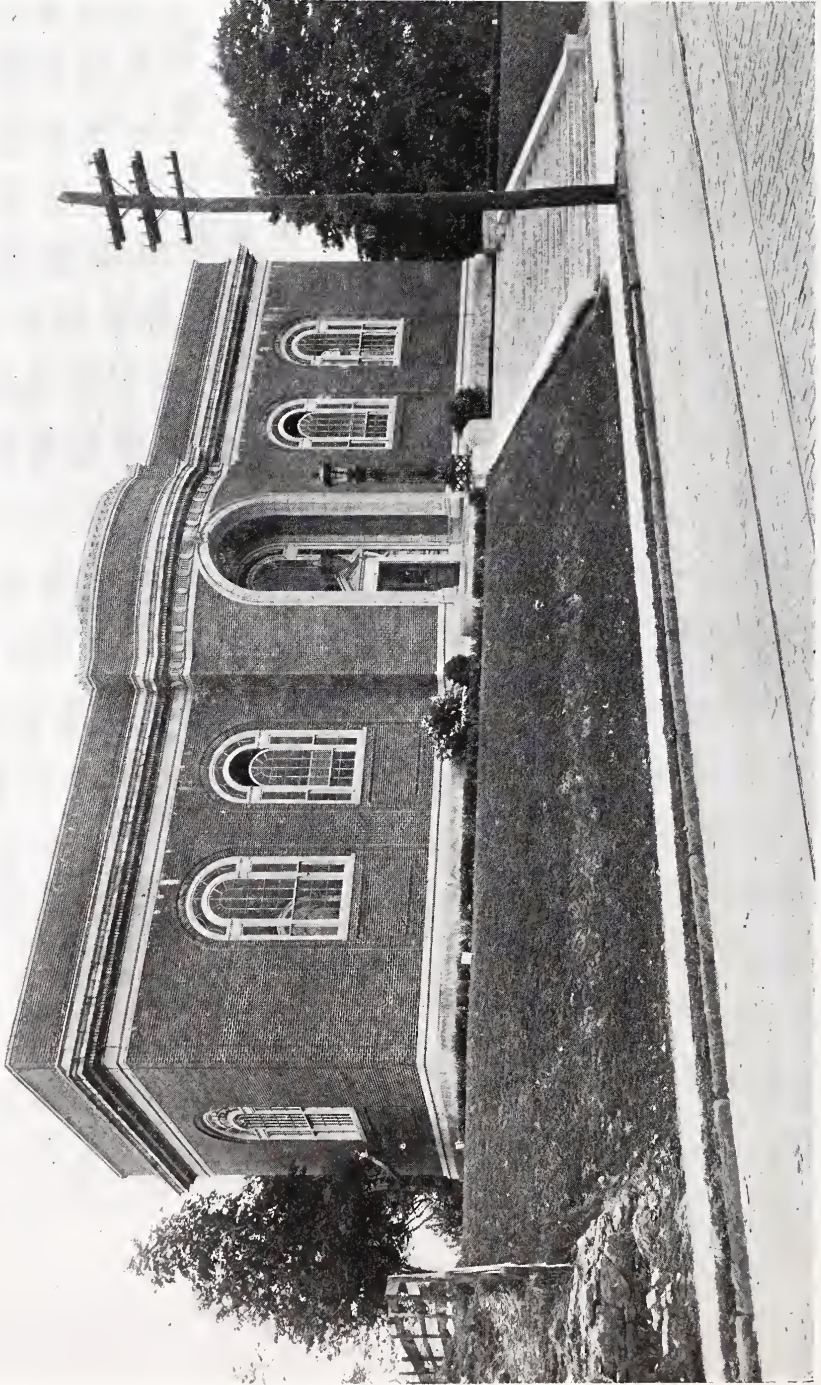
One of the most successful parts of the house is the main floor hall. The beamed ceiling of chestnut adzed by hand, the fireplace left as a plain opening with the niches above of fleur-de-peche marble enframing, the tile oak leaves on the walls and brownish hexagonal floor tile, all combine in unusual distinction, harmonizing with the general scheme of the entrance hall. Following much the same treatment, the large living room has a heavy beamed ceiling, a floor of large oak planks relieved by a slight pattern of oak pins, marble room base and concrete walls. Here, however, instead of the tile for the decoration of the concrete walls, Mr. Smith has depended on tapestries and on bands of ecclesiastical embroidery of gold (appliqué on Genoese red velvet) hung directly all around under the ceiling beams. The dimensions of this room are twenty-four feet by thirty-six feet six inches, by eleven feet six inches high. Another interesting room is the den, twenty feet long by sixteen feet six inches wide, finished in chestnut of silvery stain, this woodwork detailed with the minimum of mouldings and relief to show the figure of the grain. An interesting feature of the den is the recessed fireplace flanked with bookcases to hold those more evanescent types of literature which, on vacations, afford the reader distraction without setting up undue strains within him. In the dining room, except for the tile floor, there is a departure from the consistent treatment of the rest of the house. This is a conventional Georgian room, about twenty feet square, paneled in small panels up to the ceiling. As integral parts of the first floor scheme, the loggia and sun parlor are both simply and finely

treated, in keeping with the rest of the house.

The isolated situation of the Schieffelin house demanded that an independent mechanical plant be installed. An adequate water supply is pumped by an oil engine from a well located some seventy feet above the house, through a four inch main into two large tanks on the roof of the house. For fire protection there are standpipes with connections on each floor for hose of three inches diameter, somewhat larger than is customary. The sewage disposal plant consists of receiving chambers and syphon chamber, some distance below the house, which open into three fields by means of a clover-leaf valve, which permits only two fields to be used at a time and which is expected to be turned once a month. Among the electrical features are power outlets located conveniently throughout the house, especially in bathrooms, pantries, etc., for heating irons, chafing dishes, etc.; and as a sort of burglar protection, a switch located back of the owner's bed turns on one light in each room of the dwelling which cannot be turned off except at the same switch. In addition, there is a system of intercommunicating telephones through the rooms, arranged to be extended to the garage and to any future outbuildings that may be erected on the estate.

On the basement plan will be noticed one or two additional features of mechanical interest. These are the dark room for photography, so arranged that access is had to it by means of a small labyrinth of passages permitting the door of the room to be opened without admitting light; and a flower room for arranging flowers with sink, concrete floor, and a bench running around the room.

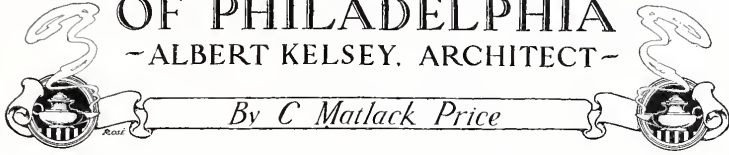
Such are the essential features of this highly successful work of Mr. Smith's—a house built almost entirely of fire-resisting materials, mostly quarried on the site, boldly and honestly designed, executed with skill and precision; to which distinct achievement the higher one has been added, that of unusual artistry in color decoration, obtained by using unappreciated materials in a new way.



HADDINGTON BRANCH OF THE FREE LIBRARY OF PHILADELPHIA. ALBERT KELSEY, ARCHITECT.

HADDINGTON BRANCH THE FREE LIBRARY OF PHILADELPHIA

—ALBERT KELSEY, ARCHITECT—



By C Matlack Price

ALL buildings of specific types, such as theatres, post-offices, banks, schools and court-houses, call to mind some familiar, or at least usual, manner of architectural treatment. This is particularly true of libraries.

It is not intended to imply that our familiarity with these architectural expressions is to be construed as an accusation that they are commonplace, or that our architects blindly follow a stereotyped formula. It would be more true to say that a certain architectural treatment is usually accorded to a specific type of building because that treatment has been found to be the best in the greatest number of ways.

For the most part, the first thought in connection with a public building (excepting the theatre) is that it should be dignified. Dignity is a safe ideal and a desirable one, and a public building possesses greater architectural merit if it be dignified, even if uninteresting, than if it be interesting and not dignified. In some cases qualities of both dignity and interest have been forcefully combined.

Adherence to type in the design of public buildings has had its advantages and its disadvantages—the one predominating over the other commensurately with the ability of the architect.

On the first score, the country has been spared many unsightly “architectural aberrations,” (to use the late Mr. Schuyler’s apt term), and classic traditions, even Beaux-Arts traditions, have preserved in our public buildings, for the most part, a certain quality of dignity, fitness and propriety. On the other score, adherence to type has reiterated a good many details, excellent in themselves, but tiresome when used without

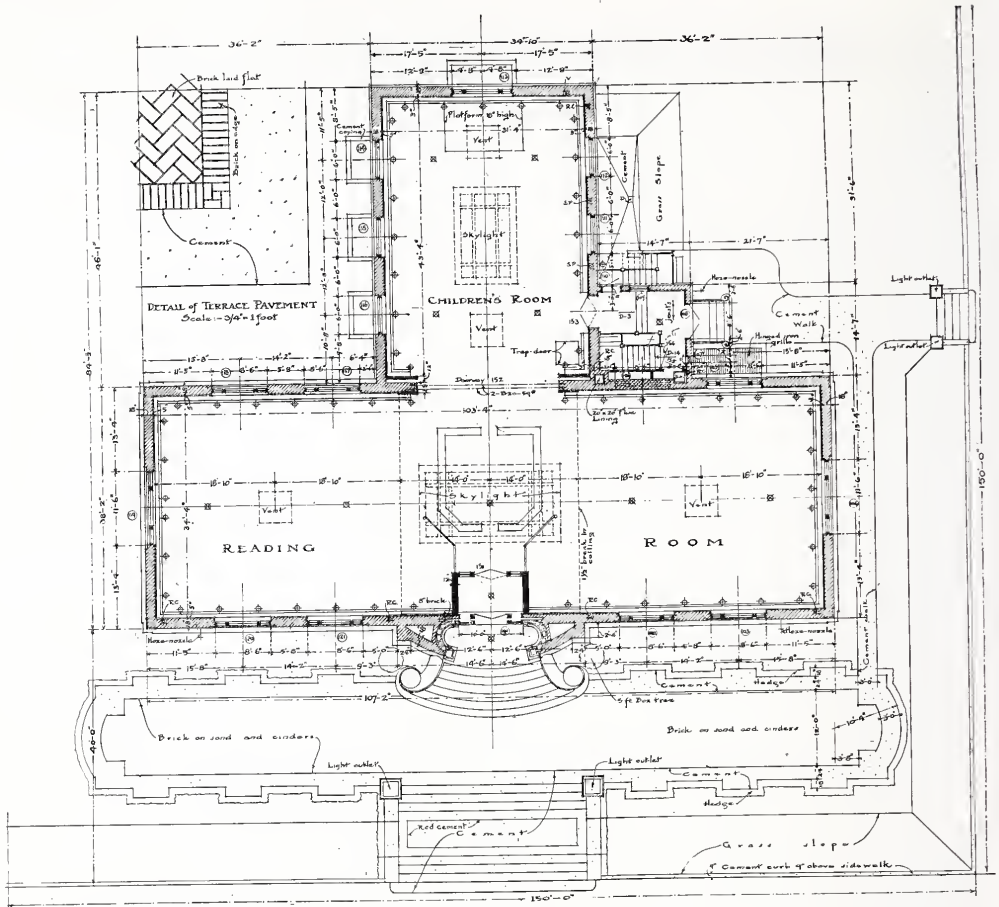
imagination. The vicissitudes, in this connection, through which the classic orders have been driven must be accepted as proof complete of the eternal merits of Greek architecture. Used and misused without respite for centuries, classic forms are no less the basis of architectural design than ever, and we can feel safe in assuming that this will remain true so long as there is any architecture.

That classic architecture forms the basis of a design for a public building should, however, not be hastily accepted as a reason why many public buildings have proved to be conspicuous architectural failures. The reason for the failure or for the stigma of “commonplace” will be found to lie with the misunderstanding or misuse of the classic idea, or with its use when some other architectural treatment might have been more effectively employed.

Much has been written and said concerning Greek architecture, from Vignola to date; yet no critic, perhaps, has descended to such colloquialism, or risen to such truth, as to say that Greek architecture, among its other gifts, has saved a great deal of thinking on the part of latter-day architects.

And in no type of public building have classic forms been more often called into service than in library buildings. This, in many ways, is fortunate, for we instinctively feel that, in all propriety, the repository for a valuable collection of books should be dignified.

In pursuit of the ideal of dignity many architects have overlooked the element of humor in architecture and have forgotten that with qualities of dignity in a library building it is desirable also to



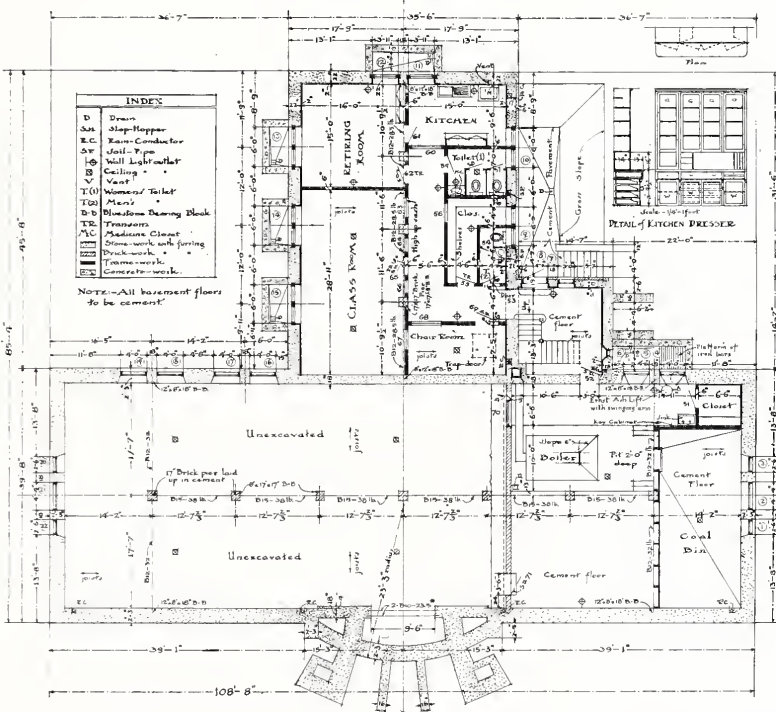
FIRST FLOOR PLAN—HADDINGTON BRANCH OF THE FREE LIBRARY OF PHILADELPHIA.
Albert Kelsey, Architect.

combine in as strong a degree as possible qualities of an inviting character. The library which is dignified to the point of resembling a palatial mausoleum is not a well-designed library. It has sacrificed one idea in one-sided expression of another. If we were to deal in architectural formulae (which heaven forbid!) we might say that the ideal library is one in which a fine degree of dignity and a human amount of freedom and invitation are rendered in architectural terms combining propriety, interest and attractiveness.

With these thoughts in mind, it is interesting to study in plan and detail a recently completed branch library building in Philadelphia—the work of Albert Kelsey, F. A. I. A., who will be remem-

bered as the architect (then in association with Paul P. Cret) of the Pan-American Union Building, in Washington, D. C. This building embodied many unusual and excellent features in plan, as well as in disposition of the façade, and is a building exceptional for the ingenuity and conscientiousness of its detail. The Pan-American building is notable, also, as a result of adherence to a clear idea and to a belief in the value of architectural study and imagination combined.

In the Haddington Branch of the Free Library of Philadelphia, Mr. Kelsey has produced a building of unusual interest and distinction, in planning, general character, and in details of form, color and symbolism. In planning this branch



BASEMENT PLAN—HADDINGTON BRANCH OF THE FREE LIBRARY OF PHILADELPHIA.
Albert Kelsey, Architect.

library, it was decided to depart from both the usual types of plan—the “stack-room” and the “alcove” plan—and to throw the space into one great room, so that every visitor might at all times be within sight of the central desk. The decision of the library authorities on this open type of library naturally simplified the plan to some extent. Another feature, followed out in conformity with the other branch libraries, was the provision of a detached juvenile department, so designed as to be readily convertible into an auditorium.

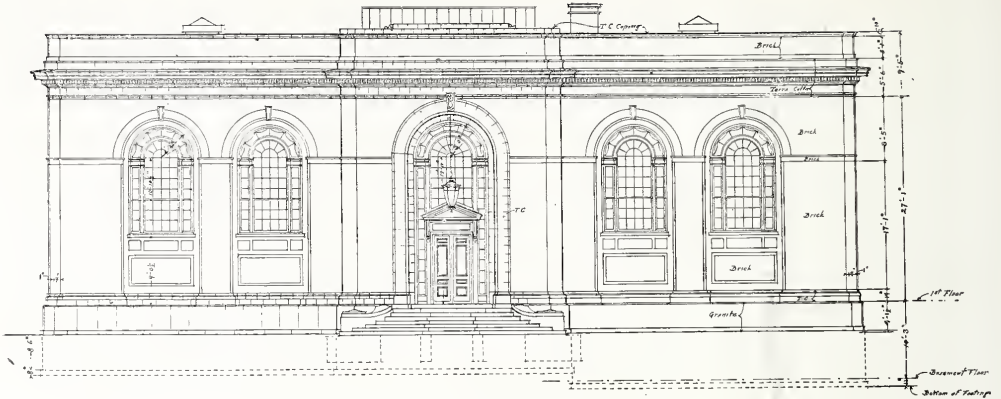
Mr. Kelsey introduced a simple and practical device in this connection which might well be borne in mind in the layout of many school, town-hall, and Sunday school plans, the idea being to avoid the unnecessary labor and defacement of woodwork usually entailed by carrying hundreds of folding chairs from one part of the building to another. Space is provided in a room in the basement where the chairs may be stored, and by means of a trap-door and a half-way

scaffold, two or three men can pass up two or three hundred chairs directly into the room with great celerity.

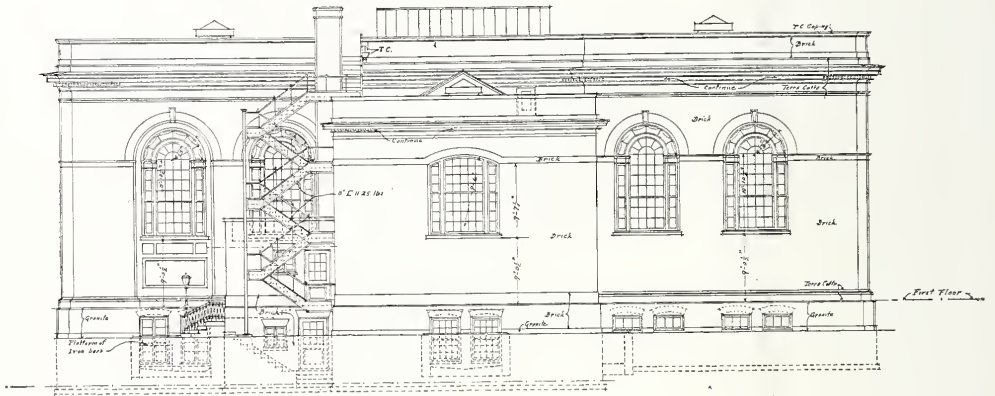
A study of the plan will reveal distinct economy of space in the layout of the children’s entrance and the basement beneath the juvenile department, which bears an interesting relation to the side and rear elevations, as will be seen later.

One of the sectional drawings carries an indication of a new and practical expedient in the planning of the heating, devised to prevent the usual streaking of dust on walls above radiators, where the constant flow of heat draws it upward. In this building each radiator is placed under a slate shelf, directly under the bookcases, but the heat is brought up behind the bookcases and let out directly under the windows, so that it is discharged at the proper place to counteract the cold, and also passes upward over the face of the window instead of over a plain wall surface.

A successful effort was made in the elevations to keep the windows of the



FRONT ELEVATION



REAR ELEVATION

HADDINGTON BRANCH OF THE FREE LIBRARY OF PHILADELPHIA.
Albert Kelsey, Architect.

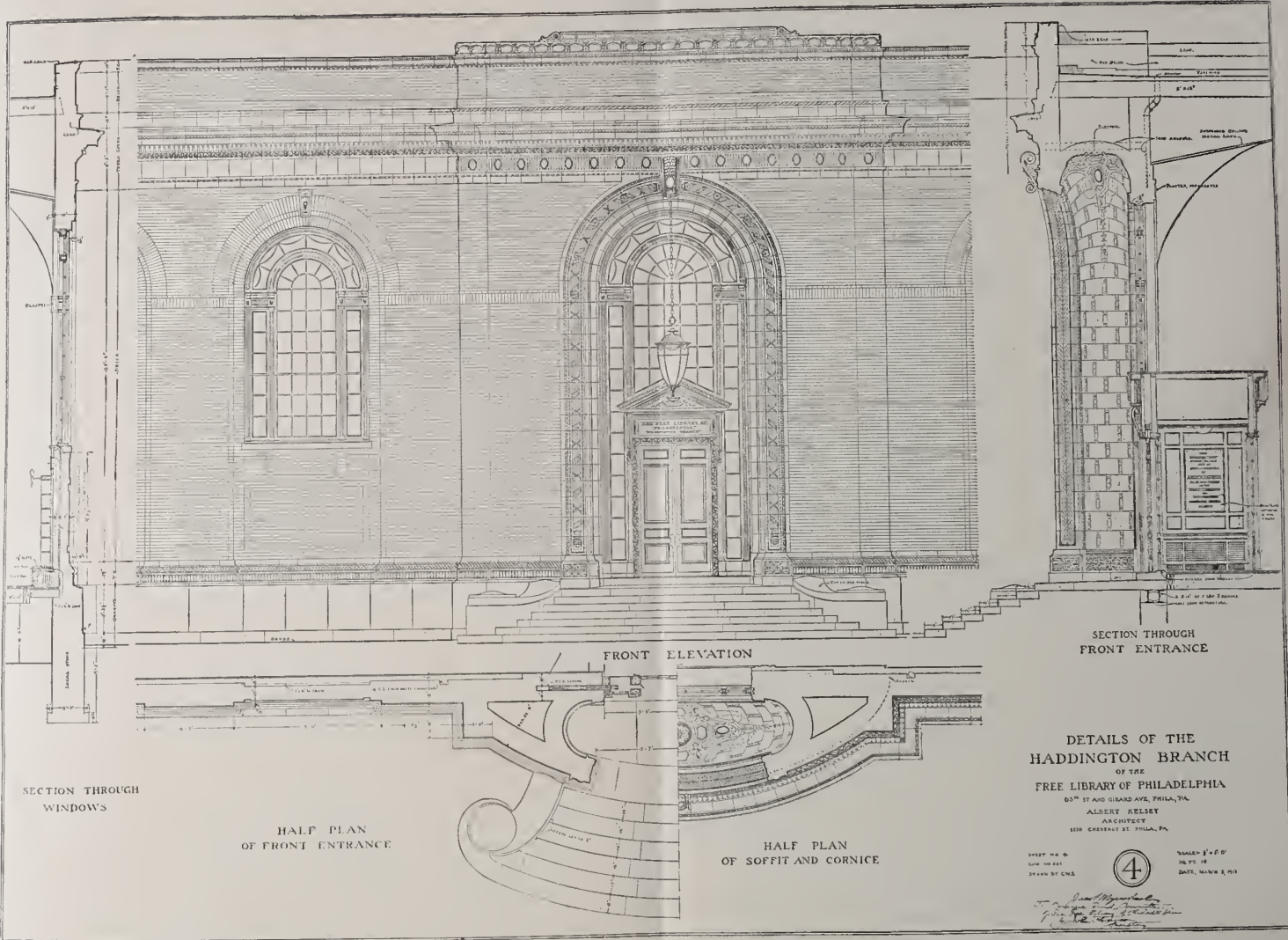
main building uniform, to effect which the vestibule into the juvenile department was kept low, while the main building is lofty. Careful study in such matters is repaid by the resulting nicety of symmetry and alignment in a building of this sort.

As a radical departure from the usual classic character of library buildings with columns and portico, Mr. Kelsey elected to design this building in the "Architecture of Humanism"—the style of the Renaissance, modified to conform also with the characteristic local Philadelphia architecture of red brick and white trim, the style so successfully followed by Edgar V. Seeler in his great Georgian colonial building for the Curtis Publishing Company.

This Georgian colonial feeling is ex-

pressed in the design of the windows, as well, so that even the distinctly Italian treatment of the entrance feature does not constitute the building a piece of "transplanted design," alien to its locality. The Italian doorway, on the contrary, lends that potent quality of historic interest which should always characterize a library building. Nor is the Italian quality in any sense a copy of any works of the Renaissance, but a skillful use of the Italian manner of expression in the telling of a story particularly intended for this building, in terms of literary symbolism.

This element of symbolism in architectural design deserves more than passing attention, nor has Mr. Kelsey's belief in the value of architectural symbolism been confined to this building. It



SECTION THROUGH WINDOWS

HALF PLAN OF FRONT ENTRANCE

FRONT ELEVATION

HALF PLAN OF SOFFIT AND CORNICE

SECTION THROUGH FRONT ENTRANCE

DETAILS OF THE
 HADDINGTON BRANCH
 OF THE
 FREE LIBRARY OF PHILADELPHIA
 65TH ST AND GILKAT AVE, PHILA, PA.
 ALBERT KELLEY
 ARCHITECT
 1130 CHESTNUT ST. PHILA, PA.

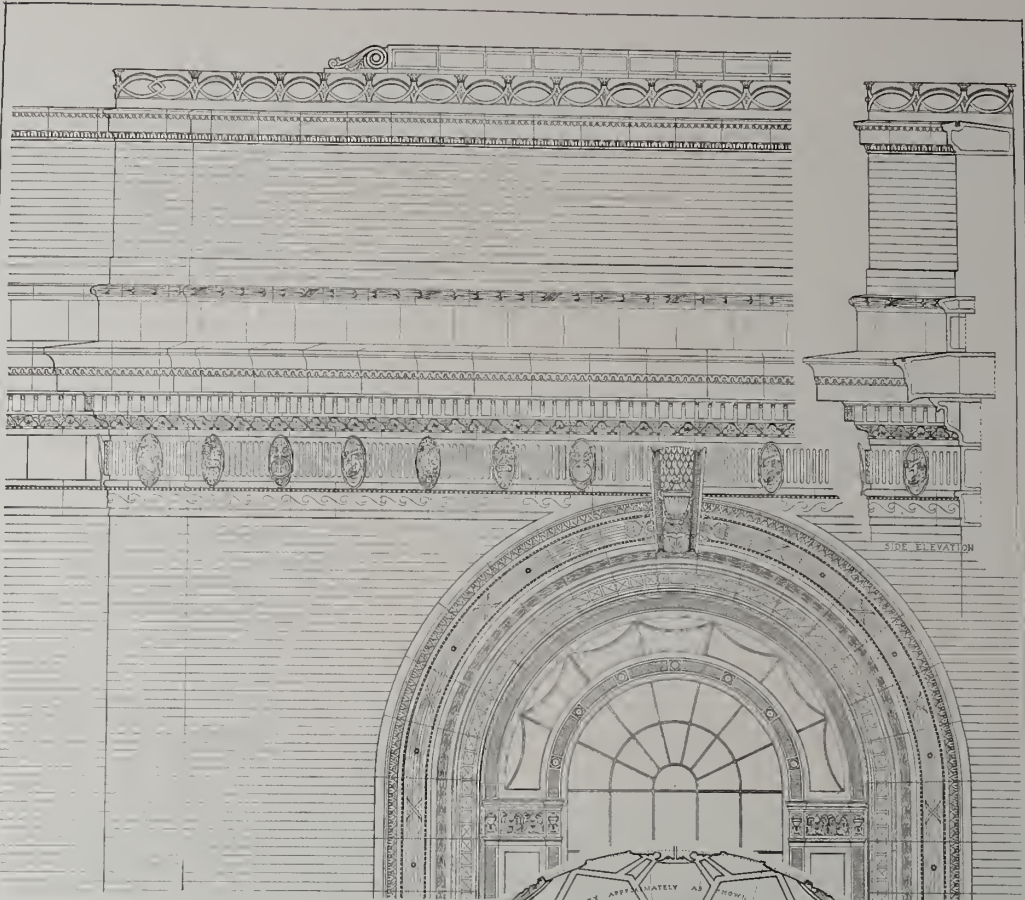
SHEET NO. 6
 JOB NO. 211
 DRAWN BY C.M.A.

4

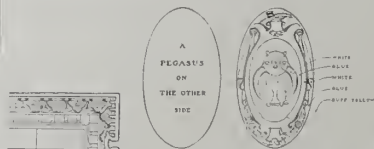
SCALE: 1/2" = 1'-0"
 3/16" = 1'-0"
 DATE: MARCH 2, 1913

Albert Kelley
 ARCHITECT

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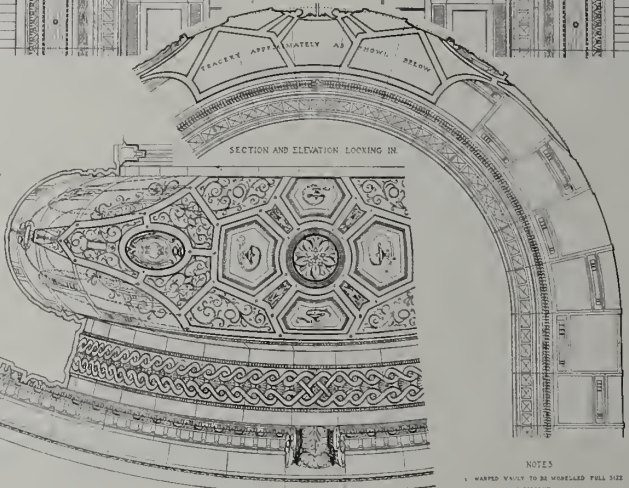


SIDE ELEVATION



A
FIGURE
OF
THE OTHER
SIDE

DETAIL OF CARTOUCHE IN CEILING



SECTION AND ELEVATION LOOKING IN

SOFFIT AND CEILING PLAN

DETAILS OF CENTRAL FEATURE
OF THE
HADDINGTON BRANCH
OF THE
FREE LIBRARY OF PHILADELPHIA
657 1/2 BROAD STREET, PHILA. PA.

ALDEN'S GALLERY
ARCHITECT
NEW YORK

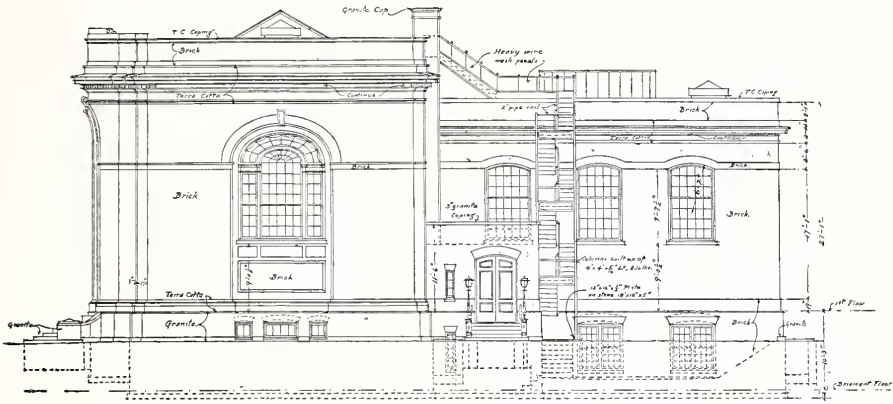
HEET NO. 22
1916
PLANS BY C.A.T.

SCALE 1/4" = 1'-0"
1/8" = 1'-0"
1/16" = 1'-0"

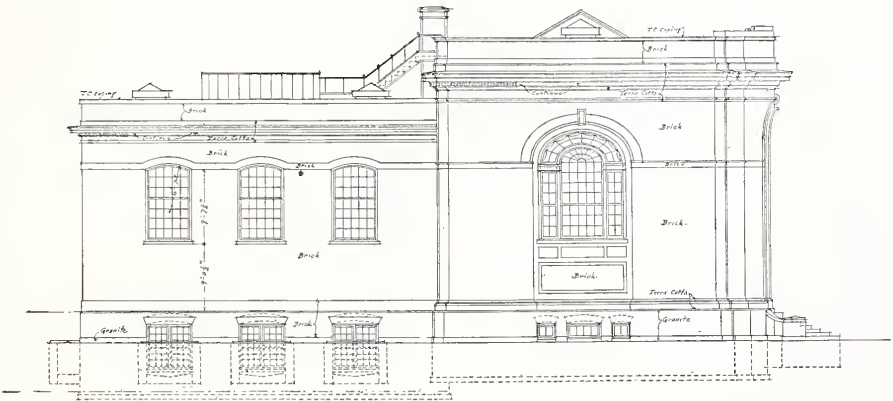
20

NOTES

- 1. WARPED VAULT TO BE MODELED FULL SIZE WITH FORM & PATTERN
- 2. TAKE ALL DIMENSIONS FROM SHEET NO. 1
- 3. FIGURES TO BE PLACED UPON FULL SIZE PAPER, MODEL



NORTH ELEVATION



SOUTH ELEVATION

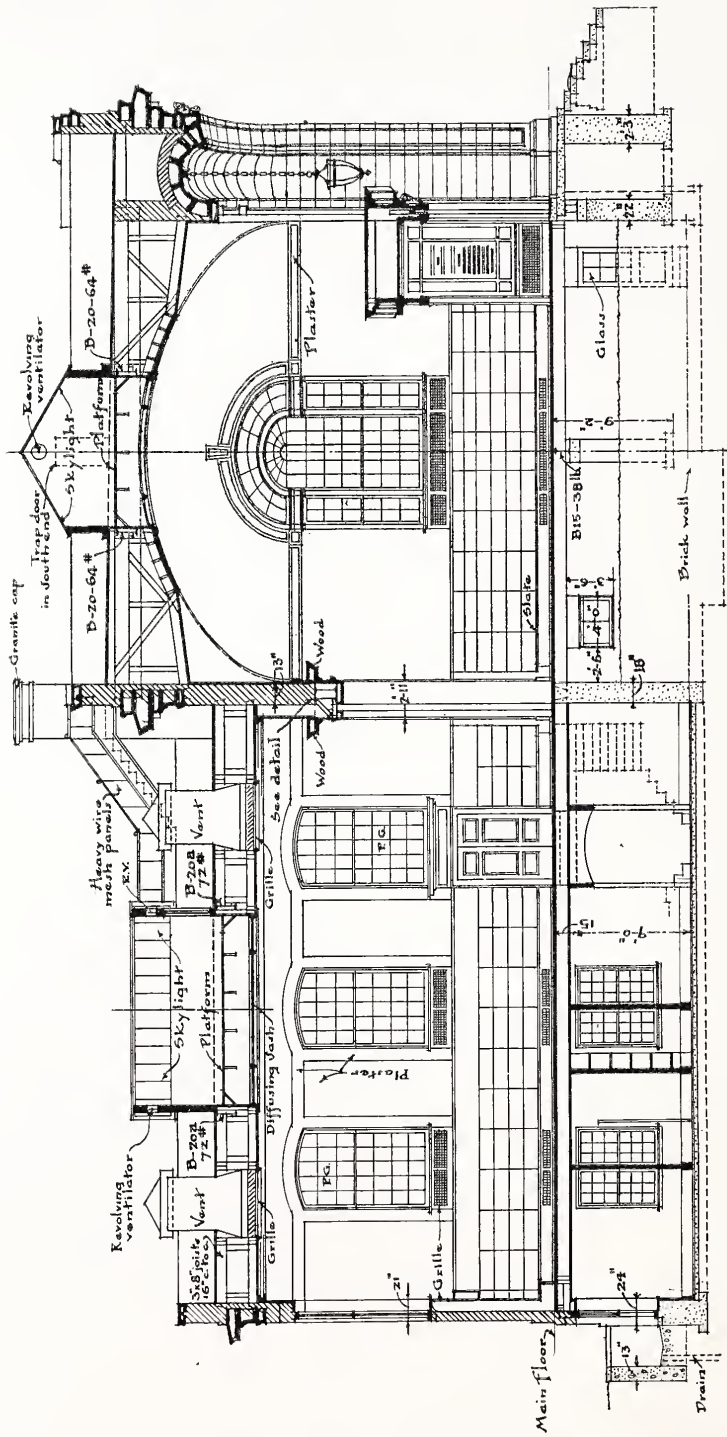
HADDINGTON BRANCH OF THE FREE LIBRARY OF PHILADELPHIA.

Albert Kelsey, Architect.

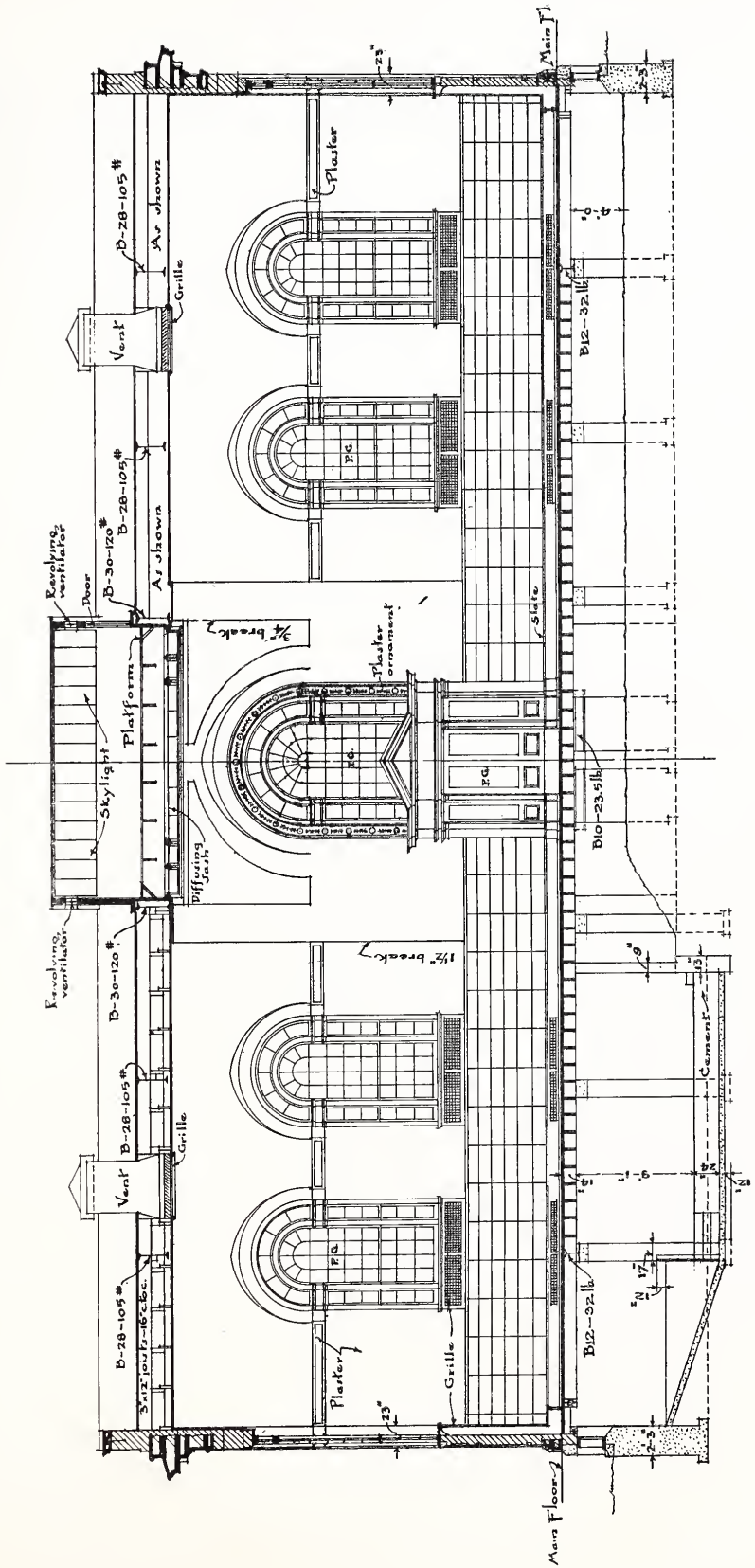
will be remembered that one of the peculiar charms of the Pan-American Building in Washington, as distinguishing it from virtually all other monumental buildings, was the remarkable introduction of symbolic interest without loss of dignity. In its detailing Mr. Kelsey and Mr. Cret were at great pains to delve in the lore of ancient South American archaeology to discover symbols which should be at once decorative and full of special meaning, so that ancient Aztec ornaments and characters took the place of ancient Greek ornaments and characters, while the proportions remained within the confines of classic precedent. In this way there was created a building which will speak to every visitor and to all posterity of the purpose for which it was built.

There is, in architecture, an unrealized and unappreciated field for the introduction of symbolic ornaments and symbolic forms. We have, for the most part, forgotten one of the most appealing and personal, as well as the most decorative details of Gothic architecture, for example—the grotesque. There are a few instances to be found at West Point, at Princeton and in the lobby of the Woolworth Building and elsewhere, which have shown the peculiar humanizing link with which symbolic detail may bind the architectural design with its purpose and with the human beings who evolved it.

While grotesques are not suitable, even in a modified form, in many instances, symbolic ornament may be introduced in nearly any type of building, from the dwelling to the church, and it



TRANSVERSE SECTION—HADDINGTON BRANCH OF THE FREE LIBRARY OF PHILADELPHIA. ALBERT KELSEY, ARCHITECT.



LONGITUDINAL SECTION—HADDINGTON BRANCH OF THE FREE LIBRARY OF PHILADELPHIA. ALBERT KELSEY, ARCHITECT.



MODEL OF OLD PRINTERS' MARKS ADORNING THE FRIEZE OF THE CENTRAL FEATURE.

is this kind of architectural detail of which we find Mr. Kelsey an ardent advocate. Nor does he confine symbolism to form alone, but in this instance the polychrome terra-cotta of the arched main vestibule is carried out in blue and yellow, the civic colors of Philadelphia.

This vestibule is, in many respects, an unusually interesting piece of detailing, reflecting not only technical ability, but ingenious and sympathetic thought. Its color is visible from a considerable distance, and as the site of the building is on a garden terrace, the view from below is the only one possible. The elevation of the terrace, indeed, was such that no altogether satisfactory photograph of the building could be obtained.

The design of the central vestibule will repay detailed study in several particulars. It is intentionally the only feature of interest in an otherwise plain and dignified building, and is intended, by virtue of its values of color and symbolism, to take the place of the usual colonnaded portico.

With a portico, furthermore, the interior of any building is usually most poorly lighted at that point, whereas this tall arch (thirty feet in height) admits more light at the entrance than is admitted even by the tall windows occupying the rest of the wall space.

In this relation, therefore, as well as in its axial location, this great portal is not only an integral part of the building, but a dominant feature of the terrace and garden approach as well, so that it is eminently fitting that all the color and detail of the façade should have been concentrated at this point.

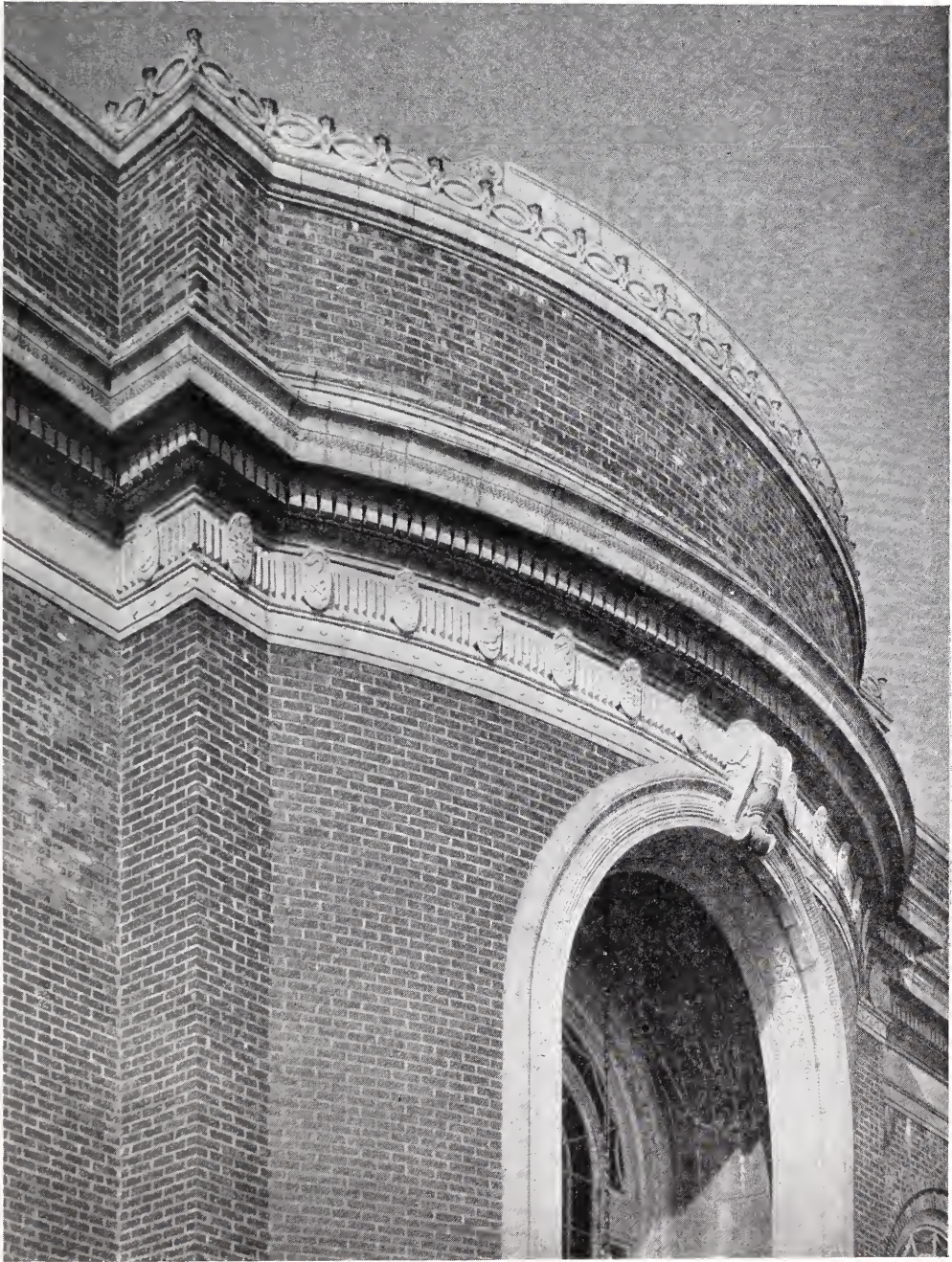
In the design of the warped reveal of the portal, Mr. Kelsey's idea was to express in symbolic forms the thought that

a library is a treasure-house of books and a place in which to acquire knowledge, and thus the highly decorative allegorical composition shows trees of knowledge, with branches meeting overhead, through which are intertwined books, manuscripts, owls and lamps, with balancing cartouches showing the triple-headed classic Owl of Wisdom and the Pegasus of poetry, both cartouches surmounted by old-fashioned ink-horns and quill pens.

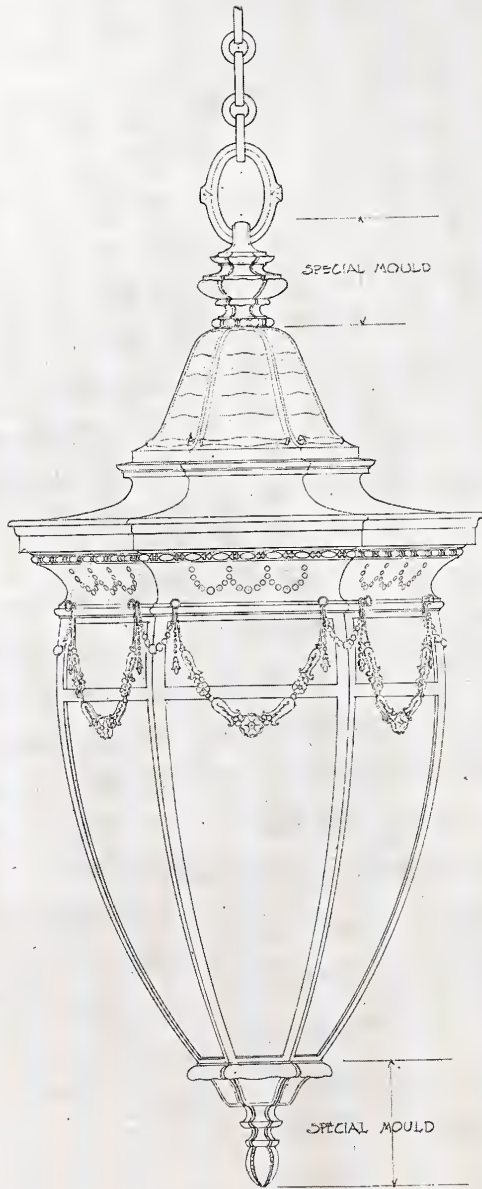
It is seldom, indeed, that an architectural feature so conspicuously a part of the exterior of a building can also be enjoyed from within, but this decoration of the soffit of the portal may be seen both by day and night from the great reading-room, which measures 104 feet in length, by 35 in width and height.

Such an incorporation of architectural symbolism in the fabric of a public building (to express the earnest hope of the architect) should go far toward developing in the public mind some appreciation of the vital but unheeded fact that architecture is a living art, and may (if we will understand its message) play as great and as interesting a part in our lives as it did in the days of Gothic cathedral building, or in the golden age of the Italian Renaissance. Architecture is not a lifeless engineering problem or an equally lifeless academic formula—it has a thousand intimate and interesting points of contact with the life of every one of us—if we will but allow ourselves to develop even a slight personal acquaintance.

Considering, further, the detailing of the portico, the Renaissance lantern is an agreeable incident, and the reveal and mouldings of the outer arch are remarkably adequately treated in points of scale



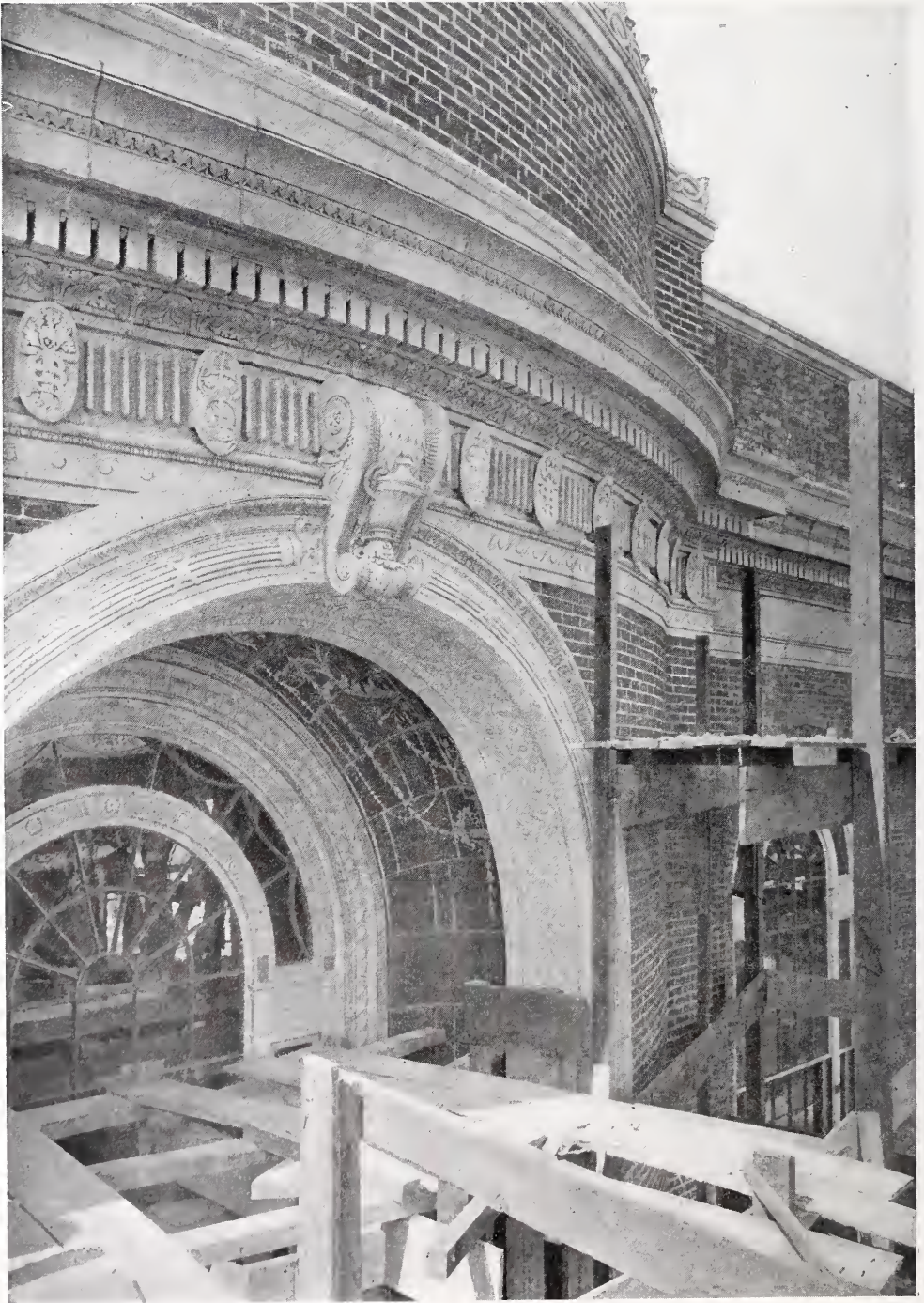
DETAIL OF CENTRAL FEATURE—HADDINGTON
BRANCH OF THE FREE LIBRARY OF PHILA-
DELPHIA. ALBERT KELSEY, ARCHITECT.



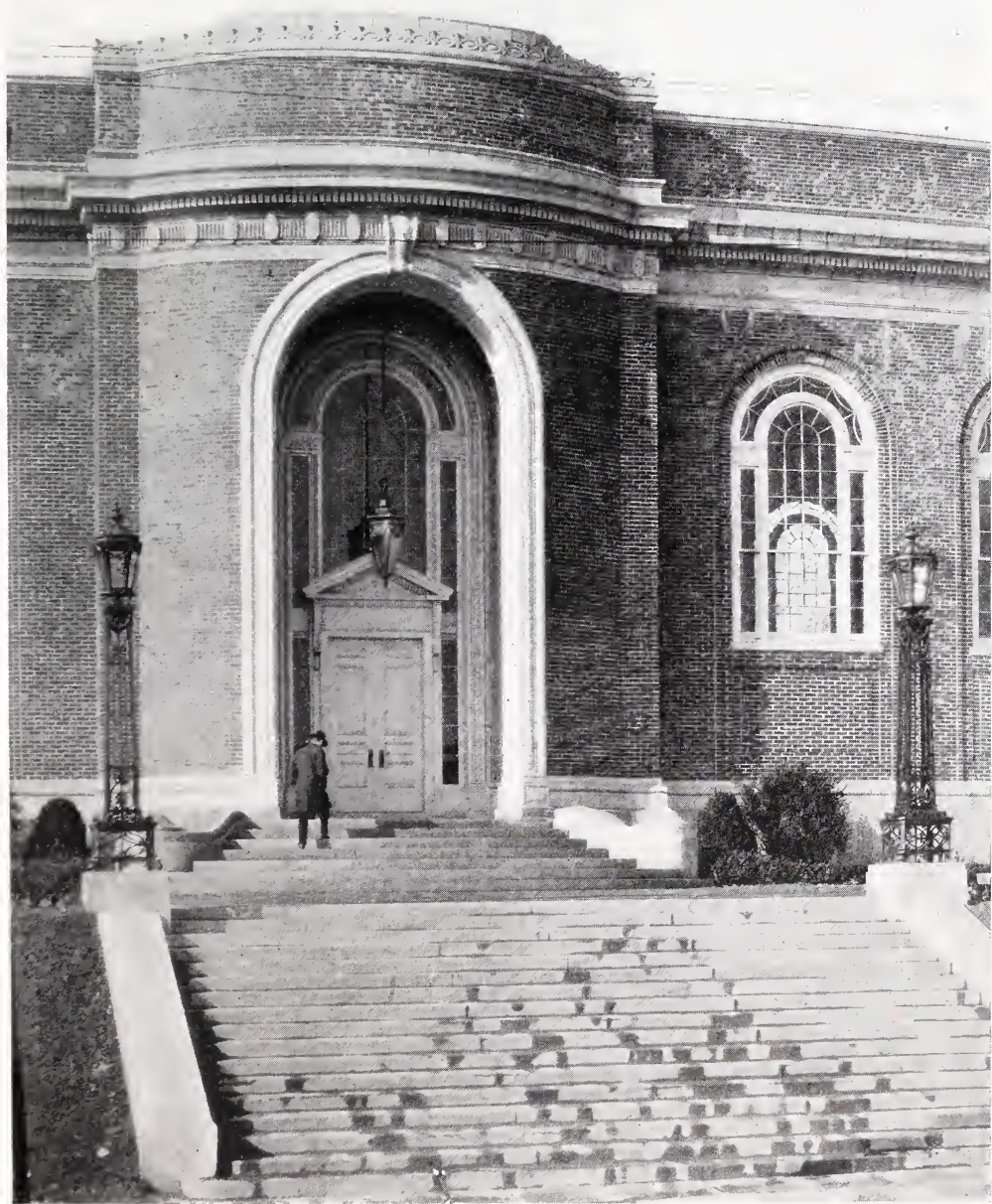
DRAWING FOR LANTERN IN MAIN ENTRANCE—
HADDINGTON BRANCH OF THE FREE LIBRARY OF
PHILADELPHIA. ALBERT KELSEY, ARCHITECT.



LANTERN AND DOOR-HEAD IN MAIN ENTRANCE
—HADDINGTON BRANCH OF THE FREE LIBRARY
OF PHILADELPHIA. ALBERT KELSEY, ARCHITECT.



DETAIL OF MAIN ENTRANCE—HADDINGTON
BRANCH OF THE FREE LIBRARY OF PHILA-
DELPHIA. ALBERT KELSEY, ARCHITECT.



MAIN ENTRANCE—HADDINGTON BRANCH OF THE FREE LIBRARY OF PHILADELPHIA. ALBERT KELSEY, ARCHITECT.



DETAIL OF CEILING IN MAIN ENTRANCE—HADDINGTON BRANCH OF THE FREE LIBRARY OF PHILADELPHIA. ALBERT KELSEY, ARCHITECT.



DETAIL OF CEILING IN MAIN ENTRANCE—HADDINGTON BRANCH OF THE FREE LIBRARY OF PHILADELPHIA. ALBERT KELSEY, ARCHITECT.



ARCH OVER MAIN ENTRANCE—HADDINGTON BRANCH OF THE FREE LIBRARY OF PHILADELPHIA.

Albert Kelsey, Architect.

and decorative interest. The key-block, running up into the frieze, admirably ties the arch and the crowning member of the building, but the warped vase, agreeable in elevation, seems a trifle uncomfortable in profile, and one is inclined to remember, in preference, a splendid Italian Renaissance key-block with a head of Minerva, designed by Charles A. Platt for the Cleveland Leader Building.

The frieze of the central portico, where the design of the vestibule below swells it outward, echoes the symbolism of the warped soffit below by the application of cartouches bearing the devices of the famous printers of the past—such as Aldus Manutius, before whose time a

public library was unheard of and the written word, in hand-illuminated manuscript books, was jealously guarded from the lay student in monastic libraries.

In the frieze, in the mouldings of the great portal, and in the polychrome detailing of the warped reveal Mr. Kelsey has shown a remarkably skillful and imaginative handling of his material. Terra-cotta, susceptible as it is to the effective rendering of either lithic or plastic forms, is naturally at its best in the latter, though many designers have endeavored to execute stone details, essentially derived from hammer and chisel, in this material, essentially expressive of modeled details.

A limitless opportunity for the intro-



DETAIL AT MAIN ENTRANCE—HADDINGTON BRANCH OF THE FREE LIBRARY OF PHILADELPHIA.
Albert Kelsey, Architect.



DETAIL AT MAIN ENTRANCE—HADDINGTON BRANCH OF THE FREE LIBRARY OF PHILADELPHIA.
Albert Kelsey, Architect.

duction of color in architecture has been laid open to the architect in the recent development of polychrome terra-cotta, and the designer of discrimination will be the one who realizes that its most telling effect will come with its most sparing or concentrated use.

Thus, had Mr. Kelsey designed a polychrome terra-cotta frieze and arch (an easy, entertaining, and tempting thing to do) he had robbed the reveal in the portal of its peculiar and unique quality of preciousness. Color in architecture is a dangerous element, because it may so readily fascinate the designer, until of a dignified building he has made an exposition temple or a moving picture theatre. There was a great deal of color in the architecture of the Italian Renaissance, but its beauty resulted from its skilful disposition.

Since this Haddington Branch Library is, in many respects, distinctly a "modern" type of building, it may not be without interest to "file for reference" its cost data, in view of the fact that it is the least expensive of any of the nineteen library buildings so far erected by the city of Philadelphia. The entire cost, including lighting fixtures, gardening, etc., and the architect's and engineer's fees, was approximately \$50,000, or a fraction over twenty cents per cubic foot.

Its architectural significance, however, lies in the fact that it represents a sincere and successful effort to produce a building at once appropriate, pleasing, historical yet colloquial—a building affording practical provision for specific needs and uses, in terms of agreeable, sane, interesting and symbolic architectural design.



CARTOUCHES IN COFFERS OF THE GREAT WARPED VAULT, ONE DISPLAYING PEGASUS FOR POETRY, THE OTHER A TRIPLE-HEADED BIRD OF WISDOM, AND BOTH SURMOUNTED BY OLD-FASHIONED INK HORNS AND QUILL PENS.

PORTFOLIO
OF
CURRENT
ARCHITECTURE



HOUSE DOOR AND PORCH, WEST FRONT—
BROOKFIELD, CHESTNUT HILL, PHILADELPHIA.
WILSON EYRE & McILVAINE, ARCHITECTS.



WEST FRONT—BROOKFIELD, CHESTNUT HILL, PHILA-
DELPHIA. WILSON EYRE & McILVAINE, ARCHITECTS.



LODGE—BROOKFIELD, CHESTNUT HILL, PHILADELPHIA. WILSON EYRE & McILVAINE, ARCHITECTS.



WEST FRONT—BROOKFIELD, CHESTNUT HILL, PHILADELPHIA.
Wilson Eyre & McIlvaine, Architects.



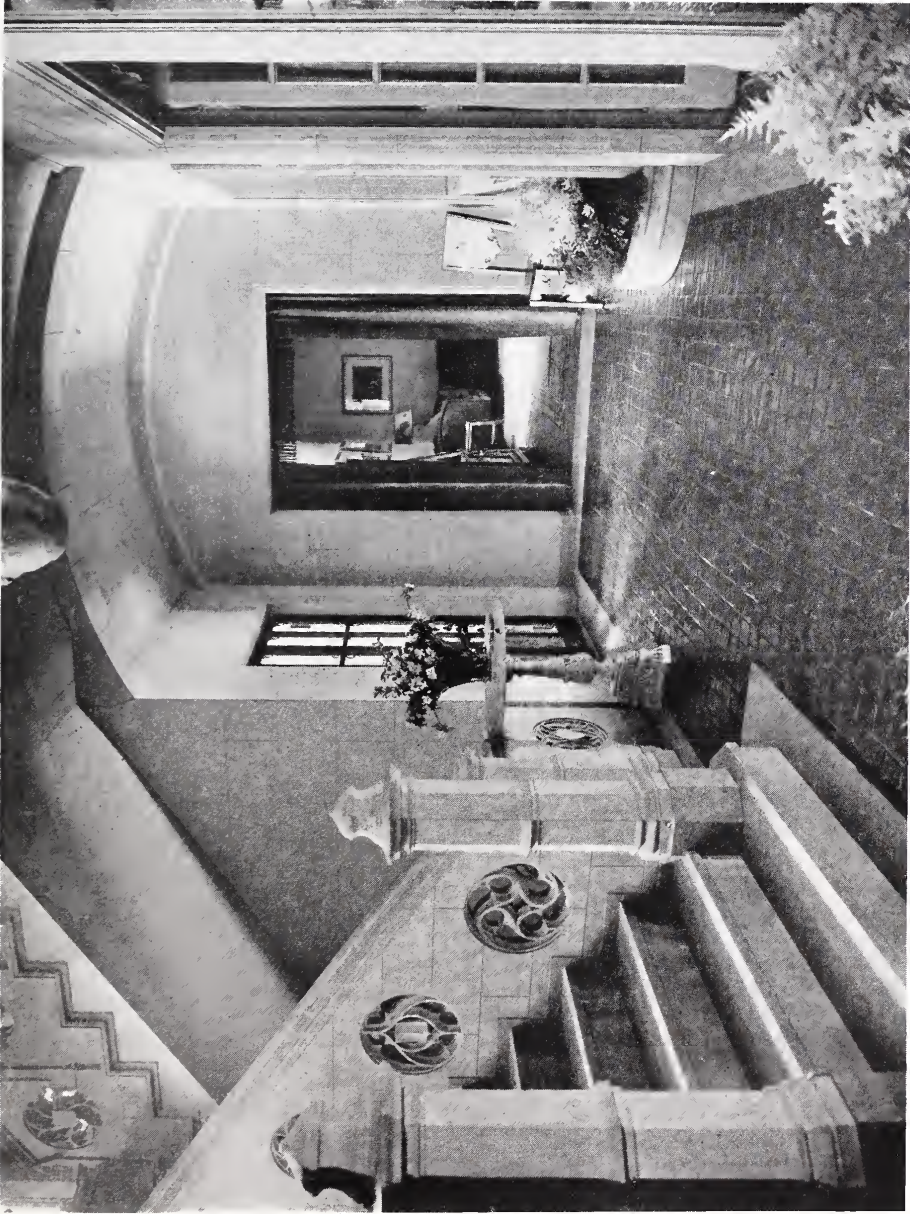
EAST FRONT—BROOKFIELD, CHESTNUT HILL, PHILADELPHIA.
Wilson Eyre & McIlvaine, Architects.



TERRACE, EAST FRONT—BROOKFIELD,
CHESTNUT HILL, PHILADELPHIA. WIL-
SON EYRE & McILVAINE, ARCHITECTS.



SOLARIUM—BROOKFIELD, CHESTNUT HILL, PHILADELPHIA. WILSON EYRE & McILVAINE, ARCHITECTS.



STAIR AND HALL—BROOKFIELD, CHESTNUT HILL, PHILA-
DELPHIA. WILSON EYRE & McILVAINE, ARCHITECTS.



HALL—BROOKFIELD, CHESTNUT HILL, PHILADEL-
PHIA. WILSON EYRE & McILVAINE, ARCHITECTS.



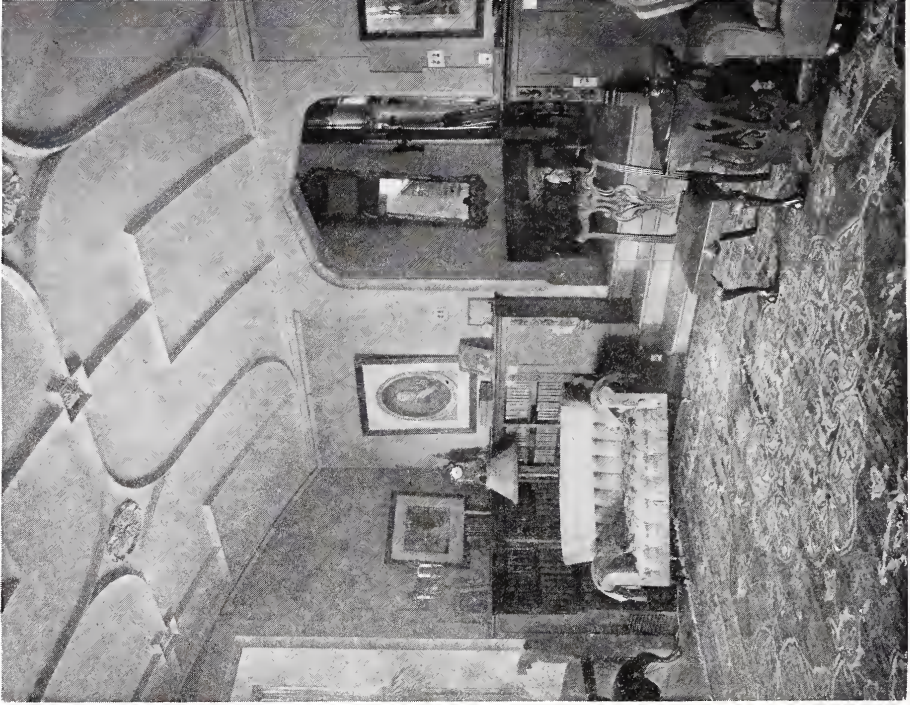
HALL—BROOKFIELD, CHESTNUT HILL, PHILADEL-
PHIA. WILSON EYRE & McILVAINE, ARCHITECTS.



MUSIC ROOM—BROOKFIELD, CHESTNUT HILL, PHILADELPHIA. WILSON EYRE & McILVAIN, ARCHITECTS.



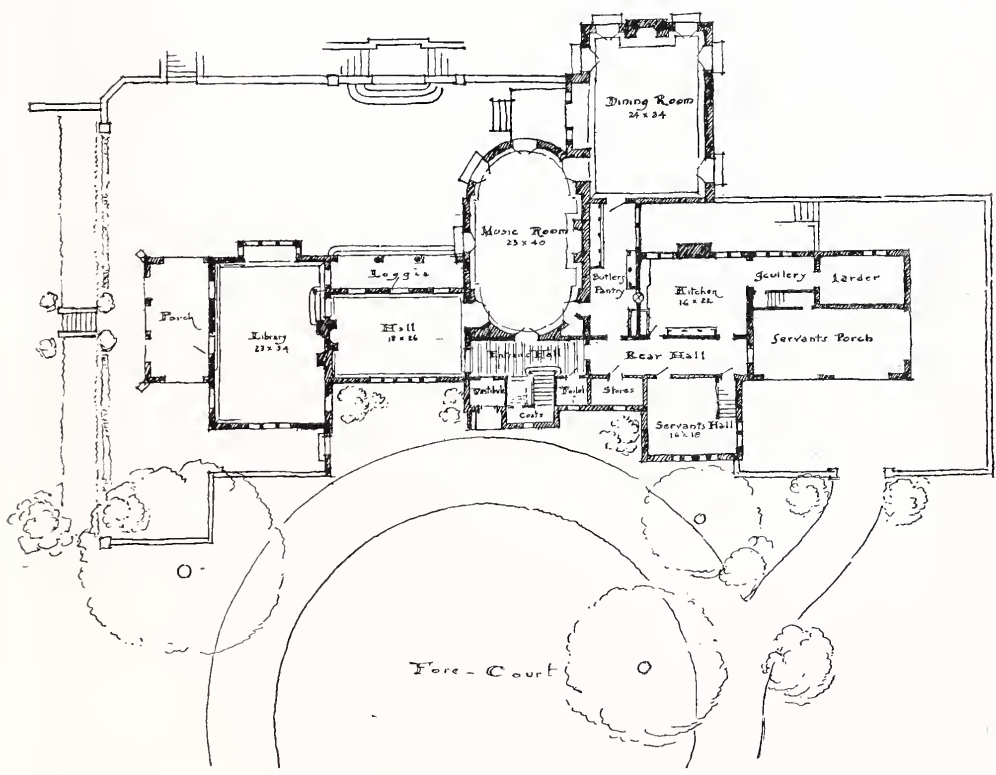
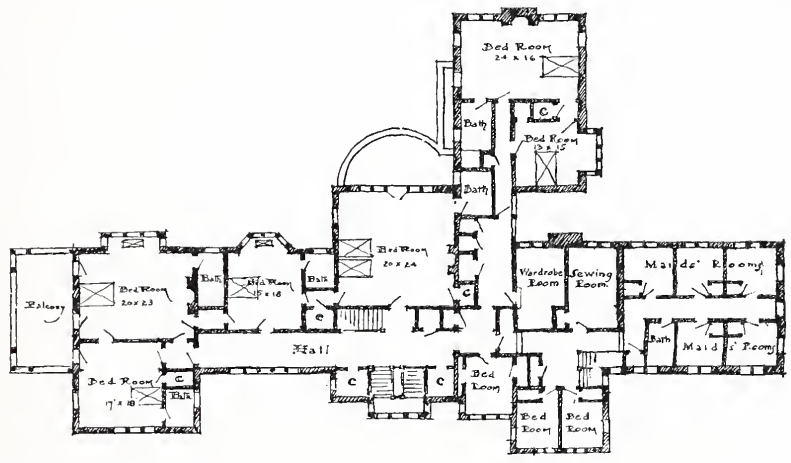
DINING ROOM—BROOKFIELD, CHESTNUT HILL, PHILADELPHIA. WILSON EYRE & McILVAINE, ARCHITECTS.



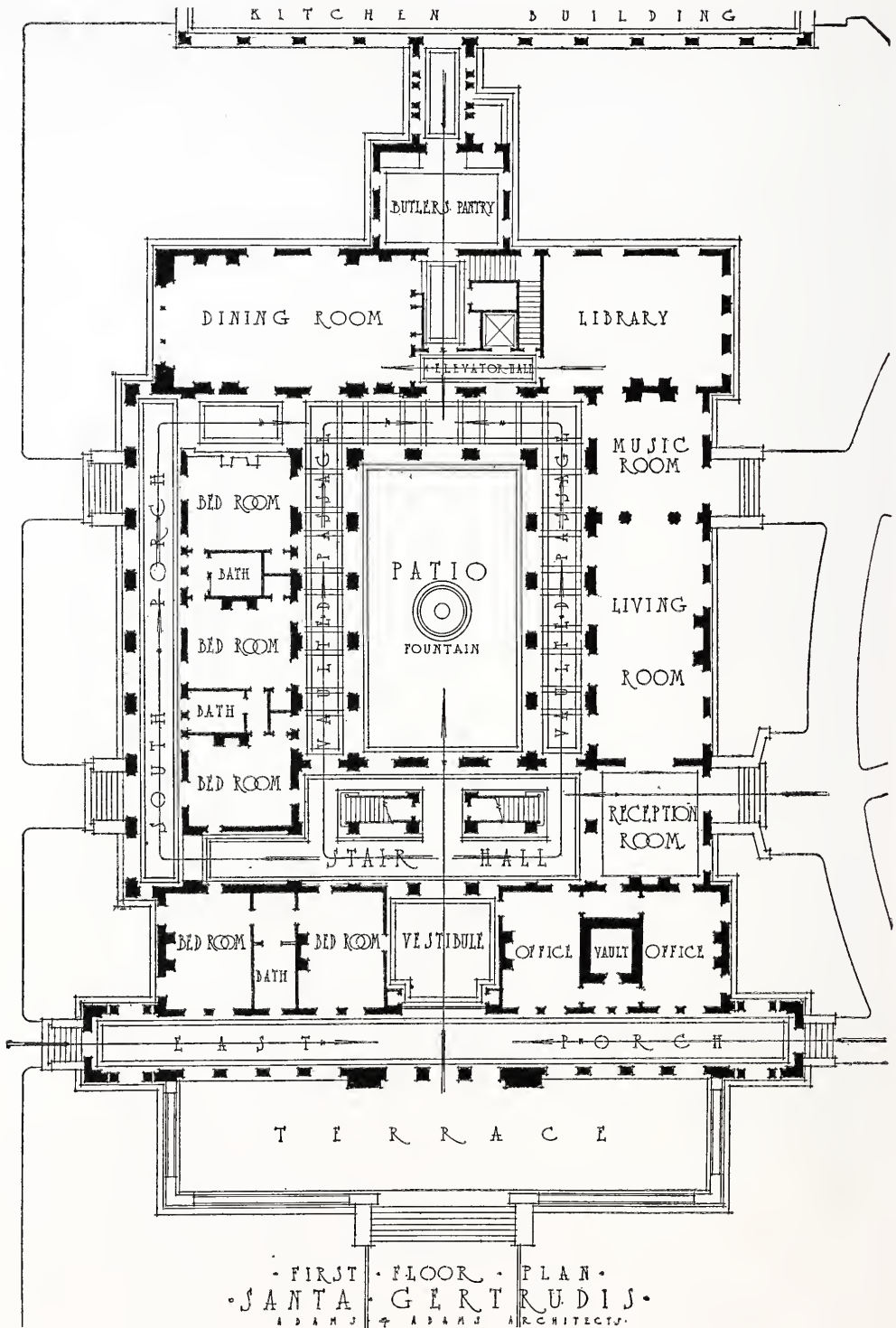
LIBRARY—BROOKFIELD, CHESTNUT HILL,
PHILADELPHIA.
Wilson Eyre & McIlvaine, Architects.



SECOND FLOOR GALLERY—BROOKFIELD, CHESTNUT HILL,
PHILADELPHIA.
Wilson Eyre & McIlvaine, Architects.



FLOOR PLAN—BROOKFIELD, CHESTNUT HILL, PHILADELPHIA. WILSON EYRE & McILVAINE, ARCHITECTS.



• FIRST FLOOR PLAN •
 • SANTA GERTRUDIS •
 ADAMS & ADAMS ARCHITECTS.



EAST ELEVATION—SANTA GERTRUDIS RANCH HOUSE, THE HOME OF MRS. H. M. KING, NEAR KINGSVILLE, TEXAS. ADAMS & ADAMS, ARCHITECTS.



SANTA GERTRUDIS RANCH HOUSE, THE HOME OF MRS. H. M. KING, NEAR KINGSVILLE, TEXAS.
Adams & Adams, Architects.



SANTA GERTRUDIS RANCH HOUSE, THE HOME OF MRS. H. M. KING, NEAR KINGSVILLE, TEXAS.
Adams & Adams, Architects.



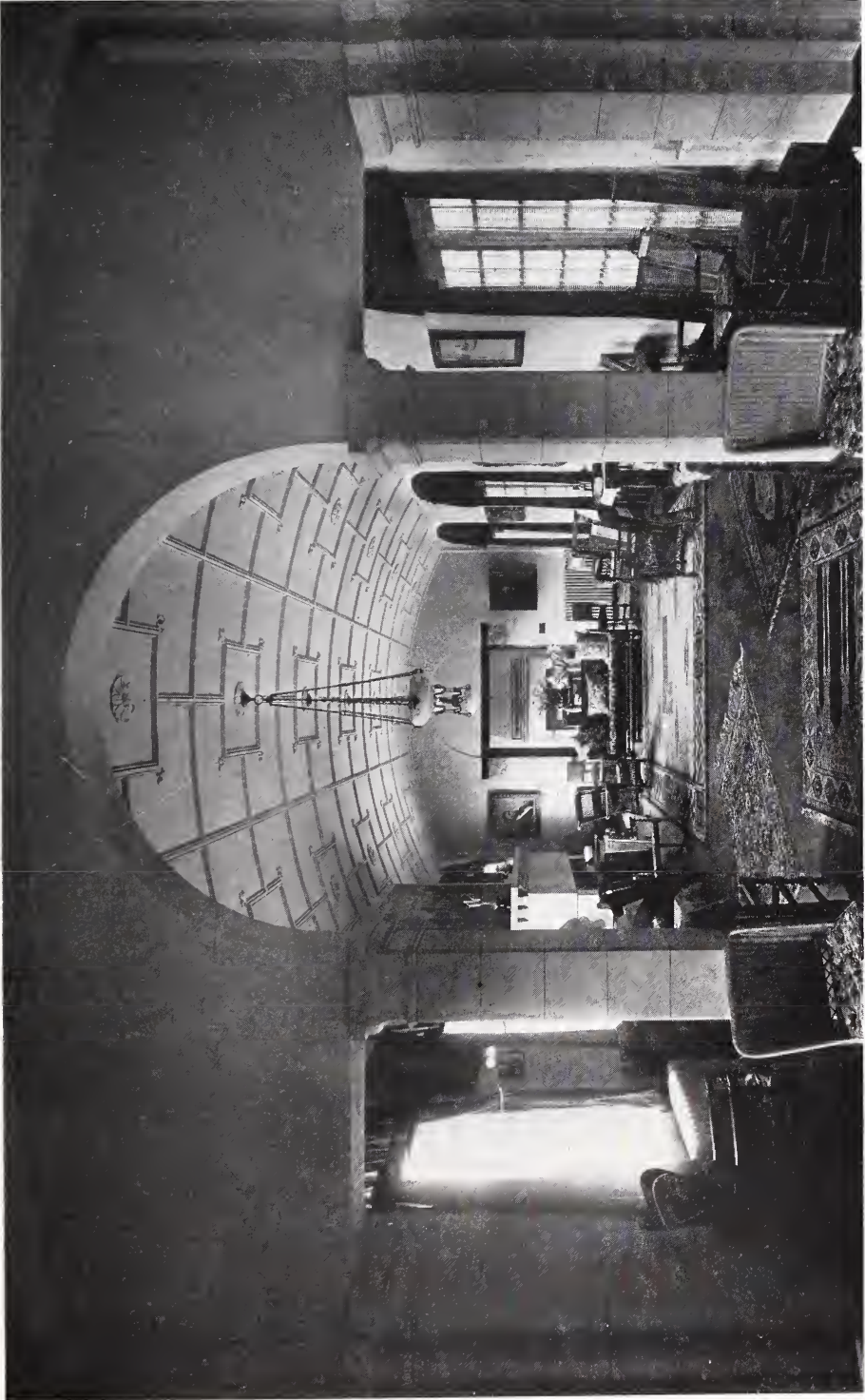
NORTH ELEVATION—SANTA GERTRUDIS RANCH HOUSE, THE HOME OF MRS. H. M. KING, NEAR KINGSVILLE, TEXAS. ADAMS & ADAMS, ARCHITECTS.



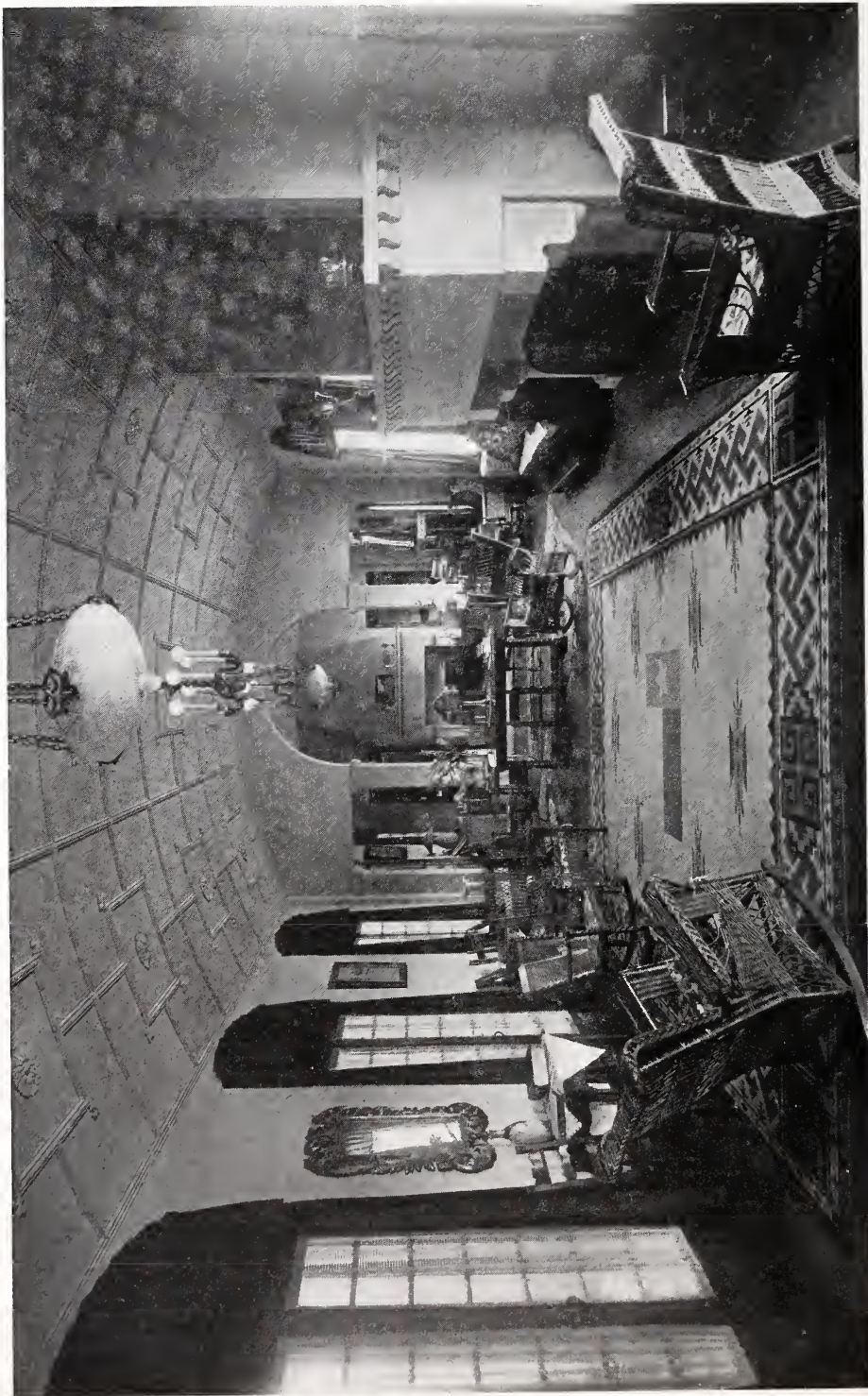
DINING ROOM—SANTA GERTRUDIS RANCH HOUSE, THE HOME OF MRS. H. M. KING, NEAR KINGSVILLE, TEXAS.
Adams & Adams, Architects.



BEDROOM—SANTA GERTRUDIS RANCH HOUSE, THE HOME OF MRS. H. M. KING, NEAR KINGSVILLE, TEXAS.
Adams & Adams, Architects.



LIVING ROOM—SANTA GERTRUDIS RANCH HOUSE,
THE HOME OF MRS. H. M. KING, NEAR KINGS-
VILLE, TEXAS. ADAMS & ADAMS, ARCHITECTS.



LIVING ROOM—SANTA GERTRUDIS RANCH HOUSE,
THE HOME OF MRS. H. M. KING, NEAR KINGS-
VILLE, TEXAS. ADAMS, ADAMS & ADAMS, ARCHITECTS.



VIEW FROM PORCH BAY—SANTA GERTRUDIS RANCH HOUSE, THE HOME OF MRS. H. M. KING, NEAR KINGSVILLE, TEXAS. ADAMS & ADAMS, ARCHITECTS.



GARDINER HOUSE, GARDINER'S ISLAND, N. Y.



GARDINER HOUSE, 1774, GARDINER'S ISLAND, N. Y.



GARDINER HOUSE, GARDINER'S ISLAND, N. Y.



GARDINER HOUSE, GARDINER'S ISLAND, N. Y.



GARDINER HOUSE, GARDINER'S ISLAND, N. Y.

THE ARCHITECT'S LIBRARY



BOOKS ON COLONIAL ARCHITECTURE

By RICHARD FRANZ BACH

Curator, School of Architecture, Columbia University

Part III.—Dwellings (Continued)

CONSIDERING next the published works which treat of domestic Colonial architecture in the individual New England states and cities, we find that the number of these issued to date decidedly favors the finer distinctions to be observed in the city, or else the study of general characteristics as illustrated in the whole New England region, but that few writers and students have concerned themselves solely with groups of houses included within the geographic limits of single states. This is, of course, a logical and obviously to be expected disposition of effort in this field. The states as such did not at the outset or for a number of decades after the foundation of the original colonies have any definite boundaries; in fact their limitations were the subject of unceasing dispute, in which the claim to the full westward sweep of territory in a broad and continuous band from coast to Mississippi River was in the case of each claimant colony consistently reiterated. If the later imposed boundaries of separate states in any way correspond with architectural manifestations, such correspondence must be regarded largely as

accidental and not by any means as indicative of original intention or, worse yet, of a type of provincialism, which—though reasonably to be expected in view of the multitude of all too familiar sects in religious belief—seems never to have induced a clannish segregation of architectural forms. Exceptions may be adduced; Rhode Island, for instance, as we shall later indicate, in certain measure followed an individual trend. But the very size of this colony might suggest more of local effect in life evidenced by the influence of any town upon a suburban or metropolitan area surrounding it.

The states themselves then, considered as separate units, can offer but slight individual variations from the broader regional character which has been noted in the New England district at large, as described in earlier articles in this series; had the general area been of greater size, or had it been settled by a more varied manner of colonists, e. g., groups from different European centres or of entirely different religious conceptions, we might on the other hand expect greater interior differentiations in their architectural products. In the smaller district, how-

ever, the states are bound to develop an architectural type which in its last analysis is nothing more than a widening circle about one or a group of important city centres as nuclei. In view of the fact that New England was so consistently settled by groups or by sects of fairly similar intentions and tendencies, and because, furthermore, almost all settlers were dependent upon either of two avenues of life for sustenance and wealth, this architectural uniformity remains easily recognizable, and a separate study of state manifestations in architecture is in most cases rendered practically gratuitous, or at any rate unnecessary. The two chief means of earthly increase open to the colonists in New England, and the two, incidentally, that almost immediately appealed to them as sources first of sorely needed strength against the untamed conditions of the new country, and secondly of advantage commercially, were the land, in farming, and the sea, in commerce and fishing. We have, therefore, the double architectural track to follow; that of the farmer's dwelling, which becomes the well known type of Colonial country residence in these states, and that of the seaport dwelling, which becomes the representative city mansion. Of these the latter is perhaps the more frequent, pretentious, and more highly developed architecturally, for it represented the rapid growth in prosperity gained from the increasing effects of commerce with the countries of the old world. It is in these towns on and near the immediate coast, also, that we first find accepted, or even demanded, a grander style in building later to be satisfied by the bodily transference of English Georgian features to this country. The farm house remains to the end a more substantially characteristic type of Colonial structure; it retains its homelike character, while it betrays more readily the working of the Colonial builder's mind in solving his structural and stylistic problems, and above all, it is not so carelessly—shall we say, wantonly,—superseeded by the borrowed classic derivatives which in the cities were regarded as better concomitants of social and financial increase.

Of the works thus far issued which

treat individual states as separate architectural regions, two by Norman M. Isham and Albert F. Brown merit extended attention. These gentlemen published in collaboration *Early Connecticut Houses* and *Early Rhode Island Houses*, the former in 1900, the latter five years earlier. Both are of crown octavo size, both bear the sub-title: *An Historical and Architectural Study*, and both were published in Providence by Messrs. Preston and Rounds (the first: pp. xvi+303, ill. by 7 plates and 115 text cuts; the second: pp. 100, ill.+60 plates).

In the introduction to the volume on Connecticut houses, the authors substantiate our statements at the beginning of this paper in regard to the unavailing purpose of studies of state areas in Colonial architecture unless they be regarded as simply the gradually dimming diffusion of the concentrated light of which separate municipalities were the sources. To quote the passage in question: "The colonial commonwealth of Connecticut was made up, like its early New England neighbors, of several independent settlements. Hartford, Windsor, and Wethersfield—the river towns, as they were called—formed one group; New Haven, Guilford, and the other settlements around Quinnipiac, a second; while the unsuccessful venture at Saybrook made a third. A fourth—partly independent in character, if not in politics—existed at New London, founded in 1646. Progress in unity began with the Hartford colony, and did not cease till the whole territory covered by the present state was brought under the jurisdiction of the charter government. Therefore, though there never were between the original components of the commonwealth the strongly marked differences which existed in Rhode Island, there still were joints visible in the political structure of Connecticut; and these were faithfully repeated in the architecture of the first century of the colony's existence." After these introductory paragraphs we come upon a fairly detailed historical statement concerning the various commonwealth subdivisions in the later state area and a map giving their location. The whole of the Colonial work in architec-

ture is then considered under three chronological periods: that from 1635 to 1675; that from 1675 to 1700 and that from 1700 to 1750. This arrangement of dates is applied next in a detailed study of the houses grouped geographically, as under: the Hartford Colony, the New Haven Colony, and the New London Colony; in all about thirty examples, all antedating the middle of the eighteenth century are considered. The book is illustrated throughout with numerous plans, sections, details of construction indicating methods of framing, wood cutting, and the technique of Colonial building in general. We have nowhere met with such a profusion of structural details. It is in such studies that Colonial architectural history is also essentially to be sought, as well as in measured drawings and in photographic reproductions. Messrs. Isham and Brown are to be congratulated upon the excellent manner in which they have availed themselves of their opportunity to contribute an important chapter to the history of Colonial architecture. Not in the best publications that have been heralded as important additions to our knowledge of the field has this fine study of construction been made a part of the author's work. Without researches of this kind, however, our knowledge of Colonial design must remain superficial, the evidence of the camera and of the rule and compass, for the design is a logical response to construction in all periods of slow habilitation, and our Colonial time is assuredly such a period. As in the books of measured drawings and of photographs we lamented the absence of drawings of details of construction, so in the present work we must regret the absence of good photographs. The book is of such form that larger reproductions could easily have been accommodated. A number of the buildings, of course, are no longer extant, and the number of possible reproductions would be further reduced by the state of dilapidation into which careless owners and negligent communities have allowed others to fall. We cannot too often echo the honest wish of all students of architecture in this country that cities and states or even the nation,

bodies of architects, chapters of the American Institute of Architects or even individual architects, might undertake systematically the care and restoration of important buildings of our early time, and, better yet, perhaps, might undertake to gather in one place all available literature on the general field of Colonial architecture, to be added to by all interested persons and groups to the end that a complete *corpus aedificiarum* may be established before the first hand material is entirely lost. In a later paper we hope to analyze the various possibilities and aspects of such a prospective undertaking in greater detail.

The second of the works by Isham and Brown, that on *Early Rhode Island Houses*, covers a more limited and surely a more definite field. The colony illustrates essential plan and exterior differences which make especially interesting the separate study of the type found in Providence, those of the old Newport and Narragansett districts or "jurisdictions" more closely suggesting a more detailed acquaintance with the methods of the Connecticut colony. The same chronological periods are maintained by the authors in this volume—in fact this was the earlier of the two in point of publication date—and in this also there is a good closing chapter, this time on the subject of the Relation of Colonial Architecture to English Work. The construction phase of the houses is again admirably treated, both in a detailed text section and in a series of equally careful detail drawings of framing methods. This volume also contains a list of Rhode Island houses, forming an accurate guide for historical reference, and an index of names and places. In the present volume all of the fifty plates are grouped at the end, thus causing a certain inconvenience which was obviated in the better arrangement of the later work. There is also a key map showing the location of the various subdivisions of the larger colony. We must again commend the profusion of plans and the study of plan types and plan evolution, the large number of enlightening sections and of construction drawings and the careful "framing perspectives",—showing parts of interiors

and parts of exteriors in the same drawing and at the same time rendering visible certain portions of all stages of the construction of a given building. No doubt a bibliography might have added a certain value to this work as to its companion volume on Connecticut houses; what is more, the authors undoubtedly were obliged to seek much of their historical data in many a musty work, that would in some cases, even in these days of library efficiency, escape detection in the case of more recent searchers. Not the least remarkable quality of the two books by Messrs. Isham and Brown is the fact that their results were made to differ so decidedly from the general trend of books on Colonial architecture published parallel with their own, that they had the courage to bend their efforts along lines of greatest historical worth. Their books have correspondingly risen in the estimation of Colonial students from year to year; it is to be hoped that their method may be emulated in other quarters.

Note should also be made of several volumes by E. Whitefield, published under the series title: *Homes of Our Forefathers, Being a Selection of the Oldest and Most Interesting Historical Houses and Noted Places, etc.*, and each given a subtitle in accordance with the states treated. The earliest concerned Massachusetts (Large octavo; 35 plates, with descriptive letterpress; no separate text, Boston; A. Williams and Company; 1880. No longer available); the second covered Rhode Island and Connecticut (Large octavo; 32 plates with descriptive letterpress; no separate text. Boston; White-

field and Crocker; 1882. No longer available); and the last concerned Maine, New Hampshire and Vermont (Large octavo; 36 plates with descriptive letterpress; no separate text. Reading, Mass.; publ. by the author; 1886. No longer available). In all three of these books the plates are "from original drawings made on the spot," and the artist's color sense, whatever may have been its quality, was not in the least flattered by the facilities for color reproduction then at hand. The plates are of the type vulgarly denominated "chromos," and of no value whatever to the architect, as research material or as possible sources of inspiration. It must be said, however, that Whitefield was one of the hardy pioneers in the publication of Colonial architecture, and his spirit of enterprise deserves great credit. There were few in his time, some forty years ago, who were able to bring their interest in our formative building era to the culminating point of a published work. Such volumes as were issued at that time were practically invariably composed of text material only, and in character entirely historical. Whitefield's books are thus of archaeological interest, both architecturally and in point of plate reproductions. The fact that he began upon his task so many years ago offered him the decided advantage over modern students that so many more of the characteristic old structures were still standing or in such state of preservation as to make profitable their use as illustrative material. Forty years of neglect may accomplish devastation in a distinctively wooden type of architecture.



**The
Twenty-fifth
Anniversary
of the
Architectural
Record.**

With this issue the Architectural Record completes its twenty-fifth year. The quarter-century which has elapsed since it was founded has witnessed a notable progress in American architecture.

Of this progress Prof. Hamlin speaks elsewhere from the full knowledge of a contemporary historian. His reference to the influence which architectural journals, including our own, have exercised upon the development of the art of design in building during the period under review leaves nothing to be recorded here, except in amplification of what he writes concerning the purpose of the Architectural Record.

As this purpose remains unchanged, it may be restated in the language of the editorial introduction contained in the initial number:

“Art has only one revelation, but many forms. Whether it be poetry, music, sculpture, architecture, the spirit that speaks is the same. They make alike a similar demand upon us for truth, integrity of purpose, seriousness, nobility. . . .

“But though the message of art in all its forms is the same, in some it is more interesting to us than in others; and there are a good many reasons why at this moment the people of this country could be more seriously interested to a greater degree in architecture than in any other of the arts.

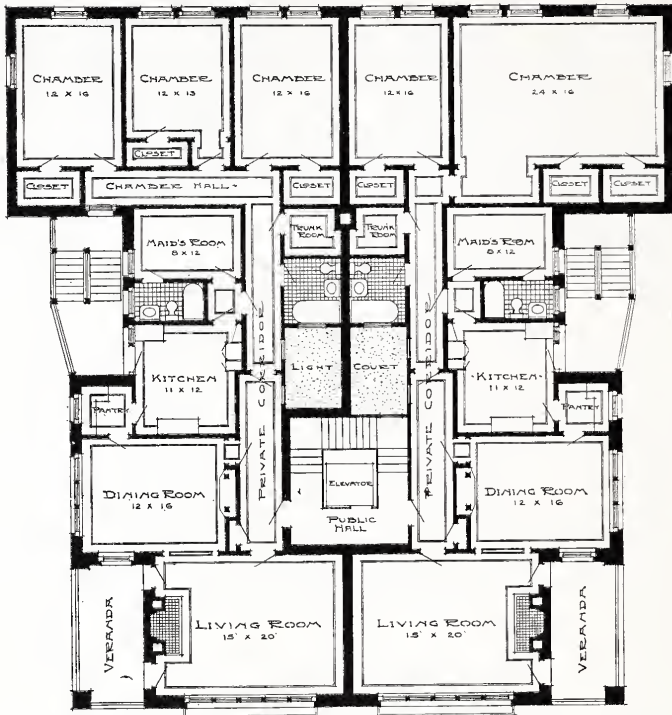
“In the first place, it is the most practical, which fact should have much weight with a people so practical as we are. It waits upon or, more properly speaking, it accompanies utility. Compared with painting, music, sculpture, or even literature, its field is wider than theirs; it touches life.

our common daily life, at so many more points than they do. It needs no stage, special setting or circumstance. It is content to occupy our streets, bend itself to our commonest circumstances and conditions, dignify the meanest materials, illuminate so many of our ordinary necessities. It is the only art which commerce and trade in a degree foster, necessitate and even welcome as a graceful auxiliary. Civic pride, commercial prosperity, the ostentation of individuals create an occasion for it.

“True, painting, perhaps, has a more popular language than architecture, and music one that is more intimate and enticing; but architecture appeals to the public in a manner so much more frequent, conspicuous and insistent than either that, if it be not, it might easily become the more readily understood.”

To make architecture understood it was necessary to furnish not merely a pictorial record of the better current examples, but to interpret these in a critical text. The new publication was hospitable to the meritorious work of every school of design and sought to obtain its interpretations from recognized exponents of each school; when a work was shown it was appraised from the point of view of the mode of design in which it had been done. The Architectural Record, therefore, came to be regarded as a national institution through which professional and critical estimates of contemporary American architecture were promulgated; and as, furthermore, it devoted its attention to the art, exclusive of the practice, of architecture, its contents were all the more valued by the professional reader because of their unity of interest.

The Architectural Record takes this occasion to reaffirm the editorial policy defined in its first issue, twenty-five years ago.



TYPICAL FLOOR PLAN OF TEN-FAMILY APARTMENT HOUSE, SPRINGFIELD, MASS.
Russell C. Parsons, Builder. Huestis & Huestis, Architects.

An Interesting Apartment House Plan.

The apartment house which is illustrated here and which has been recently completed at Springfield, Mass., is the outgrowth of a demand for a building which would offer larger and more liberal suites than any of the existing apartment houses in that city afforded; it was desired also to make an arrangement of rooms which would be more on the idea of a single house and to get away from the long halls which are usually found in the average apartments. The building is located in the choicest residential section and, therefore, calls for high rents and many attractive features. Three of the suites were made of six rooms and the remaining seven were made of seven rooms; the idea in the six-room suites being to have an extra large bedroom with two closets, suitable for a small family.

The architects were Huestis and Huestis of Springfield, Mass., and Russell C. Parsons of the same city was the owner and builder.



TEN-FAMILY APARTMENT HOUSE,
SPRINGFIELD, MASS.

It has been the general practice of all local builders to have the living-room and a half bedroom and half living-room side

by side at the front of the building, with bedrooms and bath directly in the rear and the dining-room and kitchen across the back of the suite. This necessitated going by the bedrooms and bath from the living-room to the dining-room, which is essentially bad. The half bedroom and half living-room at the front of the suite might be considered an economic waste, as tenants usually arrange one room up for the living-room and have no essential use for the other either as a bedroom or living-room. In order to eliminate this waste it will be seen from the plan that the living-room was made entirely across the front of the building with a large piazza opening directly out of it from two French doors, which are located on either side of a wire-cut brick fireplace, surmounted by a plain, heavy wooden mantel. Directly back of this is located the dining-room, and both of them open onto a good-sized reception hall. This makes the living quarters of the apartment.

The second unit to be considered was service, and this was taken care of by the kitchen, maid's bedroom and maid's bath being located directly back of the dining-room, in the center and most unattractive part of the building. The kitchen, with its cooking smells was closed in on both sides by two sets of doors, which have successfully stopped odors of any sort going out into the building.

The third unit, which is entirely shut off from the rest of the apartment, is the sleeping quarter, which has all the bedrooms facing on the rear of the building, which is much wider than the front. It will be seen from this plan that the living quarters and service quarters and sleeping quarters are kept entirely away from each other and yet closely connected.

Special attention was given to the closets, which were made very large, most of them being more than four feet by six feet, thus remedying a defect common in most apartments.

The trim throughout the suites was selected gum wood with birch doors. This was chosen owing to its extreme adaptability to a mahogany stain, which was also used on the birch doors in the bedrooms. The gum wood trim in the bedrooms was painted white. Solid oak floors were laid throughout, except in the service units, where maple was used. In order to give the living-room, dining-room and front hall a little more dignity, a six-inch gum wood moulding was used instead of the ordinary picture rail. This had the desired effect of

making the room look larger and more ornamental. A very attractive leaded glass china closet was used in the dining-room. It has been found, however, that its use is not necessary, as large apartments are usually occupied by people with sufficient furniture of their own to warrant leaving out such a feature.

The exterior of the building is decidedly plain, there being less than \$200 worth of stone in the whole front. The wire-cut brick had a heterogeneous run of colors from red to blue, and was laid in Dutch bond. The living-rooms had quintet windows, the heavy wooden flower boxes beneath each frame being used for spruce trees in the winter and geraniums and hanging greens in the summer. This necessitates considerable attention, but the result gives such a homelike appearance that it is fully justified. The front entrance was set off considerably by wrought iron double-hung doors and a frame of similar material.

An electric elevator, vacuum cleaner and incinerator were installed for the use of the tenants. The incinerator has more than proven its value in the elimination of garbage and other refuse from the building, and at the same time helps to heat the water which was ordinarily done by the steam heating plant.

The building, of course, cannot be compared with larger apartments in the big cities, but for small towns where there is a demand for large seven-room apartments it has more than filled expectations, rents in Springfield being at an average of \$6.50 per room, while this has been made to pay over \$10.

P.

The Le Brun Travelling Scholarship.

The third bi-annual competition for the Le Brun Travelling Scholarship, founded by Pierre L. Le Brun, will be held in the summer of 1916. It is open to any architect, a citizen and resident of the United States, between twenty-three and thirty years of age, and who is not, nor has been, the beneficiary of any other travelling scholarship, and who has had at least three years' experience as draughtsman or practicing architect. The amount is \$1,000, the period of the scholarship not less than six months.

Each competitor must be nominated by a member of the New York Chapter, A. I. A., who shall certify in writing that the above conditions are fulfilled by the nomi-

nee and that in his opinion the nominee is deserving of the scholarship.

All persons who are eligible and desire to compete are requested to send their application to the undersigned before July 15th, 1916. Applications must be accompanied by a statement of residence, citizenship, age, experience and general qualifications and by the necessary nomination and certification from a member of the New York Chapter, A. I. A. Those not having the acquaintance of a member of the chapter may avail themselves of the services of any well known architect who can vouch for them to a member of the New York Chapter, with whom he is acquainted.

Architects throughout the country are requested to bring this notice to the attention of their eligible draughtsmen.

Bertram G. Goodhue,
2 West 47th Street,
New York City.

Chairman, Committee on Le Brun Travelling Scholarship.

A Ranch Home in Southwest Texas.

The house shown on pages 76 to 83 is hardly the sort one would expect to find on a ranch in southwestern Texas. However, the ranch of Santa Gertrudis, near Kingsville, is not precisely a typical one even in a state of great landed holdings. It comprises upward of a million acres; and one is not to think of it as a monotonous stretch of prairie pasturage, but as a group of improved farms in a rich subtropical landscape.

On either side of the wide main road leading to the homestead, are rows of palms and eucalyptus trees and broad white fields of cotton and fields of corn, cane, milo, maize. Distributed throughout the plantation are twenty-five towerlike silos. On the edge of a hill are some of the numerous dwellings of the help. There are, besides, a store, a garage, a fireproof stable for thoroughbred horses, a dairy barn for eighty registered Jerseys and other buildings too numerous to mention; beyond these and the artesian wells are the gardens, an orange grove and the cultivated

fields, while reaching out for miles in the distance are the rolling pastures where thousands of cattle graze. This is no land of solitude and waste, but one of ordered industry symbolized by the smoke of the steam plows which streaks the sky.

The present ranch house, designed by Adams & Adams for Mrs. H. M. King, is on the site of an earlier home, which was destroyed by fire. Reminiscent of the Spanish missions, it is planned for the comfort of a large household in a semi-tropical climate. It faces the east, where the best view is; and surrounds a spacious court. While the main entrance, at the east, looks toward the road which comes up from Kingsville, the more generally used entrances are at the north; and there are other entrances at the south. These large openings at the east and south admit the prevailing breeze into the court. The terrace, 21 by 100 feet, before the east porch, is a useful adjunct in a country of many pleasant afternoons and beautiful evenings. All the porches are of ample size.

The building is of reinforced concrete, hollow tile and brick. One of the expedients to reduce the fire hazard was the omission of wood paneling and wood wainscots, and the use of tile so far as practical. In order that those who enter from the field might not be out of place, stone and tile floors were used extensively. The dining room floor is of slabs of New York State blue stone, set with wide, irregular joints. The reception room and hall floors and stairs are of the same material, but in regular shapes with closer joints. The floors of the offices, halls, patio, porches, terrace, etc., are of tile. In the living room, where a hardwood floor was desired, which should not differ too radically in appearance from the stone floors, eight-inch teak wood is laid with one-quarter-inch joints of rosewood, and dove-tailed rosewood keys, all of which flooring is built up in three layers to prevent warping.

The Santa Gertrudis ranch house, on the largest ranch in the United States, is an interesting solution of a special architectural problem.

The Architectural Record

August 1916



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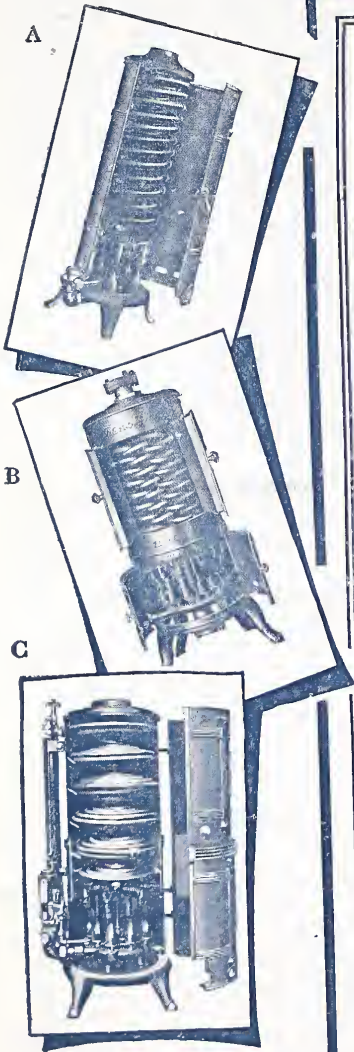
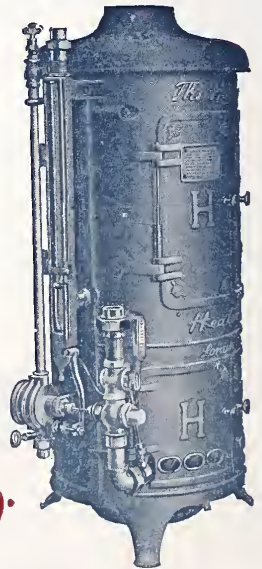
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Editor: MICHAEL A. MIKKELSEN.

Contributing Editor: HERBERT CROLY

Advertising Manager: AUSTIN L. BLACK

Yearly Subscription—United States \$3.00
 —Foreign \$4.00—Single Copies 35 cents

Entered May 22, 1902, as Second
 Class Matter, at New York, N. Y.

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PUBLISHED MONTHLY BY

THE ARCHITECTURAL RECORD COMPANY

115-119 WEST FORTIETH STREET, NEW YORK

F. T. MILLER, Pres.

W. D. HADSELL, Vice-Pres.

J. W. FRANK, Sec'y-Treas.

E. S. DODGE, Vice-Pres.



FIG. 1. BEAUVAIS CATHEDRAL, EAST END.

THE ARCHITECTURAL RECORD

VOLUME XL



NUMBER II

AUGUST, 1916

Gothic Architecture and Its Critics

By
A. D. F. Hamlin

Part III - The Logic of Gothic Architecture

THE late Professor Ware, beloved of architects, was accustomed to observe that the fundamental distinction between the medieval and the classical styles was in their approach to the problem of design. The classic designer was dominated by certain abstract ideals toward which he worked with traditional forms. The medieval designer was dominated by the immediate exigencies of his task, striving not towards an abstract ideal of form but towards the solution of a specific problem. The Roman and Byzantine architectures were intermediate progressive steps from the Greek ideal toward the Gothic evolution of wholly new types in the solution of new problems under new conditions. The logic of necessity overcame the dominance of traditional ideals.

In the so-called Romanesque styles the development of the Catholic ritual and monastic requirements under new con-

ditions, compelled the gradual transformation of the simple three-aisled basilican plan into the elaborate twelfth-century type with spacious transepts, long choir, apse with ambulatory, and chapels opening from this ambulatory and from the eastern side of the transept-arms. At the same time, the exigencies of materials, climate and environment compelled the substitution of massive piers of masonry for the slender classic columns of the traditional basilica type, and of vaults of stone for the wooden ceilings, first of the side-aisles and ultimately of the broad central aisle also. With this transformation the whole traditional apparel of the Roman Christian basilica went by the board—classic capitals and mouldings, marble incrustations, mosaic adornments. Poverty of resources, remoteness from the influence of classic models and from the Byzantine centers of decorative art and the complete sepa-

ration of the Western from the Eastern church, combined to force the Western builders back upon their own powers of original contrivance to meet these new conditions. The Italians of Lombardy, at Milan and Pavia, had developed the earliest forms of the groined ribbed vault along with the clustered pier and the recessed doorway with jamb-shafts and stepped arches, and these new devices were carried by monks from Italy into Germany and France. A new architecture grew into being from these germs; an architecture of heavy masonry of small stones, thick walls, massive vaults and ribs, and piers designed in each case not according to antique traditions but according to the special requirements of each case. The developments were empirical; every sort of vault and every species of membering of arches and shafting was tried, guided by a common-sense structural logic groping for a final solution, and building always on the accumulating experience of previous ventures. The only traditions that long survived were those of the Corinthian capital, the acanthus leaf and—where antique ruins abounded, as in Provence—of the egg-and-dart and other minor ornaments. Sculpture, which the early Christians had held almost in horror, began to show itself in a new symbolism, largely influenced by Byzantine carved ivories, which were in demand even in France, for triptychs, covers for Gospels and the like.

Gothic architecture was the outgrowth of these developments. It dealt with the same problems, but worked out new solutions for them. As was explained in the last paper of this series,* it is characterized by increasing loftiness and lightness of construction and a steady progress toward the elimination of massive walls, the enlargement of the windows, the decoration of its structural members and the use of sculpture and stained glass as a means for religious instruction and inspiration. The dominant features of this architecture were structural, in form and appearance at least, if not always in actual function. The

majority of them, even of those most distinctive of the Gothic style, had their origin in the Romanesque style which preceded it. The pointed arch, the ribbed groined vault, the clustered pier, the grouped pier-arch moldings, the flying-arch and buttress, the spire, are all found in French Romanesque churches. Tracery and the buttress-pinnacle are about the only distinctively Gothic structural features not formed in the preceding style; and one may even claim that these are there in rudimentary form. There is, in reality, no sharp line of demarcation to be drawn between the two styles, for the later style grew gradually, at first imperceptibly out of the earlier. There is not a little reason, therefore, in the suggestion sometimes made that the Romanesque should be called the "round-arched Gothic" style.

Yet after all, the popular distinction between the Romanesque and the Gothic has its justification. Towards the middle of the wonderful twelfth century—the century of the Schoolmen, of Abelard, of Bernard of Clairvaux, of Arnold of Brescia; the century of the rise of cities and of the beginnings of international trade; the century when men's thoughts began to widen and to soar; the century of the First Renaissance;—towards the middle of this century architecture began to feel the working of a new spirit. Notwithstanding the Romanesque substitution of logic in design for the expiring classic tradition, the Romanesque architecture had been hampered by the limitations of the monasticism which had in large measure created it. A new and more daring spirit of progressiveness now began to manifest itself here and there, especially in the north of France, in Normandy, Picardy, Champagne, parts of Burgundy, and above all in the Royal Domain. It found increasing opportunity for expression in the building of new cathedrals, for bishops whose power and wealth and influence with king and people were increasing as that of the rich and oppressive abbots and their monasteries declined. A new freedom appeared in the architecture, in the work

*In *The Architectural Record* for May, 1916: "The Definition of Gothic."



FIG. 2. "A NEW SPIRIT SEEKING NEW DEVICES."
FLYING ARCHES OF CHARTRES CATHEDRAL.



FIG. 3. NAVE OF ROUEN CATHEDRAL.
RIBBED VAULTING AND VAULTING SHAFTS.

of the lay-builders, the free masons, who built the cathedrals, and this new spirit expressed itself in the greater loftiness, lightness and spaciousness of the cathedrals and parish churches. As Sir T. G. Jackson has phrased it in his latest and ripest writing:* "The true way to look at Gothic art is to regard it not as a definite style bound by certain formulas—for it is infinitely various—but rather as the expression of a certain temper, sentiment and spirit which inspired the whole method of doing things during the Middle Ages." The doing of these things he regards as having been controlled by three fundamental principles: solidity—that is, sound and stable construction; economy—that is, the efficient disposition of materials and suppression of unnecessary features; and the esthetic expression of construction. All three principles he traces back through Romanesque and Byzantine to late Roman architecture; but they were progressively developed, and in Gothic architecture they came to their fullest realization. It was a new spirit, constantly seeking new forms, new devices, new ornaments, new proportions, that distinguished the Gothic architecture from all that had gone before. The structural logic of the Romanesque period was guided into new channels; the old tree was made to bear a new and lovelier fruitage.

II.

The *leit motiv* of Viollet-le-Duc's discussions of French Gothic architecture is the word and idea of *logique*. Every essential feature of that architecture was evolved by rigid processes of reasoning applied to the structural necessities of each problem. Every form used was the logical result of these processes. There was obviously also a strong artistic sense ever present to control their reasoning; but the general conclusion from Viollet-le-Duc's discussions is that art was the servant of structural logic, not logic of art.

This raises an important question, fundamental to the criticism of the style.

It seems incredible that the superbly artistic beauty of Reims and of Amiens could have been the fruit of cold logic, however intelligent. Construction dominated by pure reason alone is nothing else than pure engineering. If it was logic that shaped the arches and traceries and pinnacles of Reims and Notre Dame, it must surely have been a logic controlled and dominated by a supreme artistic sense; a logic as emphatically esthetic as it was structural. No one can pretend to believe that the men who designed the hundreds of beautiful churches that have made French medieval architecture glorious were mere engineers seeking the most efficient and economical means of piling up their vaulted aisles and providing lofty chambers for their bells. Yet such would be the natural inference from a too emphatic and exclusive insistence on the structural logic of the French builders.

In the articles "Construction," "Contrefort," "Voûte," "Charpente" and others in the *Dictionnaire raisonné*, Viollet-le-Duc takes the French Gothic churches to pieces, analyzes their construction, and shows how each part was shaped for a definite structural function, and how every feature underwent successive changes as increasing experience and new resources or new requirements called for modifications of form or proportion. He developed the idea of the structural function of the vaulting-ribs, first pointed out by Willis in 1842. He was himself the pioneer in setting forth the true history of the buttress and flying-arch, bringing to bear upon it his keen historical sense, and tracing the actual historical sequence of the development of these devices for opposing isolated and concentrated resistances to the isolated concentrated thrusts of the vaults. He emphasized the structural ideas which controlled the development of window-tracery and the forms of towers and spires. From his analysis and presentation of these developments the completed edifice seems to emerge as a piece of glorified engineering. It is empirical engineering, qualitative rather than quantitative in its calculations; building on experience, often of

*"Gothic Architecture in France, England and Italy," Cambridge (Eng.) and Chicago; the University Presses, 1915. 2 vols.

failure and disaster, but engineering nevertheless, though wrought by builders with an instinctive sense of esthetic values. Even the proportions, according to Viollet-le-Duc, were determined by geometric diagrams. Pure art appears in the carving, sculpture and stained glass only; all the rest was *logic*; it was scientific, calculated, practical construction.

This conception of Gothic architecture has dominated nearly all the critical writing on the subject for the last fifty years, at least in France and the United States. It is the foundation of Professor Moore's *Development and Character of Gothic Architecture*, and is there presented with great force and clearness. The most recent American work on this subject is Professor Frothingham's Volume III of the *Sturgis-Frothingham History of Architecture*.^{*} In the first chapter of this admirable volume we read (p. 9): "The characteristics of Gothic architecture * * * are primarily constructive and secondarily aesthetic. Gothic architects were above all things mathematicians, geometricians. * * * Everything constructively unnecessary was eliminated; every structural element was frankly shown. The science that dictated it was exulted in. The time required to develop Gothic was simply the time during which laboratory experiments were being conducted in the *chantiers* to gradually adapt the forms to the new principles." Professor Moore, in the work cited above and in his *Mediaeval Church Architecture of England*[†] dwells constantly on constructive logic or organic function as the essential determinant of true Gothic architecture. The Early Pointed style of England is not Gothic, in his estimation, because it does not follow the structural logic of the French; it is only "Pointed Norman," Norman with pointed arches. "Indeed," he says, "the use of the pointed arch in the greater part of the architecture of the continent in the twelfth century appears

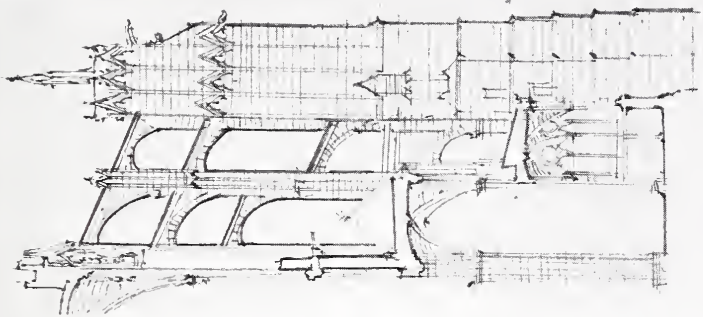
to have arisen *from aesthetic motives only*,^{*} and is thus unaccompanied by a *proper*^{*} development of that consistent organic system which distinguishes the true Gothic style (p. 45). The piers of Canterbury Choir are not "logical," because they do not express the differing functions of main and subordinate piers under sexpartite vaulting (p. 71). "To use it" (the single round pier) "as Hugh has done * * * is illogical." The words "logic," "logical" and "organic" and their contraries, occur constantly in this book, in criticizing the English imitations of, or departures from, the French practice. I am not here finding fault with the criticisms, but simply calling attention to the point of view of the author.

Here and there, however, a protest has been sounded against this unqualified laudation of pure logic in the French Gothic work. Mr. Ralph Adams Cram has voiced this protest with his characteristic fervor in his *The Heart of Europe*, where he says (pp. 110-111): "Gothic art had three controlling forces working towards an unattainable perfection; structural integrity irradiated by consummate invention and an almost divine creative genius; passion for that exalted beauty that is unchangeable and eternal * * * ; the just balance and interplay of these two forces. Its virtues, like all virtues, were most easily transmuted into vices, once the controlling balance was overthrown, and each was, in its stimulating possibilities, a constant and irresistible temptation toward excess. * * * In Amiens we see the first fatal steps in the development of a purely human (and notably French) logic, toward that intellectual pride, that almost arrogance of self-confidence, that found its Nemesis in the unstable marvel of Beauvais." An anonymous writer whom he quotes speaks of the change in Amiens "from architecture into a very wonderful kind or ornamental engineering;" and Cram himself considers Amiens "one of the most technically perfect and one of the least inspired" of French cathedrals. It is perhaps not surprising to encounter

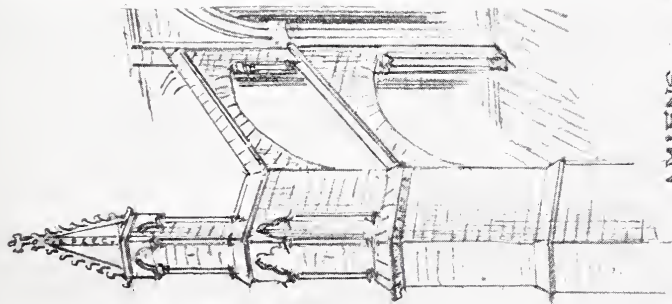
^{*}"A History of Architecture," Vol. III, "Gothic in Italy, France and Northern Europe." By A. L. Frothingham, late Professor of Archaeology and the History of Art, Princeton University. New York: Doubleday, Page & Company. MCMXV.

[†]New York: The Macmillan Company, 1912.

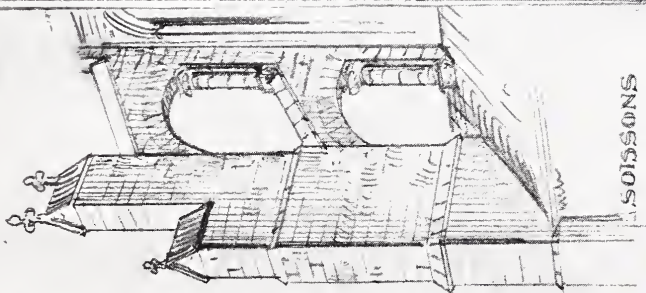
^{*}The italics are ours.



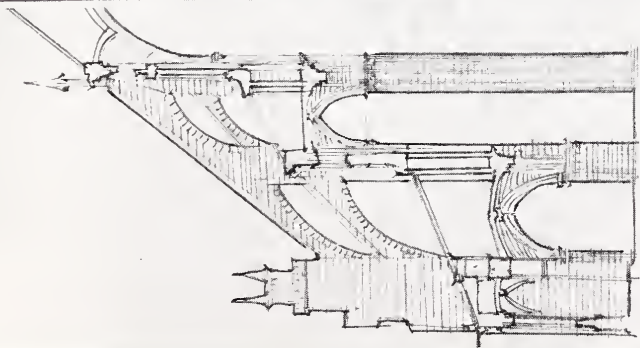
BEAUVAIS.



AMIENS.



LAON.



BOURGES.

FIG. 4. FRENCH BUTTRESS SYSTEMS.

like judgments in the English writings, for the English taste has always been more strongly inclined towards the imaginative than the coldly logical. "It was the logic of the Parisian," says Prior in his excellent *English Gothic Architecture*, "that brought to his Gothic both its extreme excellence and its decay: the *science* of vault-construction fell in with his bent. The idea having once attracted him, his logical faculty compelled him to follow it to the end. His vaults rose higher and higher; his poise and counterpoise, his linkage of thrust and strain grew more complicated and daring, until material mass disappeared from his design, and his cathedrals were chain-works of articulated stone, pegged to the ground by pinnacles."

The insistence on pure logic, so prevalent in French and American writing, so much less conspicuous in the English literature of the subject, is absolutely lacking in the early writers in English. Ruskin ignores it; Fergusson in his *History of Architecture in All Countries* gives no hint of the evolutionary progress of the French Gothic architecture, nor of the dependence of its development upon the application of scientific reasoning to structural problems. His curious bewitchment by the ethnographic idea prevents any comprehensive treatment of the Romanesque origins, and though he abandons his ethnographic system when he comes to the Gothic buildings, he fails to discover in these any unifying principle except "painted glass, which is really the important formative principle of Gothic architecture." Vaults and buttresses are not discussed till nearly the end of the account of Gothic architecture in France, and construction is disposed of in one and a quarter pages (I, 581-582)—after pinnacles and spires! The vaults he calls "false ceilings," built of stone under the real roof, and considers this construction as bad as the Greek practice of putting marble tiles on a timber roof (I, 449). "The construction of a vault capable of resisting the destructive effects of exposure still remains a problem for modern architects to solve. Until this is accomplished one

must regard roofs entirely of honest wood as preferable to the deceptive stone ceilings which were such favorites in the Middle Ages" (!) (I, 321). Such misapprehensions are not chargeable to the later English writers—Bond, Prior, Simpson and Jackson. Although Mr. Bond is an ecclesiologist and not an architect, he writes understandingly of constructive matters; while the other three reveal the architect's primary interest in the structural logic of the Gothic styles. Our American writers—Sturgis, Moore, Frothingham and Porter, all know their Viollet-le-Duc, their Enlart and their Lefèvre-Pontalis; they show a full appreciation of the French Gothic *logique*, of the structural as well as the artistic elements of their subject. They differ in their estimates of the English and other non-French styles, but Moore is alone among them in denying to the English architecture the merit of a really logical evolution and of conformity to truly Gothic principles.

III.

It would be tedious to undertake a detailed examination and *critique* of these several writers, English and American, as to their treatment of the medieval logic. But it may be interesting to consider in a summary way some of their more commonly repeated contentions on the subject. Let us confine ourselves to the logic of vaults, of buttress-systems, of vaulting shafts, and of structural expression.

It was Robert Willis who first, among writers in English, expounded clearly the genesis and *rationale* of Gothic vaulting, when in 1842 in his *Essay on Vaulting* already mentioned, he gathered together the slowly-matured results of the investigations of others and his own careful examination of a number of English vaults in process of repair or reconstruction. The function of the ribs as a preliminary skeleton or framework upon which the fillings could be easily built; the division of the bays by these ribs into four or more compartments which could be filled in independently of each other; the differing functions of the main ribs—for which he used the

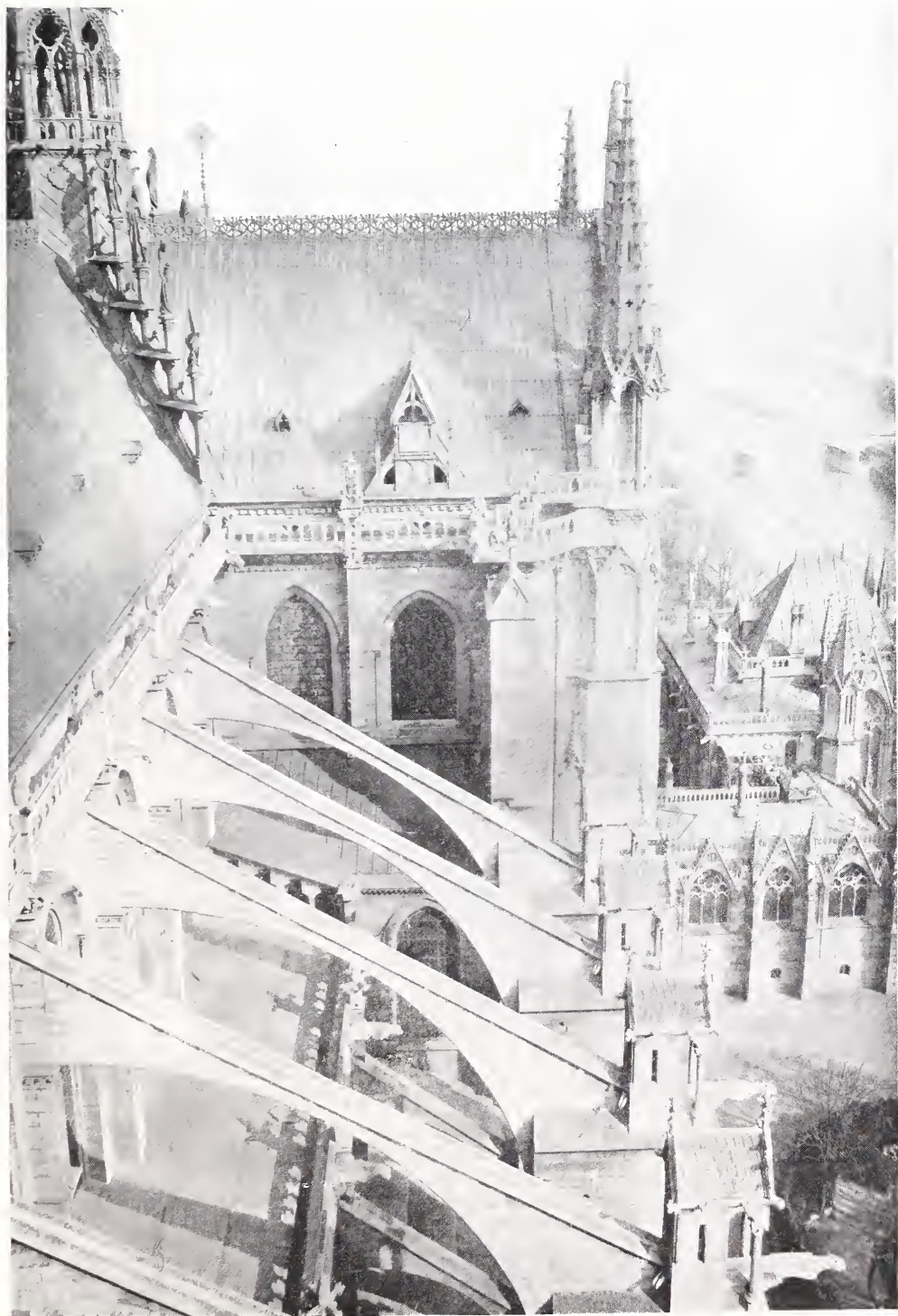


FIG. 5. FLYING ARCHES
OF NOTRE DAME, PARIS.

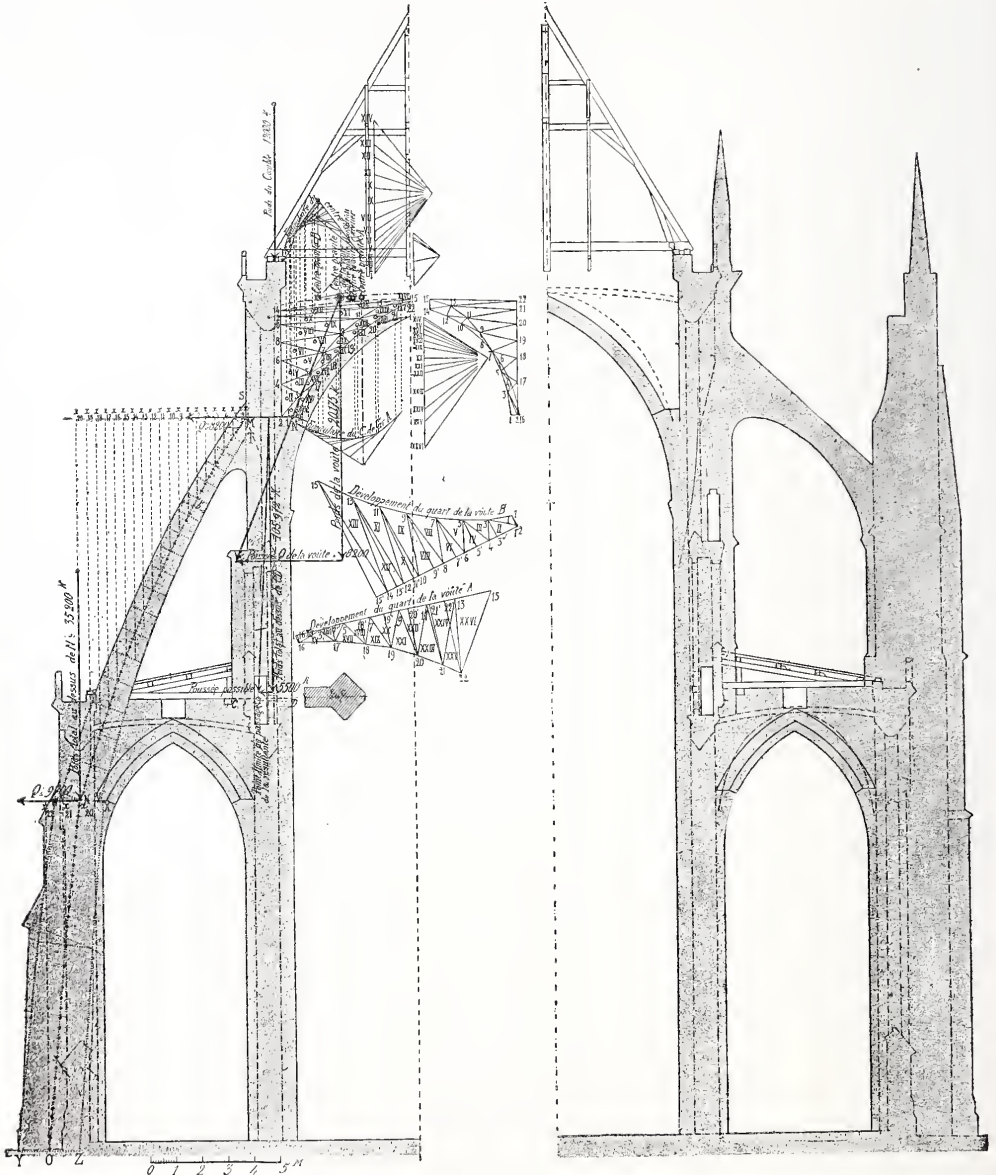


FIG. 6. THRUSTS AND BUTTRESSINGS OF ST. OUEN, ROUEN, THEORETICAL AND ACTUAL. (From Guadet)

French names of *ogives* (groin-ribs), *doubleaux* (transverse ribs), and *formereets* (wall-ribs)—on the one hand and the subordinate *tiercerons*, *liernes*,* and ridge-ribs on the other: all these fundamentals of Gothic vault-science he set forth with great clearness in his epoch-making essay. He pointed out the fundamental structural difference between groin vaults without groin-ribs, such as one sees in many Romanesque side-aisles, and those with such ribs.† He traced the evolution of the fan vault from the tierceron vault in England and explained the methods of the English vault-builders.

All this is a part of the common knowledge of to-day; but Willis was the pioneer in making it so. He never used the word "logic" in his essay, but he revealed the logic itself of the Gothic vault. It was Viollet-le-Duc who introduced and emphasized the term, in his remarkable discussions of vaulting in the articles "Construction" and "Voûte" of his *Dictionnaire*. He carried the discussion much further than Willis, and has been followed by most American writers in the same strain. Among these, it is Moore, followed by Porter, who dwells most frequently and insistently on the French logic in vaulting. Professor Moore's analysis of the historical development of the French vaulting system through the succession of the churches and cathedrals in which the problem was worked out is masterly, in method, in detailed treatment and in scholarship. It is especially strong in its study of the trapezoidal bays of the ambulatories. In his treatment of the logic of vaulting in the English medieval architecture he is less happy. His eyes seem closed to the possibility of logic

following other lines than those of the French builders. But of this I shall speak in some detail in the closing paper of this series, on English and Italian Gothic architecture. To Moore, to Porter, who has brilliantly set forth the original contribution of the Lombard builders to the science of vaulting, and to Frothingham, we owe an especial debt for their studies on this subject. They have made very clear the processes by which the French Gothic vaulting was evolved.*

The historic evolution of the Gothic buttress-system was first adequately set forth by Viollet-le-Duc. This system plays so much less important a part in English than in French architecture that it has received proportionately less attention from the English than from the French writers until recent years. The American writers have followed the French lead, with original investigations and contributions of their own. The so-called flying-buttress is now perfectly well understood as the one essential feature without which the French Gothic development of loftiness and of suppression of walls—the Gothic system of the framed skeleton of stone—could never have been realized. By its means alone was it possible to reduce the mass and area of all the supports, increase all the heights, and enlarge the clearstory windows to splendid dimensions. By its means the *weights* were distinguished from the *thrusts*. These last were concentrated by the ribs of the groined vaulting into strains exerted at particular points, namely somewhere in the clear-story above each pier. The "flying" or half-arches abutting against the clear-story between each pair of windows receive these thrusts and transmit them across and above the side-aisle roofs to the buttresses proper. These last are masses of masonry, very deep in the direction of the thrust, i. e., transversely to the length of the church. Where there is no side-aisle, as in the Sainte Chapelle at Paris, there is no occasion for flying-arches, as the buttresses are built di-

*It is to be observed that in his earlier "Architecture of the Middle Ages" (1835), Willis used the term "lierne" to designate the ridge-ribs. In the "Essay on Vaults" he distinguished between the ridge-ribs and the short bridging-ribs which he now calls "liernes."

†In the admirable Volume III, lately published, of the Sturgis-Frothingham "History of Architecture," Professor Frothingham uses the word "groin" as synonymous with "groin-rib." A groined vault, in his use of the term, is a groin-ribbed vault; a quadripartite vault without groin-ribs he calls an intersecting vault. This usage is not warranted by the generally accepted definition of "groin," which properly means the salient angle or arris formed by the intersection of two barrel-vaults of equal height, whether furnished with a rib or not.

*The whole subject of vaulting is admirably treated, with a wealth of illuminating illustrations, in the article "Vault," by the late Charles Babcock, in the Sturgis "Dictionary of Architecture."



FIG. 7. VAULTING SHAFT CARRIED BY CORBEL, LINCOLN CATHEDRAL NAVE.

rectly against the main structure. The fundamental logic of the flying-buttress consists, first, in applying localized resistances to the localized thrusts; and secondly, in applying this resistance by means of the half-arch as nearly as possible at the central or critical point of outward pressure of the vault. But since the engineering science of the French Gothic builders was empirical, not mathematical, they had to guess at the point where the thrust would emerge (i. e., most forcibly press outward), and they made many mistakes in their guesses. Some of the early half-arches are very high, some low; some very thin and light, some very deep, as at Noyon and St. Rémy at Reims. As the style advanced, the arches were made lighter and were doubled, one above the other, thus making sure of catching the thrust between them. Two additional features of the French system must be mentioned: the wall-buttress and the pinnacle. The wall buttress is a shallow buttress built against the clearstory-wall; it starts from above the shaft carrying the transverse arch of the side-aisle vault, and thickens and buttresses the wall of both triforium and clearstory. Its upper part receives the upper end of the half-arch or half-arches of the flying-buttress system. In the Middle Gothic period it was enriched by colonnettes, sometimes engaged, sometimes free-standing. In many cases the latter sort, by detaching and isolating a part of its mass, distinctly weakens the wall buttress instead of strengthening it. The pinnacle was a decorative device which is commonly explained as intended to load the buttress and thus to deflect downward the resultant of the thrusts and thereby increase the resisting power of the buttress. I confess that this explanation is to me not very convincing. Except in the case of Reims, the mass and weight of the pinnacle are so small in proportion to that of the buttress that its value as a steadying load is slight; while its decorative value is so great that it is hard to believe this was not the determining element of its design. Comparing Chartres, where the pinnacle was placed over the inner half of the buttress, with Amiens where it

was placed over the outer edge Moore says: "it was presently seen that it would be more effectual if placed further out." This is an evident mistake; for the most effective loading must of course be that on the inner half of the buttress, where it would tend to resist the overturning of the latter; not on the outer edge, where it would increase, if anything, the tendency to tip over outward. If then the function of the pinnacle was chiefly to load the buttress and steady it against overturn or disruption by the vault-thrust, the logic of the French builders failed them here. If on the other hand its function was mainly esthetic, its position on the outer edge is fully justified; it looks better there. Indeed, from the point of view of pure structural logic, one of the most scientifically disposed buttress-systems is that of St. Rémy at Reims, a very early example; but it is unquestionably ugly, and excessive in the amount of its inert masonry.

The late Julien Guadet, in his *Théorie de l'Architecture*,* has analyzed by the graphical method the thrusts of the late Gothic Church of St. Ouen at Rouen, and worked out the theoretical direction of the resultant and the form of the flying arch and buttress best fitted to receive and transmit it. (See Fig. 6.) It will be seen that the French builders were far from conforming to this ideal type, but that in St. Ouen they came nearer to it than in most examples. This analysis moreover clearly shows the function of the arch to be that of a stone strut, *transmitting* the thrust to the buttress which absorbs and kills it—not that of an active member *opposing* its "counter-thrust" to "counterbalance" that of the vault, as is so commonly asserted (e. g., Moore, Porter, Frothingham). The only "balanced thrusts" are really those of adjacent pier-arches and wall-arches and transverse vaults, which do thus balance each other. The thinness of many French buttress-arches in section, as those of Notre Dame at Paris, proves that their builders understood clearly that they were building arched struts. Had they wished to oppose

*"Éléments et Théorie de l'Architecture." 4 vols.; Paris, 1902.

arch-thrusts to vault-thrusts, they would have built full arches of great mass instead of slender half-arches. They understood that element of their problem better than do some of their modern critics.*

Returning now to the interior of the Gothic structure, let us consider the function of the vaulting shafts—those long and slender shafts or groups of shafts engaged in the masonry of the central aisle and rising to the spring of the vaulting-ribs which they appear to support. They are a highly-important feature of the interior architecture of French churches; far less conspicuous in the English. Most modern writers dwell more or less insistently on their importance as structural members of the Gothic framework. Professor Moore has made them the object of special study, and both in his *Development of Gothic Architecture* and his *Mediaeval Church Architecture of England* he points out the pre-eminence of the French structural logic, which assigned a separate shaft to each vault-rib, and started the shafts from the pavement, or at least from the cap of the pier. The English, on the other hand, often made one shaft carry several ribs, and started the shaft in many cases from a corbel between the pier arches or even from a corbel in the triforium story. This, Moore declares to be structurally illogical (Fig. 7).

Now as a matter of fact, the English practice is structurally more truly logical than the French. For the vaulting shafts *do not carry the vaulting*; they only appear to do so. They are not structurally necessary; they might be hewn away with perfect safety. Indeed, in many cases they have been hewn away at least in part, to make room for later constructions or simply to gain space on the floor. The vault-ribs might with perfect safety be carried by a stout

corbel, for the resultant of their combined weight and thrust passes out into the clearstory wall and pier in an oblique line, not straight downwards inside of the clearstory walls. The English builders understood this perfectly: so doubtless did the French. In both cases the practice adopted was determined *not by structural but by esthetic logic*. To satisfy the eye, by an apparent visible support, adding to the apparent strength of the slender vertical framework of the French church, and at the same time to reënforce the upward movement, the vertical emphasis of the interior design, the French builders felt the *esthetic* necessity of these long groups of shafts. They were an invaluable reinforcement of the expression of soaring height which they sought to produce in their cathedrals and churches. The English, on the other hand, deliberately sacrificed height to length, and lightness to massive richness. Their broad piers and thick clearstory walls did not require the apparent reënforcement of the long, grouped vaulting shafts, and they did not care to multiply to the limit their vertical lines. Structurally it was quite proper, logical and sufficient to start the shafts from corbels somewhere above the pier-caps. Grant that the English were less skilful builders than the French, timid about lofty vaults, and that they persisted in retaining an almost Romanesque massiveness in their designs; the true criterion of the merit of their use of vaulting-shafts is not that of structural logic alone—in which they showed, after all, in this one detail at least, more science than the French—but also that of esthetic logic. Does their construction appear consistent and stable to the eye? Is it satisfying in appearance, or inadequate and inharmonious? There is room for differences of opinion here, of course, but no justification for dogmatic condemnation based on an incorrect thesis.

I believe that an unprejudiced study of the historico-critical literature of Gothic architecture, accompanied by an equally unprejudiced study of the monuments, will lead to the conclusion that emphasis upon the element of purely

*Mr. T. G. Jackson in his "Gothic Architecture" cited above, contends that the half-arch exerts a perceptible counter-thrust against the vault. This is true; a ladder leaning against a wall thrusts measurably against it. But this is an almost negligible factor in proportion to the vault-thrusts which the flying buttress opposes, and Mr. Jackson notes that the French ignored it often by providing a strong vertical support for the upper end of the half-arch, thus almost wholly neutralizing its horizontal push.

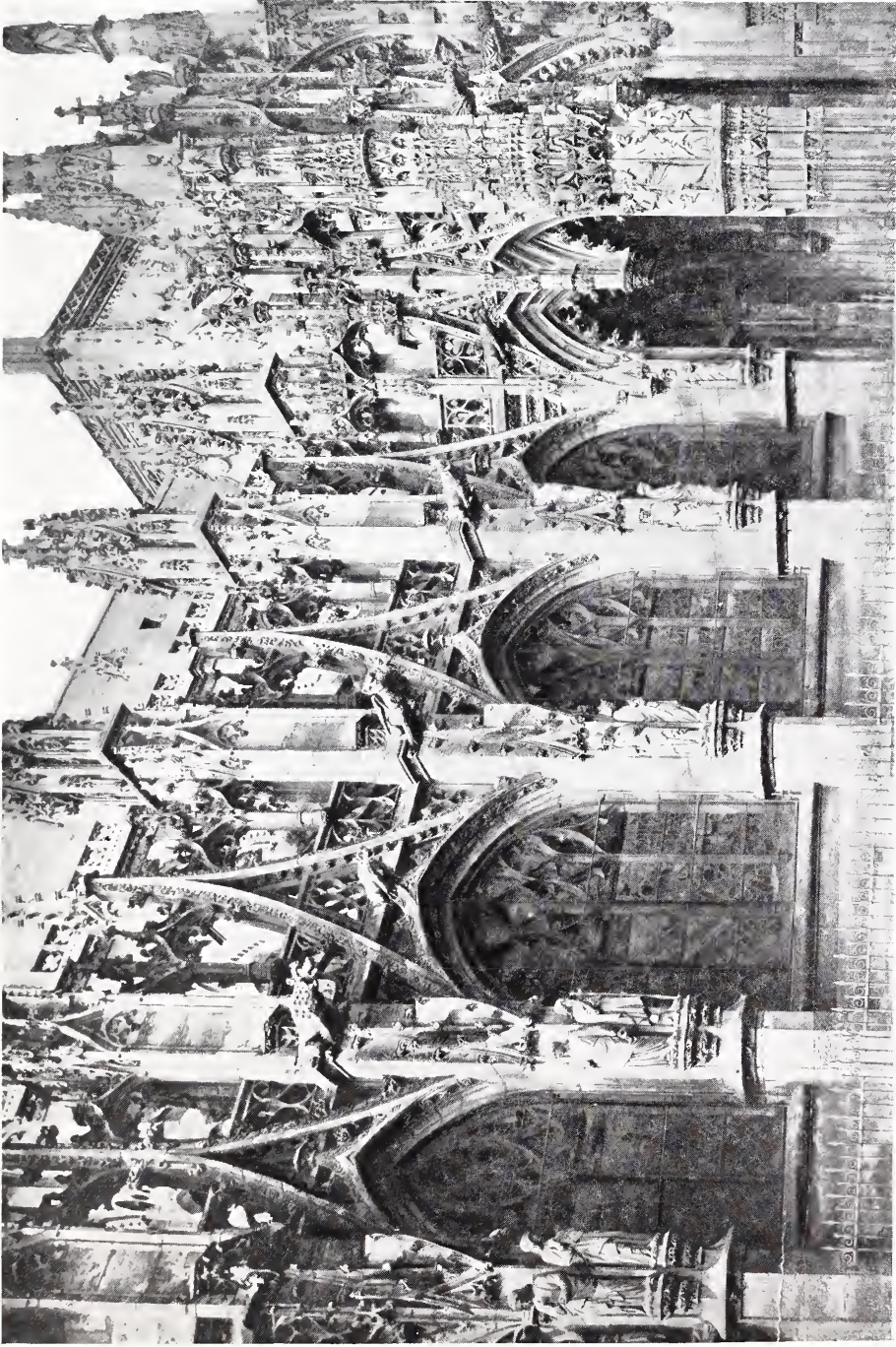


FIG. 8. CHURCH OF ST. PIERRE, LOUVIERS.

scientific logic to the exclusion of other considerations, gives a distorted view of the true processes by which the Gothic styles and monuments were evolved. It overlooks the influence of that esthetic logic which shapes the building, as a whole and as to its constituent parts, with a view to the esthetic appeal it will make to the emotions through the eyes. It tends to belittle the influence of imagination and pure fancy, of the architect's effort to visualize in stone his dream-creations. Having set up the logic of scientific construction as the basis and criterion of Gothic design, it seeks a scientific justification for elements in that design which were really the results of esthetic reasoning and then condemns other features, equally beautiful, for which it cannot find or invent similar structural justification. But the public and the generality of educated architects refuse to judge the Gothic monuments by such a narrow criterion. Admitting freely the structural logic evident in their design, we nevertheless find them full of lovely features which might be stripped away without the slightest damage to the structural framework of the building. All the lofty spires are in reality purely decorative adjuncts. All the lovely open-work gables are "constructed ornaments," pure and simple. All the wall-traceries, niches and tabernacles are the products of the artistic imagination, having no function in the structural framework. Nine-tenths of the slender pinnacles have none but an imaginary value as structural loads. The vaulting-shafts are not needed for sustaining the vault-ribs. But *every one of these features has its valid and necessary place in the esthetic scheme of the design.* The Gothic builders of France were not merely mathematicians and engineers, they were artists, dreamers of dreams, seers of lovely visions. It is not too much to say that the structural logic they displayed was the servant of their artistic imagination, rather than its tyrannical master. It is perfectly plain that, however stern that logic may have been in the earlier formative stages of the Gothic styles, it became more and more sub-

servient to esthetic considerations as time went on. As Moore has pointed out (see *ante* p. 102), the beauty and flexibility of proportion of the pointed arch were perhaps quite as important a factor in the adoption and development in Gothic architecture as its diminished thrust or its value in lifting the ridge of the cross-vault. From the early years of the thirteenth century and for a hundred years and more thereafter, art and science, reason and imagination walked, as it were, hand in hand, worked side by side in harmonious agreement, to produce the most consummate marvels of the medieval architecture. With the fourteenth century the artist begins to push the engineer into the background. The structural problems had been solved. The logic and science of the early experimentation had become the common property of the craft. The decorative path was the only forward path open: stagnation or dull repetition was the only alternative to greater richness of embellishment. Structural logic was not ignored nor even forgotten; it is there, underlying the fundamental design, but clothed in a dress whose beauty and whose marvelous execution are their own justification, extorting praise even from unwilling critics who would fain measure everything by the formulæ of structural expression.

It has long been the fashion to decry the Flamboyant monuments of France as the products of a decadent style; but not all competent critics are ready to subscribe to this sweeping condemnation. "Whatever they may lack," says Cram, "of the splendid consistency and the divine serenity of the thirteenth century, they are nevertheless among the loveliest works of man." They doubtless lack the "serenity," the severe majesty of the earlier monuments, their naïf structural expressiveness. But it must be remembered that they are for the most part buildings of moderate size, in which grandeur and majesty are not to be looked for, and to which we cannot apply the norm of the great cathedrals. The expression of structure is there, after all, even though veiled under a dress of elaborate ornament. There is

room in the world of architectural beauty for more than one kind of excellence; for loveliness of apparel as well as for the stateliness of heroic nudity. To admire superb anatomy does not forbid our admiring also superb costuming. The richness, intricacy and beauty of the detail of Flamboyant buildings, even the riotous extravagance of their pinnacles and traceries, entitle them to our unrestrained admiration. Their expression of structure is less conspicuous than in the earlier works, but their decorative invention and luxuriant fancy, directed by a marvelous esthetic instinct, constitute them works of art in the highest sense.

By the middle of the fourteenth century nearly all the great cathedrals had been built, at least in France and England. The problems of the "Flamboyant" builders, so far as ecclesiastical architecture is concerned, were either parish churches, large and small, or the alteration and completion of existing cathedrals. Some of the larger problems of this sort they handled with consummate skill: witness the majestic, original and structurally logical cathedral of Alby; the stupendous wonder of the rebuilt choir of Beauvais; the lofty elegance of St. Ouen at Rouen, whose chief fault is that it is even more mechanically perfect than Amiens; the choir and transepts of St. Nazaire at Carcassonne; the beautiful choir of Mont-St. Michel. Among lesser works one may be permitted to admire the

delicate beauty of St. Maclou at Rouen, the portals of Troyes and Tours, even the over-wrought luxuriance of the church at Louviers and the lace-like fragility of the front of Rouen cathedral. The logic of scientific construction and the frank expression of structural methods and devices deserve our admiration, and in Gothic architecture they play a most important part, to which the critics have done ample justice. But let not the critics frighten us out of our right to enjoy to the full every whit of the decorative loveliness with which the later medieval artists endowed their creations.

Architecture is, after all, not all science; it is pre-eminently an art, in which imagination and the love of pure beauty of form have their place. There is a logic of beauty as well as a logic of stability, and the appeal to the esthetic emotions is at least as important as the appeal to the intellect. Who would shift a single column or arch of that most illogical of all façades, the front of St. Mark's at Venice? The front of Peterboro' is logically absurd; so also, we are told, is the lantern of St. Ouen at Rouen: but God forbid that ever a stone or a line of their lawless beauty be removed, or a "logical" structure be erected in their place! Is it not, after all, the beauty rather than the logic of the architectural masterpieces of all the ages, that wins our admiration, and stirs the deepest tides of our emotions?



SOUTH PORTICO—COUNTRY HOUSE OF ORMOND G. SMITH,
ESQ., OYSTER BAY, L. I. HOPPIN & KOEN, ARCHITECTS.



SUPERINTENDENT'S COTTAGE—COUNTRY PLACE OF ORMOND G. SMITH, ESQ., OYSTER BAY, L. I.
Hoppin & Koen, Architects.

THE - COUNTRY - HOUSE OF ORMOND G. SMITH, ESQ. OYSTER BAY, L. I.

HOPPIN & KOEN, ARCHITECTS

BY DE WITT H. FESSENDEN

IN his admirable summary of the past quarter-century of American architecture, Prof. Hamlin correctly emphasized the progress made in country house design in recent years. The demand for country houses continues to be as great as ever in all parts of the country and, in respect to this particular type of building at least, seems to contradict the observation of Prof. Hamlin that the period of great architectural expansion is almost over. Houses recently built of all kinds and sizes, reflecting a great range of taste, modes of living and individual requirement, all point to a growth that is wholly normal and sound.

The variety of our houses is really extraordinary.

Along with simplification and appreciation of outdoor life—at once a result and a cause of good taste—there

has been also a certain increase of luxury and extravagance, which is reflected in architectural design. Such ostentation is seen not only in size and decoration, but also in multiplication of services and conveniences, and in the addition of much complication as regards mechanical equipment. However, an architect will hardly regret luxury that finds expression in beauty of form and color.

Mr. Ormond G. Smith's country home, "Shoremond," at Oyster Bay, Long Island, designed by Hoppin and Koen, is a symmetrical Georgian residence which forms, with its dependencies of garage, overseer's house and workmen's cottages, a little community in an appropriate landscape setting. The site is on the brow of a hill overlooking Oyster Bay, with the buildings so disposed as to gain the greatest benefit of the splendid view over the waters of Long Island Sound.

Passing the entrance gates and the superintendent's cottage, the drive, flanked by shrubbery, winds at a gentle incline up hill to the east, and with a turn at the top conducts one between formal rows of maples straight down to the unique enclosed forecourt, containing a decorative fountain. The house is an attractive one, of harmonious proportions, most cheerful and hospitable in appearance. Its main ornamental feature is a Corinthian portico, which opens from massive iron gates, and which stands in contrast to the simple treatment of the windows and entrance door. The effective brickwork is the result of copying some eighteenth century English bricks.

A wrought iron fence upon stone posts encircles the forecourt. Extremely simple and unassuming in design, it holds its position admirably in the general scheme, offering elliptical lines to balance the extremely wide porch steps. Aquatic plants form an agreeable setting for turtles and frogs which, perched upon a vine-clad base, spout streams of water merrily into the pool beneath, which reflects on the surface the white stone columns of the portico.

To the left is an Italian garden formally laid out with stone benches and fountains, making desirable accents amid the shrubs and greenery. On the opposite side, but entirely secluded by screens of foliage, is the service section, with entrance on a lower level.

The window spacing is excellent, and the casings of the doors with delicate mouldings in white Caen stone show up very effectively as well as pleasingly against the rich coloring of the bricks. On each side of the imposing grille opening are the two bronze lamps relieved against the brick and delicate stone carvings. Careful attention has been bestowed upon cornice and column caps, and upon the window spacing and the proportions of the wings, all heightening the fine general result.

The English eighteenth century country house has been the inspiration for that desirable feature of an entrance hall extending from the front to the rear, providing a vista into the garden beyond.

It is a real hall unobstructed by stairways and other intrusive factors. Passing through the hall to the other side one comes out under a circular portico set in a broad expanse of well kept lawn at the level of the porch floor and extending unobstructed, except for a sundial in the center of the path, to the concrete retaining wall, which acts as a bulwark to any buffeting of the waves of Oyster Bay.

The marble floor of the porch is of symmetrical design on a two-color system, set off by seats and vases scattered around. The design of the floor is a compass, with arrows giving the directions, let into the marble in mosaic style, the barbs being of bronze and scintillating in the sunlight like rays of gold. At either side of the doorway stand handsome pedestals with large bronze lanterns suspended immediately above, affording pleasing contrast with the moldings of the carved stonework. From this vantage point one observes to right and left sun parlor and breakfast room, which project from the building out in the terrace with its well-defined balustrade and cornice. Marble benches, tables and urns stand out in sharp relief against the blue waters of the bay.

The hall is used mainly as a passageway with scant furniture, just enough pieces to avoid the uncomfortable feeling of bareness. It follows precedent by being two stories high, with a balcony from which depends fine Eastern rugs and tapestries. The staircase, also of marble, is at the southern end, and rises at each side of the vestibule, which is concealed from the visitor as he surveys the broad length of the ample passage, opening off which are the principal rooms. Much might be said in praise of the door and window spacing and the marble mantel. This mantel, with its pilasters, affords a worthy enframement for the "old master." Then, too, one admires the fanciful brackets which support the well designed Colonial balustrade; also the elaborately paneled and decorated ceiling.

In decorating the interior the services of Miss Elsie de Wolfe were wisely invoked and she has assuredly given dis-

tion and grace to this Georgian mansion, where no pains have been spared to make inside and outside equally artistic. Owner, architect and decorator have proved themselves a triumvirate of good taste and able execution in the problem of conforming substantially to "period" design without being too literal or too slavish. That they have done this and at the same time steered through the Scylla and Charybdis of interior decoration, in carefully avoiding the ostentatious and the commonplace, speaks well for the result.

The music room has been treated with mulberry hangings and blue draperies; the library, with blue and silver hangings against lime wood in the manner of Christopher Wren, painted ceilings in bas-relief distinguishing the two rooms. In the guest room one is struck by the Directoire walls and the chintz hangings of red and blue, a design suggested by an ancient document, which harmonize delightfully with the blue taffeta silk curtains. The breakfast room is a typical English room, paneled and painted in cream color, the chintz curtains displaying a bold pattern design in old rose and pale green, over a gray-green rug. Another guest room has been handled in Chinese manner, with black and gold lacquer, rose and green silk brocade being freely used in the furniture and hangings.

The ladies' reception room has been designed in an unusual tone of mauve. The boudoir is decorated with paneled walls of a deep green shade, and an Aubusson rug of rose, green and cream, with dashes of blue. A beautiful French crystal chandelier, brocaded silk furniture, upholstering and needle-work

chairs, give a fine effect to this apartment.

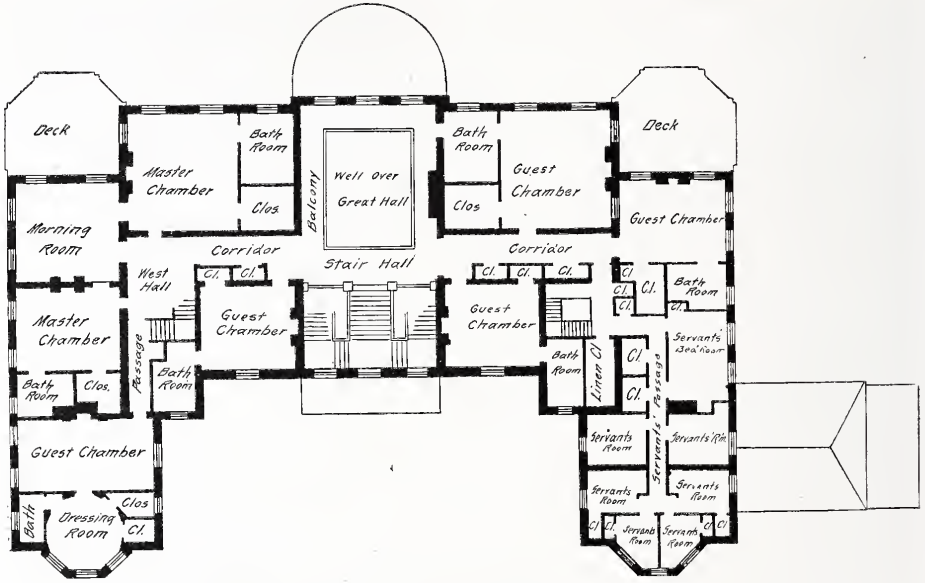
A men's reception room has been designed in Adams style; wheel-back chairs and a black rug with red border are suitable settings to the general scheme of red and blue upholstery and hangings; touches of silver here and there heighten the effect of the whole.

The dining room, opening into the breakfast room, is chiefly remarkable for its Chinese Chippendale table and chairs, upon a handsome Kermanshaw rug of huge proportion.

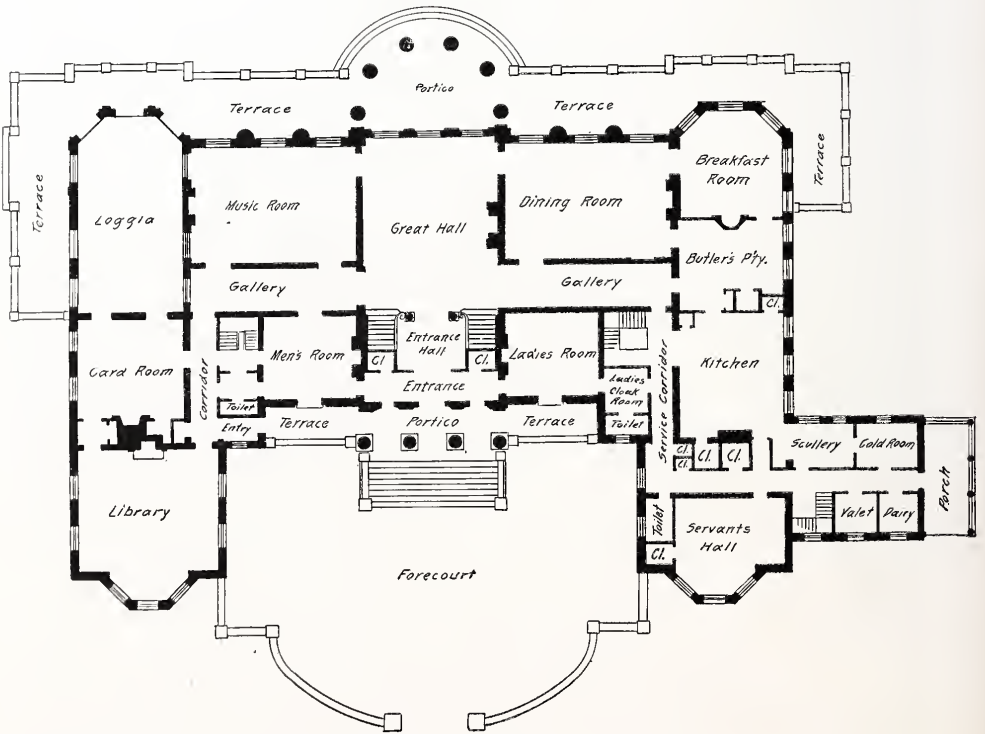
The loggia contains pale green lattice work against a terra cotta wall, the draperies are of striped taffeta silk in pale pink and green, the couch and chairs are covered with cream and green striped velvet, the floor is of marble mosaic, the rug terra cotta with black border. Each room has been individually treated in accordance with its special usage.

In walking about the grounds one pauses to inspect the commodious garage, with accommodation for eight automobiles, and with rooms above for housing the chauffeurs of house-guests. To the right of the garage are stables for riding-horses, whilst the left part of the garage houses the head chauffeur. In front of the superintendent's house is a pond, which besides contributing largely to the beauty of the grounds, has also its practical side, as it provides the ice supply for the household.

It may be noted incidentally that the estate is a farm which is really self-supporting—not perhaps from a book-keeping standpoint, but to the extent that it provides all the ordinary requirements of family consumption and upkeep.



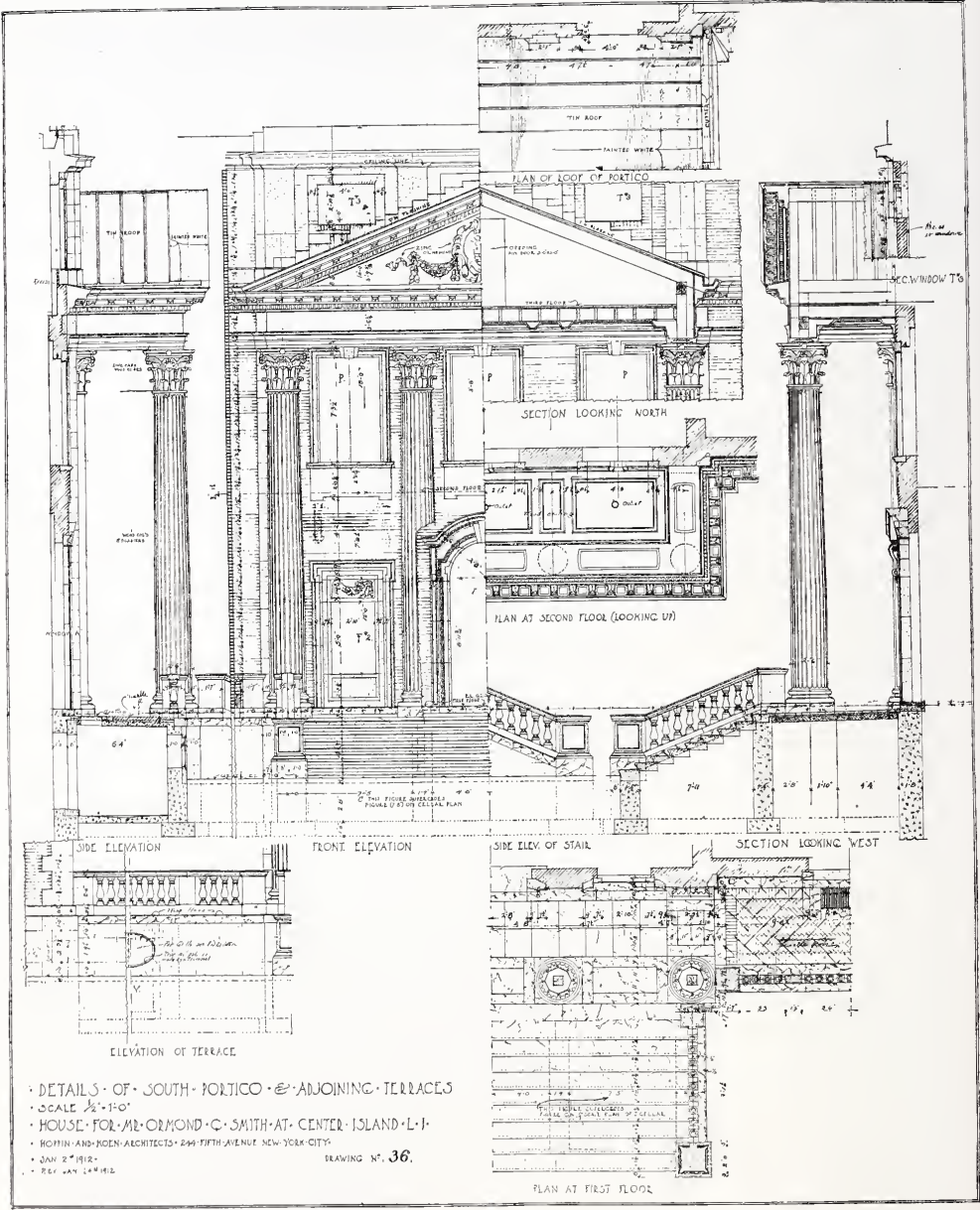
PLAN OF SECOND FLOOR—COUNTRY HOUSE OF ORMOND G. SMITH, ESQ., OYSTER BAY, L. I.
Hoppin & Koen, Architects.



PLAN OF FIRST FLOOR—COUNTRY HOUSE OF ORMOND G. SMITH, ESQ., OYSTER BAY, L. I.
Hoppin & Koen, Architects.



COUNTRY HOUSE OF ORMOND G. SMITH, ESQ.,
OYSTER BAY, L. I. HOPPIN & KOEN, ARCHITECTS.



· DETAILS · OF · SOUTH · PORTICO · & · ADJOINING · TERRACES
 · SCALE $\frac{3}{8}$ " = 1'-0"
 · HOUSE · FOR · MR. · ORMOND · C. · SMITH · AT · CENTER · ISLAND · L. I.
 · HOFFIN · AND · MOEN · ARCHTENTS · 244 · FIFTH · AVENUE · NEW · YORK · CITY.
 · JAN · 2ND · 1912 · DRAWING · NO. · 36.
 · REV · JAN · 14TH · 1912



SOUTH ELEVATION—COUNTRY HOUSE OF ORMOND G. SMITH,
ESQ., OYSTER BAY, L. I. HOPPIN & KOEN, ARCHITECTS.



MAIN HALL—COUNTRY HOUSE OF ORMOND G. SMITH,
ESQ., OYSTER BAY, L. I. HOPPIN & KOEN, ARCHITECTS.



BOUDOIR—COUNTRY HOUSE OF ORMOND G. SMITH, ESQ.,
OYSTER BAY, L. I. HOPPIN & KOEN, ARCHITECTS.



MEN'S ROOM—COUNTRY HOUSE OF ORMOND G. SMITH,
ESQ., OYSTER BAY, L. I. HOPPIN & KOEN, ARCHITECTS.



DINING ROOM—COUNTRY HOUSE OF ORMOND G. SMITH,
ESQ., OYSTER BAY, L. I. HOPPIN & KOEN, ARCHITECTS.



NORTH ELEVATION—COUNTRY HOUSE OF ORMOND G. SMITH,
ESQ., OYSTER BAY, L. I. HOPPIN & KOEN, ARCHITECTS.



GARAGE AND CHAUFFEUR'S QUARTERS—COUNTRY PLACE OF ORMOND G. SMITH, ESQ., OYSTER BAY, L. I. HOPPIN & KOEN, ARCHITECTS.



NORTHWESTERN MUTUAL LIFE INSURANCE COMPANY'S BUILDING, MILWAUKEE, WIS. MARSHALL & FOX, ARCHITECTS.

MILWAUKEE REVISITED

The NORTHWESTERN MUTUAL
LIFE INSURANCE COMPANY'S
LAST NEW BUILDING
MARSHALL & FOX, ARCHITECTS



BY PETER B. WIGHT



AFTER an absence of several years from Milwaukee one is strongly impressed, on revisiting it for the purpose of studying its latest architectural acquisition, with the peculiar position of this thriving city as illustrating the progress of architectural development in the Middle West during the last forty-five years. Milwaukee is one of the oldest cities in what was once called "The West." It is one of a string of towns on the west coast of Lake Michigan, Kenosha, Racine and Milwaukee, which men still living read of in their school geographies, before Chicago was ever heard of, in answer to the question, "What are the principal cities on the west shore of Lake Michigan?" All of these, being in the State of Wisconsin, were settled early by German immigrants and grew rapidly in population and wealth. They had the best ports of entry on the lake and were at the mouths of small rivers draining into it, while Chicago was afterwards settled upon a small, sluggish creek which drained only a small district to the north of its mouth at the lake, flowing southward almost parallel to another, the Desplaines River, which flowed into the Mississippi Valley. The only reason for its settlement was that it was the site of old Fort Dearborn, a trading post which commanded the divide between the lakes and the Mississippi and was built to protect it against incursions from the Indians. This divide is said to have been only eleven feet high at the lowest part, and Chicago, built on low-lying ground, did not become a city of any importance until the State of Illinois built the Illinois and Michigan Canal connecting the Chicago with the Illinois River at Joliet, which opened an avenue for navigation

between the lake and the inland river system at about the year 1836. Chicago was not incorporated until that year.

Meanwhile the three cities above mentioned grew fast and flourished. They were built on high ground and had good harbors at the mouths of the rivers on which they were located. The two most southerly ones did not grow as rapidly as Milwaukee, and gradually developed into manufacturing towns, which they still are. Milwaukee was a place of export for the agricultural products of the great productive State of Wisconsin, which not only produced wheat and corn, but cattle and hogs, the latter supplying great packing houses years before they were established in Chicago, though in course of time the largest and oldest of them was moved to that city, where its main branch had been established. There also were established breweries for which the German population of the State furnished the first customers, but their trade eventually extended over the whole country as means of transportation began to be established.

Hence Milwaukee became one of the wealthiest cities in America in proportion to its population. There was nothing sensational about its rapid growth. It did not need any advertisement, and held its own business, independent of competition with Chicago, which after 1850 began to exceed it rapidly in population. But Milwaukee has always grown rapidly and substantially in wealth and public improvements until its population now is about half a million. It was also more substantially built than Chicago, and yet its buildings had no architectural pretensions until about 1870. They were mostly of brick and four stories high. After that time its wealth became evident

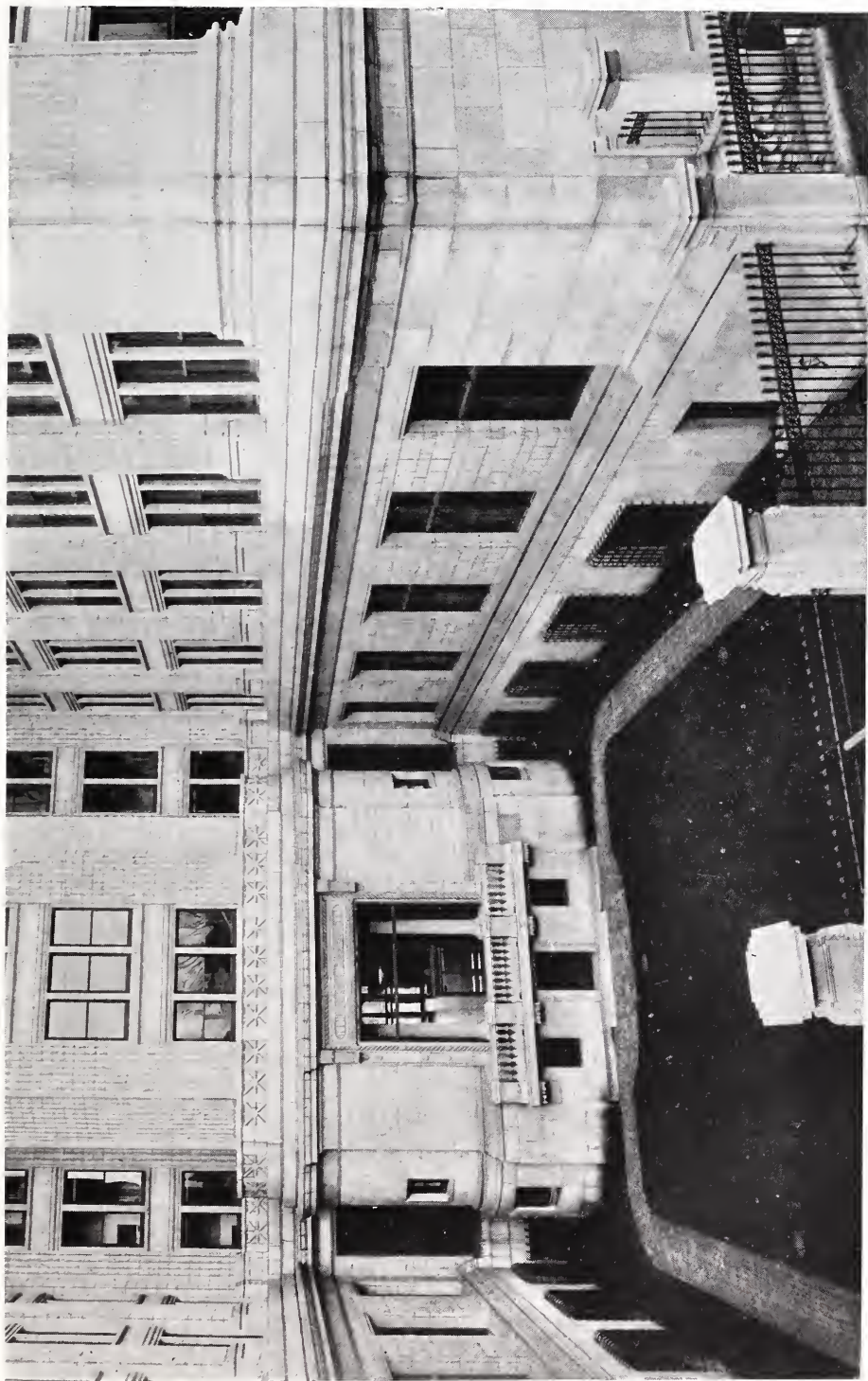
in a number of large and costly structures interspersed between the smaller and cheaper ones. But there has been no general rebuilding in the older and central part of the city, as in Chicago, and the principal buildings stand out prominently among the older and smaller ones. Wisconsin street has always been the main street and it is only a little more than half a mile long, running east and west from the main river bridge to the bluff on the shore of the lake. The west end near the bridge was its business end, and it became the leading residence street as the lake was approached, and this part, where the main subject of this article is located, became the best residence district. This in time extended north to Wisconsin street, and the business district was south of it. Michigan street is the next to the south and Mason street the next to the north. Between these two streets, with Wisconsin street in the center, are now located nearly all of the great buildings for which Milwaukee is famous, many of which, it may be said, were built "before their time."* But the money was always ready to erect monumental structures, all towering above the old four-story buildings of the early days, most of which remain, and give Milwaukee a sky line which has made it famous. Of course the city had to extend westward, so that west of the principal bridge (one of a dozen or more) Wisconsin street has become Grand avenue and is lined with pretentious stores and many theaters; and extends through a newer residence district, which rivals that of the north side on the bluffs overlooking Lake Michigan, and crosses a valley on one of the grandest concrete viaducts in this country, to another residence district which extends over other high ground farther west and forms a great suburb, where more of the half million residents live.

But there is not much distinctive architecture on the west side. With the exception of numerous churches and the

houses of the wealthy it is mostly of the cheap and showy kind, and most of it new. The monumental buildings are nearly all on Wisconsin street and its two neighbors. It is here that we find an illustration of the progress of American architecture in the Middle West, better than I have ever seen elsewhere, in great and costly structures built within the last forty years, whose merits and demerits can be readily compared; all erected by wealthy citizens and corporations with evident pride in the achievement, and from designs by different architects, some native to the city and some from other cities, some of whom I am unable to name. The limits of this article afford space to mention only a few of them, and such as give evidence of great public spirit on the part of Milwaukee's capitalists and great corporations.

Here are two of those erected for Alexander Mitchell, Milwaukee's great banker and capitalist, during the 70's. These cover the entire frontage of the block on Michigan street extending from Broadway to East Water street. At the corner of Broadway is the Chamber of Commerce, designed by E. T. Mix, of Milwaukee. It is in a nondescript style, but has a tower and a good sky line. It was designed when architects were trying to do something new without order or purpose. It has no style, but it has the merit of being fireproof, and was probably the beginning of fireproof buildings in that city. It is the first building in America in which all the individual members of the iron trusses which cross the main room were fireproofed with porous terra cotta. West of it, on the East Water street corner, is the Mitchell Building, Milwaukee's first high office building for brokers and commission merchants doing business at the Board of Trade. It was commenced immediately after the Board of Trade was completed. It is also a fireproof building, in which clay products were used. The exterior is in the Renaissance style as it was known at that time, and it is also by Mr. Mix. It has a high mansard roof, which also gives it an attractive sky line. These

*This is not to say that many large, important and handsome buildings, of good architecture, have not been erected within the last thirty years in other parts of Milwaukee; but it is the purpose of this article to refer only to those in the district the boundaries of which have been defined.



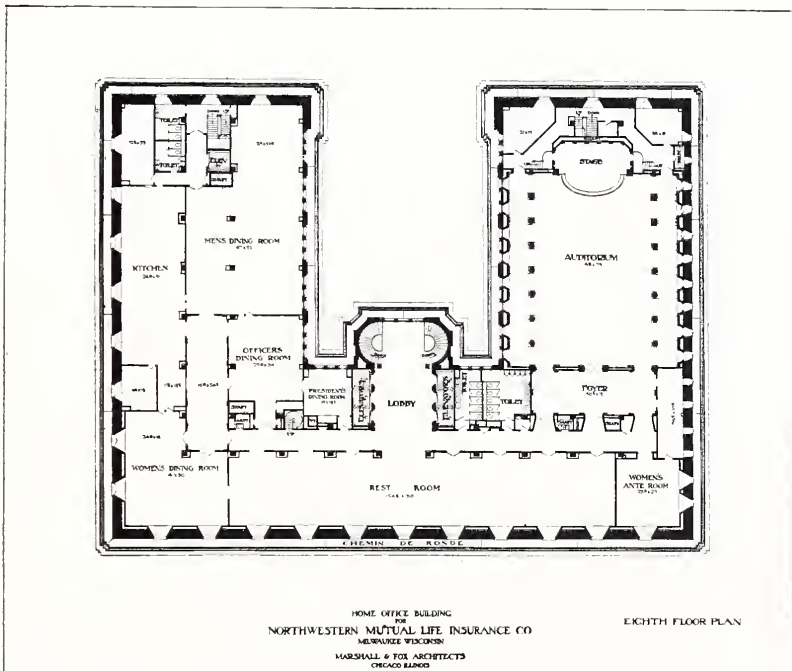
VIEW OF REAR COURT LOOKING SOUTH, SHOWING TERRA COTTA FACING OF COURT WALLS—NORTHWESTERN MUTUAL LIFE INSURANCE COMPANY'S BUILDING, MILWAUKEE, WIS.

were the first large buildings of architectural pretensions built in Milwaukee.

The United States Government Building, the second that the government has erected in that city, occupies an entire square bounded on the north by Wisconsin street, on the south by Michigan street, and on the east and west by Jackson and Jefferson streets. It was erected about 1885, and is one of the largest and most costly local government buildings erected in this country. It is entirely of granite, with an enormous tower on the Wisconsin street front, and

terior show suggestions from the designs of Burnham and Root of the Rookery and Western Union Telegraph Building (formerly the Phoenix Insurance Building) at Chicago. The design has been carefully studied, shows decided progressive tendencies, and is far superior to the Board of Trade and the Mitchell Building.

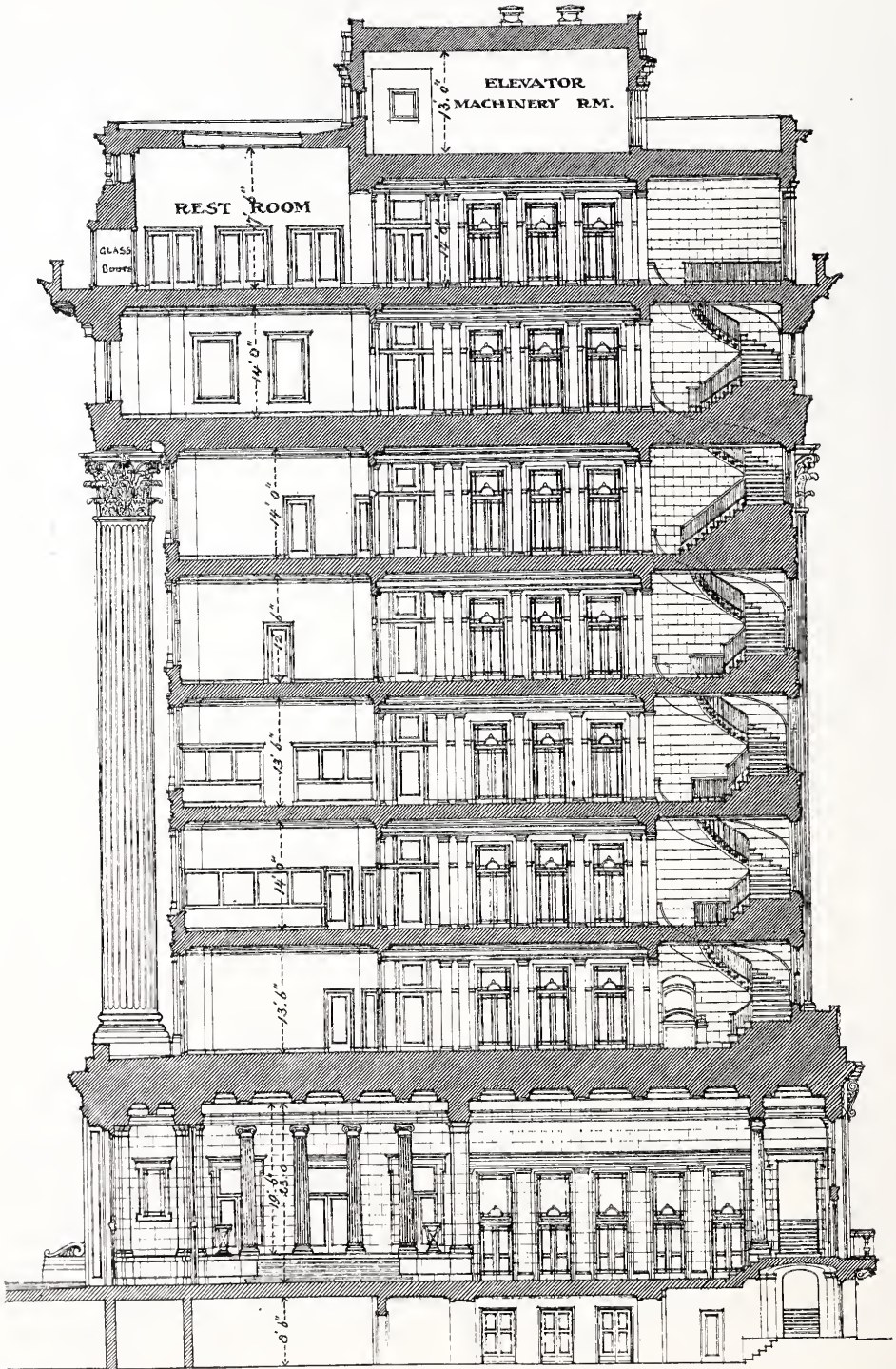
The Wells Office Building is also on Wisconsin street, corner of Milwaukee street. It is an example of scholarly French Renaissance with excellent details, and is fifteen stories in height. It



in general plan resembles the famous courthouse by Richardson, at Pittsburgh. It was evidently studied from it by the architect of the Treasury Department at that time. Near it is the Hotel Phister, erected somewhat later from plans by Architect H. C. Koch, of Milwaukee. The exterior is of stone, brick and terra cotta, with much polished granite, and it is an excellent example of fireproof planning and construction—in fact is the first fireproof hotel erected in that city. It is at the corner of Wisconsin and Jefferson streets. The details of the ex-

terior is by H. C. Koch & Son. The material of the exterior is of terra cotta on a steel and glass basement providing for retail stores on the first and second stories, with a monumental entrance for the upper part. It appears to have been erected within the present century.

The Pabst Office Building, on Wisconsin street, corner of East Water street, is the most monumental in Milwaukee, with a picturesque tower suggestive of the towers at Ghent and Lille, but entirely different in detail. The general treatment is a modification of the Rich-



SECTION - NORTHWESTERN MUTUAL LIFE INSURANCE COMPANY'S BUILDING, MILWAUKEE, WIS.

ardson Romanesque, and the design is very original. It is by the late S. S. Beman of Chicago and it can truly be said that it shows more artistic effects than any other building in the city. Less effective, however, but still helping greatly in the sky line of the city, is the tower of the new City Hall, also by Mr. Koch. I say the "tower," because as generally seen from the south the building, which is not very large, is almost entirely concealed by it. It is on a wedge-shaped or flat-iron lot formerly occupied by a market, on East Water street. The details are modified Romanesque.

The First National Bank, erected within the present century, is at the corner of East Water and Mason streets, and also has a front on the river. It is sixteen stories high and, seen among the surrounding buildings of moderate height, it looks as if it might be higher than that until one counts the stories. But its height is emphasized by the squareness at the top and the monotony of the upper walls; and as a whole it can only be said that this building is a brutal offense to the sky line of Milwaukee, which has been so much beautified by many of the buildings just named, rearing its great square plain brick walls, filled with small windows of uniform size in ten of its stories, above everything else in sight. This monstrosity is only redeemed by the admirable design for the terrace along the river side, which is a model for what might be the treatment of other buildings on the water front. The French Renaissance design of the first two stories of the building is admirably handled and the interior is a model of convenience and good arrangement for business. The building is quite new, and is the last addition to the monumental architecture of Milwaukee before the erection of the present new structure of the Northwestern Mutual Life Insurance Company. It is the work of Graham, Burnham & Co., of Chicago.

The above mentioned structures and many others that might be mentioned are evidences of great public spirit on the part of men of wealth whose for-

tunes were made in Milwaukee, and who have practically given back to its citizens a good part of what once came from them, in the form of monumental works for the gratification of their eyes and the glory of their city. For it can hardly be claimed that they have been erected altogether for profitable investment.

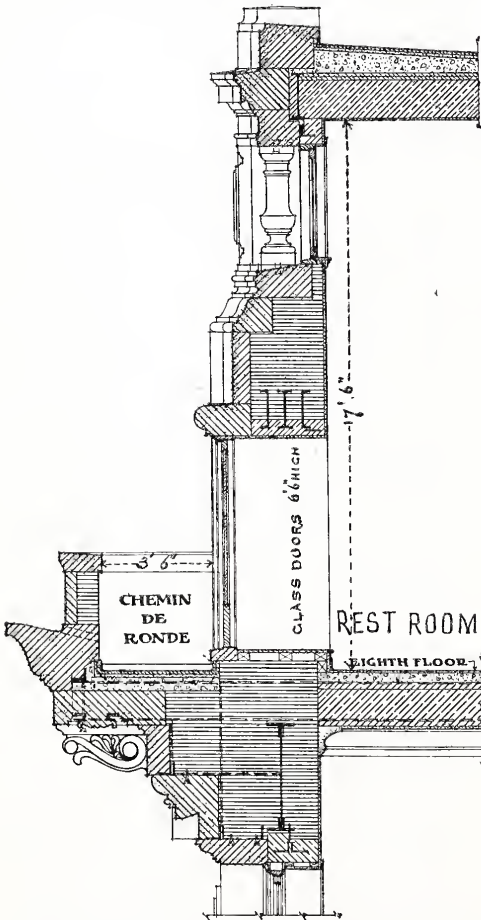
And not only have the wealthy men of Milwaukee contributed to its advancement, but in a measure tribute has for many years been rendered by the people of the Middle West as well as the whole country through the medium of its greatest financial institution. The Northwestern Mutual Life Insurance Company has had its home office there for more than half a century. Organized originally at Janesville, Wisconsin, in 1857, as a mutual company without a cent of capital, where it was obliged to borrow money for its office expenses the first year, on the personal credit of its trustees, its home office was moved to Milwaukee in 1859, and its assets were then only \$9,335. It has only had three presidents from 1869 up to the present time; John H. Van Dyke from that date to 1874, Henry L. Palmer from 1874 to 1908, and George C. Markham from that date to the present time. Its assets have increased from the above mentioned sum until in 1915 they were \$343,631,110, and there were of members 548,762, which is more than the present population of Milwaukee. What it has done for architecture in the city of Milwaukee is seen in three buildings still standing, the last of which is the main subject of this record. As stated by James G. Jenkins in the dedication of this structure (I quote from his address): "In 1870 it moved into its first office building erected by and for it, on the northwest corner of Broadway and Wisconsin street, now known as the 'Old Insurance Building' or the 'Free Press Building.' In 1886 it removed to the building constructed for it on the site of the ill-fated Newhall House, on the northwest corner of Broadway and Michigan street, which it occupied until its removal to the present structure, during the month of October, 1914." The "Old Insurance Building" is still stand-

ing and is occupied by insurance offices with stores on the first floor. It is a curious specimen of the early architecture of Milwaukee, as it was erected several years before the Board of Trade. It is the work of E. Townsend Mix, the pioneer architect of Milwaukee. In style

the great Richardson, is the work of the late S. S. Beman of Chicago. It was erected in 1886, and is contemporaneous with the Government Building. It was only abandoned two years ago because it was not large enough for the business of the Company, and is now rented as an office building, and known as No. 373 Broadway. It is still one of the valuable architectural features of Milwaukee.

The building which forms the main subject of this article is on the north side of Wisconsin street, occupying the whole frontage from Van Buren street on the west to Cass street on the east. The width of the block is 254 feet 4 inches on Wisconsin street, and the Company owns the entire block from Wisconsin north to Mason street, a distance of 360 feet. The width of the building as erected is 234 feet on Wisconsin street and the depth of the frontage on the two side streets is 279 feet 7 inches. The court on the north side is 79 feet 8 inches by 107 feet 5 inches. The north end of the block is still occupied with dwelling houses fronting on Van Buren, Cass and Mason streets, and these will not be disturbed until the business of the Company requires that the office building be extended farther to the north. But it is completely finished all around the four sides now, the same materials and details of ornamentation being employed everywhere. The only difference noticed is that while the whole exterior is of white granite, the court walls are faced with terra cotta having exactly similar details.

The selection of a new site and the erection of a new building was decided upon in 1910. Marshall & Fox, of Chicago, were selected as architects, designs by other architects having also been considered; ground was broken July 31, 1911, and the corner stone was laid July 17, 1912. It was completed, occupied, and dedicated October 21, 1914. The cost of the land and building (probably including furnishing) as stated by an audit company, was \$3,773,826.48. It may be further pertinent to quote here a sentence from an address by James G. Jenkins at the dedication, as showing the viewpoint of some of those in au-



DETAIL OF MAIN CORNICE—NORTHWESTERN MUTUAL LIFE INSURANCE COMPANY'S BUILDING, MILWAUKEE, WIS.

it is a sort of nondescript Gothic; but it is still a prominent monument and is too valuable to be torn down even on such a prominent corner. The walls are built of rock face rubble-work, trimmed with white limestone, and it is adorned with some polished granite columns.

The second building the Company erected, still belonging to the Company, built of granite in the style introduced by

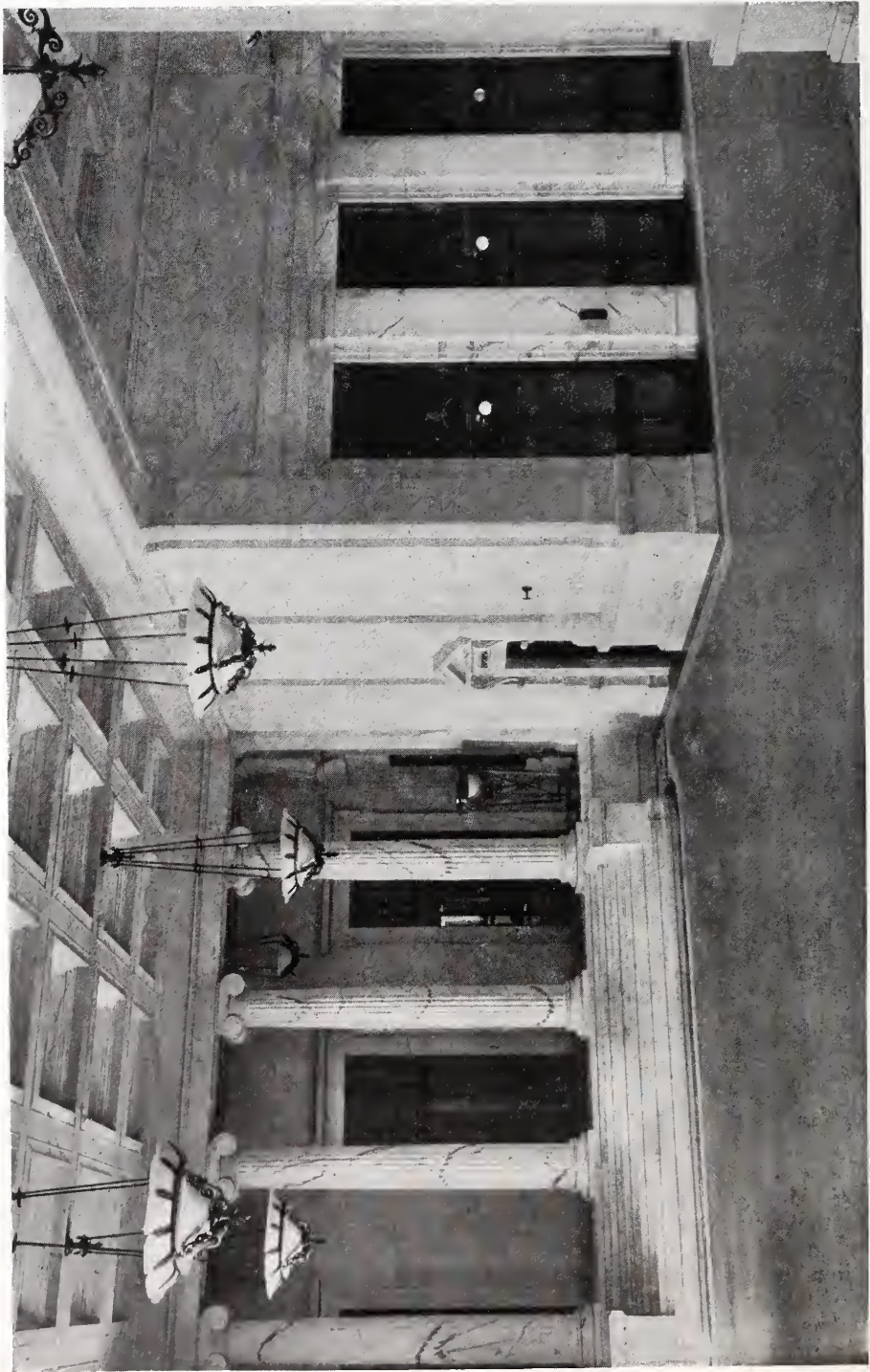
thority in connection with carrying out such great enterprises as this: "The construction was not for the purpose of realizing rentals, and with respect to which the architect was happily at liberty to invoke the beautiful in art, and to so construct it that the most of convenience and comfort may be insured, both with respect to the despatch of business and to the health and comfort of its occupants." The following quotation from the same address will give some indication of the appreciation by a typical man of business of the difficulties of modern architects in dealing with the obstacles of commercialism: "The architect of today is restricted in the development of the beautiful in art. He can no longer indulge his genius for ornamental beauty and grace of design, but is compelled by the necessities or the greed of his employer to design a building without respect to beauty or to art; one that may be erected at the least possible cost, and that will give the largest number of square feet of rental space upon a given surface and in a given building."

This article is illustrated so completely that detailed description is hardly necessary. Only three ground plans and one section are given. A basement plan would be interesting to those concerned with scientific equipment, but a proper account of it would be more appropriate to a scientific journal which could afford the requisite space. I say this because of its importance and extent. The plan of the fifth floor is most attractive as being typical of those which are divided into business offices. Besides, it shows the arrangement of rooms for the trustees and the principal officers. The trustees' and committee rooms on this floor are illustrated by additional half tones. The eighth floor is the most interesting of all and will call for more detailed description.

In the general scope of the design I have noticed many things which are exceptional and not conventional. This is one of the largest buildings ever erected that has to provide for only one kind of financial business. There is no part of it for rental or income of any sort.

Furthermore, being solely for financial purposes, there is nowhere in it any large general business office. In this respect it differs from all other insurance buildings ever erected. All the work is divided between separate offices, and the largest room for strictly business purposes in the trustees' room, which is large only because there is a very numerous body of trustees. Another peculiarity of the building is that, notwithstanding its spacious halls and extensive elevator equipment, very few persons comparatively have occasion to visit it. To a casual visitor the halls look deserted. The seven hundred clerks are invisible because they are scattered through hundreds of rooms, but the six elevators are all called into use when at certain times they leave these rooms nearly all at once. The business is really done by mail and express. The eighth story, which has the highest ceiling and is directly under the roof, is really the most interesting to the visitor, for it is entirely devoted to what might be called "accessory conveniences." Absolutely no business of the Company is transacted on this floor. All who go there are actually away from the business and go there for that reason—and furthermore everybody employed in the building has occasion to go to this floor. It will therefore be seen that as this building is designed for the workers and there are few visitors, the workers have had the main consideration in its design.

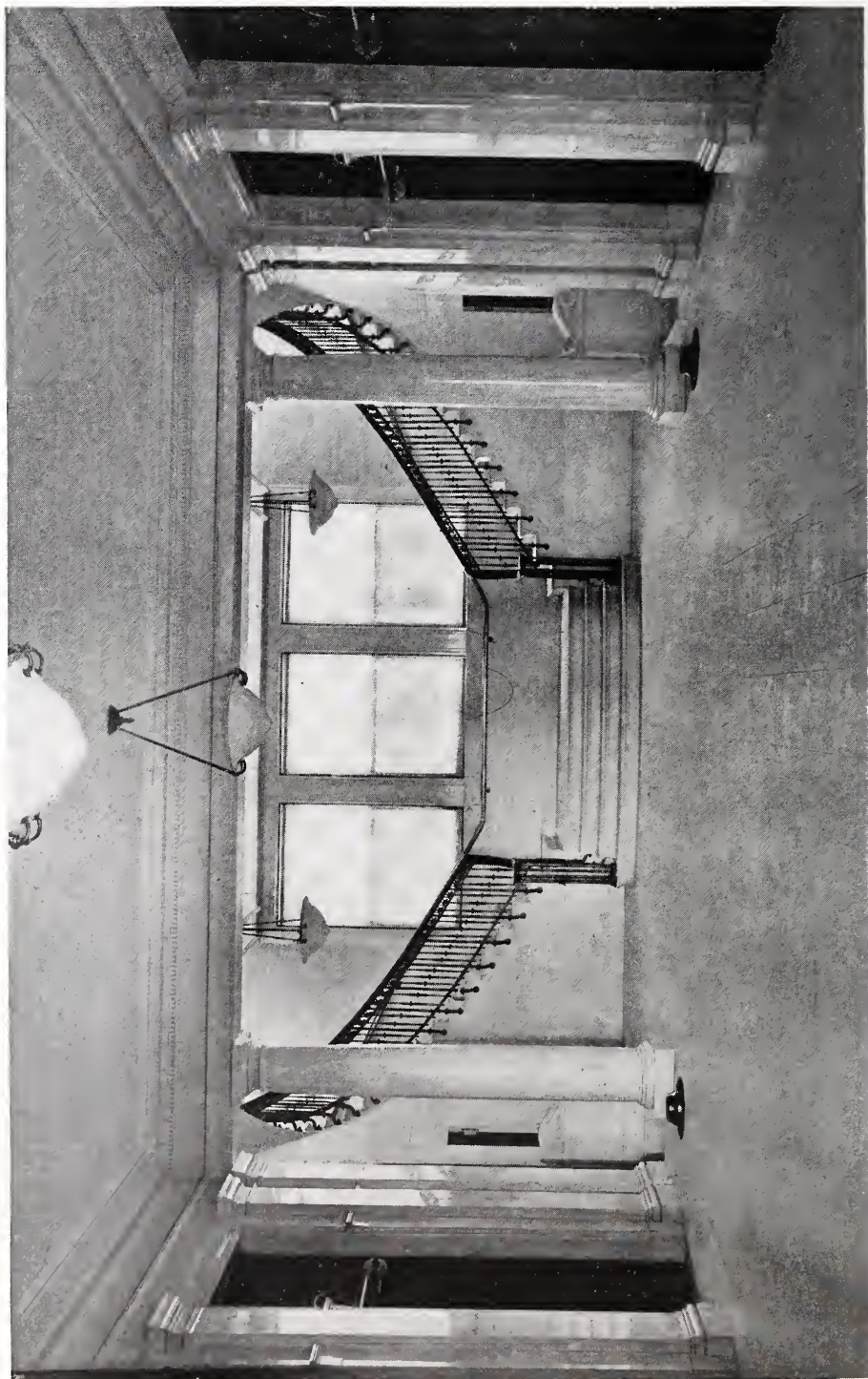
It was necessary to have six passenger elevators to take the 700 workers to their rooms, because they all arrive at nearly the same time. It was also necessary to have equal facilities to take them to dinner at the top of the building, for all are dined at the expense of the Company; and to take them down again. The actual work of the Company is done by the two rear elevators and they are working all day and inaccessible to visitors. It is also necessary to take the 700 employees down again at the end of the day, for they all leave at about the same time. In every respect this is entirely an office building, but for one business only. Still it has an admirable plan for a high class office building rented to tenants



ELEVATOR LOBBY ON FIRST FLOOR, LOOKING
NORTHWEST-NORTHWESTERN MUTUAL LIFE IN-
SURANCE COMPANY'S BUILDING, MILWAUKEE, WIS.



ELEVATOR LOBBY ON FIRST FLOOR, LOOKING
NORTHEAST—NORTHWESTERN MUTUAL LIFE IN-
SURANCE COMPANY'S BUILDING, MILWAUKEE, WIS.



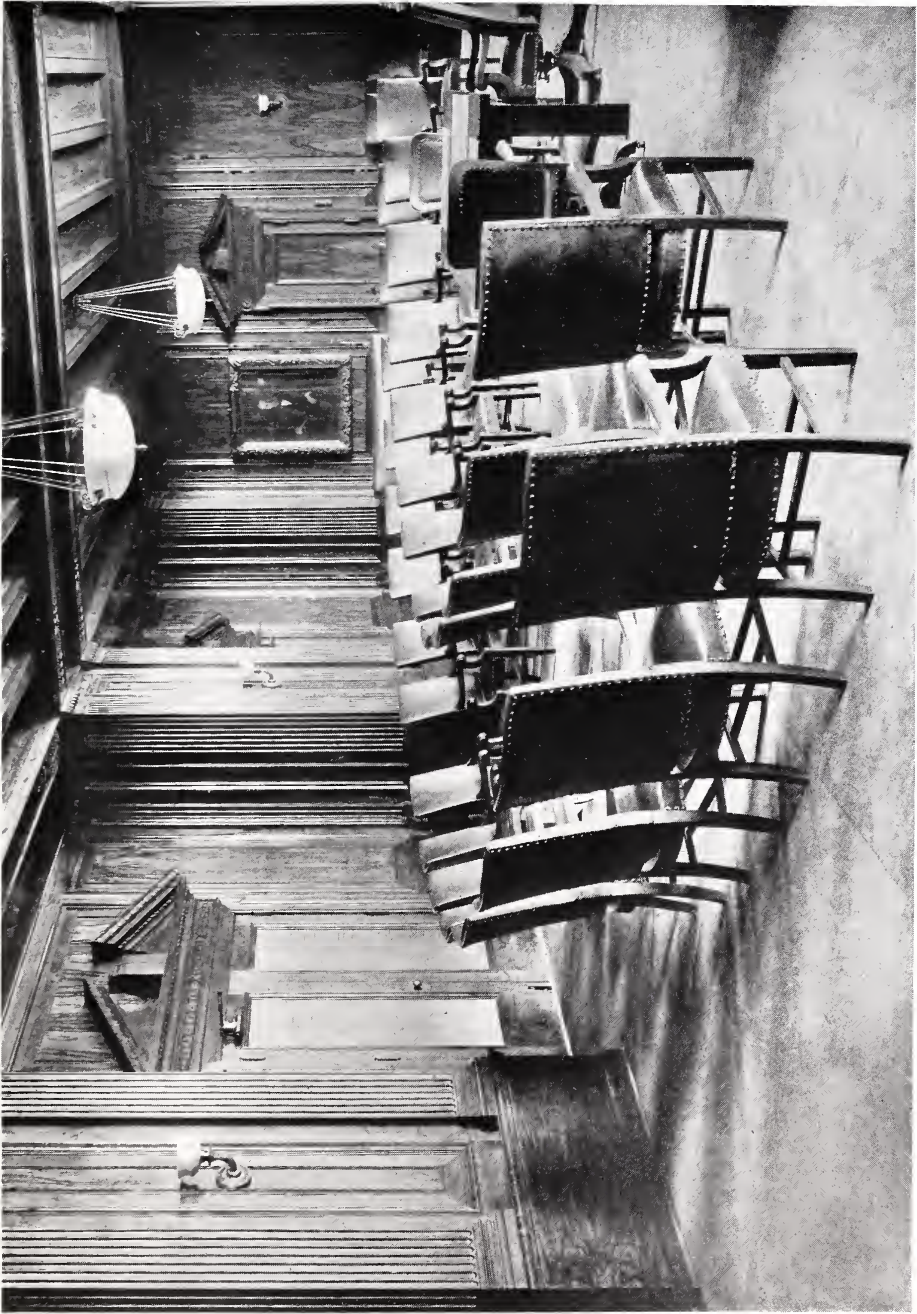
ELEVATOR LOBBY ON SECOND FLOOR—NORTHWESTERN MUTUAL LIFE INSURANCE COMPANY'S BUILDING, MILWAUKEE, WIS.



AUDITORIUM FOR AGENTS' SEMI-ANNUAL MEETINGS.—NORTHWESTERN MUTUAL LIFE INSURANCE COMPANY'S BUILDING, MILWAUKEE, WIS.



REST ROOM—NORTHWESTERN MUTUAL LIFE INSURANCE COMPANY'S BUILDING, MILWAUKEE, WIS.



TRUSTEES' MEETING ROOM—NORTHWESTERN MUTUAL LIFE
INSURANCE COMPANY'S BUILDING, MILWAUKEE, WIS.

and could be so used without any alteration, including the admirable kitchen and dining room arrangements in the eighth story. There are some novel and interesting features in this eighth story. The ceilings of nearly all the compartments are 17 feet 6 inches high, and there is no attic. Advantage has been taken of the fireproof roof to build it exactly as a fireproof floor, which is heat proof as well as cold proof, and to grade it up with a non-conducting filling to obtain the proper grades to discharge rain water to internal conductors. The roof is built at the level of the upper member of the granite balustrade which surrounds the entire building. Sashes are placed inside of the balustrade and these rooms receive most of their light through the intervals of this balustrade, and in some of the rooms where there are skylights they do not seem to be necessary. These rooms also have sash doors in the outside walls opening upon a *chemin de ronde* which surrounds the entire building including the court. The huge Corinthian cornice is not filled in, but the granite *plancher* of the cornice supports a tiled floor and the parapet of the cornice encloses this promenade 3 feet 6 inches wide. It is not used as a gutter, but has its own separate drainage. Only the tops of the glass doors are visible from the street at a distance of more than 200 feet. There is absolutely no waste of room in carrying out the details of a Corinthian cornice, and an enormous amount of weight has been saved. These doors can all be thrown open during the summer time and the cool breezes from Lake Michigan, only two blocks away, can play through all the rooms, while the most magnificent prospect over the water is obtained both in summer and winter.

Another feature of the exterior design is also utilized in the seventh story. By slightly enlarging the height of the main frieze, windows are inserted in their natural positions with reference to the rooms, and all the rooms in the seventh story are lighted in this way.

The plan of the eighth story shows the auditorium, with seats for about 800. It was planned primarily for the semi-annual meetings of all the agents of

the Company, but can be used for other purposes. It is also lighted through the balustrade immediately under the edge of the roof. The other principal rooms are the rest room, a social meeting room for all the employees, and dining rooms for the men, the women, and the officers; an important room being the perfectly appointed kitchen.

Thus far nothing has been said of the architecture of this great building. Those who know the writer must be aware that he is not an advocate of the revival of classical architecture in the twentieth century. Yet there is something so truthful as concerns its general treatment, plan and execution, and so sincere in the chaste revival of classical and especially Roman details, both on its exterior and in its interior, that it cannot escape profound admiration.* It certainly is a monumental building so far as concerns its reproduction of the essential elements of the best developed architecture of Rome, yet it is in no respect, notwithstanding its massive proportions, a reflection of Roman construction. On the contrary it is an example of all the modern engineering expedients in building construction which have distinguished the building art of the last forty years in this country. If the designs and arts of the Romans can be consistently revived in concert with modern engineering devices, this building demonstrates it, as no other that I know of can. That is the whole story. If anything better can be done on such a large scale, time alone will solve the problem.

In all its details it reveals a very careful study of ancient art unmixed with any of the inventions of the Renaissance period. It violates classic proportions only in enlarging the height of the frieze by utilizing it so as to afford proper light to all the rooms in the seventh story. This seems to be justified by practical expediency. In execution it has eliminated much of the heavy materials hitherto used in the application of classical architecture to modern uses on a great scale.

*There are several others in Milwaukee showing excellent classical design.



CHURCH PLANNING IN THE UNITED STATES

*Its Growth and Adaptation to Present
Needs. With Special Reference to the
Development of the Denominational Plan*

By Richard Franz Bach

PART II.

RETURNING to the question of the altar and the pulpit, we find that in the denominational building the congregation looks up not to the altar which, if present at all, may appear upon their own floor level, together with the communion table, but to the minister in the pulpit, as the logical keystone of the service, in fact, as the representative of the church; for the reduction of ritual in which worshippers take part, even though only in observation, has inversely encouraged the increase in value attributed to the minister's share of the service, during which the congregation is idle and in passive state of mind. Hence the exaltation of the sermon to the point of greatest importance, so that in the eyes of the average worshipper it has completely dwarfed the rest of the ceremony, which he is apt to consider unnecessary. All of this modification brings with it certain arbitrary demands which will automatically limit the size of the plan under average conditions. In the first place the pulpit must be so located, the plan so arranged, and the structure so built, that the minister shall be readily heard and easily visible. This implies the elimination of supports which obstruct the view and impede hearing, and results in a general arrangement on the basis of a rectangular hall (Figs. 6, 7, 8, 9, 21), often approaching an oval (Fig. 12) or an octagon in plan (Figs. 11, 13, 14), and of such dimensions that the normal voice will carry to all parts of the interior providing seating accom-

modations. The splendid vistas of the old cathedral nave, aisles and transept are impossible; likewise the quality of perspective and line harmony obtained by duplicating the verticals of supporting masses. An interesting result of a combination of old and new tendencies is seen in the plan of Greek cross type (Figs. 15, 16, 17, 18, 19, 29), which suggests a denominational modification of the liturgic Latin cross plan and should not be in any way connected with historical Byzantine plan indications.

The pulpit appears at the middle of one side, later frequently in one corner, and is placed on or near a platform, which represents the old east end but offers none of its glamor or architectural possibilities (Fig. 10). The audience hall presently is much improved by the advance in the science of acoustics; its floor is permitted to slope, or is given a shallow bowl-like curvature, like that of a theatre, to improve the view, and its shape is occasionally altered for the same reason. The hall is limited in size also by the difficulties of construction, the possible span of roof trusses; in this field, of course, the early builders had not the advantage of modern steel and vaulting methods. As a whole, then, the plan offers what seems at first a much less interesting problem than that of a church building for a ritual faith, until we have witnessed the rapid growth of the influence of the denominational church in community life, in educational work, both practical and religious, as

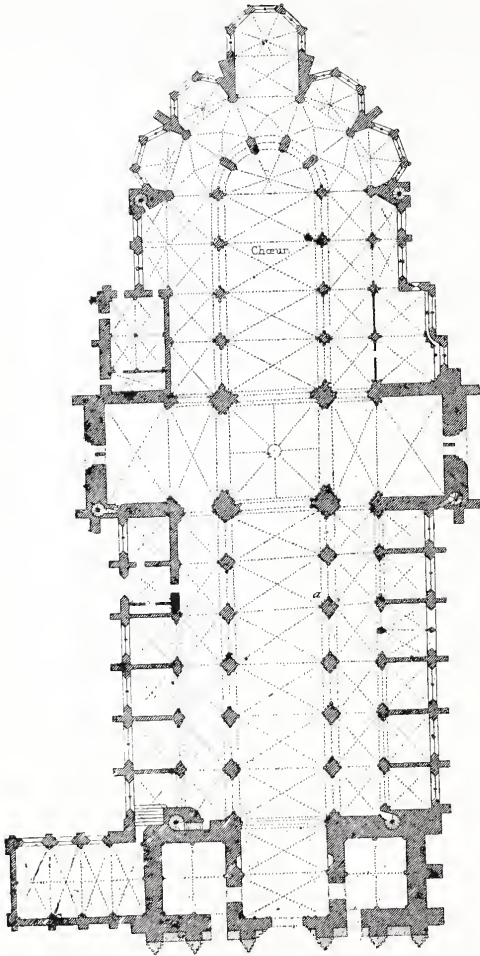


FIG. 1. TRADITIONAL PLAN. NOTRE DAME DE BAYEUX, DATING FROM 1046-1077.

well as in numerous other fields. All of these make new demands upon a building type originally conceived for the restricted purposes of dispensing religion, the remainder of its effect upon daily life being considered extramural, so far as the use of the church edifice itself was concerned. One by one the new demands are incorporated in the plan, which, traditionally unhampered, accords itself to each in turn. In fact, the effect of the Sunday School alone assumes such magnitude in the consideration of church planning that the disposition of the entire building is frequently dependent upon its importance. This will be indicated in detail in our study of Sun-

day School plans in subsequent papers. Since the variations and additional requirements crowd upon one another within a limited period of years, the plan remains in a state of flux, rapidly adjusting itself but achieving no definitive form of its own representing the best solution of variegated modern churchly needs. At the moment several decided efforts on the part of architects and ministers alike have resulted in a general formulation of ecclesiastic needs on the basis of the widest civic influence of the church building and undoubtedly the near future will see remarkable progress in planning as well as in design along these lines.

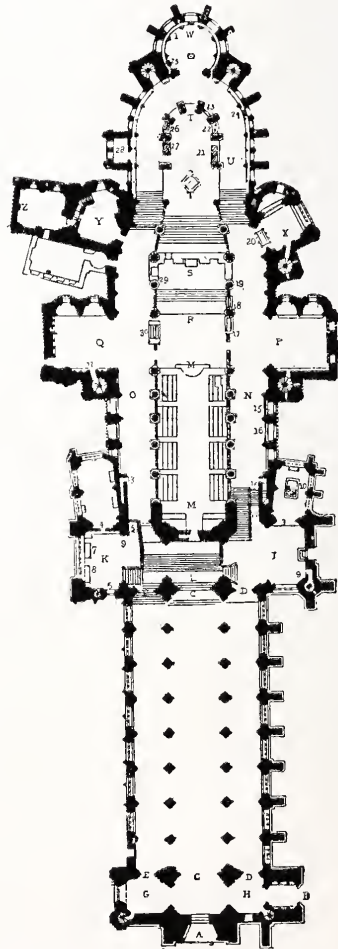


FIG. 2. TRADITIONAL PLAN. CANTERBURY CATHEDRAL, DATING FROM 1070-1500.

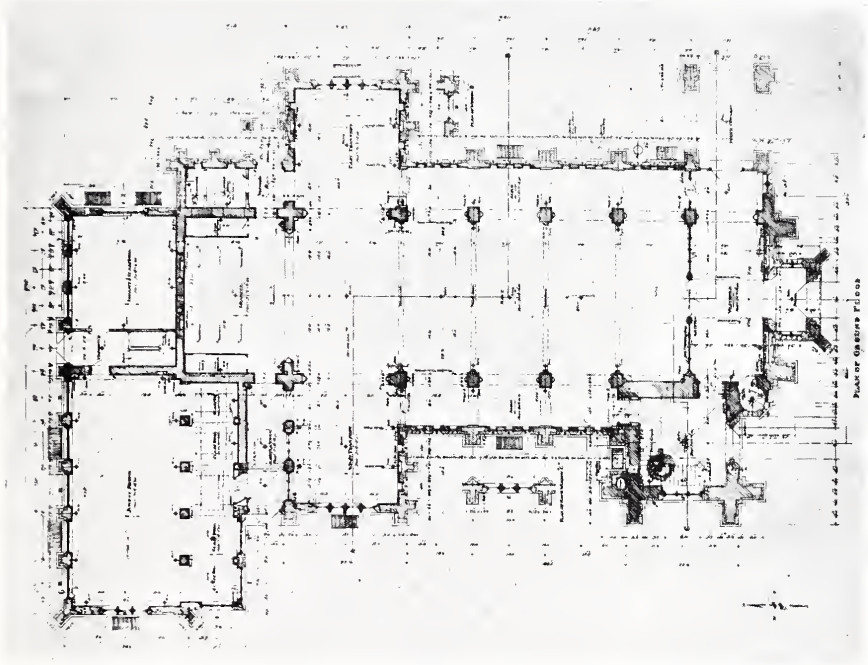


FIG. 3. FIRST PRESBYTERIAN CHURCH, SYRACUSE, N. Y. MODERN TRADITIONAL PLAN.
Tracy & Swartwout and Ballantyne & Evans, Associate Architects.

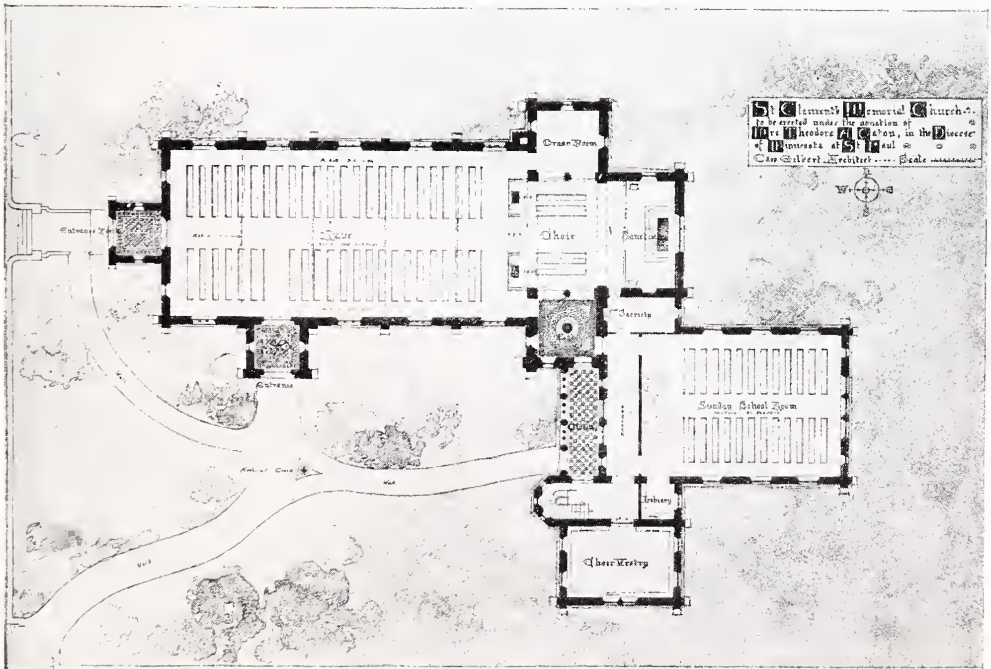


FIG. 4. ST. CLEMENT'S MEMORIAL CHURCH, ST. PAUL, MINN. MODERN TRADITIONAL PLAN.
Cass Gilbert, Architect.

The denominational building presented for many years serious difficulties in design both within and without, which though not insuperable, were rather less

munities during the whole of the last century. Again, the denominational plan favors squareness and compactness, only occasionally achieving any decided length,

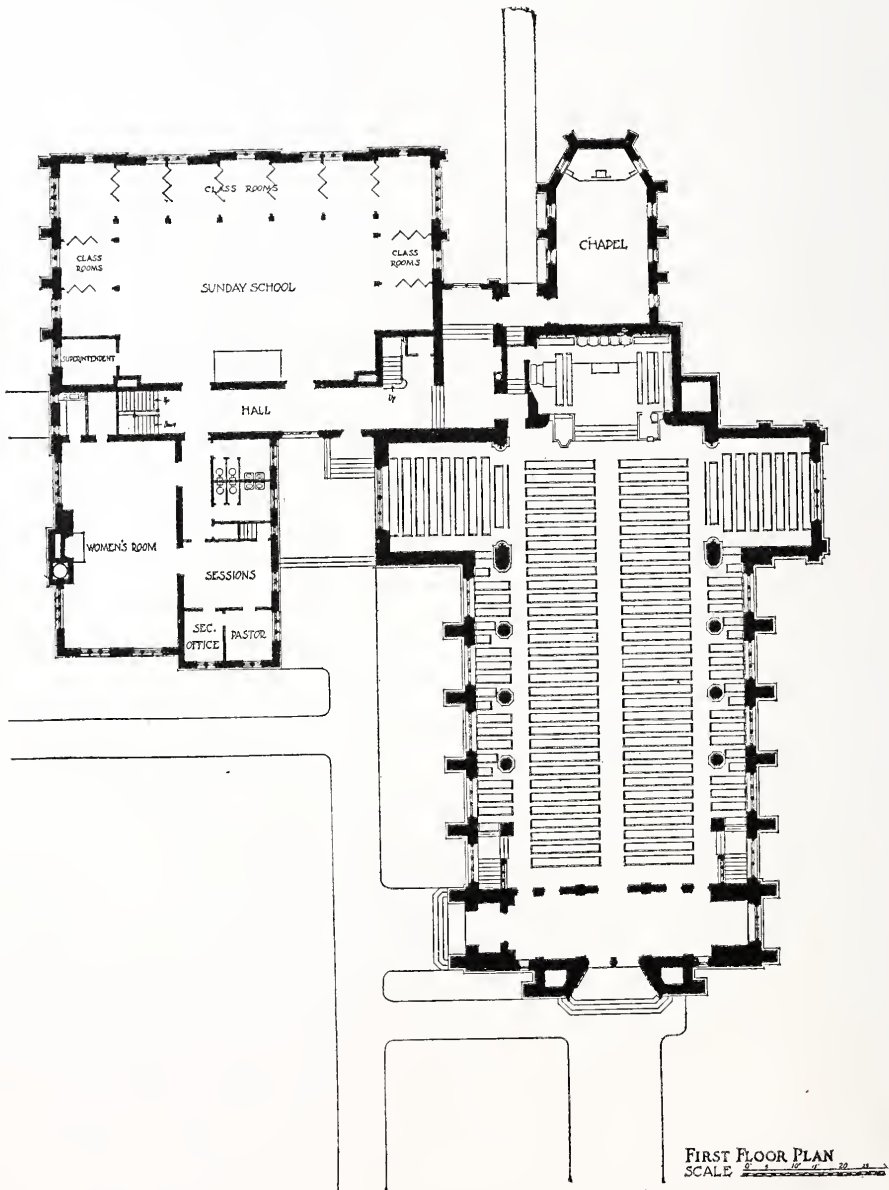


FIG. 5. THE HOUSE OF HOPE PRESBYTERIAN CHURCH, ST. PAUL, MINN.
 MODERN TRADITIONAL PLAN.
 Cram & Ferguson, Architects.

attractive in the solution, especially in view of the limited architectural ability at the disposal of our smaller com-

—with the exception of a number of the more recent examples—and subject to the limit of audibility of the average

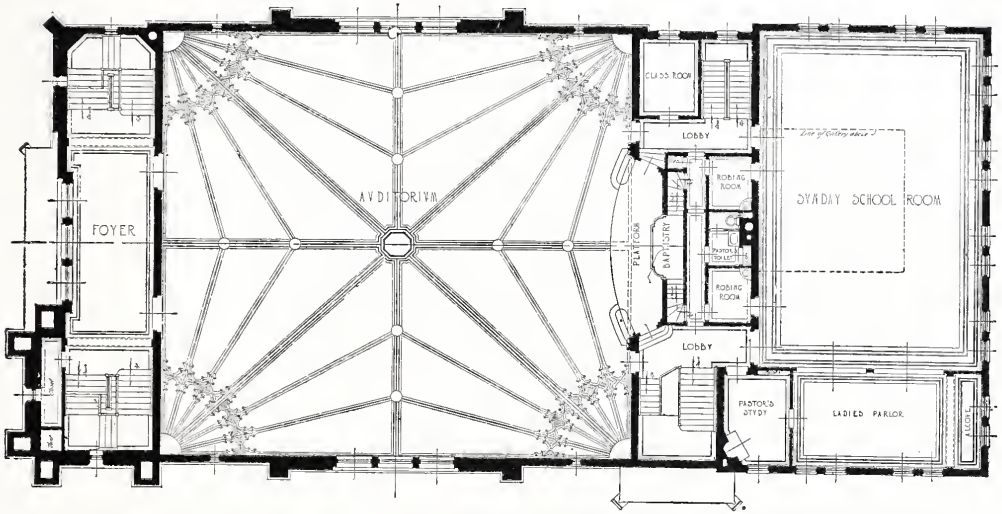


FIG. 6. HIGHLAND BAPTIST CHURCH, SPRINGFIELD, MASS. RECTANGULAR AUDIENCE HALL PLAN.

Kirby, Petit and Green, Architects.

voice, which is usually considered between sixty-five and seventy-five feet. It rarely offers the fertile opportunities of buttresses, pinnacles and many other details in the exterior characteristic of medieval picturesqueness, and, with the exception of derivatives of the English Renaissance style, and due more especially to difficulties already mentioned, it finds but little encouragement in that prolific field of design. In great degree, likewise, the beauties of pier and arcade and triforium within are practically

eliminated, not to mention the inviting province of choir and apse as a special feature.

Thus the history of the church plan in this country as expressing the newer denominational purpose is fraught with many handicaps. Still, in the face of the two-fold obstacle of lack of creed concentration—accompanied by an extremely rapid internal development of each creed subdivision—and of recognized stylistic or plan concentration—hampered still further by the defection

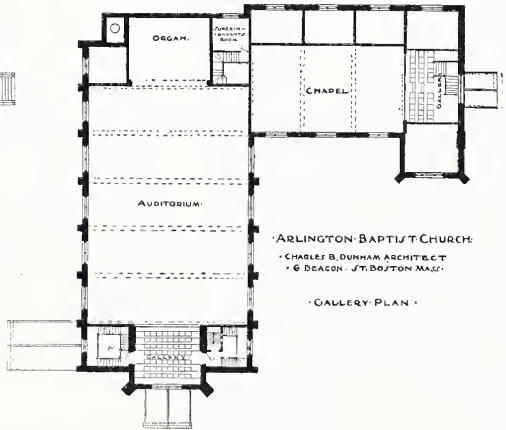
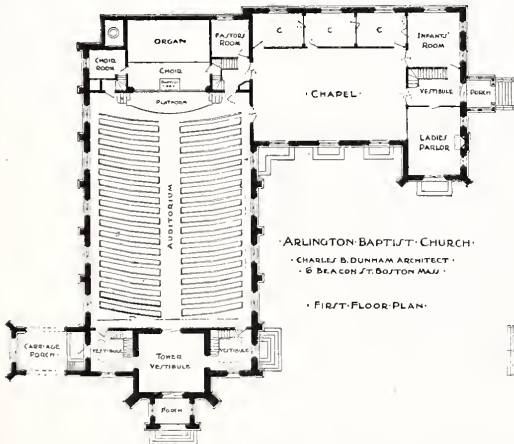


FIG. 7. ARLINGTON BAPTIST CHURCH, ARLINGTON, MASS. RECTANGULAR AUDIENCE HALL PLAN, PULPIT ACROSS SHORT END, TRADITIONAL SUGGESTION.

Charles B. Dunham, Architect.

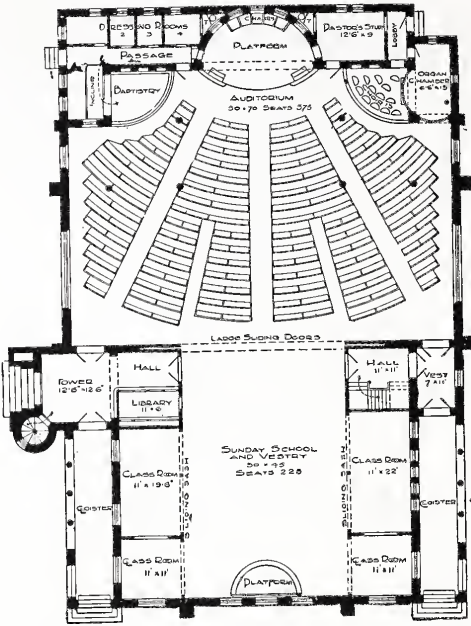


FIG. 8. FIRST BAPTIST CHURCH, COLORADO SPRINGS, CO. RECTANGULAR AUDIENCE HALL PLAN, PULPIT MIDDLE OF LONGER SIDE.
L. B. Valk & Son, Architects.

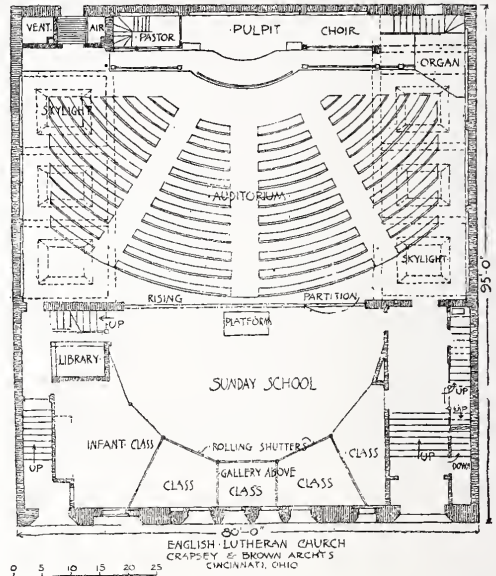


FIG. 9. ENGLISH LUTHERAN CHURCH, CINCINNATI, OHIO. RECTANGULAR AUDIENCE HALL PLAN.
Crapsey & Brown, Architects.

of architectural ability as well as by the great size of the country and disparate local influences due to parallel Colonial

beginnings on the part of a number of races—it has succeeded nevertheless in attaining at least a certain definition of

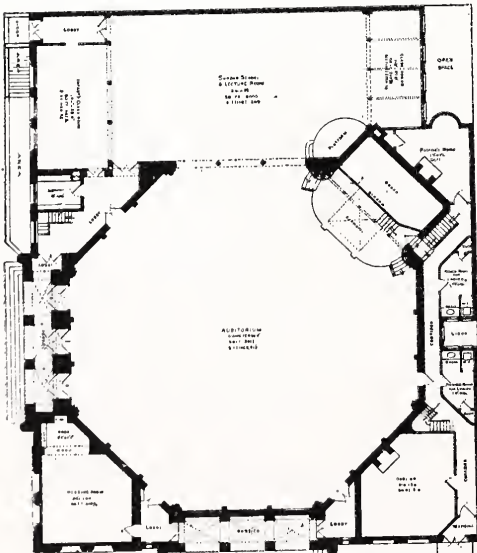


FIG. 10. FIRST PRESBYTERIAN CHURCH, QUINCY, MASS. RECTANGULAR AUDIENCE HALL PLAN, CORNER PULPIT.
L. B. Valk & Son, Architects.

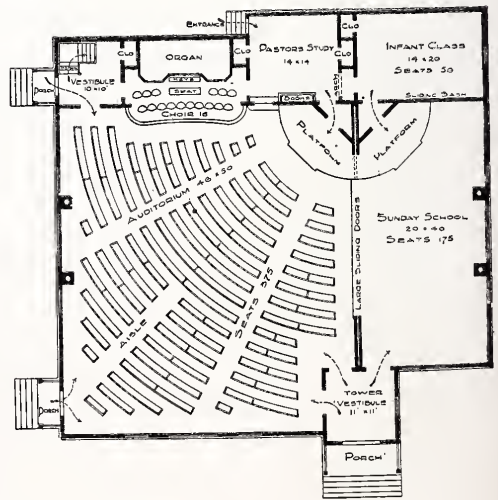


FIG. 11. FIRST BAPTIST CHURCH (COMPETITIVE DESIGN), NEW YORK CITY. OCTAGONAL AUDIENCE HALL PLAN.
Oscar S. Teale, Architect.

church purposes, and has in most recent years been glad to recognize the ascendancy of architectural skill in design and in plan if only these purposes be adequately met.

These denominational requirements resolve themselves chiefly into a plan arrangement involving, first an audience hall of such proportions and construction as to abet both hearing and vision, and second a region generally designated as

changes of raiment for the purposes of baptism.

The audience hall was subject to no further modification, unless it be that of increase in size to accommodate the Sunday School—as will be demonstrated in the course of the next paper in this series—either on the same level or in galleries also available for regular church services. In this connection minor plan differences might be brought about. It

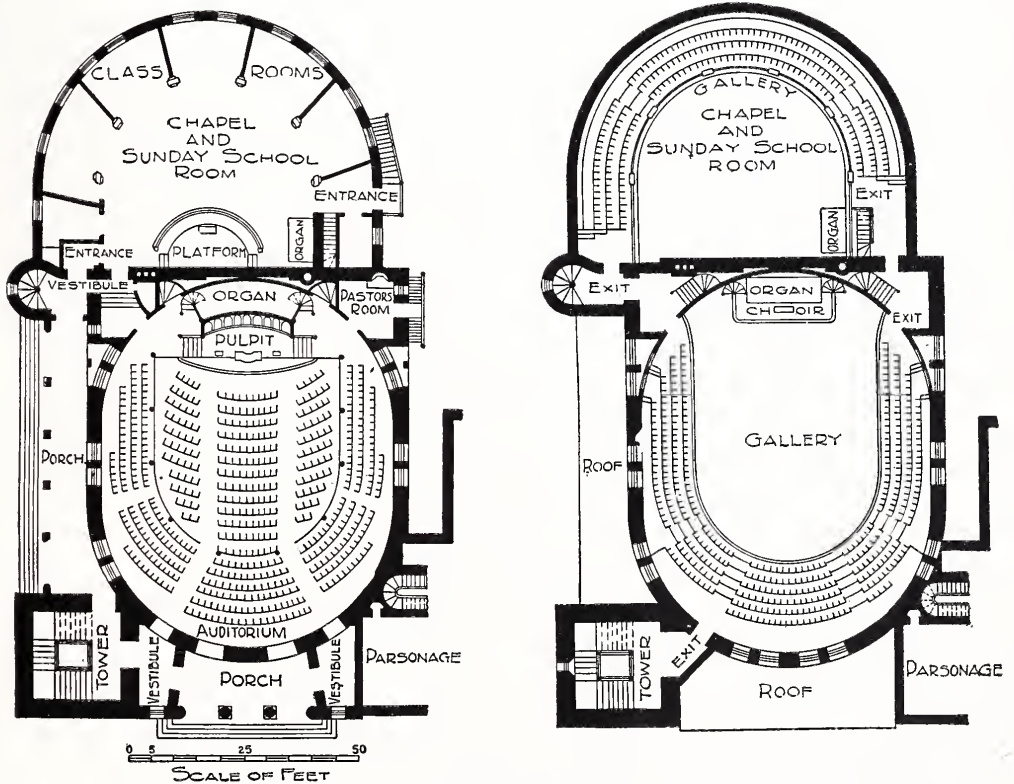


FIG. 12. FIRST M. E. CHURCH, BALTIMORE, MD. OVAL AUDITORIUM PLAN.
McKim, Mead & White, Architects.

the chancel or, in common parlance, "the platform," the latter usually including the platform proper, the pulpit, an organ space or gallery, a choir loft, and such additional space reservations as might be necessary for the use of minister or choir before and after services, or for waiting and robing rooms in the case of those denominations which prescribe a certain costume for these participants during the service, or which require

is interesting to observe in recent years, as a result of the splendid Gothicism of the firm of Cram and Ferguson and likewise of that of Mr. Bertram G. Goodhue, that the old elongated plan has become increasingly a subject of study and variation to satisfy modern denominational needs. Acoustically this has decided advantages.

Finally there remain also the accidental, but obligatory, variations of plan

attendant solely upon the dimensions and levels of available land (Fig. 20); the solutions of such individual problems have within the last ten or fifteen years evidenced an ingenuity and understanding that augur well for ecclesiological progress in this country, for they assure us that our architects are equipped to grasp the utmost potential value of as well as the limitations imposed by a limited available conditions.

The Entrance.

The entrance to the church in, time achieves greater importance; we find it expanded occasionally into the form of a projecting porch (Figs. 4, 29), perhaps with stairway approaches and walks; we find it also increased to the full width of the building to form a portico corresponding to the narthex sanctioned by many centuries (Figs. 21, 22). Finally, modern con-

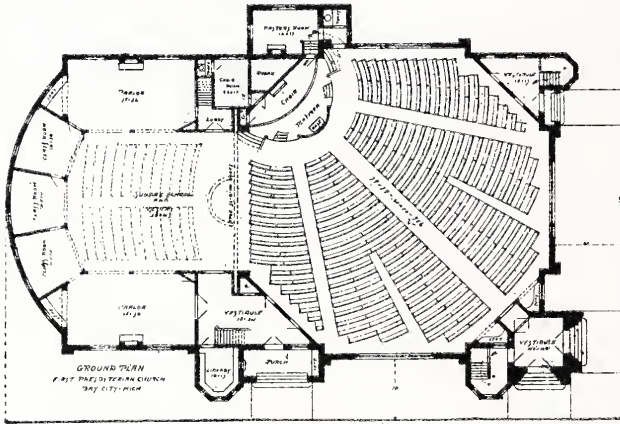


FIG. 13. FIRST PRESBYTERIAN CHURCH, CHATTANOOGA, TENN. OCTAGONAL AUDIENCE HALL PLAN. Bearden & Forman and McKim, Mead & White, Associate Architects.

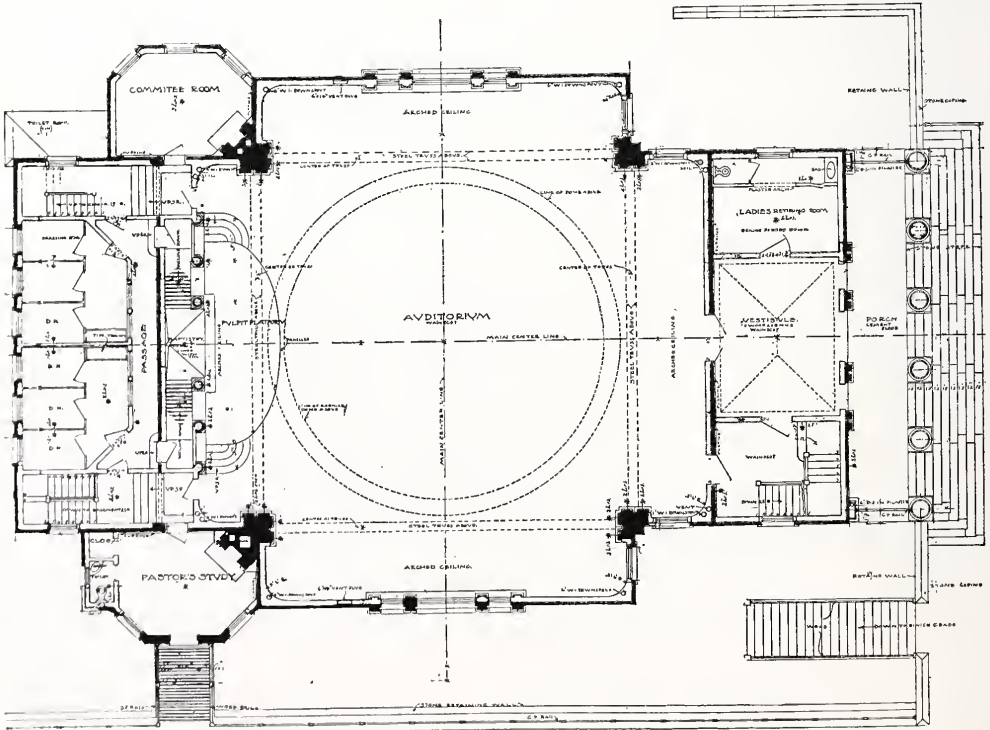
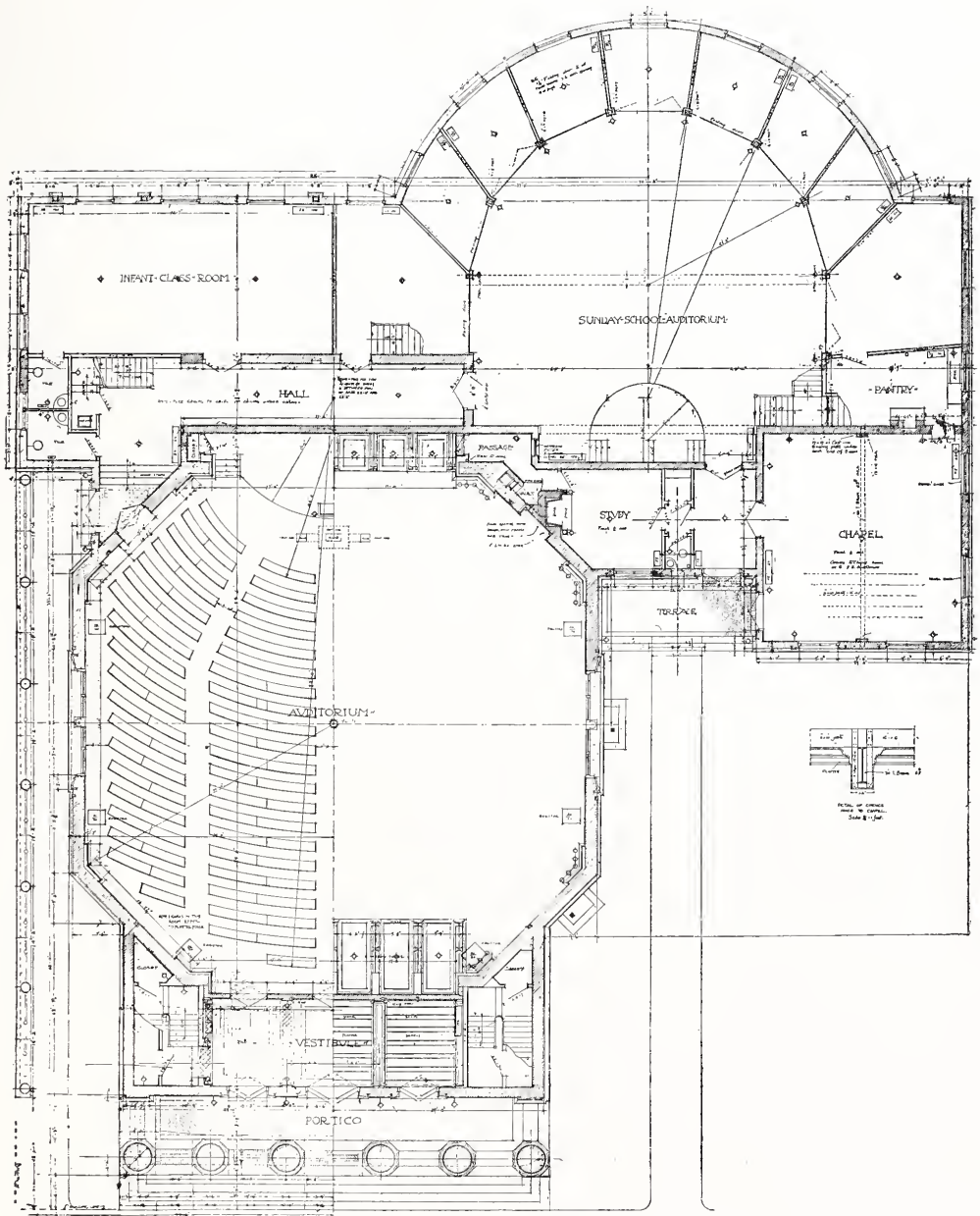


FIG. 14. FIRST PRESBYTERIAN CHURCH, BAY CITY, MICH. OCTAGONAL AUDIENCE HALL PLAN, PULPIT ON DIAGONAL AXIS. L. B. Valk & Son, Architects.



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FIG. 15. PONCE DE LEON AVENUE BAPTIST CHURCH, ATLANTA, GA. GREEK CROSS PLAN AUDIENCE HALL. HARALSON BLECKLEY, ARCHITECT.

venience demands the additional entrance way for those who come in vehicles and this is provided for in the projecting motive of the porte cochère with driveway approaches and separate access to the building or to its portico (Fig. 7). The entrance in general assumes a certain mobility under the spell of the state of flux characterizing the plan. In later buildings, especially in those approaching the present day, the body of the church, notably in examples providing a limited number of sittings, is often left intact and entrance facilities are offered only through the porte cochère or through a separate pro-

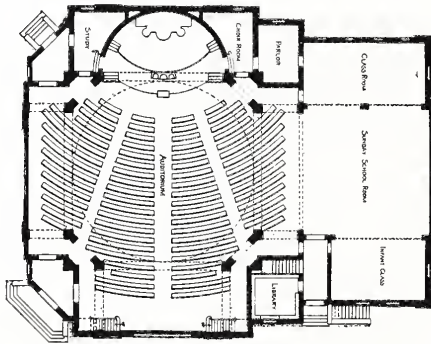


FIG. 16. WEST PRESBYTERIAN CHURCH, BINGHAMTON, N. Y. COMPETITIVE DESIGN. GREEK CROSS AUDIENCE HALL PLAN. H. S. Gardner and A. B. Lawyer, Associate Architects.

jecting entry which flanks an end of the building (Fig. 23). The separate entry is also conceived in numerous cases as a salient motive in the middle of one end of the edifice. But the chief modification of plan at the entrance side of the building is, in the end, the tower.

The Tower.

The tower has come to be regarded by the vast body of incorrigible laymen as the only infallible index of the church edifice; it proclaims a church beneath as surely as the mast signifies a ship. It would be difficult to explain this insistent misconception without carrying our study back again to the fountain source of time worn tradition. At present the tower is one of the most abused features in the whole architectural compass, notably as applied to small church design. Of this any study of the majority

of current examples of church exteriors would offer adequate proof. Nor is the abuse only architectural; the item of cost should also deter the small community from incorporating such an egregious member in the plan. Many expedients have been devised, as will be indicated later, to make best use of available space on the ground and other levels of tower additions.

The object of the tower at the outset was obviously that of raising the bells to a position of sufficient height to facilitate the passage of sound waves over the maximum area. The belfry of the early church in this country served this purpose without resultant modification of plan, while later examples show the tower motive, largely adapted from foreign sources, placed at one end of the building as an entrance and belfry combined. In present practice the larger edifice, serving the ends of a given style of architecture, will make corresponding use of its tower or towers, and, in general, to good advantage; while the smaller church building almost invariably cries aloud to be relieved of the burden of masonry set astride of its ridge or, by its end position dwarfing nave and sanctuary into the proportion of penthouses. For the average religious group to-day a vaulting ambition prescribes a heavy, preferably disproportionate mass, such as mars many an otherwise acceptable small church design; the very thought of the new building to be erected implies an ostentatious tower, for this remains the only acceptable symbol of the religious edifice. It is admitted that a fine tower may be an added or even an essential factor in the dignity of a great building, without which the traditions of its existence would seem incomplete and unsatisfactorily met, but the fallacy of assuming that the ecclesiastic character requires a tower irrespective of the size of the structure of which it forms part is amply demonstrated by the numerous pathetic efforts to be seen in our smaller towns and villages and to a large extent even in our cities.

But, granted that the tower has been made an accepted feature in exterior de-

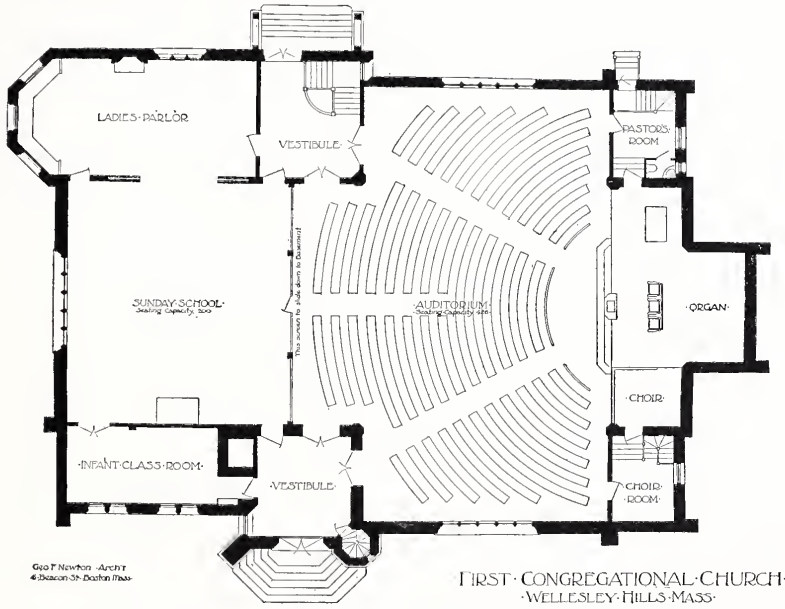


FIG. 17. FIRST CONGREGATIONAL CHURCH, WELLESLEY HILLS, MASS. GREEK CROSS PLAN AUDIENCE HALL.
George F. Newton, Architect.

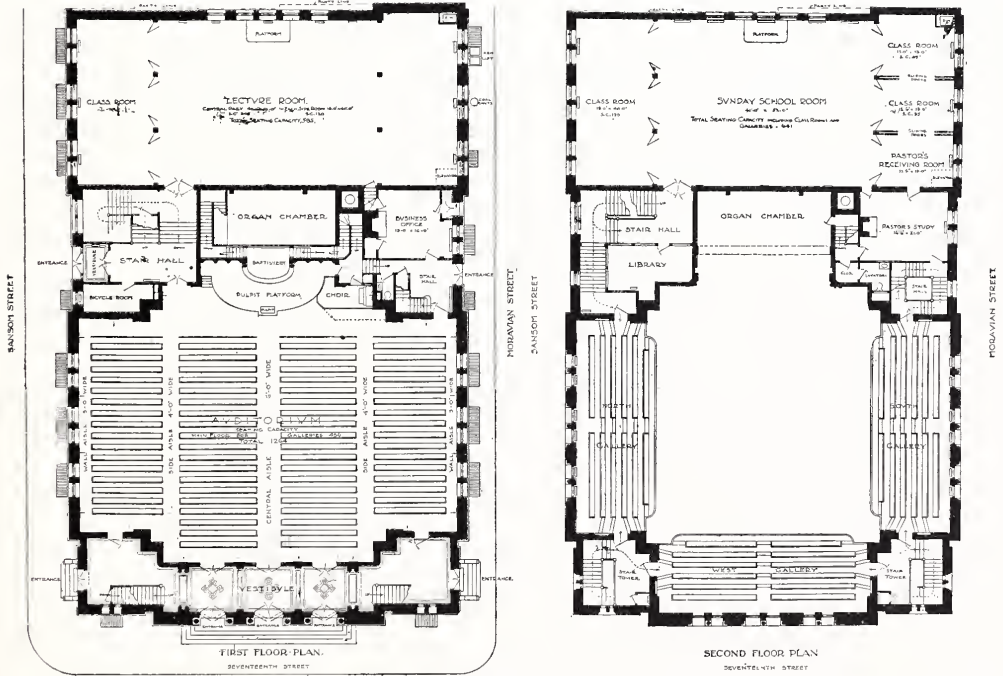


FIG. 18. FIRST BAPTIST CHURCH, PHILADELPHIA, PA. GREEK CROSS AUDIENCE HALL PLAN.
E. V. Seeler, Architect.

sign, its effect on the plan may be that of an additional ground area or that of an incorporated mass. In the former case it may stand at a corner or at the middle of one side (Figs. 12, 24), and entrance may be had to the audience hall through its base (Figs. 7, 25); it might

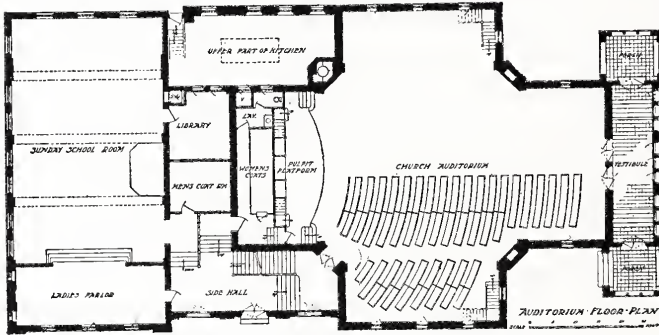


FIG. 19. FIRST UNIVERSALIST CHURCH, ROCHESTER, N. Y.
GREEK CROSS AUDIENCE HALL PLAN.
Claude Bragdon, Architect.

also in such case replace the separate entry mentioned before or serve as a staircase hall (Figs. 27, 28). It may support a clock and it may contain bells, but although the original purpose of the tower,—or the *campanile*, as it is termed historically,—was assuredly that of the bell-tower, its use in the average church of to-day is by no means demonstrated by the presence of bells in its belfry. In fact the great majority of towers are purely decorative features of a type which has persisted in the minds of men with the effect of the monument rather than that of the building of which it should form an integral part.

So strong is this monumental effect that churches have been removed or destroyed, but their towers have been left as records. We have only to quote the historic example of the Tour St. Jacques in Paris, a relic of the old church of St. Jacques-la-Boucherie, and dating from 1508-22, and the more homely case of the New Brattle Street church in Boston. No doubt much of the significance of the tower dates from that stirring epoch when the feudal system of society was being slowly undermined by the inexorable double-edged force of the new dispensation that was to form a back-

ground for Renaissance art; on one hand the combination of greater princes against intermediate barons, which brought about a conflict that led to the growth of communities later to be called cities, and on the other hand the favor granted to such cities by the secular clergy and especially by the local bishops. At this time many church towers rose as the only structures of any height in the growing centres of population, and citizens looked to them for warning of danger, fire and the alarm of war, as well as for the call to service. Perhaps this civic significance yet has its hold upon us and will assuredly be strengthened by the steadily increasing scope of the modern

church building in community service. In the second place, then, the tower may figure as an incorporated mass. In

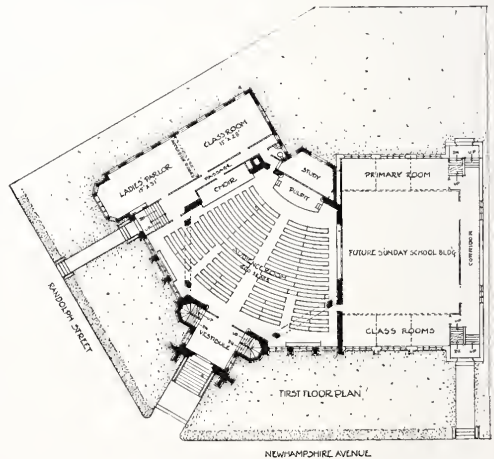


FIG. 20. WALLACE MEMORIAL UNITED PRESBYTERIAN CHURCH, WASHINGTON, D. C.
IRREGULAR SEPTAGONAL PLAN, SUGGESTED BY EXIGENCIES OF SITE.
Chas. W. Bolton & Son, Architects.

this capacity it may be placed centrally over the crossing of nave and transept, or over one end, but at all events spanning a part of the interior (Fig. 29). This

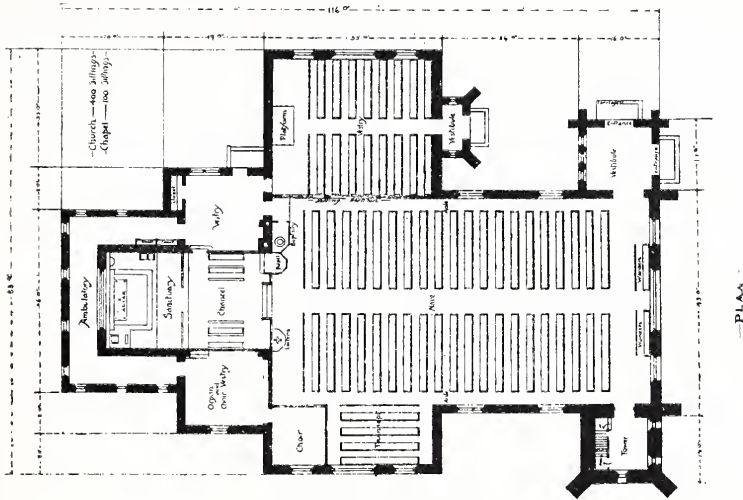


FIG. 23. ST. JOHN'S CHURCH, ONEIDA, N. Y.
Manly N. Cutter, Architect.

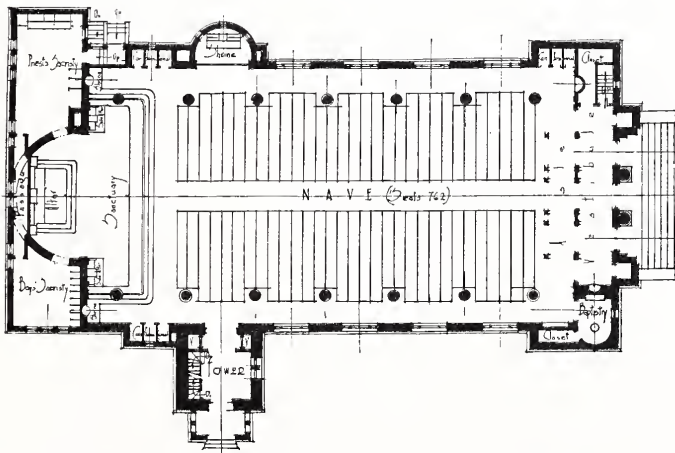


FIG. 22. ST. JOSEPH'S CHURCH, DAYTON, OHIO.
Maginnis & Walsh, Architects.

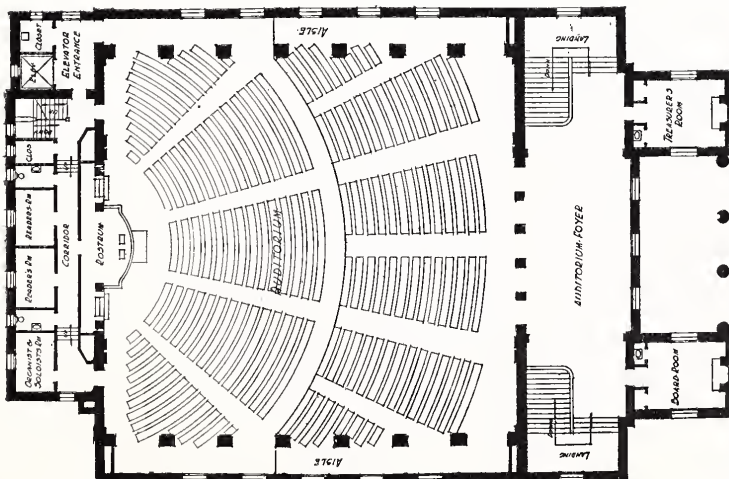


FIG. 21. FIRST CHURCH OF CHRIST SCIENTIST, LONG BEACH, CAL.
SQUARE AUDIENCE HALL PLAN.
Elmer Grey, Architect.

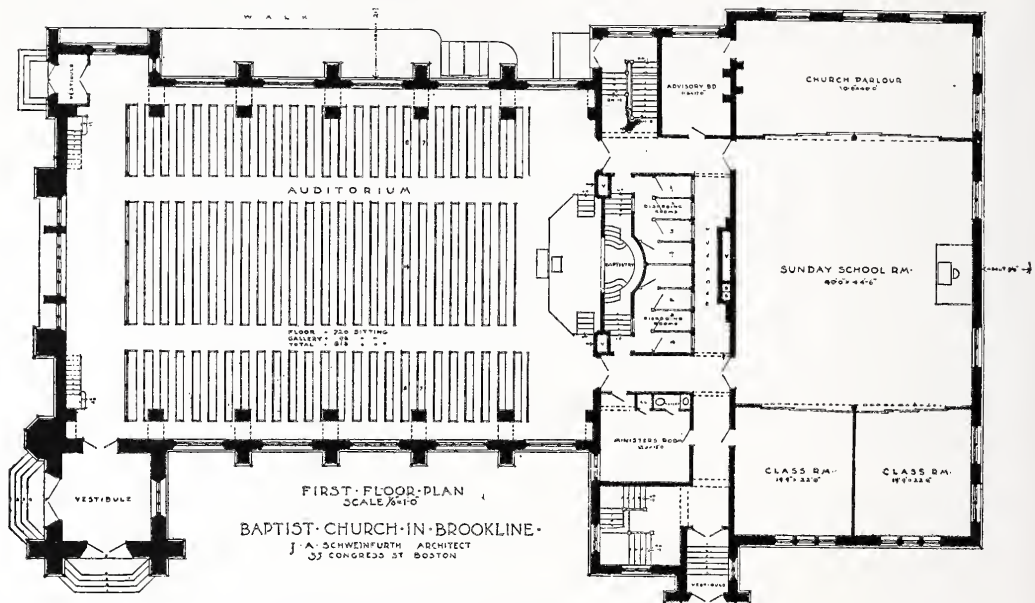


FIG. 24. BAPTIST CHURCH, BROOKLINE, MASS.
J. A. Schweinfurth, Architect.

type of tower is prone to minimize the effect of the main mass of small buildings as seen from without; although the impression within frequently is simply that of a larger open area, with no suggestion of the type of mass covering it. What is more, the construction involved in such an undertaking is apt to prove prohibitive in price under ordinary conditions.

The Chancel.

Considering now the possible variations of the original plan of the church building in accordance with more complex needs at the platform or chancel, we find again the handicap of early meeting house severity. More of the warmth of the ritual sanctuary appeals to us, the appeal being un-

consciously strengthened in those of us who are students of art or of history and for whom, therefore, the individual mem-

bers of the old chancel and its enclosing chevet are replete with the indications of growth and human progress—even though we may not subscribe unreservedly to the ritual type of worship. Provision for an elevation of some sort is inevitably necessary and upon this an unpretentious altar may or may not appear, pursuant to the prescriptions of the denomination in question. The

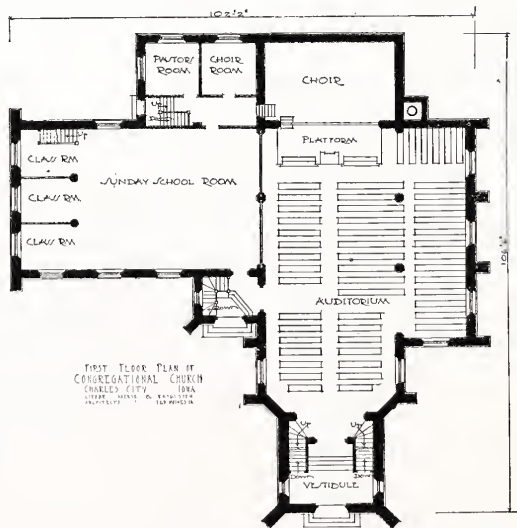


FIG. 25. CONGREGATIONAL CHURCH, CHARLES CITY, IOWA.
Liebbe, Nourse & Rasmussen, Architects.

pulpit, likewise, is given a place on or beside the platform. A small room or study is usually provided for the minister, and this often balances a similar

room for the organist or the choir or for both; these rooms regularly find place at either side of the platform, obviously to render possible direct access to the platform at the proper moment. (Figs. 6, 8, 15, 27.) Specific conditions, however, may make it necessary to subordinate this requirement to that of circulation facilities, as in the case of denominations requiring the presence of members of the con-

choir at the side of the building or possibly in a gallery above the entrance. These arrangements would not necessarily involve important modifications in plan, nor would the space thus made necessary be of greater dimensions, unless the choir be vested. The separate entrance near the platform would thus also be restricted to the use of the minister and organist, unless the latter's instrument is also placed in the choir gallery.

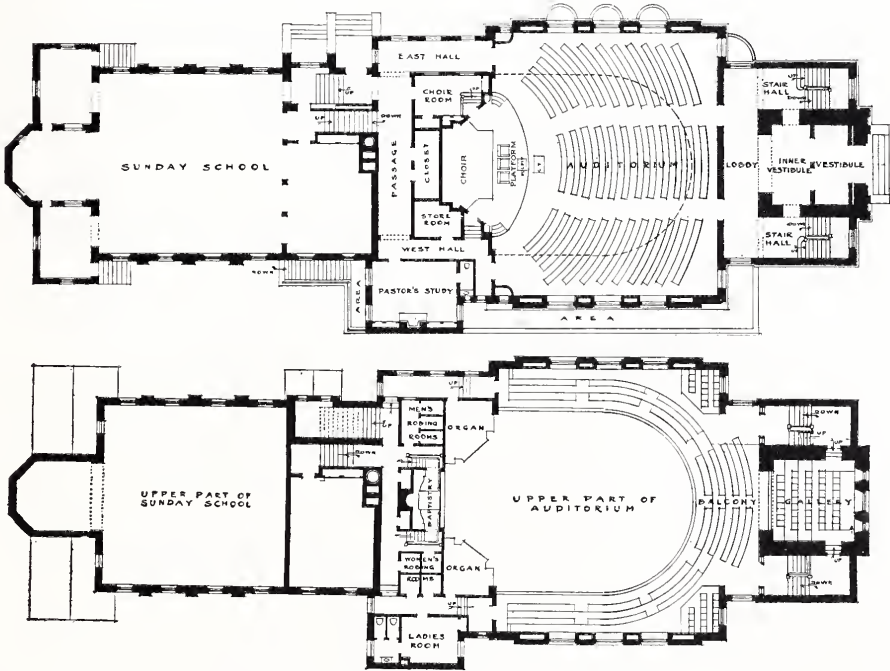


FIG. 26. EAST END BAPTIST CHURCH.
Hubbell & Benes, Architects.

gregation on the platform at certain times. (Figs. 6, 7, 8, 15, 24, 26.) If there is a large choir, increased space at one side or behind the platform is allotted to it, especially to facilitate rehearsals and to provide robing space; a separate entrance to the building for the minister, the choir and other participants in the service may also appear in the plan (Figs. 28, 30). At the back or side of the platform, or above it, a gallery may be built for the choir—denominational faiths usually desire the presence of the choir near the platform or chancel; ritual faiths are frequently content to place the

The placing of the organ itself is of the utmost significance for the success of the service and may measurably control certain phases of the plan, especially in small churches, because of the space necessary for the organ chamber and for the proper diffusion of sound to the congregation. These conditions are all more feasibly met in the liturgic church with its ample chancel space. (Fig. 31).

There remain also to be included the baptistery, if this is to be granted a separate room or plan subdivision, the sacristies in the case of the ritual church (Fig. 22), robing rooms as in the case

of a Baptist church (Figs. 11, 15, 18), as well as other similar denominations to meet the specific needs of individual forms of worship, and finally a committee meeting room, although this requirement is often met by the pastor's study. Space would also need to be assigned for the storage of utensils, books and music, and for retiring rooms. The two last named groups may be placed in a cellar where also the heating plant would be located. Although the sacristy and dressing rooms

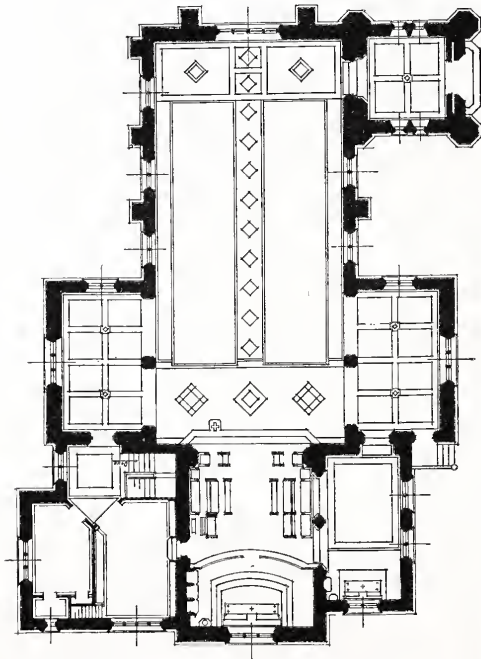


FIG. 27. ST. CORNELIUS' CHAPEL, GOVERNOR'S ISLAND, N. Y.
Charles C. Haight, Architect.

should be placed near the chancel or platform, the other rooms may be disposed as space becomes available in the plan elsewhere in the building (Figs. 6, 11).

Thus far our conditions have been in general those of the interior arrangement of the earlier churches magnified to much greater proportions, but not markedly altered in the service of the various parts. Furthermore, we have dealt with service requirements which may be individually met, if necessary, by interior subdivisions, and which may be readily accom-

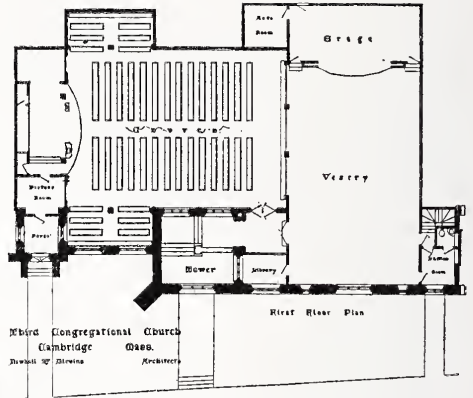


FIG. 28. THIRD CONGREGATIONAL CHURCH, CAMBRIDGE, MASS.
Newhall & Blevins, Architects.

modated upon a single level or floor, with the exception of the choir gallery, which also may be regarded as an interior modification only, not necessarily operating to effect a plan alteration.

A more detailed study of the audience hall development must be held in abeyance until the matter of the Sunday School treatment is considered, since many of the later advances in church planning have been definitely controlled by the latter requirement in its integral relation to audience hall and its combina-

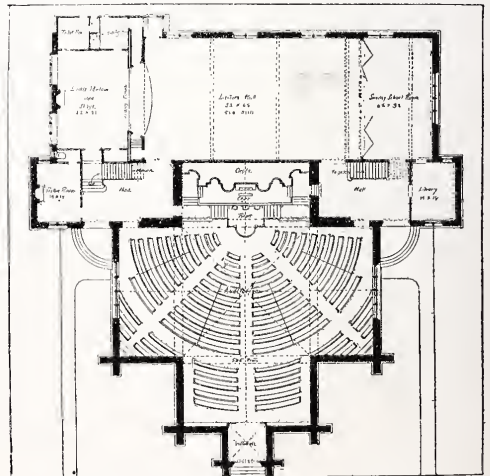


FIG. 29. PROPOSED UNITARIAN CHURCH, SOMERVILLE, MASS. TOWER APPEARS OVER ENTIRE CROSSING OF TWO ARMS OF GREEK CROSS.
Cram, Wentworth & Goodhue, Architects.

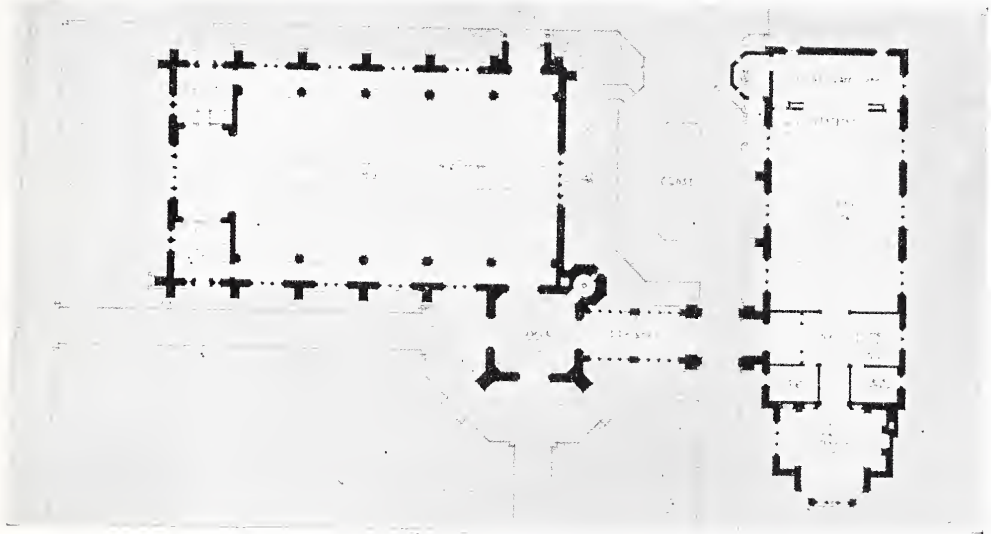


FIG. 30. SECOND CONGREGATIONAL CHURCH, LYNN, MASS.
Nelson & Van Wagenen and George H. Breed, Associate Architects.

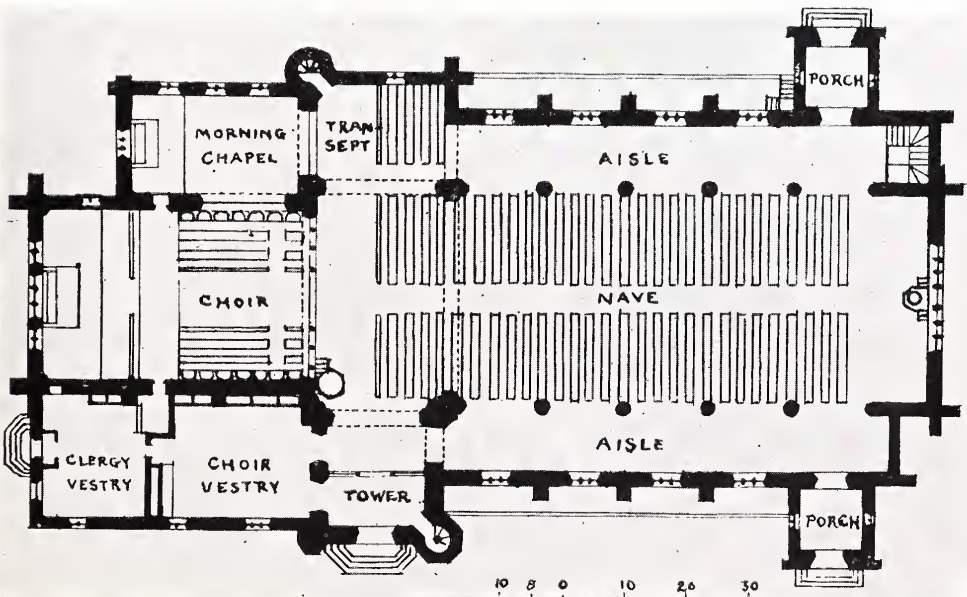


FIG. 31. CHRIST CHURCH, NEW HAVEN, CONN.
Henry Vaughan, Architect.

tion therewith under a single roof and upon first one then two or even three different levels.

In the plans illustrated it should be borne in mind that no indication whatever is made of the actual design of the buildings illustrated. Although decidedly germane to the general subject of church planning, it has not been considered essential to our present restricted study of plan development. Possibly a

later series of papers will be devoted to a separate treatment of this phase of American church growth.

Our next feature, that of the plan response to the requirements of the Sunday School, involves an important addition, frequently a fabric transformation of the entire structure. For purposes of comparison and as a foretaste of this development a few of these plans are included in the present paper.

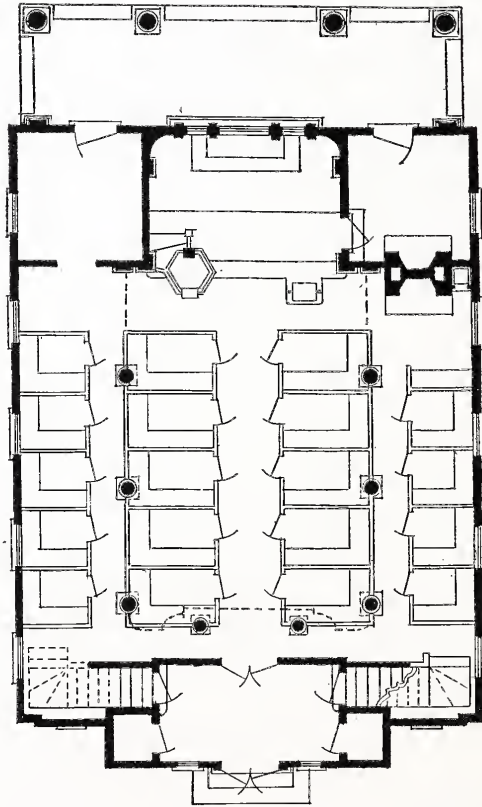
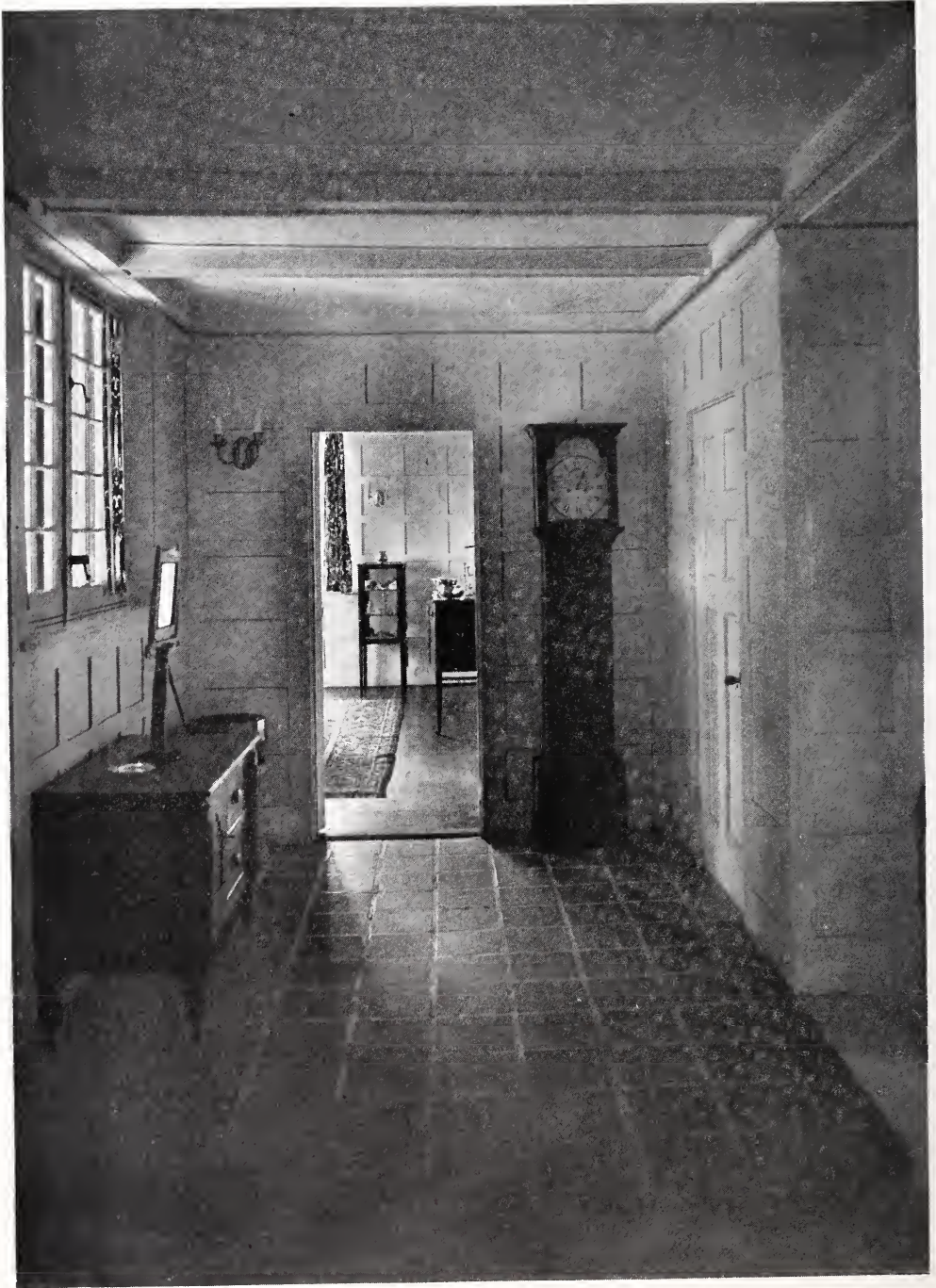


FIG. 32. ALL SOULS IN-THE-EAST, SUMMIT, N. J.
 MODERN MEETING HOUSE INTENTIONALLY
 APPROXIMATING PROTOTYPE.
 Joy Wheeler Dow, Architect.

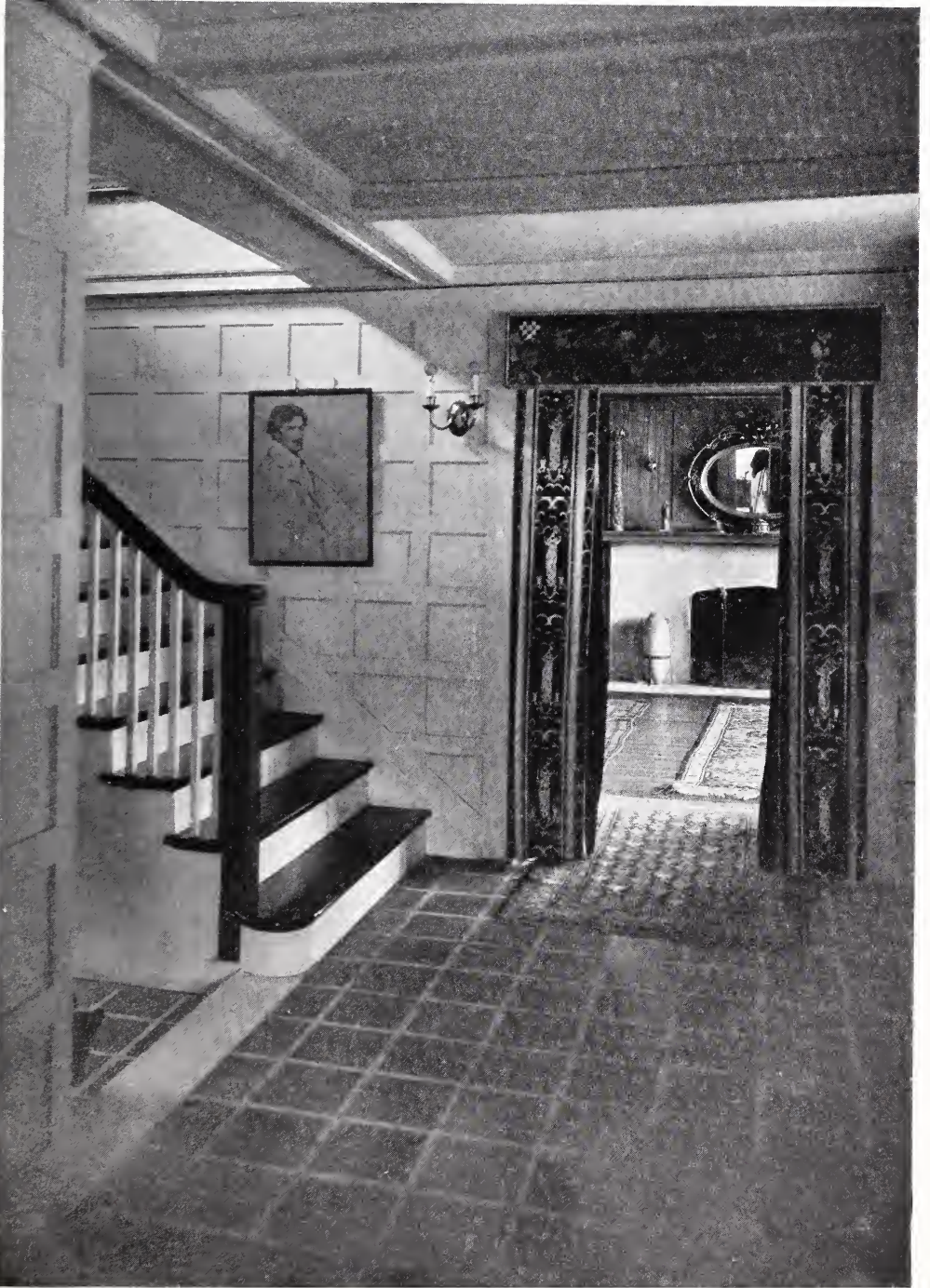
PORTFOLIO
OF
CURRENT
ARCHITECTURE



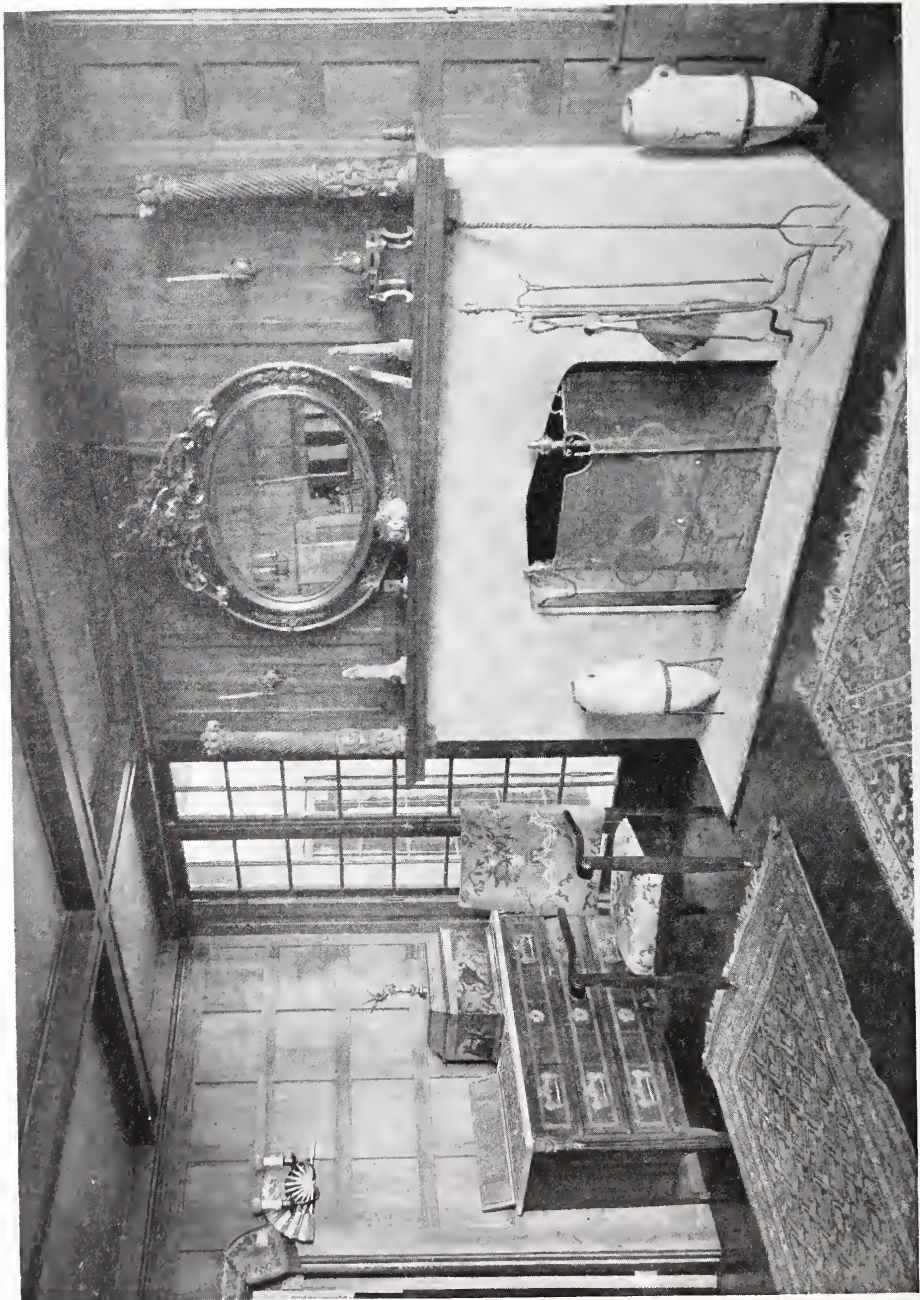
LIVING ROOM—HOUSE OF FREDERICK DANA MARSH, ESQ., WYKAGYL PARK, NEW ROCHELLE, N. Y. H. G. MORSE, ARCHITECT.



HALLWAY—HOUSE OF FREDERICK DANA MARSH, ESQ., WYKAGYL PARK, NEW ROCHELLE, N. Y. H. G. MORSE, ARCHITECT.



HALLWAY—HOUSE OF FREDERICK DANA MARSH, ESQ., WYKAGYL PARK, NEW ROCHELLE, N. Y. H. G. MORSE, ARCHITECT.



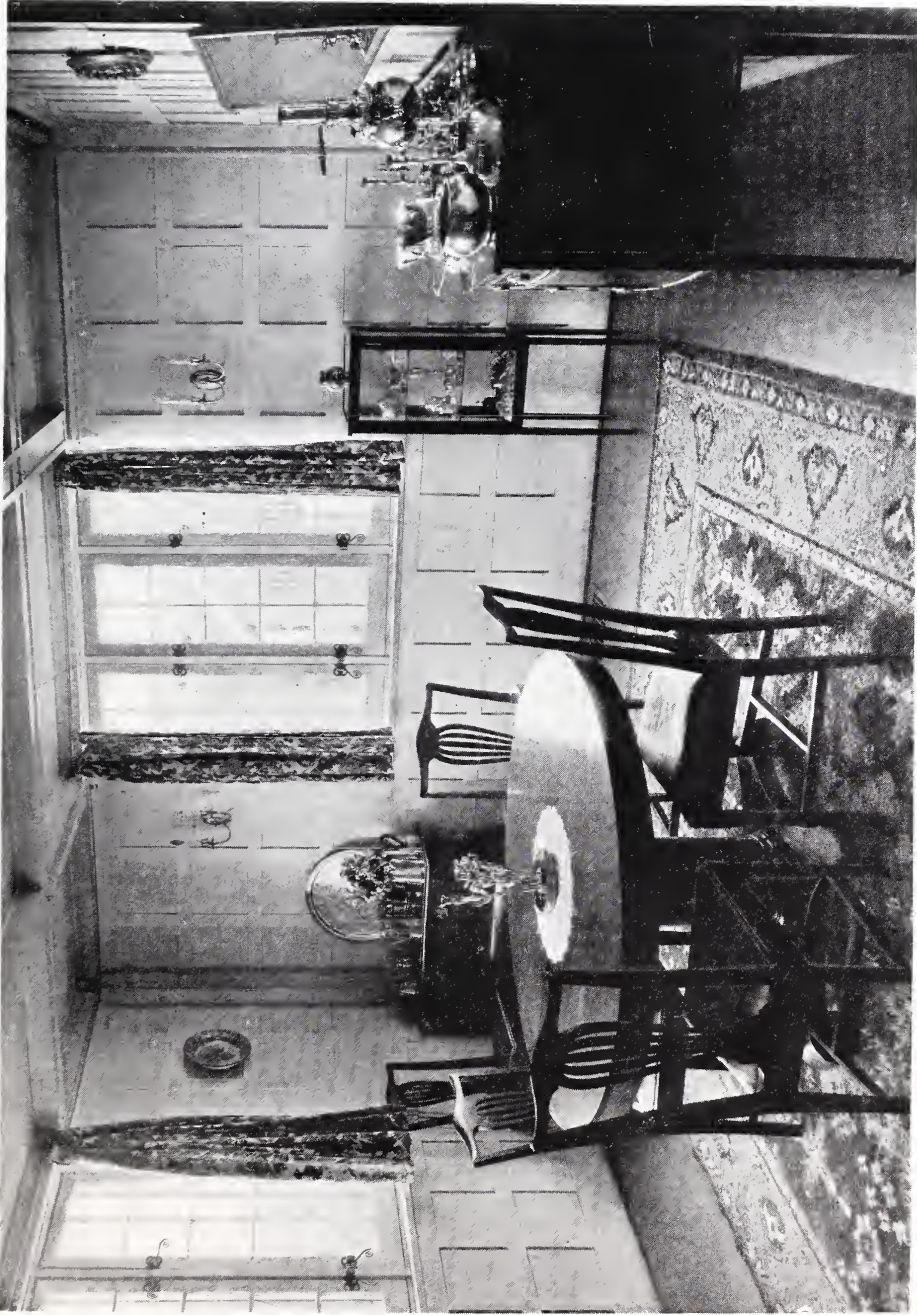
LIVING ROOM—HOUSE OF FREDERICK DANA MARSH, ESQ., WYKAGYL PARK, NEW ROCHELLE, N. Y. H. G. MORSE, ARCHITECT.



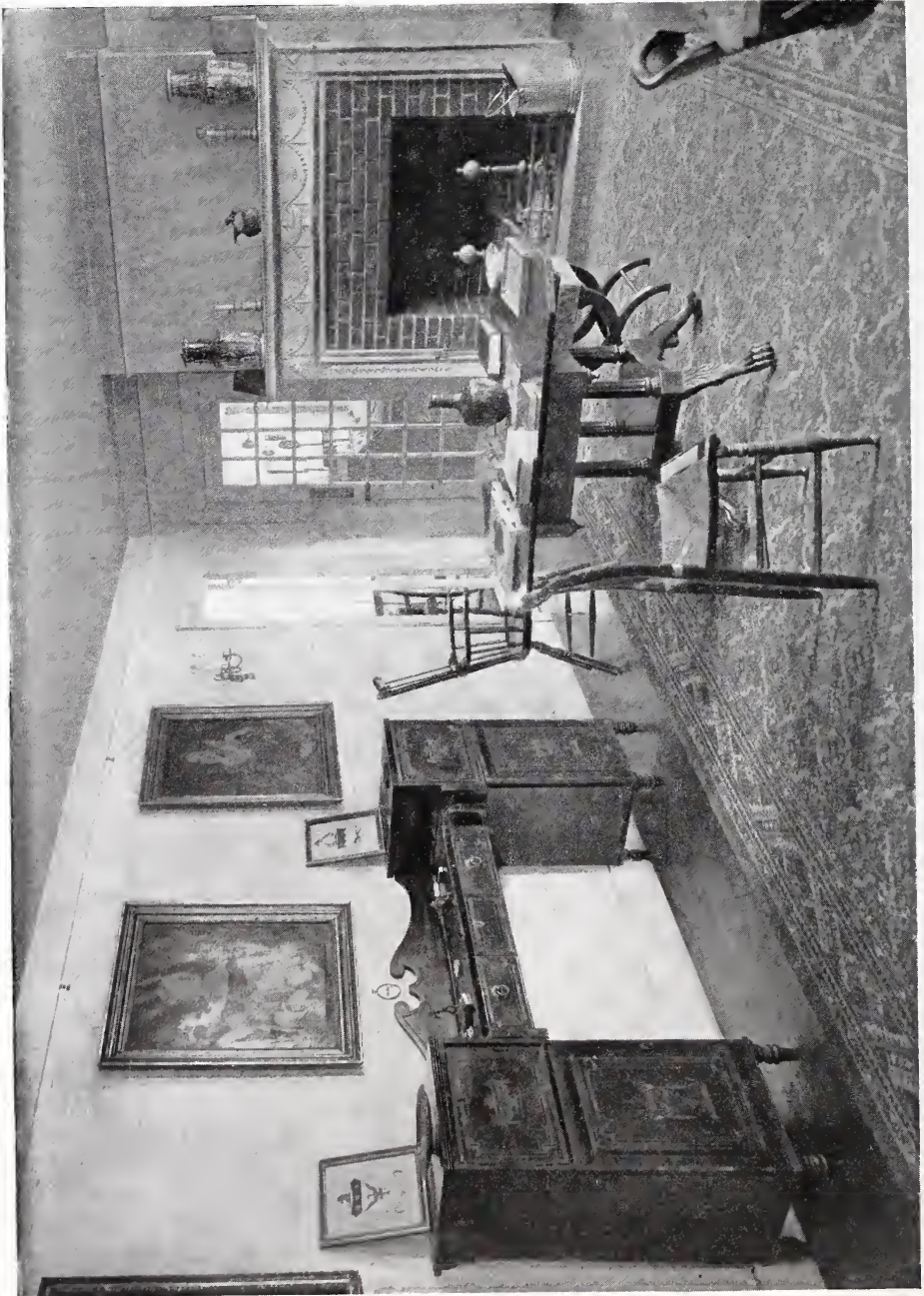
LOOKING INTO STUDIO—HOUSE OF FREDERICK
DANA MARSH, ESQ., WYKAGYL PARK, NEW
ROCHELLE, N. Y. H. G. MORSE, ARCHITECT.



LIVING ROOM—OWN HOUSE, WYKAGYL PARK,
NEW ROCHELLE, N. Y. H. G. MORSE, ARCHITECT.



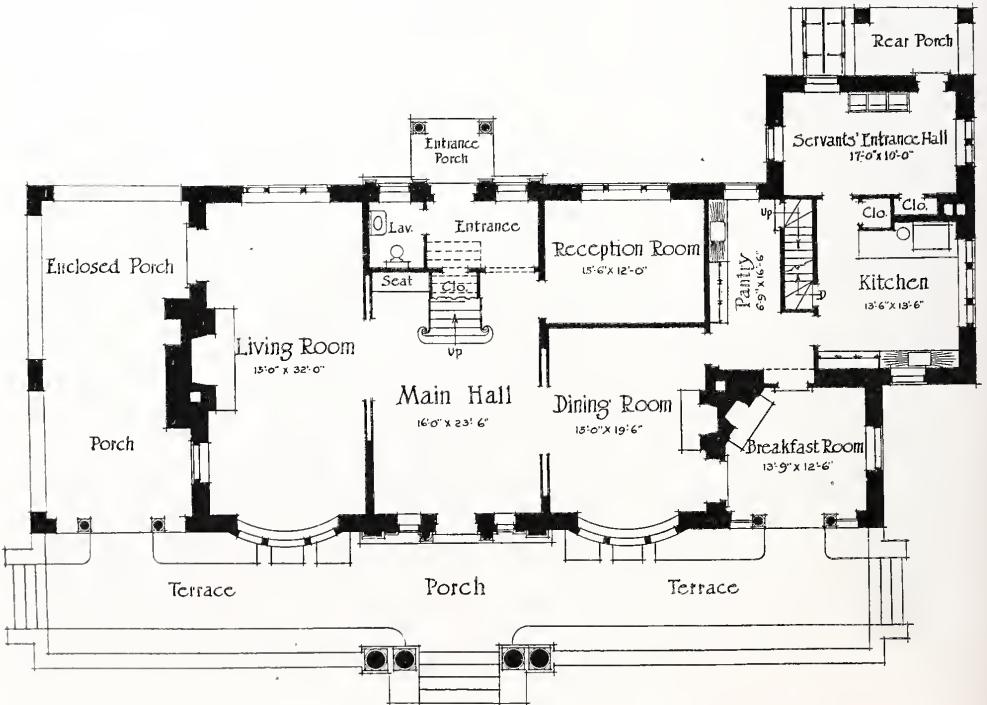
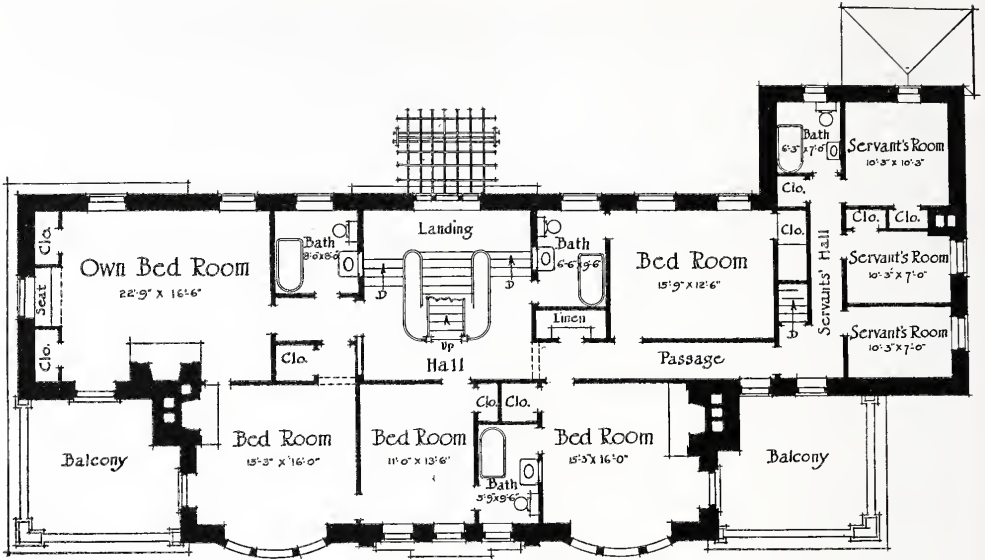
DINING ROOM—HOUSE OF FREDERICK DANA MARSH, ESQ., WYKAGYL PARK, NEW ROCHELLE, N. Y. H. G. MORSE, ARCHITECT.



LIVING ROOM—OWN HOUSE, WYKAGYL PARK,
NEW ROCHELLE, N. Y. H. G. MORSE, ARCHITECT.



LIVING ROOM—OWN HOUSE, WYKAGYL PARK,
NEW ROCHELLE, N. Y. H. G. MORSE, ARCHITECT.



FIRST AND SECOND FLOOR PLANS—HOUSE AT HAV-
ERFORD, PA. D. KNICKERBACKER BOYD, ARCHITECT.



HOUSE AT HAVERFORD, PA. D.
KNICKERBACKER BOYD, ARCHITECT.



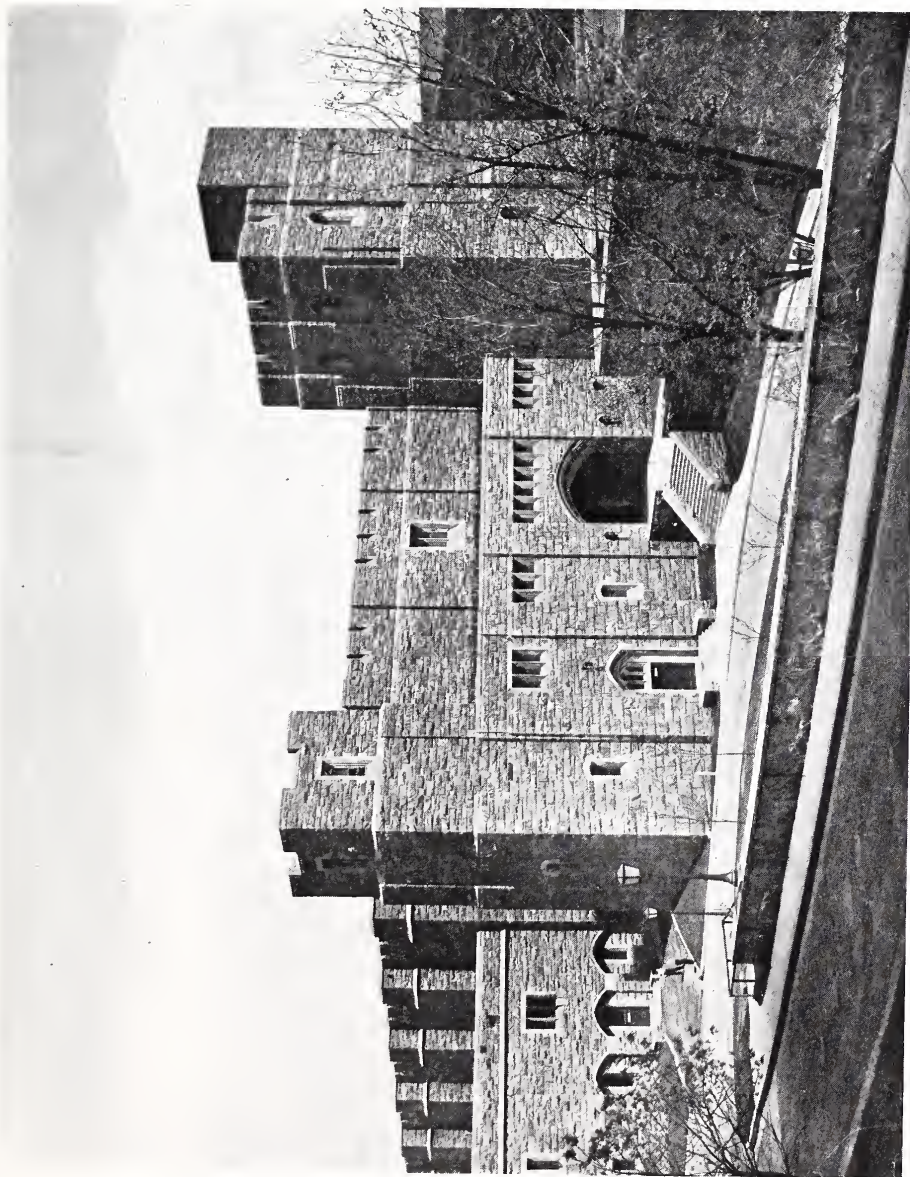
PORTCULLIS, POST HEADQUARTERS, U. S.
MILITARY ACADEMY, WEST POINT, N. Y.
CRAM, GOODHUE & FERGUSON, ARCHITECTS.



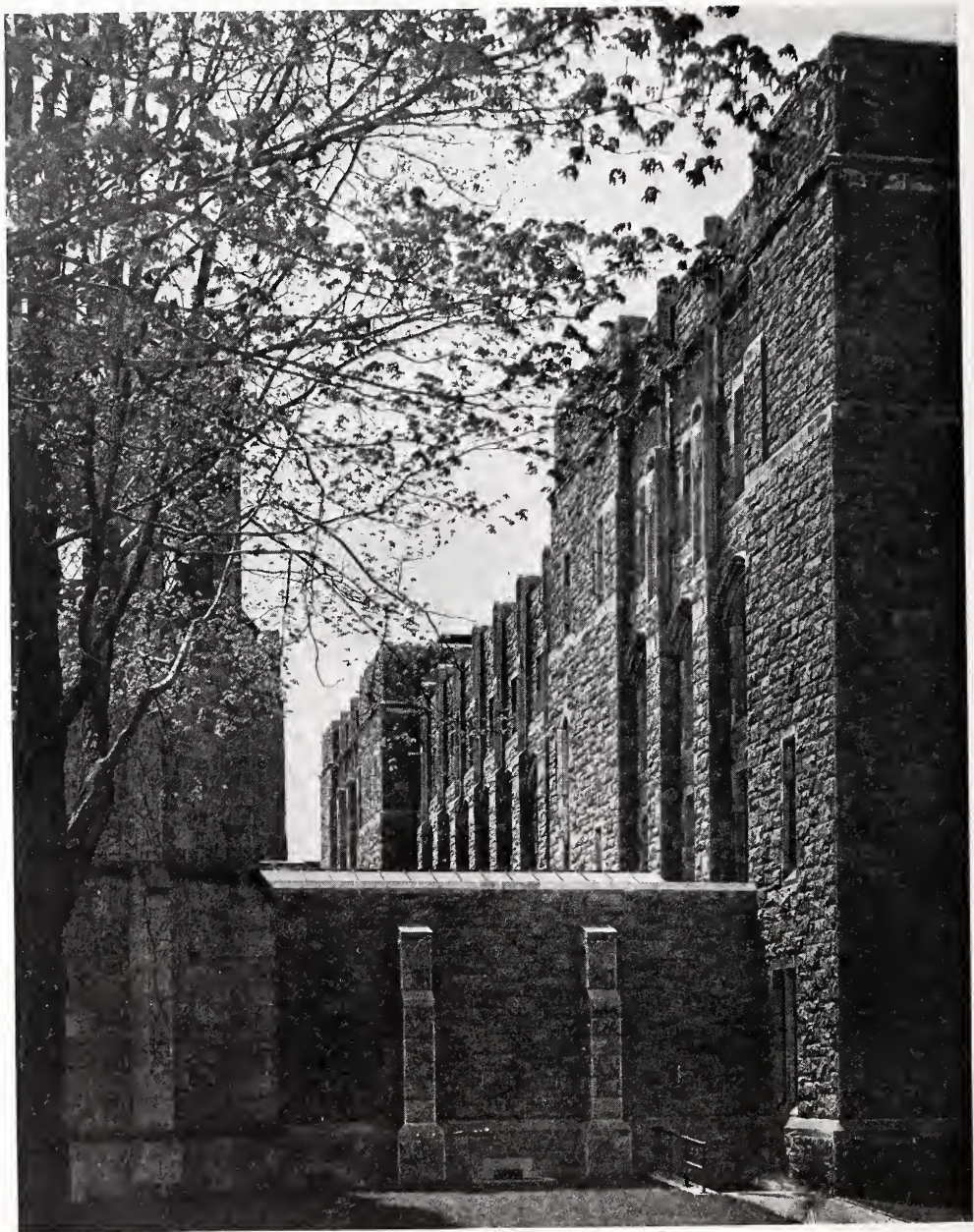
POST HEADQUARTERS, U. S. MILITARY
ACADEMY, WEST POINT, N. Y. CRAM,
GOODHUE & FERGUSON, ARCHITECTS.



RIDING HALL, U. S. MILITARY ACAD-
EMY, WEST POINT, N. Y. CRAM,
GOODHUE & FERGUSON, ARCHITECTS.



RIDING HALL, U. S. MILITARY ACADEMY, WEST POINT, N. Y. CRAM, GOODHUE & FERGUSON, ARCHITECTS.



EAST ACADEMIC BUILDING, U. S. MILITARY ACADEMY, WEST POINT, N. Y.
CRAM, GOODHUE & FERGUSON, ARCHITECTS.



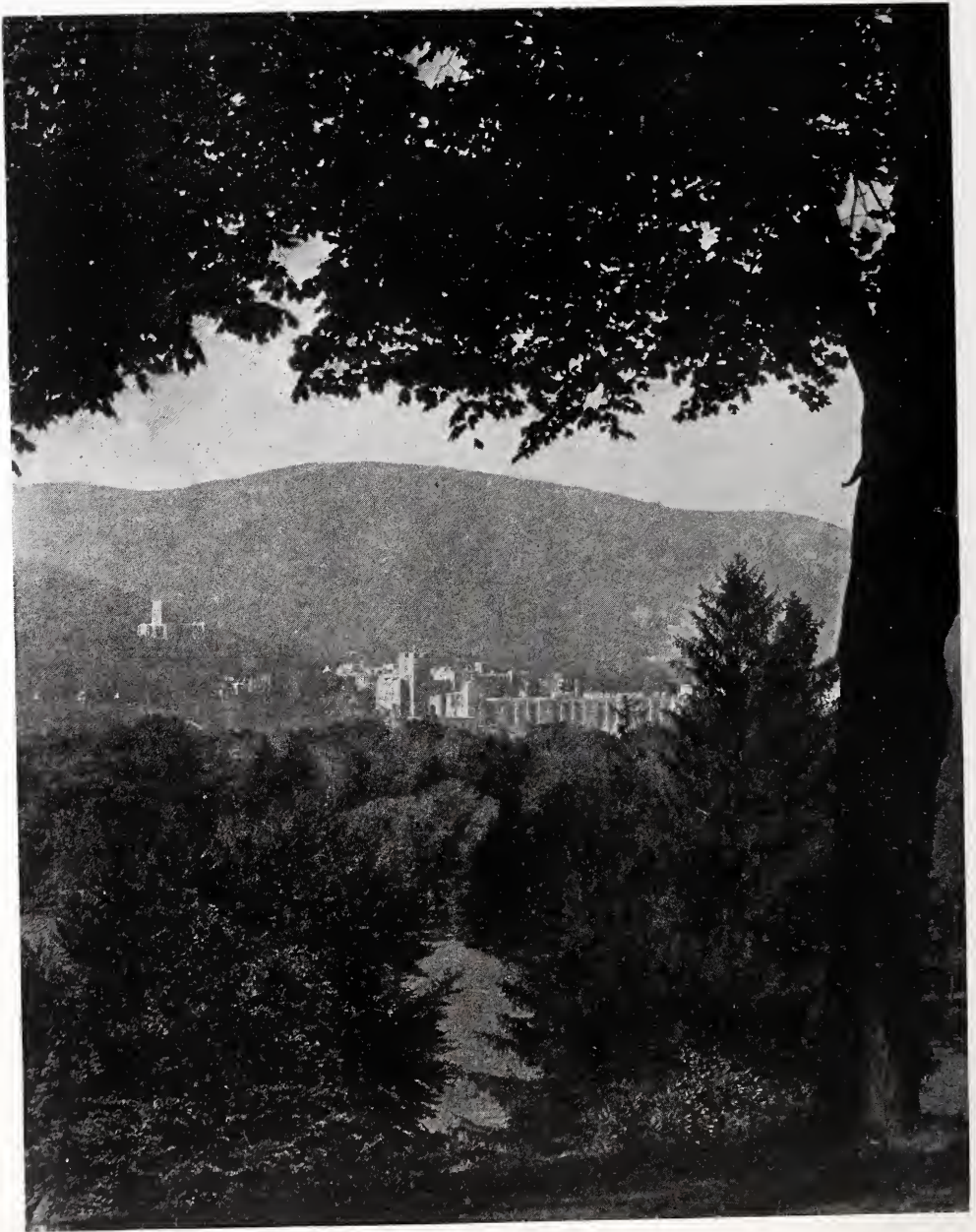
RIDING HALL AND POST HEADQUARTERS, U. S.
MILITARY ACADEMY, WEST POINT, N. Y.
CRAM, GOODHUE & FERGUSON, ARCHITECTS.



ENTRANCE TO EAST ACADEMIC BUILDING,
U. S. MILITARY ACADEMY, WEST POINT, N. Y.
CRAM, GOODHUE & FERGUSON, ARCHITECTS.



EAST ACADEMIC BUILDING, U. S. MILITARY ACADEMY, WEST POINT, N. Y. CRAM, GOODHUE & FERGUSON, ARCHITECTS.



GENERAL VIEW—U. S. MILITARY
ACADEMY, WEST POINT, N. Y.



Photo by Vander Weyde.

THE METROPOLITAN TOWER, NEW YORK.



Photo by Vander Weyde.

VIEW FROM METROPOLITAN TOWER, LOOKING SOUTH.



Photo by Vander Weyde.

MADISON SQUARE, NEW YORK.

THE ARCHITECT'S LIBRARY



BOOKS ON COLONIAL ARCHITECTURE

By RICHARD FRANZ BACH

Curator, School of Architecture, Columbia University

Part III.—Dwellings (Continued)

IMMEDIATELY when we undertake the study of published works on Colonial architecture as evidenced by individual cities, we are confronted with the considerable problem, so often met before of weeding out of the mass of purely local historical and largely genealogical material the few architecturally interesting books. The quantity of well meaning small town histories produced in the coast states is sometimes amazing and the consistency with which all accurate description of buildings and their construction is shunned is even more notable.

Many of these books—of which the majority are interminably prolix—must be of great value in fields of research other than that at present under survey, and not a few contain data of notable interest to the historian of architecture, especially those which give rescripts of correspondence concerning prospective building operations, prices of labor, relative qualities of materials for given purposes, and the like. Few, however, offer anything more than dates and other equally unimaginative facts in regard to the buildings in their respective districts. Thus we come

upon a number of thoroughly sermon-like volumes such as *The Secular and Ecclesiastical History of the Town of Worthington* (Albany; Weed, Parsons and Company; 1853), which has much to say of ministers but nothing of the church edifice, or the more long winded yet quite readable book by Charles W. Brewster entitled *Rambles About Portsmouth, Sketches of Persons, Localities and Incidents of Two Centuries, Principally from Tradition and Unpublished Documents* (Portsmouth, N. H.; Lewis W. Brewster, publ.; 1873), and possibly also the same author's *Rambles About Boston*, also well written; or the seemingly misnamed *Ancient Landmarks of Plymouth* by William T. Davis (Boston; Damrell and Upham; 1899), which deals not at all with landmarks in the architectural sense; or the occasional county volume such as *Drake's Historic Fields and Mansions of Middlesex*; or the more recent type of talkative volume, such as *Old Concord, Her Highways and Byways*, by Margaret Sidney (Boston; Lothrop, Lee and Shepard; 1892). Works of this type are often thoroughly well written, but can offer no notable contribution to our present quest.

We find better gleaning in books devoting greater attention to the architectural equipment of the various local centres, such as for example Francis Atwater's *History of the Town of Plymouth, Connecticut* (Meriden, Conn.; Journal Publ. Company; 1895), or Mary E. Perkins' *Old Houses of the Antient (sic) Town of Norwich, 1660-1800* (Large octavo; pp. xviii+621. Maps, illustrations, portraits, genealogies. Norwich, Conn.; publ. by the author; 1895), or better yet in those following more closely what may be called the guide book manner, such as *Rambles in Old Boston, New England*, by Edward G. Porter, with illustrations by George R. Tolman, (Large octavo; pp. xviii+437, 1 map and numerous ill., Boston; Cupples and Hurd; 1887. \$6.—), who also issued a separate volume of *Twelve Sketches of Old Boston* (Boston; privately printed; 1882. No longer available), which shows praiseworthy skill; or George B. Bartlett's *Concord: Historic, Literary, and Picturesque* (Duodecimo; pp. 200, ill., Boston; Lothrop, Lee and Shepard; 1895. \$1.—); or finally, *Old Concord*, by Allen French, with good drawings by Lester G. Hornby (Octavo; xii+186, ill. Boston; Little, Brown and Company; 1915. \$3.—).

Latterly a few books, more decidedly useful from our present viewpoint, have been issued, but in all cases measured drawings have been sadly lacking, although photographs have shown good quality. In the latter field we might note Frank Cousins' *Colonial Architecture; Fifty Salem Doorways*, which was published as series 1 of a continued work, and was provided with an introduction by Glenn Brown, but unfortunately has never achieved its second series. It is a folio work of fifty plates, without text, but with brief descriptive paragraphs for each subject, admirably photographed and as well reproduced. (Garden City, L. I.; Doubleday, Page and Co.; 1912. \$5—). The Salem field has also been well covered in a brochure entitled *Selected Interiors of Old Houses in Salem and Vicinity*. This is edited and published with the purpose "of furthering a wider knowledge of the beautiful forms of domestic architecture developed during

the time of the Colonies and the early days of the Republic." The pamphlet, which is of small quarto size and contains 55 well illustrated pages, bears the half title: The Monograph Series on Subjects Pertaining to Architecture and Allied Interests (Boston; Rogers and Manson Company; 1916. \$1.—). There is no promise held forth, however, that the series will contain monographs on subjects chosen in the Colonial field exclusively. Other districts have been treated in Albert Hale's compilation of *Old Newburyport Houses* (Quarto; pp. 4+64 plates. Boston; W. B. Clarke and Company; 1912. \$2.50) and in Arthur L. Brandegee and Eddy N. Smith's *Farmington, Connecticut, the Village of Beautiful Homes* (Square folio; pp. 213, ill. Farmington, Conn., publ. by the authors; 1906, \$3.50) and likewise in *The Portsmouth Book*, which contains as one of twelve chapters a section by R. Clipston Sturgis with the title "The Architecture of Portsmouth." (Quarto, pp. xxx, ill. Boston; Ellis. 1912. No longer available.) The last named is an evidence of a type of community advertising scheme, which has elsewhere taken the form of pageants and watchwords, such as "boom Tacoma," and which might bear repetition in other civic enterprises if the same quality in the result may be guaranteed. In the *Homes of Our Forefathers* series by E. Whitefield, mentioned in preceding paragraphs, also appeared a volume entitled *Boston, Old England and Boston, New England* (Large octavo; pp. 84+64 unnumbered plates. Boston; Damrell and Upham; 1889. No longer available), which is the exact counterpart of any one of its predecessors by the same author, and therefore merits no further description here.

Before closing the discussion of books concerning the New England district a record of good quality must be registered in behalf of a new volume which has just reached our table; this is the work of Joseph Stowe Seabury and is entitled *New Homes Under Old Roofs* (Quarto; pp. 23+36 plates. New York; Frederick A. Stokes Company; 1916. \$3.50). In reviewing a recent work by

Mary Harrod Northend, *Remodelled Farm Houses*, we noted the omission of views that would convey to the lay mind, that is, without too great an effort at visualization,—which only the practitioner in the building field may be required to master with any degree of facility,—a comparison of the old state of the structure which formed the basis of the process of rehabilitation. This defect is overcome in Mr. Seabury's book in very attractive fashion. The author has himself had a hand in numerous restorations, or rather, remodelings, and has fortunately realized the value of recording an optical comparison of old and new, both to show the possibilities of adaptation and the resourcefulness of Colonial design. There are many among us who are of the assurance that a recrudescence of Colonial architecture in its simpler types is gradually gaining in influence in the popular mind and that, once recognized as a stylistic expression which has never been entirely lost and needs only to be granted a modicum of attention and interpretation, it will displace the majority of style varieties in domestic architecture in the New England and Middle States. Work like that of Mr. Seabury bears witness to this conviction on the part of a goodly number of architects and also the growing hold which the homeliness of Colonial building art has gained in the interests of lay home builders of to-day. In the present work are gathered together no less than thirty-six examples of remodeled buildings—perhaps rehabilitated would be a better term, because so many had up to recent years been considered "deserted farmhouses"—all illustrating the extent to which the process of redistribution of old forms may be carried without serious detriment to the original character of the house and with the accrued advantages of modern convenience, comfort and utility. The results are in some cases little short of remarkable, when the former state of decrepitude is considered and when, furthermore, it is borne in mind that practically none of the old houses were permitted to endure through two centuries or more in their pristine simplicity of design, but were frequently afflicted with

misguided attempts at what has been misnamed beautification or at any rate with the flagrant results of abortive suggestions of modernity in the form of changes in roof lines, gable additions, altered entrance motives, and the like. By bringing face to face the old and the new forms,—the photographs are all taken from nearly identical angles of vision,—the author has brought home the possibilities inherent in old buildings.

Our brief survey has clearly demonstrated, no doubt, that in the exploitation of Colonial architecture in present state areas there is a decided paucity of material; that in the field of the restricted municipal centres and their immediately adjacent areas of influence there is more available material, but that this lacks thorough study and is constituted chiefly of superficial text volumes or of collections of photographs; and that in the end the student and reader must refer to broader works covering the whole New England district as sources of his information or else, finally, must bring himself to rely upon the isolated plates from a given locality in the old Colonial territory which he may find in the larger works, among which *The Georgian Period* and similar publications are thus far the best. We may be pardoned if we venture again to lay emphasis upon this easily remedied deficiency in the literature of our early building time. There is much to be done in this field; it is rich in benefits. Incidentally, it is fast being depleted; the profitable monuments grow less daily. We look forward to the inspiring moment when the full realization of the architectural value of our heritage shall have firmly gripped the attention and the co-operative interest of architects and allied laymen, when extant monuments shall have been measured and drawn until all the best are recorded for the future, when others not so good shall at least have been photographed for record, when many of sterling worth shall have been restored to their pristine condition to serve as informative models of a style that has never run its full course.

Our next paper will concern the literature of Colonial architecture in the Middle Colonies and early States.

A BIBLIOGRAPHY OF THE LITERATURE OF COLONIAL ARCHITECTURE.

III. Works Concerning Domestic Architecture in the New England States.

1. Covering the Region as a Whole.

- Corner, James M., and Soderholtz, Eric Ellis. *Examples of Domestic Colonial Architecture in New England*. Folio; no text, 50 plates, meas. 11 inches by 14 inches. Boston; The Boston Architectural Club; 1891. Rare.
- Howe, Lois L., and Fuller, Constance. *Details from Old New England Houses*. No text, pp. 2+50 plates, meas. 11 inches by 14 inches. New York; The Architectural Book Publishing Company; 1913. \$9.
- Little, Arthur. *Early New England Interiors*. Sketches in Salem, Marblehead, Portsmouth and Kittery. Long quarto; no text, 36 unnumbered plates. Boston; A. Williams & Company; 1878. Rare.
- Northend, Mary Harrod. *Historic Homes of New England*, with numerous illustrations. Royal octavo; pp. xvi+274, ill.+95 plates; index. Boston; Little, Brown & Company; 1914. \$5.
- Northend, Mary Harrod. *Remodelled Farmhouses*, with numerous illustrations. Royal octavo; pp. xiv+264, ill., index. Boston; Little, Brown & Company; 1915. \$5.
- Seabury, Joseph Stowe. *New Homes Under Old Roofs*. Quarto; pp. 23+36 plates. New York; Frederick A. Stokes Company; 1916. \$3.50.

2. Covering Separate States.

- Isham, Norman M., and Brown, Albert F. *Early Connecticut Houses*. Crown octavo; pp. xiv+303, ill. Providence; Preston & Rounds; 1900. \$3.50.
- Isham, Norman M., and Brown, Albert F. *Early Rhode Island Houses; An Historical and Architectural Study*. Crown octavo; pp. 100+60 plates, ill. Providence; Preston & Rounds; 1895. \$13.50.
- Whitefield, E. *The Homes of Our Forefathers; Being a Selection of the Oldest and Most Interesting Historical Houses and Noted Places in Maine, New Hampshire and Vermont*. From original drawings taken on the spot. Large octavo; no text, 36 plates. Reading, Mass.; publ. by the Author; 1886. No longer available.
- Whitefield, E. *The Homes of Our Forefathers; Being a Selection of the Old-*

est and Most Interesting Buildings, Historical Houses and Noted Places in Massachusetts. From original drawings made on the spot. Large octavo; no text, 35 plates. Boston; A. Williams & Company; 1880. No longer available.

Whitefield, E. *The Homes of Our Forefathers; Being a Selection of the Oldest and Most Interesting Buildings, Historical Houses and Noted Places in Rhode Island and Connecticut*. From original drawings made on the spot. Large octavo; no text, 32 plates. Boston; Whitefield & Crocker; 1882. No longer available.

3. Covering Separate Cities or Localities.

- Bartlett, George B. *Concord: Historic, Literary and Picturesque*. Duodecimo; pp. 200, ill. Boston; Lothrop, Lee & Shepard; 1895. \$1.
- Brandegee, Arthur L., and Smith, Eddy N. *Farmington, Connecticut, the Village of Beautiful Homes*. Square folio; pp. 213, ill. Farmington, Conn.; publ. by the Authors; 1906. \$3.50.
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- French, Allen. *Old Concord*. With drawings by Lester G. Hornby. Octavo; pp. xii+186, ill. Boston; Little, Brown & Company; 1915. \$3.
- Hale, Albert, compiler. *Old Newburyport Houses*. Quarto; pp. 4+64 plates. Boston; W. B. Clarke & Company; 1912. \$2.50.
- Perkins, Mary E. *Old Houses of the Antient (sic) Town of Norwich, 1660-1800*. With maps, illustrations, portraits and genealogies. Octavo; pp. xviii+621, ill. Norwich, Conn.; publ. by the Author; 1895. \$4.
- Porter, Edward G. *Rambles in Old Boston, New England*. Large octavo; pp. xviii+437, ill. by George R. Tolman. Boston; Cupples & Hurd; 1887. \$6.
- Selected Interiors of Old Houses in Salem and Vicinity*. Edited and published with the purpose of furthering a wider knowledge of the beautiful forms of domestic architecture developed during the time of the Colonies and the early days of the Republic. Half title: *The Monograph Series on Subjects Pertaining to Architecture and Allied Interests*. Small quarto; pp. 55, ill. Boston;

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- Sturgis, R. Clipston. *The Architecture of Portsmouth.* Being one of twelve articles gathered together in "The Portsmouth Book." Quarto; pp. x-xx, ill. Boston; Ellis; 1912. No longer available.
- Tolman, George R. *Twelve Sketches of Old Boston Buildings.* No text, 12 plates, each preceded by a folded

- descriptive broadside. Boston; privately printed; 1882. No longer available.
- Whitefield, E. *Homes of Our Forefathers in Boston, Old England and Boston, New England.* From original drawings. Large octavo; pp. 84+65 unnumbered plates, of which 41 concern Boston, New England. Boston, Mass.; Damrell & Upham; 1889. No longer available.



Smaller Italian Villas and Farmhouses. By Guy Lowell. Illustrated by photographs and sketches made by the author and others. 125 p., 12 by 16 inches. New York: The Architectural Book Publishing Co. \$20.00 net.

The Relation of Sculpture to Architecture. By T. P. Bennett, A.R.I.B.A. Ill., 198 p., index, 6¼ by 9¼ inches. New York: G. P. Putnam's Sons. \$4.50 net.

The Double Choir of Glasgow Cathedral. By Thomas Lennox Watson, Fellow of the Royal Institute of British Architects. Second edition. Ill., 122 p., 6 by 9½ inches. Glasgow: James Hedderwick & Sons. Ltd. \$1.25 net.

Indication in Architectural Design. A Natural Method of Studying Architectural Design With the Help of Indication as a Means of Analysis. By D. Varon, architect, formerly Professor of Architectural Design at Syracuse University and at the University of Illinois. 150 p., including

50 plates, 9 by 12 inches. New York: The Wm. T. Comstock Company. \$5.00.

A Guide to the Works of Art in New York City. By Florence N. Levy, editor. 60 p., 49 illustrations, 5 by 7 inches. New York: Florence N. Levy, publisher, American Fine Arts Building. 50 cents.

Practical Cost Keeping for Contractors. A Book Giving a System of Accurate Cost Keeping and the Methods Used for Adapting It to All Classes of Construction Work. By Frank R. Walker. Ill., 273 p., 4½ by 7 inches. Chicago: Frank R. Walker.

The Engineer in War. With Special Reference to the Training of the Engineer to Meet the Military Obligations of Citizenship. Reprinted With Revisions and Additions from *The Engineering Record.* By O. S. Bond, Major, Corps of Engineers, U. S. Army, etc. Ill., 176 p., index, 5 by 7½ inches. New York: McGraw-Hill Book Co., Inc. \$1.50 net.



**Some Good
Examples
of Interior
Decoration.**

In the illustrations of the interiors of the houses of H. G. Morse, Esq., and Frederick Dana Marsh, Esq., at Wykagyl Park, New Rochelle, published in the Portfolio of 'this

issue, there are one or two features towards which it is worth while to direct attention. The interiors in both houses are simple and unpretentious, but possess a degree of dignity and interest whose cause deserves some analysis. In the case of Mr. Morse's living-room, the room is made, so far as the furniture is concerned, by the exceptionally fine old Sheraton sideboard. The other pieces in the room, though decidedly good in their several styles, are all subsidiary to this one piece, which centres interest and is the only object of any moment on the long, unbroken side of the room. In scale and proportions the sideboard accords with the dimensions of the room itself and of the wall space back of it, and its suitability, therefore, gains emphasis. The somewhat unusual, though legitimate, use to which this piece of furniture is put as a part of living-room equipment should be noted. The secret of charm in the present case lies, first, in allowing one or two pieces of exceptional merit to dominate a room, and, second, in the freedom from the crowding interference of unimportant things.

With reference to Mr. Marsh's house, practically the same thing is to be said. The occupants are obviously not afraid of what a good many people would look upon as emptiness. Under such conditions, a few really good pieces have a chance to be seen to advantage and produce the full effect of which they are capable. The ingenious method of decorating an ugly Victrola case and incorporating it within a part of the book shelving in the living-room should not be overlooked.

**Notes on
Early
Mosaic
Work.**

The art of mosaic is supposed to have had its origin in Asia, where paintings of this kind were composed in imitation of the beautiful carpets which were manufactured at all periods in

those countries. The Egyptians probably employed mosaic work for various purposes, but no traces of it have been found in the ruined temples or palaces. It is believed that the only specimen of Egyptian mosaic is now in the Egyptian collection at Turin. It consists of a number of small paintings executed on a mummy case. The material is enamel, and the colors, representing faithfully the plumage of birds, are of different hues.

In Greece the mosaic art, after the time of Alexander, assumed an importance which entitled it to be ranked as an independent art. By skilful management of the colors and by giving to the figures an exquisite harmony, the artists succeeded in causing their work at a slight distance to resemble real paintings. Different names were assigned to these mosaics according to the size of the pieces of marble employed. When small cubes were used, the mosaic was called "opus tessellatum" or "vermiculatum."

Pavements, ceilings and walls were often adorned by the Greeks with mosaics. Marble was the material most frequently used. A bed of mortar was first prepared and this was covered with a very fine cement. The artist having before him the colored design which he was to execute, fixed the colored cubes in the cement and polished the entire surface, when it had hardened, taking care, however, that too great a polish was not given it, since by its strong reflection the general effect of the work might be marred.

One of the principal advantages of mosaic, from a practical point of view, is that

it resists humidity and all other influences which would be likely to change the color and the beauty of a real painting.

One of the choicest examples of the Greek mosaic is found in Hadrian's Villa. It represents, as our first illustration shows, a vase full of water, on the sides of which are four doves, one of which is drinking. Some suppose it to be the mosaic of Pergamus mentioned by Pliny. It is composed entirely of cubes of marble, without any admixture of colored glass.

Mosaic of this kind may be regarded as representing the most ancient type. It was only gradually that the art of coloring marble, enamel and glass multiplied the materials suited for mosaics, rendering their execution much easier. When the process had thus been developed, the mosaic art was carried to a very high degree of perfection.

Perhaps the most beautiful specimen of old mosaic work that has been discovered is one which probably depicts the battle of Issus. The Grecian leader, supposed to represent Alexander the Great, is portrayed with great beauty and vigor. Charging, bareheaded, in the midst of the fight, he has transfixing with his lance one of the Persian leaders, whose horse, wounded in the shoulders, had already fallen. In the background the Persian spears are directed against the advancing Greeks. This specimen, which was discovered in the House of the Faun, is now preserved in the museum at Naples.

In the early days of Greece painted floors were much used, but they were later driven out by the mosaic floors (Lithostrata), a specimen of which is here shown. The



EARLY MOSAIC—A VASE WITH DOVES.

most famous workman in this style was Sosos, who wrought at Pergamus the pavement called *Asarotus oikos*, or "unswept hall," made of square tesserae of different colors in such a way as to resemble crumbs and scraps that had fallen from the table and had been allowed to remain through neglect.

The first paved floors that came into use were known as *barbarica* and *subtegulanea*, which were beaten down with rammers. Those called *sculpturata* were first introduced into Italy in the temple of Jupiter Capitolinus after the beginning of the third Punic war.

The Greeks applied these floors to galleries and terraces open to the sky. "To make such a terrace," writes an ancient authority, "it is necessary to lay two courses of boards, one athwart the other, the ends of which ought to be nailed, that they should not twist nor warp; which done, take two parts of new rubbish mix two parts of lime, and herewith lay a bed of a foot thickness, taking care to ram it hard together. Over this must be laid a bed of mortar, six fingers thick, and upon this middle couch, large paving-tiles, at least two fingers deep. This sort of pavement is to be made to rise to the centre in the proportion of an inch and a half to ten feet. Being thus laid, it is to be planed and polished diligently with some hard stone; but, above all, regard is to be had that the boarded floor be made of oak. Moreover, it were better to lay a course of flint or chaff between it and the lime, to the end that the lime may not have so much force to hurt the board underneath it. It were also well to put at the bottom a bed of round pebbles."



AN EARLY MOSAIC FLOOR.

Another kind of pavement was known as Graecanica. The process of its preparation is thus described: "Upon a floor well beaten with rammers is laid a bed of rubbish or broken tile-shards, and then upon it a couch of charcoal, well beaten and driven close together, with sand and lime and small cinders, well mixed together, to the thickness of half a foot, well leveled; and this has the appearance of an earthen floor; but if it be polished with a hard smooth stone, the whole pavement will all seem black."

R. I. GEARE.

**"The
Clock
on the
Green."**

An interesting account of the origin of the Clock on the Green, at Waterbury, Conn., is given in the letter sent with the photograph by Mr. Chas. A. Colley, President of the Waterbury Chamber of Commerce, from which the following is taken:

"I am sending you a picture of the clock with which all Waterbury is delighted, in spite of the spirited, long-continued opposition to it on the ground that the Green, a distinctive feature of the New England villages and larger towns, should be allowed to remain in pristine purity, unencumbered by such a modern feature as a public clock.

"After the destruction of our City Hall by fire, the clock which had hung on the tower was missed quite as much as the City Hall itself. People from habit persistently looked for the clock years after its destruction, but there was nothing but thin air to reward them.

"Thousands of people are daily at the trolley ways in sight of the Green and other thousands walk through it by day and by night, and they have come to rely upon the accuracy of the clock, as it is never out more than a half minute a month.

"The first contribution toward this clock was the sum of one hundred and fifty dollars, proceeds from a play produced at one of our leading theatres in 1914. After that dull times came on and the project languished. With the return of prosperity the matter was again taken up and, with the co-operation of the Waterbury Republican, nearly a thousand dollars was raised. However, had it not been for the generosity of a public-spirited citizen, Mr. Truman S. Lewis, the clock would not now be real-



THE CLOCK ON THE GREEN, WATERBURY, CONN.

ized. Mr. Lewis gave twenty-five hundred dollars and then, impressed for the first time with the fact that the Green was in danger of 'desecration,' the storm of opposition broke loose, and for a time threatened to disturb the foundations of society.

"All opposition has now vanished and many who were strongly against the clock idea have been kind enough to say that they are already very fond of it and would not have it removed. It would have been easy, even after the money had been collected, to make a 'mess' of the whole thing through the selection of the wrong design. Fortunately we secured the services of Mr. Charles Lennox Wright, who favored the idea of a grandfather clock motif. Even then, except for the admirable way in which he carried out the clock for granite, the whole thing might have been a failure."

"From the ground to the face of the clock is about twenty-three feet; the upright part is four feet square; the bottom stone eight feet square; the one above six feet square—all in fine proportion from ground to finial."

September 1916

The Architectural Record



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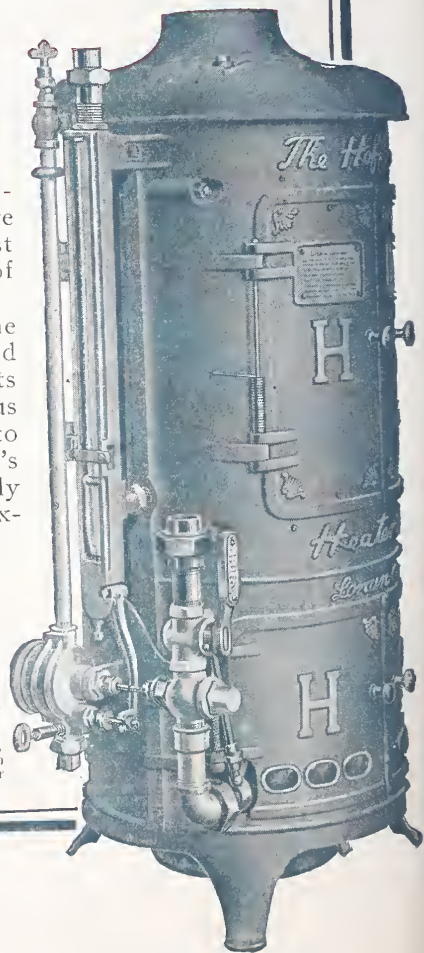
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Editor: MICHAEL A. MIKKELSEN.

Contributing Editor: HERBERT CROLY

Advertising Manager: AUSTIN L. BLACK

Yearly Subscription—United States \$3.00
—Foreign \$4.00—Single Copies 35 centsEntered May 22, 1902, as Second
Class Matter, at New York, N. Y.Copyright 1916 by The Architectural
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PUBLISHED MONTHLY BY

THE ARCHITECTURAL RECORD COMPANY

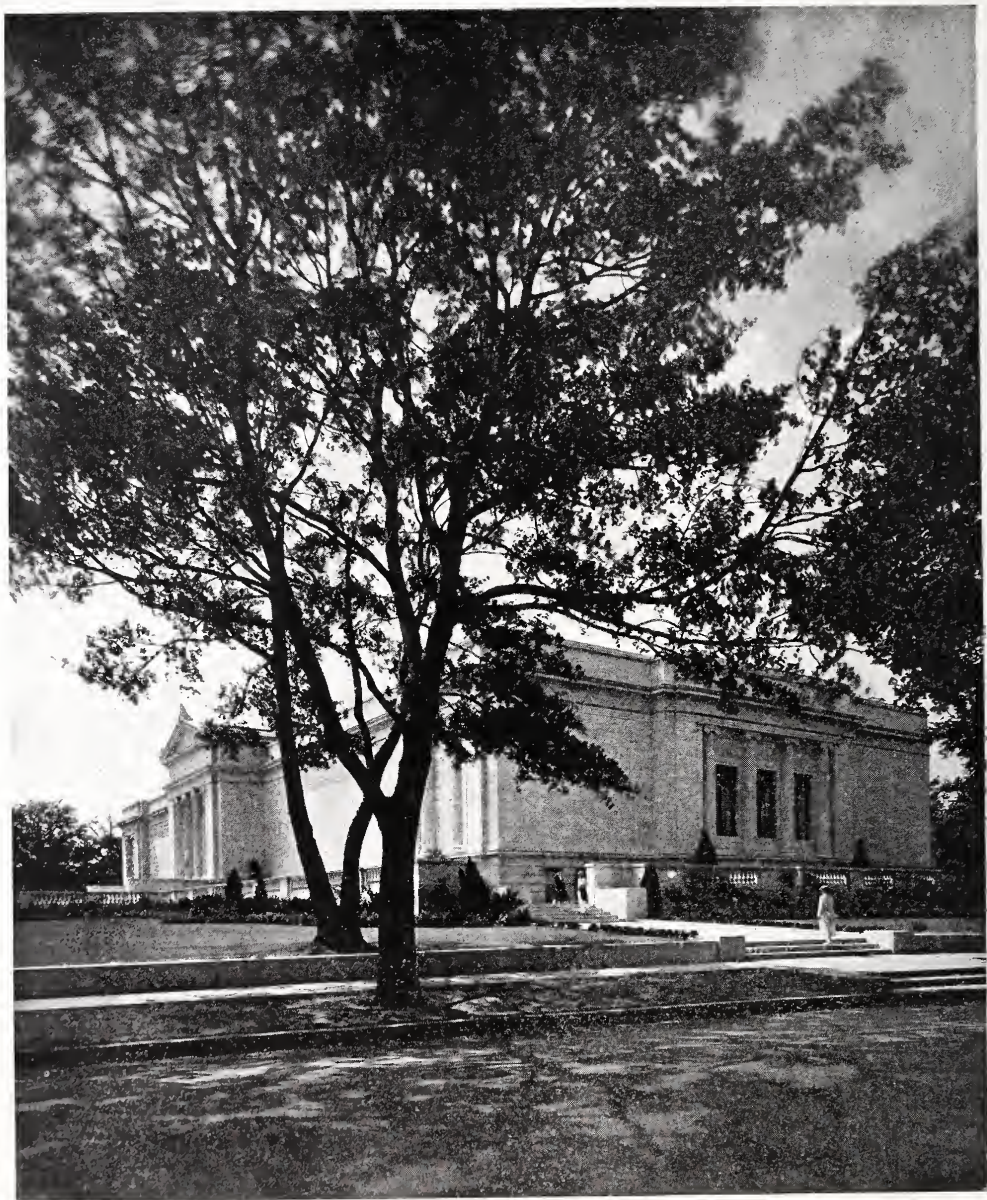
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VIEW FROM SOUTHEAST—CLEVELAND MUSEUM
OF ART. HUBBELL & BENES, ARCHITECTS.

THE ARCHITECTURAL RECORD

VOLUME XL



NUMBER III

SEPTEMBER, 1916

The CLEVELAND MUSEUM OF ART



Hubbell & Benes
Architects



BY I. T. FRARY

THERE has been thrown open to the public recently in the city of Cleveland a new structure to house the collections of the Cleveland Museum of Art. The beauty of its design, the completeness of its equipment and the convenience of its arrangement have attracted widespread attention from those interested in buildings of this character, and representatives from the staffs of the leading art museums of the country, who were present at the formal opening, expressed the opinion that nowhere had they seen a building more perfectly adapted to its requirements.

This museum owes its existence primarily to the munificence of three of Cleveland's public spirited citizens, John Huntington, Horace Kelly and Hinman B. Hurlbut, who, about two decades ago, bequeathed what were at that time large sums of money for the purpose of establishing and maintaining art collections and art instruction for the benefit of the

public. The varying conditions under which these bequests were left made it seem for a time that it would be impossible to combine them; and as no one of them was individually large enough to build and equip a structure suited to the size of the city, the funds were allowed to accumulate while means were being devised by which they could be united.

Meanwhile, in order that no time might be lost when the question of finances finally should be solved, the firm of Hubbell and Benes was appointed to prepare plans for the proposed building. In this work they were assisted by consultation with Mr. Henry W. Kent of the Metropolitan Museum, New York, and the late Edmund B. Wheelwright of Boston. Nine years were spent in studying the various problems involved and many changes in location, plan, material and design were made before the final drawings were approved. A tract of land in Wade Park, affording a magnificent set-

ting for the building, was donated by Mr. J. H. Wade, sufficient ground being provided to accommodate any future additions to the building. Finally, on May 20, 1915, the excavation was started and on June 6, 1916, the new building was formally opened to the public.

The building occupies a site overlooking the lake in Wade Park, and the slope to the water is of sufficient extent to provide ample opportunity for a monumental forecourt, with fountain, lagoon and formal garden, which, when completed, will add greatly to the already beautiful setting, the charm of which is due in a large degree to the many trees with which it is surrounded.

The building itself, which is three hundred feet long by one hundred and twenty feet wide, is of white Georgia marble and stands on a low balustraded terrace. The south or main front is of extreme simplicity, broken in plan only by the entrance portico and the slight projection of the end pavilions. Great restraint has been shown in the use of ornament, the only enrichment, aside from the strictly architectural features incident to the use of the Ionic order, being two low relief panels between the engaged columns of the end pavilions. Inasmuch as this side of the building is occupied by the large top-lighted galleries, the wall above the basement is pierced only by the main doorway. The other three sides, however, are broken by the fenestration of the side-lighted galleries; and on the north façade the effect of an additional story is produced by omitting the terrace in order to get entrances on the ground floor level.

In laying out the plans of such a building, it is obvious that the most important factors to be taken into consideration are, first, to have the arrangement such as to provide for the comfort and to facilitate the movement of the throngs of visitors that will pass through it; and, second, to provide an effective and complete equipment for the working staff, upon whose efficiency depends the usefulness and attractiveness of the institution.

Reference to the accompanying plans will show that the arrangement of the rooms has been made as simple and evi-

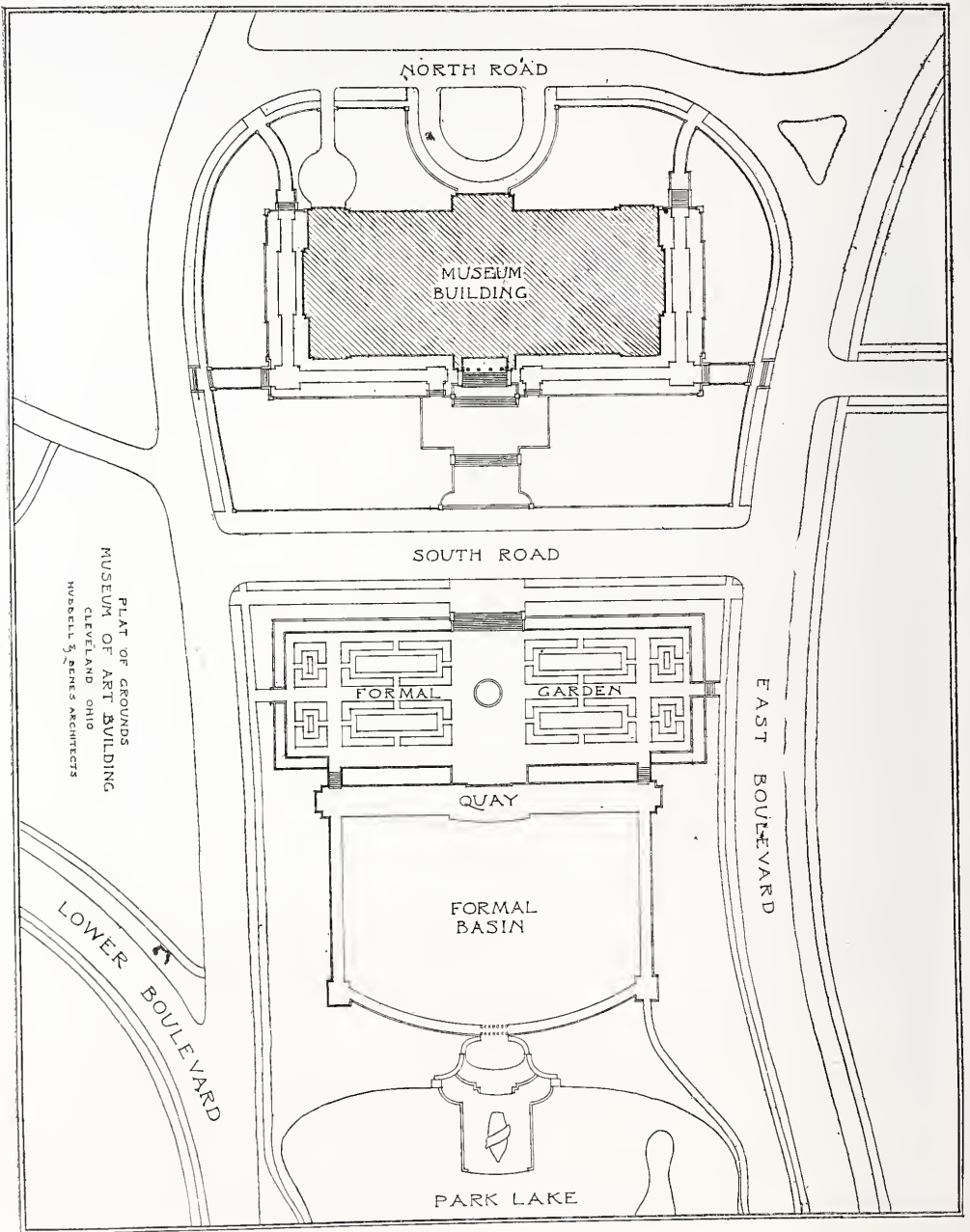
dent as possible. From the main entrance one passes through the lobby to the rotunda, from which, on either side, open large rectangular courts. Entirely surrounding this central group are the exhibition galleries. Check room, catalogue counter and telephone booths have been located, of course, near the main entrance; and the galleries are so arranged as to provide natural and logical circuits, thus preventing confusion, while on the other hand numerous openings are placed so as to make all portions of the exhibition space intercommunicating where possible, thus obviating the necessity for following lengthy circuits in passing from one section to another.

The rotunda contains examples of classic art. The east court is called the Court of Tapestries and Metal-Work, because of the tapestries which hang upon its walls and the collection of armor which it houses. The west court is a novel feature, being laid out as a garden with a fountain, walks, flowers and shrubbery, intermingled with examples of architectural sculpture, some of which (as they are secured in the future) will be let into the walls. The walls are of brick, devoid of ornamentation; and the court is intended by its very simplicity to provide a place of retirement, where the visitor suffering from what has been termed aptly "museum fog" can get away from exhibits and relax the mental tension incident to a study of, or even a casual view of a museum. The remaining rooms are devoted to the various collections which, though as yet comparatively small, have been carefully selected to cover as thoroughly as possible the various fields and epochs of art. In addition to the permanent collections, the inaugural exhibition has been materially enriched by the presence of valuable loans, effectually rounding out sections which otherwise might have been meager.

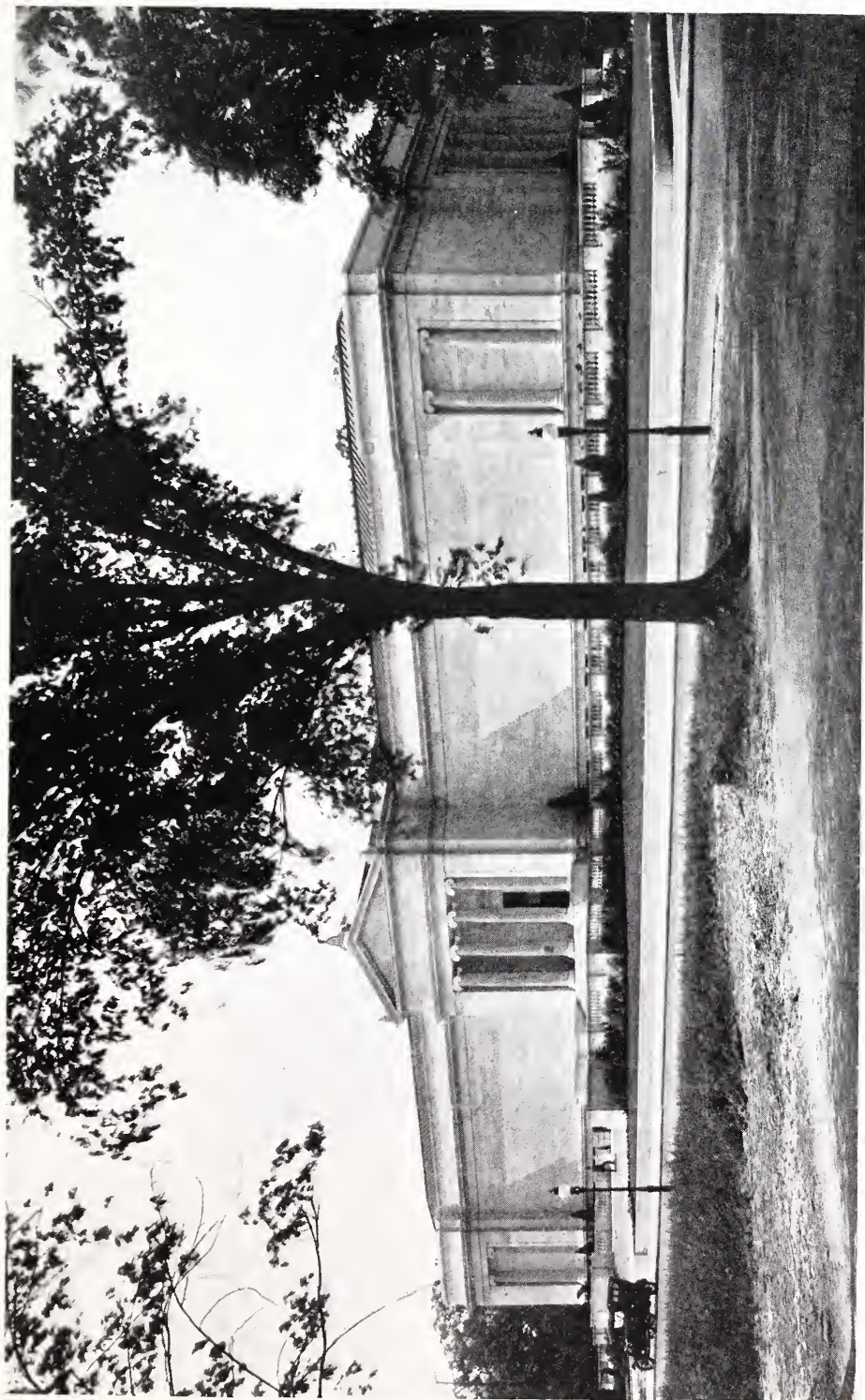
Aside from the function of providing public exhibitions, an extensive program of educational features has been planned by the Director, Mr. Frederic Allen Whiting, provision for which is found in the lecture hall, library, small photograph and lecture room, children's room, conference room and print room



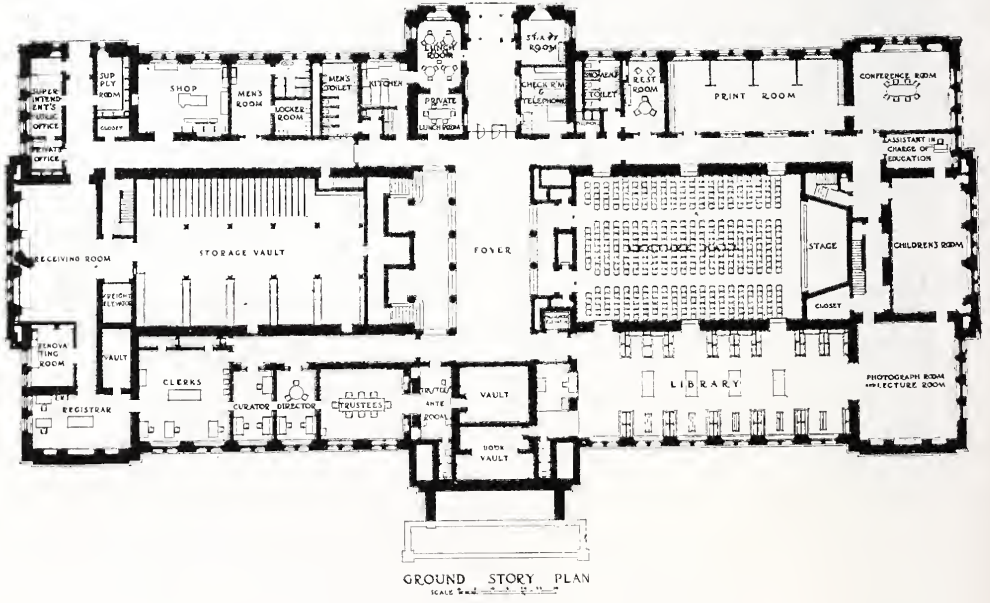
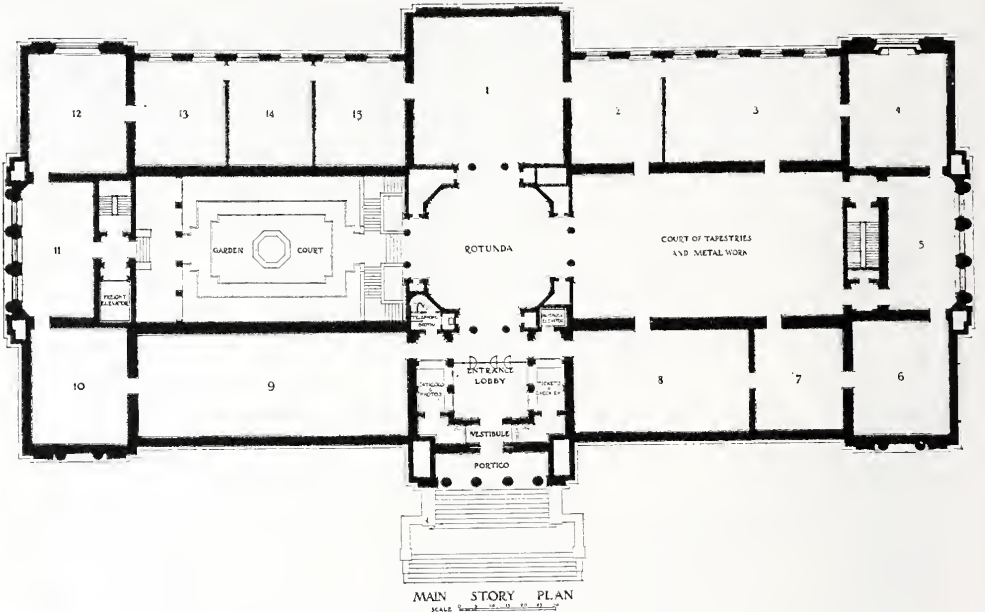
MAIN ENTRANCE—CLEVELAND MUSEUM OF
ART. HUBBELL & BENES, ARCHITECTS.



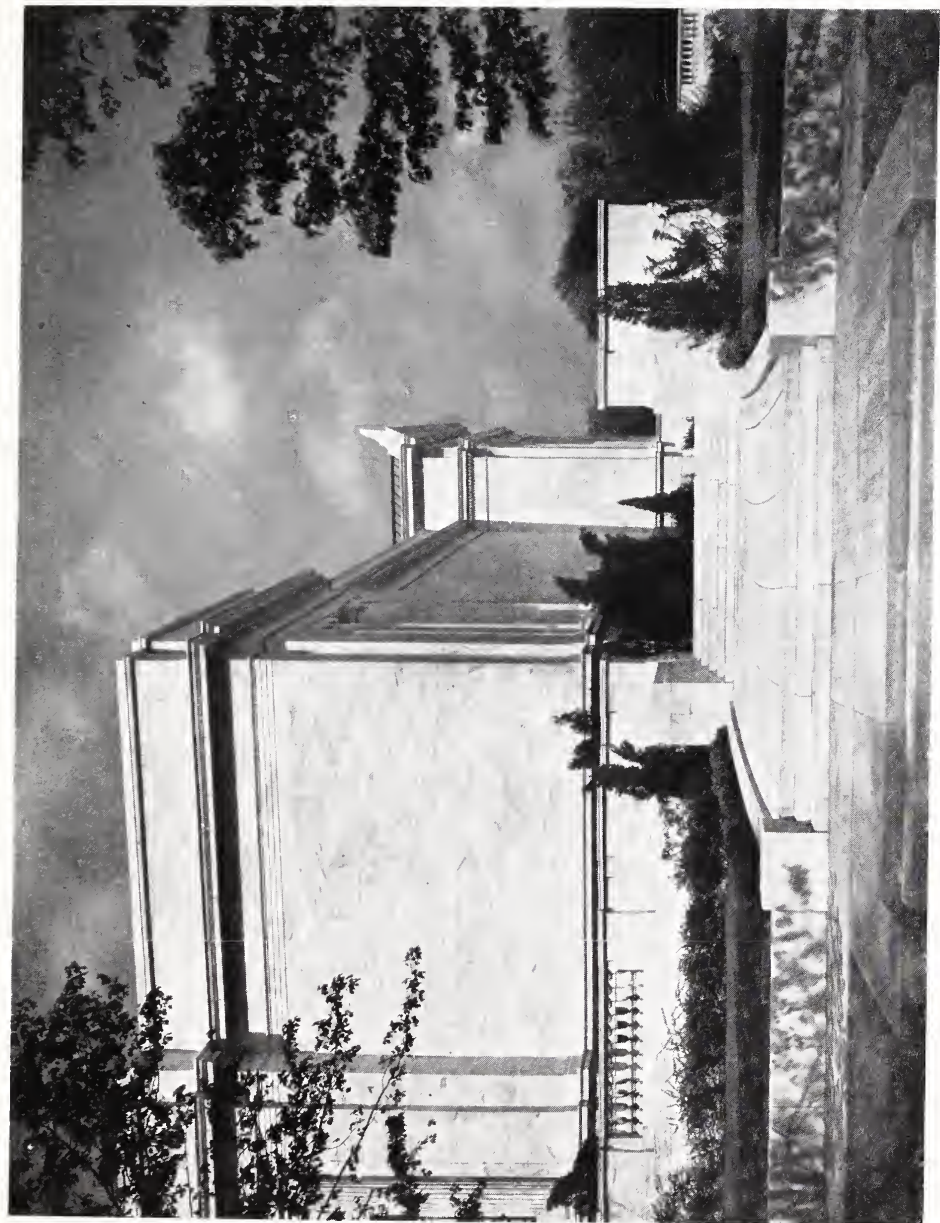
PLAN OF GROUNDS—CLEVELAND (OHIO) MUSEUM OF ART, HUBBELL & BENES, ARCHITECTS.



SOUTH FRONT—CLEVELAND MUSEUM OF ART. HUBBELL & BENES, ARCHITECTS.



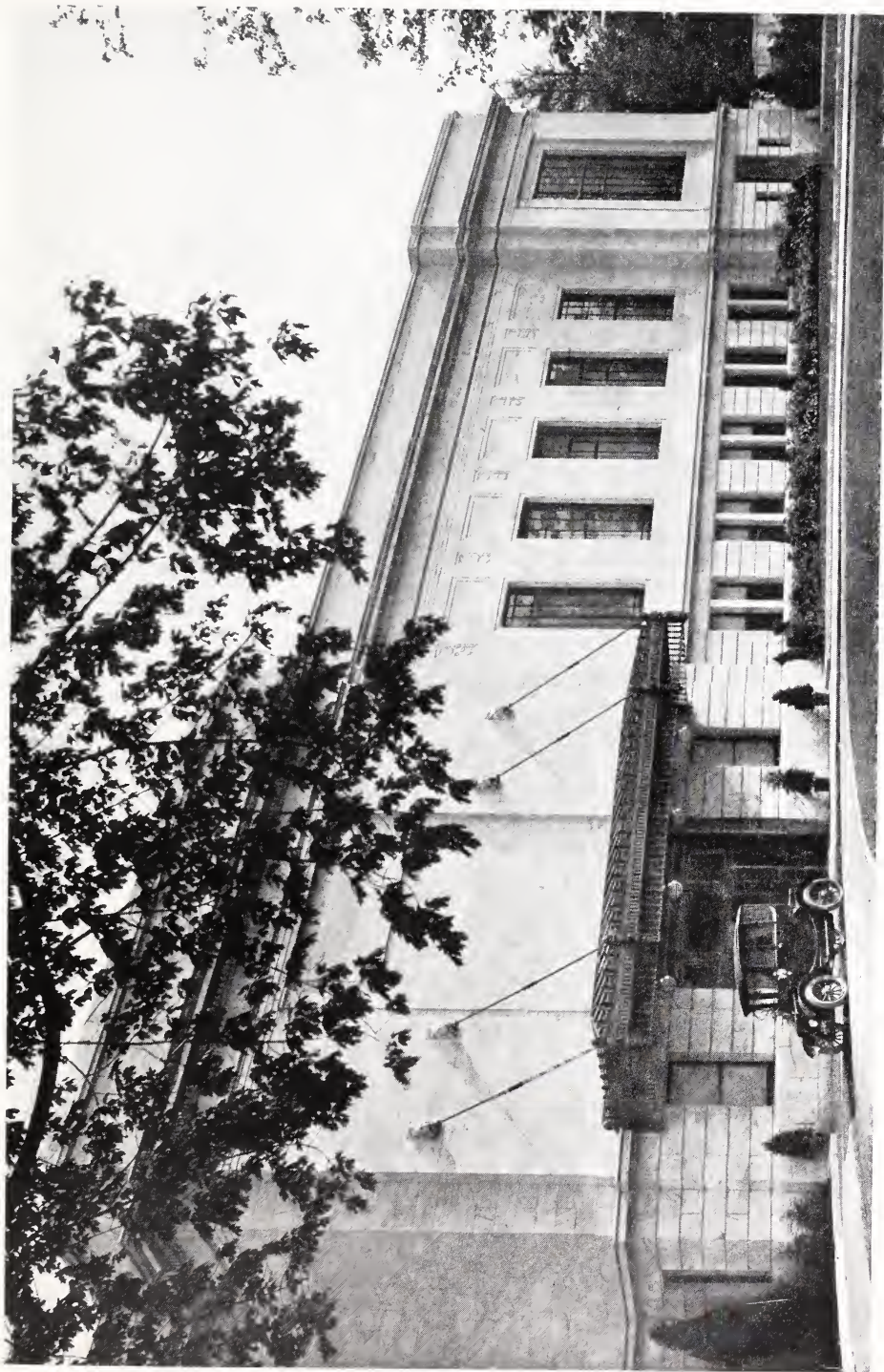
FLOOR PLANS OF THE CLEVELAND MUSEUM OF ART. HUBBELL & BENES, ARCHITECTS.



SOUTHWEST CORNER—CLEVELAND MUSEUM
OF ART, HUBBELL & BENES, ARCHITECTS.



VIEW FROM NORTHWEST—CLEVELAND MUSEUM OF ART. HUBBELL & BENES, ARCHITECTS.



CARRIAGE ENTRANCE—CLEVELAND MUSEUM
OF ART. HUBBELL & BENES, ARCHITECTS.



GARDEN COURT—CLEVELAND MUSEUM OF
ART. HUBBELL & BENES, ARCHITECTS.

on the ground floor, and some special exhibition rooms on the second floor. The work for children is to be a prominent feature and is to be carried on through co-operation with the art supervisors of the public schools.

On the ground floor are located toilet rooms, rest room, lunch rooms and additional check rooms and telephone service. The western portion of the ground floor is devoted to the department of administration and maintenance. The administration offices are located so as to be readily accessible both to the public and to the other departments, while at the same time they are so shut away as not to be in evidence to visitors. Especial care has been taken to plan the official quarters so that, whatever the future expansion of the museum, the offices will always be maintained in their present location. To any one who has endeavored to locate the various officials in some of the large museums, the wisdom of a compact grouping of administrative departments will be thoroughly appreciated. The maintenance department, which is the workshop of the institution, has a separate service entrance at the northwest corner for receiving and shipping packages and for the entrance of employes and business callers. As the superintendent's office is located beside this door, all persons and articles entering the department are subject to his inspection. A receiving room provides space for packing and unpacking exhibits, and directly adjoining this is a large storage vault, where are kept such articles as are not for the time being on exhibition. Here has been installed a most ingenious arrangement for storing pictures. A series of vertical, sliding metal frames the height of the room are placed at right angles to the wall. These frames are covered with a heavy wire netting, upon which are hung the pictures which are to be stored. Being placed side by side, and hanging from an overhead track which permits of their being drawn forward easily like the drying racks in a laundry, the frames occupy a minimum of space, and yet the pictures upon them are as accessible as though hung upon the walls of a room. Each frame is num-

bered, so it is a simple matter to locate any picture in storage by referring to the office records. Inasmuch as this room is well lighted and easily accessible, all the pictures kept here are available for inspection at any time. This simple solution of the storage problem, which was studied out by members of the museum staff, has attracted most favorable comment from visiting museum officials. Close by the storage room is a small shop where various jobs of construction and repair are taken care of.

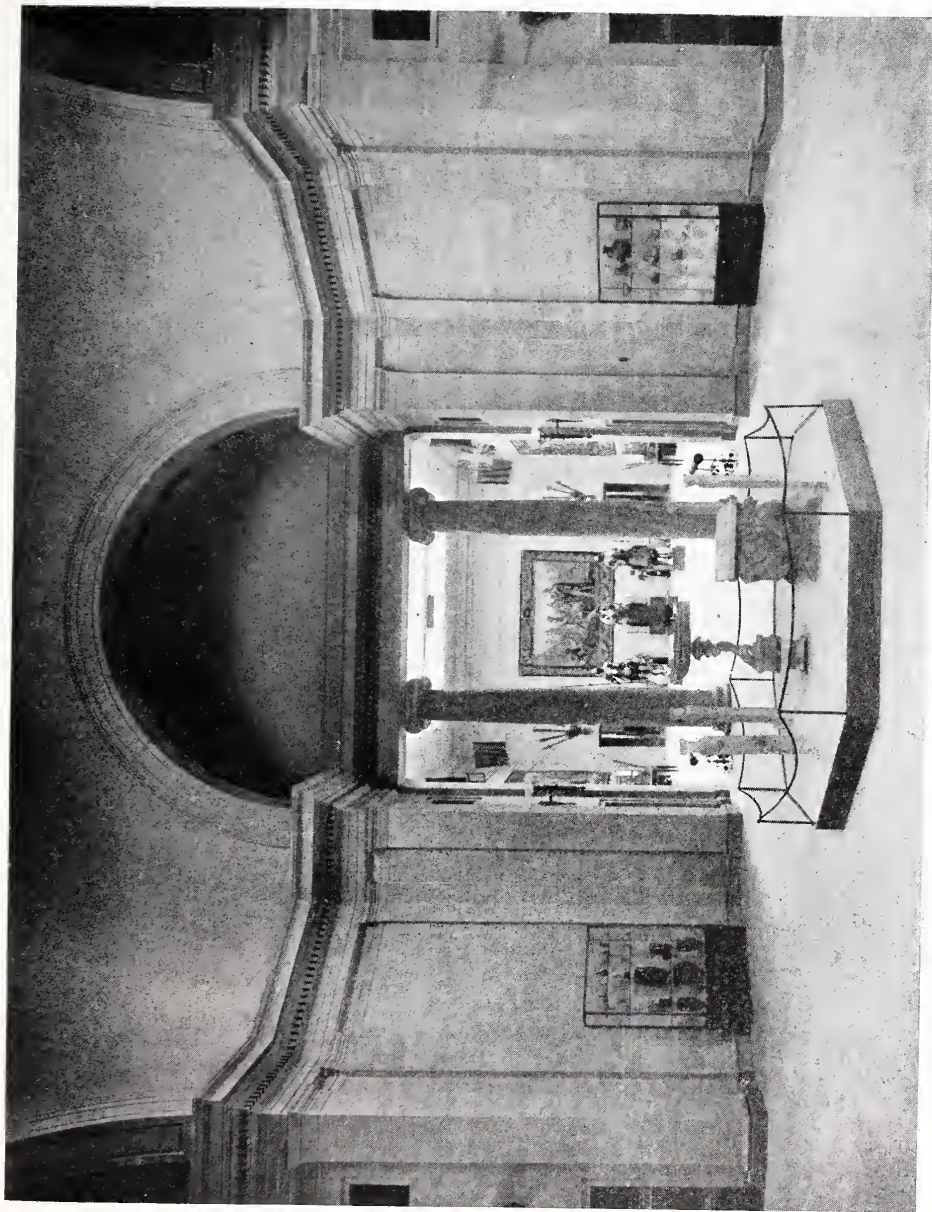
On the second floor are located the printing office and photographer's rooms. A freight elevator facilitates the handling of exhibits, and the photographic studio is placed in close proximity, so that new exhibits can be taken directly to it from the receiving room.

Every precaution has been taken to protect the building and contents from destructive agencies by the control of temperature and humidity, by the elimination of atmospheric impurities and by the installation of such features as steam pipes on the roof to melt snow, a device for draining off condensation from the under side of skylights and the protection of the central dome by a metal casing. A novel system of sprinklers has been installed above the skylights, by means of which the glass can be washed at will, while the spray of water can be used during hot weather as a means of controlling the temperature in the rooms beneath.

Perhaps the most original and interesting feature of the equipment is the lighting system used in the top-lighted galleries. Many difficulties are encountered in controlling this type of illumination, among which are the tendency to an excess of light on floor and ceiling, with a corresponding lack on the walls; where the light is most obviously required; the reflection in glazed pictures of brilliantly lighted portions of the room; and the loss of effect in many works of art, due to the lack of a pure daylight quality in the illumination, especially in the artificial light. There is also the element of direct sunlight to be provided against, which is usually controlled by means of sliding shades, which are awkward, unsatisfactory in effect and moreover perish-



GARDEN COURT—CLEVELAND MUSEUM OF ART. HUBBELL & BENES, ARCHITECTS.



ROTUNDA, LOOKING INTO COURT OF TAPES-
TRIES AND METAL WORK—CLEVELAND MUSEUM
OF ART. HUBBELL & BENES, ARCHITECTS.



HOLDEN ROOM—CLEVELAND MUSEUM OF
ART. HUBBELL & BENES, ARCHITECTS.



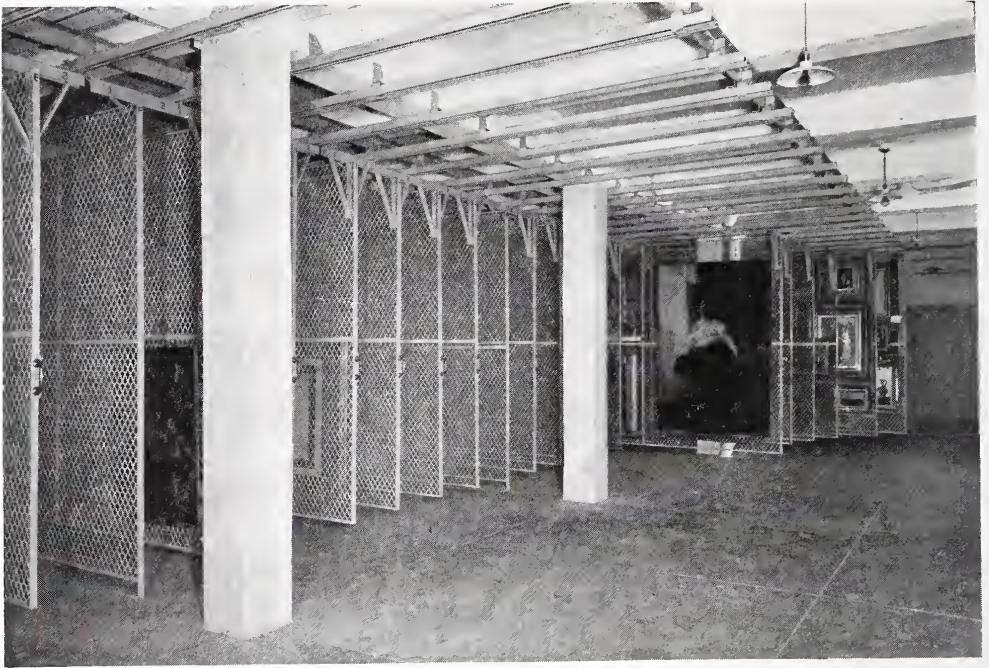
GROUND FLOOR FOYER—CLEVELAND MUSEUM OF ART.
Hubbell & Benes, Architects.

able; architectural features rising above the light well frequently cast undesirable shadows upon the skylight; and the artificial lighting is often objectionable because of a lack of diffusion and the too evident brightness of the light sources. In order to study these problems satisfactorily a scale model of one of the galleries was constructed and in this an exhaustive series of experiments was carried on, supplemented by observations in other museums.

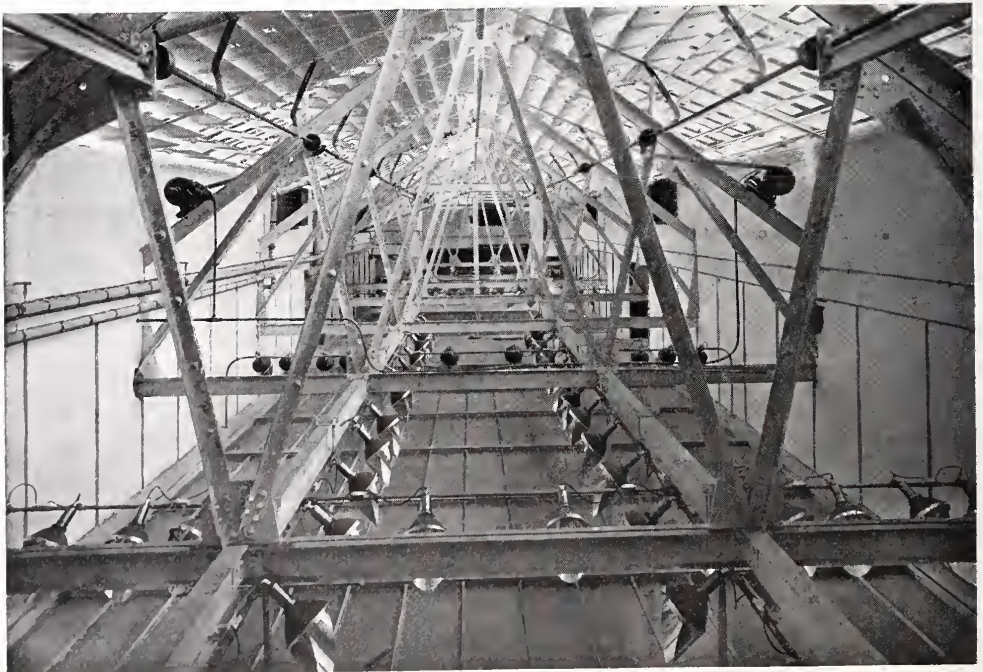
The control of quality, intensity, direction and diffusion of light was given careful study by the Lighting Committee, of which Dr. Edward P. Hyde was chairman. Many unexpected and interesting problems were encountered and it is to be hoped that the results of this research will be made public for the guidance of future builders of such structures. Certain it is that a familiarity with the principles upon which this system of light control was worked out would be invaluable in planning the proportions and construction of top-lighted rooms, and such familiarity should result in preliminary structural provisions which would greatly simplify the installation of the mechanism for light control.

The equipment consists of a series of adjustable metal louvers or shutters in the diffusing chamber between the upper and lower skylights, which are adjusted from the gallery below and by means of which the direction and intensity of illumination are controlled at will. As the position of the sun varies the angle of the louvers is adjusted by an attendant, so that a uniform illumination is maintained throughout the day. At night the light is thrown upon the lower skylight from lamps which are placed in scoop-shaped metal reflectors by means of which the light is directed toward the walls, while as far as possible they prevent the source from being too evident from below. By the use of daylight-lamps of bluish glass the effect of daylight has been so closely approximated that the transition from natural to artificial illumination in the galleries is scarcely observed by the visitors.

In the decorative treatment of the exhibition galleries a most commendable restraint is evident. With but one exception, the walls and ceilings are of the simplest, both in design and in color, the logical principle having been followed that the rooms are intended for the dis-



STORAGE VAULT—CLEVELAND MUSEUM OF ART.
Hubbell & Benes, Architects.



LIGHT-DIFFUSING CHAMBER—CLEVELAND MUSEUM OF ART.
Hubbell & Benes, Architects.

play of pictures and other works of art, not for the exploitation of decorative effects. A warm grey tone is used largely throughout the building, this effect in many of the rooms being obtained by the use of fabrics. Varying textures have been chosen for different rooms and some walls have been merely painted over rough plaster, so that a pleasing variety of effect is secured throughout the building without disturbing the harmony of color. A low wainscot of marble is carried throughout the galleries.

The one gallery in which a strong decorative note has been struck is known as the Holden Room; and here the architectural and decorative treatment of the room was provided for by the donor, who desired that the memorial collection of Italian paintings which it houses should be placed in an environment true to the character of the Italian school. The treatment, which was the work of Mr. Arthur Loomis Harmon, consists of Travertine trim, velvet wall hangings, a window in leaded glass and a rich stucco ceiling decorated in polychrome.

Taken as a whole, the charm of the building is due in a large measure to the judgment displayed by the architects in depending for architectural effect upon good proportion, good material and well studied detail, rather than upon the lavish use of ornament, which the inexperienced designer falls back upon so frequently as a cloak to hide the deficiencies of his design.

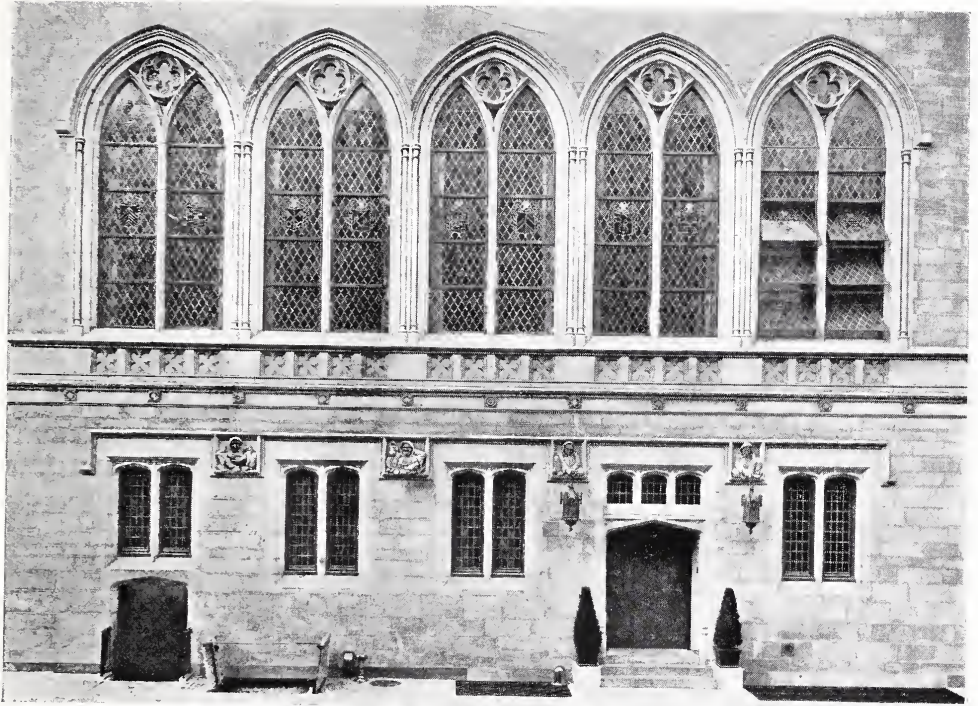
The location of the museum among the trees of Wade Park, away from the smoke and dust of the downtown district, is one more illustration of the effort which Cleveland is making to develop along logical and artistic lines. Among the first of American cities to adopt definite plans for the grouping of its public buildings, it was at one time strongly urged that the new Art Museum be made a part of the great group of public build-

ings which will eventually surround a mall in the downtown district. Wiser counsels prevailed, fortunately, and a new center of educational and ecclesiastical institutions is now being developed in the neighborhood of University Circle and Wade Park. Already the buildings of Western Reserve University, Case School of Applied Science, the Western Reserve Historical Society, the Cleveland School of Art and the Cleveland Museum of Art make of it an educational center. The Euclid Avenue Presbyterian Church, which was illustrated in the January, 1911, issue of *The Architectural Record*, forms the nucleus of a church group, of which the plans for three important churches are now under consideration.

It is to be hoped, that with the development of this important group of institutions, which is adjacent to one of Cleveland's choice residential districts, a comprehensive scheme will be adopted for so co-ordinating the various undertakings that a harmonious *ensemble* will be produced. A formal, arbitrary scheme has been adopted in the downtown group, which will, when completed, produce an imposing Court of Honor. In the University Circle group such uniformity of style and placing would be neither possible nor desirable, but it would be possible and most desirable that the various interests involved so co-operate and co-ordinate their projects that a general scheme may be evolved which will unite these varied undertakings under one comprehensive plan. At the National Conference for City Planning held recently in Cleveland a drawing was exhibited by Hubbell and Benes in which the possibilities of this grouping were shown and it is to be hoped that ultimately some such plan will be adopted and that, whatever styles of architecture may be decided upon for the different buildings, a standard of design will be maintained as high as that of the Art Museum.



MAIN ENTRANCE—THE FRIARS CLUB, NEW YORK. HARRY ALLAN JACOBS, ARCHITECT.



DETAIL OF FACADE—THE FRIARS CLUB, NEW YORK.

The † Friars † Club † New York †

Harry Allan Jacobs, Architect

By Harrison Fisher

IN designing the new building for the Friars Club, the architect, Harry Allan Jacobs, had the problem of contriving a modern building in the character of a monastery, as a home consistent in every detail for the "Friars." The monasteries which one always has in mind are either Mission type or old Gothic. These were very low buildings, so that it was an extremely difficult problem to give to a seven-story building the character desired.

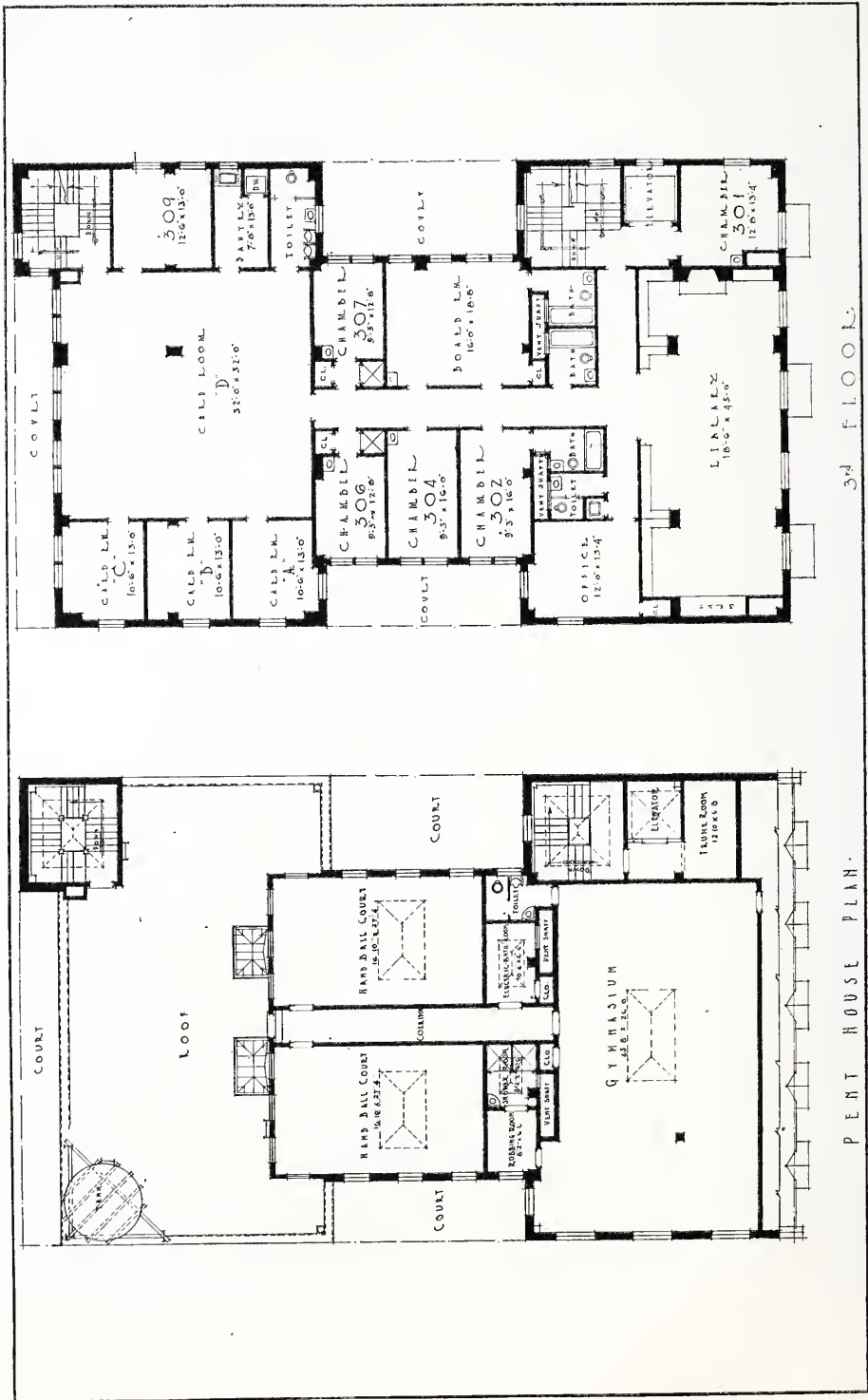
The style of the exterior is the Tudor Gothic, the large windows on the second floor frankly expressing the dignified banquet hall, which is the chief feature of the building. Here the Friars will have their entertainments. Naturally, being a club whose members belong mostly to the theatrical profession, this room is the centre of the entire plan. Here the Friars will continue to give their little skits, impromptu entertainments and the like, to members and friends.



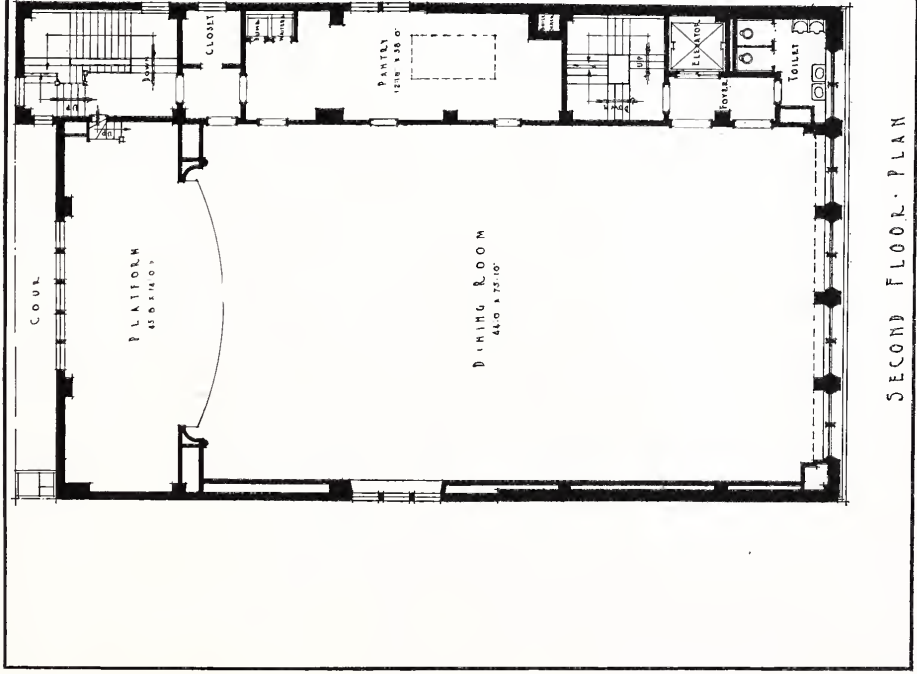
DETAIL OF WINDOWS—THE FRIARS CLUB, NEW YORK. HARRY ALLAN JACOBS, ARCHITECT.



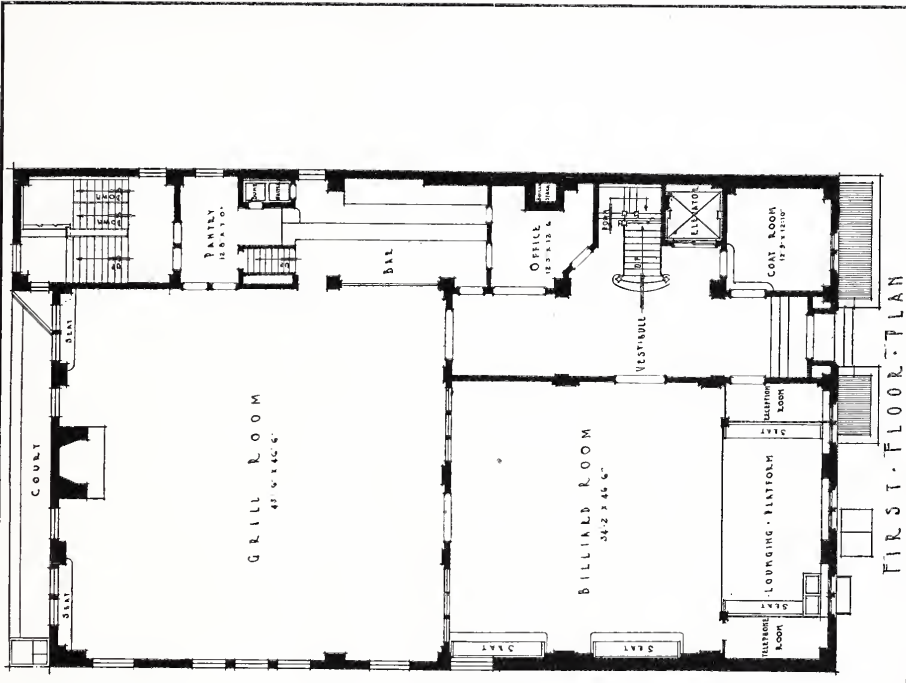
THE FRIARS CLUB, NEW YORK.
HARRY ALLAN JACOBS, ARCHITECT.



THE FRIARS CLUB, NEW YORK.
 HARRY ALLAN JACOBS, ARCHITECT.

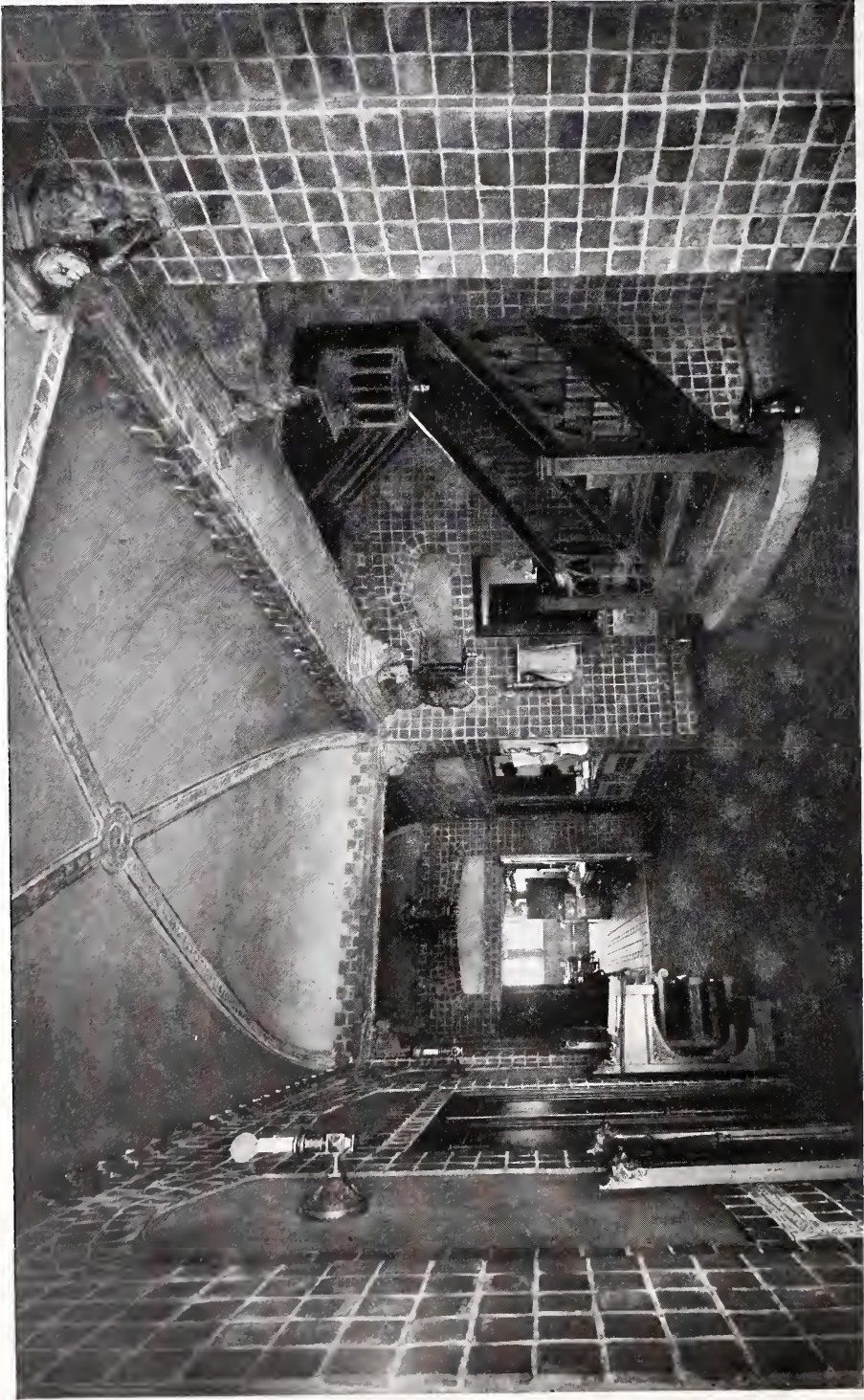


SECOND FLOOR PLAN

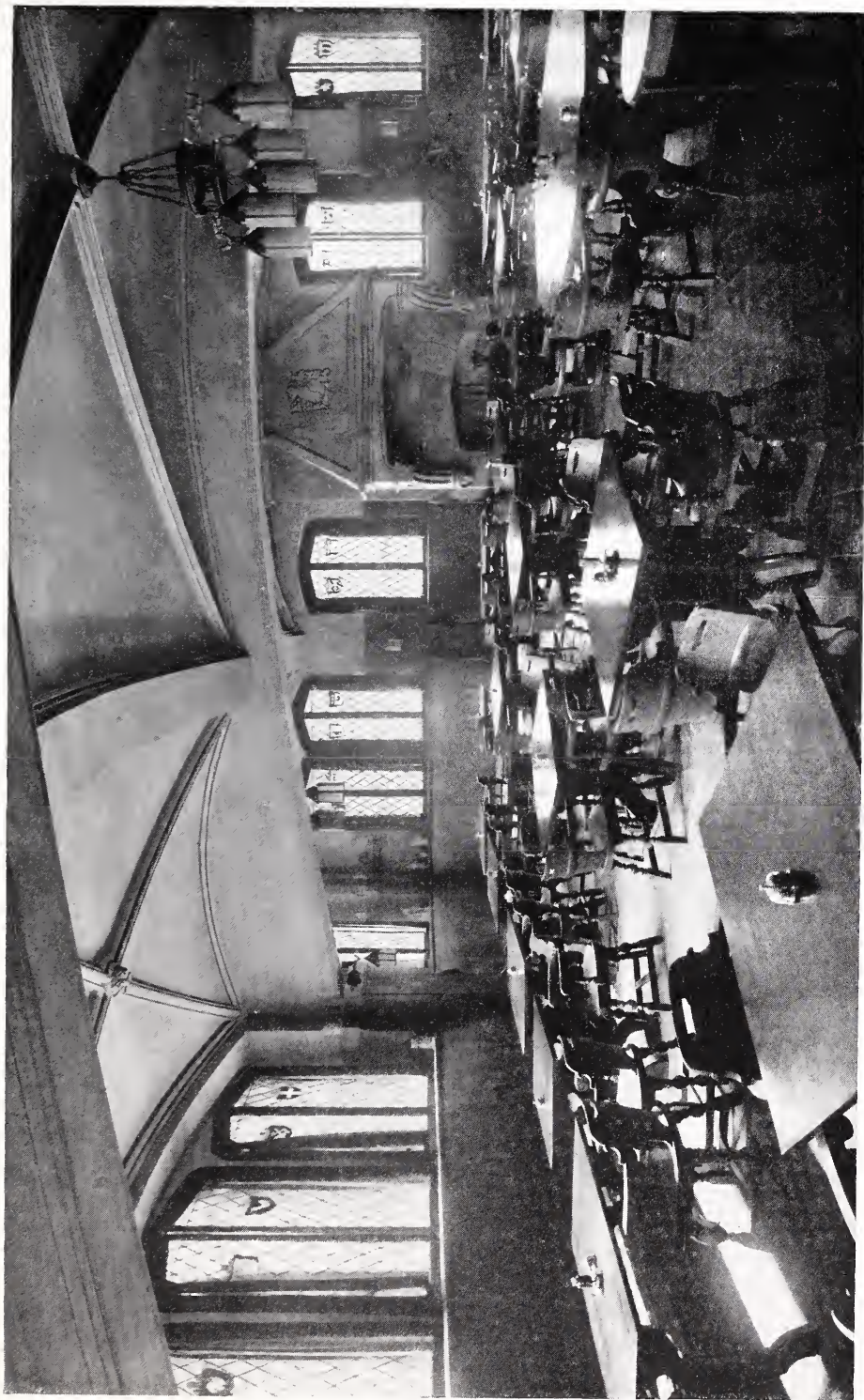


FIRST FLOOR PLAN

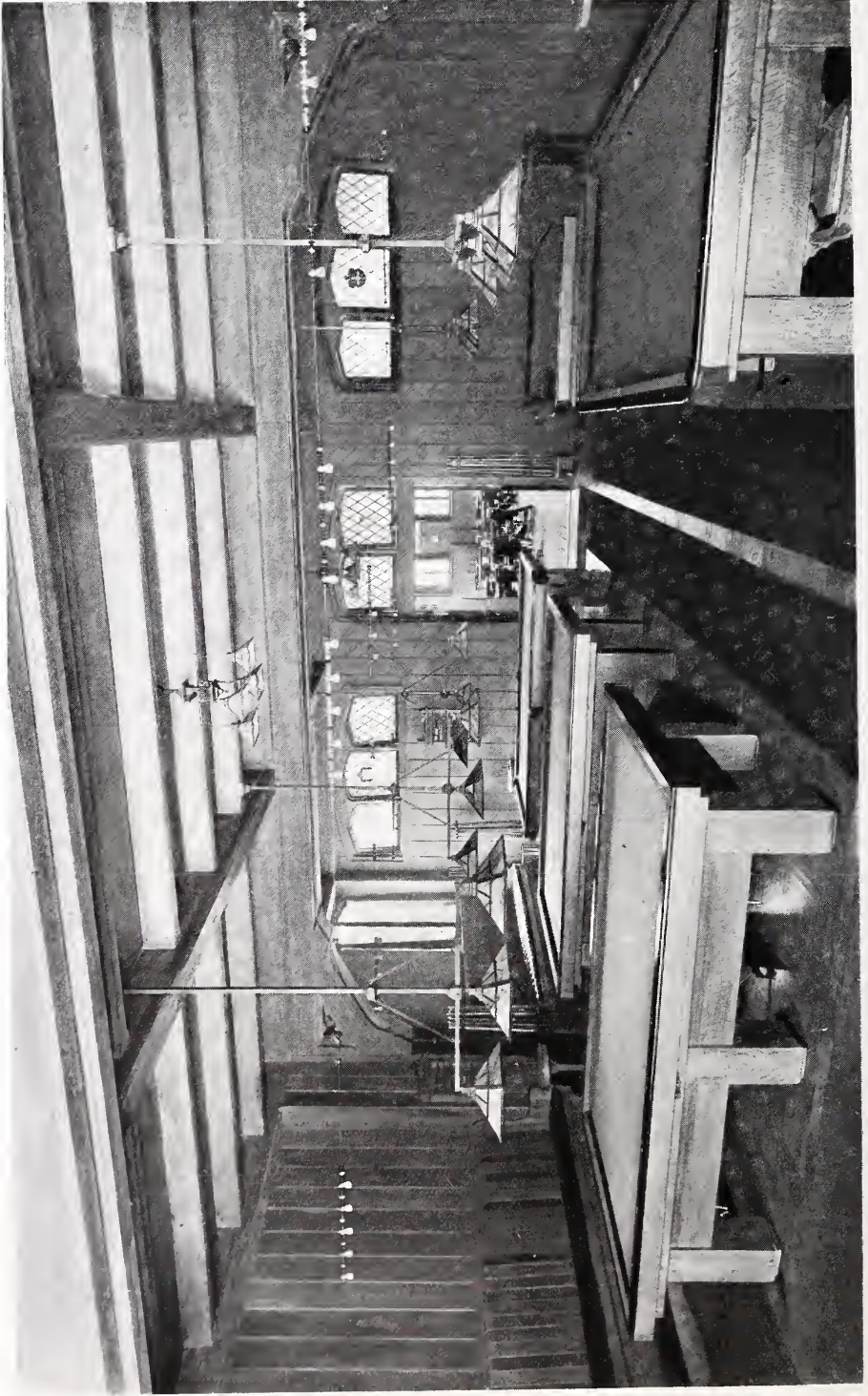
THE FRIARS CLUB, NEW YORK.
HARRY ALLAN JACOBS, ARCHITECT.



VESTIBULE, LOOKING INTO GRILL ROOM—THE FRIARS CLUB, NEW YORK. HARRY ALLAN JACOBS, ARCHITECT.



GRILL ROOM—THE FRIARS CLUB, NEW YORK. HARRY ALLAN JACOBS, ARCHITECT.



BILLIARD ROOM—THE FRIARS CLUB, NEW YORK. HARRY ALLAN JACOBS, ARCHITECT.



AUDITORIUM ("DINING ROOM" ON PLAN)—THE FRIARS CLUB, NEW YORK. HARRY ALLAN JACOBS, ARCHITECT.

The architect has succeeded in making the building appear low in spite of the fact that it is seven stories tall, with very high ceilings, the banquet hall being twenty-five feet high, and the gymnasium, which is behind the mansard roof, sixteen feet high. Had the architect erred by not keeping his main cornice line down, the effect might have been that of an apartment house. By the happy expedient of a low cornice the main horizontal shadow is brought as near to the eye as possible.

On the first floor, one enters through a very attractive cloistered corridor, with vault ceiling. The walls, floor and groins are treated with Moravian tiles of different shades of red, and with inserts of tiles in different patterns. The plaster panels between the tiles are painted in the same shade as the tile, giving a very soft and subdued effect. Opening off the cloister or lobby are the billiard room, the bar and the grill room. The billiard room has the woodwork going from the floor to the beamed ceiling. The oak in this room has been fumed. The grill room has been given a crypt effect with groined vault ceiling, the wainscoting being about seven feet high; the ceiling and the wall above the wainscoting are of rough plaster stained in an antique gray.

The walls of the big banquet hall, on the second floor, have been carried out with pointed arches, in conformity with the idea that is expressed in the front façade, the pointed arches forming a cloister effect. The ceiling consists of hammer beam trusses at irregular intervals, supporting the beam ceiling, with an effective treatment in dull colors, polychrome and gold. The proscenium arch is carried out in stone, like the rest of the arches in the room, and the spandrils between the arches are painted in gray Gothic blue with a stenciled Gothic border.

The library, on the third floor, has been carried out in dark brown oak, extending from the floor to the ceiling, in the Elizabethan style.

There are forty-two bedrooms, each bedroom having its own private shower or bath, and on the top floor are the gymnasium, two handball courts and a roof garden.

The building has elevator service, and the mechanical equipment is modern in every respect. In the basement are the kitchen, barber shop, wine room, boiler room, storeroom, etc. The plan of the building, it will be seen, is notably compact, a clever solution of the difficulties presented by a narrow site.



CHURCH PLANNING IN THE UNITED STATES

— Part III —

The Sunday School Room in Its Relation to the Audience Hall

By Richard Franz Bach

TEACHING of religious truths to children and catechumens has always found an important place in faiths producing both liturgic and non-ritual or denominational plans. The ritual churches used the body of the nave or an adjacent chapel for this purpose; certain of the ritual forms of worship now also use separately built and specifically arranged rooms for classes devoted to minors. The denominational church, however, is to be chiefly credited with the pronounced development of this field of religious effort, which it found of extreme significance to the success of its own propagation. It soon discovered that special purposes are best served by special accommodations; and for a space of about a half century, but more especially within the last thirty years, the efforts of architects and interested laymen alike have been enlisted to set down adequate solutions along various lines that would account for the problems involved, both in the way of architectural treatment and in that of a feasible plan of the space to be devoted to the teaching of children. The problem was further complicated by its two-fold aspect, that of its own inherent effectiveness as a teaching branch of the church, and that of its spiritual and physical connection with the main body of the congregation, its audience hall and pulpit. We must therefore account for Sunday School quarters in all denominational plans, even though they be not given additional ground area for their own use. The interior plan and design of these quarters have already passed through a number of refining stages, to be out-

lined and illustrated subsequently; our present task shall be to consider the Sunday School in its plan relation to the body of the building, or more narrowly, to the audience hall.

The problem has not always been granted the study commensurate with its importance, this being due in great measure, no doubt, to the fact that for a long time the Sunday School was in general opinion negligently considered nothing more than a regular form of church service for children, the attitude being largely that of segregating the children so as not to encumber the devotions of the adults, rather than that of properly teaching the children so that their numbers might act as a feeder to the adult congregation. The more modern conception of this branch of religious activity came with a reasoned valuation of the word *school* and a system of instruction, later of academically graded instruction, was introduced and promptly led to plan modifications to meet scholastic or pedagogic requirements. When it was finally learned that congregations drew their main support in point of converts and additions—eighty per cent or more, I believe—directly from the ranks of the Sunday School, while only twenty-five per cent of the budget appropriations were granted for its support, the realization of the true scope of this phase of church work prompted a close study of the conditions of the problem in hand, with resultant benefits to be indicated in this and the following paper.

It should be borne in mind throughout our discussion that the Sunday School is

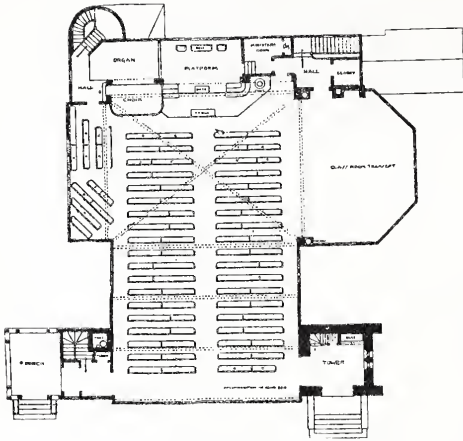


FIG. 1. PRESBYTERIAN CHURCH, WEST NEW BRIGHTON, S. I.
Stephenson & Greene, Architects.

not bound to the skirts of tradition in architecture. It is entirely beyond the pale of ecclesiology, except in so far as this has formed part of its own creation. It needed to subscribe to no crystallized set of forms and its plan was a pliable thing in the hands of each new designer. Its exterior design, of course, was led more or less into the prescribed fields already favored by the major part of the church fabric, but this soon became an inexpressive cloak—at times, a disguise—for an interior and a plan that was not part of its growth, as a multitude of examples in this country will fully demonstrate. In fact, the denominational church as a whole, as we have seen elsewhere, cannot count many centuries in its own history and has not in its present highest effectiveness any formidable background of tradition to give it glamor and the solemn assurance of tried antiquity to command its plan disposition. For this reason, which by many is regarded as nothing more than the unreason of youth, the planner has had a *tabula rasa* upon which to construct a suitable and essentially utilitarian structure, devised to meet well defined but not stylistically limited needs. The garment of design took its color from the church edifice itself and the newness of the planning problem may be said to have retroacted upon the major part of the building in turn, favoring a

certain freedom and experimentation—not infrequently a heretical looseness—that has led to rapid progress and incidentally to its concomitant vagaries produced by the unbridled architectural tyro.

Single Level—Combination Plan.

The small church, or the poor one, is driven to provide for its Sunday School in the audience hall proper, possibly in a chapel or in an exaggerated transept, galleries or other minor masses of the building, frequently in the actual seatings of the congregation itself. (Fig. 1.) When topographical conditions permit, such churches are apt to resort to the excavated space beneath the main floor to eke out available area and to eliminate conflict between the two bodies of the church members, and a dry basement may be provided, this having become and in many cases still remaining the stock solution of the Sunday School problem due chiefly, no doubt, to excessive land values in cities. In fact, church design in numerous instances is controlled by this method of accommodating the Sunday School, so that we have buildings with steep approaches to assure sufficient window area for the basement story, thus achieving ugly exterior designs, poor entrance facilities for the main hall and for the secondary floor, as well as a degree of danger in time of mass exit.

But let us restrict ourselves for the moment to the single level for the entire building. Granted that the congregation can command sufficient funds and the Sunday School has a sizable registration roll, our next condition immediately affects the plan of the building, provided it is intended to retain both parts of the edifice on a uniform level. This condition is the double use to which Sunday School rooms are almost invariably put. The space being large and generally unencumbered, it offers opportunities for entertainments and meetings involving large numbers, bazaars, and the like. Therefore the audience hall and the Sunday School room are frequently brought into juxtaposition, so that the volume of one may abet that of the other when the necessity for increased space arises, and movable partitions between them may

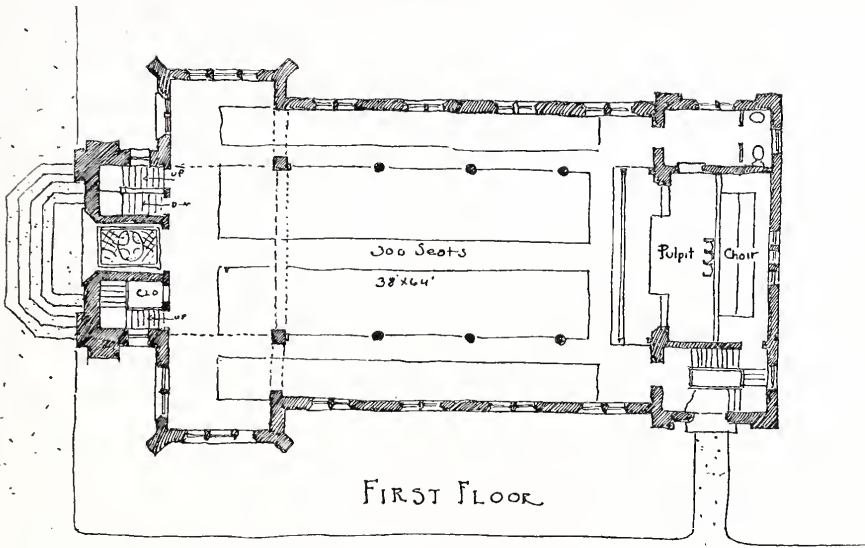


FIG. 2. CHURCH AT KATONAH AVENUE, NEW YORK CITY—MAIN FLOOR PLAN.
Milton See & Son, Architects.

make it possible to throw both rooms together. This opportunity of increasing the capacity of the small church must be considered a decided advantage, often to be counted upon, since it eliminates galleries which require high exterior walls, and since it does not make necessary an initially large plan for the audience hall which offers a troublesome void for both

ministers and congregation. If this practice is followed the plan is really that of a commodious and adjacent smaller church ready to be added to the church proper when occasion may demand. The dividing wall is in such cases a rolling or sliding or coiling or some other type of collapsible partition. A number of mechanical devices have been arranged to

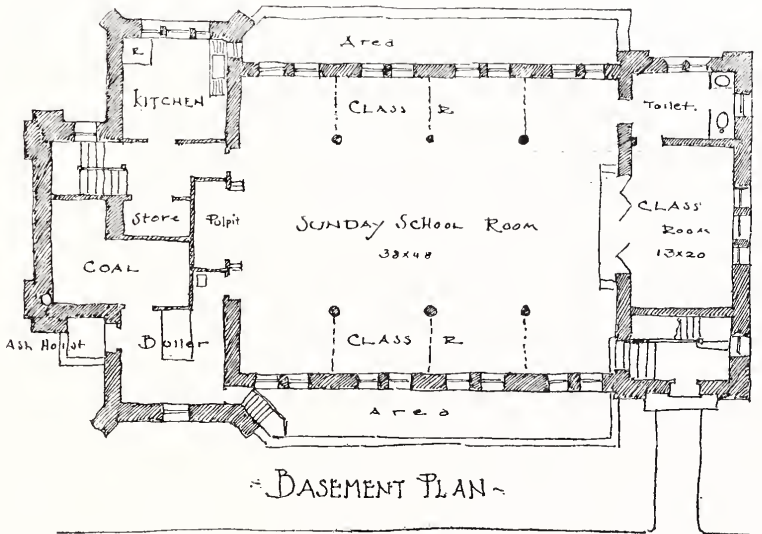


FIG. 2a. CHURCH AT KATONAH AVENUE, NEW YORK CITY—BASEMENT PLAN.
Milton See & Son, Architects.

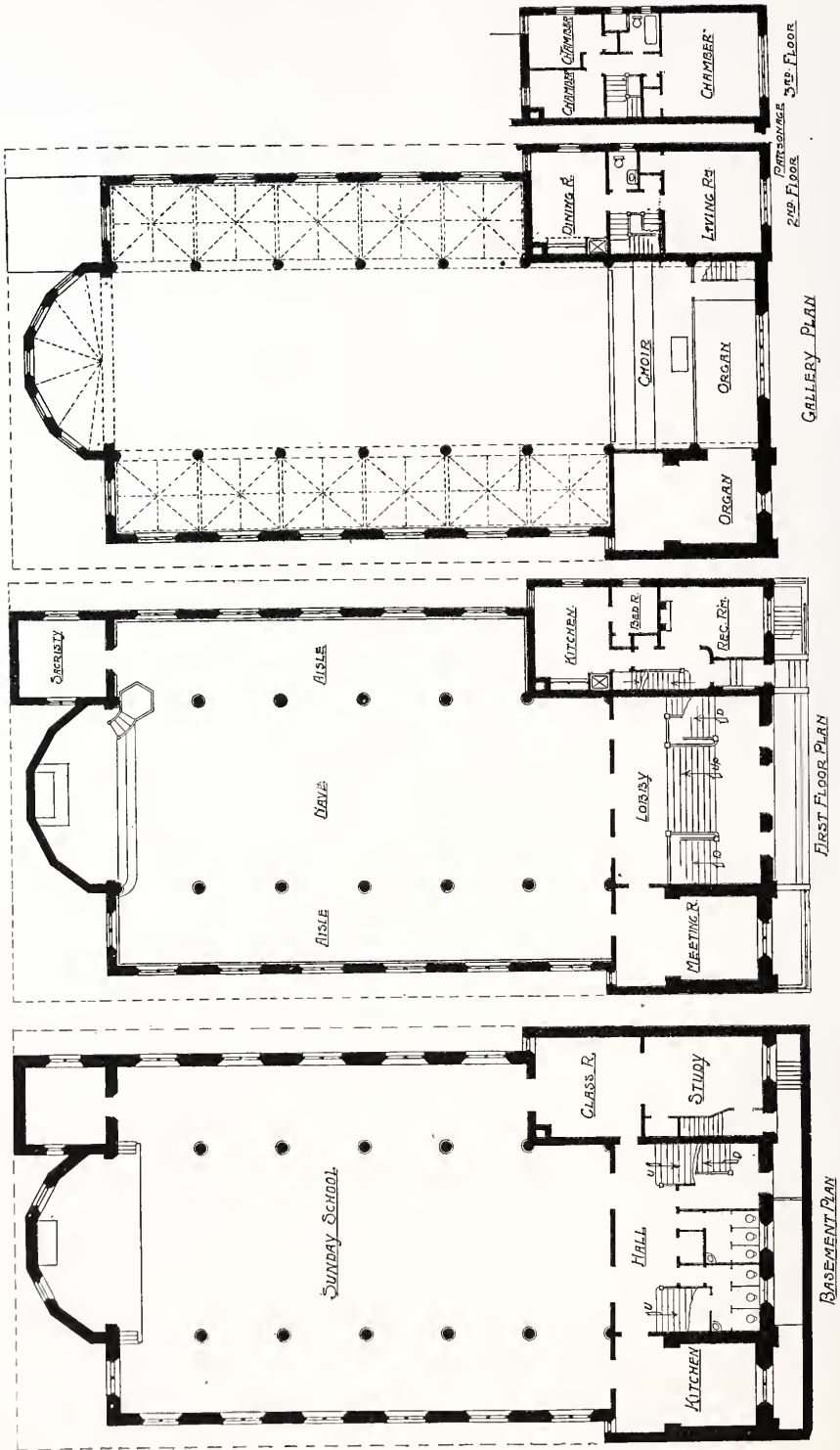


FIG. 3. GERMAN EVANGELICAL LUTHERAN CHURCH, NEW YORK. GEORGE W. CONABLE, ARCHITECT.

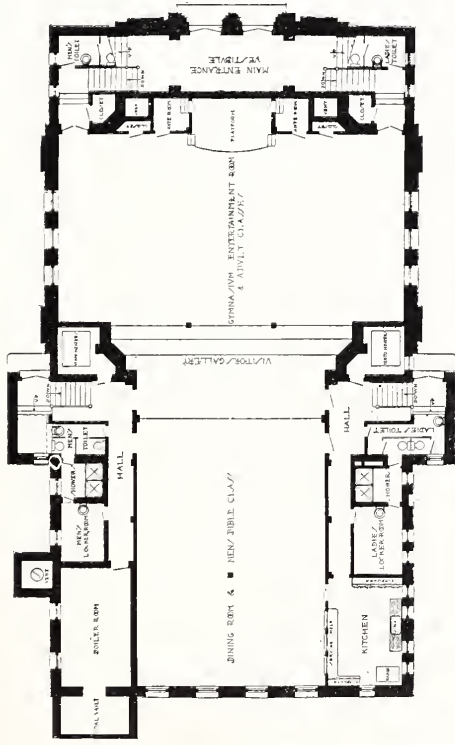


FIG. 4. FIRST METHODIST CHURCH, CLINTON, IND.—BASEMENT PLAN.
S. R. Badgley, Architect.

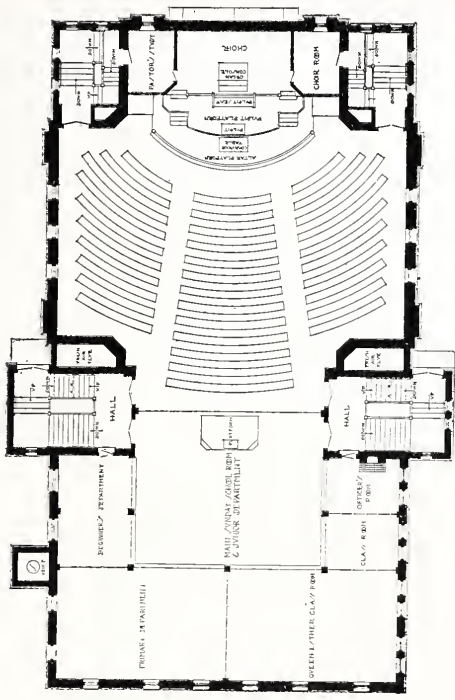


FIG. 5. FIRST METHODIST CHURCH, CLINTON, IND.—MAIN FLOOR PLAN.
S. R. Badgley, Architect.

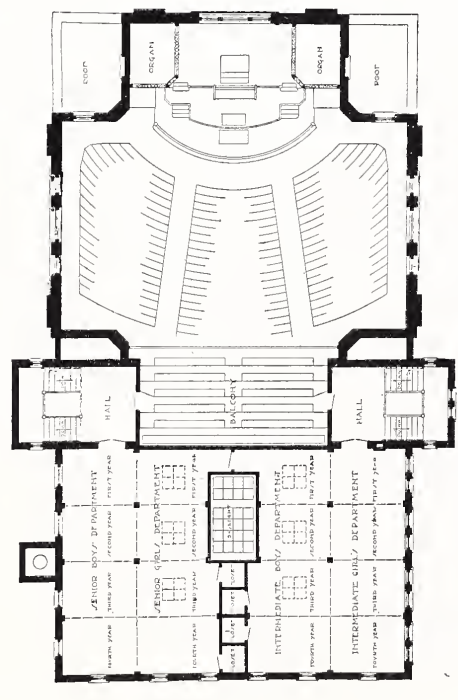


FIG. 6. FIRST METHODIST CHURCH, CLINTON, IND.—GALLERY LEVEL PLAN.
S. R. Badgley, Architect.

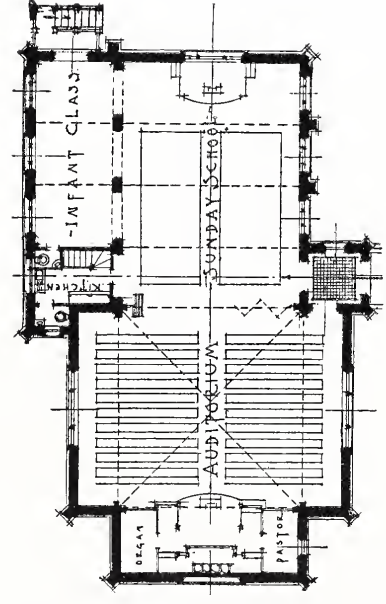


FIG. 7. FORT WASHINGTON COLLEGIATE CHURCH (BEFORE BEING ALTERED AND EXTENDED).
Nelson & Van Wagenen, Architects.

facilitate the handling of this partition, which is invariably of considerable size and weight, and which may not in the end be given too slight a character, if its value as a wall is to be retained. In this form of combination plan, however, the pastor's position still remains the focal point and the plan therefore approximates a polygon of four or more sides, or that of a cross of equal arms, and both of these possibilities become somewhat ungainly if the congregation is a large one. What is more, the need for sloping the floors to aid the vision of the congregation may throw difficulties in the way of the easy combination of the two rooms because of differences in level, so that in cases of sloping floors the two depart-

of the audience hall and against its rear wall, which would be the movable partition above referred to. The platform of the former would likewise be movable, built on rollers or even made of various sections to be assembled and set up, and the whole dismantled or rolled aside when the partition is raised. When the two rooms are thus made into one, the pulpit of the audience hall proper would control an increased space of great depth and capacity, the latter being practically doubled. (Figs. 4, 5.) This arrangement offers the decided advantage that the single pulpit thus serves both rooms without reducing the visibility of the speaker,—although somewhat hampering hearing in larger buildings,—and seatings are ar-

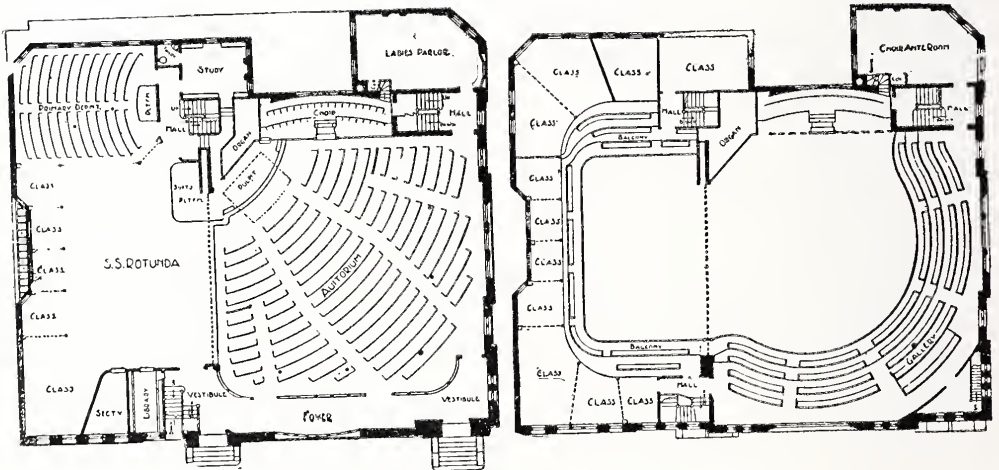


FIG. 6. ARK CONGREGATIONAL CHURCH, NEW YORK CITY.
Kramer & Hamilton, Architects.

ments are not usually brought together in this fashion and the Sunday School will be found in an adjacent or practically separate structure or else on a different floor level, above or below the main auditorium, unless both have bowled floors, an arrangement offering improved acoustics. Of course, the small church plan is not so apt to encounter these difficulties.

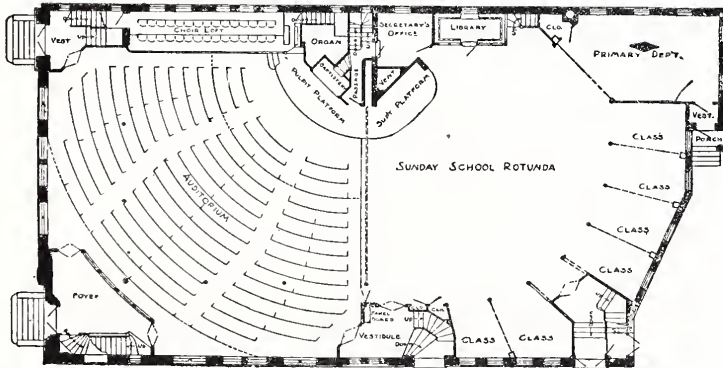
The most logical method of arranging a combination of the two rooms suggests itself at once as that of placing the Sunday School space directly behind the audience hall, on the same axis, and facing in the same direction. The focal point of the former would then appear at the back

ranged with this end in view. It may be said, however, that the Sunday School loses to a great extent the sense of completeness, independence and isolation and that by this and other similar schemes of combination all or the greater part of one wall is rendered useless for the Sunday School, except for platform purposes, and at the same time provides a generally ugly rear wall for the audience hall. What is more, if the full height of the rooms is to be involved when both are opened into one another, it will not be possible to provide a forward gallery in the audience hall; although in wide and compact buildings—and to improve hearing such buildings are apt to be given an

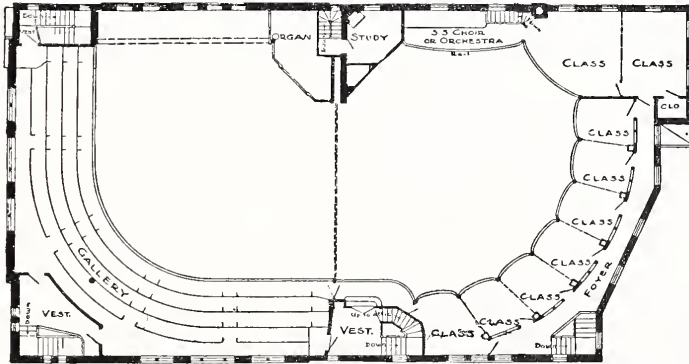
always greater width—the gallery in the Sunday School room is used. A number of examples have been designed which account for a combination including only the main floor level and the gallery is retained at its usual height. In such cases, of course, the pulpit does not control both rooms, at least not as fully as might be desired, and the capacity is not as great. To remedy the defect of the ugliness of the dividing

gallery is retained at its usual position above the main platform and the connection between the rooms is nothing more than an extremely liberal circulation area, for neither platforms controls both rooms, and this then is not properly one of the modes of combining the two, as outlined above.

The second mode of juxtaposition of the two rooms in question is along parallel axes, so that the platforms of both lie



Main Floor Plan.



Gallery Level Plan.

FIG. 7. CENTRAL CHRISTIAN CHURCH, HUNTINGTON, IND.
George W. Kramer, Architect.

wall, this is shortened as much as possible by making the Sunday School semi-circular or of even greater area, as we shall see presently in a separate discussion of the planning of this room.

There is also to be considered the alternative of placing the two rooms on the same axis but in such fashion that the two platforms are disposed back to back. (Fig. 13.) In such arrangements, the choir

at corresponding ends. The dividing wall is then made collapsible in the same manner as before and the two halls thrown together in similar fashion, but with the difficulty that not all of the Sunday School space can be made available for combination purposes, since part would lie beyond the sector of vision which has its center in the pulpit. In such a plan the Sunday School platform is

stationary and in general the purpose of the school is better served, since the degree of possible isolation is greater.

An effort has been made to facilitate the solution along these lines by the so-

of the speaker, but rendering it more difficult for him to see all parts of his audience when both rooms are filled, because of the large angle of vision which he is obliged to address. He has, of course, the

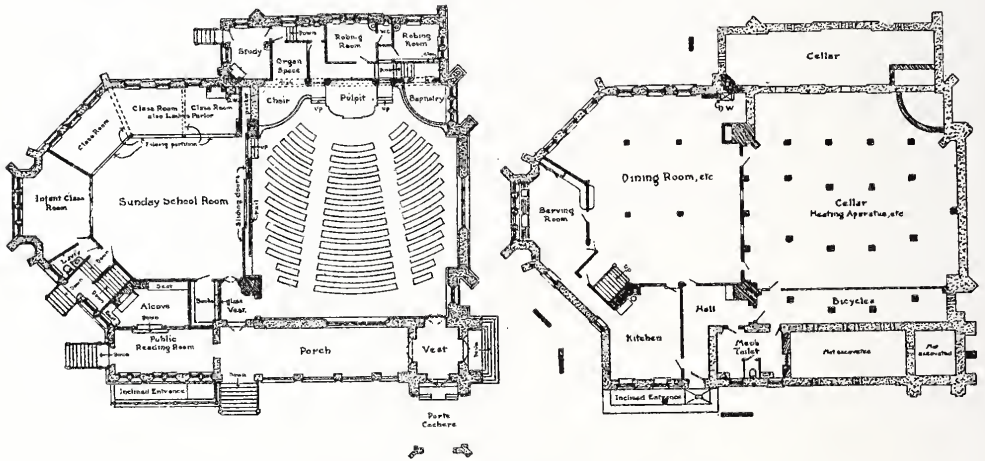


FIG. 8. CENTRAL BAPTIST CHURCH, WAYNE, PA.
D. K. Boyd & L. V. Boyd, Associated Architects.

called "corner pulpit plan" (Figs. 6, 7), which was at one time much favored but has been to a certain extent superseded. This combines some of the elements of

inconvenient alternative of moving from side to side of his platform. To remove this difficulty various further suggestions have been adopted: the platforms

each of the two plan types preceding. The pulpit of the auditorium and the superintendent's platform in the Sunday School room are placed in adjoining corners of the respective halls, so that when the dividing wall is removed as before the two platforms practically become one and a single center of control is again established. To be sure, the platform is necessarily then a broad one, for the rooms when thrown together form a broad and shallow space, improving the audibility

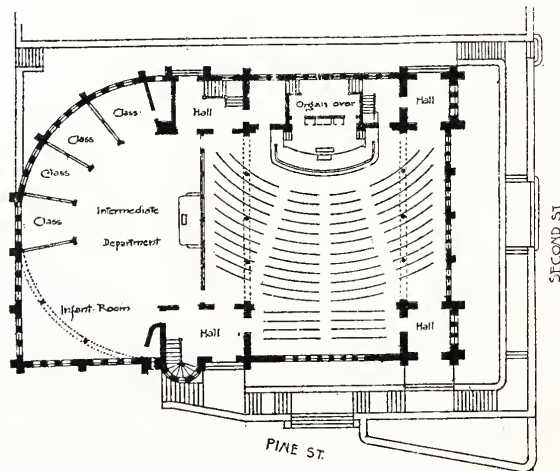
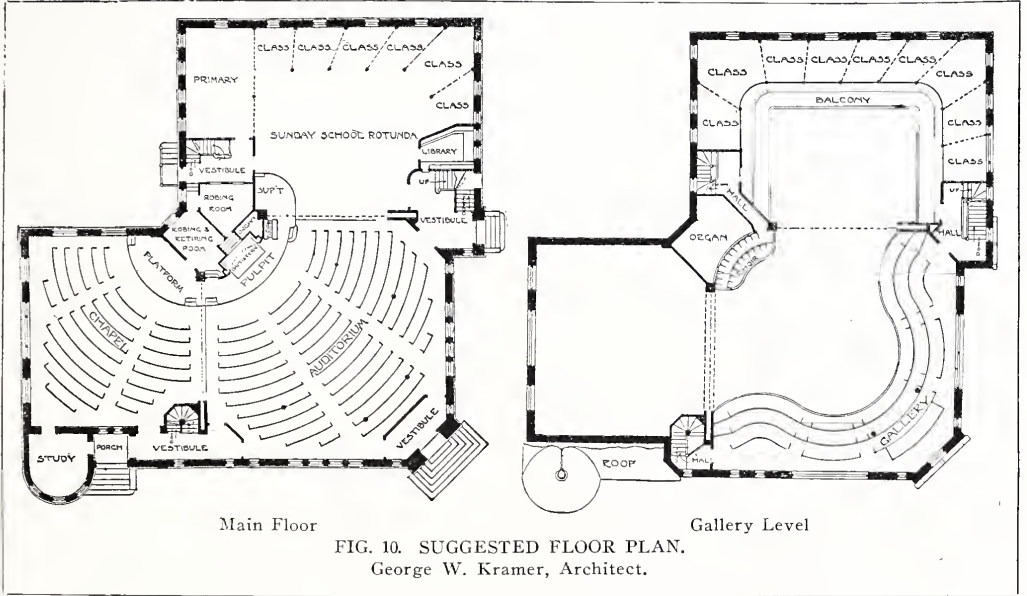


FIG. 9. EVANGELICAL LUTHERAN CHURCH, STEELTON, PA.
J. A. Dempwolf, Architect.

have been set far back, so as to command practically every square foot of the two adjoining rooms and at the same time to reduce the actual size of the combined platform to the minimum of requirements. This introduces the difficulty of hampering the free working of the official side of the service and in the case of

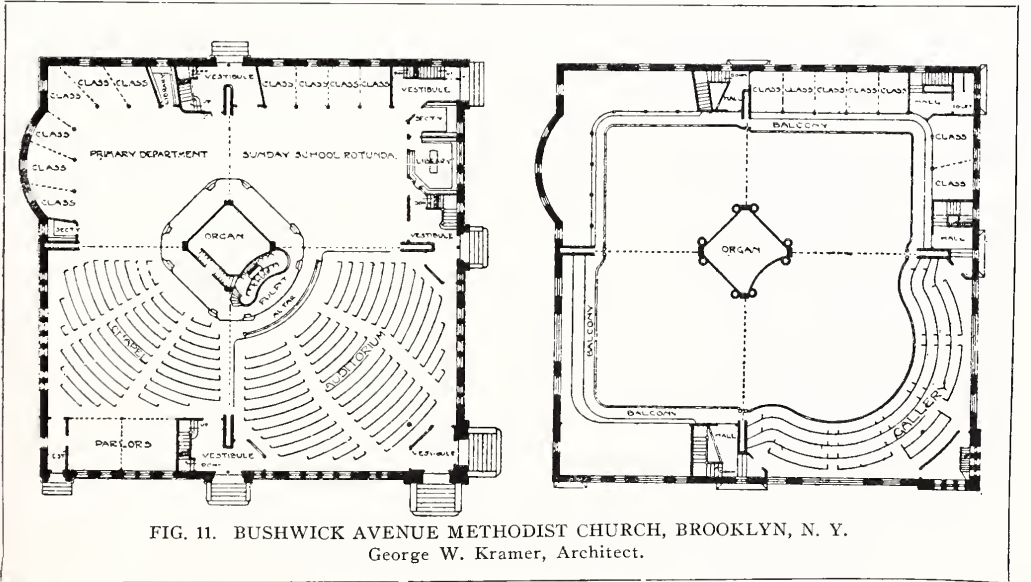
denominations requiring platform baptis-teries or similar features it would be practically impossible to obtain the maximum of benefit from this type of combina-



tion. By this method, however, a greater space becomes available for the actual business of the Sunday School, a factor that deserves consideration.

Various other arrangements have been attempted to improve upon the parallel juxtaposition and corner pulpit plans. Notable among these is that of placing

the two rooms upon axes at right angles to one another (Figs. 8, 9), so that the platform of the Sunday School again is placed against the movable wall and would itself need to be collapsible or movable. This arrangement offers the same advantage obtained in the corner pulpit plan just outlined. The purpose is to gain



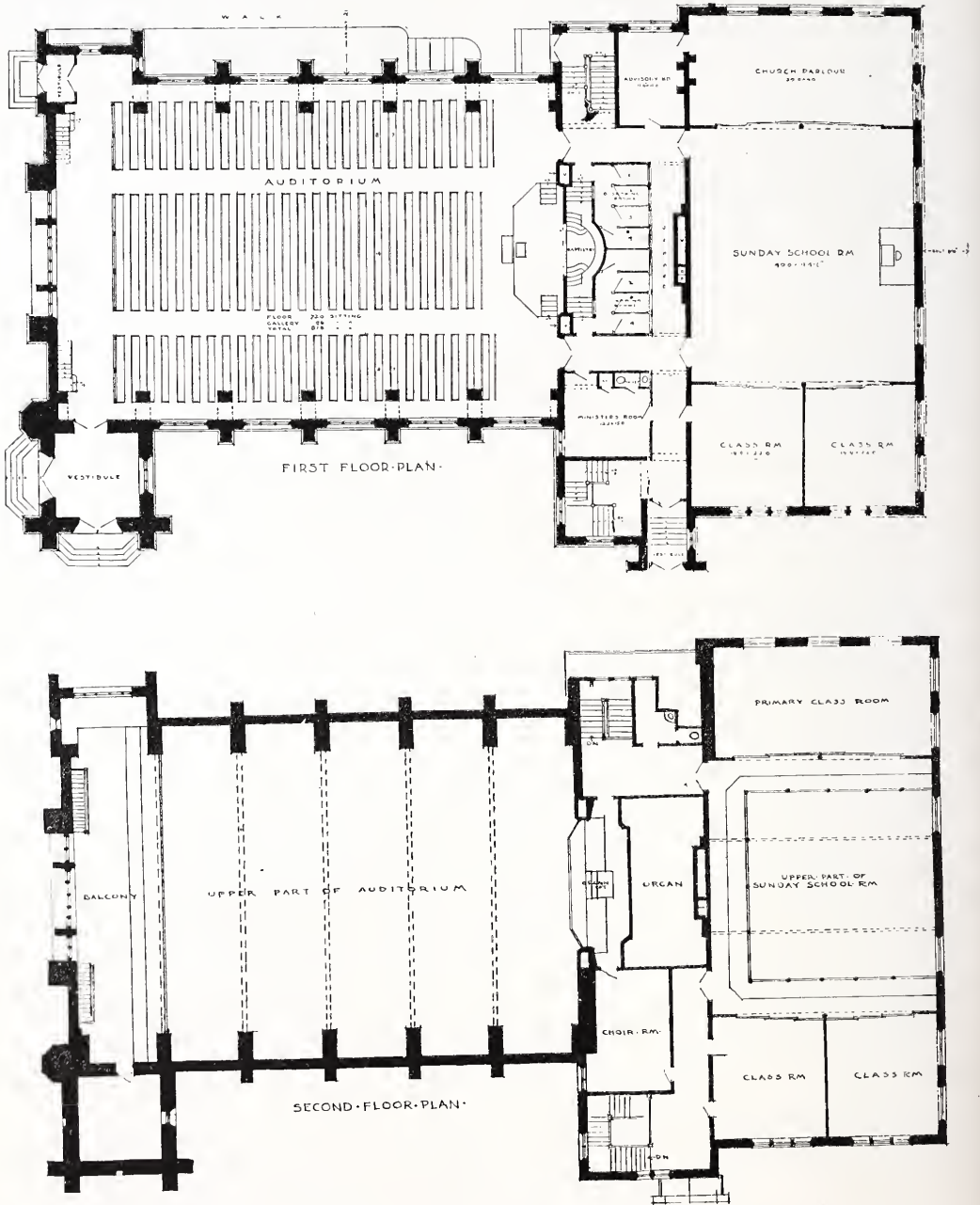


FIG. 12. BAPTIST CHURCH, BROOKLINE, MASS. J. A. SCHWEINFURTH, ARCHITECT.

more actual Sunday School space, more floor and gallery area for subdivision into classrooms. By this and the preceding schemes the school has the complete space bordered by three of its walls, or the equivalent if it be not of rectangular plan, with the difference that a small area in one corner is required in the former for the platform. This will be considered in greater detail in connection with our discussion of the interior arrangement of the Sunday School proper.

The idea of the corner pulpit has also been amplified to include three (Fig. 10) or even all four (Fig. 11) of the quadrants of what may be called the plan circle. So that the matter of a single control, by one individual, for all three or all four parts must be neglected, and it becomes a question simply of increased area. This, in a very large congregation and school, achieves a momentous importance, for it makes possible an arrangement involving one, two, three or four of its parts, or any desired combination of these, as may be required by the particular type of service or festivity contemplated. In these plans

the main platforms and its organ would be retained in all cases as the central point and concerts for immense numbers could be given, even though the organist would not be visible to all. To make the organ available from one or other of the rooms, whether there are two or three or four tributary to the same general plan, an additional set of manuals may be provided

in any part desired, or in all parts, so that the organist may take his place in the particular room momentarily in use.

Single Level—Semi-detached Plan.

It has not always been considered necessary or advisable to build so that audience hall and Sunday School space might be thrown together, and there are numerous examples of plan arrangements similar to any thus far illustrated in all but

the actual separation of the two masses by permanent walls. For purposes of convenience, and to obtain completeness and isolation for the Sunday School, not to mention the better opportunities for interior design in both halls, the two have been kept close enough together to form or to approximate a unit in the exterior, but have been conceived as distinct plan features with regard to their respective functions. No doubt the frequent secular use of the Sunday School room must be considered a factor in the wilful isolation of the church proper, which but slowly accords itself with the energetic and business-like atmosphere of an active modern Sunday School. In such

arrangements an integral connection between the two rooms is frequently retained and generous circulation facilities are provided when the rooms are on a single continuous axis (Figs. 12, 13, 19) or on parallel axes; the same may likewise be said when they are arranged on axes at right angles. (Figs. 14, 16). As many other examples, however, show a

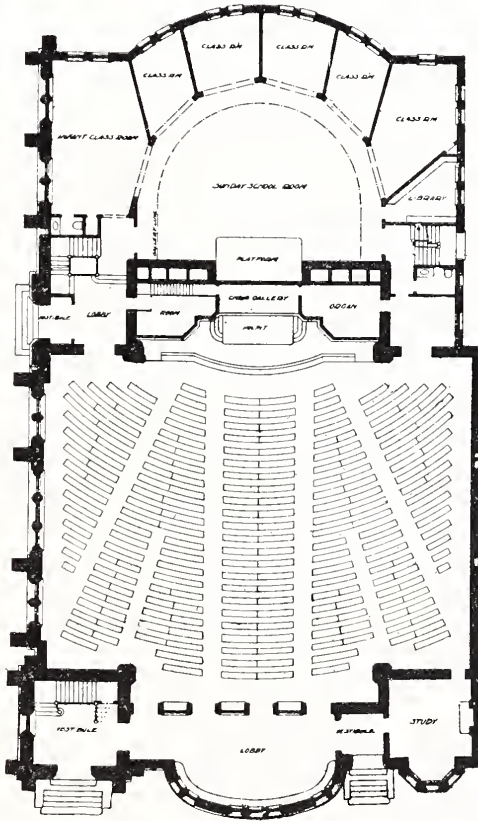


FIG. 13. ST. JAMES M. E. CHURCH, CHICAGO, ILL.
Charles S. Frost, Architect.

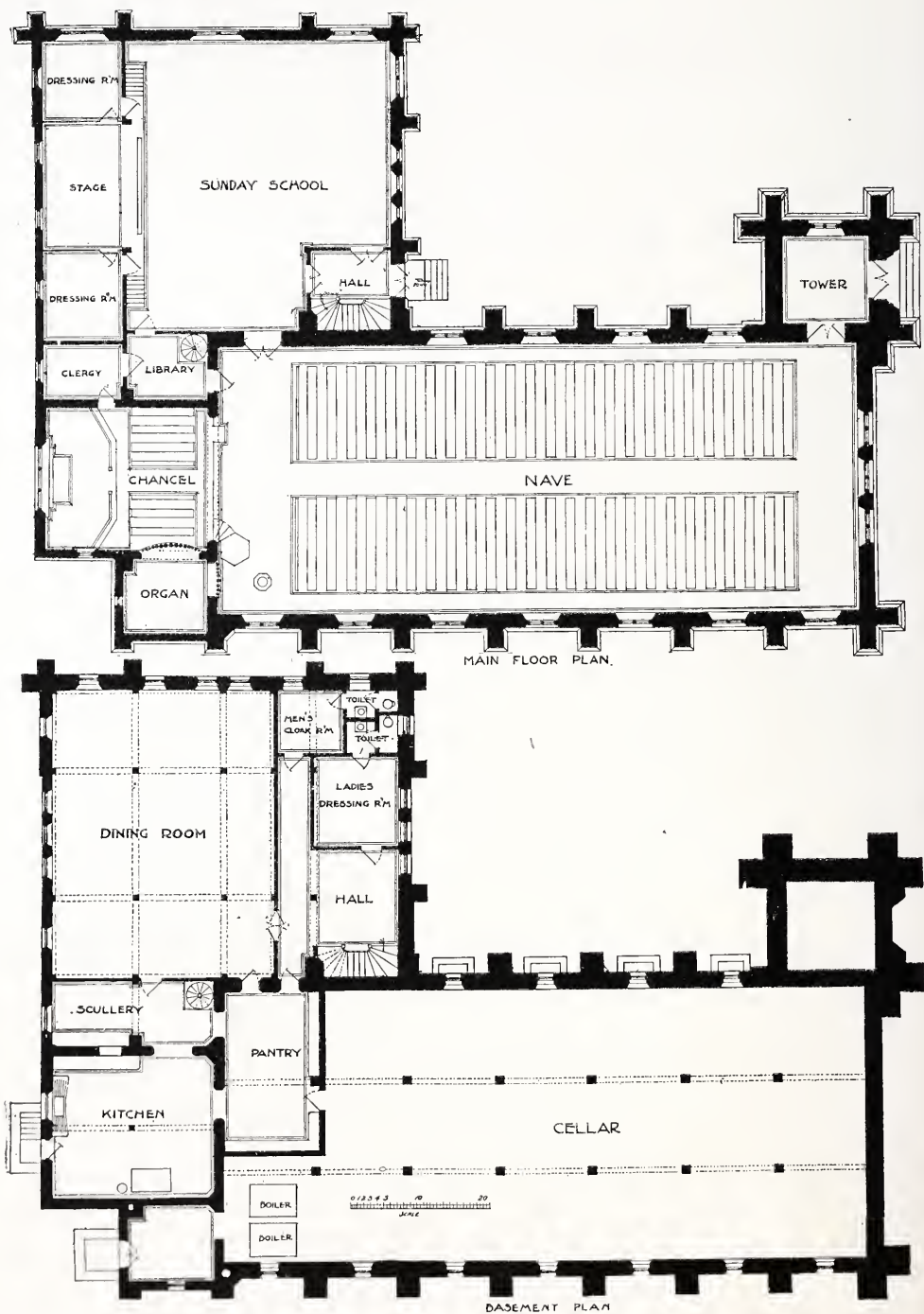


FIG. 14. UNIVERSALIST CHURCH, WATERTOWN,
N. Y. HOBART B. UPJOHN, ARCHITECT.

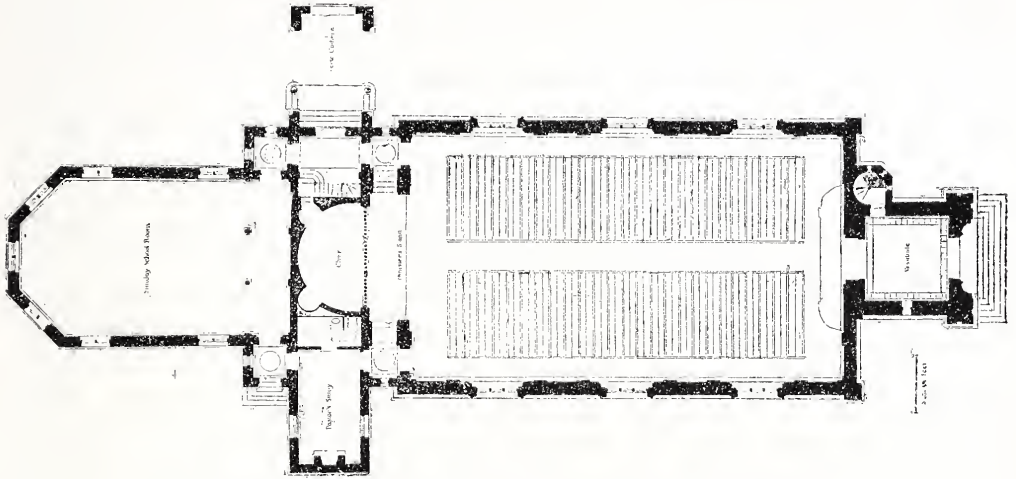


FIG. 15. SHEPARD MEMORIAL CHURCH, SCARBOROUGH HEIGHTS, N. Y.
Haydel & Shepard, Architects.

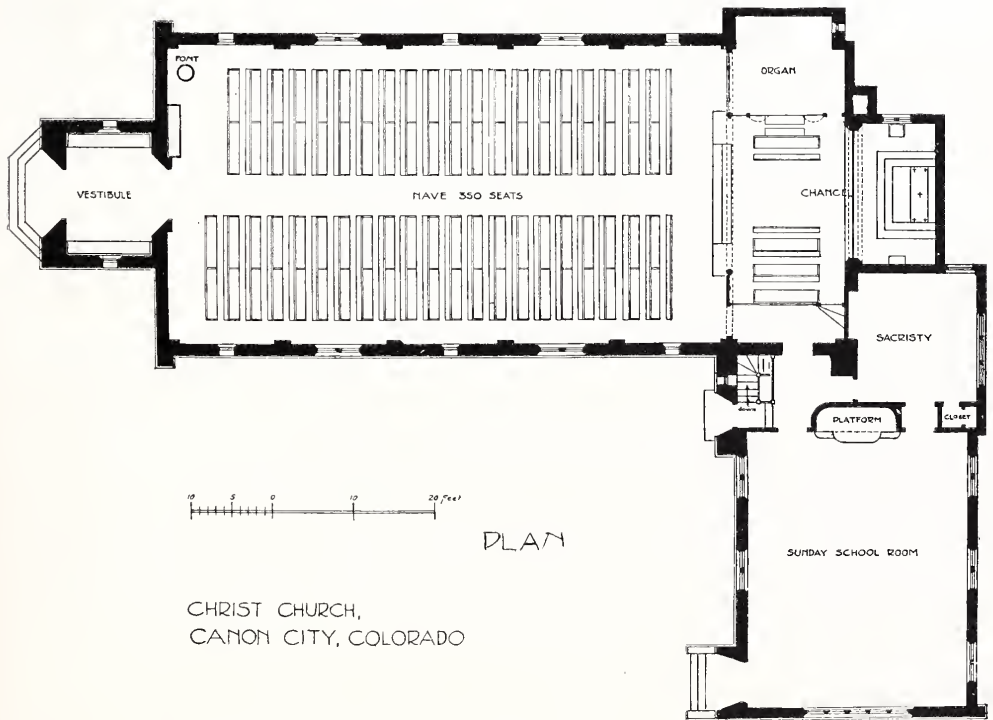


FIG. 16. CHRIST CHURCH, CANON CITY, COLO.
T. MacLaren, Architect.

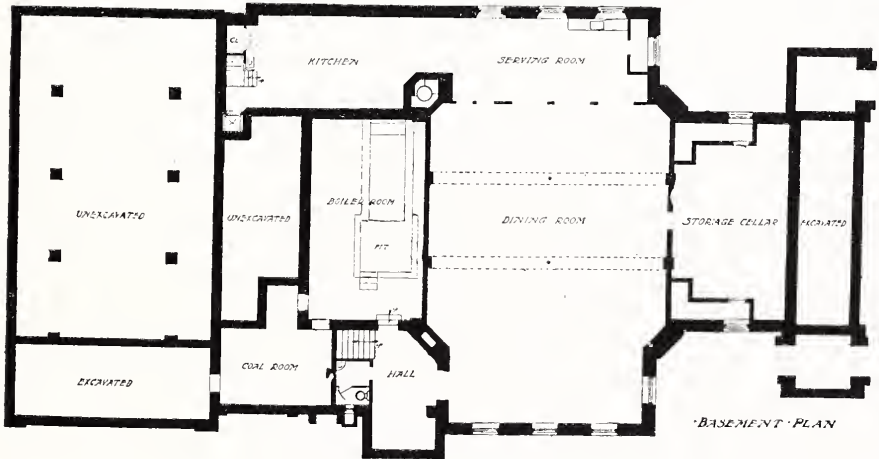
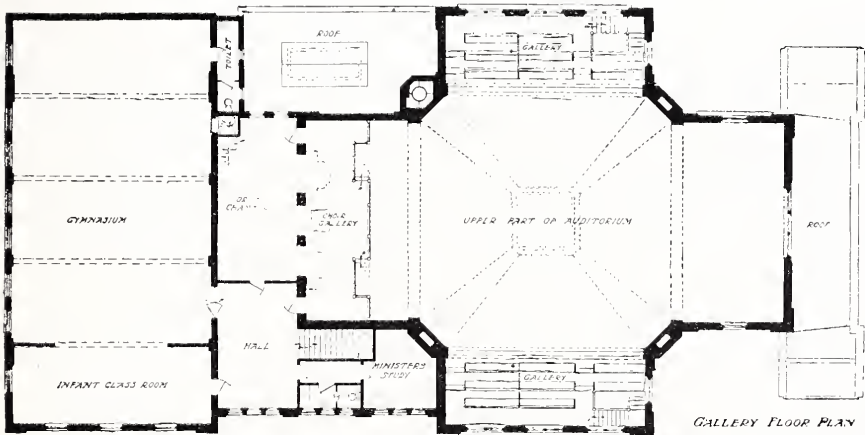
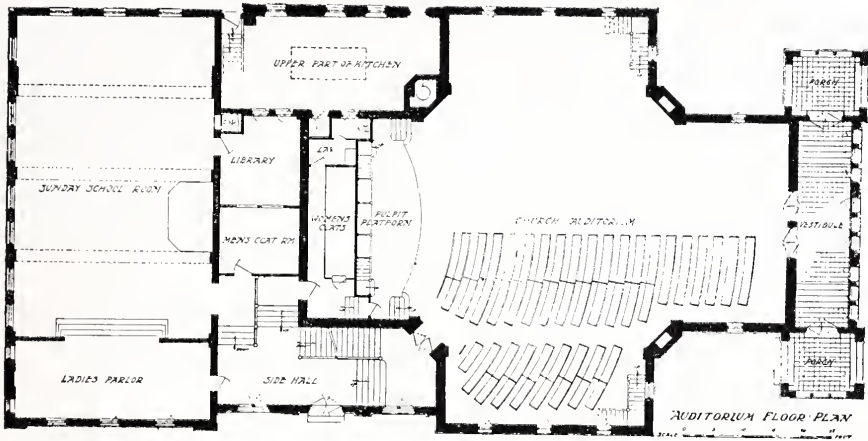


FIG. 18. FIRST UNIVERSALIST CHURCH, ROCHESTER, N. Y. CLAUDE BRAGDON, ARCHITECT.

complete severance of the two divisions and the connecting passages are unimportant, or, at any rate, indirect. (Figs. 15, 17.) A few examples show no provision for public circulation between the two and the only access to either is by separate

Finally, still retaining a single level for both halls and granted that sufficient land area is available, we note the plan based upon an entire separation of the two so that there remains a simple hallway or narrow passage or perhaps even a clois-

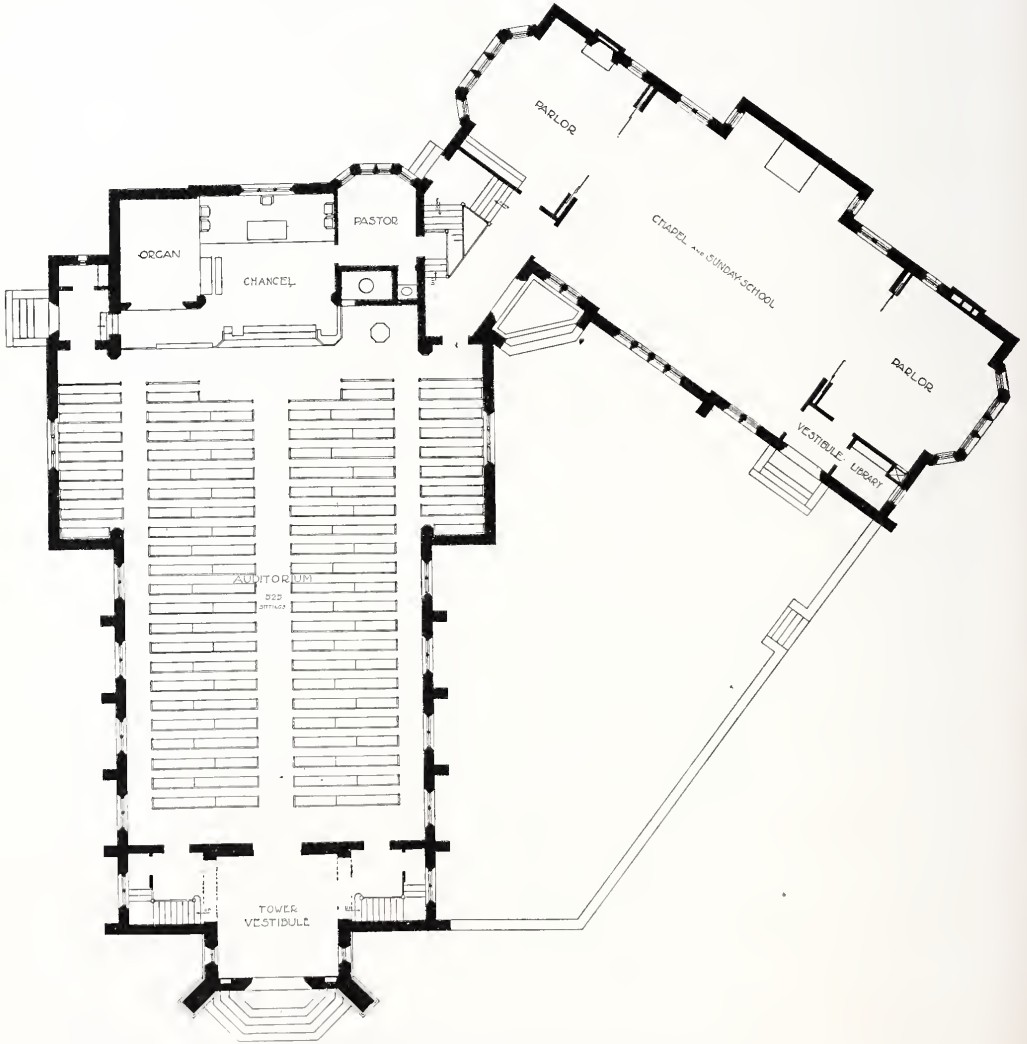


FIG. 19. NEWTON HIGHLANDS CONGREGATIONAL CHURCH, NEWTON HIGHLANDS, MASS.
George F. Newton, Architect.

entrances connected by an exterior path. (Figs. 18, 20, 22.) In all such cases, however the exigencies of terrain and land values must be given due weight among the factors that shape the plan in the course of its initial preparation and execution.

tered walk to bind them together. (Figs. 21, 23.)

At this point the Sunday School room assumes the guise of a distinct building. It may be individually designed; its use is not in any organic sense contingent upon the character or use of the audience

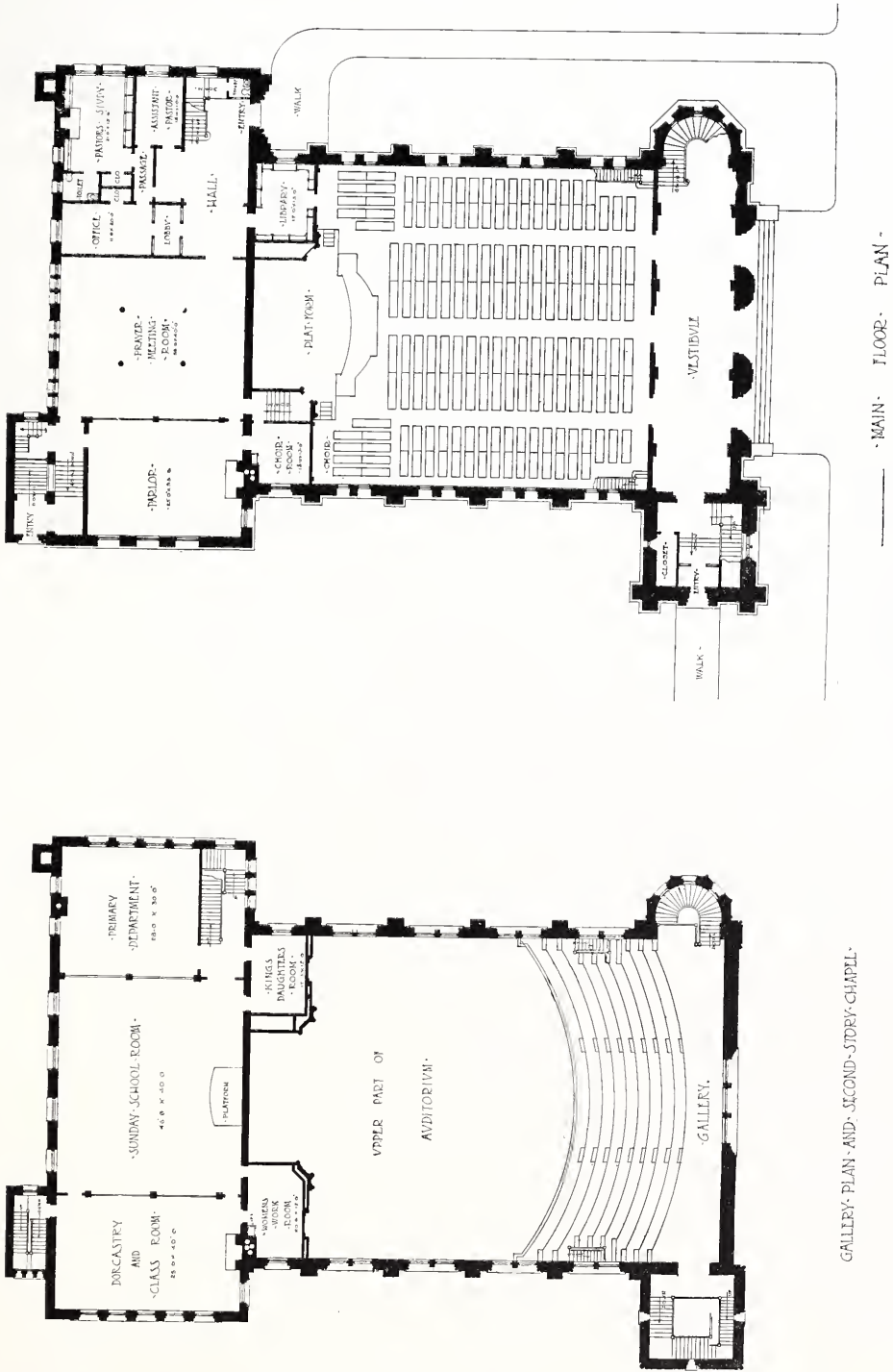


FIG. 20. PILGRIM CONGREGATIONAL CHURCH, ST. LOUIS, MO.
Mauran, Russell & Garden, Architects.

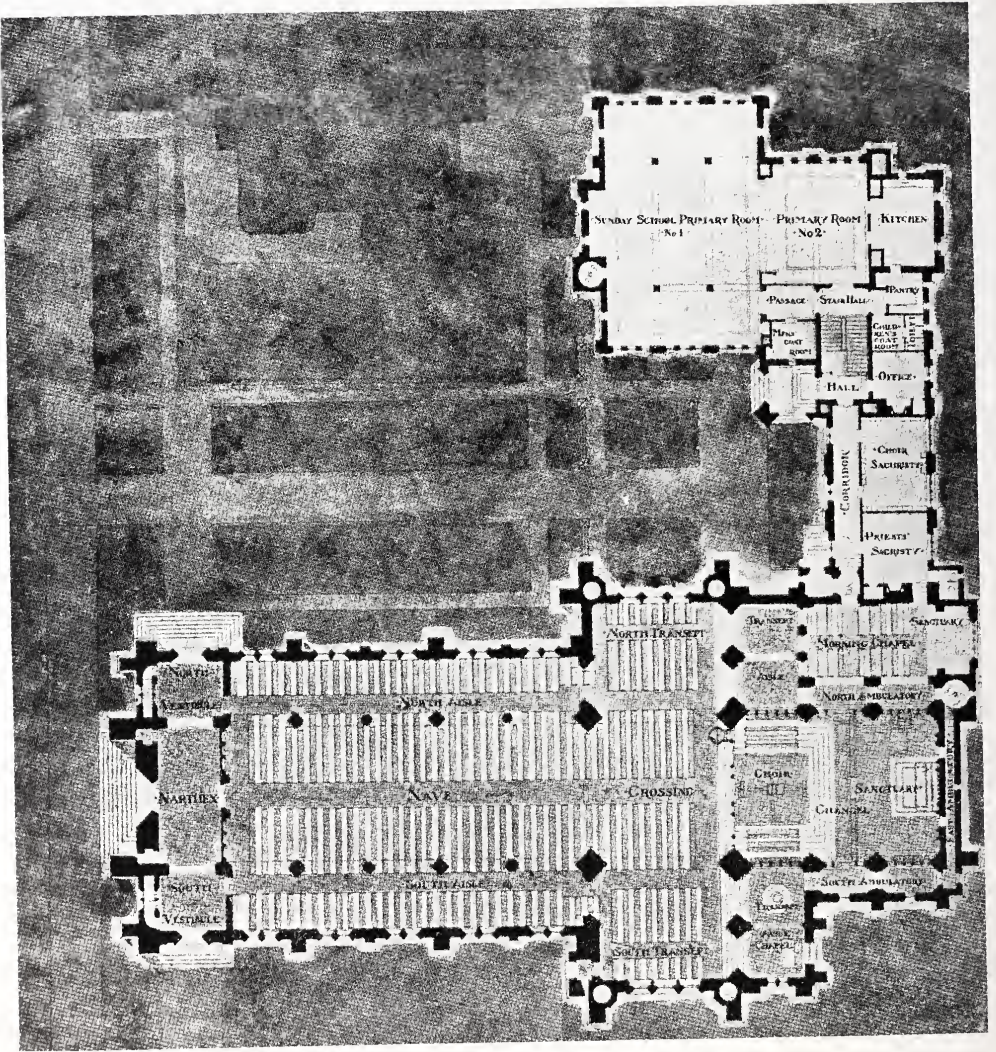
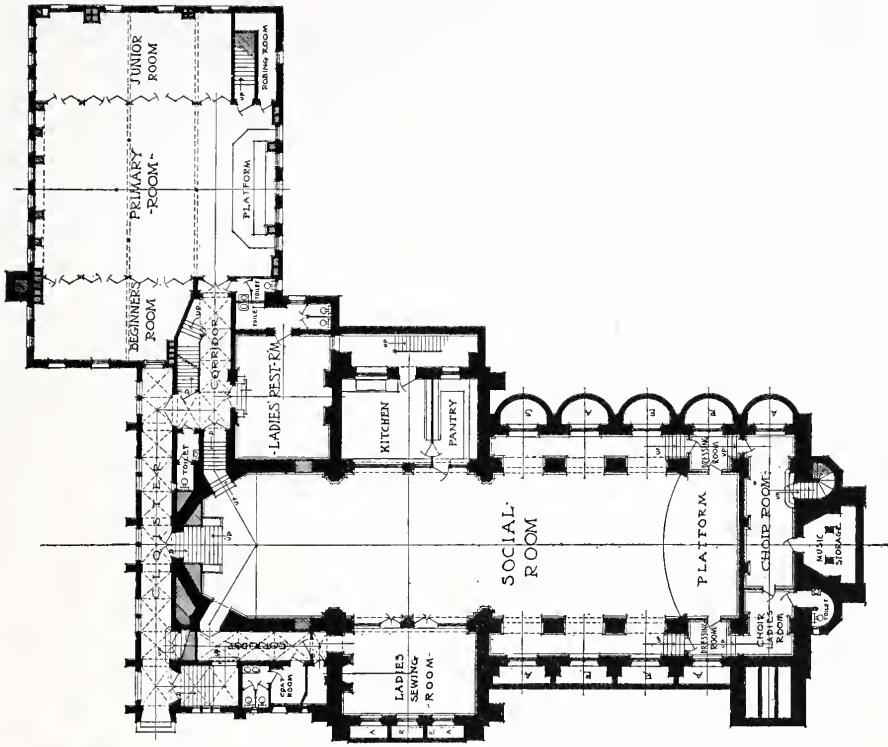
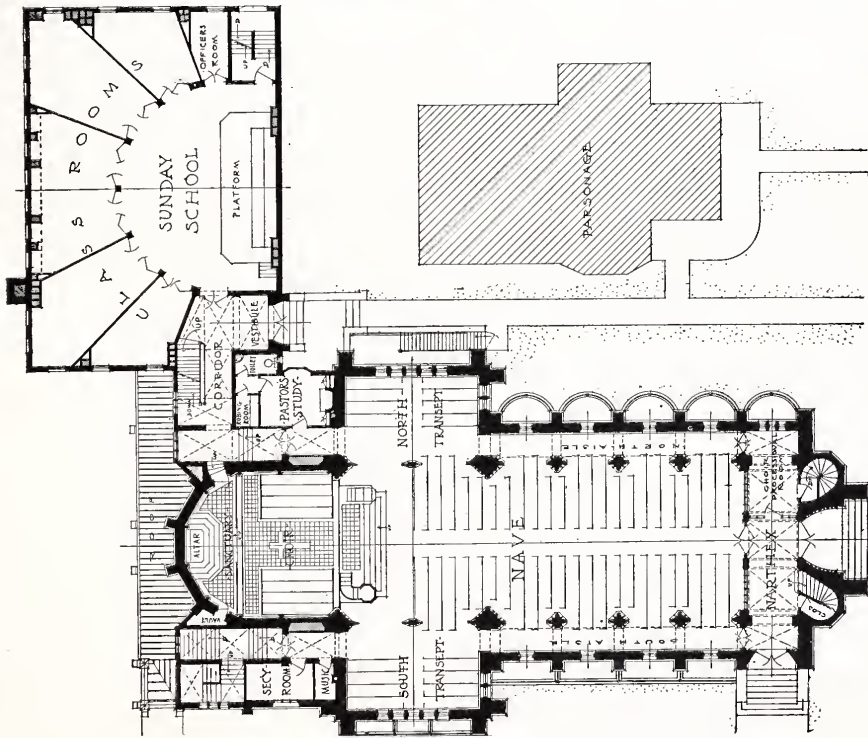


FIG. 21. CALVARY CHURCH, PITTSBURGH, PA.
 CRAM, GOODHUE & FERGUSON, ARCHITECTS.



Basement Floor Plan.



Ground Floor Plan.

FIG. 22. TRINITY LUTHERAN CHURCH, AKRON, OHIO. J. W. C. CORBUSIER, ARCHITECT.

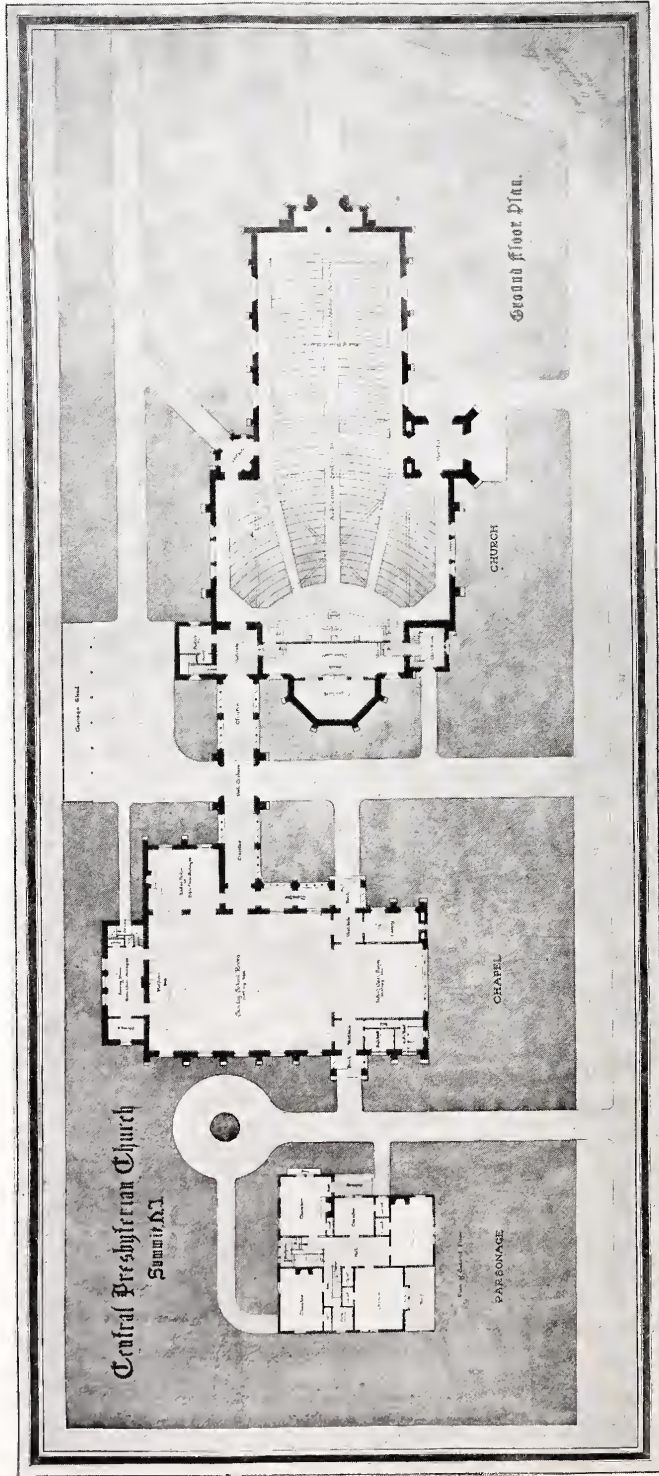


FIG. 23. CENTRAL PRESBYTERIAN CHURCH, SUMMIT, N. J. BENJAMIN V. WHITE, ARCHITECT.

hall, from which it gains nothing and upon which it no longer intrudes. In short, it becomes an individual problem, aiming at an unhampered solution of original requirements. Only such buildings may be said adequately to serve the true purposes of the Sunday School in their fullest compass, because those purposes are the determining factors in its plan. While the purely devotional atmosphere of the audience hall is largely dispensed with, the business of teaching religion is seriously undertaken. What is more, the large number of other types of service and succor and teaching of

more or less secular character may then be gathered under a single roof and properly administered. The separate building, furthermore, is apt to be of more than one story, thus increasing its own scope of utility, and at the same time releasing any space which it might otherwise occupy in the church edifice itself for other purposes. Illustrations of this aspect of the Sunday School problem will be given in connection with our discussion of the types of church plans which are calculated to respond especially to the more complex needs of broader community service.

(To be continued.)

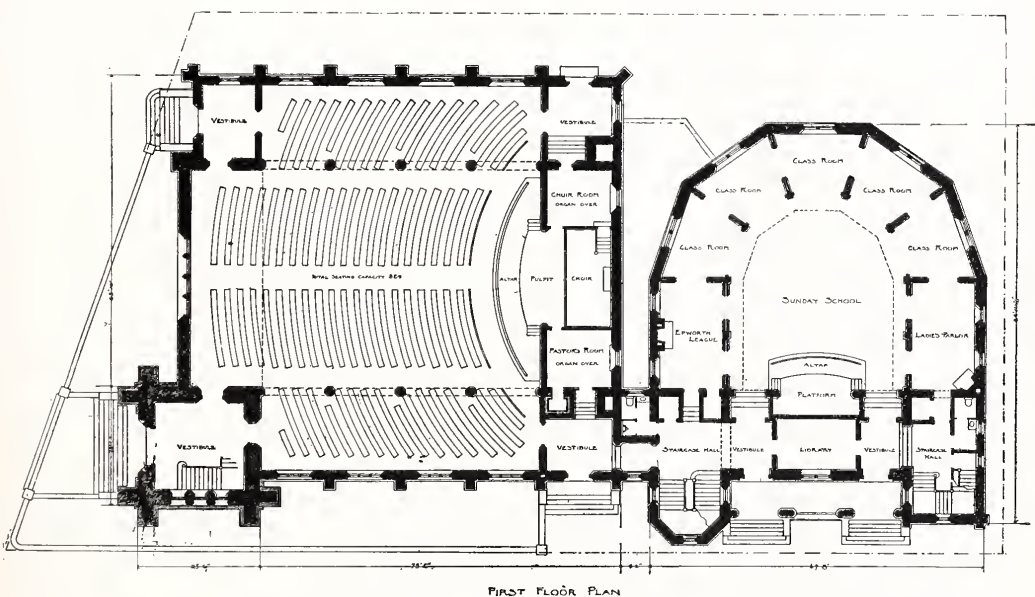
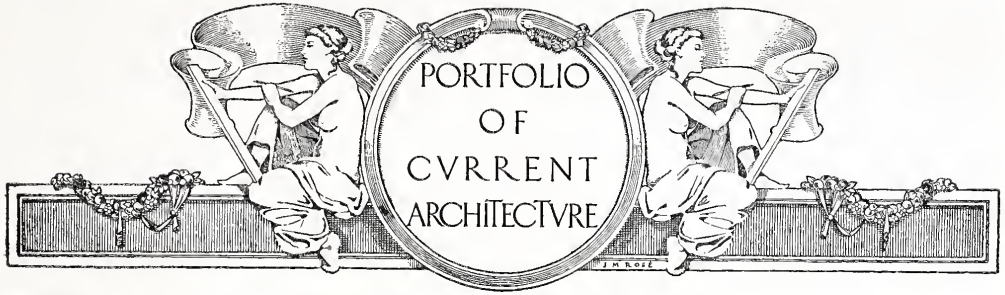


FIG. 24. FIRST M. E. CHURCH, GERMANTOWN, PA.
Rankin & Kellogg, Architects.

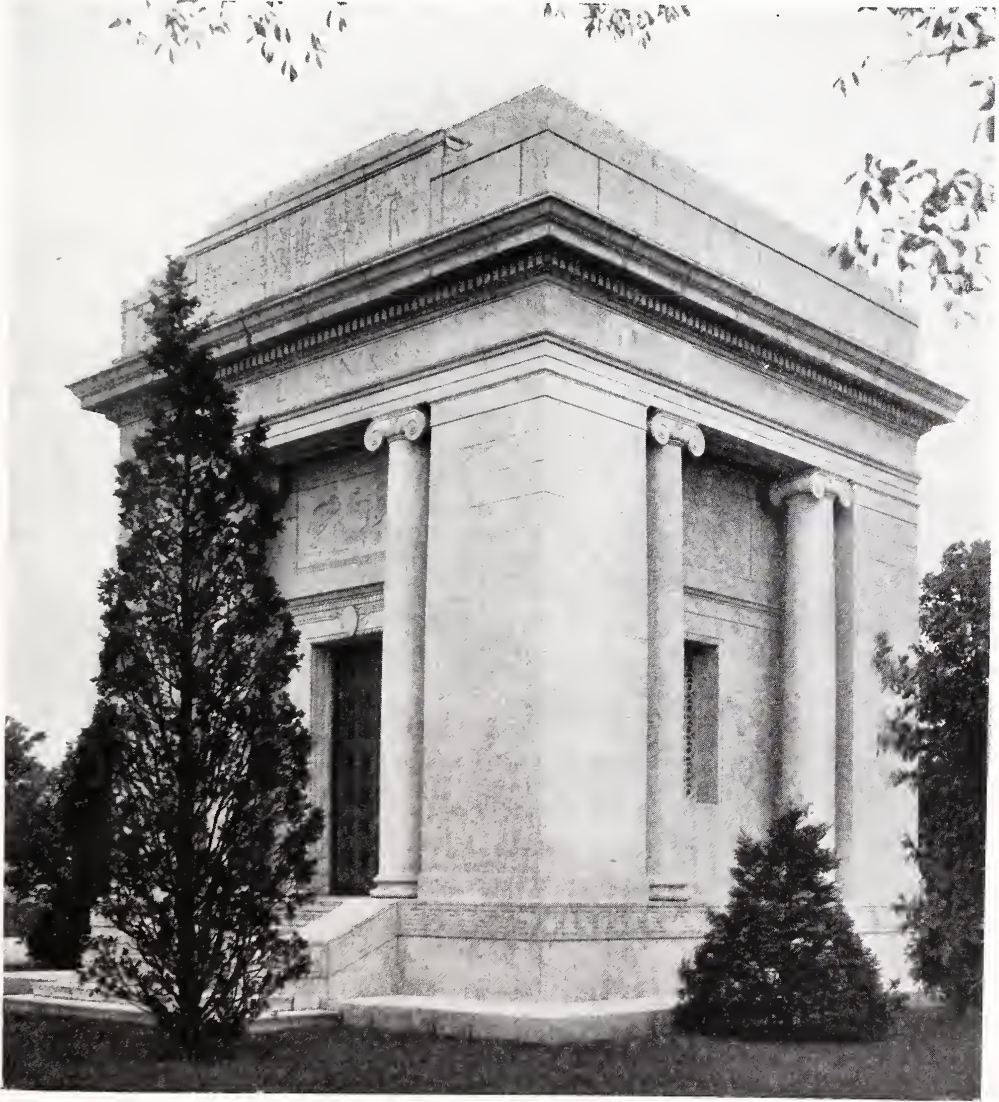


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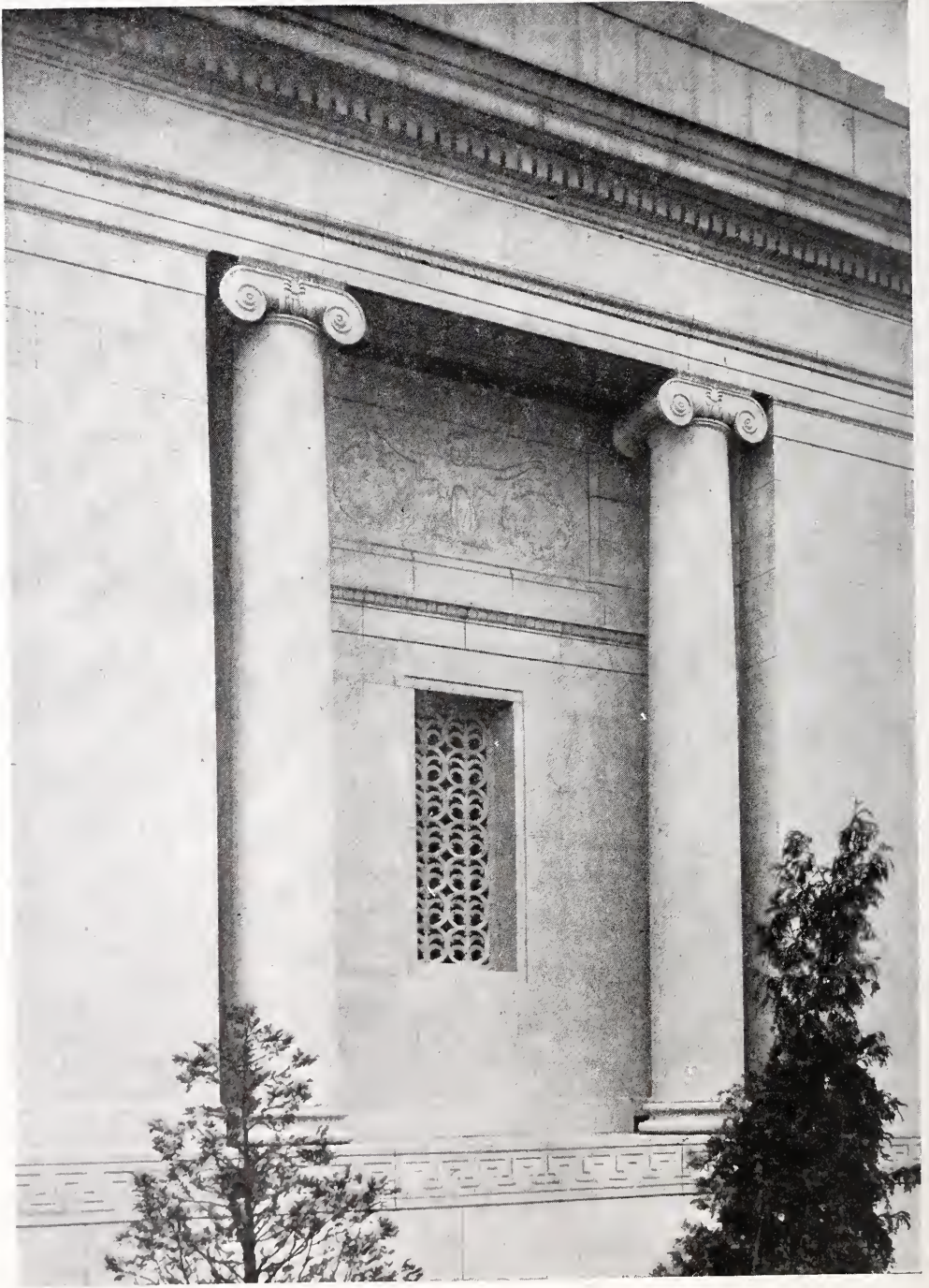


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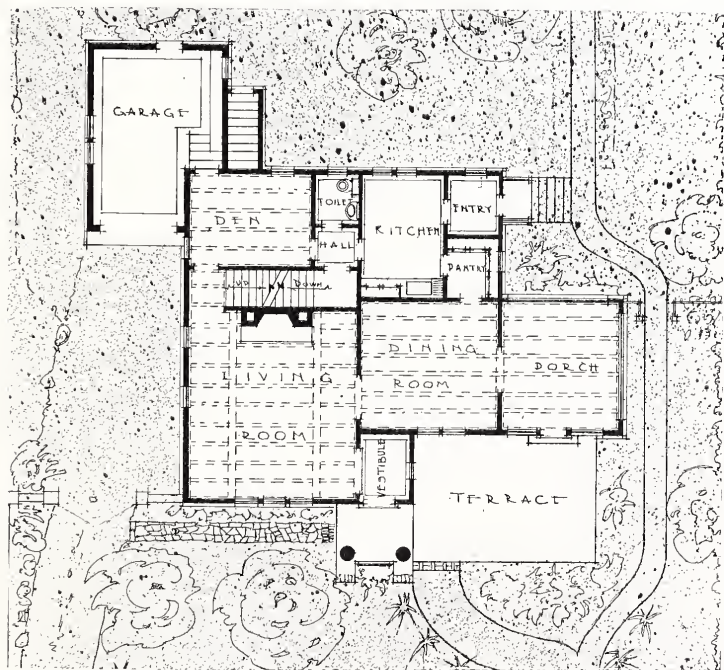
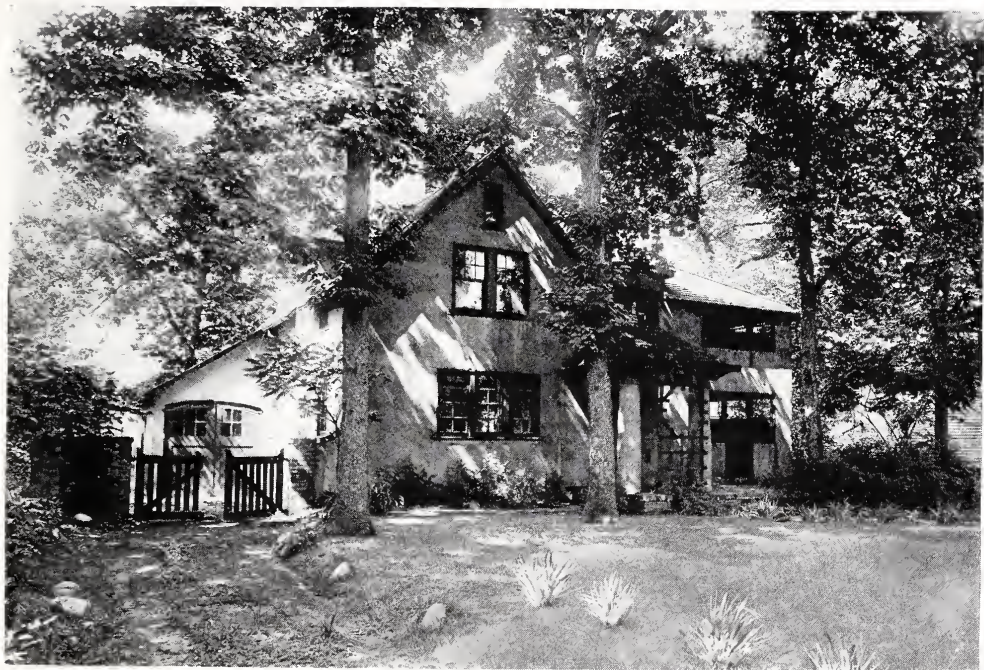
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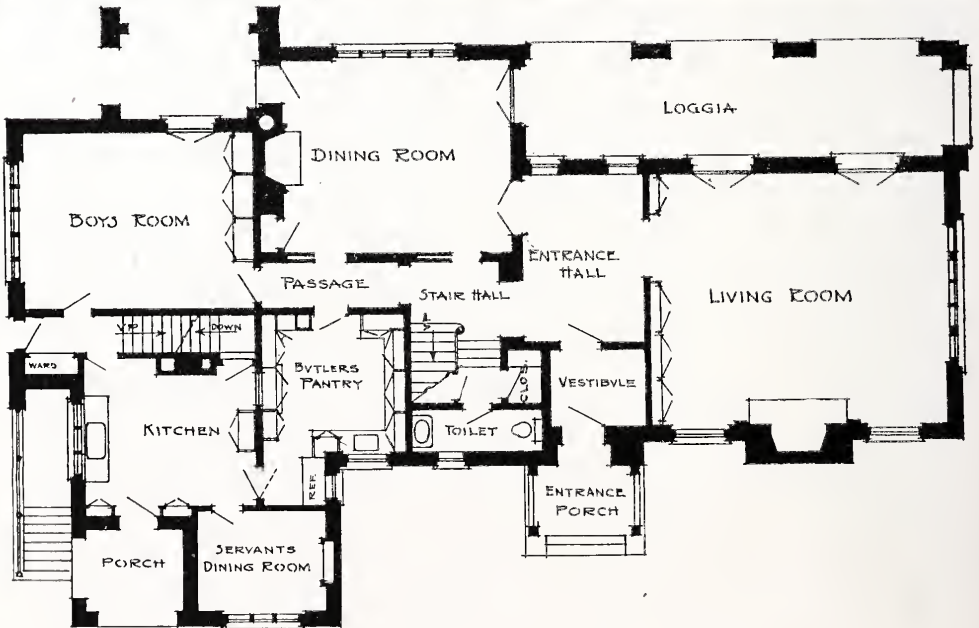
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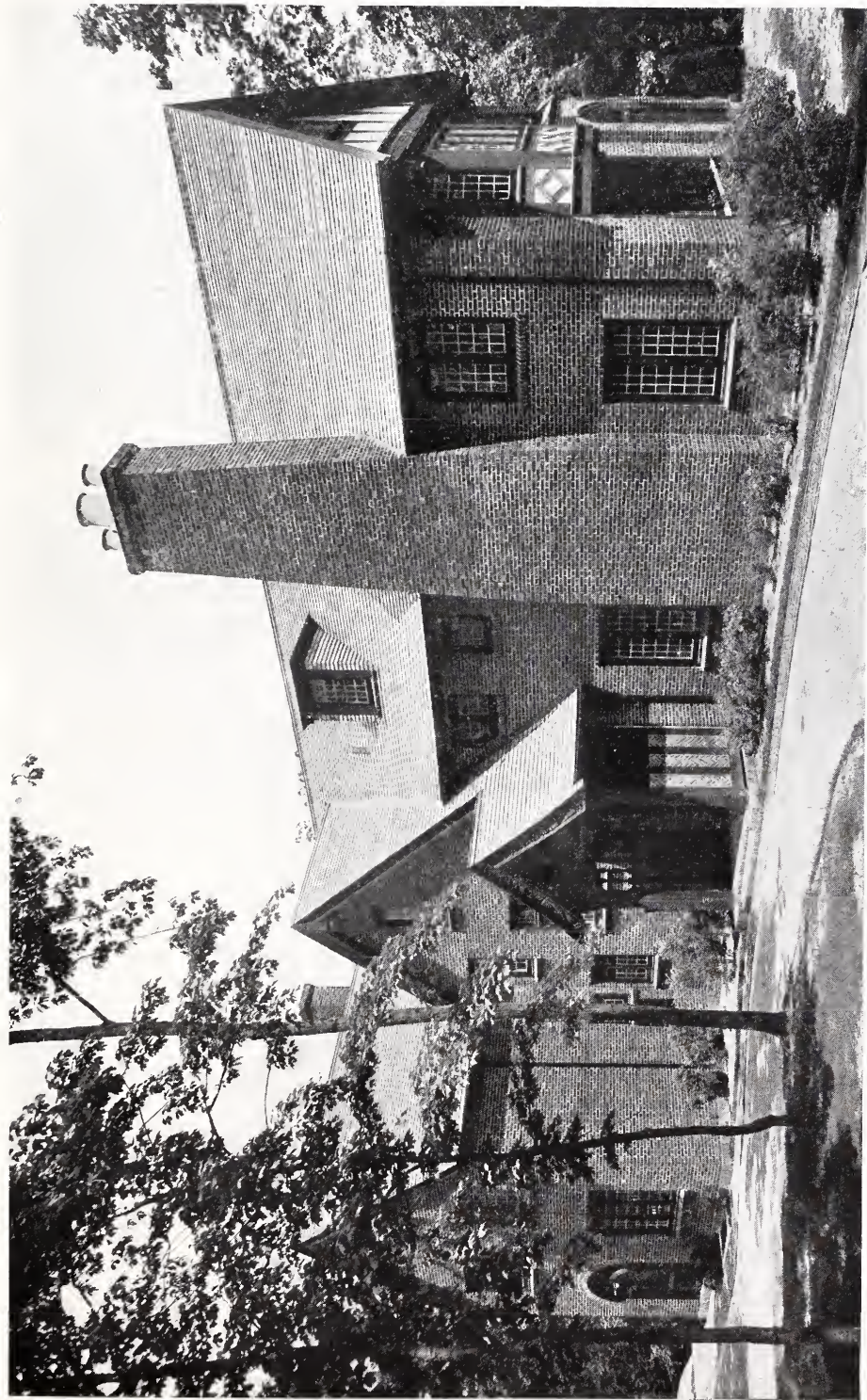
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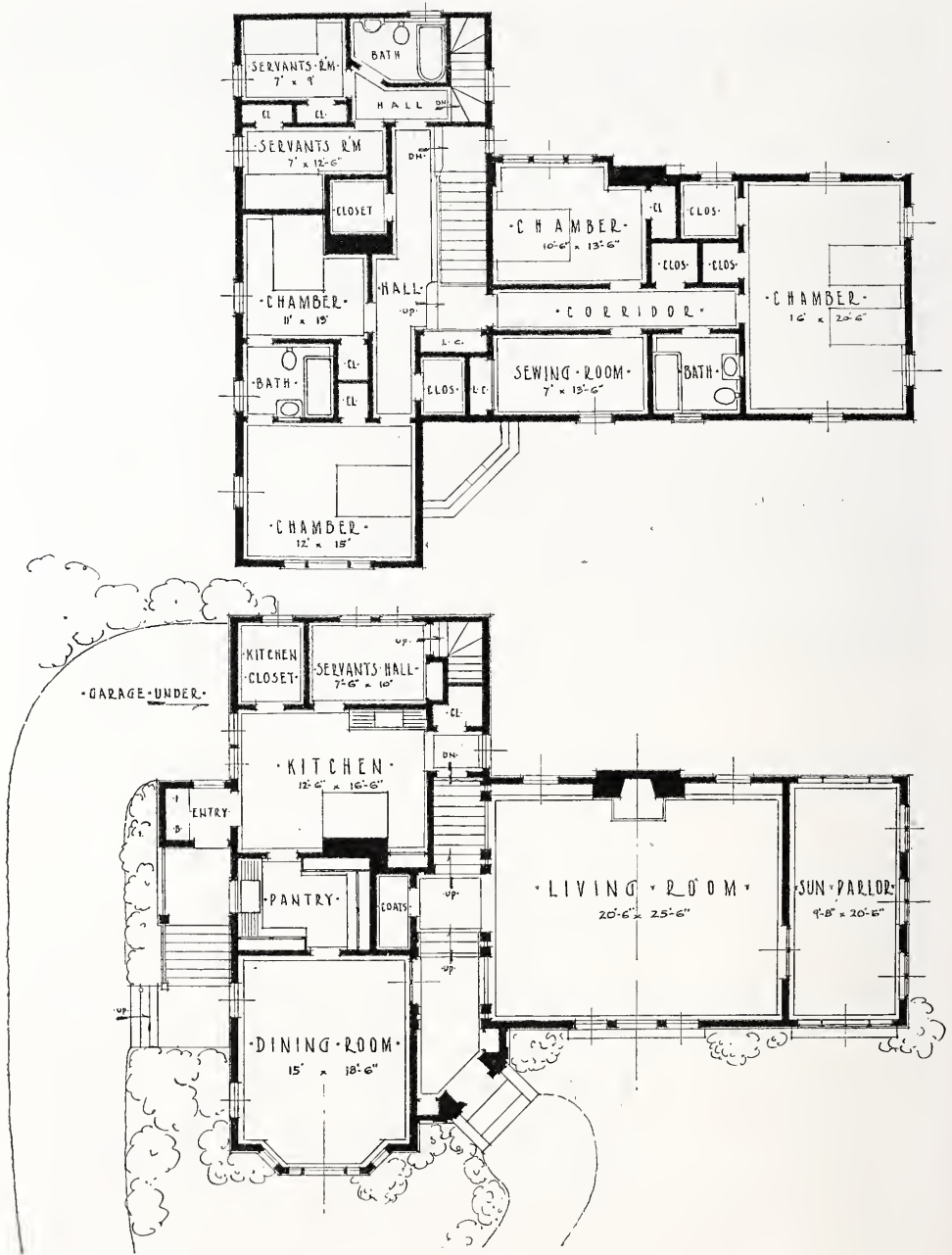
VIEW AND FIRST FLOOR PLAN—OWN HOUSE AT DES MOINES, IOWA. FRANK B. WETHERELL, ARCHITECT.



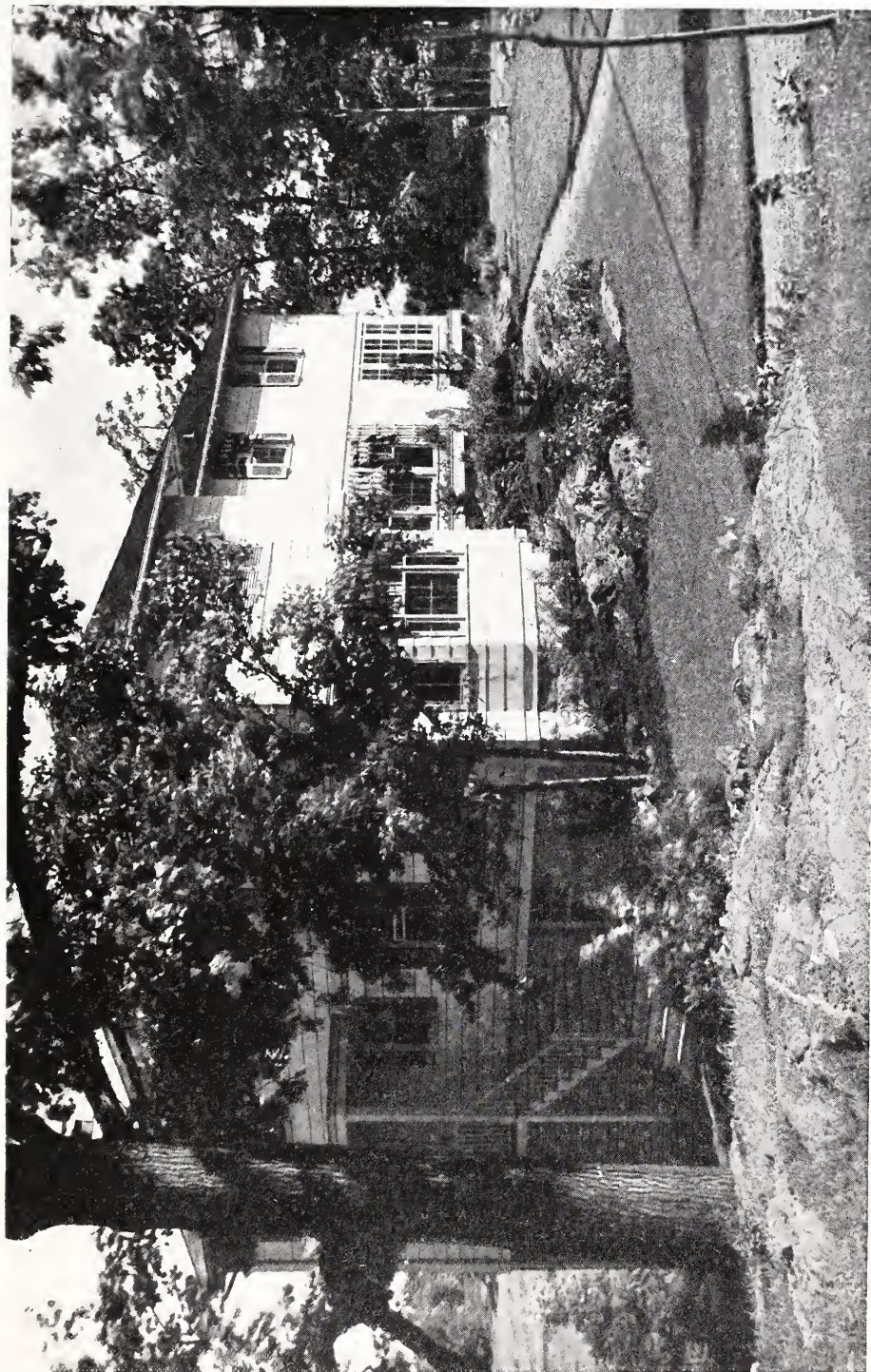
REAR VIEW AND FIRST FLOOR PLAN—HOUSE
 OF WILBUR L. LAFEAN, ESQ., HIGHLAND PARK,
 ILL. FREDERICK W. PERKINS, ARCHITECT.



HOUSE OF WILBUR L. LAFEAN, ESO., HIGHLAND PARK, ILL. FREDERICK W. PERKINS, ARCHITECT.



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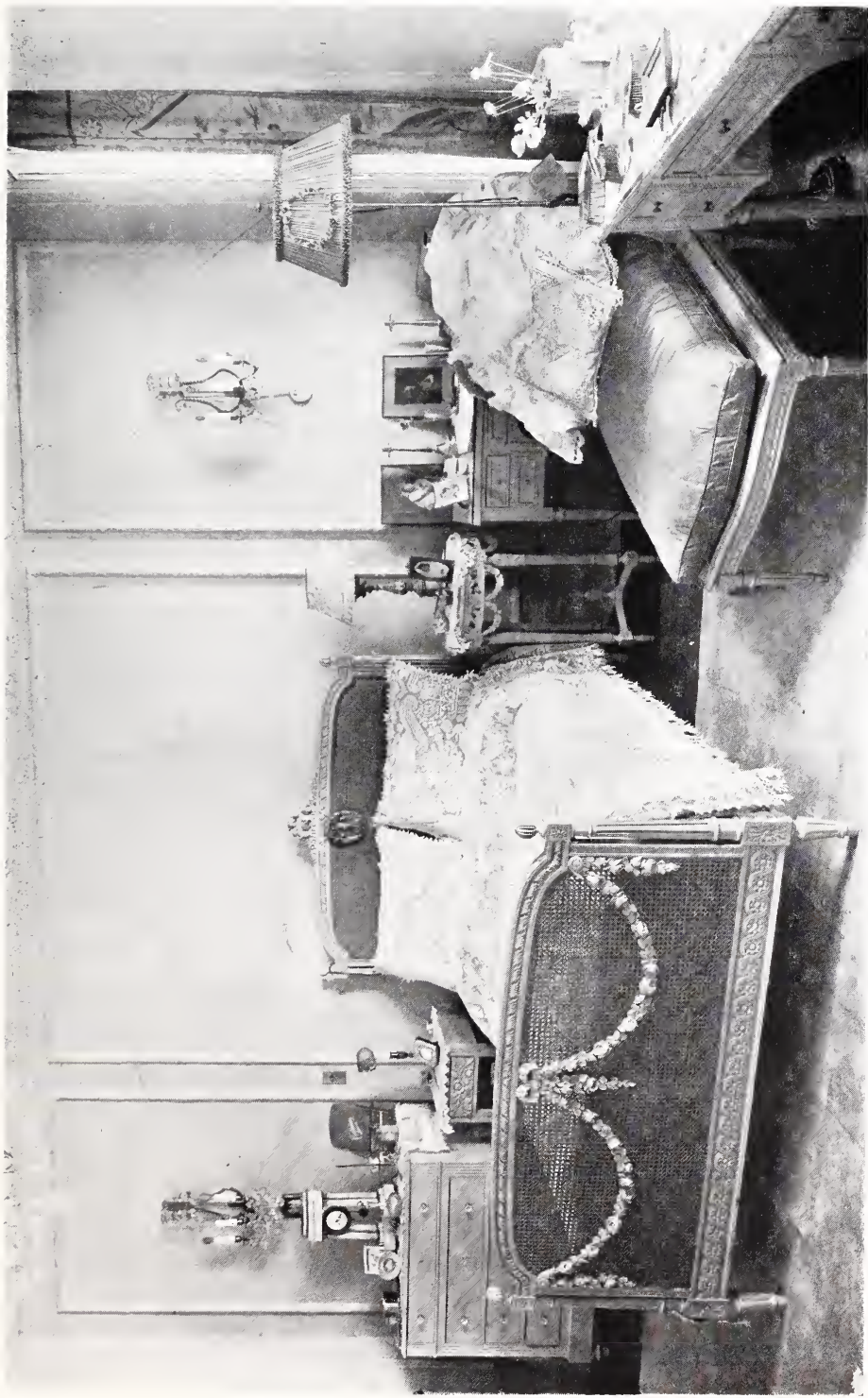
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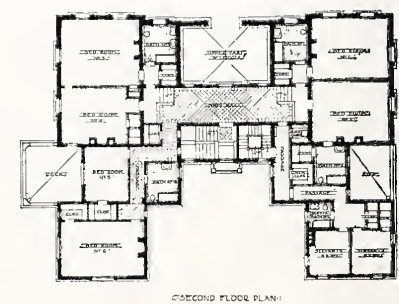
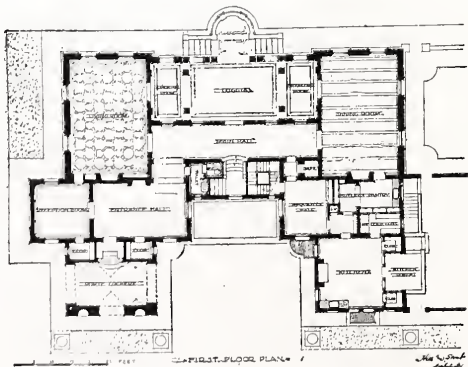
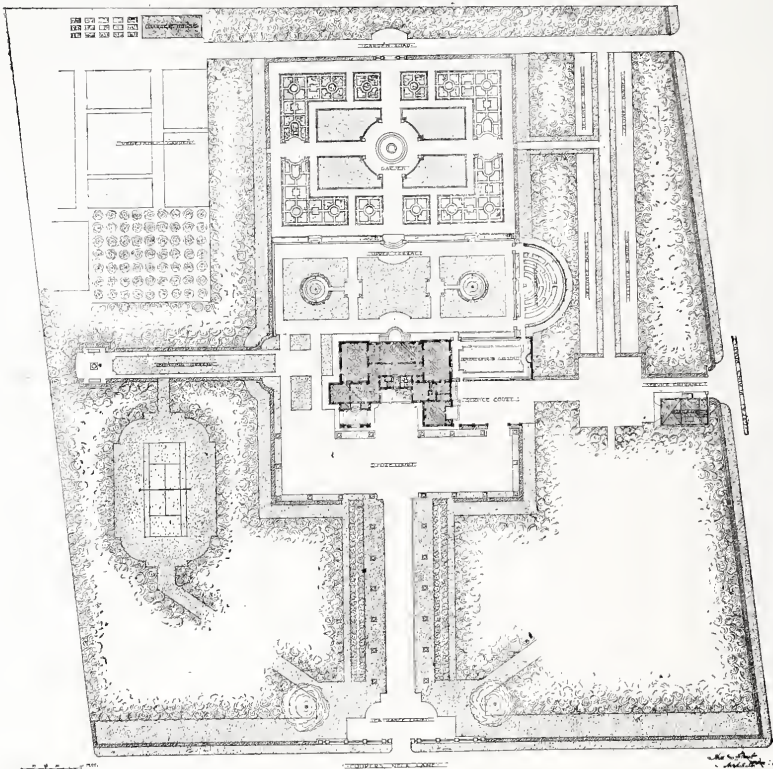
DINING ROOM—CITY RESIDENCE OF JOSEPH
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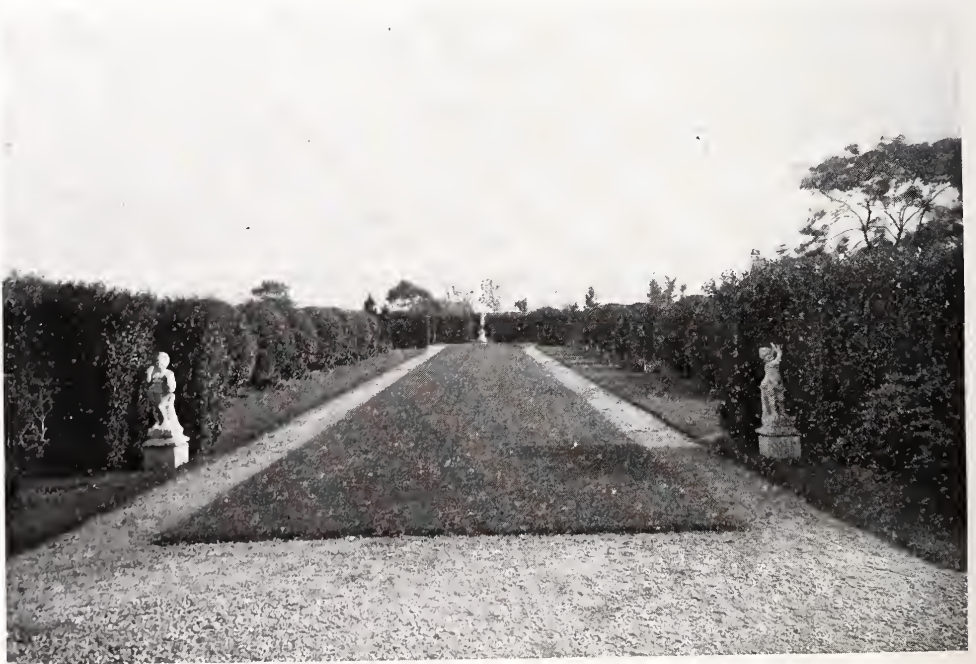
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GENERAL VIEW FROM GARDEN—RESIDENCE OF A. B. BOARD-
MAN, ESQ., SOUTHAMPTON, L. I. HILL & STOUT, ARCHITECTS.



Photo by Vander Weyde.

GRANT'S TOMB, NEW YORK.



Photo by Vander Weyde.

THE NEW YORK CITY HALL AT MIDNIGHT.

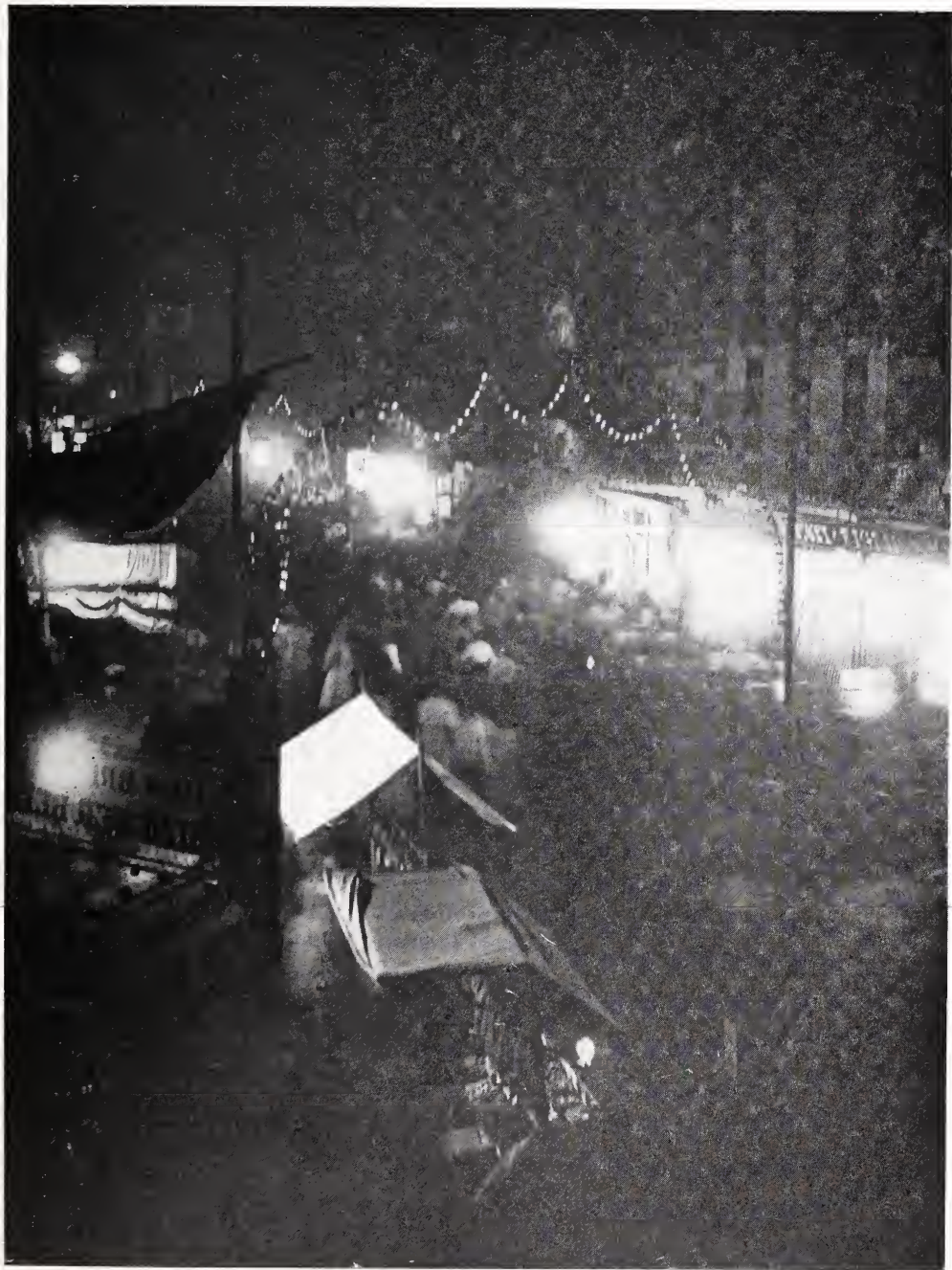


Photo by Vander Weyde.

NIGHT SCENE IN THE
ITALIAN QUARTER, NEW YORK.

THE DEFINITION OF GOTHIC

By CHARLES H. MOORE

IN an article entitled "Gothic Architecture and Its Critics," published in *The Architectural Record* for May of the current year, Professor A. D. F. Hamlin briefly discusses some of the writings on this architecture that have appeared since the early part of the nineteenth century, and among the later of these writings he refers to my own in appreciative terms; but he accompanies his commendation with strictures which materially qualify it. He affirms that in my definition of Gothic I have failed to define the art, and he objects to my restriction of the term to the French art alone, on the ground that it is a term which "had its origin in popular usage, and which by universal acceptance in half a dozen languages has been applied to a vast body of mediaeval architecture;" and that it "connotes a movement covering all Western Europe through a period of over three and a half centuries." "One would suppose," he adds, "that the first effort of the scientific writer would be to seek for those elements, qualities, features and principles which were common to the whole movement, and which would account for the comprehensive use of the term."

Leaving for the moment the questions of definition and restriction, I may say it appears to me that popular usage and universal acceptance furnish an insecure foundation for scientific classification, and that this usage is based on that profoundly mistaken notion of the nature of Gothic art that led the writers of the Italian Renaissance to call everything Gothic, i.e., barbaric, that did not conform to what they regarded as classic.

Professor Hamlin appears to me inconsistent. In an early part of his paper he accepts the principle that structural systems furnish the true basis for architectural discriminations, and he deplors "the habit of regarding architecture as a matter of details." "It was," he says, "upon these that chief attention was centered" by the older writers, so that "the

nature of architecture itself was fundamentally misconceived." After referring to some of the later writers, he rightly speaks of Viollet-le-Duc as having "set forth in clear terms and with authority the structural basis of the entire development of the French Gothic styles," and adds: "It was not until 1889 that any writer in English undertook to embody in permanent form the results of this progress; and it was an American (referring to myself) who first performed this much needed task." He speaks of my writings (p. 124) as having "presented an admirable analysis of the structural elements of the French Gothic system." But after thus endorsing the principle that structural systems are fundamental, he goes on to speak, as I have said, of the term Gothic as connoting a movement covering all Western Europe. Very little scrutiny of the wide field of mediaeval architecture in Western Europe will show, however, that there was never any general movement governed by a common structural principle, and therefore it appears to me that no single term can be applied to any "vast body of mediaeval architecture" except on the principle of regarding architecture "as a matter of details."

The new spirit that was abroad in the eleventh and twelfth centuries found very various architectural expression in Western Europe, as was natural under the unsettled conditions and conflicting influences of ancient tradition, of short-sighted imitation, and of groping experiment. It was in the Ile-de-France alone, where exceptional circumstances, and unparalleled inventive genius, accompanied by the finest artistic aptitudes, such as have never prevailed over wide areas, gave the conditions required for the growth of a new art. Thus in this favored locality there arose, during the twelfth century, a style of architecture such as the world had not before seen. This architecture never became common to the rest of Eu-

rope, or even to the rest of what is now called France; though some of its details, variously modified and denaturalized, were superficially engrafted on many other forms of mediæval building, which details were taken by the early writers to constitute the Gothic style.

To designate this noble art I have used the term Gothic in the restricted sense to which so much objection has been raised, for reasons that I have enough explained. I may again say, however, that it is not for the term that I particularly care. What I think important is that this unique architecture should have a name to itself for the sake of clearness; and the term Gothic seems to me natural and appropriate, since this style embodies, as no other style does, fundamentally new principles which may be reasonably attributed to the Gothic genius. In what I have called the unprogressive types of mediæval building, survivals of ancient principles are variously marked in the fundamentals of design and construction; which means that what I consider the Gothic character is not developed in them. No amount of dressing out in Gothic details can give such buildings a Gothic character. To include them in the same category with the distinctive architecture of the Ile-de-France is to confuse things of essentially different natures.

The fact is, as I have lately had occasion to show,* that the mediæval architecture of Western Europe has not yet been faithfully studied, and its manifold forms discriminated, with primary regard to fundamental characteristics of structure; and so long as this inattention prevails confusion of ideas will continue.

Professor Hamlin's choice of illustrations shows this confusion. He gives an outside view of Vézelay to illustrate what he calls "Romanesque forms of Gothic buttress and tower design." But there can be no such thing as a Romanesque form of Gothic buttress. A buttress with an arch over the aisle roof is a Gothic buttress. The flying buttresses of Vézelay are no part of the Romanesque structure. They were added long after the

original construction, and were derived from the early Gothic of the Ile-de-France.

He then gives the interior of the nave of Le Mans as a building "transitional from Romanesque to Gothic." But Le Mans is not a transitional work in any proper sense. It is, as I have elsewhere said,* a pasticcio made up of parts belonging to several different epochs. The features that may, to an unpracticed eye, give it a superficial suggestion of nascent Gothic, date from the middle of the twelfth century, and are in shortsighted imitation of the then far advanced transitional Gothic of the Ile-de-France.† It is not transitional in the sense of showing structural evolution. The successive interpolations it has undergone do indeed transform it superficially, but this is not the way in which organic Romanesque changes into Gothic. The high vaulting here inserted, though contemporaneous with that of the choir of Noyon, has nothing of the conformation that concentrates thrusts, arising out of the stiling of the longitudinal ribs. And it will be seen that the pointed arches of the ground story arcade are also additions without structural significance, since they are built under the round archivolt of the older structure which overhang them. A true transitional Gothic building is not like this. The genuine transitional character will be found in the church of St. Germer-de-Fly, near Beauvais, which I have described in detail in the book, *Development and Character of Gothic Architecture*, to which Professor Hamlin refers. Nothing of the same kind will be found outside of the Ile-de-France, and its immediate neighborhood.

Professor Hamlin next gives a lengthwise view of the outside of the nave of Reims, as an "expression of structure in the French Gothic." It is so, indeed, but a view of the interior is needed to make the system wholly in-

*"Mediæval Church Architecture of England," p. 30.

†The nave of Le Mans has been many times remodeled since it was first built as the hall of the Roman Governor's palace. It was extensively reconstructed in the ninth century (circa 835), and again at the beginning of the twelfth century. It appears to have assumed its present form about the middle of the twelfth century. Cf. "Étude Historique et Archæologique Sur La Nef de la Cathédrale du Mans. Par Eugene Lefevre—Poutalis, Mamers, 1889.

*In "The Study of Mediæval Architecture," published in "The Journal of the Royal Institute of British Architects," 3rd Series, Vol. XXIII, No. 3.

telligible.* The distinctive structural character of the French Gothic is perfectly embodied here, and I would ask the reader who would know this character to observe this system well. Let him notice how the clerestory and ground story are entirely open between the piers and buttresses, so that no walls occur, save for the low one on the ground for enclosure, and the insignificant arch spandrels. Thus we have the fullest development of that skeleton construction which differentiates (as to structure) the style of the Ile-de-France from all other styles. Look how the piers are fortified against the vault thrusts by the double flying buttresses—the topmost buttressing arch meeting the pier but a little way beneath the cornice, that is, very nearly at the level of the crown of the vault. I have just said that a view of the interior is necessary to make the outside intelligible. It is so because the outer system is a consequence of that of the inside. Inside we should see that the great piers are carried up continuously from the pavement, and that the vault thrusts are gathered on them by stiling the longitudinal ribs, so that the flying buttresses outside can meet the thrusts effectively. This gathering of the vault on the line of the pier by stiling, produces a winding conformation of the vault which is a distinctive feature of what I call true Gothic vaulting over naves.† Only the structurally necessary ribs occur, and each rib is provided with its own support in the compound pier. All supports are logically adjusted, and graduated in their magnitudes in conformity with the ribs. Thus is the principle of organic skeleton construction wholly worked out, while

*While this magnificent monument, now, alas, virtually demolished by the Germans, is of entirely true Gothic character as to construction, it was not an expression of the French art in its strictest integrity. The upper parts have already a good deal of the florid character that marks the decline of Gothic. A better example of the developed Gothic style is the nave of Amiens as originally built. The interior of Amiens, save for the opening of chapels in the aisles, remains intact; but the outside has been largely overlaid with debased ornaments. Enough, however, remains of the original design to show completely what it was.

†Shortsighted writers have called this a defect of French vaulting, and declared it an awkwardness. It is, however, a capital merit, and in my opinion an element of beauty. Indeed whatever makes a thing function has a tendency to beautify, as the winding surface of a ploughshare, or the bow of a boat.

all elements foreign to such construction are eliminated.

Turning to Professor Hamlin's other illustrations of what he would include in the Gothic category, it will, I think, be seen on examination that they have a fundamentally different character. The nave of Exeter, which comes next, is essentially a survival, not a structural development, of Norman Romanesque of the least organic kind. The structurally meaningless multiplicity of ribs does not give the vault that conformation which so effectively concentrates thrusts in the vaulting of Reims. The attenuated shafts have no correspondence with the ribs, no connection with the ground story piers, and thus the system has nothing in common with that of Reims; while the ponderous arcade of the ground story, and the heavily walled clerestory, and its passageway, do not at all differ in structural principle from those of a plain Norman building. The pointed arches and ornamental details are all that distinguish it from such a building.

As for the vault over the western crossing of Lincoln, in which Professor Hamlin calls attention to its "multiple ribs consistently applying Gothic principles," I do not think, after what I have already said, that there is any need for comment.

Neither is any special remark needed on the interior of Salamanca, and the rest of these illustrations. There are no "elements, qualities, features and principles" that are common to them and to Reims, or to any other Gothic building of the Ile-de-France; and there is thus no ground for grouping the whole in one category, save on the principle of classification by details which, as we have seen, Professor Hamlin has himself repudiated.

Professor Hamlin says that in my "Definition of Gothic" I have failed to provide the definition, and that what I have offered as a definition "is intentionally descriptive of a developed French Gothic building." But since I have made it plain that the French art alone is what I mean by Gothic, I could hardly be expected to offer a definition that would include anything else; and surely a true description provides the best sort of a definition.

On p. 429 he remarks: "Professor Moore has an undoubted right to restrict his own use of the term Gothic. . . . But he must not claim this restriction as other than personal; he has no right to impose it on others." But I have not sought to impose it on others. I have merely tried to explain the position to which my study of the monuments has brought me, and to put the reader in possession of the facts as I have observed them. If he does not find these facts, and my analyses and comparisons of them convincing, he is at liberty to reject my conclusions. My book furnishes no ground for Professor Hamlin's remark.

Apart from the mere use of the term Gothic, the difference between my critics and me narrows down, as I have elsewhere said, to the question whether the Gothic architecture of the Ile-de-France is, as I affirm, a fundamentally different architecture from any other. If I am mistaken, the only effective way to refute my thesis is to demonstrate its fallacy by rational argument. This no critic, so far as I know, has undertaken to do. What my critics have not found to their liking has been met by counter affirmations, not by fair discussion.

Professor Hamlin's remark (p. 432) that "to call other styles 'false,' bastard, non-Gothic, . . . is not legitimate criticism" would seem to imply that I have written offensively. I do not think I have used these terms, but if I have, it has not been in a cynical manner. I believe the candid reader will find that I have not written in a cynical spirit, and that my criticism is entirely legitimate. His further remark that my criticism "completely ignores the impressive fact of the great unities, the commanding resemblances of all the styles we commonly call Gothic," I believe I have already sufficiently answered, though some further remark may be given below.

In a note at the end of his article Professor Hamlin refers to the lately published work on Gothic Architecture by Sir Thomas Jackson, and says of it: "There is no attempt at a succinct definition of the style, which 'cannot be defined by any of its features' but is regarded as an expression of the whole spirit of

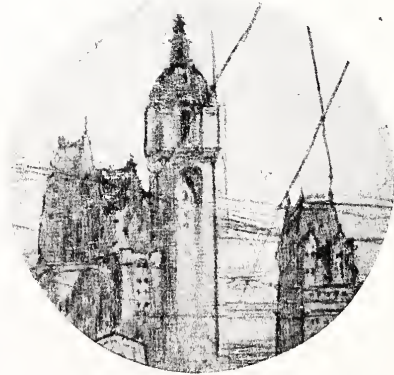
the Middle Ages, characterized by sound construction, economy (in its broadest sense) and aesthetic expression of construction." To this it may be said (1) that Sir Thomas Jackson *does* attempt a succinct definition, as we shall presently see. (2) A style *must* be defined by its features, for it is only by its features that it can be known. We can have no knowledge of a spirit except through its embodiment. And Professor Hamlin has complained (though incorrectly) that I have not looked for common "features" as a basis of classification. (3) The "whole spirit" of the Middle Ages was not Gothic. We are apt to forget that there was a vast survival of pseudo-classic spirit, together with a large proportion of Byzantine, and other Oriental spirit, that found expression in mediaeval architecture. Professor Hamlin fails to see that this architecture, taken as a whole, is as mixed as were the racial elements that produced it. (4) While some of it is characterized by sound construction, this construction is of several radically different kinds; as (a) Roman basilican—with timber roofs, continuous arcades, and unbuttressed walls; (b) Byzantine—with vaulting in the form of the dome on pendentives; (c) organic Romanesque—with groined vaulting on ribs and logical compound supports, including buttresses incorporated with heavy walls; and (d) what I call Gothic—with vaulting on ribs, and logical compound supports and buttresses, forming an organic skeleton, freed from all wall construction. And he takes no account of the fact that a vast amount of the architecture of the Middle Ages in Western Europe is not characterized by sound principles of construction, and the illogical building is of great variety, showing all manner of structural inconsistencies; (5) Aesthetic expression of structure can be predicated only of structurally consistent styles—as the pure basilican, the Byzantine, the organic Romanesque, and the Gothic.

I have not seen Sir Thomas Jackson's book, but if he is correctly quoted in a review by Mr. Francis Bond, published in the Journal of the Royal Institute of British Architects for February, 1916,

he does, as I have just said, attempt a succinct definition of Gothic architecture, as follows: "The constructional theory of a Gothic church in perfection is this. Support should be given at those points in the articulation of a building, on which the thrusts are concentrated, by large buttresses at right angles to the wall, either directly applied to it as in the Ste. Chapelle and King's College Chapel at Cambridge, or, when removed out beyond an aisle, bridging it by a flying arch. These buttress piers may be regarded as sections of the side wall, wheeled round at right angles to the axis of the building. The space vacated by them is filled by curtain walls, which receive no thrust, have only themselves to carry, and may therefore consist mainly of windows. At Amiens and Beauvais we see this theory of construction thoroughly worked out. The windows of the aisles . . . reach from pier to pier, . . . and the whole space above the triforium . . . is occupied by an immense window whose outer arch forms the wall-rib of the vault. The piers be-

tween the clerestory windows are only wide enough to receive the flying buttresses which sustain the nave vaults and descend on the massive pier beyond the aisle. . . . Every atom of material is economized, and the building consists of a series of parallel buttress-piers . . . between which is a curtain . . . chiefly of glass, to exclude the weather, which in theory might be taken away without disturbing the structure. . . . Advantage was taken of every experiment . . . to economize material and to suppress all that did not form part of the constructional skeleton."

Barring some inexact statements and important omissions, on which it is not worth while to dwell here, this definition has a strong resemblance to my own. And it should be noted that this "definite and concise account of the logic of Gothic construction" (to quote the words of Mr. Bond's review) is quite as exclusive as mine. Sir Thomas Jackson's characterization of Gothic construction applies to the developed Gothic of the Ile-de-France, and to nothing else.



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BOOKS ON COLONIAL ARCHITECTURE

By RICHARD FRANZ BACH

Curator, School of Architecture, Columbia University

Part III.—Dwellings (Continued)

A PART from the references to be found in the more general works noticed in the earlier papers in this series, such as collections of measured drawings and inclusive histories, it may be said that the district of the Middle States has not been granted its due meed of attention at the hands of students and writers. This statement is to be qualified, of course, by the fact that the Middle States in the old Colonial sense were not exactly co-extensive with those generally so denominated in the modern school atlas, and furthermore by the lack of fine definition of boundary for this district and for that usually called the Southern States. The two regions are quite distinct in the type of formative architecture produced only in so far as they are considered from the point of view of the type of their colonizers. These were of varied stock, as is well known, varying from the Dutchman of meagre means but of doughty spirit who carried his convictions to commercial success and agricultural fruition in the districts of northern Pennsylvania, New York and New Jersey, to the cavalier of the landed gentry traditions who re-

ceived the southern lands by right of royal grant and lived on them as on a manor, or more properly, in the American sense, a plantation. While, however, the Southern States produced a category of buildings characteristic of and for all time identified with that region, the Middle States cannot offer such a uniform or harmonious development of representative architectural form. On the other hand, the showing in the Middle States is dependent upon a growth from a number of roots, English, Swedish, German, Welsh, as well as the predominant Dutch. In New England we found a rapid growth of cities, with secondary development in farmhouses; in the Southern States we shall later find a distinct contrast to this type of growth in the conception of the ennobled farmhouse or manor house; in the Middle States we find a much closer equalization in numbers of city and country houses. A very limited number of cities was bound to be founded, for it may be said that in modern civilization cities are an unconsciously developed feature, to a great extent, finding their existence without definite intention. But the few cities,—the chief

centers being, of course, New York and Philadelphia,—can hold our attention no longer than the broadcast activity of the builders of country and farm houses.

Pennsylvania was a polyglot colony, for with Pennsylvania must be considered Delaware, which formed part of it at the outset. We find in this Colony settlements of Dutch, Swedes, Germans and English, all adhering to traditions of speech and of national character, which remained well defined and produced well defined architectural forms. Although impelled to essay life in the new and alien conditions of the New World, these colonists were not by the same token impelled to make common cause in language, customs or art. Their artisan training retained its Old World savor in accordance with its origin in a particular part of that world and transferred that training to the new country and there worked it out in terms of different requirements and materials, each race individually and with no lack of clannish segregation. The strong later wave of colonization fathered to a great extent by Penn's Quakers, but seconded by other nationalities, served to absorb much of the earlier life, especially that of the Swedes, but not without leaving a strong impress upon art forms, names of settlers and in other ways. Race segregation was further aided by the actual conditions of settlement, which included in the case of the Welsh the right to govern themselves and to live in a tract of land of their own holding, conditions stipulated with William Penn, before the "holy experiment" took ship for free soil. A like isolation is noted in the case of German settlers, who from their original base at Germantown crept always farther due west into the untrammelled areas of northern Pennsylvania, operating mills and tilling the soil, speaking their own language, issuing their own books, as though Penn's Philadelphia were no nearer than London. The Germans, being more numerous than the Welsh, and originally adhering to varied creeds in the home land, practiced a similar differentiation in Pennsylvania, which carried still further the definition of distinct architectural types. In this manner, we note distinctions between the

Suabian stock of the Moravians and others, from whom they hoped to differ as much as they did from the original church of Rome.

Such isolation is bound to breed a sort of antagonism, even though negative or indifferent, and this feeling is reflected in all types of expression, architecture included, to the extent that in all cases of well preserved buildings which have not felt the heavy hand of the well meaning but incompetent "restorer," it is yet possible to recognize the traits of their racial origins. In the cities we are not granted the same opportunity of study. The same spirit of commercial growth which prompted the erection of the earlier city mansions, whose splendor we well know from extant accounts in later years, also accounted for their destruction, because they occupied valuable land and community intelligence has not yet risen to the general level of appreciation which would prompt the preservation and restoration of such buildings. In rare instances city dwellers, patriotic societies or individuals have favored certain buildings, and these have been adequately provided for: we need only mention the Philipse Manor Hall in Yonkers, or the State House and adjoining buildings in Philadelphia, or the recently restored Dyckman House in New York. These are of sufficiently varied type, without citing additional examples, to indicate the wide differences that were readily to be found in the district of the Middle Colonies.

It will therefore be seen that a comprehensive study of the Colonial manifestations in this region will imply a detailed understanding of practically the whole Colonial development, regardless of geographic limitations so far as the type of architectural indications is concerned, for the Middle Colonies offer evidences of all forms found in other colonies. When the word Colonial is used in these articles, we mean—as we have taken occasion to state at various times before this—to include both the true Colonial and the subsequent and decidedly less faithful Georgian varieties.

Perhaps, because of the task involved and possibly because of the differentia-

tion in local sympathies which would destroy to a certain extent the essential harmony of such a study, no one has yet undertaken an inclusive work covering the whole Middle Colonies region. We can do no better than to refer to the general works, both historical and architectural purely. Among the former the best is assuredly that of Eberlein, entitled *The Architecture of Colonial America*, which has been reviewed in an earlier issue and repeatedly mentioned since. The latter class would include the broader collections of measured drawings which have been included herein from time to time, with specific mention of such restricted series of plates as *Old Philadelphia Colonial Details*, by Joseph Patterson Sims and Charles Willing (Folio. New York; The Architectural Book Publishing Company; 1915. \$10), which has also been noticed previously. Note should be made also of Aymar Embury's *Dutch Colonial House*, which treats of the origin and design of this type of homestead, its old as well as its modern planning and construction (Large octavo; pp. iv+108, ill. New York; McBride, Nast & Co., 1913. \$2), and of Henry H. Saylor's collection of papers by enthusiastic advocates of various styles for country houses, entitled *Architectural Styles for Country Houses*, which contains articles on the Dutch and other Colonial home types (Large octavo; pp. 124, ill. New York; McBride, Nast & Co., 1912. \$2), both of which appear in a series with the half title Country House Library, a Series of Architectural Books for the Layman. A notable work in this connection is also that bearing the title *Colonial Architecture for Those About to Build*, which is in our opinion misnamed. It is an excellent work covering "the best examples, domestic, municipal and institutional in Pennsylvania, New Jersey and Delaware, with observations upon local building art of the eighteenth century" (Crown octavo; pp. xv+269, 207 ill. Philadelphia; The J. B. Lippincott Co.; 1913. \$5).

The Colonial field in Delaware, consequently to a certain extent also of the original Pennsylvania district, together with that of the adjacent Colony of Maryland is considered in *Colonial Mansions*

of Maryland and Delaware, by John Martin Hammond. (Octavo; pp. xiii+304, 65 ill. Philadelphia; The J. B. Lippincott Company; 1914. \$5.) This is one of a series of volumes in the Colonial field, although not closely bound to maintain a given character as to manner of handling. The work is excellently published, is issued in a limited edition from type, the type having been distributed upon publication. The illustrations are clear, made from photographic originals, and in most cases with no little regard for pictorial effect. In general it may be said without hesitation that the volume will command interest in many directions. Unfortunately the manner of its preparation, which is, in other words, the author's purpose, is not distinctly or narrowly architectural, and therefore the volume cannot offer any deep interest for us in the present discussion. It is properly classed with a number of others previously listed, which concern themselves largely with local story, genealogy, the owners and occupants of houses and a brief non-technical description of the building. In such works there is rarely anything more in the way of illustrations than an exterior and possibly an occasional detail of a doorway or porch, for the parallel human interest. There is no reference to construction, to plan, except to mention the location of the drawing room and of the banquet room, both of which formed the background for many a feast and festivity, especially in the more southern buildings. The present volume considers thirty-seven mansions, offers in most cases a few words descriptive of the building, and then continues with the tale of the dwellers beneath its shelter. The volume has an excellent index and is handled throughout with a painstaking care and, no doubt, historical accuracy, and it is written, finally, in thoroughly readable style.

Of similar interest, but of more decided architectural value, is a work from the same press by Harold Donaldson Eberlein and Horace Mather Lippincott entitled *Colonial Homes of Philadelphia and Its Neighborhood*. (Octavo; pp. 365, 72 ill. Philadelphia; The J. B. Lippincott Company; 1912.

JACKSON'S "GOTHIC ARCHITECTURE"

By PETER B. WIGHT

ANY review of Sir Thomas G. Jackson's book* would fail in a useful purpose if it did not demonstrate the value of this great work to English-speaking architects of the present day or point out its importance to the cause of architectural education at a time when architecture appears to be again in a formative condition. This is demonstrated in nearly every page. It is the latest of a series of works by different authors that have appeared since the early part of the nineteenth century, being the most recent investigation of the origin and development of Gothic architecture from the twelfth to the fifteenth centuries, inclusive. The literature of this subject has been, for three-quarters of a century, so extensive and elaborate, and has been so lavishly illustrated, that the mere mention of a series of such books in detail would fill a large catalogue; and it behooves the student of today to be careful in selection, and to seek expert guidance in undertaking a course of reading. This is especially so as travel for proper consecutive study on the spot is now almost impossible. Many of the books heretofore considered as standard are now misleading and useless, being expositions of theories which are without foundation on facts, and covering matters of detail which have little or no important relation to what was a great civilizing movement throughout all of Europe during the time covered by this treatise. Mr. Jackson's book therefore is now more than ever useful in taking the place of many that have preceded it, enabling the student to save much time that might be wasted, especially in studying such works as appeared, say, before the time when Viollet-le-Duc issued his great *Dictionnaire*. This is not to say that several

of the works issued between that time and the present are not highly instructive and necessary to the student.

In an admirable article by Prof. A. D. F. Hamlin in the pages of this journal for May is given a list of the most important works on Gothic architecture that have appeared during this period which are of philosophic value as well as descriptive, and written with a purpose. The subject of the present book, which was issued after his article was in print, is only mentioned in a footnote. The reader's attention should be recalled to that article in connection with this brief review. The list comprises a few that are of greatest educational value to the student of architecture of the present day. And let me say that I use the words "student of architecture" advisedly; for to have said the "student of Gothic architecture" would imply that these books are only valuable to those who desire to practice the art so-called. Mr. Jackson and his predecessors have made it clear that the development of Gothic art in the Middle Ages, properly analyzed, explained and demonstrated from the facts of its history—which have been accessible in its monuments for five centuries—has involved principles of construction and design applicable to any architecture that has existed or may be developed in the future. When recognized and accepted, they may readily be our guide in the study of any previously existing or subsequent prevailing style of architecture. The lesson to be conveyed is that the recognition and understanding of these principles and their expression in practice are essential to all progress both now and hereafter. They are necessary to enable us to understand the nature of evolution, which is continuous among all intelligent people, and that no construction is true to the laws of nature that is not rational and logical; while good construction and the economic use of materials available is essential to all architectural progress and the development of an archi-

*GOTHIC ARCHITECTURE IN FRANCE, ENGLAND AND ITALY, 2 vols., large octavo, illus. By Sir Thomas Graham Jackson, Bart., R. A., F. S. A., Hon. D. C. L., Oxford. Hon. LL. D., Cambridge, Hon. Fellow of Wadham College, Oxford, Associé de l'Académie Royale de Belgique, Cambridge, at the University Press; University of Chicago Press, \$14.50.

tectural art that illustrates the advance of civilization. The author tells us why this is so. He also points out that the variation in mediæval styles contemporaneously in the various countries in which they were practiced was due to the facilities they had for quarrying, transporting and working the different materials accessible to each, especially the stones and marbles as well as bricks and terra-cotta; whether the stones were quarried in large or small pieces and hard or soft, or what facilities they had for putting them in place. The same conditions prevail now, but only to a limited extent on account of our scientific knowledge and facilities for transportation. In this connection, though it is a little out of place, I may as well quote the very last paragraph in the work so that the reader may understand his point of view as to what the influence of the study of Gothic architecture may be upon the present and future practice of the art, and the lesson it conveys.

"Let our architects, fully stored with knowledge of the past, but regarding the bygone art as their tutor rather than their model, bend themselves resolutely to the problems of the day, to novel modes of construction, to the use of novel materials, to new habits of life and new social needs, and let them satisfy these demands in the most direct and common-sense way regardless of precedent or authority, and they will be working in the true Gothic spirit. If a man has the divine fire of art within him and works on these principles, the details will come of themselves, and it cannot be but that what he does will have all the qualities of good and true art."

In the first volume we find a very complete account of the history and development of Gothic architecture from the Romanesque and Norman of France at the period where ended the author's previous work on Byzantine and Romanesque Architecture published two years ago, summarizing much that had been previously said by Viollet-le-Duc, Professor Charles H. Moore, and others; while he does not hesitate to discuss many of the opinions and deductions expressed by them, though in a kindly spirit. He covers all the countries in which Gothic,

or vaulted and pointed architecture was developed and practiced except Germany, which, for evident reasons, he has not been able to investigate during the last two years. But he says that all German Gothic was derived from France, just as much Italian Gothic was derived from Germany. The Germans merely followed French developments. Being an Englishman, he does not fail to pay his compliments to the Germans for their skill in devastating within the last two years one of the most important fields of French and Belgian Gothic in the quickest possible way.

After referring to the definitions of Gothic architecture by previous authors he says: "To arrive at anything like an exact definition of Gothic architecture we must look deeper than the mere outward phenomena by which we are accustomed to recognize it. To judge from them alone, no words could be framed to describe in common terms buildings so diverse as King's College Chapel (Cambridge) and Salisbury Cathedral. Yet different as they are from one another they both result regularly and naturally from the application of the same principles under somewhat different circumstances. These principles were already at work in the Romanesque buildings of the preceding centuries, and it is to their constant application that the development of the new styles are due. The same principles which brought Romanesque architecture to birth out of the style of ancient Rome, when carried further and pushed to their logical consequences, produced the arts of the Middle Ages which we call 'Gothic.'"

The above is only one of the preliminaries to the first chapter of the first volume, which is devoted to its farther elucidation. Continuing in the same vein he says: "There was no interruption, no break of continuity in development; the earlier style melted gradually, almost imperceptibly into the other; and afterwards one phase of Gothic passed gradually and imperceptibly into the next."

"Three grand principles have governed the development of Gothic architecture, as indeed they have that of every good style that the world has ever seen.

"The first is that the construction must be sound and good. Good building is the foundation of good architecture; no amount of design can make up for a defect in this respect. This however does not take one beyond mere utility, and engineering, and does not touch the bounds of art.

"The second great principle is that of economy; by which I mean not only thrift, though that comes in too, and the Gothic builders might have said with Pericles

φιλοκαλοῦμεν μετ' εὐτελείας,

but economy in the original sense of the word, that is to say a nice regard for arrangement and proportion, the due observance of circumstance of time and place, of the means available, of the materials at your disposal, and of the mode of using them to the best advantage. This takes us a step farther. The suitable treatment of material so as to make the best of its natural qualities without waste or misapplication carries us a long way to our third great principle.

"The third principle is that the design should be the aesthetic expression of the construction. For architecture differs from mere building simply in this, that it is the art of building "expressively and beautifully." * * * "In either case the artistic faculty is a gift of nature which may be cultivated but cannot be implanted when it is absent."

These quotations are from the first chapter on "Definition of Gothic." It differs very little from that given by Prof. Moore in his book on the "Development and Character of Gothic Architecture" (MacMillan, 1899). Continuing, he falls in the wake of Viollet-le-Duc, but gives him little credit for it except in the illustrations used. Chapters 2 and 3 are devoted to an illustration of the Gothic vault, which he discusses with Viollet-le-Duc and Moore. The former thought the first development of the Gothic vault was found in the church at Vezelay, but Jackson agrees with Moore that it is found first in St. Ambrosio at Milan. The author also agrees with Moore that the

first stepping stone to cross vaulting is found in the Basilica of Maxentius at Rome, but that the vaulting of St. Ambrosio anticipates the whole system of the Middle Ages, while Moore finds the first advance in northern France, after St. Ambrosio, in the monastic church at Vezelay, just as Viollet-le-Duc does.

The author starts a very interesting discussion with Prof. Moore on the origin of stiling the wall arches in vaults, because Moore quoted from Sir George Gilbert Scott's lecture on the "Rise and Development of Medieval Architecture," in which he said that "the side arches were sometimes stilted, not from any necessity, but merely to afford greater space for the clerestory windows." Prof. Moore claimed that this was done to concentrate the thrust of all the vault ribs more nearly on the buttresses. But Jackson rejoins on page 39 of the first volume that Moore was wrong in criticising Scott. This was natural, for it happens that years ago Jackson was an assistant to Scott in most of the restorations that he carried out in English cathedrals. This experience has evidently been of great value to him in elucidating the principles of Gothic construction. It is curious that Viollet-le-Duc has not treated on this detail, that is, so far as I know.

The first fifty pages of Vol. I are devoted entirely to the discussion of the development of vault and buttress construction and are well worthy of study, considering the great experience of the author as a restorer.

The whole book is a sumptuous work from every point of view, perfectly printed, with marginal notes on every page, and illustrated throughout, mostly with half tones from the author's original drawings, which are exquisitely rendered, being the work of a lifetime, as their dates show, and with but few illustrations taken from other books, for all of which due credit is given. The whole work is practically a supplement and continuation to the same author's "Byzantine and Romanesque Architecture," printed and bound uniformly with it.



**Philadelphia
Adopts One-Story
School Building
Policy.**

The growing popularity of the one-story type of school building which has proved such a success on the Pacific Coast has again been evidenced in the recent action of the Philadelphia Board

of Public Education in directing its superintendent of buildings, J. Horace Cook, to draft plans for a one-story school building, to be located at Ann and Tulip Streets. This new school, it is announced, will contain thirty-two divisions. There will be only a small basement in one corner, where the heating plant will be located. The light and ventilation problems will be met, in large measure, by a roof of skylights.

The new departure was made at the suggestion of Edwin Wolf, chairman of the finance committee of the board. In discussing the one-story school building for big cities, Mr. Wolf said:

"I know that some persons, as soon as they learn what we intend to do, will offer objections. They will say that we have no sense for the beauty of construction and that we owe it to the school system to erect buildings that will please the eye. This is because these people are used to seeing school buildings of several stories.

"I do know, however, that the one-story buildings will contain equipment and space for all the things that are now done in other buildings of the two and three-story type. I also know that where we are now paying \$250,000 for an elementary school building of two or three stories, the cost of a one-story building will not be much over \$125,000. There may be some sections of the city where, through congestion in property, it will not be possible for us to erect one-story buildings. But in all neighborhoods where it is possible for us to acquire land enough for the purpose I shall urge the construction of the one-story school."

CHAS. R. ROSENBERG, JR.

**The
Architecture
of Mediaeval
Chester.**

Chester stands foremost among all of the cities of England in the richness of its mediaeval architecture and possesses at the present time more examples of this architecture of the

sixteenth and seventeenth centuries than any other city of England.

The mediaeval portion of this city is surrounded by walls ten or twelve feet in thickness, which are still at the present time in a very fair state of preservation, and inside these walls stand the ancient buildings of Chester on streets which remain today the principal streets of the modern city. They are set at all angles both in front of and behind the street line, if such a line can be said to exist in streets which are narrow here, wide there, now turn off at one angle, now at another.

It is as though the buildings have been placed according to the individual desires of the owners and later a street run between them. Where the street is broad the sidewalk runs in front of the buildings, but where it narrows the first story of the buildings is replaced by an arcade, called a "row," which shelters the walk. The second story is carried on quaintly carved wooden columns, the third and fourth stories, which as a rule each overhang the one below, being supported on brackets, which are also carved, often in the likeness of a human or grotesque figure.

These buildings, for which Chester is justly famous, are all in what is called the Elizabethan or half-timbered style of architecture. They are sometimes of three, usually of four, stories, with gable roofs above which rise high chimneys, capped with chimney pots of all varieties of odd designs.

The front of the upper stories and the gable are decorated with all manner of geometrical designs in timbering filled in between with brick, which are in turn cov-



AN OLD COURTYARD.



TYPICAL OVERHANG AND CARVING.

ered with white plaster. This timbering is all a structural part of the frames of the buildings.

The ground stories are used as of old for stores, but on account of the inroad of modern business the old store fronts have been mostly done away with, being replaced by more or less modern show windows, but above, on the contrary, the second and third stories remain practically as they

were built about three centuries ago and are used in a great many cases for the same purpose as in former times; that is, for living apartments of the storekeeper and his family.

The builder and owner of this period were to all intents and purposes one and the same person, and he put into his building a great amount of his own personality (which is a point which it would be greatly



STREET FRONTS OF TWO BUILDINGS, CHESTER, ENGLAND.

to the advantage of modern builders to remember). The part of his house he used for business he made plain and simple, caring nothing for useless ornament where no one would have the time or inclination to notice it, but on the two upper stories of his house, that is, on his home, he lavished all of the ornamentation which he could afford. Carving was his delight, and he used it everywhere, on all of the structural members, on brackets, corner-posts, window-heads and barge board, everywhere, in fact, where there was the slightest opportunity for beautifying and enriching his home.

The windows of the upper stories are casement in groups, decreasing in numbers toward the top. That is, if the second story contains five in a group, there will be, as a rule, three in the third and one in the fourth, the number depending, of course, upon the width of the building. The columns and beams which support the overhang of the second story, and the brackets carrying the third and fourth stories, are carved very richly in different grotesque forms. The entrances, where the first story does not happen to be used as a store, are ornamented with carving, and the doors are of very heavy oak,



CARVED ENTRANCE AND ORNAMENTAL DOOR.

studded with nails and with huge wrought iron hinges.

The interiors of the old buildings were very plain on the first story, but above, in the living apartments of the owner, no expense was spared. The living rooms, as a rule, were well lighted by the casement windows, which were divided into square lights.

The plastered ceilings were sometimes ornamented by a plaster coat of arms, in the center, and which was painted in colors, or by an ornamental frieze of flowing design. Where beams occurred they were often plastered over and ornamented with a like design. The mantelpiece of oak was always the most important feature of the rooms, and on it was lavished the most wonderful carving of this period. The principal ornamentation was confined to the overmantel, although in some cases the stone facing was also carved.

It is not difficult to see from an examination of the work of this period that it was done, as a rule, by men who loved their trade, put their heart into their work, and who took that pride in it, which is an item absolutely necessary to the accomplishment of beautiful and lasting buildings.

DUANE LYMAN.



AN ARCADE OR ROW WITH CARVED BRACKETS.

The
Mystery
of the
Ionic Volute.

Of all the architectural forms that have come down through the ages of building, perhaps none is of older lineage or of greater popularity than the Ionic volute. This decorative spiral, with its graceful curve and enticing form, seems to possess an alluring power—a mystery and charm which have made it a popular motive from the time of the builders of the pre-historic lands of the Far East, down to the modern era of American building.

Most architectural forms used in a purely decorative sense can be readily traced to some rather certain and definite origin. They are usually the fruits of some historical suggestion or the result of the material at the builder's command. Plant life and animal forms have suggested decorative features, and even in a purely developing art have the forms been imitated in a material suited to their portrayal. With the Ionic volute, no one agent, either of plant or animal form, of material or of structure, seems to point directly to the use of this feature as a transition between a vertical post or column and the horizontal beam or lintel. Many theories have been advanced as to the derivation of the volute, but so many and so diverse are they that they only serve to increase the mystery.

The earliest form of the scroll or volute known to archeologists was found among the very ancient remains of Assyrian and Persian building, the Assyrian being the earlier of the two, while the more complex scrolls are found in the Persian. These earlier volutes are sometimes thought to have been imitations of some plant form, possibly the tendrils or foliage of the reed or tree trunk of which the first supporting members must have consisted. These material forms may have later been imitated in the more substantial stone.

Other archeologists claim that the scroll was derived from the art of early metal workers, forming the conclusion from the natural spiral formed by the coil of thin metal strips.

Still another theory is founded on wood construction, the belief being that the volutes were formed by the ends of wooden posts frayed out and curling up as they were driven down into the ground, or subjected to a heavy load laid across their unprotected ends.

Although the scroll and volute form

seems to have been in common use many centuries before the classic period, it remained for the Greeks to bring it into a high state of artistic development with the rare touch of the Greek sculpture. Here, too, did it become designated as the Ionic, from its adoption and perfection by the Ionians. This race was clearly of Asiatic origin, having crossed the inland sea and settled on that portion of the Grecian peninsula known as Attica at a very early date of pre-historic Grecian civilization.

The Ionians were distinctly differentiated from their co-inhabitants of the Grecian peninsula, the Dorians. This is apparent in their architecture, the Ionians displaying a feminine grace as compared with the more masculine vigor of the Doric buildings. This characteristic, coupled with the fact that the Ionic order was most frequently used by the Greeks in their temples to the commemoration of female deities, has led some authors to the belief that the Ionic volute was in some way symbolic of womanhood.

Vitruvius, in his treatise on architecture, even goes so far as to state that the Ionic volute was derived from a form of hair-dressing in vogue among the Greek maidens, while the fluting in the shaft below was suggested by the folds of drapery—ideas more fanciful than logical it would seem.

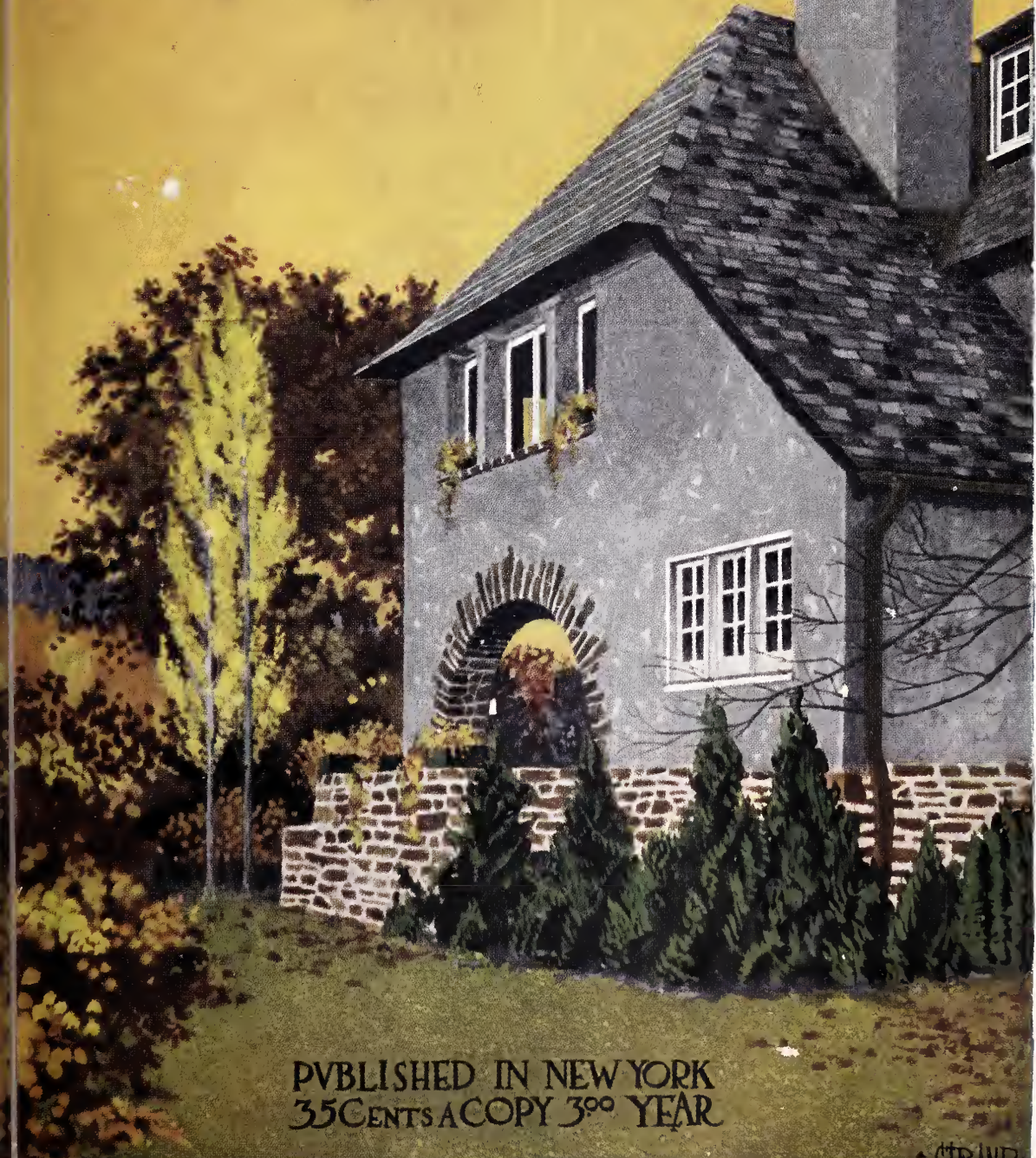
One Greek archeologist has advanced the suggestion that the volute was inspired and traced from the curves of the snail's shell; another that it was formed by the delineations resulting from a cord being wound around a stick placed in the eye of the volute. Still another argues that the spirals were inspired by the curving edges of a parchment containing the records of the building, which was placed between the post and the lintel with a ceremony preceding the modern laying of a cornerstone.

One with a tendency to trace all decoration to construction suggests that the circular volute may well have resulted from wooden rollers placed over the columns to take care of any expansion and contraction of the horizontal member resting upon it.

While it is difficult to base one's belief of the origin upon any one of these theories they all add interest to this popular form, a form which will continue to be used as long as it serves the purpose of meeting the artist's demand for beauty.

R. S. FANNING.

ANNUAL COUNTRY HOUSE NUMBER
The ARCHITECTURAL
RECORD
OCTOBER
1916



PUBLISHED IN NEW YORK
35 CENTS A COPY 3⁰⁰ YEAR

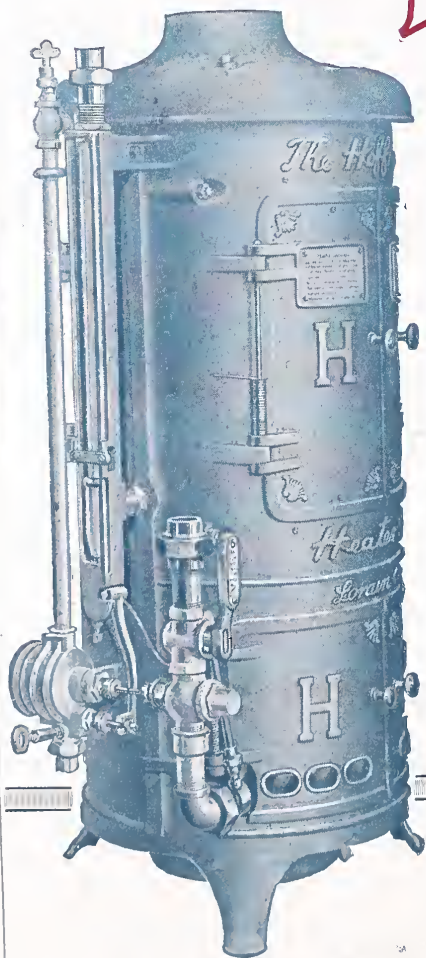
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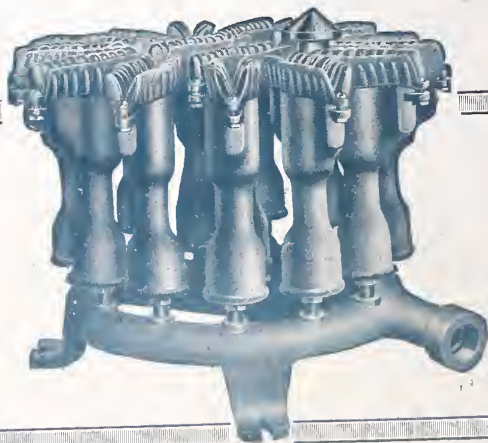
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Editor: MICHAEL A. MIKKELSEN.

Contributing Editor: HERBERT CROLY

Advertising Manager: AUSTIN L. BLACK

Yearly Subscription—United States \$3.00
—Foreign \$4.00—Single Copies 35 centsEntered May 22, 1902, as Second
Class Matter, at New York, N. Y.Copyright 1916 by The Architectural
Record Company—All Rights Reserved

PUBLISHED MONTHLY BY

THE ARCHITECTURAL RECORD COMPANY

115-119 WEST FORTIETH STREET, NEW YORK

F. T. MILLER, Pres.

W. D. HADSELL, Vice-Pres.

J. W. FRANK, Sec'y-Treas.

E. S. DODGE, Vice-Pres.



FIG. 1. ENTRANCE DOOR—HOUSE OF C. J. BUTLER,
ESQ., DETROIT, MICH. ALBERT KAHN, ARCHITECT.

THE ARCHITECTURAL RECORD

VOLUME XL



NUMBER IV

OCTOBER, 1916

COVNTRY HOVSE ARCHITECTVRE ~ IN THE MIDDLE WEST ~

BY PETER B. WICHT

IN the article on "Country House Architecture in the Middle West," which appeared in the October issue of this magazine a year ago, I took occasion to say, referring to the illustrations in general: "The indications in these examples of a conformity to certain principles of construction and design are prominent and are part of the evidence that in certain respects 'style' has grown from a common experience. For instance, the greater number of the houses are long rather than square, as was formerly the case. The square country house with a stairway in the middle is a thing of the past. The long side is now the entrance front. The main stairway receives its light from one of the 'fronts' and not from a skylight. It is a distinctive feature both of the interior and exterior design. Another prevailing feature is that the buildings are low, with deep projecting eaves, and with low ceilings, compared with those of former days, and low roofs."

In saying this I was unconsciously explaining what is now recognized as the "prairie spirit" in architecture—a con-

comitant of the prairie spirit in landscape treatment which has been recognized and advocated by one of the departments of the University of Illinois. The State of Illinois, it is true, neither dominates nor controls the study of landscape gardening throughout the Middle West, which is not all of prairie topography; but it speaks for its own domain, and in so doing has issued from its Department of Agriculture a most remarkable pamphlet.* In this it has demonstrated the analogy between the landscape treatment appropriate in a prairie State and the type of architecture which harmonizes with it.

To quote from the pamphlet by Professor Wilhelm Miller: "The Middle West is just beginning to evolve a new style of architecture, interior decoration and landscape gardening in an effort to create the perfect home amid the prairie States. This improvement is

*The Prairie Spirit in Landscape Gardening: What the People of Illinois Have Done and Can Do Toward Designing and Planting Public and Private Grounds for Efficiency and Beauty. By Wilhelm Miller, Department of Horticulture, Division of Landscape Extension, University of Illinois, College of Agriculture, Urbana, 1915.

founded on the fact that one of the greatest assets which any country or natural part of it can have is a strong national or regional character, especially in the homes of the common people. Its Westernism grows out of the most striking peculiarity of Middle Western scenery, which is the prairie, i. e., flat or gently rolling land that was treeless when the white man came to Illinois."

Now this propaganda is just as much applicable to any prairie State in the Middle West as to Illinois, and can just as well be illustrated in parts of Ohio, Michigan, Indiana, Iowa and most of the other States up to the foothills of the Rockies. What the University of Illinois is doing for landscape art is equally valuable to the greater part of the territory between the Appalachian chain of mountains and the Rocky Mountains. But we are concerned now mainly with architecture, and it is gratifying to know that an educational movement is on foot to harmonize the landscape treatment of this great area with what the architects have been doing in recent years with our country and suburban residences.

The illustrations herewith given will, it is hoped, make this fact more evident and convincing. Professor Miller has shown a great interest in the work of Sullivan, Wright, Griffin and Drummond in harmonizing their buildings not only with rational land improvement, but with the natural forest trees whenever their buildings have been designed in connection with them; and several buildings by William Drummond, of Chicago, are illustrated by admirable half-tone engravings. One of these is Mr. Drummond's own residence, of which the owner said: "Because I love trees I bought this lot and snuggled my house among them, so that three big trees are growing through the front porch. I cut a hole in the caves to make room for one." Of another house he said to Professor Miller: "I purposely repeated the prairie line in the roofs. The elder in the back yard echoes the same note."

A view and the ground plan of Mr. Drummond's own house, above referred to, are reproduced here in Figs. 3 and 4, and the vignette in Fig. 2 is from a

free-hand sketch of one of his houses, with its surroundings, somewhat idealized. Another of his houses will be found in Fig. 19. This is not altogether in the "prairie spirit." I have therefore placed it among illustrations of houses of a more picturesque character. It also shows how a small house may be made attractive with little outlay of money. It is a suburban house with many close neighbors, and is built entirely of wood carefully colored, the exterior of the second story being covered with stucco.

There are many other houses of reasonable cost among the illustrations. Some of them may be found in Figs. 5, 6 and 10, wood frame and stucco; 13 and 14, wood frame and partly stucco; 12, wood frame, shingle and stucco, and 21, all shingle. These demonstrate that good design does not depend on cost. In fact, an attempt to classify all of these examples in a graded list according to their artistic qualities, if such a thing were possible, might result in putting some of the most costly ones near the bottom. But I do not purpose to criticize their pretensions or their defects. They have all been obtained from architects who were invited to contribute to this symposium, and no conditions as to the cost, material or style of house to be represented were imposed, each architect being requested to make his own selection of representative work. It is important to note that no condition was imposed as to the "style" of architecture desired. In fact, it is rather the desire of this writer to ignore "styles," searching for more important qualities, such as fitness of the materials employed, adaptability to site and careful execution.

It has been gratifying to discover that in all those qualities comprehended under the conventional term "art," these illustrations show a decided advance over those adduced in October, 1915. It is strongly evident also that the prairie spirit in architecture, so earnestly sought for by Professor Miller, is realized in many of the examples, and that, consequently, this spirit is to be regarded as an evolution in architectural design which can now be recognized. The sym-

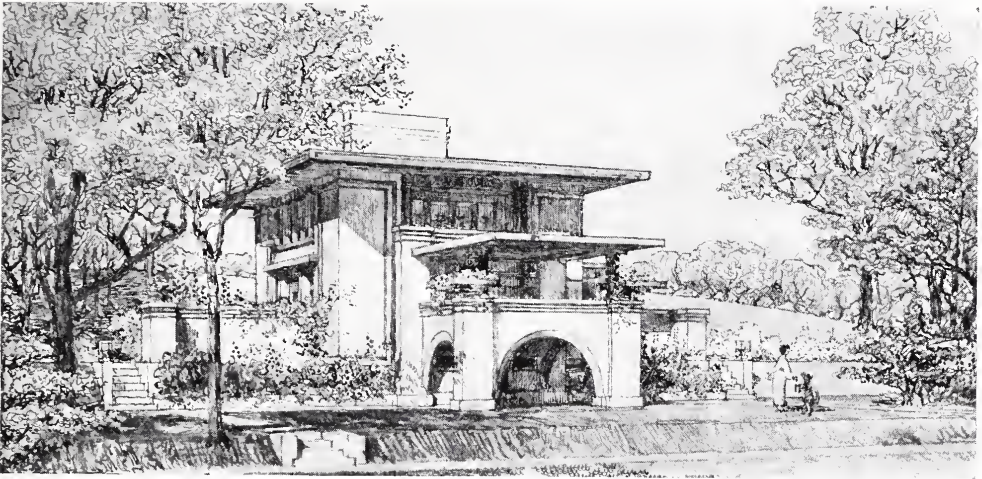


FIG. 2. THE "PRAIRIE SPIRIT" IN ARCHITECTURE AND LANDSCAPE TREATMENT.
From a Sketch by William Drummond.

pathy with nature which every architect should have has been tangibly expressed in numerous instances. The prairie spirit is generally reflected in the buildings designed for a prairie environment. Many of those which do not show it have been designed for places where the topography and natural environment are not of the prairie character. A special illustration will be seen in the picturesque and beautiful house designed by Carl E. Howell and J. W. Thomas, Jr., of Columbus, Ohio, for B. R. Deming (Fig. 30.) This is not a "prairie" house, according to the architect's description, from which I quote to show the measures taken to secure adaptability to location:

"In cutting through Fairmont Boulevard, a long, narrow strip of ground was left over. This strip is 600 feet long, twelve feet wide at the narrowest point, and less than fifty feet wide at the widest point. On one side is the busy boulevard and on the other are the remains of an old stone quarry, which has a brook running through it. This brook has several small water falls. The quarry has been laid out in a naturalistic way by the adjoining neighbors. In designing this house, our idea was to place all the living rooms on the ravine side, with the service and least used rooms next to the boulevard. The stone used in this house came out of the excavation."

The buildings that give evidence of the prairie spirit have been grouped together for convenience of reference from Fig. 2 to Fig. 18, inclusive. It will be observed that they are all in the State of Illinois. This is merely a coincidence sustaining what has been said above and was not discovered until after all the illustrations had been engraved and grouped.

Of the first ten which follow, and which may be regarded as houses with picturesque treatment, only three are in Illinois, one is in Ohio, a hill State, four are in Michigan, also a hill State, one is in Iowa and one in Missouri, rolling prairie States.

Nos. 29 and 31 have dominating horizontal lines, and are suggestive of Colonial influence. Both are in Michigan, in a locality where the natural ground is level; still they are largely in the prairie spirit. No. 13 has an individual character and stands alone as an example of purely local influence, a rational adaptation to the site and the materials that were found upon it.

Illustrations of what has begun to be called the "Chicago school of architecture" may be seen in Figs. 8 and 9, by Von Holst and Fyfe, assisted by Mrs. Marion M. Griffin, and in Fig. 11, by H. V. Von Holst, assisted by Mrs. Griffin. Mrs. Griffin is well known

among the Chicago progressives as the wife of Walter Burley Griffin, who is now building the new capitol of Australia. This so-called school is also represented in the house by Charles E. White, Jr., in Fig. 11. Fig. 18, by Horatio R. Wilson, is an old-fashioned frame house designed by him years ago, with a new addition shown on the left side of the picture.

The amount of country house building within the last two years has been much less than formerly. Still, what there is has shown progressive tendencies and a more careful study of design in houses of moderate cost, combined with a more rational treatment of ground plans. The "parlor" has disappeared entirely, and the living room has assumed greater size and importance. Doors are disappearing on ground floors when the sleeping chambers are on the second story. The intimate relations of the family are thus more fully expressed in the houses built for them. The first floors are closer to the ground. Systems for heating all parts of a house uniformly are doing away with many fireplaces, leaving only that about which the whole family gathers. Housework is more general in families who live in the country or suburbs, hence provision for hired help is less necessary. Very little more importance is given to any one room over others, and such decoration as may be used is generally applied to all rooms.

Elaboration in "grand" houses seems to go to the opposite extreme, but those are not the theme of this discourse. Americanism is expressing itself in houses of the Middle West perhaps more than in other localities, and love of the country is being revealed through sympathy with the environment which nature has freely bestowed upon us.

It is hoped that the reader will not assume from what has been said that the manifestation of a prairie spirit in the country house architecture of the Middle West is a cult or that its discovery is a finality; nor is the original suggestion that of the writer. Due credit has been given to Professor Wilhelm Miller, and with him it is one of the natural results of his study of land-

scape art, horticulture, and arboriculture. He perceived the influence of the prairie on the design of many buildings, the erection of which had come under his observation, and he bore witness to it, though it was, to an extent, outside of the purpose of his publication.

In all probability, Mr. Drummond is the only architect represented in my present article who has intentionally allowed his design to be influenced by the prairie spirit. The others have done so unconsciously, and that is the best evidence of its extensive influence.

Plenty of evidence can probably be found to controvert what I have said, and I may be wrong after all. The true province of the critic I conceive to be to ascertain facts, and to deduce from them the underlying principles that have been the cause of their manifestation. Such a procedure generally leads to the best results. It does not establish a rule, but rather a precedent that is worth respecting.

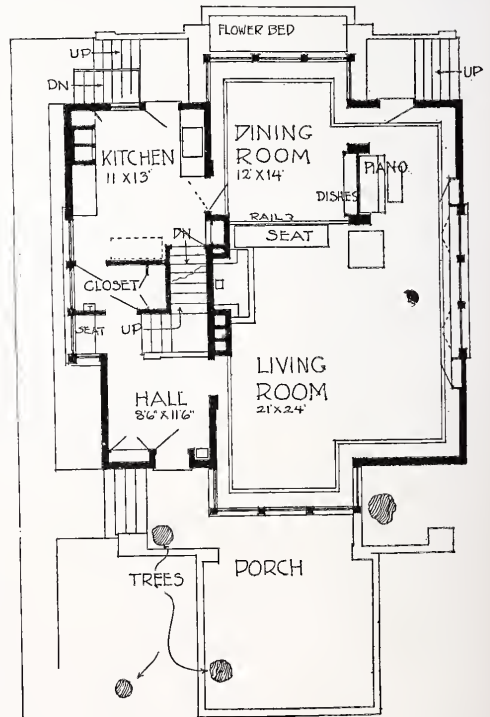


FIG. 3. FIRST FLOOR PLAN—OWN HOUSE AT RIVER FOREST, ILL.
William Drummond, Architect.



FIG. 4. OWN HOUSE AT RIVER FOREST,
ILL. WILLIAM DRUMMOND, ARCHITECT.

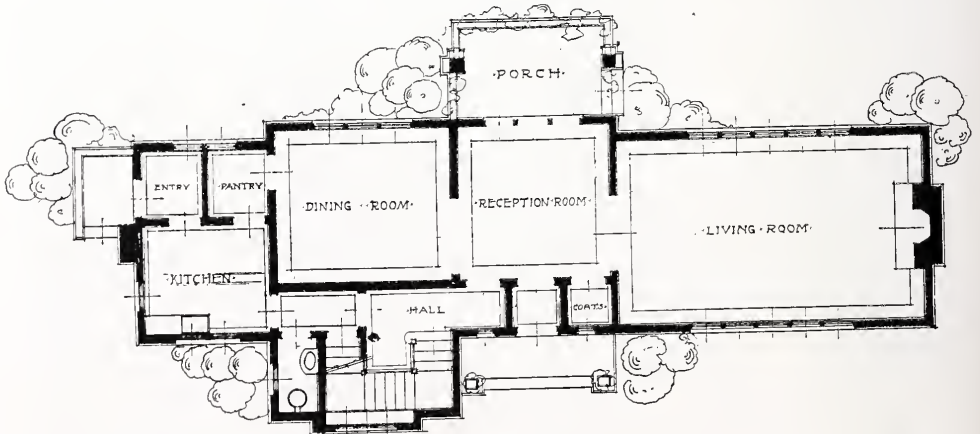


FIG. 5. REAR VIEW AND FIRST FLOOR PLAN—ST. ELIZABETH'S RECTORY, GLENCOE, ILL. RIDDLE & RIDDLE, ARCHITECTS.



FIG. 6. ENTRANCE FRONT—ST. ELIZABETH'S RECTORY, GLENCOE, ILL. RIDDLE & RIDDLE, ARCHITECTS.

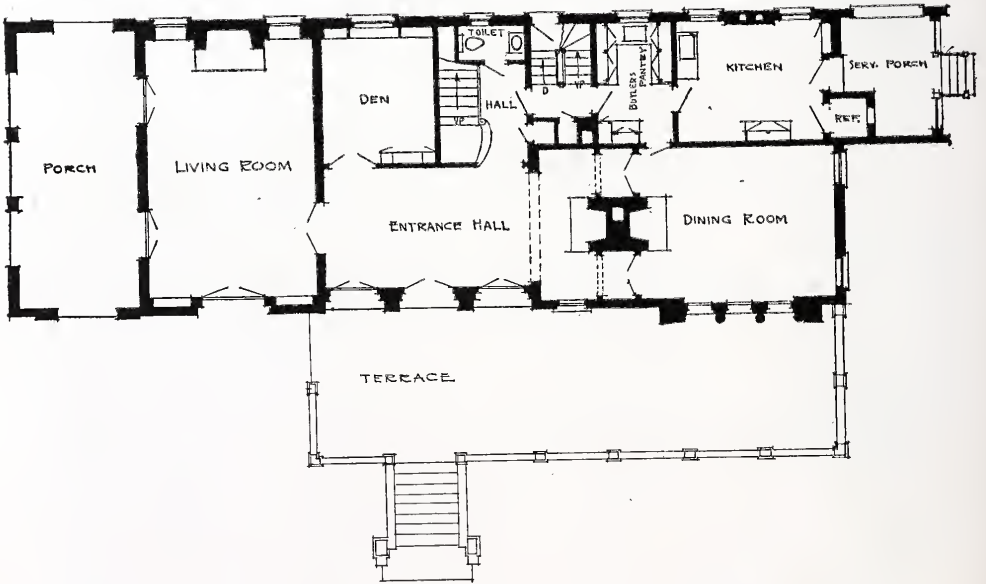


FIG. 7. VIEW AND FIRST FLOOR PLAN—HOUSE OF CHARLES A. EWING, ESQ., DECATUR, ILL. FREDERICK W. PERKINS, ARCHITECT.



FIG. 8. HOUSE OF ADOLPH MUELLER, ESQ., DECATUR, ILL. VON HOLST & FYFE, ARCHITECTS. MARION M. GRIFFIN, ASSOCIATE.

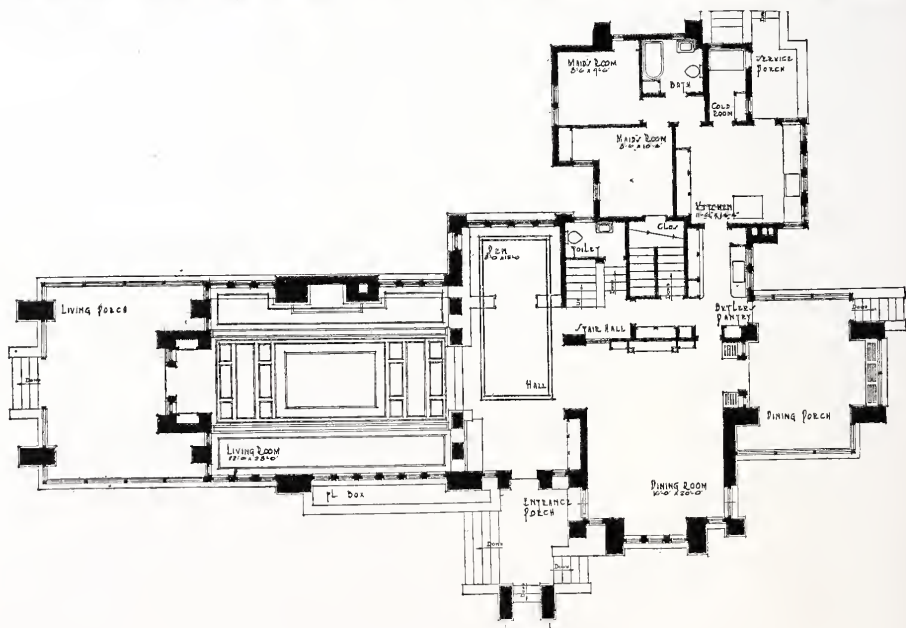
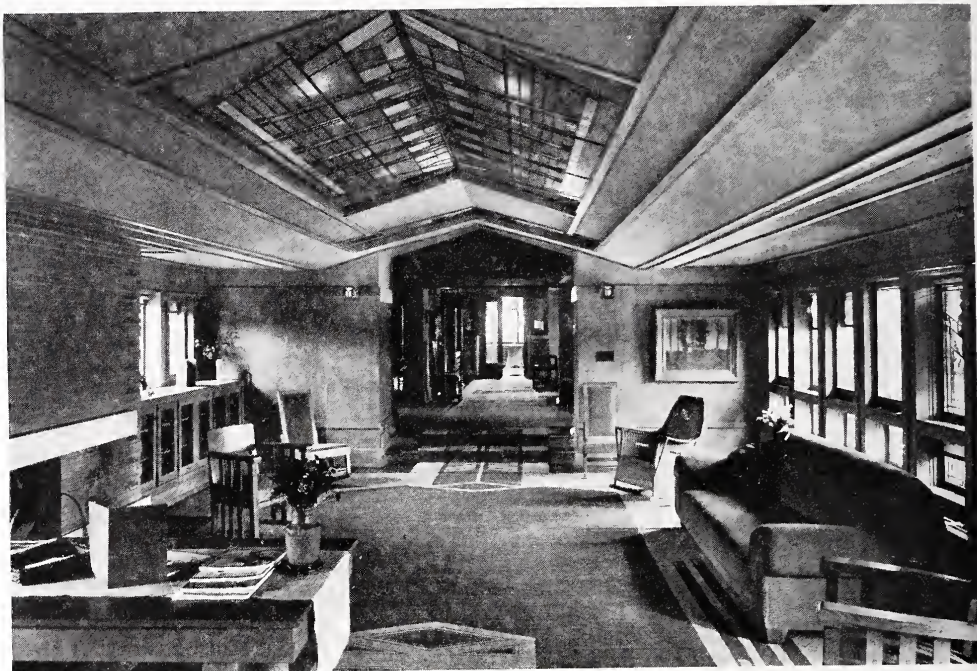


FIG. 9. INTERIOR VIEW AND FIRST FLOOR PLAN—HOUSE OF ADOLPH MUELLER, ESQ., DECATUR, ILL. VON HOLST & FYFE, ARCHITECTS. MARION M. GRIFFIN, ASSOCIATE.

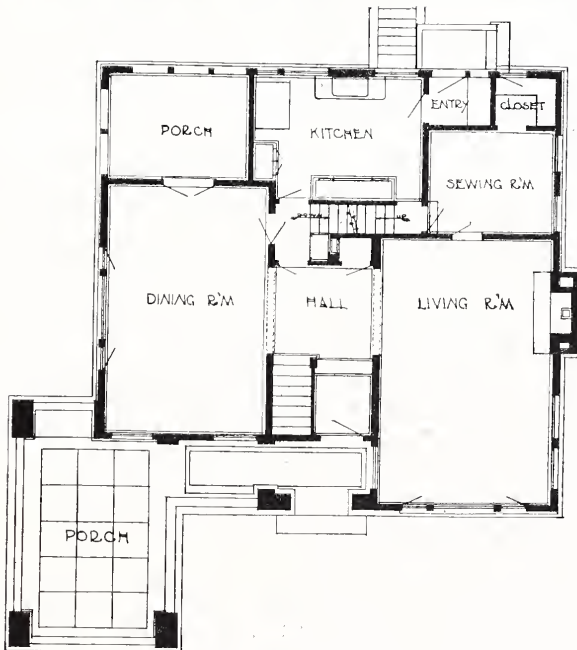


FIG. 10. VIEW AND FIRST FLOOR PLAN—
HOUSE OF PERCY W. ANDREWS, WILMETTE,
ILL. TALLMADGE & WATSON, ARCHITECTS.

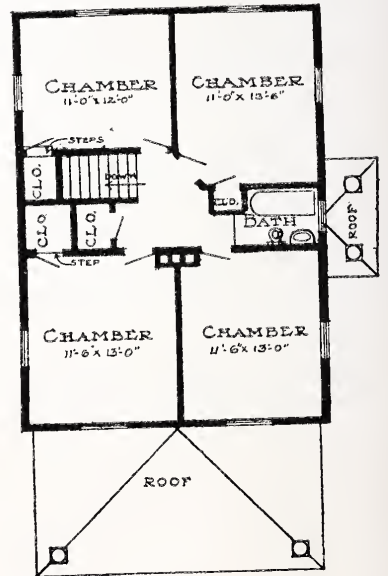
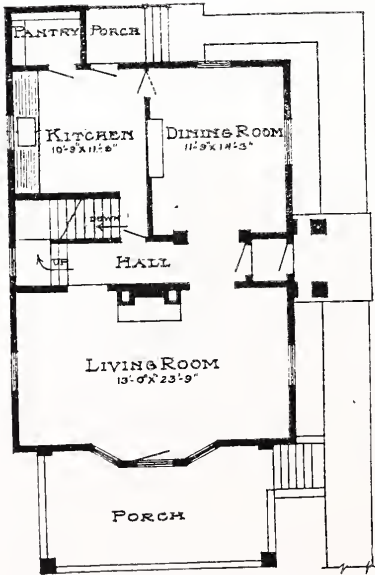


FIG. 12. VIEW AND FIRST AND SECOND FLOOR PLANS—HOUSE OF C. B. SHOLES, ESQ., RIVER FOREST, ILL. HENRY K. HOLSMAN, ARCHITECT.

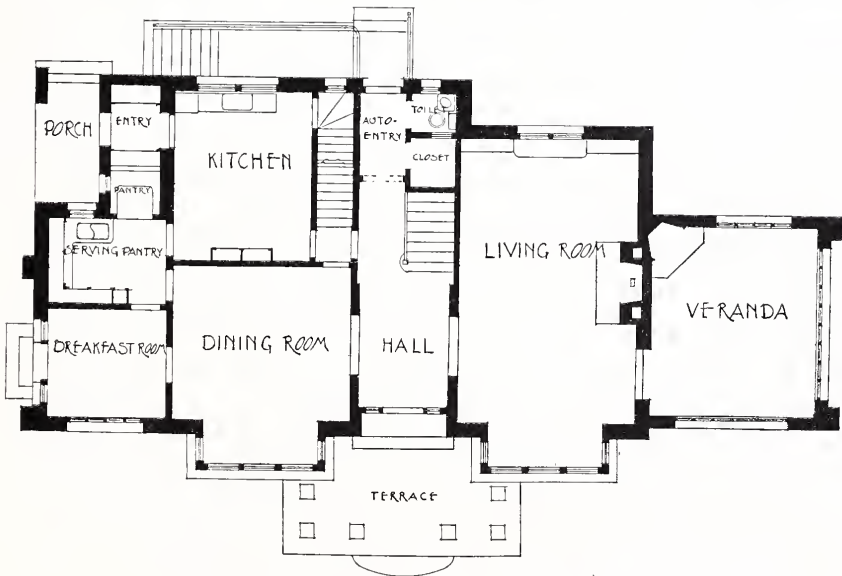


FIG. 11. VIEW AND FIRST FLOOR PLAN—
HOUSE OF CURTIS B. CAMP, ESQ., OAK PARK,
ILL. CHARLES E. WHITE, JR., ARCHITECT.

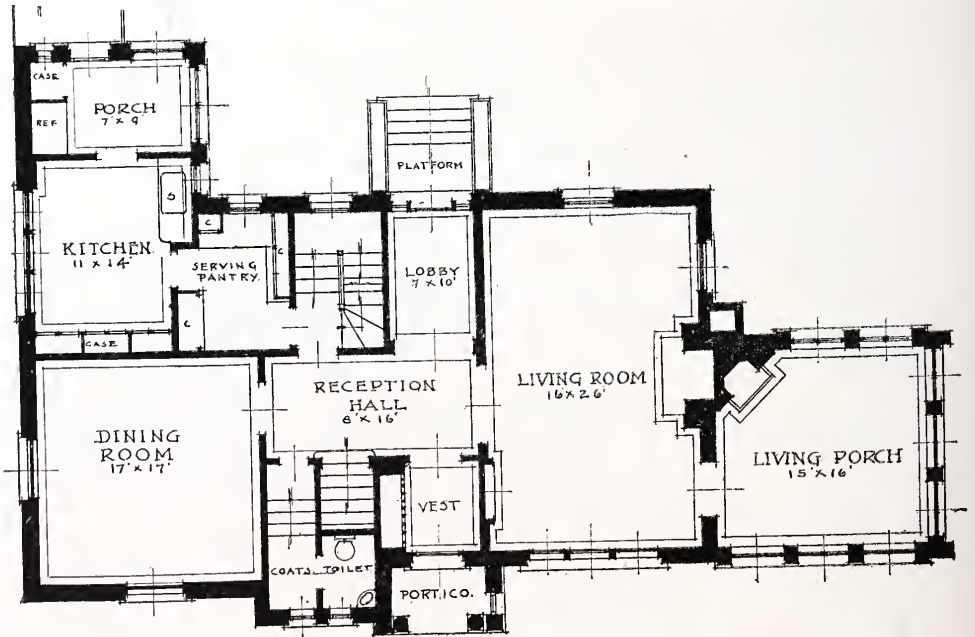


FIG. 13. VIEW AND FIRST FLOOR PLAN—
 HOUSE OF MORTON R. MAVOR, ESQ., HIGHLAND
 PARK, ILL. N. MAX DUNNING, ARCHITECT.

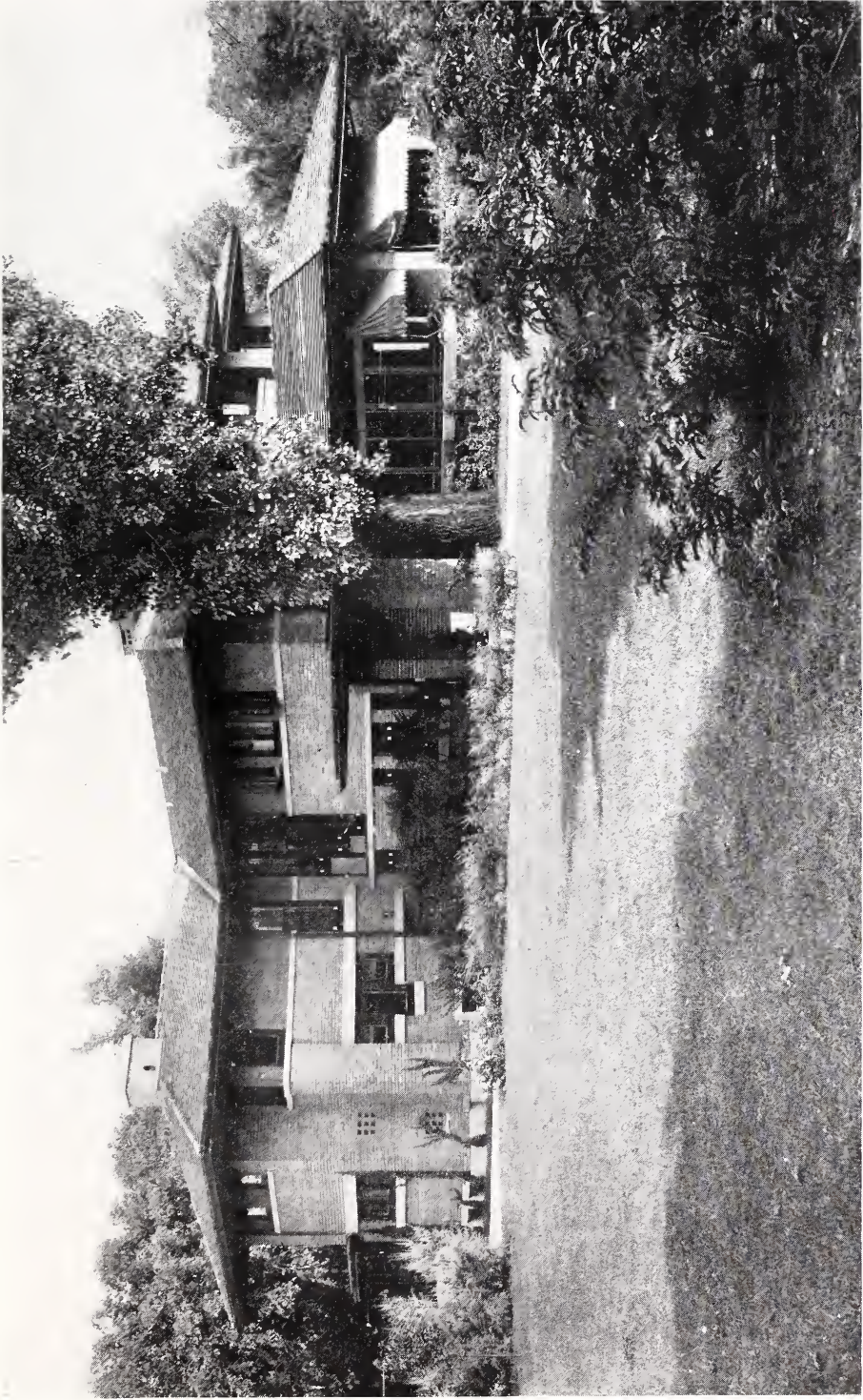


FIG. 14. HOUSE OF ROBERT MUELLER, ESQ., DECATUR, ILL.
H. V. VON HOLST, ARCHITECT. MARION M. GRIFFIN, ASSOCIATE.

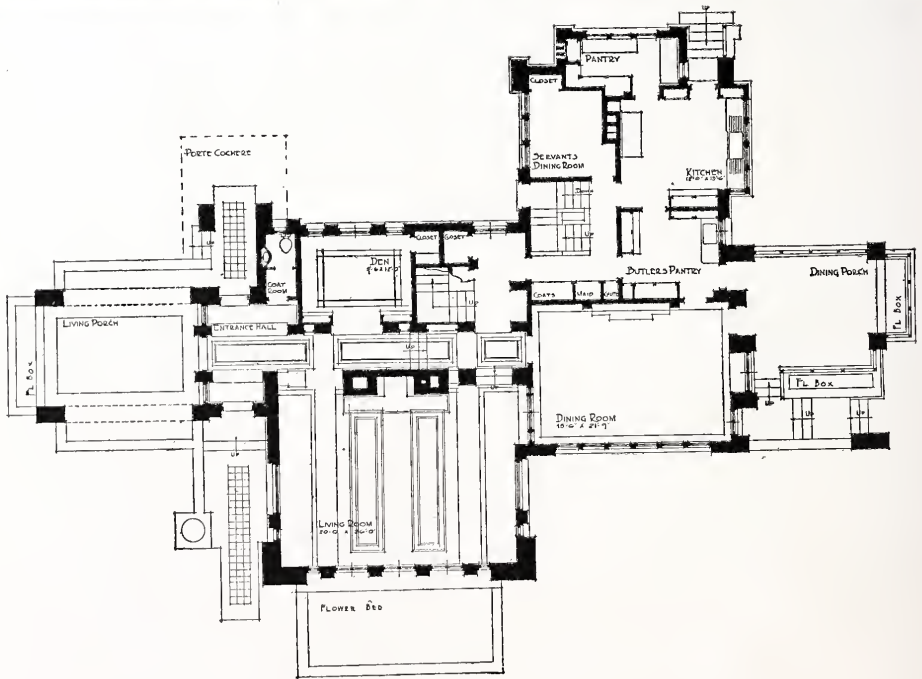


FIG. 15. VIEW AND FIRST FLOOR PLAN—HOUSE OF ROBERT MUELLER, ESQ., DECATUR, ILL. H. V. VON HOLST, ARCHITECT. MARION M. GRIFFIN, ASSOCIATE.

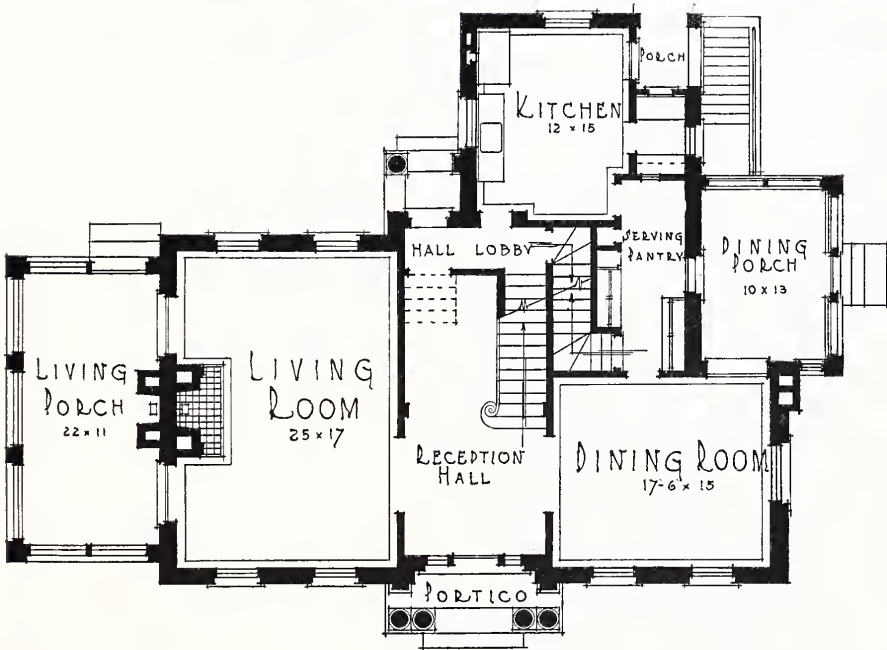


FIG. 16. VIEW AND FIRST FLOOR PLAN—HOUSE AT GLENCOE, ILL. N. MAX DUNNING, ARCHITECT.

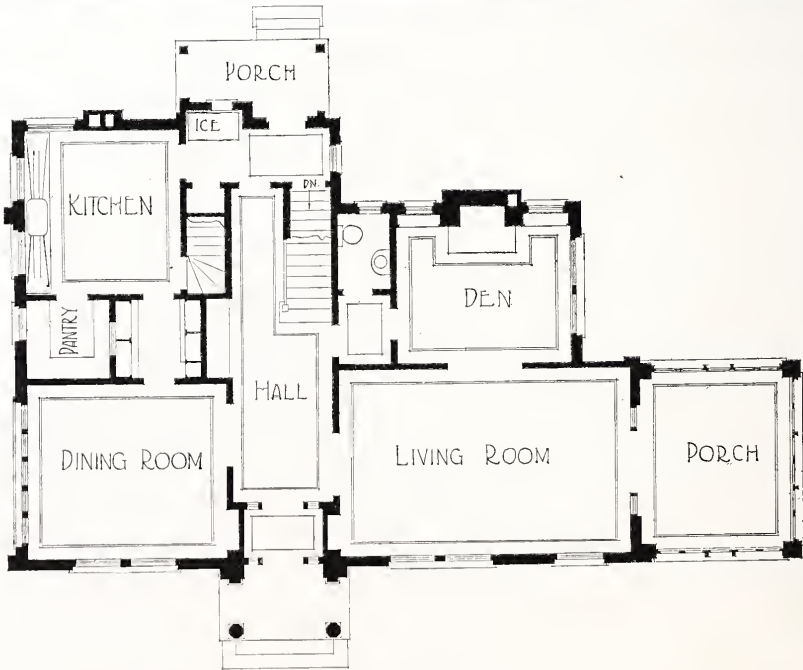


FIG. 17. VIEW AND FIRST FLOOR PLAN—HOUSE AT EVANSTON, ILL. BROWN & WALCOTT, ARCHITECTS.

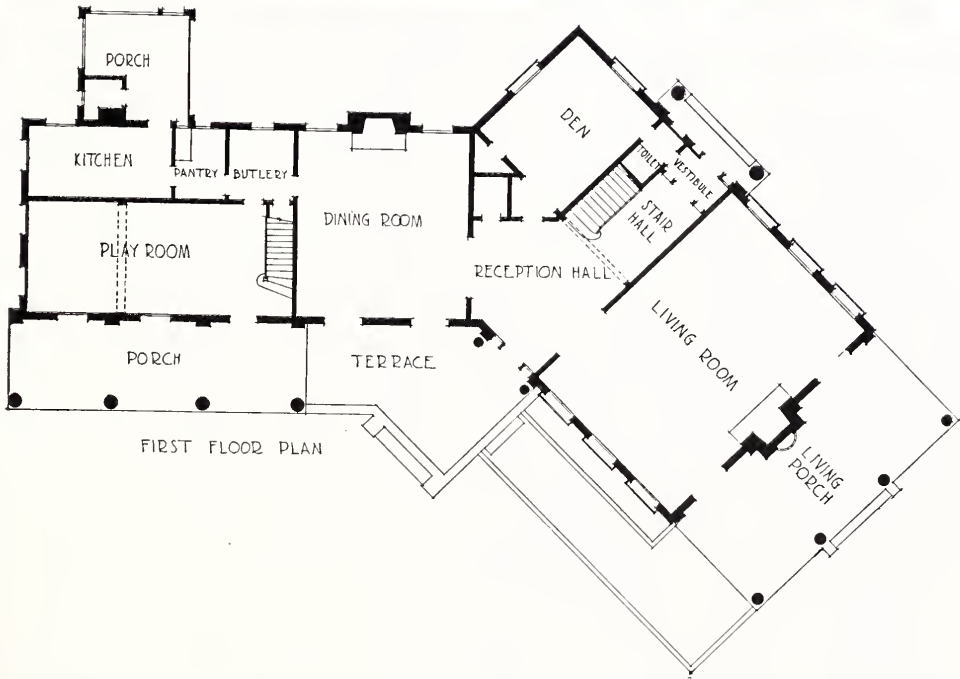


FIG. 18. VIEW AND FIRST FLOOR PLAN—HOUSE OF H. STILLSON HART, ESQ., BARRINGTON, ILL. HORATIO R. WILSON & CO., ARCHITECTS.

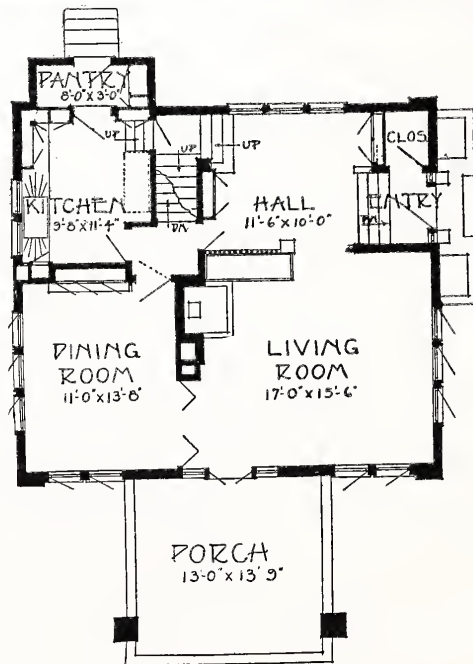


FIG. 19. VIEW AND FIRST FLOOR PLAN—HOUSE
 OF JOHN A. KLESERT, ESQ., RIVER FOREST,
 ILL. WILLIAM DRUMMOND, ARCHITECT.

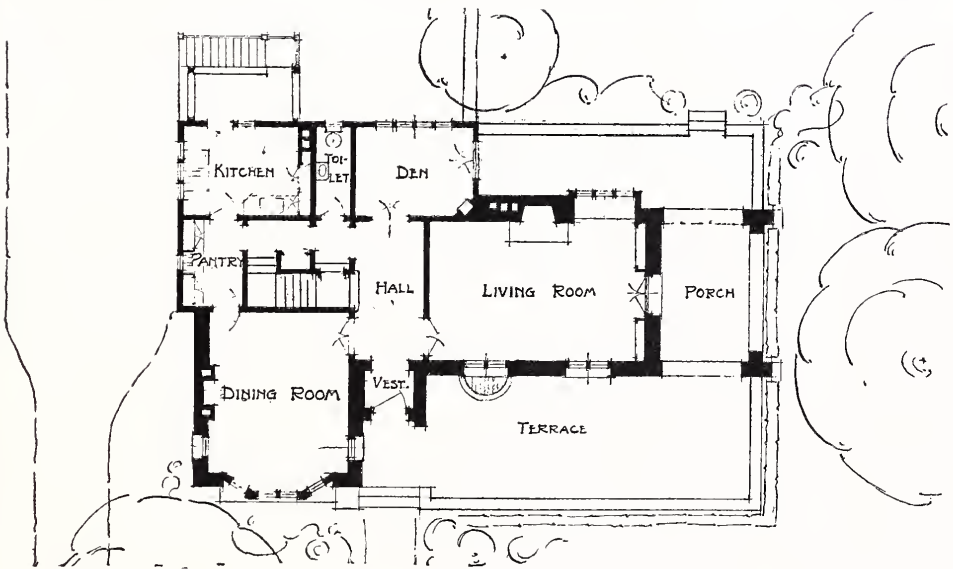


FIG. 20. VIEW AND FIRST FLOOR PLAN—
HOUSE OF RALPH WYETH, ESQ., NEWARK,
OHIO. HOWELL & THOMAS, ARCHITECTS.

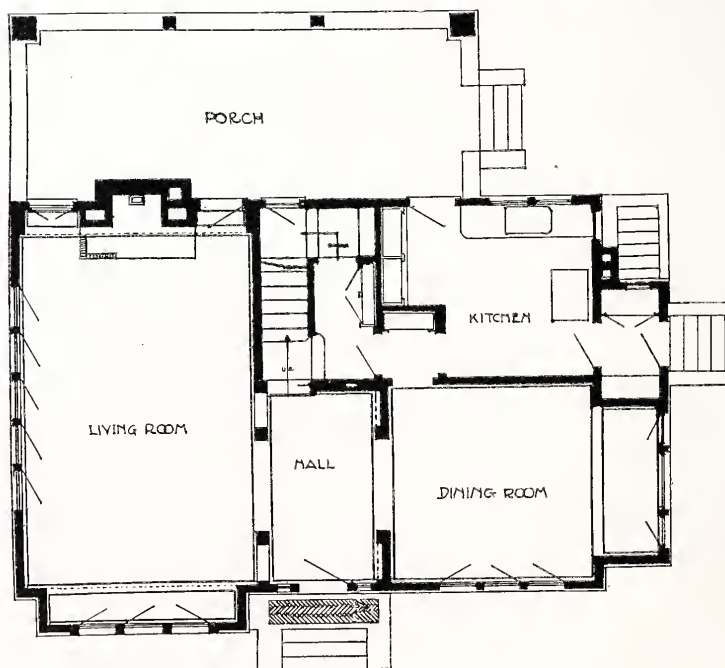


FIG. 21. VIEW AND FIRST FLOOR PLAN—HOUSE OF CHARLES VON WELLER, ESQ., GLENCOE, ILL. TALLMADGE & WATSON, ARCHITECTS.

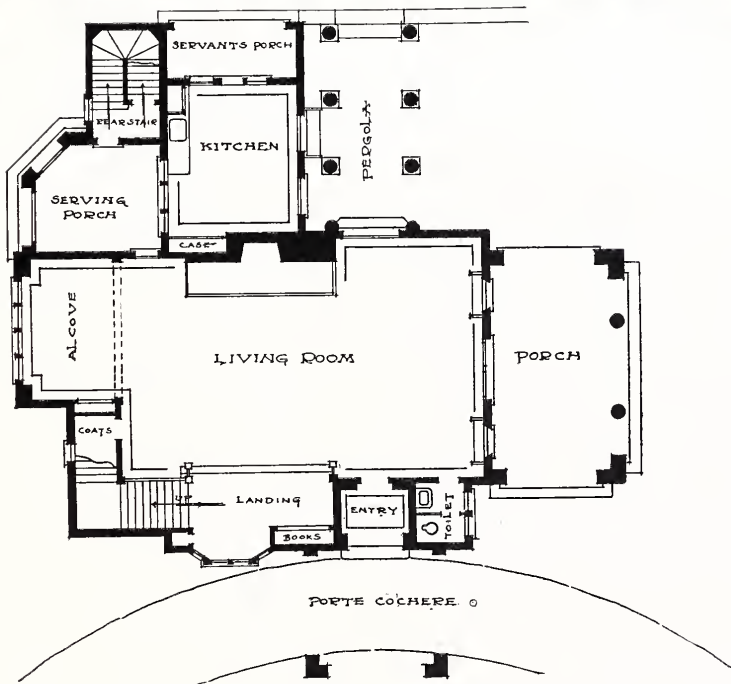


FIG. 22. VIEW AND FIRST FLOOR PLAN
 —SUMMER HOUSE AT FOX POINT, MICH.
 WILLIAM H. SCHUCHARDT, ARCHITECT.

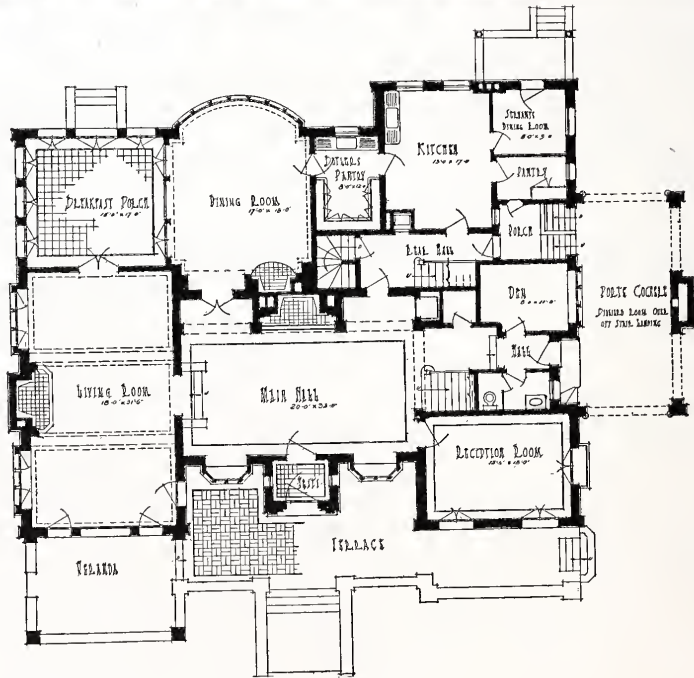


FIG. 23. VIEW AND FIRST FLOOR PLAN—
HOUSE OF ERNEST RECKITT, ESQ., EVANS-
TON, ILL. E. A. MAYO, ARCHITECT.

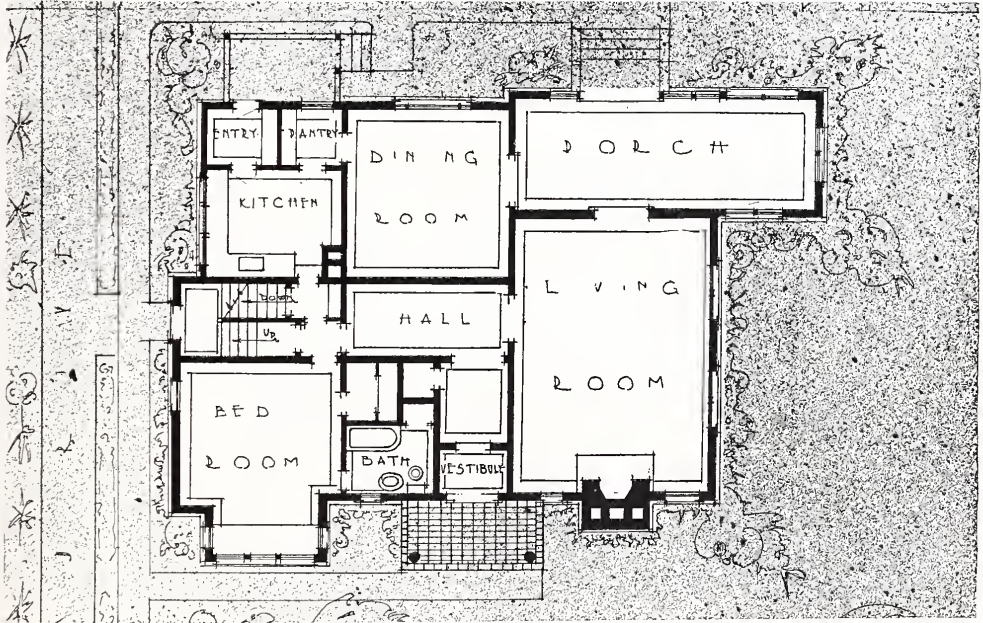


FIG. 24. VIEW AND FIRST FLOOR PLAN—
HOUSE OF W. W. MAISH, ESQ., DES MOINES,
IOWA. FRANK E. WETHERELL, ARCHITECT.



FIG. 25. HOUSE OF PROF. WILLIAM H. HOBBS, ANN ARBOR, MICH.
Samuel McC. Stanton, Architect.



FIG. 26. HOUSE OF DEAN H. M. BATES, ANN ARBOR, MICH.
Samuel McC. Stanton, Architect.



FIG. 27. PI BETA PHI SORORITY HOUSE, ANN ARBOR, MICH.
Louis Holmes Boynton, Architect.

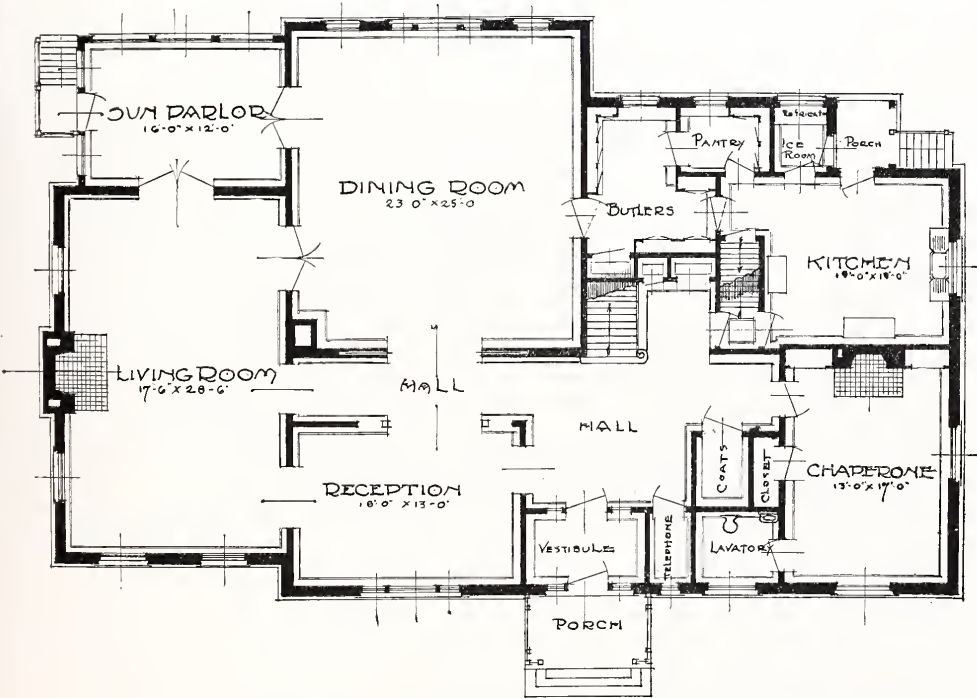


FIG. 27a. FIRST FLOOR PLAN—PI BETA PHI SORORITY HOUSE, ANN ARBOR, MICH.
Louis Holmes Boynton, Architect.

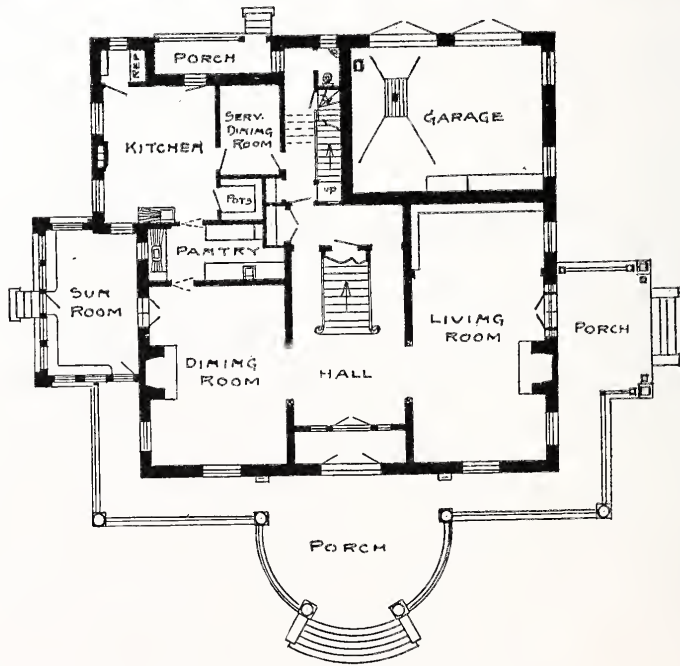


FIG. 28. VIEW AND FIRST FLOOR PLAN.
HOUSE OF J. C. FENNEL, ESQ., KANSAS
CITY, MO. ROOT & SIEMENS, ARCHITECTS.

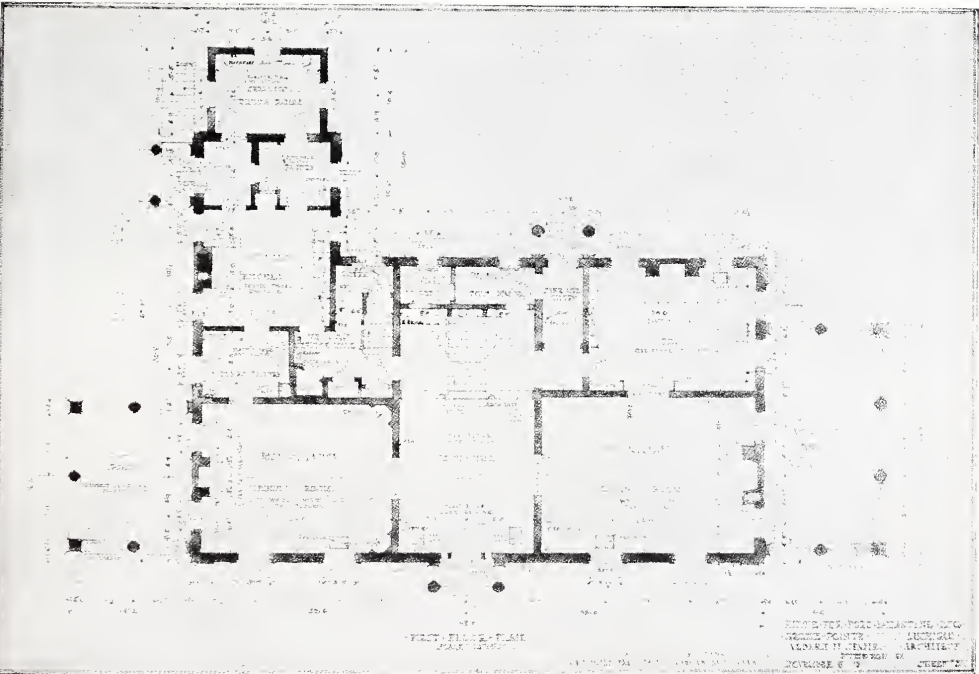


FIG. 29—VIEW AND FIRST FLOOR PLAN—HOUSE OF FORD BALLANTYNE, ESQ., GROSSE POINTE, MICH. ALBERT H. SPAHR, ARCHITECT.

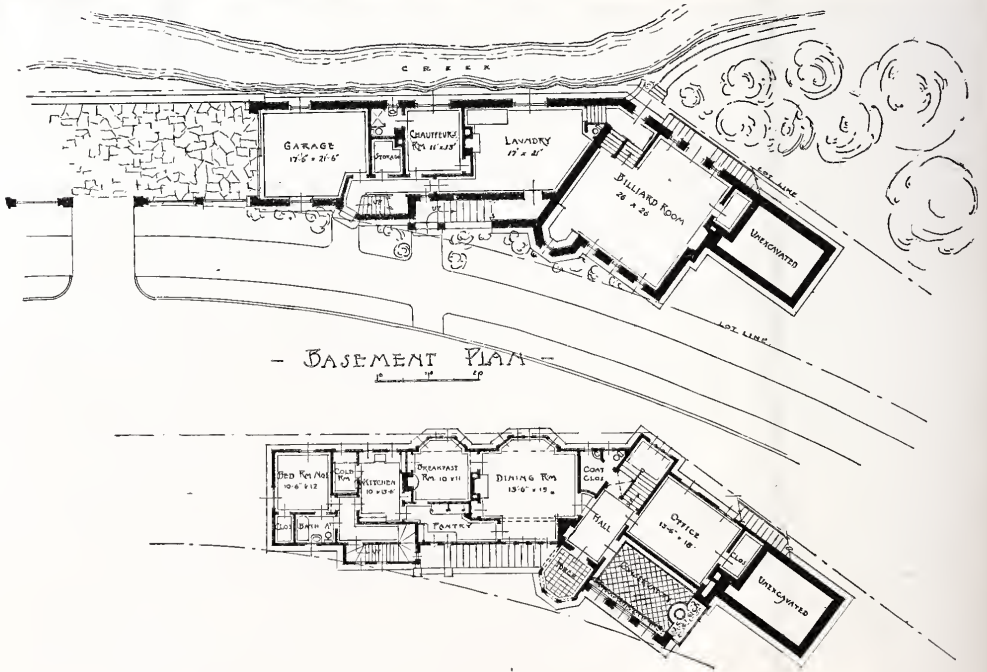


FIG. 30. VIEW AND FLOOR PLANS—HOUSE OF B. R. DEMING, ESQ., CLEVELAND, OHIO. HOWELL & THOMAS, ARCHITECTS.

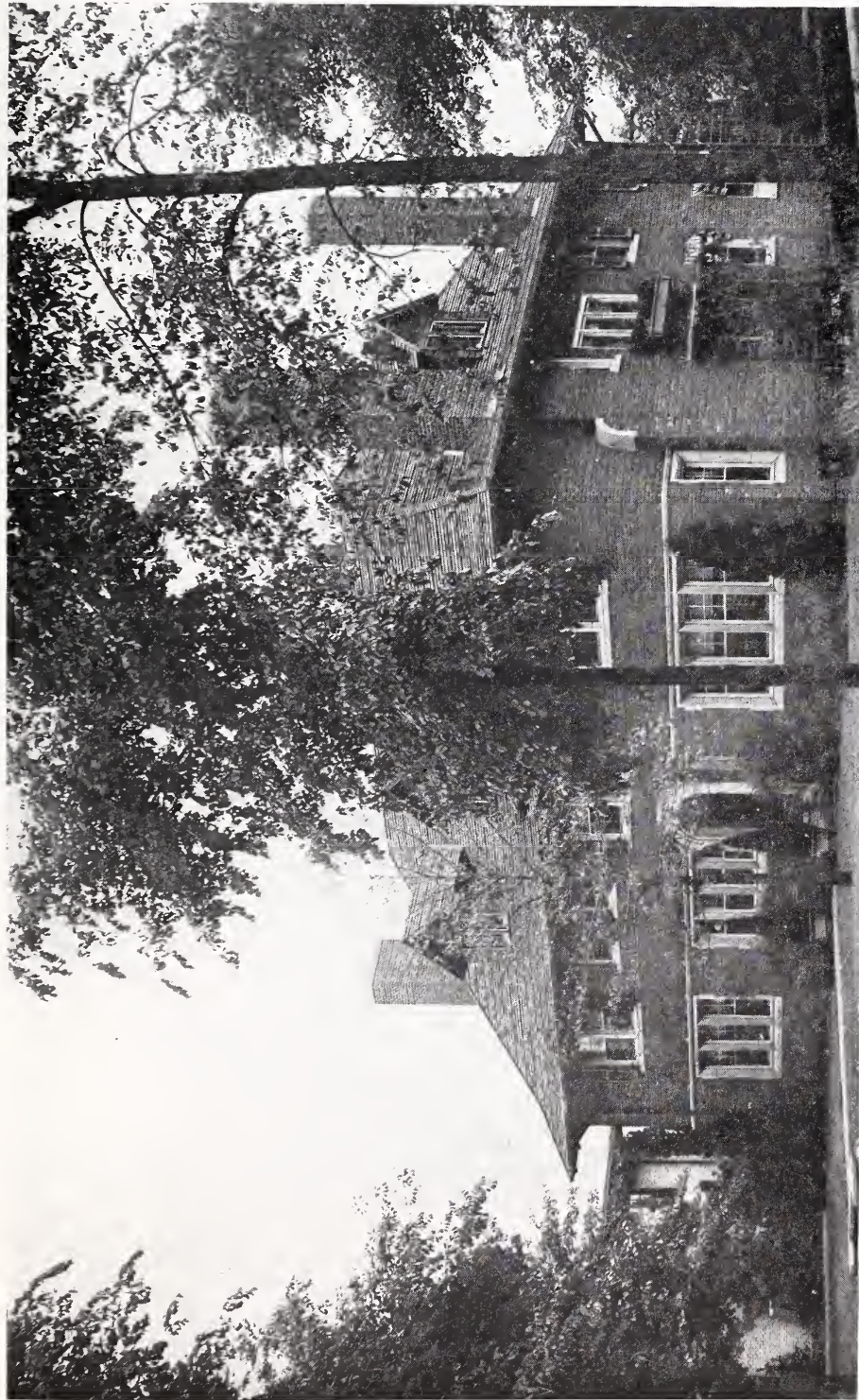


FIG. 31. HOUSE OF C. J. BUTLER, ESQ.,
DETROIT, MICH. ALBERT KAHN, ARCHITECT.



KITCHEN GATE—HOUSE FOR CHARLES D. BLANEY,
ESQ., NEAR SARATOGA, CAL. WILLIS POLK & CO.,
ARCHITECTS. SKETCH BY H. CLARKE.



SOUTH ELEVATION—HOUSE FOR CHARLES D. BLANEY, ESQ., NEAR SARATOGA, CAL.

COUNTRY HOUSE ARCHITECTURE ON THE PACIFIC COAST

BY JOHN GALEN HOWARD

THERE was a time, and not so very long ago at that, when to mention California architecture was to evoke a vision of the Missions, or the style which took its name from them without really deriving from them except in some more or less superficial details. How much the misuse, one might almost say the positive abuse, of the noble name has had to do with the passing of the fashion it would be hard to tell. This, at any rate, is not the occasion to estimate it. It is enough to say at once that few, if any, of the more serious designers of today, in this region, would bear with any degree of equanimity having their work included in that category. The style has been discredited with the local practitioner, even though the Eastern visitor still may wish and expect to see the smallest wooden bungalow as well as the most pretentious plaster palace toe the mark of his idea of "Mission." Here in California we are tired, very tired, not of the Missions, but of the sort of thing which has so long masqueraded in their name.

May the time never come when architects or public are tired of the padres. No architect of insight and sympathy can stand in the presence of the Missions themselves, dilapidated as they now are,

for the most part, without the sort of thrill which is experienced only in the presence of the genuine thing. In them we feel in touch with realities; realities so vital that they have left their impress on the very clay of which the structures are fashioned, ennobling it to fitness with high purpose. It does not occur to us to wish the Missions had been built of materials noble in themselves,—marble, or chiseled stone. They would somehow lose their quality if their material were finer. It is their very nearness to the soil which makes their value so great, their charm so appealing. One of the fundamental differences between the old work and its latter-day imitations is that the Missions were naive and unpretentious structures whose adobe or brick and adobe walls and gables and towers have the character of their material, and suggest no desire to show for more important or substantial than they really are; while the "Mission style" buildings are generally of pasteboard or some scarcely less thin and fragile stuff whose make-believe is obvious. When they are of furred-out lath and plaster, with shadowy reveals to door and window openings, the effect, factitious as it is, may seem all right for a while, and even a

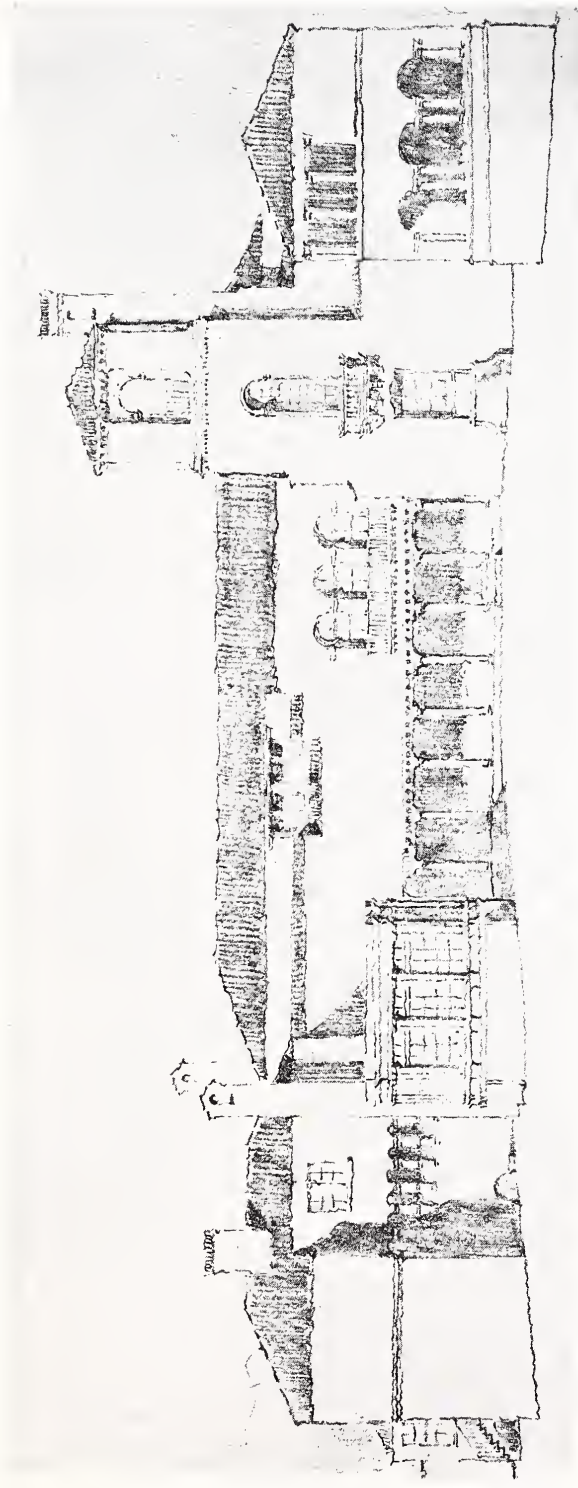
stucco Churrigueresque window or a fantastically profiled gable may carry itself off with some degree of success. But when, as in so many instances, it comes to fabricating these things of matched siding the jig is up. There is no longer even the illusion of substance, much less of beauty. So the "Mission style" is no longer in fashion.

And yet the old work of the padres has set its stamp for good and all upon the architecture of the Pacific Coast. The best of the old tradition has passed into the blood of the new art. The outer aspect is no longer recognizable as inspired (if one may use the word) by Mission motives, but the heart of the thing beats with something of the old fervor. Something of the old soundness and simplicity has survived. The architect is again working in, or toward, a spirit of sincerity and absence of pretense. If he can only get away from pose and feel just natural and, as it were, like a child, in his designing, the architect is in the way of success nowadays, from his own point of view. And his client and his public are apt to clasp hands heartily with him there. It is, in architecture, much the same as with the new painting: "Away with all this tiresome sophistication; let's be children once again." And that is consistent with the padres' work. They knew no pose; we are making every effort to put pose by. There is a difference, a terrible difference, to be sure. But we can only do the best we can.

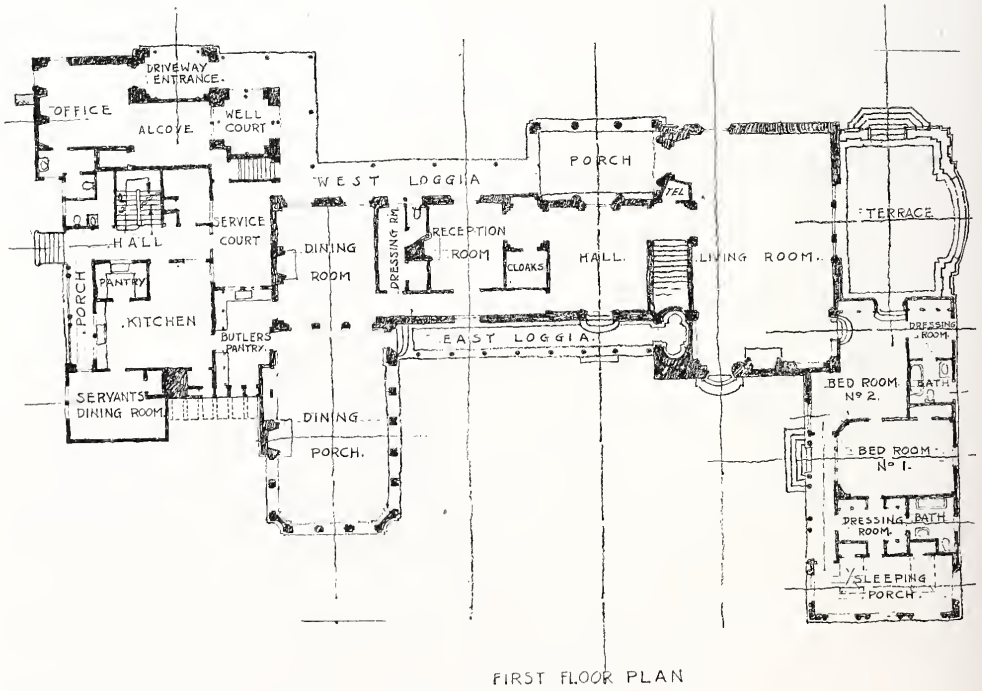
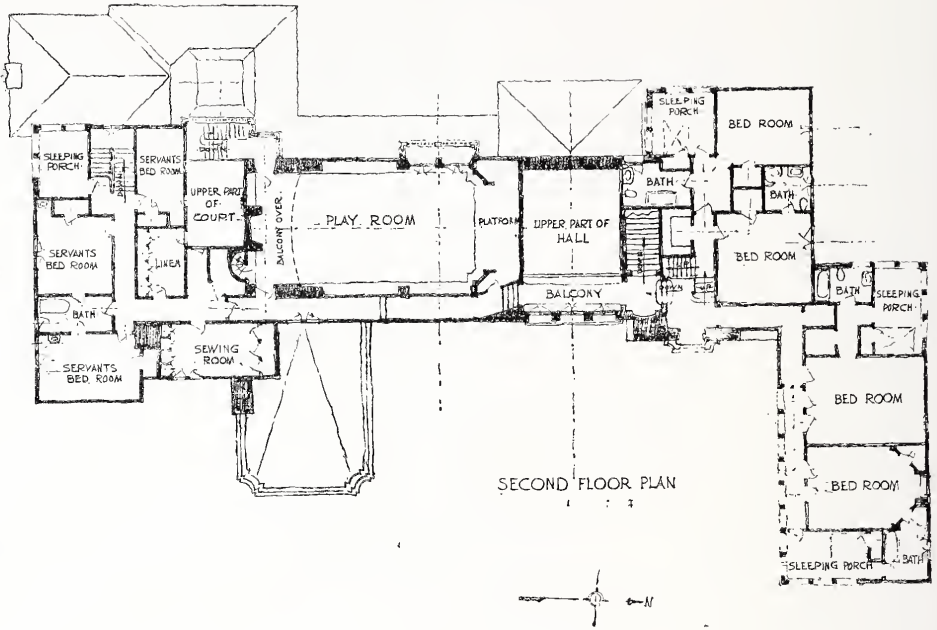
In a sense some of the notable recent work has been almost more naive, I think, than the Missions themselves, and none the worse for that. Of course you have to make allowance for the change of point of view, of purpose, of program. And above all you are not to look for obvious resemblance to the Missions in our new architecture, whether of general character or of details. It is the spirit, not the body, which counts in these matters.

When one says, "Let's be childlike and simple once again," it is not intended, by any means, to throw symmetry to the winds, or, for that matter, good sound organic composition. Quite the contrary. There is no stickler for symmetry like the youthful setter-together of blocks. His

first principle of unsophistication is symmetry. And the sort of simplicity which runs through most of the telling newer work hereabouts is a simplicity of symmetry. Symmetry, that is, of the individual component parts out of which the composition as a whole is built up; and symmetry also of the ensemble in the sense either of exact repetition with reversal on either side of an axis, or of reposeful aesthetic balance without mathematical exactitude of axial relation. No one seems just now to be looking for the wilfully or whimsically picturesque. If that sort of effect comes it comes unsought, in the way of response to the not too anxiously adapted questions of the program, rather than as a desideratum for its own sake. On the other hand, I seem to perceive a less immediate and thoroughgoing revolt against anything savoring of formality, either of arrangement or of behavior, than was in evidence some years ago. Perhaps some taste for "form" has been induced by satisfying wisely the opposite craving. A fine abiding by the spirit of the law, to say the least, is in evidence, as distinguished from a punctilious adherence to the letter. Here again we see something of the spirit of the padres. They were not hide-bound traditionalists either. They were, so far as they were architects at all, educated men who were accustomed to good architectural society, cultivated it, and observed its customs easily without the aid of a book of architectural department. One wonders if ever a padre had even so much as heard of a *Vignole-de-poche*. Their buildings were successful, it may be surmised, largely because they left their rules behind and brought along with them only their good sense and their good taste. Doubtless, of course, they evolved their designs with not anything like so much conscious effort for ensemble effect and manipulation of the organic elements as any modern architect must be excused for putting forth. The unconscious attitude of the genuine primitive is not to be had for the asking by any one of our own time who has gone through the mill of architectural training. If we can get back ever so little to the primitive frame of mind, there is so much gained,



HOUSE FOR CHARLES D. BLANEY, ESQ., NEAR
SARATOGA, CAL. WILLIS POLK & CO., ARCHITECTS.



FIRST AND SECOND FLOOR PLANS—HOUSE FOR CHARLES D. BLANEY, ESQ., NEAR SARATOGA, CAL. WILLIS POLK & CO., ARCHITECTS.

and the more the better, providing it is not at the expense of technical integrity of construction.

One of the best signs of the times is that no one seems to care any longer for the merely pretty thing. The type of beauty which is sought is that in which long suave lines and broad surfaces play the chief part instead of intricate or applied detail. Not a few of the best designs are practically devoid of detail used for its own sake. What detail there is is merely the natural working out and fitting accentuation of the essential motives and organism of the house. And this detail, which is of course basic, is almost sure to be in the best of taste, restrained, quiet, adequate. Add to this the care that is now given to the study of proportion, the adjustment of voids and solids, the perfecting of profile, and you have something of the secret of the success of the best work. The late pseudo-Mission style on the contrary gave little or no attention to these delicate considerations, so essential to all sterling design, whether plain or enriched, and depended largely, and in fact almost wholly, for its effect upon lugged-in motives of decoration—an elaborate window or a mass of stucco ornament. The new spirit is to do without non-essentials and give thought solely to making the facts themselves beautiful. Which of these two methods of attack is to be preferred is, I think, obvious.

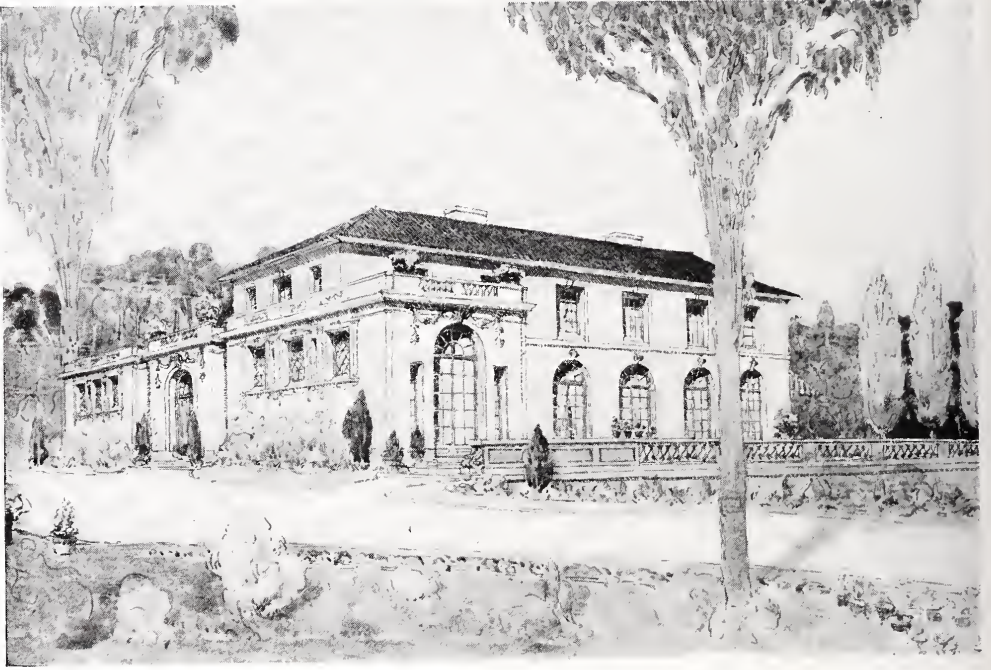
Perhaps, after all, we talk too much, because we think so much, of the Mission tradition. The connection between the Spanish regime in California and our own is very tenuous. It exists, but it is not easy to trace. And all our present day architects have been trained quite outside that tradition. Moreover, the padres penetrated scarcely farther north than San Francisco, and half the coast, roughly speaking, lies farther on. The influence of the south, even granting its vitality, has not very manifestly made itself felt in Oregon and Washington, and there is no reason why it should. The north has a right to its own point of view and it takes it. There it is the "Colonial," meaning the English rather than the Spanish colonial, feeling which is apt

to appear. The streams of thought and feeling, as of trade, are rather from the east than from the south. While there are differences, and marked differences, to be sure, between southern and northern California, yet California as a whole differs more from the whole coast north of it than its own two subdivisions differ from each other in architectural practice and tendency. Nevertheless there is undoubtedly a bond of architectural fellowship which unites the whole coast and sets it off from the country east of the Cascades and the Sierra.

Much of the most interesting domestic work, from Seattle to San Diego, is small, even very small, and I am inclined to think this is true to a greater degree on this coast than in the east. California has often been called the poor man's paradise. Perhaps the saying might well be extended to the entire Pacific Coast. Certainly the multitude of small bungalows everywhere throughout this section would go far toward proving it. Art is not a matter of size or cost, and many of these tiny homes have genuine claims to importance as works of art out of all proportion to their magnitude. Grace, lightness, compactness, charm, delicacy of treatment, are frequent characteristics of them.

And again, the great estate, the palace one might call it, is coming to be much in evidence. A sufficient number of this type has been erected of late years to offer a fair field of judgment as to their artistic tendencies. For the most part, and in fact almost without exception, these places are conceived on very severe and even monumental lines, as befits their size, and very often, too, their site. But it is noteworthy that even where the question of cost has not been a restraining factor, at any rate to the extent it may always be assumed to be in the very small house, the taste of the time is for plainness rather than for richness of effect. Even extreme severity is to be found in many of the most important houses. They block well thus against the shimmering background of oak or eucalyptus forest. For amenity, in such cases, one looks to the garden.

Palace and bungalow, and the field,



PERSPECTIVE DRAWING—HOUSE OF MRS. H. S. KIERSTED.
Lewis P. Hobart, Architect.



TERRACE—HOUSE OF MRS. H. S. KIERSTED.
Lewis P. Hobart, Architect.



GENERAL VIEW—HOUSE OF DR. W. C. CHIDESTER.
Lewis P. Hobart, Architect.



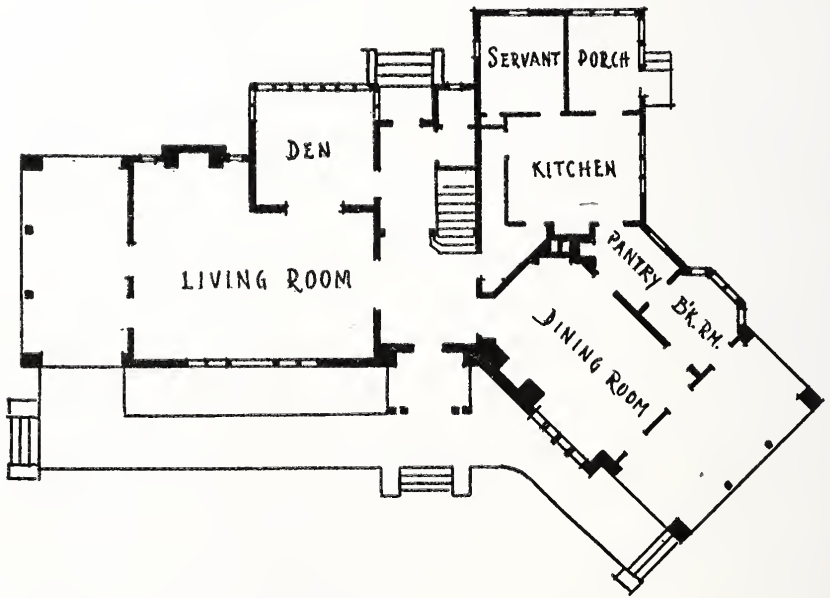
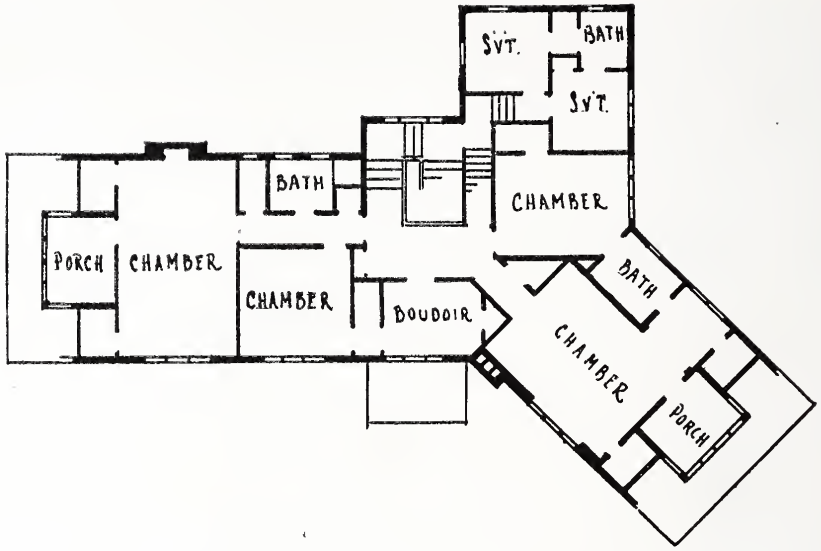
ENTRANCE DETAIL—HOUSE OF DR. W. C. CHIDESTER.
Lewis P. Hobart, Architect.



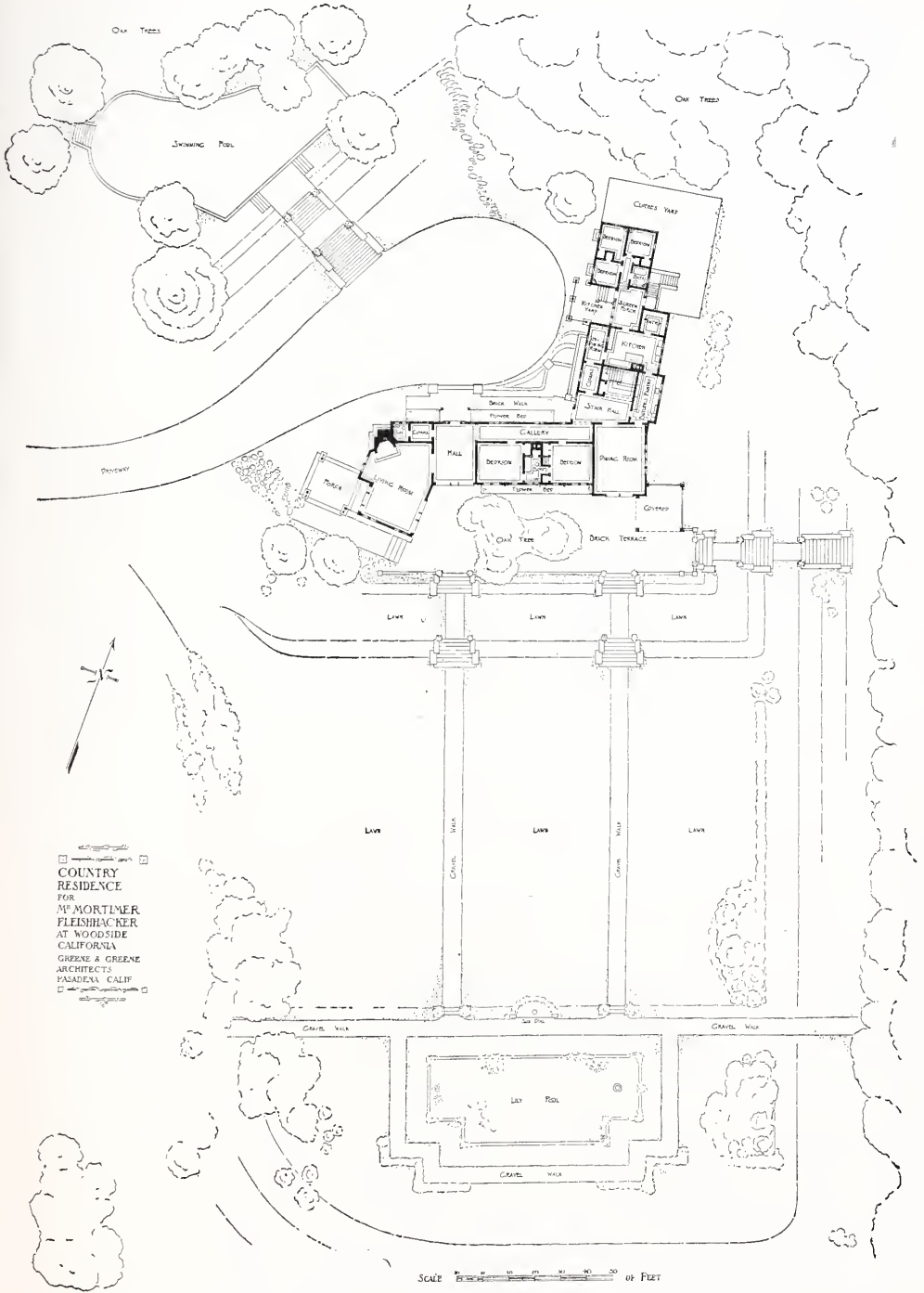
HOUSE OF H. NEWBY, ESO., PASADENA, CAL.
MARSTON & VAN PELT, ARCHITECTS.



FRONT TERRACE—HOUSE OF H. NEWBY, ESQ., PASADENA, CAL. MARSTON & VAN PELT, ARCHITECTS.



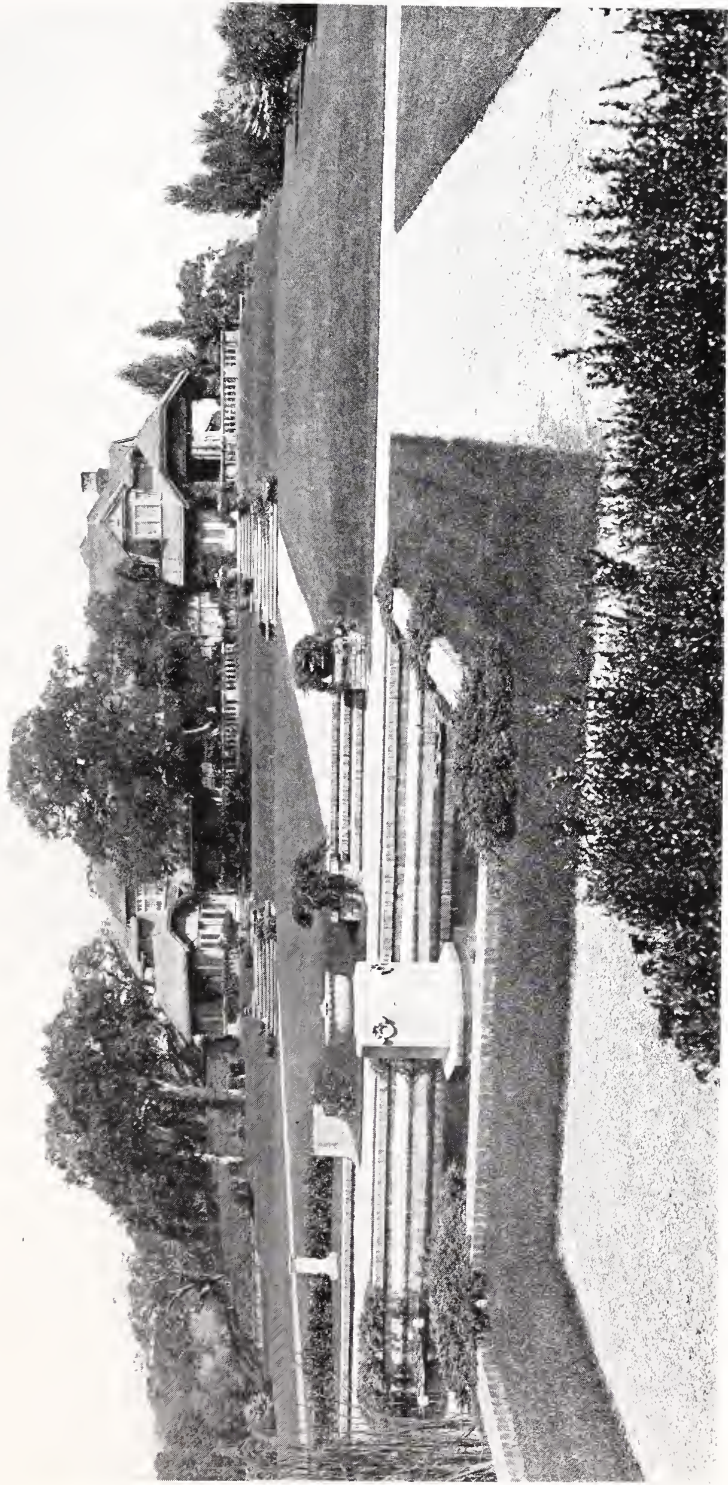
FLOOR PLANS—HOUSE OF H. NEWBY, ESQ., PASADENA, CAL. MARSTON & VAN PELT, ARCHITECTS.



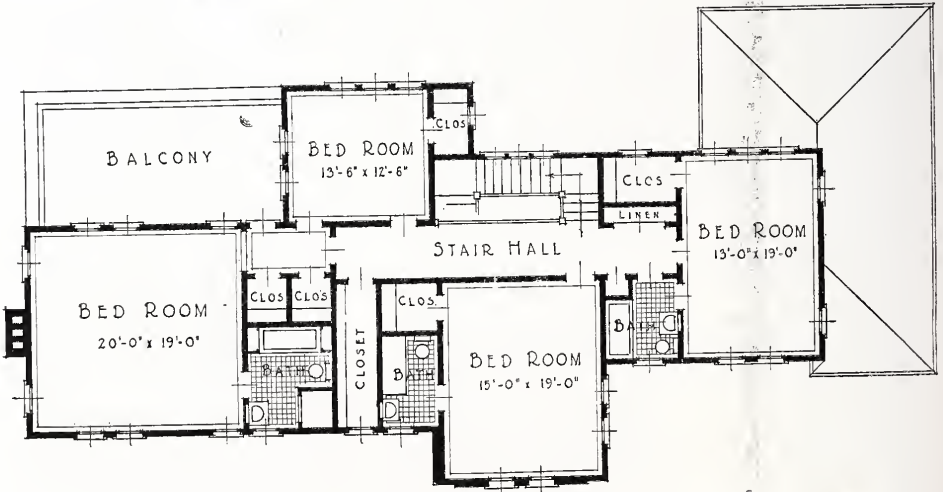
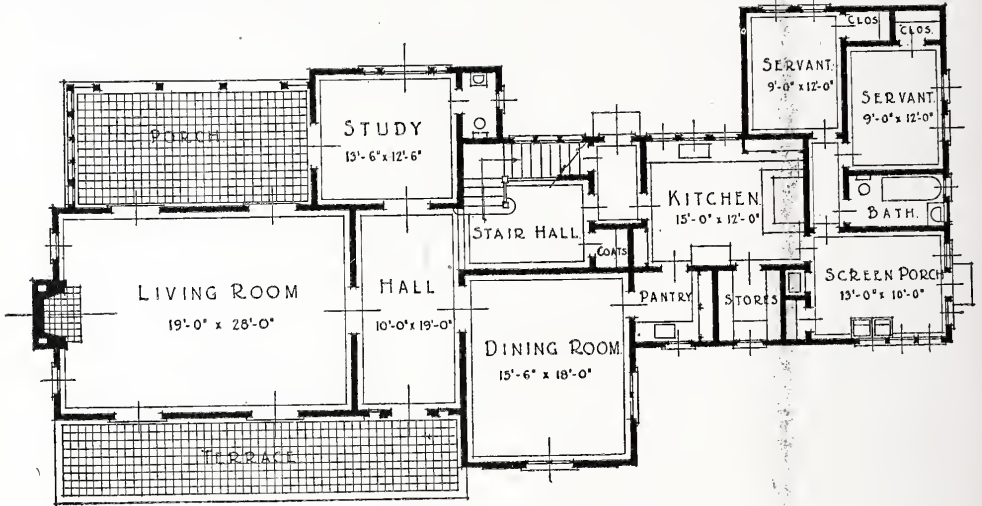
BLOCK PLAN—HOUSE OF MORTIMER FLEISHACKER, ESQ., WOODSIDE, CAL. GREENE & GREENE, ARCHITECTS.



LIVING ROOM—HOUSE OF MORTIMER FLEISHHACKER, ESQ.,
WOODSIDE, CAL. GREENE & GREENE, ARCHITECTS.



HOUSE OF MORTIMER FLEISHACKER, ESQ., WOODSIDE, CAL. GREENE & GREENE, ARCHITECTS.



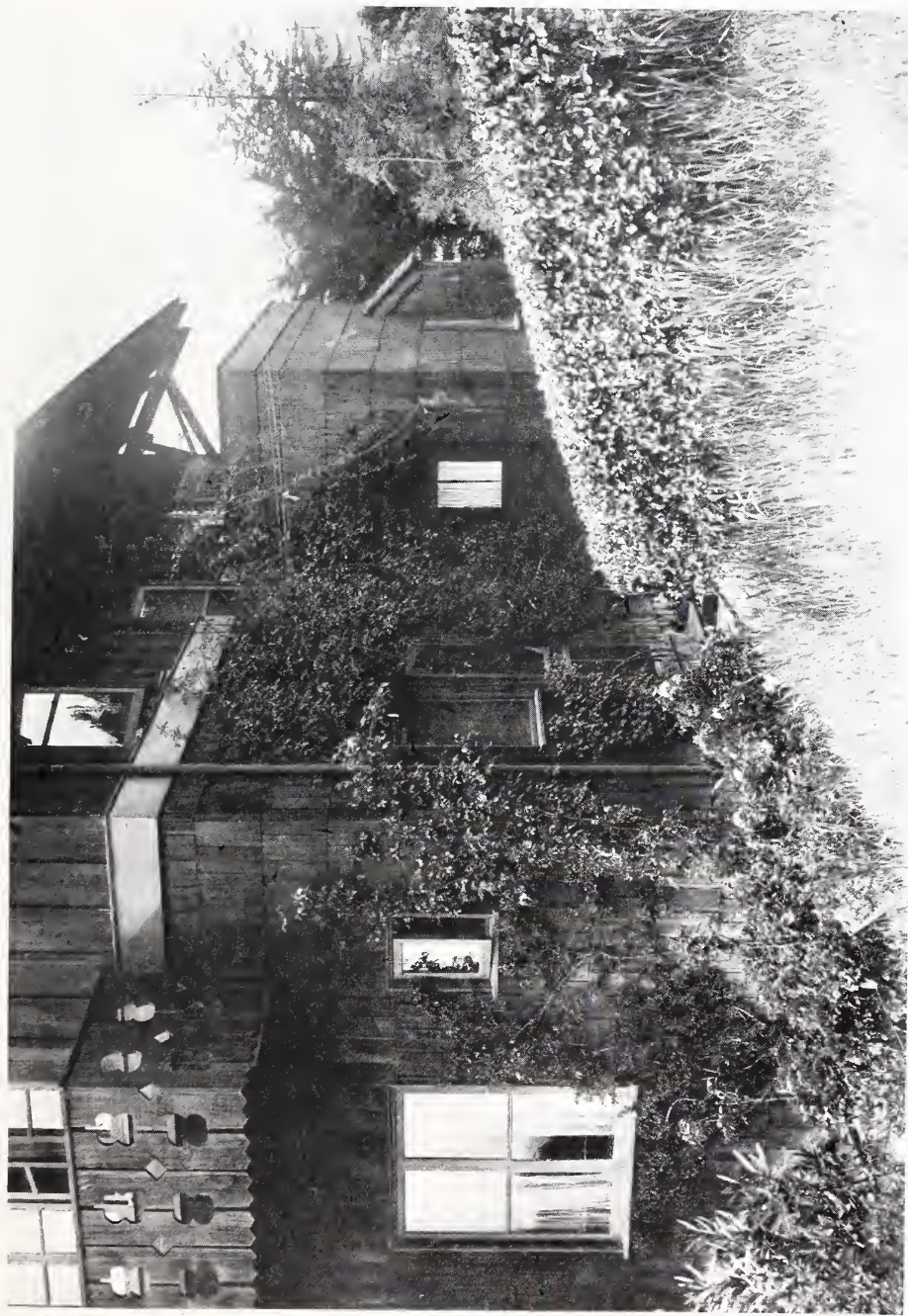
FIRST AND SECOND FLOOR PLANS—HOUSE OF W. J. MACDONALD, ESQ., PASADENA, CAL. REGINALD D. JOHNSON, ARCHITECT.



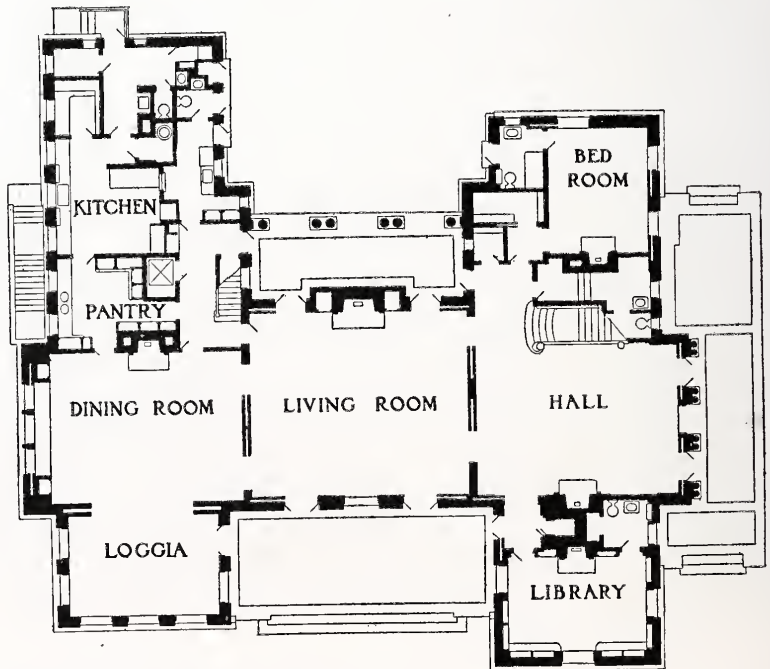
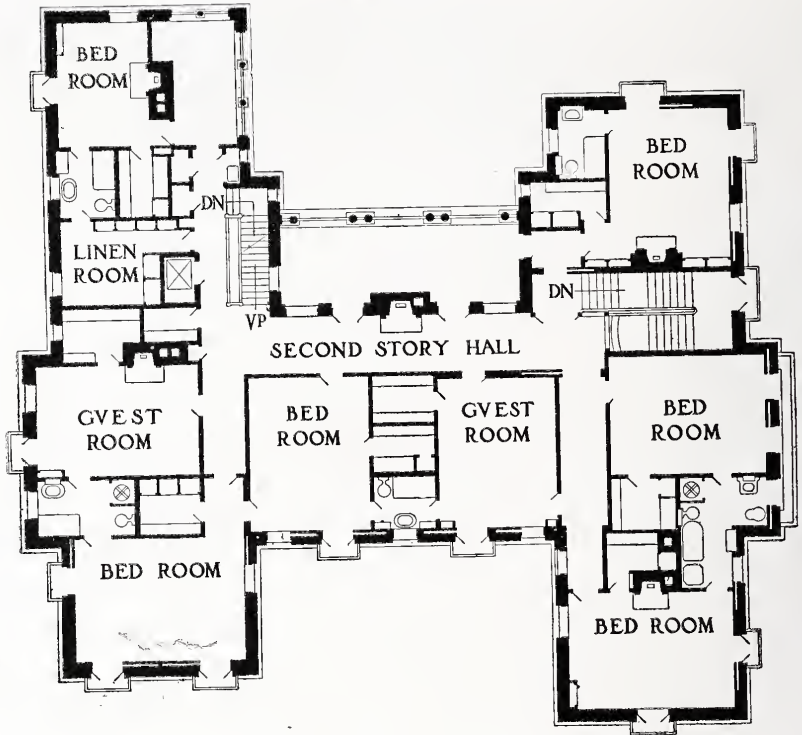
HOUSE OF W. J. MACDONALD, ESQ., PASADENA, CAL. REGINALD D. JOHNSON, ARCHITECT.



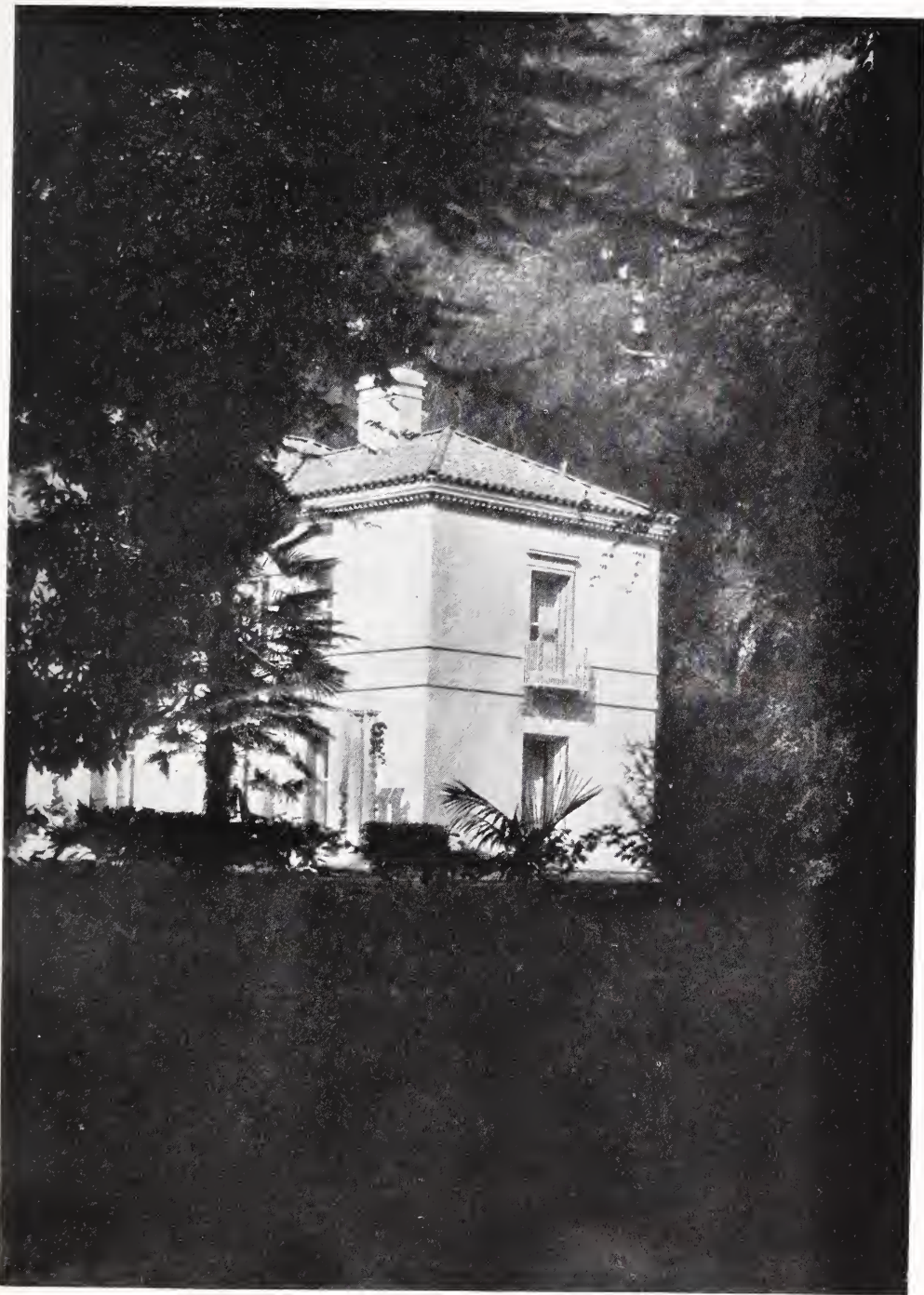
HOUSE OF MRS. ELSA JOCKERS.
MAYBECK & WHITE, ARCHITECTS.



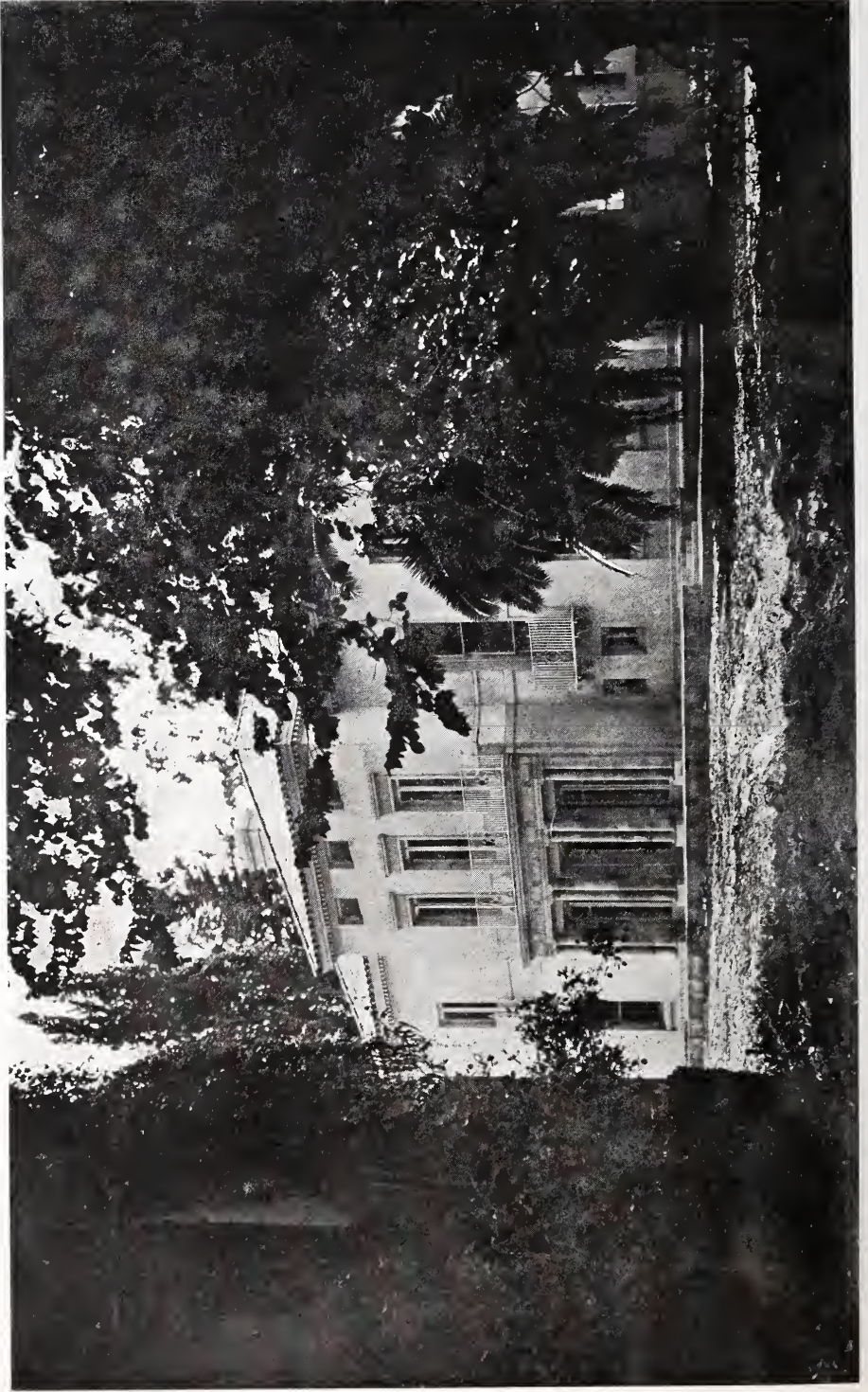
REAR ENTRANCE—HOUSE IN NORTH BERKELEY, CAL. MAYBECK & WHITE, ARCHITECTS.



FIRST AND SECOND FLOOR PLANS—
 HOUSE OF THOMAS R. BARD, ESQ., HUE-
 NEME, CAL. MYRON HUNT, ARCHITECT.



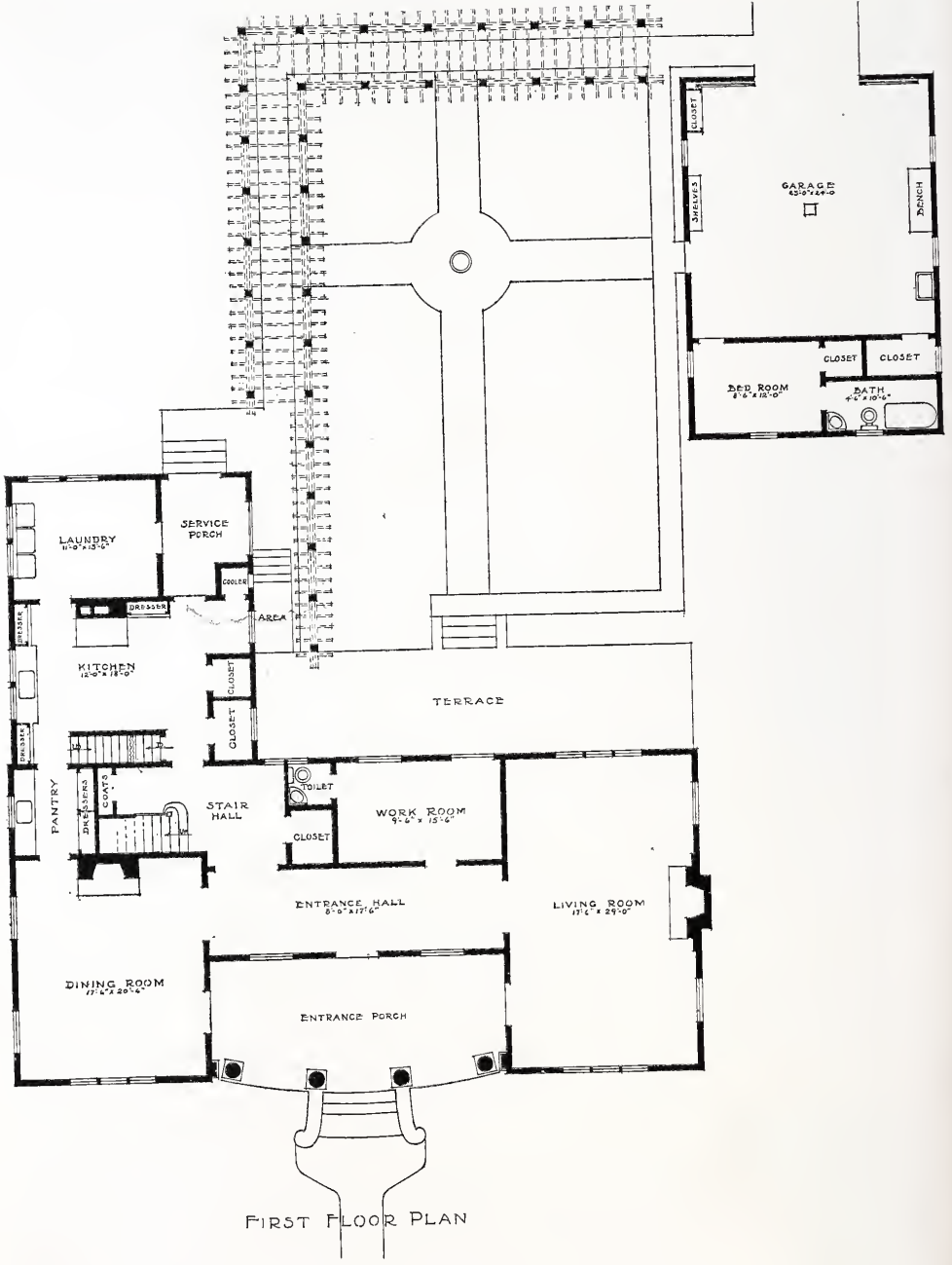
HOUSE OF THOMAS R. BARD, ESQ., HUE-
NEME, CAL. MYRON HUNT, ARCHITECT.



HOUSE OF THOMAS R. BARD, ESQ., HUE-
NEME, CAL. MYRON HUNT, ARCHITECT.

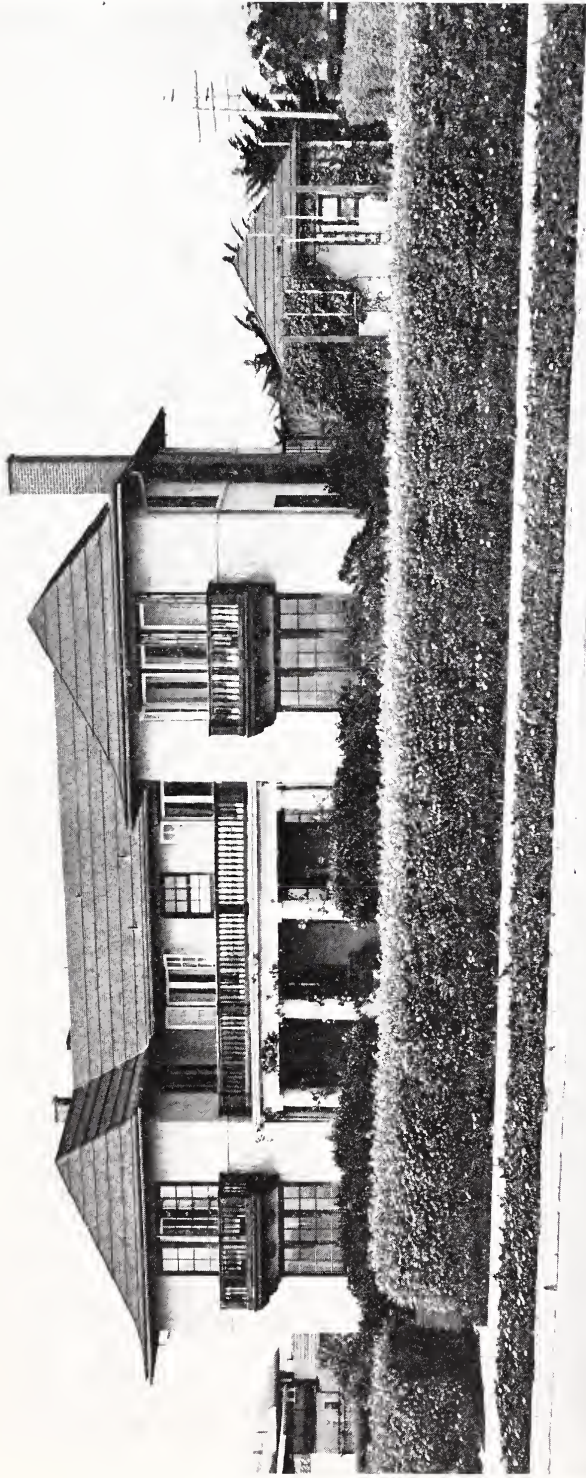


HOUSE OF THOMAS R. BARD, ESQ., HUE-
NEME, CAL. MYRON HUNT, ARCHITECT.



FIRST FLOOR PLAN

BLOCK PLAN—HOUSE AT CORONADO, CAL.
 WILLIAM TEMPLETON JOHNSON, ARCHITECT.



HOUSE AT CORONADO, CAL. WILLIAM
TEMPLETON JOHNSON, ARCHITECT.



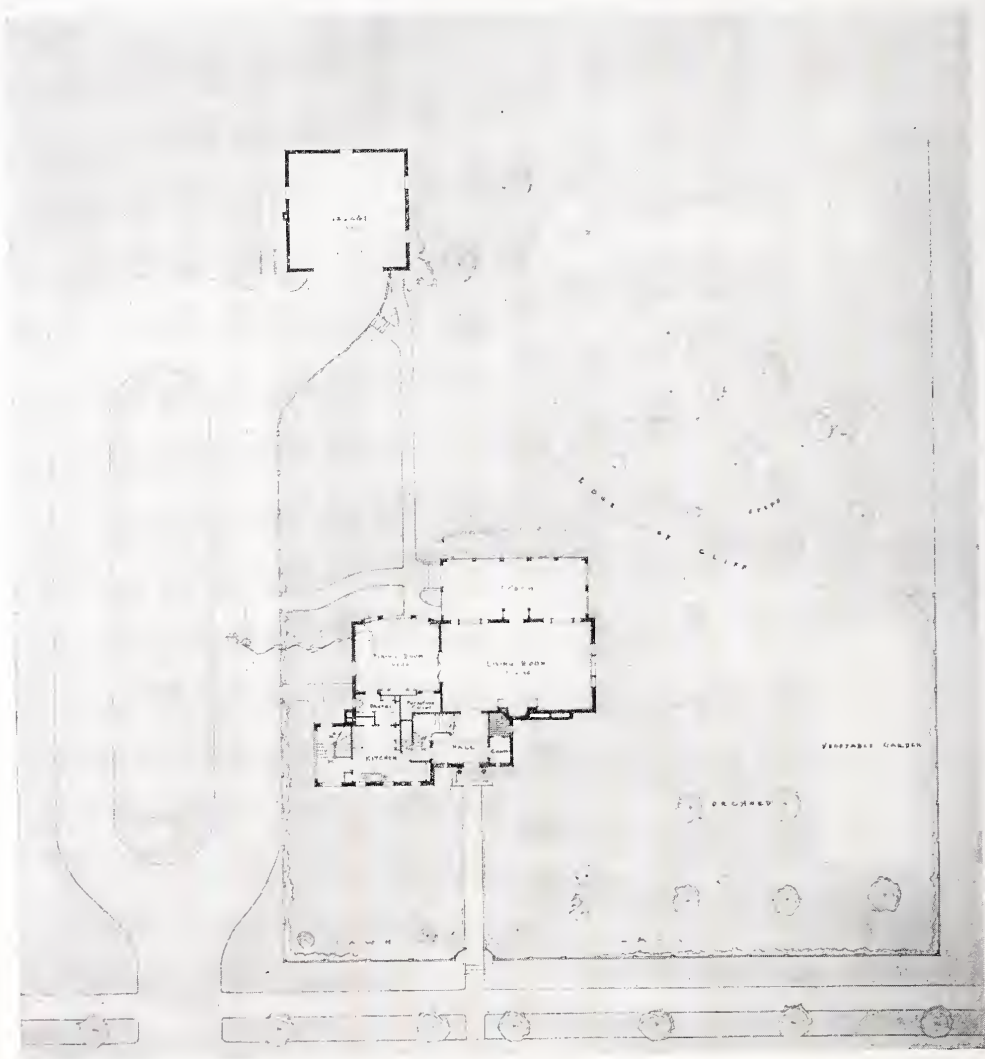
LIVING ROOM—HOUSE AT CORONADO, CAL.
William Templeton Johnson, Architect.



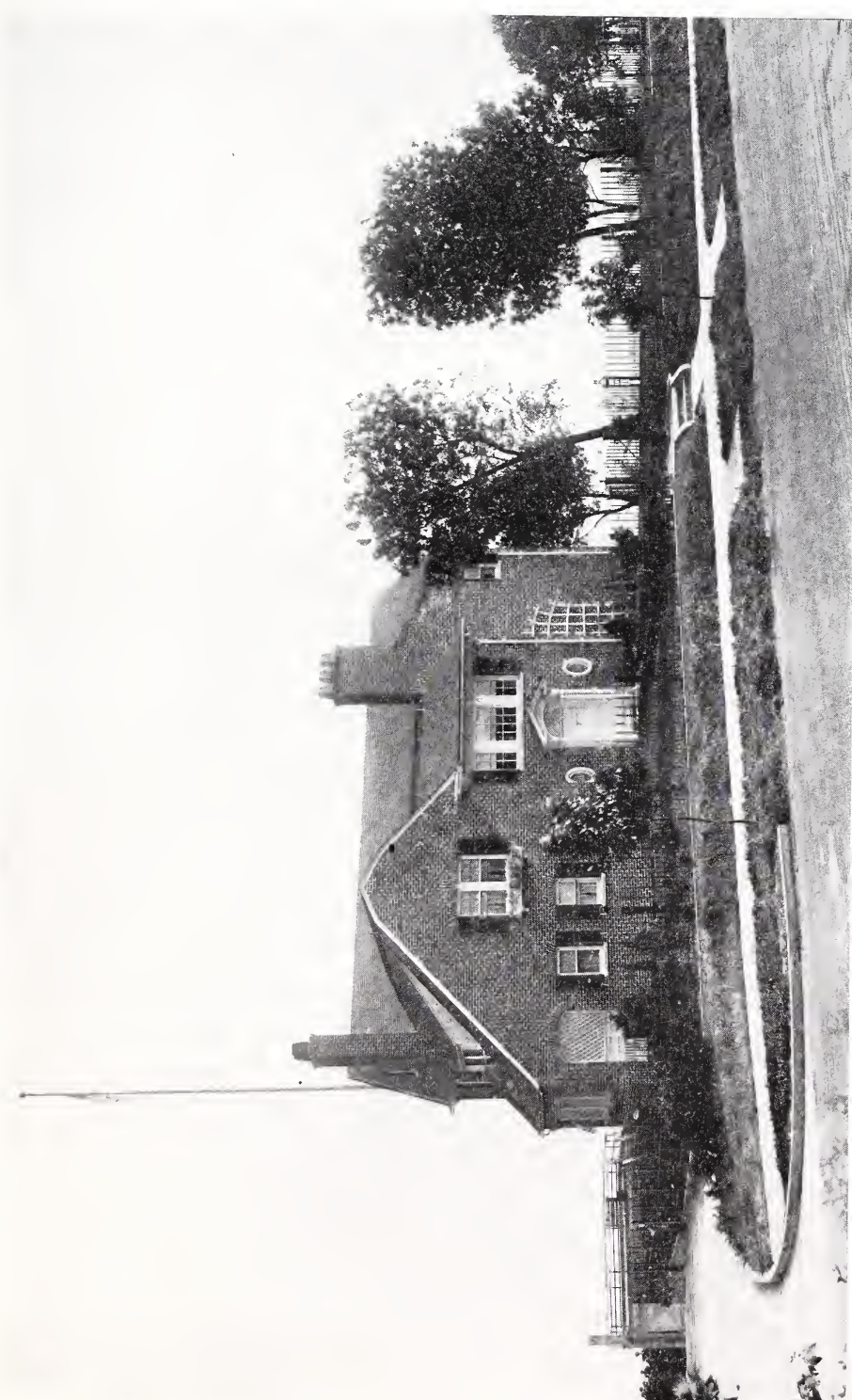
LOGGIA—HOUSE AT CORONADO, CAL.
William Templeton Johnson, Architect.



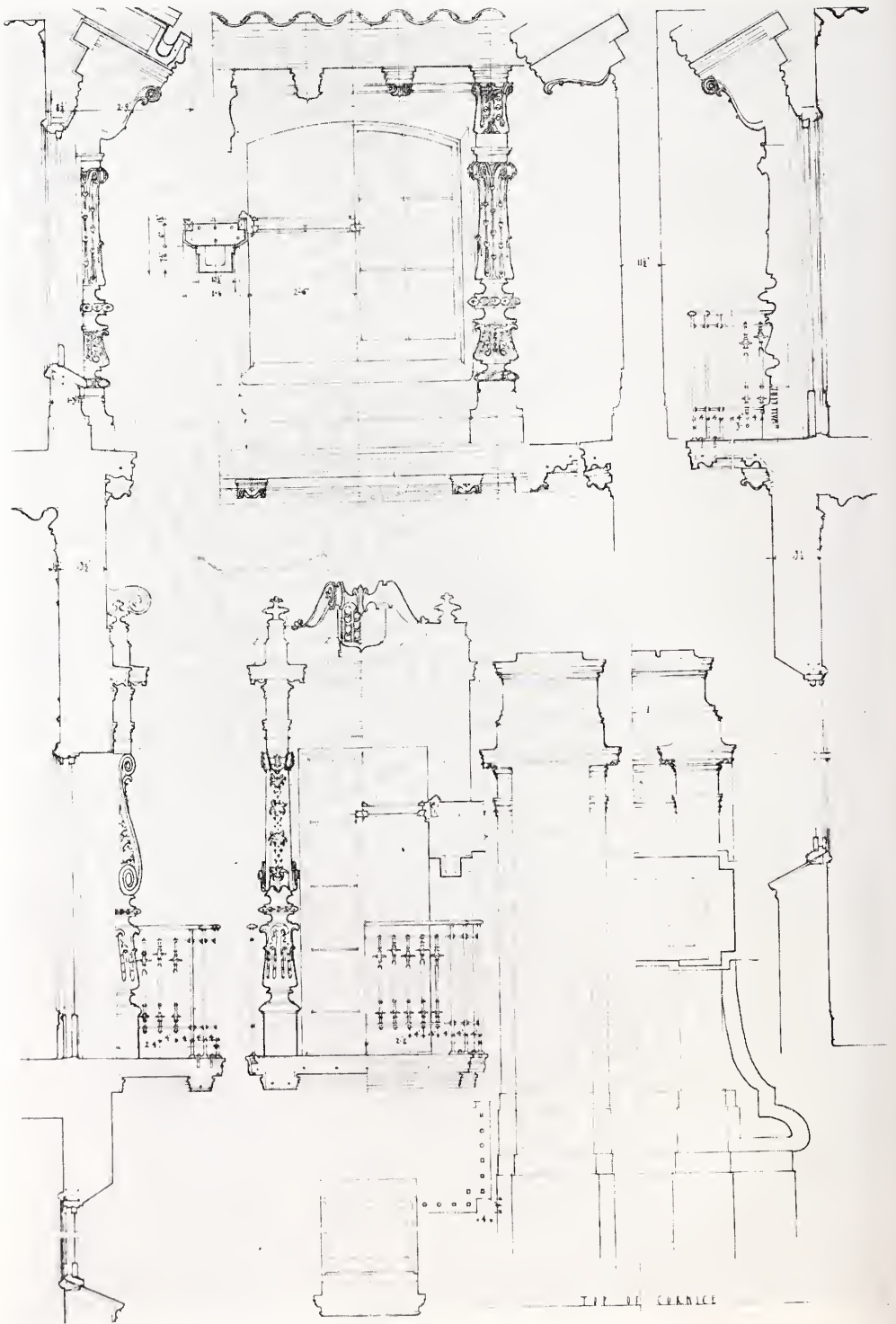
BUNGALOW AT CORONADO, CAL. WILLIAM TEMPLETON JOHNSON, ARCHITECT.



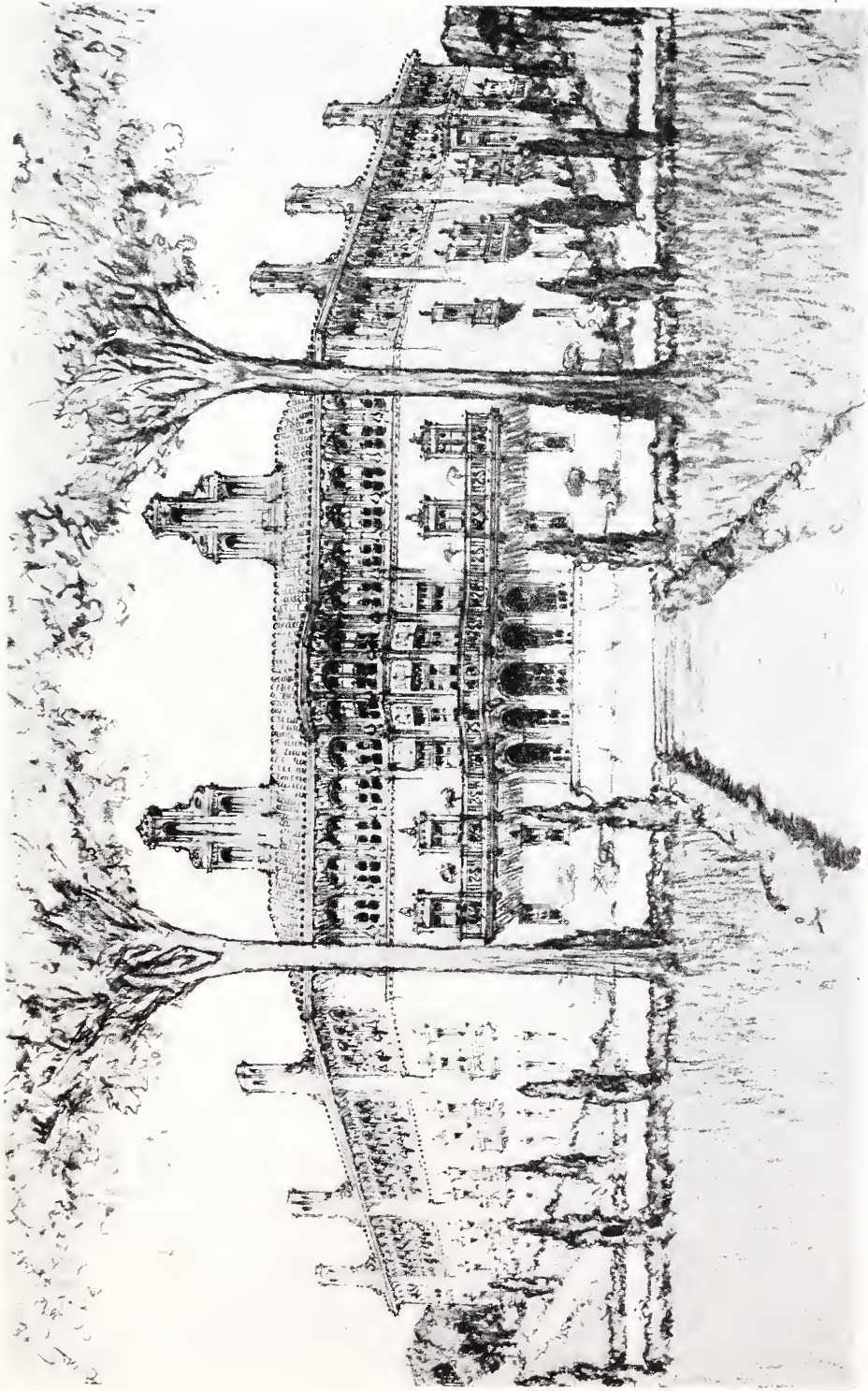
BLOCK PLAN—HOUSE OF C. L. HIBBARD, ESQ.,
SEATTLE, WASH. J. S. COTE, ARCHITECT.



HOUSE OF C. L. HIBBARD, ESO., SEATTLE,
WASH. J. S. COTÉ, ARCHITECT.



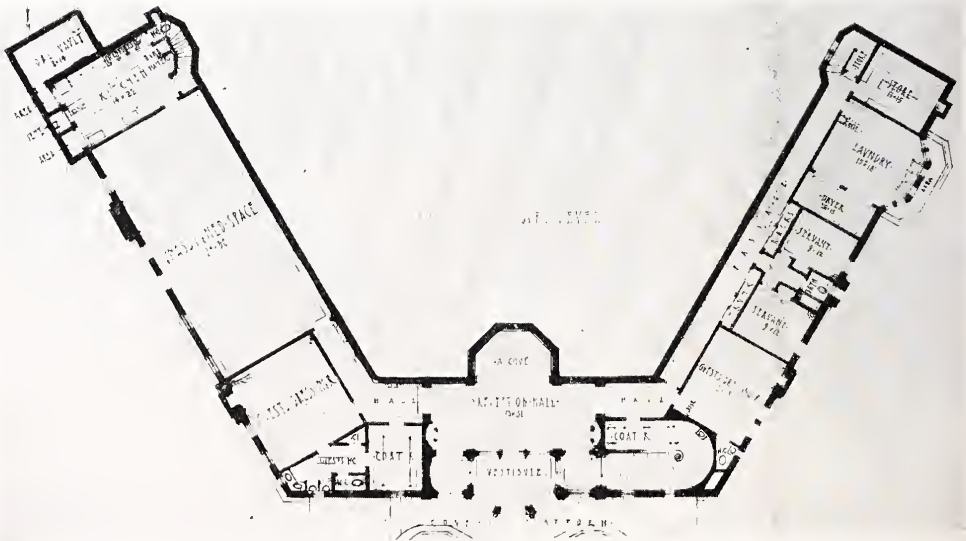
EXTERIOR WALL AND ROOF DETAILS—THE
 PRESIDENT'S HOUSE, STANFORD UNIVERSITY.



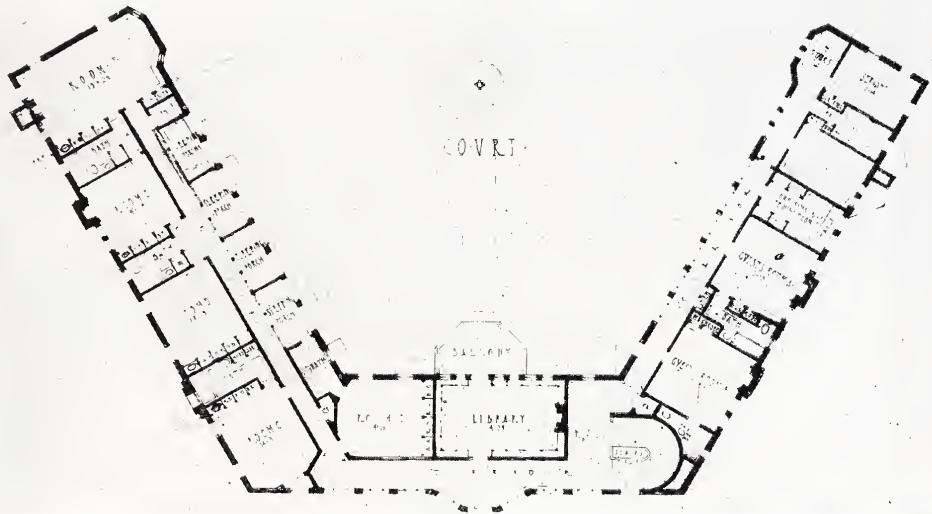
DESIGN FOR THE PRESIDENT'S HOUSE, STANFORD UNIVERSITY. LOUIS CHRISTIAN MULLGARDT, ARCHITECT.



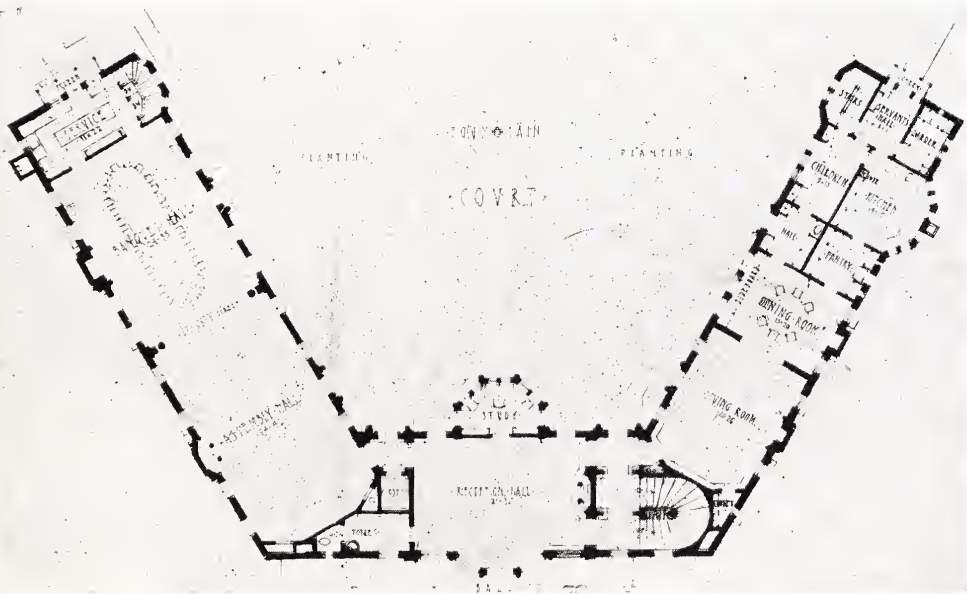
ELEVATION ON COURT—THE PRESIDENT'S HOUSE, STANFORD UNIVERSITY.
Louis Christian Mullgardt, Architect.



GROUND FLOOR PLAN—THE PRESIDENT'S HOUSE, STANFORD UNIVERSITY.
Louis Christian Mullgardt, Architect.



SECOND FLOOR PLAN—THE PRESIDENT'S HOUSE, STANFORD UNIVERSITY.
Louis Christian Mullgardt, Architect.



FIRST FLOOR PLAN—THE PRESIDENT'S HOUSE, STANFORD UNIVERSITY.
Louis Christian Mullgardt, Architect.



HOUSE OF CHARLES AMILLO, ESQ., LOS ANGELES, CAL.
B. Cooper Corbett, Architect.

perhaps the most fertile of all, which lies between, are thus seen to be, in a way, of a kind. The impression cannot be escaped that there runs through most of the house design of this section the sort of consistency which is characteristic of the evolution of a genuine style of architecture. There is great variety of form, to be sure. Inspiration is sought in many directions. One house suggests American Colonial, another a Spanish hacienda, a French Renaissance manoir, or a Tudor cottage. But they play the game together somehow. The underlying spirit is the same. Quiet restraint, directness of expression, absence of ornament used for its own sake, beauty of effect derived solely from the essentials of the program,—these elements of success they have in common.

There has of late years been a great advance in planning the house. There is less appearance of torture of the program in order to get exact symmetry of outer form. There is also less ready acceptance of the perfunctory and stereotyped layout, though such planning will always

be much in evidence, I suppose. The architect himself is not always to be blamed for this. But fresh thought and childlike acceptance of the special program, no matter where it may lead, go hand in hand. The delightful new solution of the house plan, with all that this implies as to the exterior aspect, comes about by reason of the easy and receptive relation of the architect's mind to the client's requirements. A charming and individual client has a right to a charming and individual house, and the architect can produce the result only by going along with his client, instead of imposing some arbitrarily conceived form upon him. In this way unexpected rhythms and appealing balances are struck, which seem to take a house out of the everyday world and make it a part of romance.

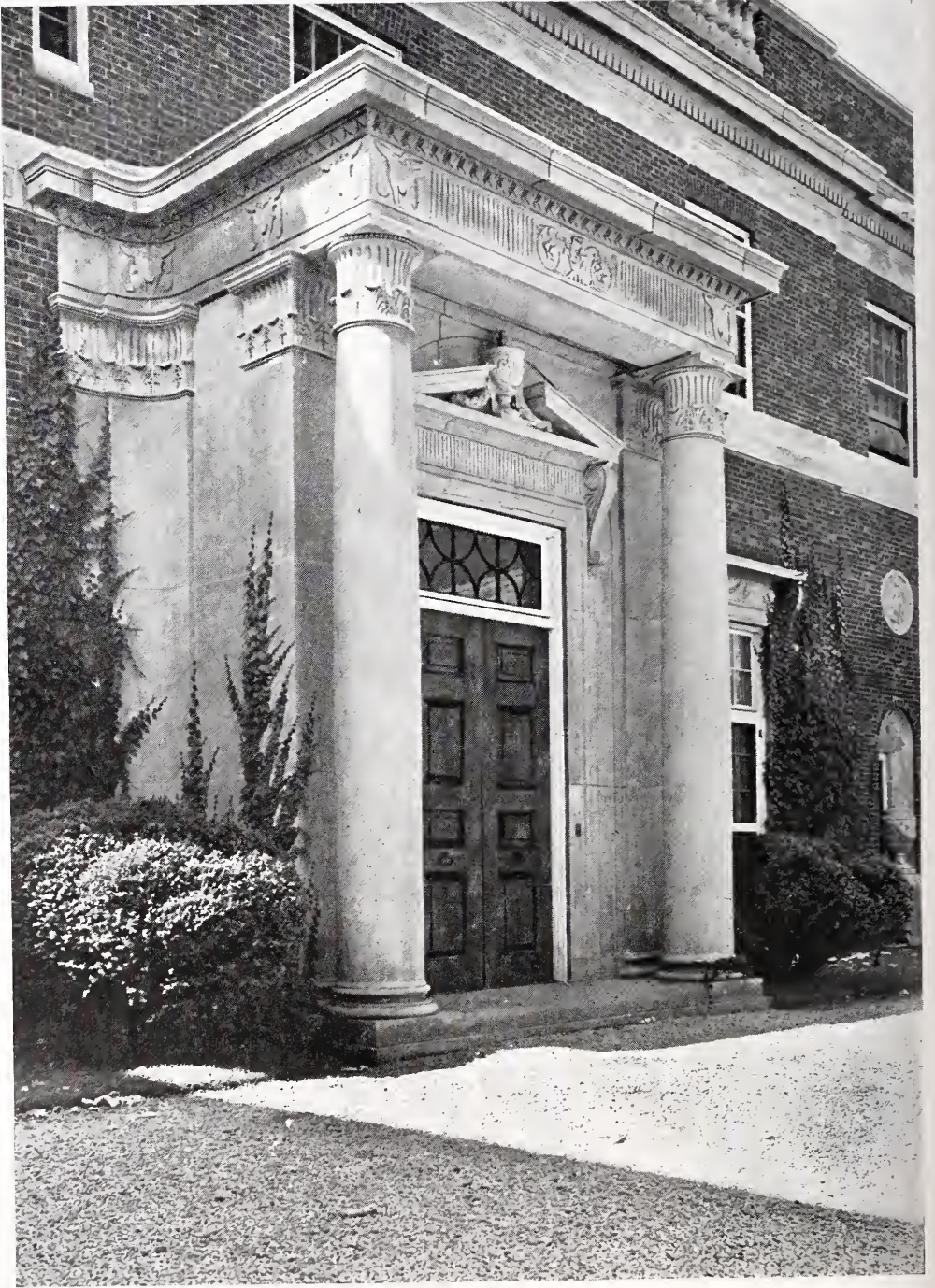
It goes almost without saying that a house is never wholly successful, no matter how fine it may be in itself, if it does not fit its surroundings. Our architects are more and more being permitted to give, let me say, the most careful study to the development of the site. This has

not always been the case, and it is only within comparatively recent years, in this part of the world, that owners have realized that the garden and landscape about a house are as much a part of the design as the walls and roof. The great artistic successes have been, I think, without exception, cases where the designer of the house has designed the setting as well. The principle involved here is fundamental and so obvious as not to seem to require argument. To separate the design of the landscape setting from the design of the house is to preclude vital success in the ensemble. An old Californian once told me of his experience of building his country house in the early days, and of his, and the architect's, surprise, after the drawings had been completed and the contracts let, to find on laying the house out on the site that one corner was twenty feet out of the ground. That may have been the old way of doing things, but it is so no longer. One finds many rarely beautiful examples of unity of house and setting among the newer works.

The study of the garden as an architectural work in itself is coming more into recognition too, aside from its relation to the house. Garden architecture is essentially domestic in its appeal. Even in the cases, few and far between on this coast at present, where they form part of public parks or the setting of public buildings, they introduce the needed note

of amenity, and give the human, personal touch. How much more valuable are they, then, in rounding out and completing the country house. A jarring note here kills all the music.

It is with great sense of satisfaction that one recognizes the fine qualities of so much of the country house work of today. But one cannot help wondering what the next step is to be. Are we always going to be satisfied with the pike-staff plainness which is so grateful to us now? Are there not other worlds to conquer? I hope we shall never return—there is surely little danger of our returning—to cheap lugged-in elaboration, to tortured and whimsical forms, to stereotyped planning. But, after all, architecture is essentially an alliance in which painter and sculptor are partners, too, and the deepest and highest notes of architectural design cannot be struck without their co-operation. Think of the exquisite work to be found all about the Mediterranean (to whose climate and landscape, and perhaps also to whose people, this coast is most akin); work which, while possessing all the restraint and quietness which appeal to us so deeply now, yet finds place for painter and sculptor, too! We have found a common ground with fine tradition as to fundamentals. It is not difficult to see the direction in which we should turn to make still further progress. Let us give our fellows of the allied arts their chance.



MAIN ENTRANCE—HOUSE OF OGDEN L. MILLS, ESQ.,
WOODBURY, L. I. JOHN RUSSELL POPE, ARCHITECT.



HOUSE OF OGDEN L. MILLS, ESQ., WOODBURY, L. I.
John Russell Pope, Architect.

COVNTRY HOVSE ARCHITECTVRE IN THE EAST

BY ELECTVS D. LITCHFIELD

IN the last analysis, the one element which makes of architecture a thing apart from mere building, and indeed that which differentiates any work of art from the product of mere manufacture, is love. A work of art is always the embodiment of the affection of the producer. Almost any work which embodies the affectionate effort of the artisan is cherished, if only by a few. The merest little brass hook wrought with the crude but devoted skill of some sixteenth century artisan has an appeal of its own.

Love is as necessary to the production of the successful house as it is to the successful home. Now, this affection may be supplied by the owner or by the architect, but preferably by both. The whole matter is altogether independent of any question of style or indeed of any question of appropriateness. Some of the most beautiful

flowers last only for a day and withstand neither picking nor transplanting. Others much less showy, if properly preserved, will last for years. I take it that the permanence of a work of art depends not only on the skill and affectionate interest of its creator, but upon its appropriateness. The function of true architecture is the production of structures appropriate to their use; so it is practically axiomatic that architecturally the most successful structure is the one served by the greatest affection combined with the highest degree of true architectural skill.

The most desirable thing about the country place itself is that it should arouse one's affection—that as years go on, it should more and more become a real part of one's life. The selection of a site and the building of a house are indeed serious matters and not to be entered upon light-

ly and without due consideration. Surely the best of expert advice is desirable and the motive behind the undertaking should be thoroughly understood by all. Some houses are intended solely for entertaining and for but a casual and temporary residence; but even these may be so designed as to have a personal quality and appeal that are infinitely worth while. Good architecture is within the reach of all, not only of the rich and moderately well to do; and the poor man's house may take its place as a work of art by the side of that of the multi-millionaire. There are more houses in the country with too much architecture than there are with too little, and a well designed doorway in an otherwise barn-like façade may produce a composition of the utmost distinction. I saw not long ago a little house where many crudities of design were atoned for by the most charming little shaded brick-paved garden, which had been built almost as a part of the house. It developed that it was the mistress of the house who had achieved this most delightful effect of moss-grown paths within a few weeks by setting the bricks flatwise on sand and filling the wide joints with loam thickly seeded with the specially selected grass seed used by the linksmaster for seeding the putting greens.

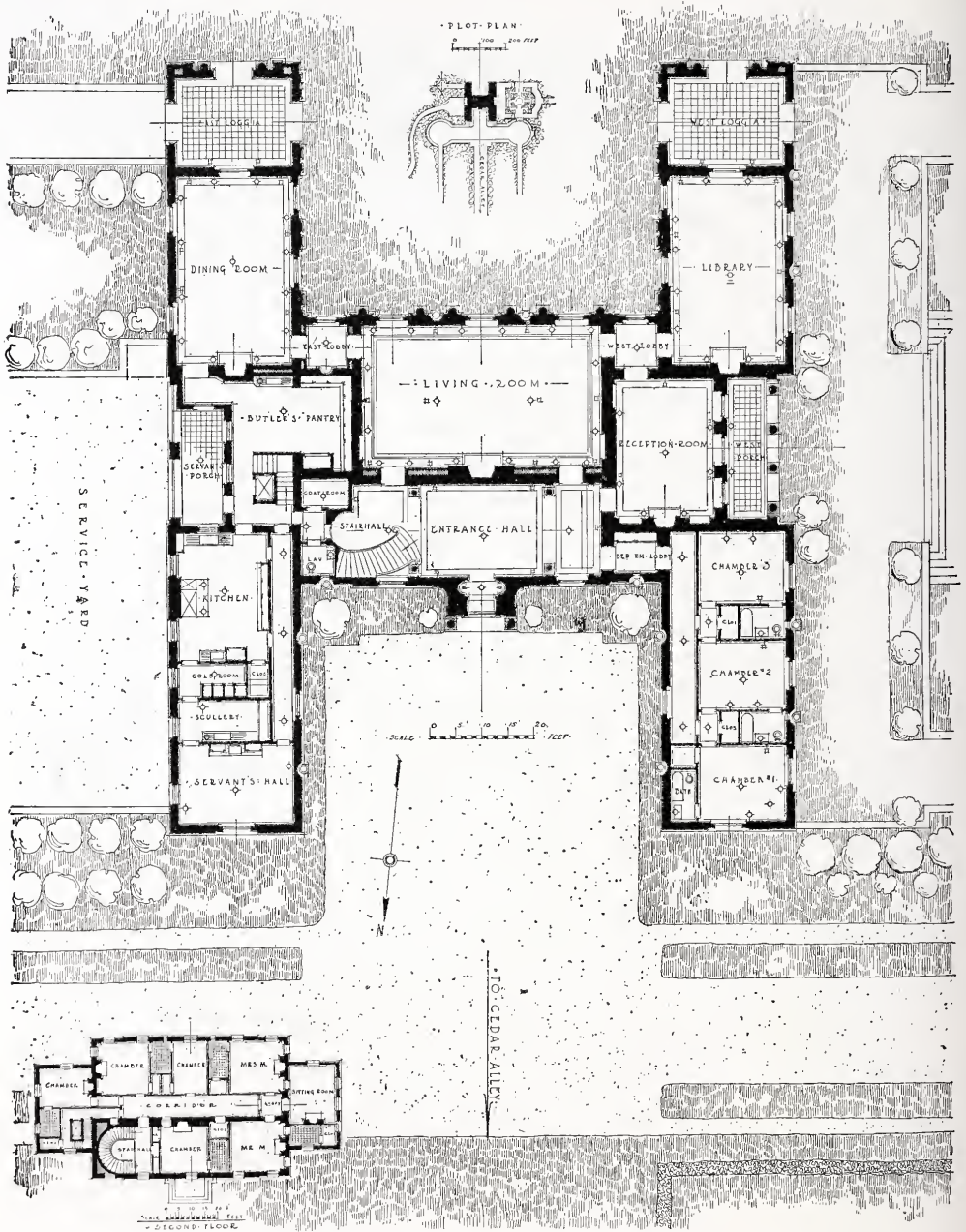
A few miles outside of Boston there is a wonderful institution for the housing and education of the blind. Its buildings are placed toward the centre of a plot of thirty acres of highland abundantly wooded with ancient elms and other slightly trees, beneath whose branches there spreads a delightful view to the south beyond the slowly moving Charles. A great bell tower dominates the group and its sweet toned chimes ring daily in delightful harmonies and songs. It is a joy to see such a place, full of sunshine and flowers, and with beauty and comfort evident everywhere. The buildings are of soft-toned brick with gently contrasting slate roofs, with cloistered quadrangles with tinkling fountains at the centre of close cropped squares of turf. Charming two-story dormitories form the sides of hollow squares with broad walks through the centre, bordered here and

there with picturesque old trees; items of interest and thoughtful care everywhere, but decoration used with the height of restraint and good taste. Here there is a charmingly thought out and appropriate seal or cartouche indicating the name of a particular cottage; there a quaint and cunningly contrived shoe scraper and door porter; every architectural detail bears evidence to a love of beauty and a watchful thoughtfulness on the part of its creators. But we might have lost the great lesson of the Perkins Institute if we had not met its enthusiastic director, Mr. Allen, and learned from him the reason for it all. "All of this beauty," we said, "and none of the pupils able to see it!" "Yes, but it is well worth while, and we built as we did, doing our utmost to attain it, for we know that as we, the heads and teachers and helpers of the Perkins Institute, are uplifted and inspired by our surroundings, so we re-act upon the spirits of those under our charge and inspire them and teach them, too, to love the beautiful and good." There must certainly be a lesson for owner and architect in the Perkins Institute for the Blind. If it is worth while that such an institution shall be so designed and built for the blind, is it not worth while for those of us who build for those who have eyes, to think seriously what is to be the reflex of the home that we build; to plan well that the intangible influence of our house shall be for happiness, for an appreciation of beauty, and for comfort and for peace? Few persons analyze the motives which determine the character of the house which they would have, and yet these motives are worthy of deep consideration. A tradition in living is as worth while as it is in architecture. In architecture all sound development is based on tradition; but like as not when a man comes to build himself a house he imagines himself a king or an ancient nobleman and builds himself a castle, only to find the play grown dull in his gilded mansion and the home for which he really craved clean gone.

It is the architect's function to interpret and express in a house the owner's traditions and aspirations; but both he and the owner should remember that they



FRONT VIEW—HOUSE OF OGDEN L. MILLS, ESQ.,
WOODBURY, L. I. JOHN RUSSELL POPE, ARCHITECT.



PLAN OF HOUSE AND GROUNDS OF OGDEN L. MILLS, ESQ.,
 WOODBURY, L. I. JOHN RUSSELL POPE, ARCHITECT.



REAR VIEW—HOUSE OF OGDEN L. MILLS, ESQ.,
WOODBURY, L. I. JOHN RUSSELL POPE, ARCHITECT.



MAIN ENTRANCE—HOUSE OF EDWARD COYKENDAL,
ESQ., KINGSTON, N. Y. YORK & SAWYER, ARCHITECTS.

will achieve the greatest satisfaction when the finished work is exactly appropriate to its location and to its use. I have scant patience with the average so-called English half-timbered house on American soil or indeed with a Connecticut farm house in St. Augustine. An Italianate villa may be entirely appropriate for a few months' sojourn at playday Newport, but it must be an unsatisfactory environment for the continuing existence of the average American business man; and it surely is out of place in the hills of Long Island. The real reason that there have been in the past so many unsatisfactory houses is because neither owner nor architect have thought very seriously on the motive behind the whole undertaking and the function which the structure is to serve in the years to come. But we are living in a golden age. Country house architecture in the East today has reached a high standard of excellence, due to the arrival of a great generation of men well trained in architecture and with a splendid affection for their work, and, further, to a widely growing appreciation on the part of the public of simple good taste and of the importance and the possibilities of the country home. We have made wonderful strides in the architecture of our country houses. The country house today in the East, as it has been for generations in England, is more important than the one in town. The building of villas has given way to the building of homes.

There are so many kinds of climate and so many historical traditions, to say nothing of the many groups of races, in the different parts of the United States that what is right and appropriate in one part is altogether wrong in another. The noble heritage of American architectural tradition which we have in the East extends its influence well out into the Western Reserve and up into Michigan, where there are still to be found ancient houses having their own local character, but which are indubitably the work of the children of the early settlers of New York and New England.

Owing partly to the materials easily obtained in the various localities and partly to the racial influence of the early

settlers, there are interesting variations in the domestic architecture of the East, even where it is a development of our early American style. Out on the main line beyond Philadelphia and towards Germantown and Chestnut Hill and up the White Marsh Valley, ledge rock of a pleasing color breaking easily into rough ashlar with long horizontal beds is readily obtained. Fine old examples of early stone work, of which the Chew house and the Johnston house are notable, are at hand to serve as models, and the Philadelphia architects have produced a wealth of truly American, dignified and home-like houses in this medium, having a character entirely their own. To the south of Philadelphia are the wonderful brick clay deposits of Chester, Wilmington and Baltimore, burning to a brick of rich and deep cherry red; and here we find delightful brick houses in the character set by the early settlers of Delaware and Maryland. Throughout New England and Long Island the same thing applies. Long Island has practically no stone and a very limited supply of brick clay, and hence we find here the typical houses in wood. About Boston and New Haven, where good brick clay abounds, brick architecture still holds its own, while through the remainder of New England the shingle house is the rule. There is no end of rock through the New England states and the section is notable for its stone walls, but it does not split readily along distinct lines of cleavage, and for that reason interesting and structurally sound stone walls are obtainable only at prohibitive expense. There are, therefore, few stone houses among either the new or the older homes of New England.

Here and there throughout the East and in rapidly growing numbers on Long Island there are to be found the country homes of men of vast wealth uninfluenced by these controlling conditions. These houses have run the gamut from the height of bad taste to the acme of perfection. They have been handicapped by their lack of limitations. The indigenouslyness of materials has placed no break upon the whim of owner or architect and neither owners nor architects have always been students of what is appro-



ENTRANCE FRONT—HOUSE OF EDWARD COYKENDAL, ESQ., KINGSTON, N. Y.
York & Sawyer, Architects.



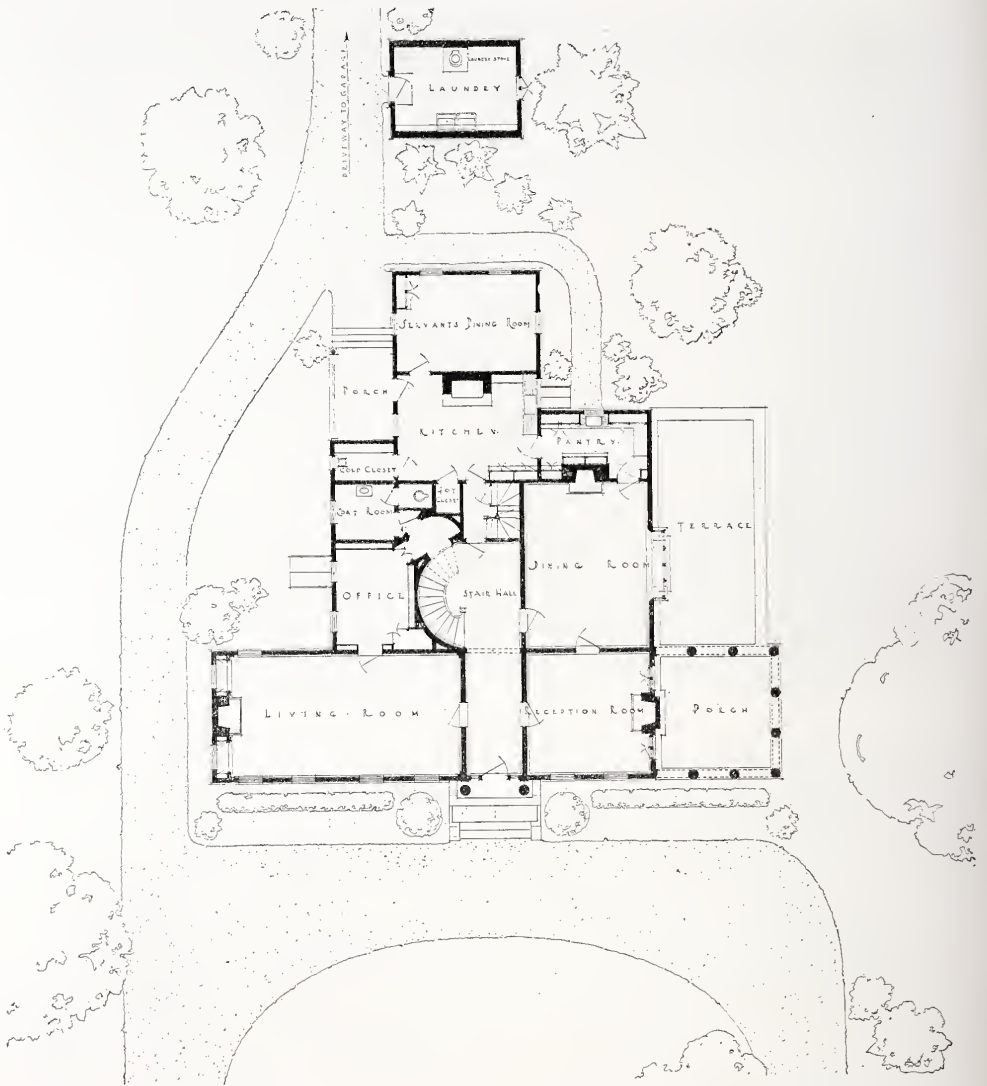
GARDEN FRONT—HOUSE OF EDWARD COYKENDAL, ESQ., KINGSTON, N. Y.
York & Sawyer, Architects.



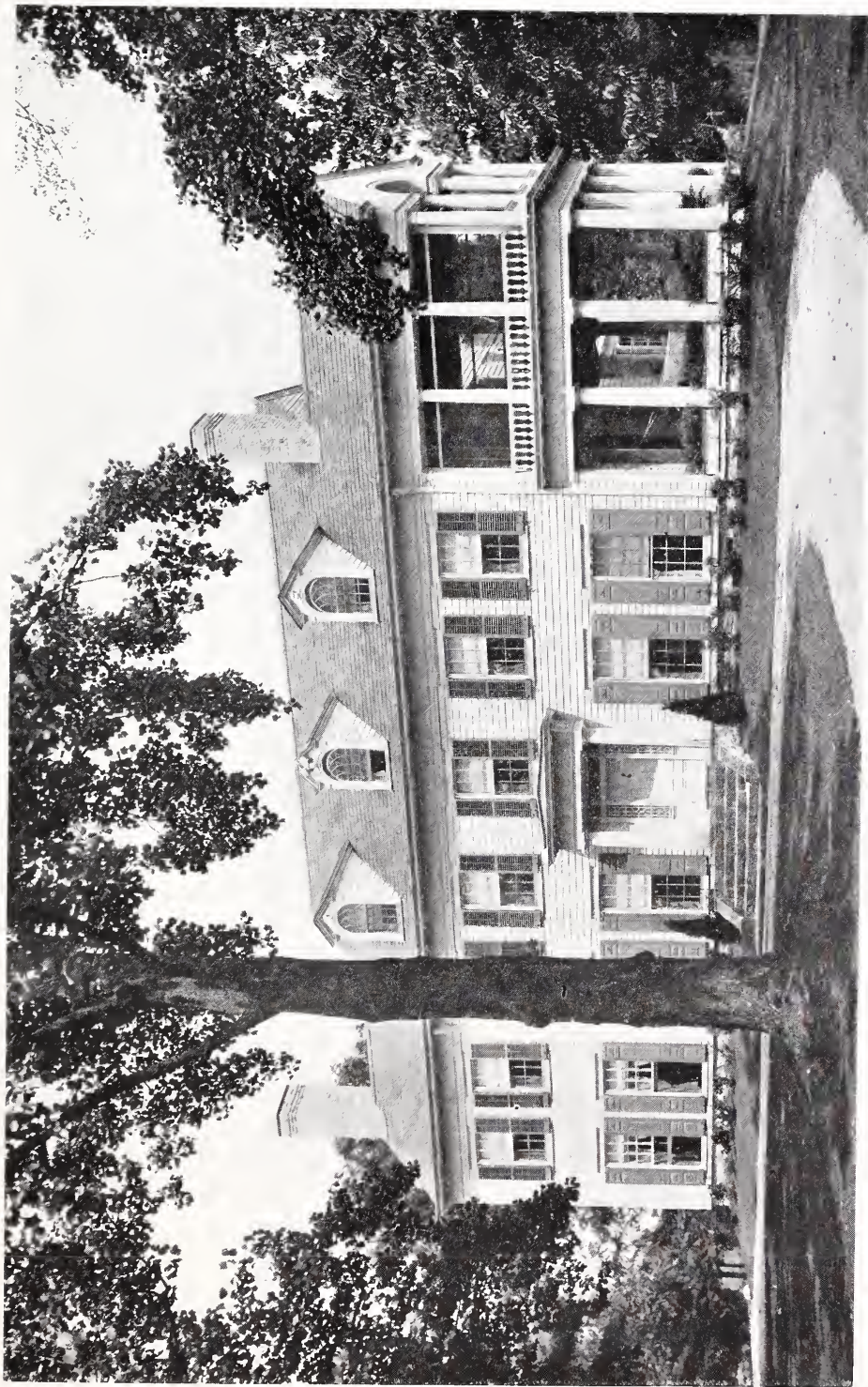
ENTRANCE DETAIL—HOUSE OF EDWARD COYKENDAL, ESQ.,
KINGSTON, N. Y.
York & Sawyer, Architects.



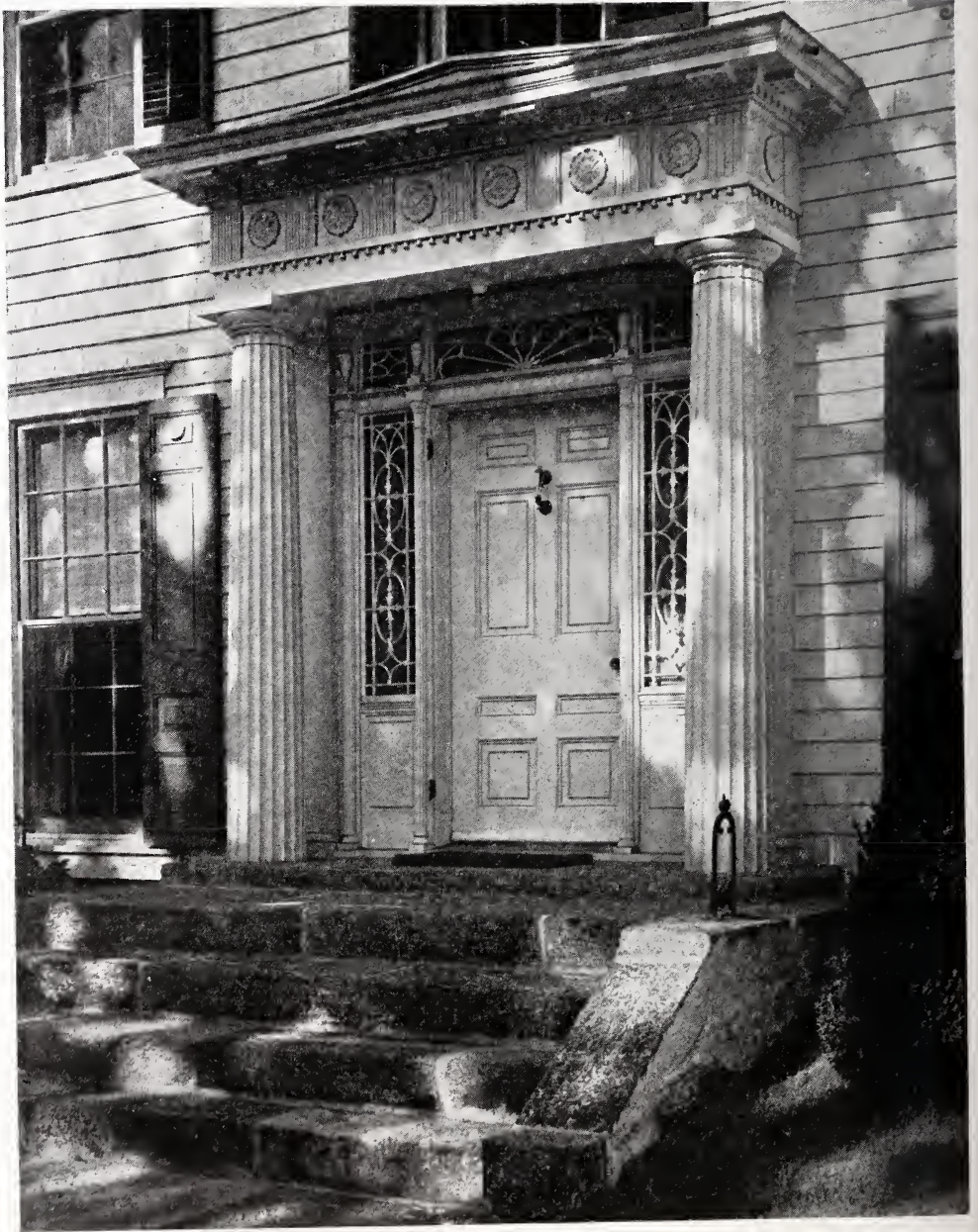
END VIEW—HOUSE OF EDWARD COYKENDAL, ESQ.,
KINGSTON, N. Y.
York & Sawyer, Architects.



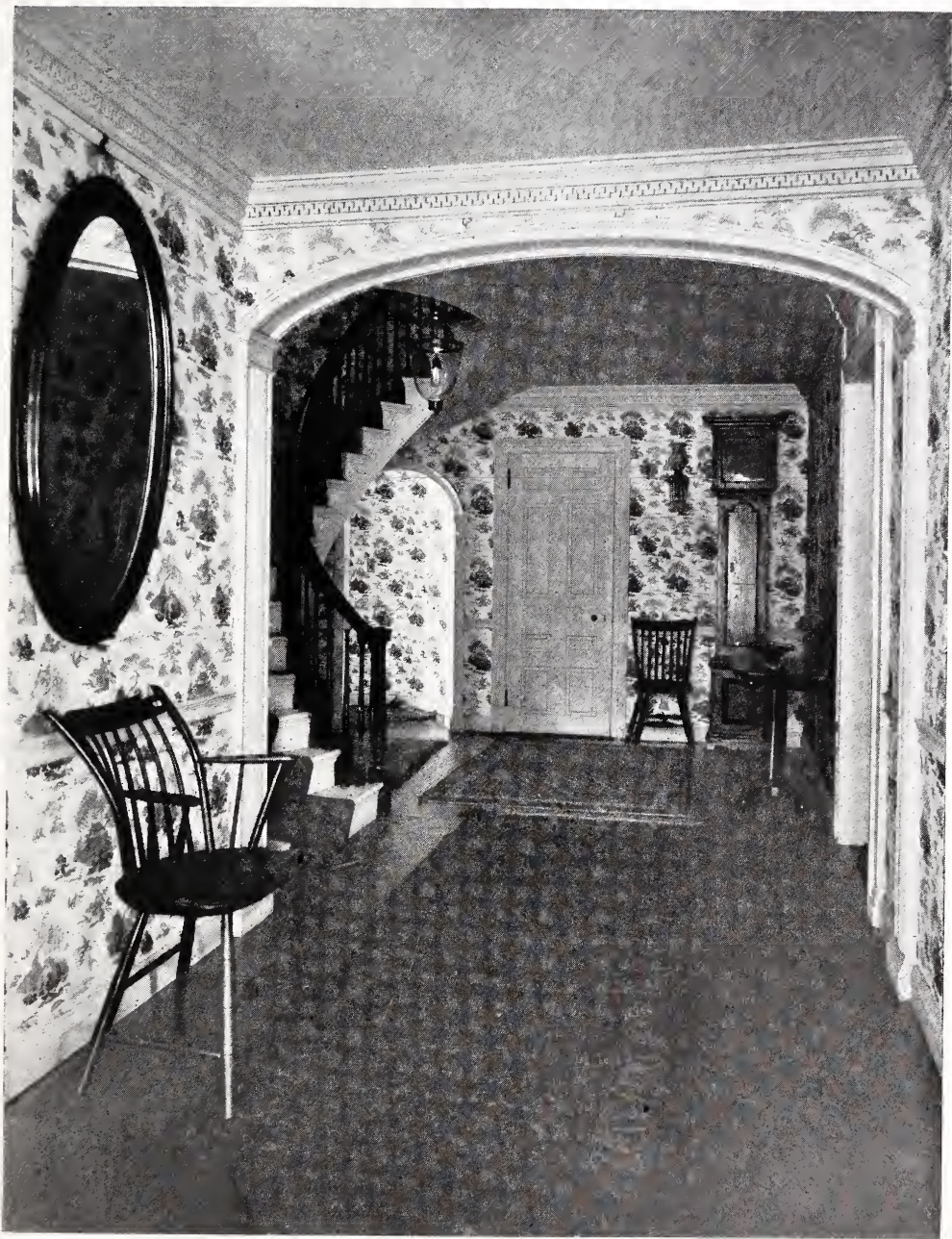
BLOCK PLAN—HOUSE OF NATHANIEL T. GUERNSEY, ESQ.,
 GREENWICH, CONN. ELECTUS D. LITCHFIELD, ARCHITECT.



HOUSE OF NATHANIEL T. GUERNSEY, ESQ., GREEN-
WICH, CONN. ELECTUS D. LITCHFIELD, ARCHITECT.



ENTRANCE—HOUSE OF NATHANIEL T. GUERNSEY, ESQ.,
GREENWICH, CONN. ELECTUS D. LITCHFIELD, ARCHITECT.



HALL—HOUSE OF NATHANIEL T. GUERNSEY, ESQ.,
GREENWICH, CONN. ELECTUS D. LITCHFIELD, ARCHITECT.



FIREPLACE IN DINING ROOM—HOUSE OF
NATHANIEL T. GUERNSEY, ESQ., GREENWICH,
CONN. ELECTUS D. LITCHFIELD, ARCHITECT.



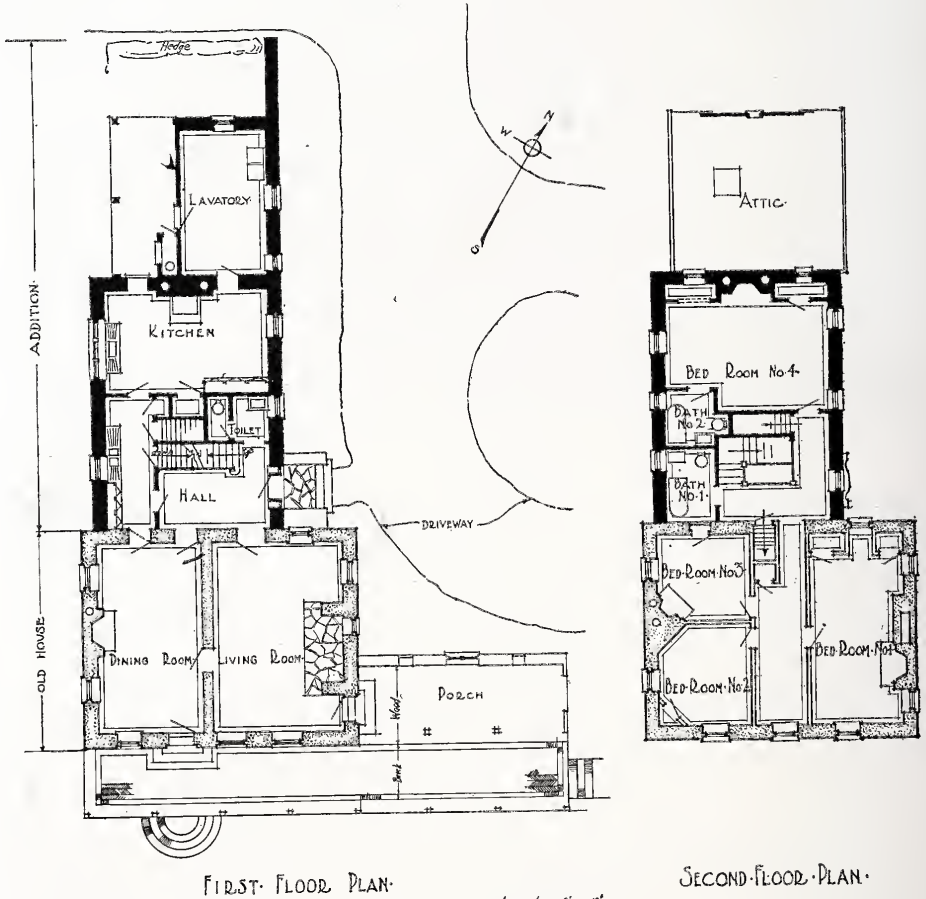
LIVING ROOM—HOUSE OF NATHANIEL T. GUERNSEY, ESQ., GREENWICH, CONN.
Electus D. Litchfield, Architect.



LIVING ROOM—HOUSE OF NATHANIEL T. GUERNSEY, ESQ., GREENWICH, CONN.
Electus D. Litchfield, Architect.

ALTERATIONS & ADDITIONS FOR
RESIDENCE ELLIS Y. BROWN JR.
DOWNTOWN PA.

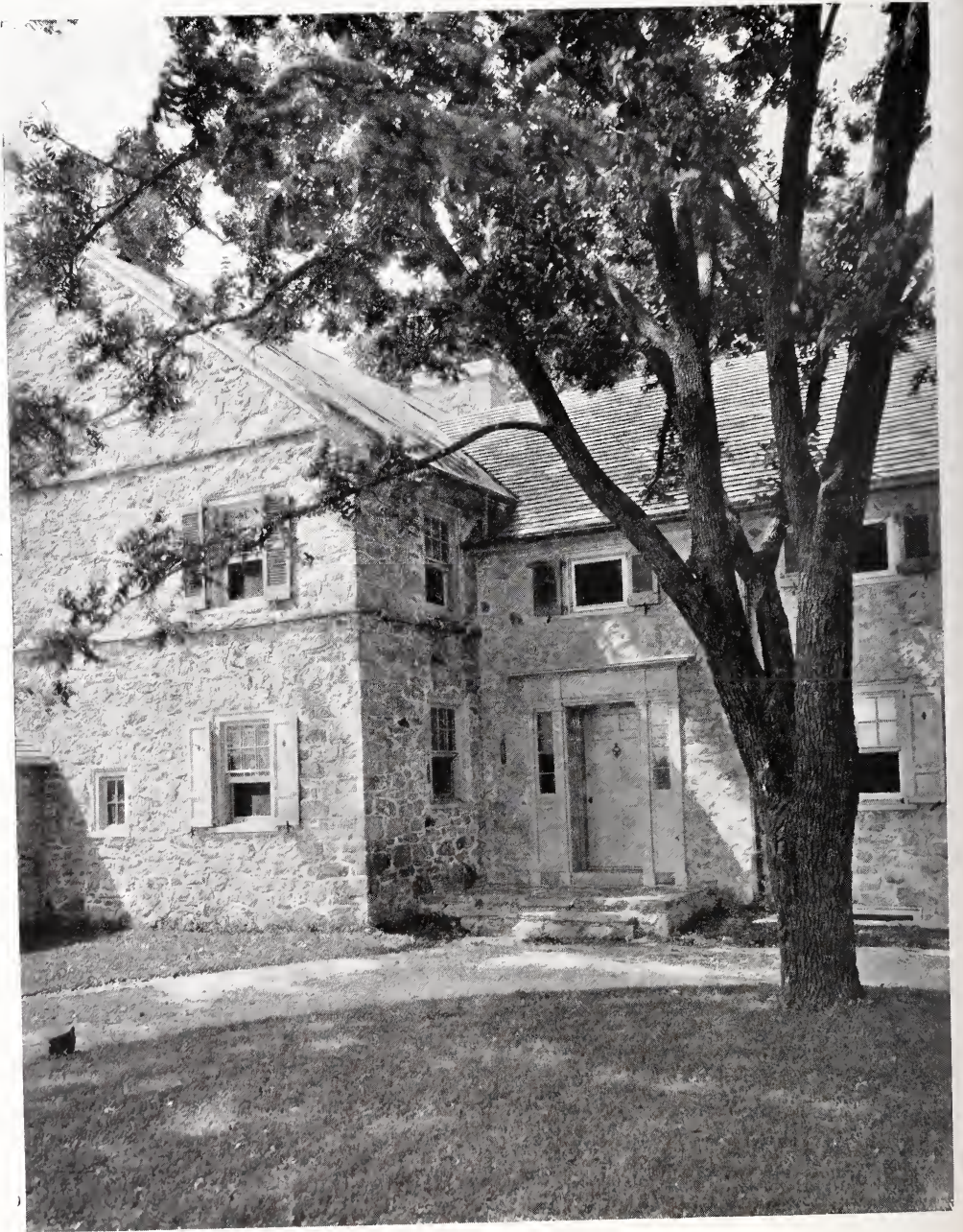
Mellor & Meigs
Architects
205 S. Juniper St. Phila. Pa.



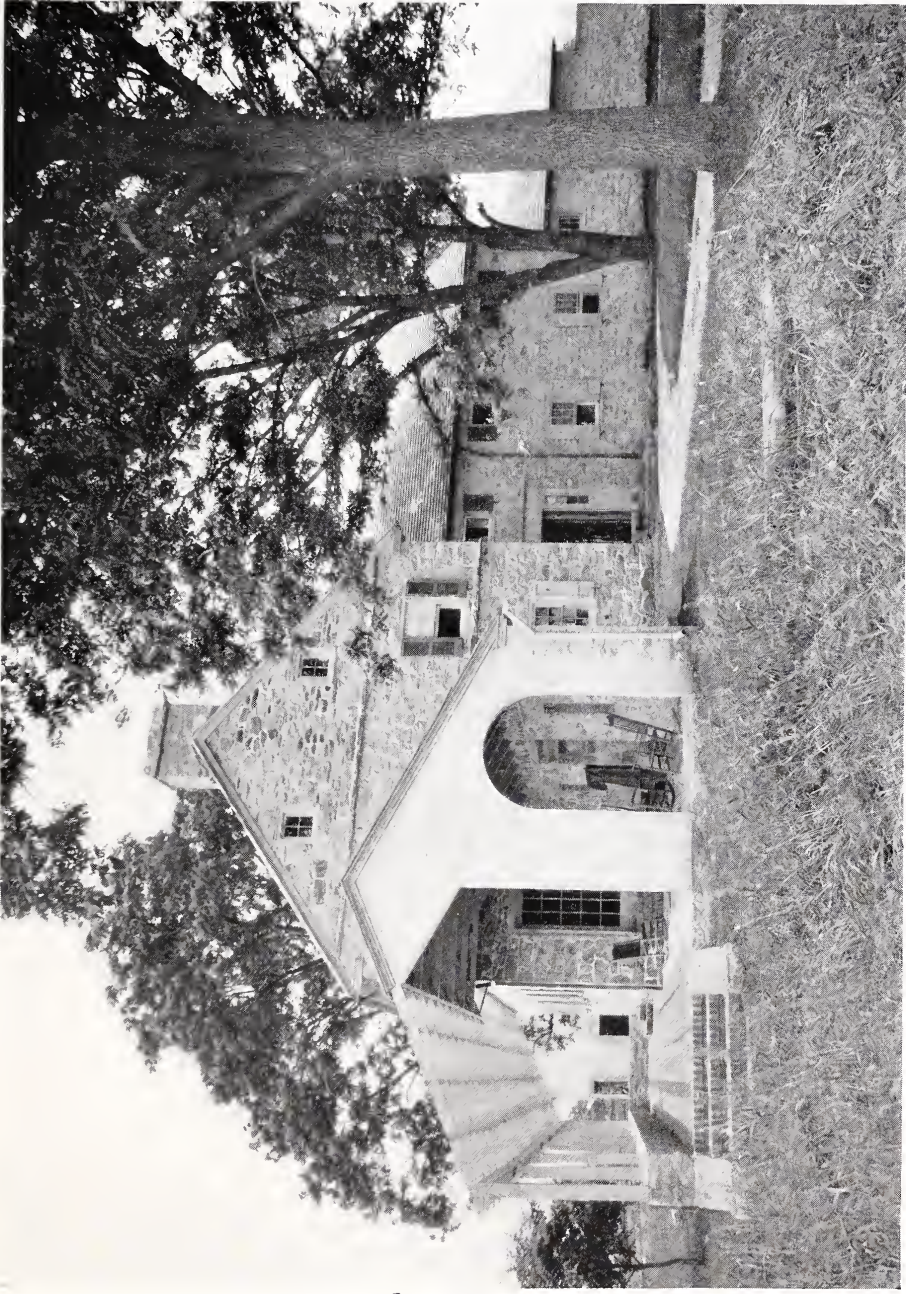
FLOOR PLANS—ALTERATIONS AND ADDITIONS
FOR HOUSE OF ELLIS Y. BROWN, JR., ESQ., DOWN-
TOWNTOWN, PA. MELLOR & MEIGS, ARCHITECTS.
ORIGINAL (FARM) HOUSE WAS BUILT BEFORE 1700.



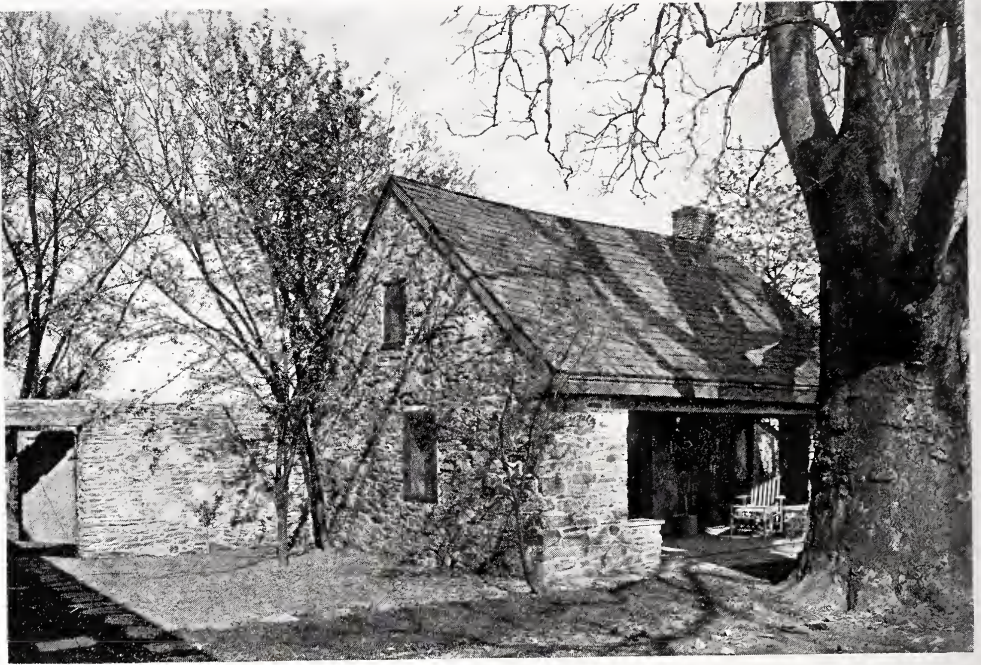
VIEW FROM NORTHEAST—HOUSE OF ELLIS Y. BROWN, JR.,
ESQ., DOWNINGTOWN, PA. MELLOR & MEIGS, ARCHITECTS.



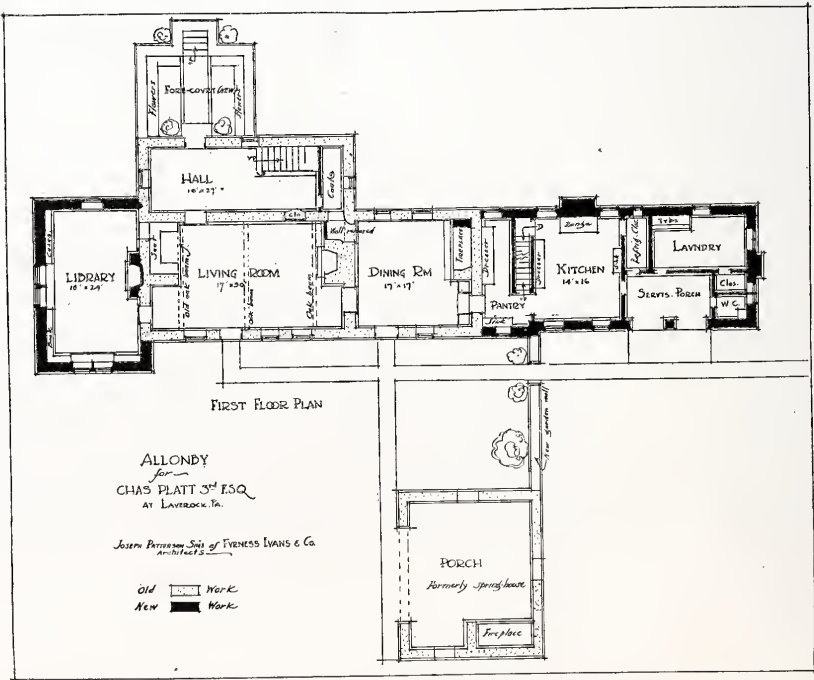
ENTRANCE—HOUSE OF ELLIS Y. BROWN, JR., ESQ.,
DOWNTOWN, PA. MELLOR & MEIGS, ARCHITECTS.



EAST ELEVATION—HOUSE OF ELLIS Y. BROWN, JR., ESQ.
DOWNINGTOWN, PA. MELLOR & MEIGS, ARCHITECTS.



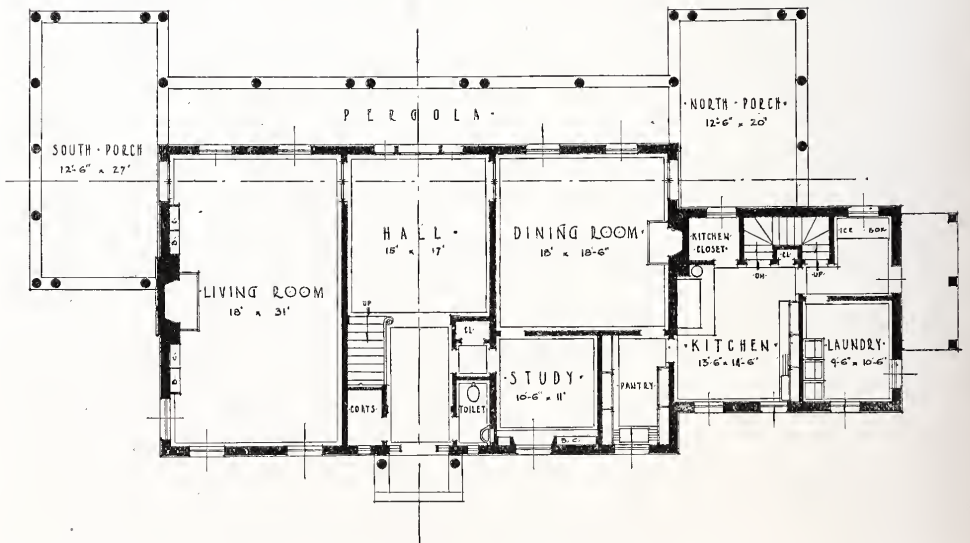
DETACHED PORCH—ALLONBY, LAVEROCK, WHITEMARSH VALLEY, PA.
Joseph Patterson Sims, of Furness, Evans & Co., Architect.



PLAN OF FIRST FLOOR—ALLONBY, LAVEROCK, WHITEMARSH VALLEY, PA.
Joseph Patterson Sims, of Furness, Evans & Co., Architect.



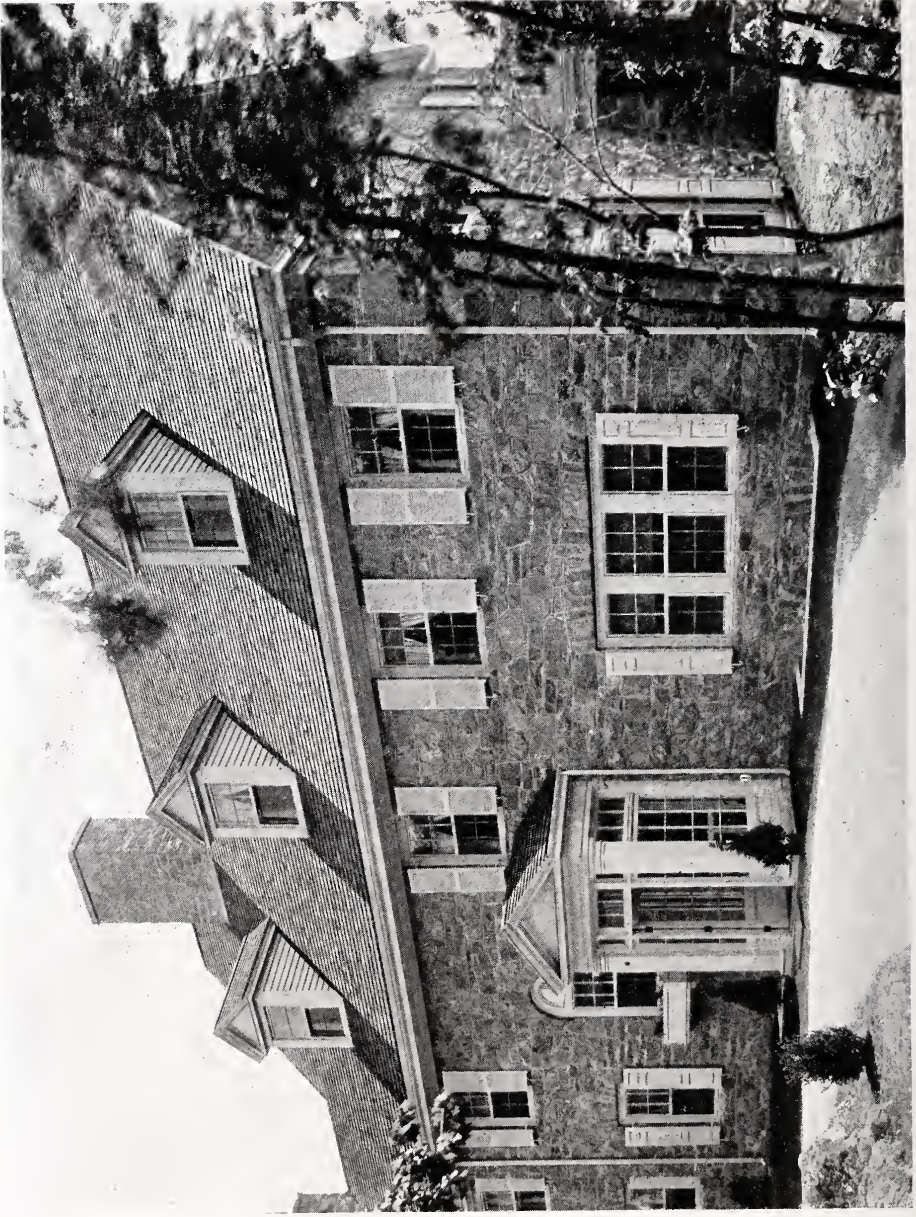
SOUTHWEST FRONT—ALLOMBY, LAVEROCK,
WHITEMARSH VALLEY, PA. JOSEPH PATTERSON
SIMS, OF FURNESS, EVANS & CO., ARCHITECT.



FRONT VIEW AND FIRST FLOOR PLAN—HOUSE OF FREDERICK POPE, ESQ., SCARSDALE, N. Y. PARKER MORSE HOOPER AND FRANK C. FARLEY, ASSOCIATED ARCHITECTS.



REAR VIEW—HOUSE OF FREDERICK POPE, ESQ.,
SCARSDALE, N. Y. PARKER MORSE HOOPER AND
FRANK C. FARLEY, ASSOCIATED ARCHITECTS.



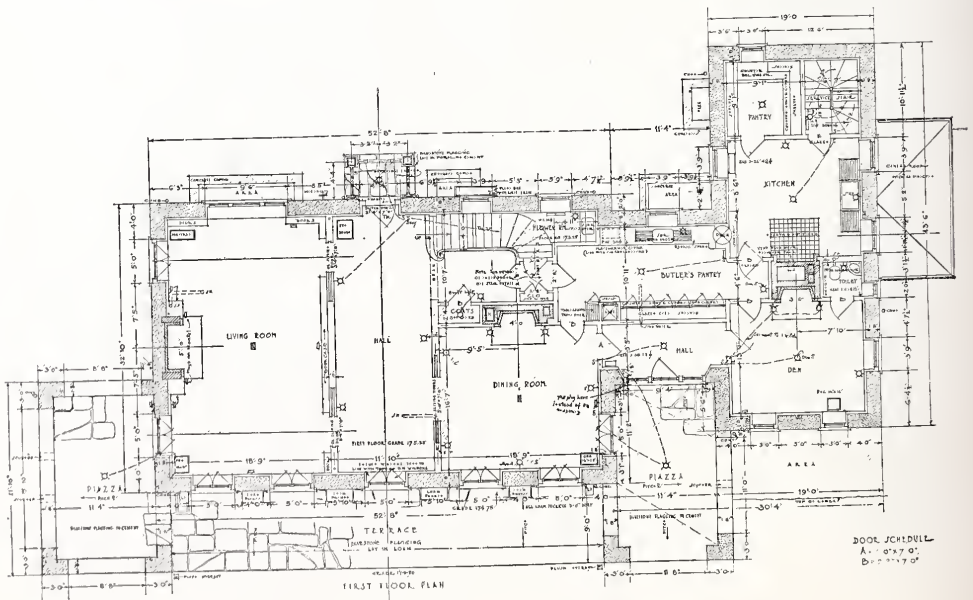
ENTRANCE DETAIL—HOUSE OF MRS. LESLIE B. CUTLER,
NEEDHAM, MASS. LORING & LELAND, ARCHITECTS.



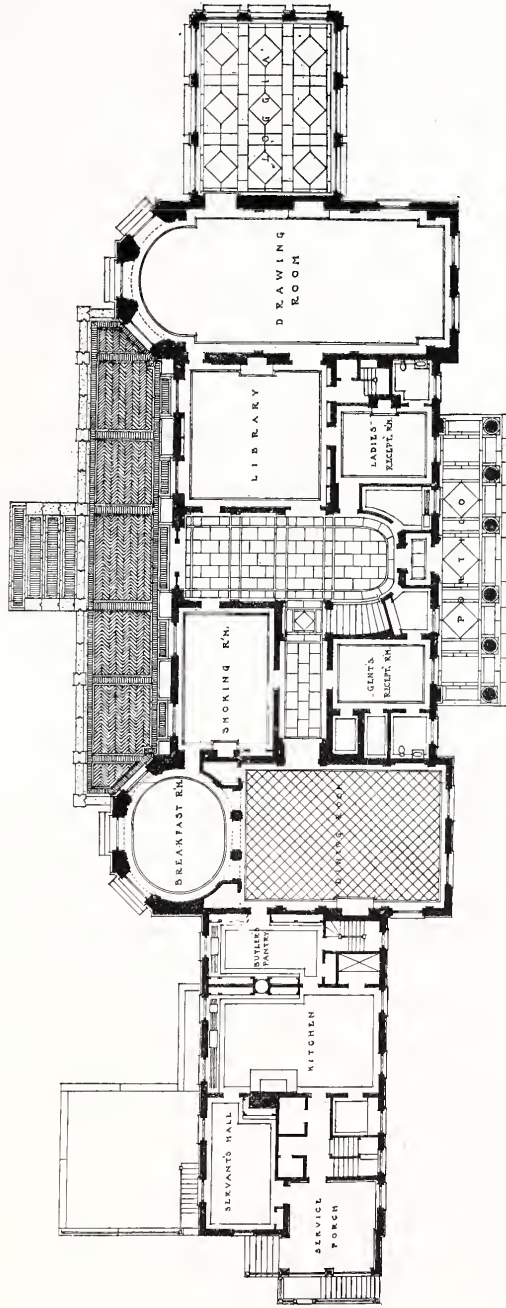
HOUSE OF MRS. LESLIE B. CUTLER, NEEDHAM, MASS. LORING & LELAND, ARCHITECTS.



STAIR HALL—HOUSE OF MRS. LESLIE B. CUTLER, NEEDHAM, MASS.
Loring & Leland, Architects.



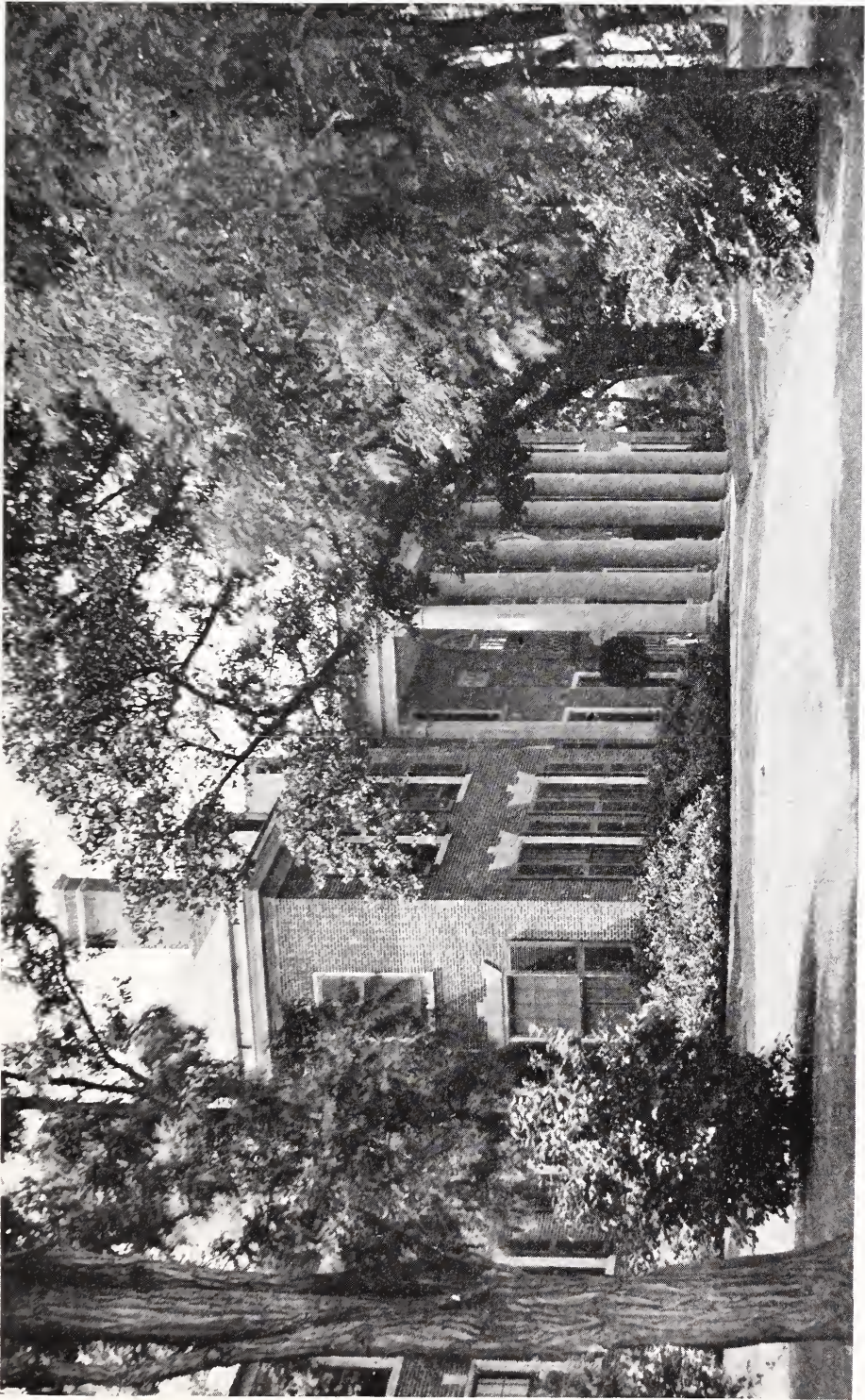
FIRST FLOOR PLAN—HOUSE OF MRS. LESLIE B. CUTLER, NEEDHAM, MASS.
Loring & Leland, Architects.



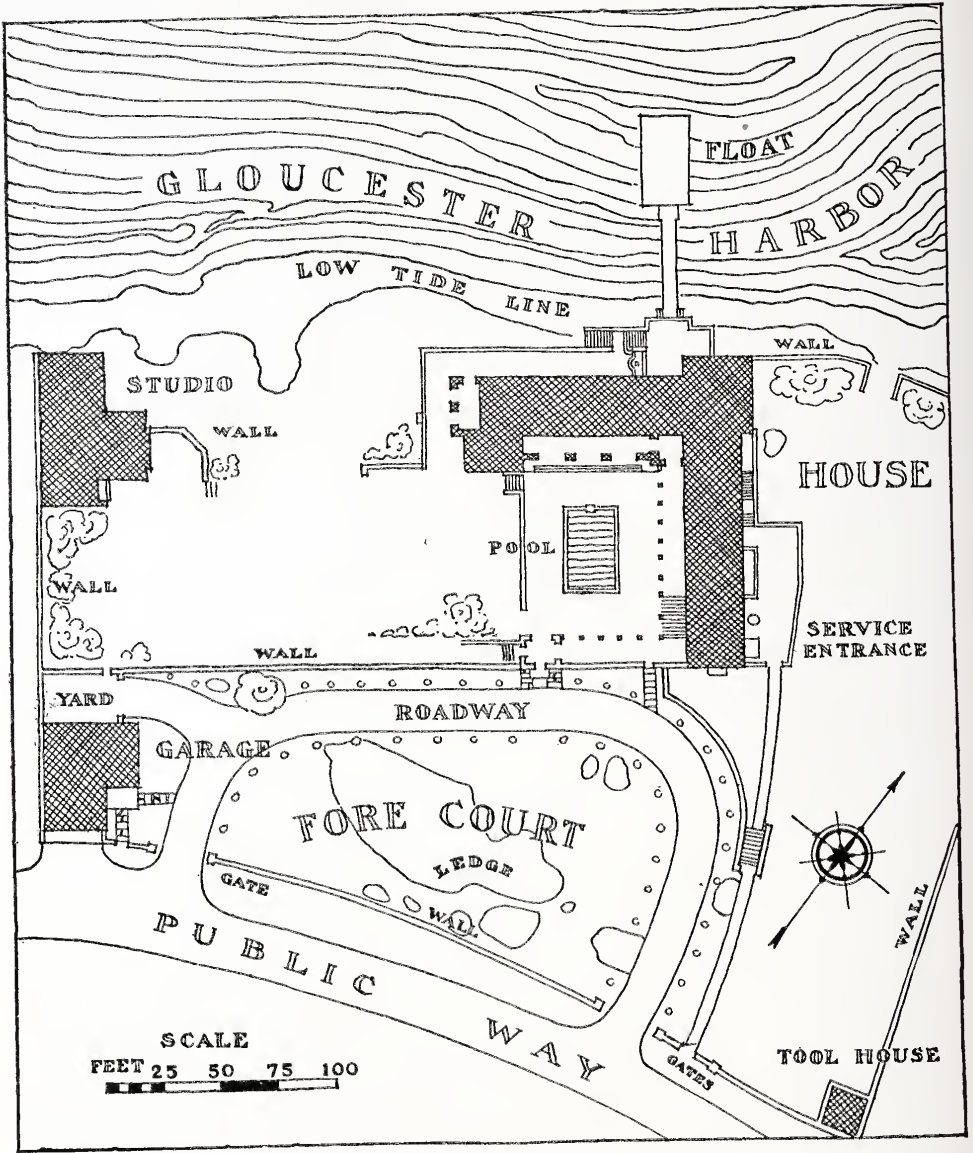
PLAN OF FIRST FLOOR—HOUSE OF CLIFFORD V. BROKAW,
ESQ., GLEN COVE, L. I. CHARLES A. PLATT, ARCHITECT.



BREAKFAST ROOM—HOUSE OF CLIFFORD V. BROKAW,
ESO., GLEN COVE, L. I. CHARLES A. PLATT, ARCHITECT.

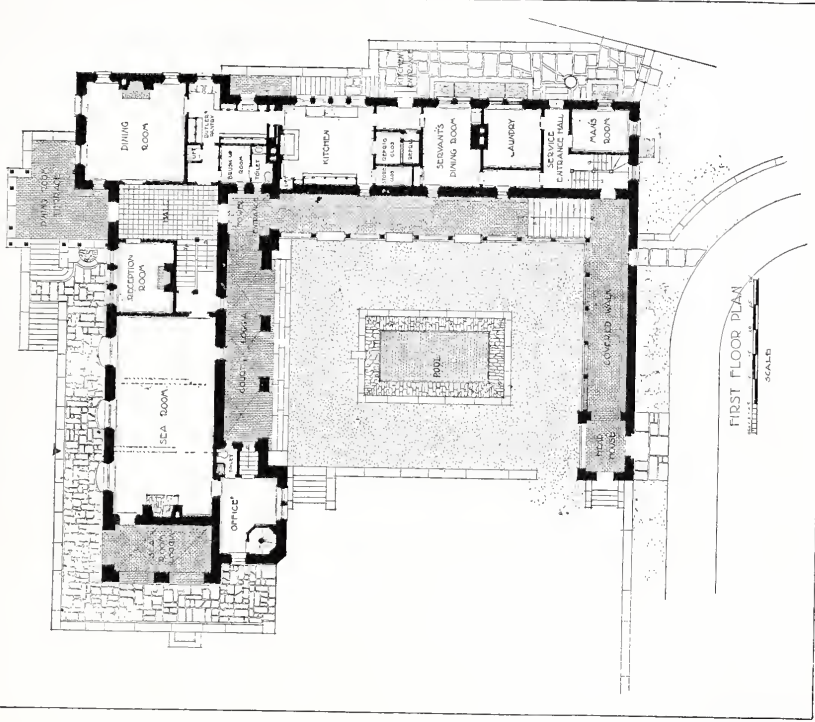


FRONT VIEW—HOUSE OF CLIFFORD V. BROKAW, ESQ.,
GLEN COVE, L. I. CHARLES A. PLATT, ARCHITECT.



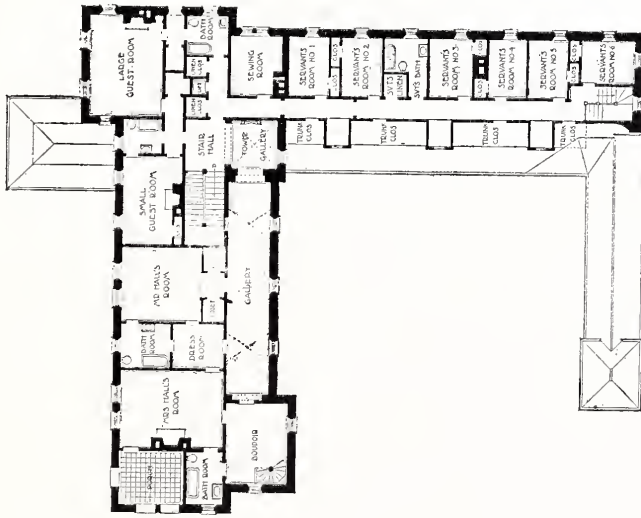
PLAN OF "STONEACRE"—ESTATE OF F. G. HALL, ESQ., EASTERN POINT, GLOUCESTER, MASS. BELLOWS & ALDRICH, ARCHITECTS.

HOUSE AT EASTERN POINT-GLOUCESTER, MASS
F-00 F-G HALL EQQ
ARCHITECTS
WILLIAM A. ALDRICH
DESIGNED 1904



FIRST FLOOR PLAN
SCALE
1" = 16'-0"

HOUSE AT EASTERN POINT-GLOUCESTER, MASS
F-00 F-G HALL EQQ
ARCHITECTS
WILLIAM A. ALDRICH
DESIGNED 1904



SECOND FLOOR PLAN
SCALE
1" = 16'-0"



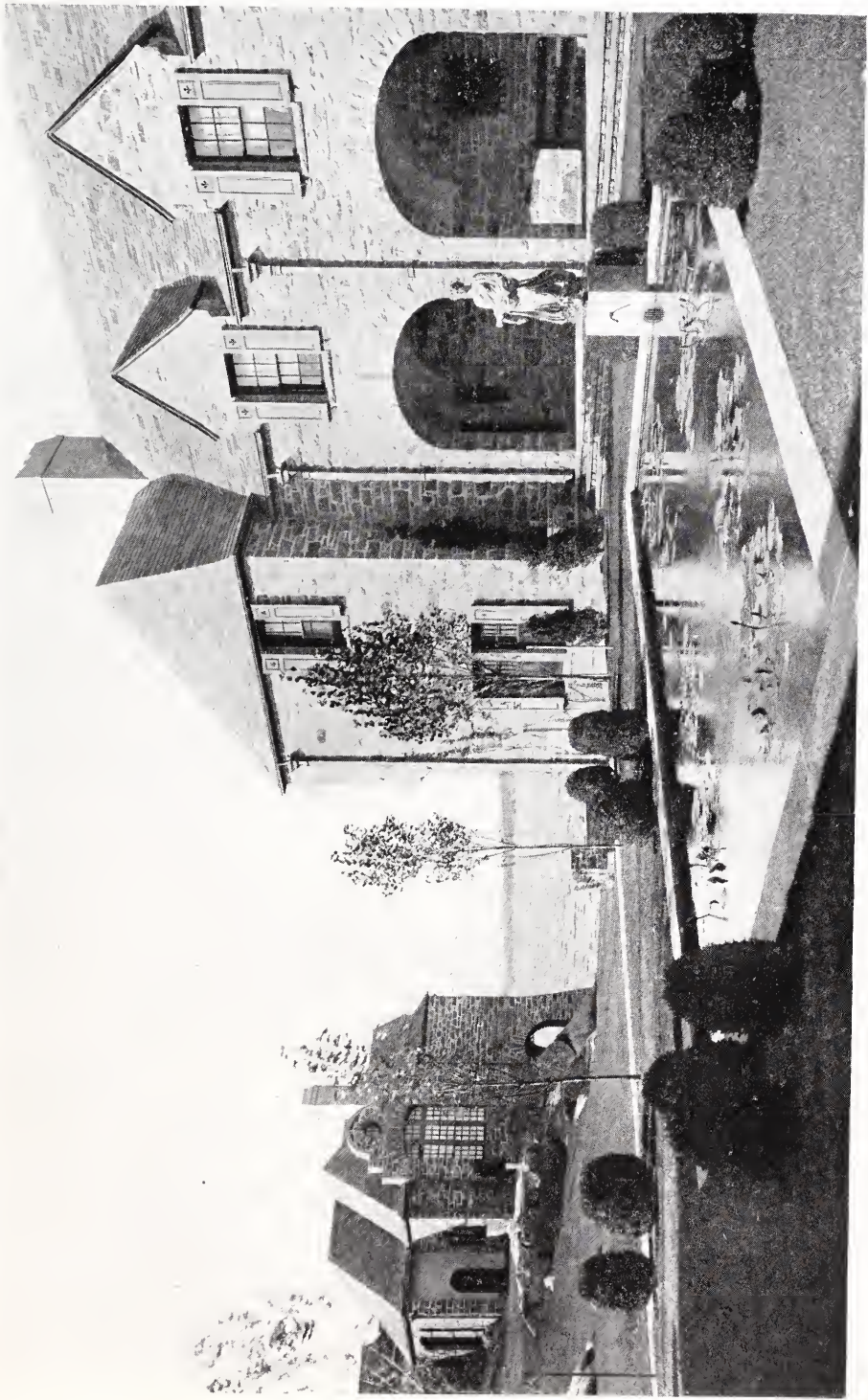
VIEW FROM WATER-HOUSE OF F. G. HALL,
ESO., EASTERN POINT, GLOUCESTER,
MASS. BELLOWS & ALDRICH, ARCHITECTS.



VIEW FROM FORECOURT—HOUSE OF F. G. HALL, ESQ., EASTERN POINT, GLOUCESTER, MASS. BELLOW & ALDRICH, ARCHITECTS.



COVERED WAY AND OUTSIDE STAIRWAY IN COURT—
HOUSE OF F. G. HALL, ESQ., EASTERN POINT,
GLOUCESTER, MASS. BELLOWS & ALDRICH, ARCHITECTS.

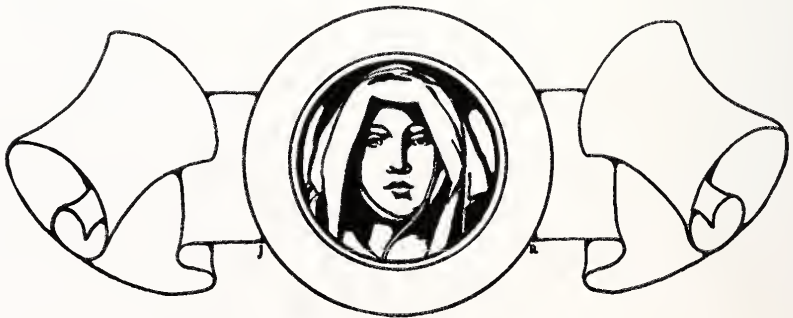


STUDIO, POOL AND COURT—HOUSE OF F. G. HALL, ESQ., EASTERN POINT, GLOUCESTER, MASS. BELLOWS & ALDRICH, ARCHITECTS.

priate or in good taste. Few have stopped in the past to realize the effect that their creation was to have on the country side, or have had the fine sense for what is appropriate which leads to the choice of the style harmonizing with and developing that which for generations has left its impress on the particular part of the country. But a better day is here and good taste is now good form. Adam and Grinling Gibbons, Wren and Inigo Jones, are names to conjure with, while Palladio and Bramante are not forgotten. The spirit of the great Italian and Georgian architects and of those of France before the blossom of their art ran to seed, is felt among us; and here in our Eastern country are developing wonderful estates which hold their own in beauty and appropriateness with the splendid homes of England and the villas of Northern Italy.

I have no quarrel with the architects of Chicago who would develop a new architecture, for they are without local precedent and should have, if any one has, the right to make the attempt. But it is a vanity of vanities, for while there may be something new under the sun in architecture, true art is of slow growth; and while now and then a genius who, like Burbank, may take two plants and produce from a union of the two a strange and wonderful fruit having some of the

characteristics of each, he must, like him, start with two plants having real life and not with some inert chemical mixture which he has compounded. The origin of life in art is almost as intangible as in the more material creation. An analysis of much of the architecture of our Chicago friends develops traces of the modern architecture of Germany and of Sweden, but the most notable elements are utterly unreasonable projections, or lack of projections, and the labored avoidance or mistreatment of the elements of classic design. The architects of the East are more humble in mind, and strive not so much to produce a new art as to build in the spirit of the twentieth century, on the foundations laid by the architectural masters of the past. We are, I think, settling down to try and do the right thing. With few exceptions we no longer try to do the theatrical things, but the real things. We have entered upon an era of good taste. Will we be patient enough to continue there or will the next decade see us impatiently rushing on to original absurdities? We have tried almost every type and period of foreign art and have come back home to the styles which flourished among our American ancestors. God forbid that we leave their conscientious and orderly development for the styles of China and Japan— which alone we have left untouched.



THE ARCHITECT'S LIBRARY



THE WORK OF McKIM, MEAD AND WHITE

By DONN BARBER

A VERY timely, appropriate, and what must prove to be a valuable and much appreciated addition to any architectural library, is provided in the *Monograph of the Works of McKim, Mead and White*, covering the work of that firm from 1879 to 1915.

This book is to be published in twenty parts (large folio), of which twelve have appeared, by the Architectural Book Publishing Company of New York. It is comprehensive in its scope, admirably presented, and furnishes a worthy record of achievement that seems to have no parallel in the work of any other firm in this country.

Beginning with the Casino at Newport, R. I., finished in 1881, it shows something over one hundred and fifty different pieces of work, arranged chronologically in order of their completion, and covering a wide and diversified range of subject, style and study. It is manifestly impossible, within the scope of a review of this nature, to comment upon, or to cover any considerable number of the works shown. It is perhaps as well not to dwell at all on the individual works, as they have been reviewed and discussed before in many places. The numerous plates, together with the reproduced measured drawings and plans, speak eloquently for themselves, and furnish an inspiration

that is astonishing. One is immediately impressed by the enormous volume of work it has been this firm's privilege to do, and it is a delight and a satisfaction to note the manner in which it has been done.

After an extraordinarily active practice, covering a period of something over forty years, the work of the firm of McKim, Mead and White is distinguished among all American architectural firms, at once for its variety, its quality, and for its very certain distinctive character. The contents of this volume testify, moreover, to the very general popular appreciation this great firm seems to have uniformly enjoyed. Their work has always excited particular interest among an unusually large number of people. It has had the friendly admiration and approval of architects quite as much as, if not more than, of the laity, and this homage has invariably been accorded singularly free from qualification and envy of any kind. Their work has, moreover, been valued quite as much by architects whose own tendencies of design have been dissimilar to theirs, as by artists generally throughout the world who have happened to accept the same traditions and to have believed in the same ideals.

Messrs. McKim, Mead and White have stood pre-eminently and consistently for

the use of certain architectural forms and for a certain specific intellectual attitude toward the fundamental problems of American architecture. They have helped signally to establish and to popularize this group of architectural forms. Objection has at times been taken because, in the designing of their buildings, they have appeared to attach more importance to an assimilated use of certain historical architectural forms than they have to a design frankly dictated by the special conditions that it would seem the particular building should satisfy. Many of their designs are frankly and purposely derived from well known French or Italian structures; but in rearranging and adapting these models to American uses, they have never sought to obscure or deny their origin. What is needed first of all in America is a condition of better and more convincing and commensurate architecture; and it must be conceded that the individual members of this firm, not only in the work under their charge, but in their helpful influence on the work of others, have done perhaps more to help and benefit American architecture than almost any other firm of this generation.

The buildings of McKim, Mead and White have been criticised, of course, in certain of their details. What buildings haven't? It must be admitted, however, that the influence of their work has invariably produced a powerful and highly beneficial effect. American architectural history will prove more and more that they have been right and convincing in most of their arguments. If, for their inspiration, they have sought among the classics of Europe for their models, it cannot be said that their range of selection has been in any sense narrow, or confined to any particular country. They have chosen broadly from Italy, from France, and from Spain, and even from England. They have been borrowers and adapters, not so much of certain architectural forms as of certain architectural effects. Their appropriation of type has never been illogical, stupid, meaningless, or lifeless. They have shown themselves, taking their work as a whole, to be very generally in sympathy with the wonderful spirit of the Italian Renaissance. Whatever may have

been their starting point in scheme, they seem to have sought persistently, intelligently and skilfully, in designing their buildings, to make them first of all beautiful, then dignified, wholly worthy of their use, a real ornament to their setting and estimable in their expression. The work of McKim, Mead and White has made simple beauty, in matters architectural, more and more familiar to the American public. Whatever else, through their long and interesting practice, they may have failed to be, they have nevertheless always been true and sympathetic artists.

The merited success of McKim, Mead and White has been uniformly obtained by means of the invariable and intrinsic quality possessed by their work. They have from the start of their career been inspiring leaders in the contemporary architectural development of our country; primarily because in their point of view they have been sagacious, persuasively intelligent, always appealing in argument and wholly representative.

Their knowledge of the use and combination of materials, of color and texture, the possibility and perfection of craftsmanship, and the appropriateness in use, of all these things, has stamped their work with an indelible quality of refinement that has been far-reaching in its effect, inspiring in its influence and an education to those who have studied them.

It is impossible to properly and adequately estimate the corrective and helpful influence that the work of McKim, Mead and White has been having, and will continue to have, on the American architecture as a whole, without studying at least some of the more general conditions which have prevailed, and are prevailing, and which have seemed to have a direct bearing on what it has been possible to accomplish, architecturally speaking, thus far in this country. That our modern civilizations are fast losing what might be termed their artistic individuality must be perfectly apparent to any observer. Ease, rapidity and facility of communication and transportation have been gradually bringing what used to be distant nations of the earth very much closer together in every way; and what has seemed best, or been proven so, in art, as in fact in almost everything, has been

universally accepted and extended to such a marked degree and extent that the standards and conventions of present-day life are pretty much the same the world over.

We find few, if any, real or important differences existing today between life and conditions in countries even far remote from each other—the strong and sure tendency is toward complete standardization. Convention of society, customs and tastes everywhere are rapidly becoming much the same, barring, of course, natural, physical and climatic conditions, though even these influences seem to count for less and less. This leavening condition seems bound to go on and increase; and it is probable that within the next century much of what has hitherto been considered the individuality of the various nations and their people will have practically, if not entirely, disappeared.

It would seem, therefore, that one of the most important things for us to be considering, architecturally, is what might be called the intellectual attitude which the American architect is assuming toward his work. His mental attitude, and resulting vision, must necessarily influence, if not wholly determine, the character and value of what he practices. Just how big and broad and worthy a point of view will come, as a consequence of this intellectual attitude, must, of course, vary according to the environment, educational advantages, training and travel experienced by the individual.

When it comes to the application of mental conviction to the requirements of practice, it would seem, broadly speaking, that the modern architect has two extreme choices of procedure open to him: he may produce buildings that are an adaptation to modern conditions of traditional European types of architectural forms; or completely ignoring traditional forms, he may choose to design buildings which represent a free solution of the present-day social and economic standards based on modern physical needs. The artist who begins by accepting tradition almost invariably becomes a slave to tradition; whereas he who ingenuously rejects tradition usually becomes the victim of his spirit of revolt. A wise and safe course to follow must surely lie somewhere between these two extremes.

It cannot be deemed illogical to hold

to traditional forms and methods of design, if in their adaptation they can be made to genuinely express a modern need. It becomes a practical impossibility, in practice, to draw too sharp a contrast between the past and present in architecture, for architecture, taken as a whole, is the result of a gradual process of development which has grown along steadily with the progress of civilization. Intellectually and socially, America has never become quite independent either of Europe or of the past. The fact that we happen to occupy a separate continent, with certain physical characteristics of its own, might lead us to assume that we occupy an unusual, if not unique, position in the world. But mere physical separation is in reality unimportant so long as we have failed completely to gain our intellectual independence. Our development, after all, has merely been an echo, as it were, of European intellectual and social habits. We have been in the habit of acquiring from abroad everything of value that we have wanted and been able to understand and appreciate as desirable in architecture, painting and sculpture, just as in literature and the drama.

We should remember that our present American social and domestic life is in no sense revolutionary, even if our American business methods and industrial organizations seem to be. It merely happens to be the modified and assimilated reflection through American conditions of European domestic and social life. Why then should we not house ourselves pretty much as Europe houses itself? Our unprecedented achievements in trade and industry have their possible appropriate architectural expression and unusual possibility of conception in the design of huge warehouses, terminals, factories and, of course, primarily, in the skyscraper. The structure of such practical buildings can properly demand, today, a wholly original treatment. Classic precedents would seem to hinder, rather than aid, the architect in such work. In the solution of like problems, it might be considered, perhaps, as well to dispense entirely with the usual architectural stock in trade, if any such abstractions were intellectually possible. What the design of our American buildings needs is not individuality, temperament,

originality or freedom of expression, but a style that appeals to the aesthetic common sense of men. Style means a complete and satisfying union, by some process, of beauty and propriety.

An owner would seem to have every right to stamp upon the building that he is paying for the characteristics of his personal life and taste, if the building were to last for his life time and pass on with him. The architect who builds seriously, however, can merely recognize that the taste and inclination of the owner may either confirm or impair the value of his work, and build accordingly.

The architect to be able to use his professional authority to the best advantage, besides being thoroughly skilled in the technique of his art, must have mastered completely the historical styles, and he must know their every meaning, if he honestly desires to give them a new and logical expression. He will then be able to familiarize the more intelligent American public with architectural forms different, perhaps, in some respects from those of Europe, and to help materially in the forming of an American architectural tradition, which will be sound and at the same time flexible enough to assimilate every improvement that appears in aesthetic and economic standards.

Perhaps the most important element to be considered in modern architectural composition, at present, is the question of scale. The wide divergence of opinion and practice on this subject is almost entirely responsible for the restlessness in appearance of our modern art. Some architects, leaning toward French traditions, follow their diminutive dimensions too closely; while others, preferring to take their inspiration from the larger scale of Italy, often swing too far the other way. The determination of scale,

as applied to modern American architecture, is really one of the most difficult problems we have to solve.

McKim, Mead and White, very early in their professional career, seem to have hit upon, or discovered, a general scale in the buildings that, as time goes on, is proving more and more to be an answer to this most difficult element of composition. Examination and study of their work show that they have been thoroughly consistent in this matter, and that they have modified very little, in the forty years of their practice, their early convictions on this important subject. Their influence in this one thing, if no other, will give them a place in history that anyone might justly be proud of.

It is impossible to enumerate, even without discussion, the many definite tendencies and principles that have become common practice and that have unconsciously been woven into American architecture by the examples and proven success of this great firm.

McKim, Mead and White, it should be noted, are entitled to the credit of having established a tradition that is representative and formative. They have convinced, and count among their disciples, a large following among architects throughout the country; many now practicing under their own names, who have come under the influence of their work as younger men in the office, are today following in their footsteps, doing work of compelling example. To all of these, as well as to the profession at large, the *Monograph of the Works of McKim, Mead and White* should prove a welcome compilation of a valuable work of reference, a volume the constant study of which will repay, refresh and inspire the student and spur him on to better thoughts and efforts.



An Old Roman City.

From the city of Coblenz, where the Moselle river flows into the Rhine, to the city of Trèves is a part of Europe which is off the beaten path of the tourist.

Here one finds towers, battlements and other remains of fortresses, some of which are of large proportions, in fact, much more extensive than the "Castles of the Rhine," which have been so greatly exploited in this part of Germany. Trèves can well be termed a Roman city, for it contains the best examples of Roman architecture that can be seen in Europe north of the Alps. The most conspicuous of the work of the Roman occupation is locally called the Porta Nigra. It was evidently one of the entrances to the older city and is truly a magnificent illustration of ancient architecture, equalled by few structures in Italy itself.

The gate stands in a commanding position in the business section of the city, and by reason of its proportions forms an impressive spectacle. It cannot be called a "ruin," since the only damage of any extent done to it has been caused by fire and its exposure to the weather conditions for so many centuries. Apparently an addition was made to the Porta Nigra after its original construction, but this addition is much inferior to the original in design and is composed of different stone, so that it can be easily distinguished from the other.

The entire edifice rises 150 feet above the ground and extends fully 300 feet from end to end, with a width of about 50 feet. As the photographs show, it consists of a series of massive arches which formed the portals of the entrance, the arches supporting a superstructure which was probably occupied by the guard, as is evident from its design. The arches are notable for their great thickness, and those at the ends have

battresses projecting from the corners. The original gate is composed of a brown stone. The huge blocks have been deeply furrowed by the action of the elements, but are not broken, and it can be said that the exterior of the Porta Nigra is almost intact.

About a mile away from this entrance is a ruin which, for want of a better name, has been locally called the "Kaiser's Palace." It evidently was used for a palace or a hall of assembly, as its design and proportions indicate. Although considerable of the top of the wall has fallen, as it now stands, its height ranges from 75 to 100 feet. The principal portion of the ruin forms a huge semi-circle fully 500 feet from end to end. At one extremity it is joined to a wall, which at present is about a half mile in length and thirty feet average height. The wall is in excellent condition and is used as one of the boundary lines to this portion of the city's park system.

Judging from the remains, the "Kaiser's Palace" contained at least four floors. A part of the basement was divided off into what were apparently dungeons, as traces of the division walls are distinct and the outer wall contains small windows of the design seen in other ruins of Roman places of confinement. Unfortunately the front wall is in such a dilapidated condition that it has been necessary to "patch" it up in places, which is much to be regretted, as the work has greatly marred the picturesqueness of the structure.

Realizing the importance of preserving these indications of the ancient city, the authorities of Trèves have included the "Kaiser's Palace" and Porta Nigra in the public park system.

Other remains, which have not been secured by the city, are of the Amphitheatre or Circus and the Public Bath. The latter, situated about a mile from the Porta Nigra and near the Moselle river, has been excavated over a considerable area. Al-



VAULT ON THE SITE OF THE BATH, TRÈVES.

though the work has been hastily and superficially done, enough has been exposed to show that here the Romans had one of the largest systems of baths yet discovered, as well as other buildings. One apparently was a public bakery or kitchen, while other ruins bear evidence that they formed the foundation of a residence of some official. The stone slabs composing the floor of the bath are in excellent condition, as are also the conduits for the water. Separate from it are several archways, evidently built to support the walls of other buildings, and passages extending in numerous directions all show that here were several structures of importance besides the bath.

The amphitheatre is on the outskirts of the present city. Advantage was taken of a natural depression or basin in the ground, and the proportions of the walls show that they were very extensive. The arena proper covers about two acres, but including the dens for the animals, the passages for pedestrians around the arena and the space allotted for spectators, the amphitheatre embraces fully double the area of the arena. It was entered through two portals, which, though partly obliterated, are impressive in their proportions. The main walls of the portals, composed principally of brick, were fully fifty feet in height. The center passage, which is wide enough for a two-horse team to enter, was evidently used for the admission of chariots and other vehicles. On each side of the passage, but about ten feet higher up, is a footway formed in each wall, being reached by an incline passage leading from the exterior of the amphitheatre.

The footways connected with a broad circular walk extending entirely around the inside and were used by the spectators to reach their seats. Circling the outside of

the arena is a large ditch, now partly filled in. Arches of brick spanning this at frequent intervals indicate that it was a covered passage. From it passageways lead to excavations made in the rock wall that in places forms the sides of the amphitheatre.

The writer in examining the arena located ten of these openings, some of which are nearly concealed by vegetation. All were capacious enough to hold animals the size of a horse, and apparently were utilized to confine wild beasts which entered the arena by way of the covered passage described.

A further idea of the dimensions of this amphitheatre may be gained when it is stated that some of the retaining walls on the sides where there was no rock formation are actually over 100 feet high and in places where time has made breaches careful measurements show them to be ten feet in thickness through the lower portions. They are extremely well preserved. Evidently the entrances to the amphitheatre, which are located nearly opposite each other, were elaborately ornamented with archways crowning each opening. Huge masses of masonry projecting from the walls are remnants of these arches.

Yes, Trèves was a second Rome. Luxurious as was the life in the city of Italy, Maximin, Constantine and Maxentius had courts of equal splendor in this German



VIEW OF THE PORTA NIGRA, TRÈVES.

city. For over a century the valley of the Moselle was the site of villas as spacious and as elaborate as any which were ever in sight of the Tiber. Maximin probably built the "Kaiser's Palace," as the people term it today—a structure majestic even in its ruins. The home of emperors, it was finished and decorated in a manner which can be described only by the term "magnificent." The gathering place of the people of fashion were the baths, as in the Southern Rome. Not only the senator and centurion, but the poet, the artist, the wit—every one who was any one—came here at the fashionable hours. The baths meant not merely baths equal in size and appointment to those of Diocletian and Caracalla, but a library, a lounging apartment, a gymnasium, gardens adorned with statuary and fountains. In short, the baths formed a great clubhouse, but the main center of amusement was the amphitheatre, where gladiators and animals engaged in combat and where prisoners of war were killed by the thousands, while tens of thousands of spectators applauded.

Porta Nigra has not only been a fortress, but a church and a tomb. Within the walls of one of its towers are the bones of a human being who allowed himself to be incased alive amid the stones so that he might die, as he expressed it, "in the odor of sanctity." It was in his memory that Archbishop Poppo in the eleventh century changed it into the "Double Church." The tower story and gates were covered with earth, some of the windows in the second and third stories changed into doors and the faithful had their choice of worshipping in the Church of the Virgin and St. Michael on the second floor or the Church of St. Simeon above it, named in honor of the



ANIMAL DENS IN AMPHITHEATRE, TRÈVES, SHOWING PERFECT ROMAN ARCHWAYS.

Greek monk for whom Porta Nigra had become a tomb. This double church existed until the last century when Napoleon marched by it at the head of his army. He ordered it restored as a portal. The great arches which form the gateway, as shown in the illustration, were not uncovered.

DAY ALLEN WILLEY.

The New York City Hall.

It is gratifying to feel that the people of New York are coming to regard their City Hall as a building with a personality. Long recognized by architects and critics as unique among the architectural treasures of this city, the City Hall is only now coming into its own among laymen. This is evidenced in many ways. Not only are casual visitors more and more numerous and more sensitive to its charm, but the younger generation, the school children, are being taught a healthful respect for the City Hall and what it embodies in the life of the city.

It is this greater intimacy and respect among laymen that is most heartening to those charged with the care and upkeep of the building. Already there have been occasions for active service in shielding it from threatened harm—first, at the time of the infamous proposal to tear down the City Hall in order to make way for a new and greater governing plant, and later, when the Park was threatened with further encroachment by new structures.

Now, it seems, there is again opportunity for constructive work open to the friends of the City Hall. The photographs that were reproduced in the June number of the Architectural Record portray conditions that are as startling as they are la-



INTERIOR OF THE AMPHITHEATRE, TRÈVES, SHOWING THE APPROACH FROM THE REAR.

mentable. I refer to the very serious deterioration of the marble of the exterior walls. The situation is a general one, as may be proved even by examination of the photographs. It is, of course, those portions least fitted to withstand the elements that have suffered most—the delicately carved mouldings, the balusters, the modillions, column caps, and bases; but the deterioration is by no means confined to them. The broad curve of the cymatium, the shafts of balusters, the copings, pedestals, cornices—all have been attacked, all have suffered irrevocably. Even flat wall surfaces have not escaped.

The difficulties that have attended the renovations which have been going on in the interior of the building are readily understood. A municipal government whose physical requirements have been outgrown faster than new accommodations could be provided has been literally forced into the procedure it has followed; and I have no hesitancy in saying that, under such circumstances, the results have been surprisingly good. Now, however, the pressure has been relieved. Temporarily, at least, we should be able to stop and look about us. And, doing so, will it not seem to the Mayor and to the President of the Borough of Manhattan that this question of the preservation of the City Hall's outer covering is a civic need amounting to a moral obligation?

This is not a case where next year will do as well as next month. The damage is cumulative and delay is negligence. No one can say what so severe a winter as the last one has cost the City Hall. We do know that much is even now irremediably damaged and that recourse must be had to replacement instead of repair.

In view of the facts, it is greatly to be hoped that steps may be taken before another winter toward a thorough examination by experts, leading to an appropriation by the city for whatever measures may be recommended as best adapted to stop further deterioration and to preserve indefinitely what is still left of what Henry James was willing to call "this divine little structure."

Cases of this sort, it seems, should be subject at least to recommendatory action by the Municipal Art Commission. At

present they have no power of initiative. Under such circumstances and in a case which is deemed of the nature of an emergency, one is glad to note the action of the New York Chapter of the Institute of Architects in calling the attention of the city authorities to the present situation and urging them to inform themselves officially as to the conditions.

American municipalities have for too long shown themselves insensitive to architectural quality in their monuments. Here is a golden opportunity for the City of New York to prove itself the exception. The present cost of the necessary treatment should be small. CHARLES C. MAY.

The Beaux Arts Institute of Design.

By this title, and incorporated under the Board of Regents of the State of New York as a school to teach design in architecture and also sculpture and mural painting in their relation to architecture, the educational work hitherto conducted by the Society of Beaux Arts Architects will henceforth be known, the Society having voluntarily surrendered the educational privileges of its own charter so that a new institution (controlled, however, by the same principles and persons which had carried on its former school work) might extend itself into fields broader than those proper to a purely architectural association.

The Society of Beaux Arts Architects has deeded over to the Beaux Arts Institute of Design its building at 126 East Seventy-fifth Street, and the latter institution opened its courses on September 18, which will be identical with those hitherto conducted there by the Society of Beaux Arts Architects.

The department of architecture has associated with itself a committee of the Society of Beaux Arts Architects; that of sculpture, one of the National Sculpture Society; and that of mural painting, one of the Society of Mural Painters, for teaching these three branches of art.

Circulars of information for these courses may be obtained by writing to the Beaux Arts Institute of Design, 126 East Seventy-fifth Street, New York City.

LLOYD WARREN, *Chairman.*

November 1916

The Architectural Record



Published in New York
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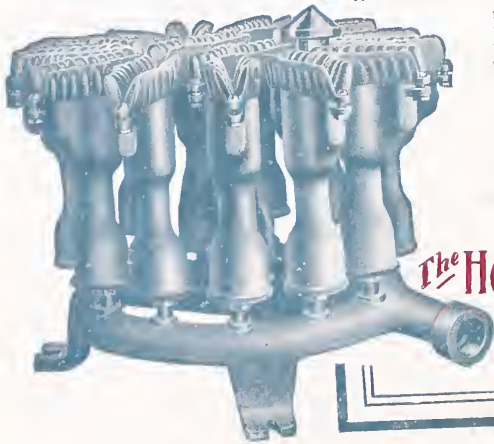
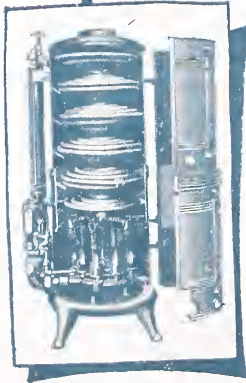
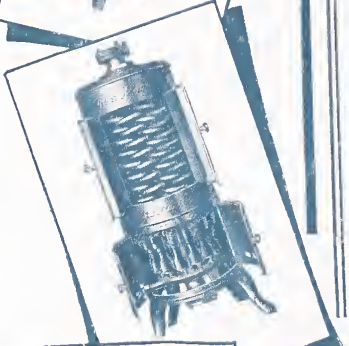
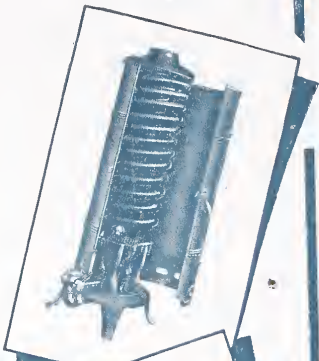
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Editor: MICHAEL A. MIKKELSEN.

Contributing Editor: HERBERT CROLY

Advertising Manager: AUSTIN L. BLACK

Yearly Subscription—United States \$3.00
—Foreign \$4.00—Single Copies 35 centsEntered May 22, 1902, as Second
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PUBLISHED MONTHLY BY

THE ARCHITECTURAL RECORD COMPANY

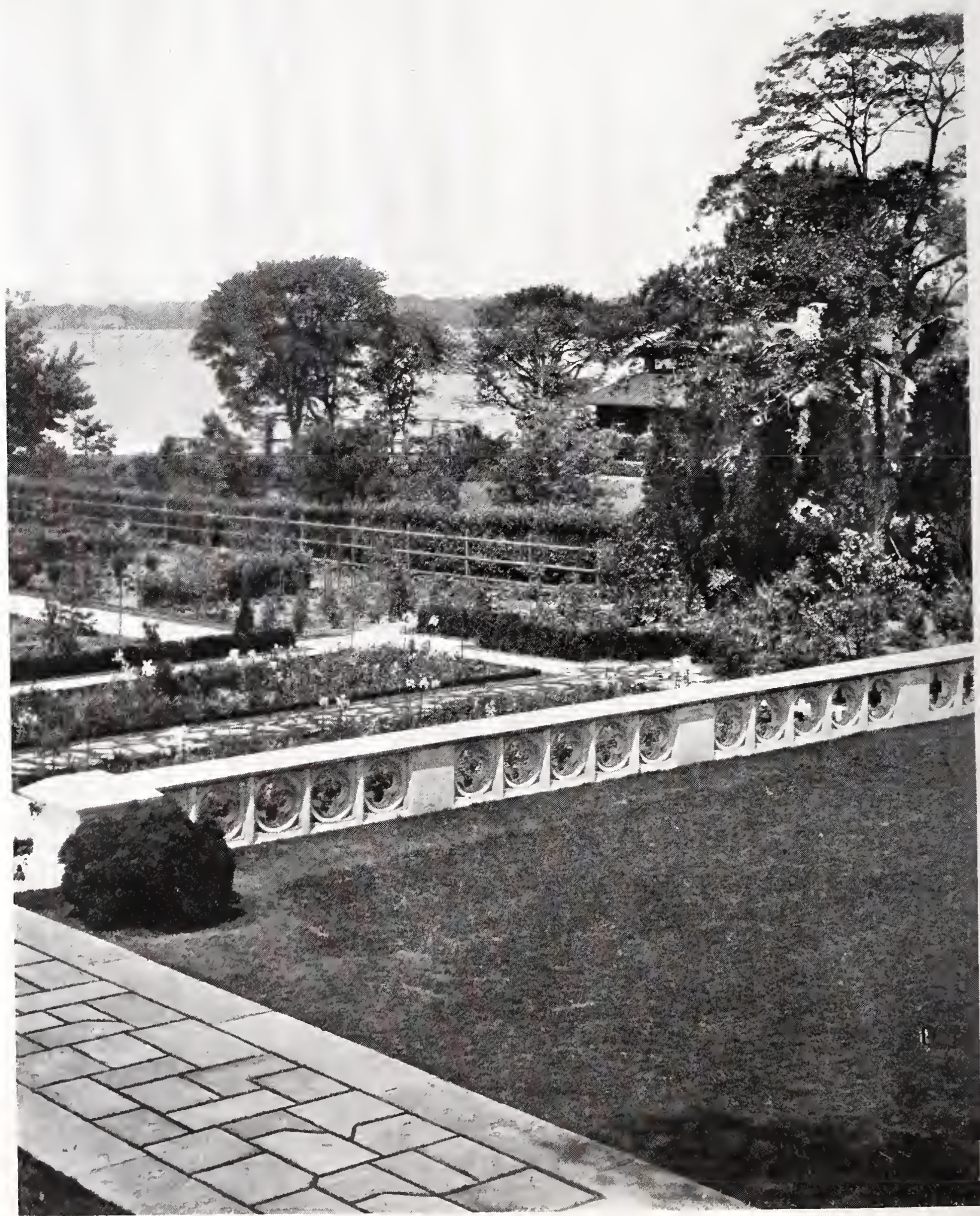
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GARDEN VIEW—RESIDENCE OF MRS. FLORENCE H. MARION,
SHIPPAN POINT, STAMFORD, CONN. HUNT & HUNT, ARCHI-
TECTS. WADLEY & SMYTHE, LANDSCAPE ARCHITECTS.

THE ARCHITECTURAL RECORD

VOLUME XL



NUMBER V

NOVEMBER, 1916

Three Connecticut Country Houses

— Hunt & Hunt, Architects —

By

De Witt H. Fessenden

FOUR miles out of Greenwich, rising from the brow of a hill and guarded by two handsome oaks, is the residence of Mr. H. J. Fisher, a country gentleman's home, of individual design, not favoring any particular period as to style, though possessing in certain respects a leaning towards the Tudor.

The keynote of the estate is a pronounced suggestion of cheerfulness and hospitality. Houses, like individuals, must either attract or repel, unless, which is the worst, they leave us indifferent. The Fisher house attracts from the moment one enters the gates opening on the broad drive by the side of the formal garden. A feeling of prospective comfort and repose makes its immediate claim.

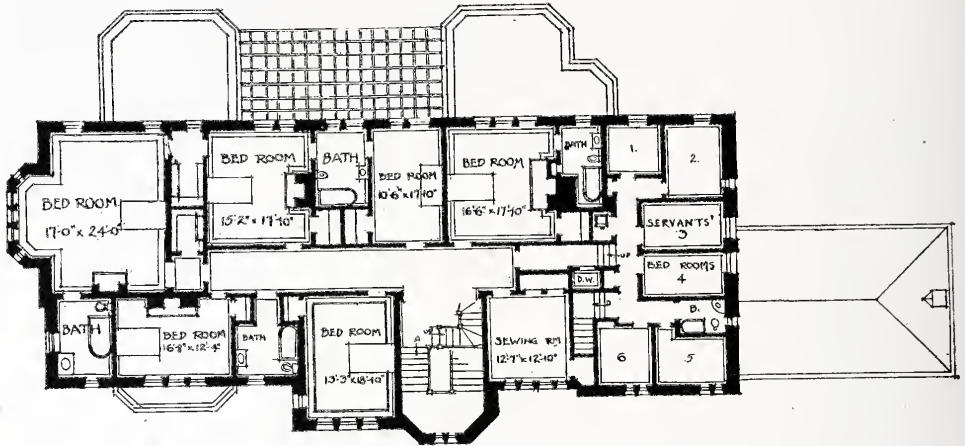
The lines of the house, in a studied setting of garden and grounds, are given full significance through avoidance of applied ornament. The design depends upon its intrinsic merits for effect.

There is a kinship between the rough field stone of the house and the greenery

round about that accords well with the restraint of the design. The warm hues of the field stone, the deep red of the bricks in the terrace walls, and the violet tone of the slate roof make a harmonious blend of color, whatever the season of the year. The general impression is that of a commodious manor house built in quiet good taste upon practical lines.

A vestibule, with cloakroom in attendance, a practical detail so often neglected, conducts one to the main hall, in English oak with panels and pilasters of good proportions. A vista undisturbed by staircase carries the eye through the house to the grounds on the farther side. To the right of the main hall is the staircase hall, with a platform before a leaded glass window to break the flight. Very striking is this bisecting of the house by means of the main hall and the separation of the ascent to the upper floors.

To the left, on entering the vestibule, is the library. This has an excellent Caen stone mantel, while above the book space



SECOND FLOOR PLAN—RESIDENCE OF H. J. FISHER, ESQ., GREENWICH, CONN.
 Hunt & Hunt, Architects.

and extending around the apartment are nine panels in fresco by William A. Mackay, portraying scenes from the Holy Grail.

From the library one enters the living room, which is particularly bright and cheerful. The walls of this room are a light brown in tone, matching the hangings and the rug. Of great beauty is the ceiling, panelled in plaster after a handsome Tudor design.

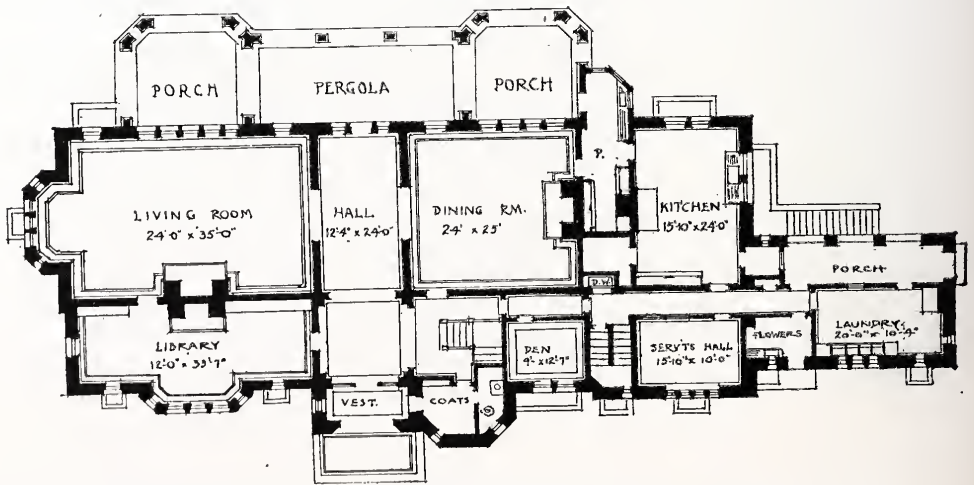
Across the hall, and facing the living room, is the dining room, which has been kept bright and gay with plenty of sunshine. It is delicately panelled, and is

painted white in agreeable contrast with the blue of the rug, which is repeated in the curtains and hangings.

Beyond is a spacious pantry that serves equally well the indoor and the outdoor dining room.

The happy mingling of stone and timber, the Tudor windows, the great hall unobstructed by staircase, the majestic oaks in the centre of the approach and the graceful lily pond are features not quickly forgotten.

In the case of Mrs. Florence H. Marion's house at Shippan Point, Stamford, the architects had to deal with a long,



FIRST FLOOR PLAN—RESIDENCE OF H. J. FISHER, ESQ., GREENWICH, CONN.
 Hunt & Hunt, Architects.



FRONT VIEW.—RESIDENCE OF H. J. FISHER, ESQ.,
GREENWICH, CONN. HUNT & HUNT, ARCHITECTS.



MAIN ENTRANCE—RESIDENCE OF H. J. FISHER, ESQ.,
GREENWICH, CONN. HUNT & HUNT, ARCHITECTS.



ENTRANCE TO GARDEN—RESIDENCE OF H. J. FISHER,
ESQ., GREENWICH, CONN. HUNT & HUNT, ARCHITECTS.



MAIN HALL—RESIDENCE OF H. J. FISHER, ESQ., GREENWICH, CONN.
Hunt & Hunt, Architects.

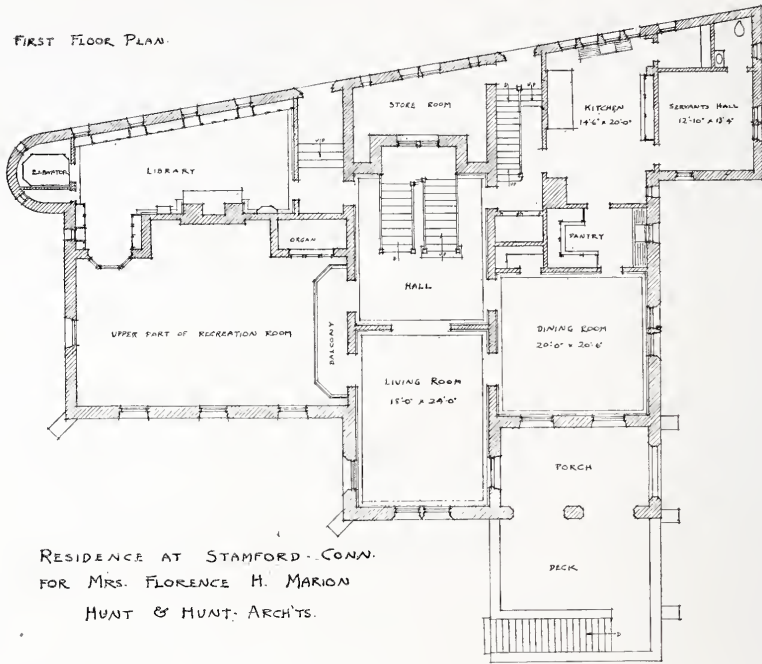


DINING ROOM—RESIDENCE OF H. J. FISHER, ESQ., GREENWICH, CONN.
Hunt & Hunt, Architects.



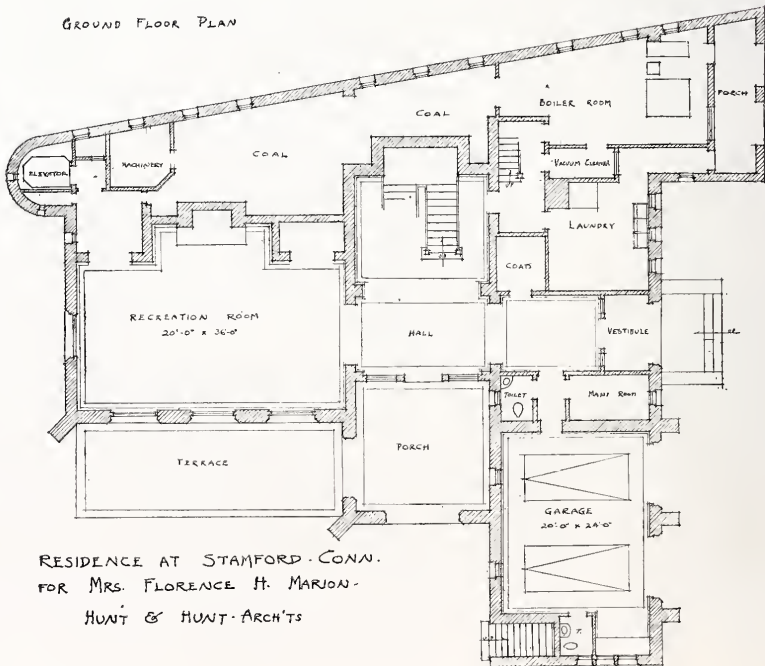
REAR VIEW—RESIDENCE OF H. J. FISHER, ESQ.,
GREENWICH, CONN. HUNT & HUNT, ARCHITECTS.

FIRST FLOOR PLAN.



RESIDENCE AT STAMFORD - CONN.
FOR MRS. FLORENCE H. MARION
HUNT & HUNT, ARCH'TS.

GROUND FLOOR PLAN



RESIDENCE AT STAMFORD - CONN.
FOR MRS. FLORENCE H. MARION
HUNT & HUNT, ARCH'TS



EAST ELEVATION—RESIDENCE OF MRS. FLORENCE H. MARION, SHIPPAN POINT, STAMFORD, CONN. HUNT & HUNT, ARCHITECTS.



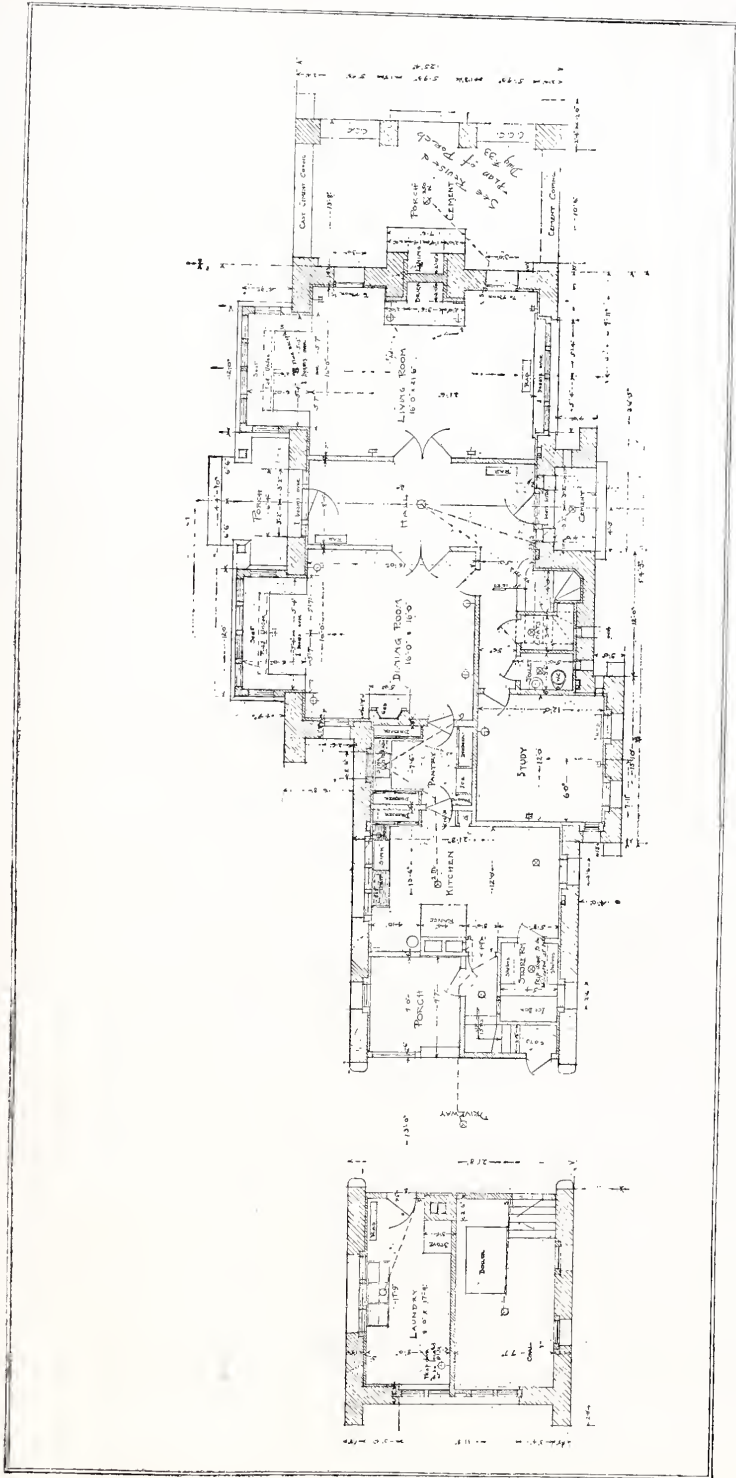
END ELEVATION—RESIDENCE OF MRS. FLORENCE H. MARJON, SHIPPAN POINT, STAMFORD, CONN. HUNT & HUNT, ARCHITECTS.



ENTRANCE FRONT—RESIDENCE OF MRS. FLORENCE H. MARION, SHIPPAN POINT, STAMFORD, CONN. HUNT & HUNT, ARCHITECTS.



END ELEVATION—RESIDENCE OF MRS. FLORENCE H. MARION, SHIPPAN POINT, STAMFORD, CONN. HUNT & HUNT, ARCHITECTS.



FIRST FLOOR PLAN—RESIDENCE OF THOMAS ROBINS, ESQ., SHIP.
 PAN POINT, STAMFORD, CONN. HUNT & HUNT, ARCHITECTS.



RESIDENCE OF THOMAS ROBINS, ESQ., SHIPPAN POINT, STAMFORD, CONN.
Hunt & Hunt, Architects.



RESIDENCE OF THOMAS ROBINS, ESQ., SHIPPAN POINT, STAMFORD, CONN.
Hunt & Hunt, Architects.

narrow strip of land sloping on the west toward Long Island Sound. It was possible either to build below the slope, toward the sea, or to place the house upon the crest of the property. The latter course won the decision and enabled the architects to develop a beautiful terrace garden commanding a magnificent view across the Sound. The house is flanked on the east by the street and occupies the highest part of the estate, which was laid out in cooperation with the landscape architects, Wadley and Smythe.

The house recalls the French *château* and, like its prototype, its entrance door, to the east, gives directly upon the sidewalk, the gentle curve of the street being echoed in the contour of the house.

The principal rooms are upon the western, or garden, side, where the ground floor is a story below the street door level. At the south end of the estate a drive makes a winding course to a vestibuled entrance. A garage is built into the house. Adjoining the garage and overlooking the grounds is a covered porch, beyond which is a spacious recreation room, thirty-six feet long, enclosed by rough stone walls, the ceiling occupying two stories in height, like the studio. This room, or hall, fitted with cozy alcoves, is really the living room and centre of family life and entertainment. The great open fireplaces, inviting lounges, pipe organ, and alcoves hung with guns and fishing rods are attractive features. A grand stairway between the entrance and the recreation room rises to the floor above. Adjoining the hall, on the west side, are the living and dining rooms, with fine views over the gardens and grounds. At the north of the hall is a balcony which runs across one end of the recreation room. In the northern end of the house is a library, and beyond it a typical French tower, which, however, besides its circular stairway, contains that very modern feature, an elevator. An interesting item is the little conservatory nestling on the north wall, beside the tower.

The outside is white stucco, relieved by the half-timber work and the slate of

the roof, not to mention the variety introduced by the tower and the overhanging conservatory, which, with its wealth of diamond pane windows and its wooden brackets, is an oasis of extraordinary charm. The high buttresses, the deep embrasured windows, the slope of the roof, the ox-eyes and the stately chimneys are picturesque elements in the general simplicity of the design.

In planning the residence of Mr. Thomas Robins for a site that is surrounded upon three sides by the sea at Shippan Point, the architects had in mind a fisherman's cottage. It is constructed of local field stone, and presents a rugged front to the water. The roof, sloping to the first story at one end of the house, gives an interesting appearance. There is a fitness of accord between this solid stone erection and the waters of the Sound, which lap so close to its foundations.

At one side of the entrance gate is the garage, with a boathouse on the other, the drive passing between the two, circling around to the service entrance at the end of the building and continuing along the side of the house to the main entrance.

The rear of the house is toward the highway, where the entrance gate opens upon a private road. There are no elaborate details, nothing, in fact, to detract from the pleasure of the mason's craft in the stonework. The circular entrances are well balanced by the lunettes of the porch and the massive chimneys rising squarely between.

The front door opens directly into the vestibule and hall, which divide the house. The hall and the living room are panelled in English oak, the dining room is panelled in hardwood and painted gray. These main rooms are on opposite sides of the hall.

How well the multi-colored facets of the stone harmonize with the environment can be appreciated even in half-tone illustrations. The private road, with its broad parapet, forms an elliptical ring about the property, giving a graceful and characteristic setting.

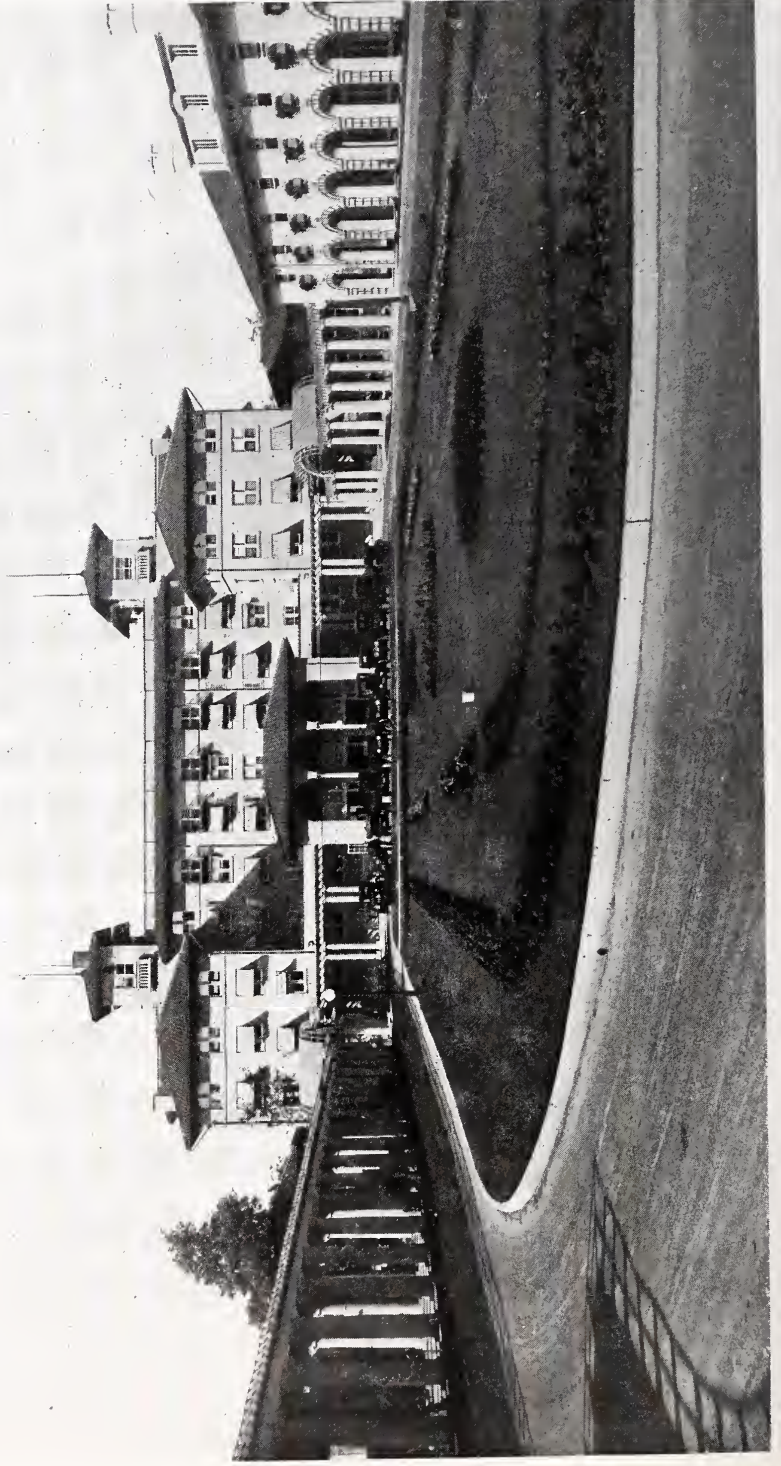


FIG. 1. ENTRANCE FRONT, WEST-SOUTH SHORE COUNTRY CLUB, CHICAGO. MARSHALL & FOX, ARCHITECTS.



FIG. 2. FOUNTAIN COURT AND ENTRANCE TO SOLARIUM.

════════ *The* ════════
South Shore Country Club,
Chicago.—Marshall & Fox, Arch'ts
By Peter B. Wight

THE South Shore Country Club, in Chicago, lies entirely within the city. When it was established, shortly after the Washington Park Club went out of existence, it was located on a site which had no attractions peculiar to the country. The only natural one the site had was Lake Michigan, which bounds its eastern line, and, of course, it could have none greater. However, the land was barren and unattractive, not easy to approach except through Jackson Park, which adjoins it on the north. But a residence district has now grown up adjacent to it, and parkways or boulevards have been constructed on the sides where it does not have the lake frontage. Its

main entrance is at the angle formed by these parkways, and a railway station for suburban trains has been established at that point. The parkways are being rapidly built up with high-class apartment houses and private residences, and the club will soon be absolutely removed from every countryside environment. It will have the unique distinction of being a country club within a city.

It was proposed, when the new club house was completed, to omit the word "country" from its name; but this proposition was not supported. The club felt it to be its duty to develop an appropriate landscape on its grounds, and the architects proceeded to make a new plan of the

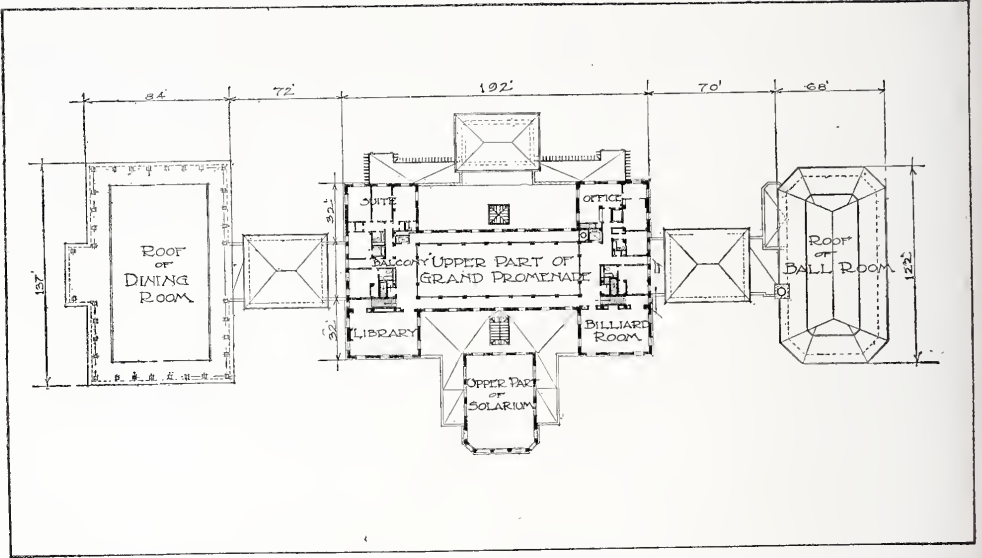


FIG. 3. PLAN OF MEZZANINE FLOOR—SOUTH SHORE COUNTRY CLUB, CHICAGO. Marshall & Fox, Architects.

property in harmony with the purpose of the club buildings.

A brief history of the club was admirably set forth in an address by its president, Everett C. Brown, at the opening of the new house last January. It was founded ten years ago through the indefatigable efforts of Lawrence Heyworth,

of Chicago. The first part of the site purchased comprised only five acres at the north, or sharp, end of the present grounds, adjoining Jackson Park. But before anything was done toward the erection of buildings, the whole area now comprised within the grounds of the club, amounting to sixty-five acres, had been

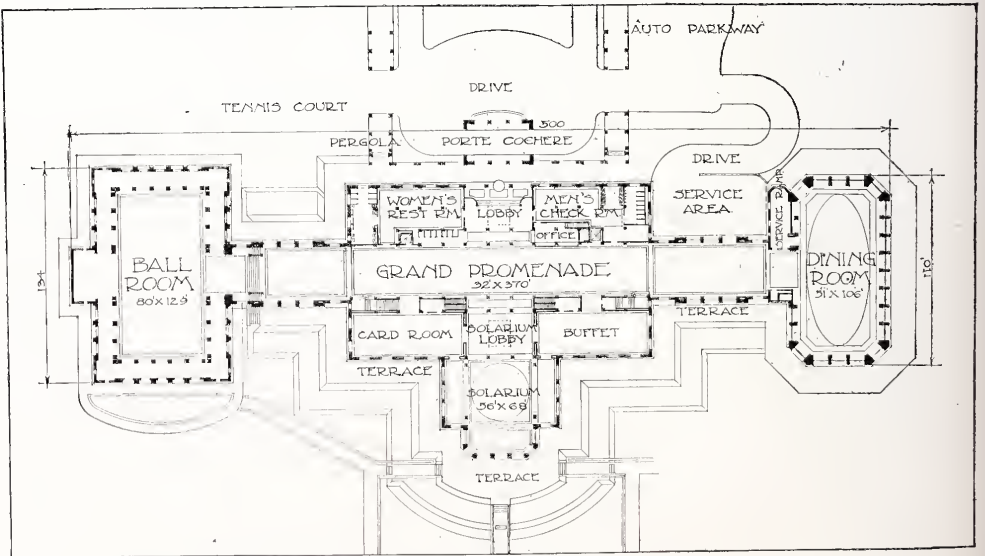


FIG. 4. PLAN OF FIRST FLOOR—SOUTH SHORE COUNTRY CLUB, CHICAGO. Marshall & Fox, Architects.

purchased. The tract extends three-quarters of a mile along the shore of Lake Michigan. Marshall and Fox, of Chicago, were engaged as architects for all buildings and the grounds at the inception of the project.

The original club house was of light construction, though very large. It was 313 feet long. The ballroom, erected shortly after the completion of the first building, is of concrete construction 130 by 86 feet. It remains in its original position.

Two and a half years ago it was decided to erect a new club house and to retain the ballroom as part of the build-

The design is very plain and severe, the picturesque effect being given by the irregular ground plan, projecting eaves, towers and exterior concrete colonnades. The ballroom is surrounded with reinforced concrete piers and columns, which support the roof; and the dining room is of similar construction. The plan of the new building, in its general features, is similar to that of the old one, but very much larger. The necessity for the new building was mainly due to the demand for a much larger dining room. This is now 110 by 60 feet in dimensions on the outside, and is finished as an oval in the interior. A wide terrace extends around

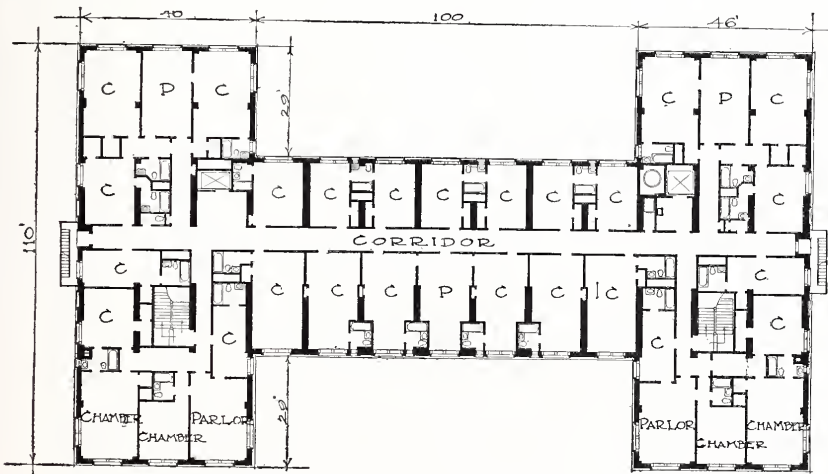


FIG. 5. PLAN OF SECOND FLOOR—SOUTH SHORE COUNTRY CLUB, CHICAGO.
Marshall & Fox, Architects.

ing. The old club house was moved away from the ballroom to a site near the southeast corner of the grounds. It is still in use for purposes connected with the scheme of the club. The new building, designed by Marshall and Fox, was put under contract on February 18, 1915, at a cost, including furnishing, of \$450,000. It is all of substantial construction, and is fireproof so far as the materials used and the constructive methods employed will make it. The outer walls and interior construction consist of a skeleton of reinforced concrete columns and girders, filled in with hollow burned clay tiles and finished on the outside with cement stucco and pebble dash.

it, upon which the windows open to the floor.

The ballroom, at the south end, is 134 by 80 feet on the outside. The dining room and the ballroom are connected by the grand promenade, 372 feet long and 32 feet wide. The entire length of the building over all is 500 feet. The height of ceiling of the central section of the grand promenade includes the first story and the mezzanine story. This part has a length of 176 feet.

Opposite the main entrance is the solarium, which commands a view of the water on three sides. It is the main reception and conversation room—74 by 62 feet. On its north side is the men's



FIG. 6. PLAT PLAN—SOUTH SHORE COUNTRY CLUB, CHICAGO. MARSHALL & FOX, ARCHITECTS.

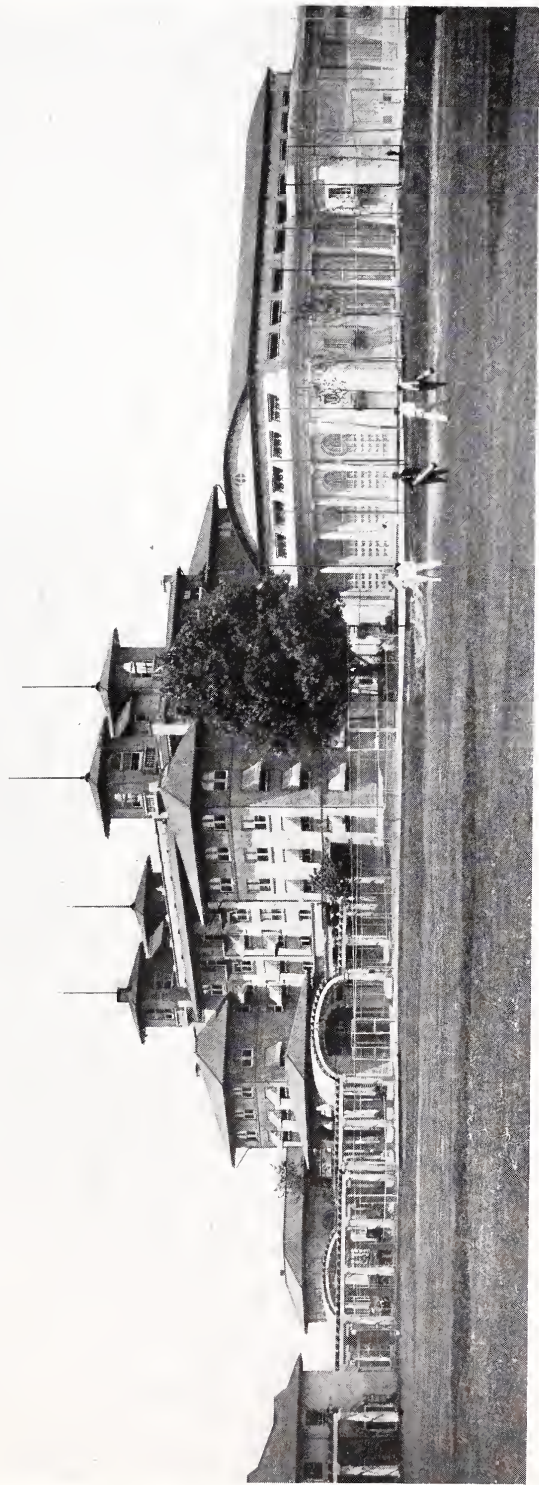


FIG. 7. SOUTH SHORE COUNTRY CLUB, CHICAGO, AS SEEN FROM THE GOLF LINKS, S. W. MARSHALL & FOX, ARCHITECTS.



FIG. 8. SOUTH SHORE COUNTRY CLUB, CHICAGO, AS SEEN FROM A BOAT ON LAKE MICHIGAN, S.E. MARSHALL & FOX, ARCHITECTS.

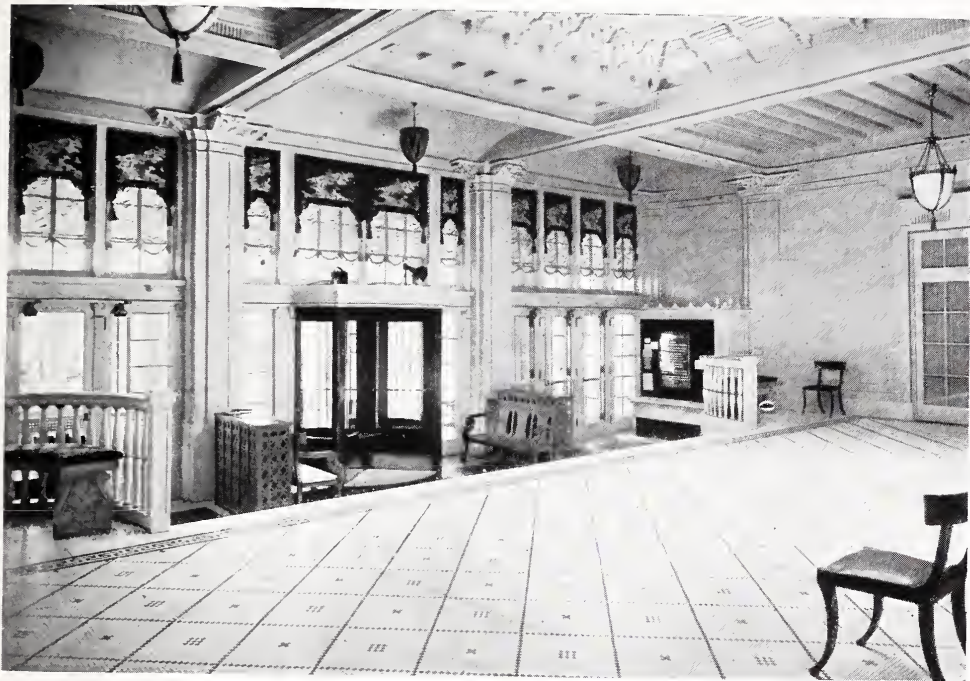


FIG. 9. ENTRANCE VESTIBULE—SOUTH SHORE COUNTRY CLUB, CHICAGO.
Marshall & Fox, Architects.



FIG. 10. FOUNTAIN COURT AND SOLARIUM, LOOKING EAST—SOUTH SHORE COUNTRY CLUB,
CHICAGO.
Marshall & Fox, Architects.



FIG. 11. SOLARIUM, LOOKING N.W.—SOUTH SHORE COUNTRY CLUB, CHICAGO.
Marshall & Fox, Architects.



FIG. 12. MEN'S BUFFET, ADJOINING SOLARIUM—SOUTH SHORE COUNTRY CLUB, CHICAGO.
Marshall & Fox, Architects.



FIG. 13. GRAND DINING ROOM—SOUTH SHORE COUNTRY CLUB, CHICAGO. MARSHALL & FOX, ARCHITECTS.



FIG. 14. GRAND PROMENADE, LOOKING NORTH, TOWARD THE GRAND DINING ROOM—SOUTH SHORE COUNTRY CLUB, CHICAGO. MARSHALL & FOX, ARCHITECTS.



FIG. 15. GRAND PROMENADE, CENTRAL SECTION, LOOKING SOUTH, TOWARD THE BALLROOM—SOUTH SHORE COUNTRY CLUB, CHICAGO. MARSHALL & FOX, ARCHITECTS.

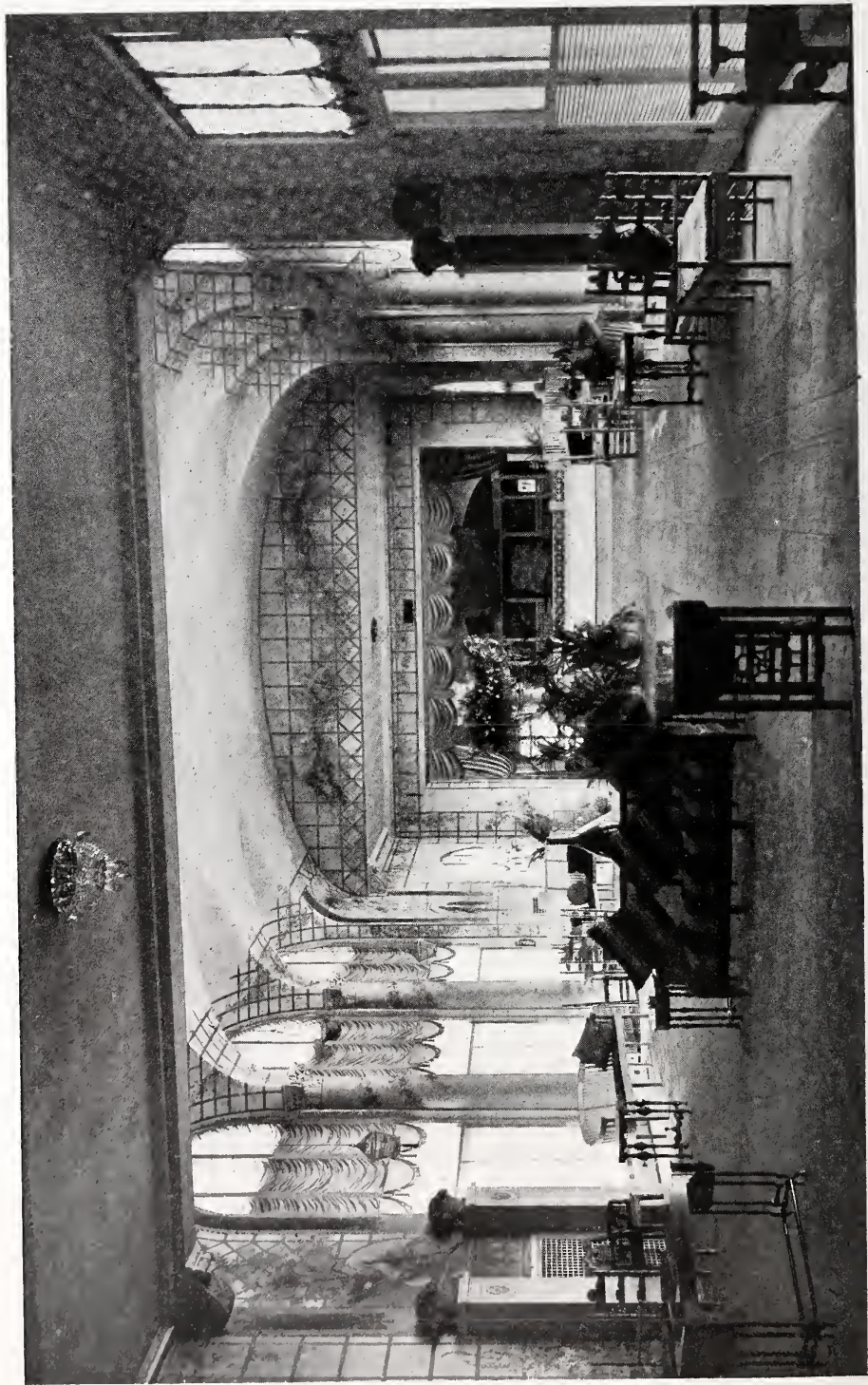


FIG. 16. GRAND PROMENADE, LOOKING SOUTH. A NEARER VIEW OF THE BALLROOM—SOUTH SHORE COUNTRY CLUB, CHICAGO. MARSHALL & FOX, ARCHITECTS.

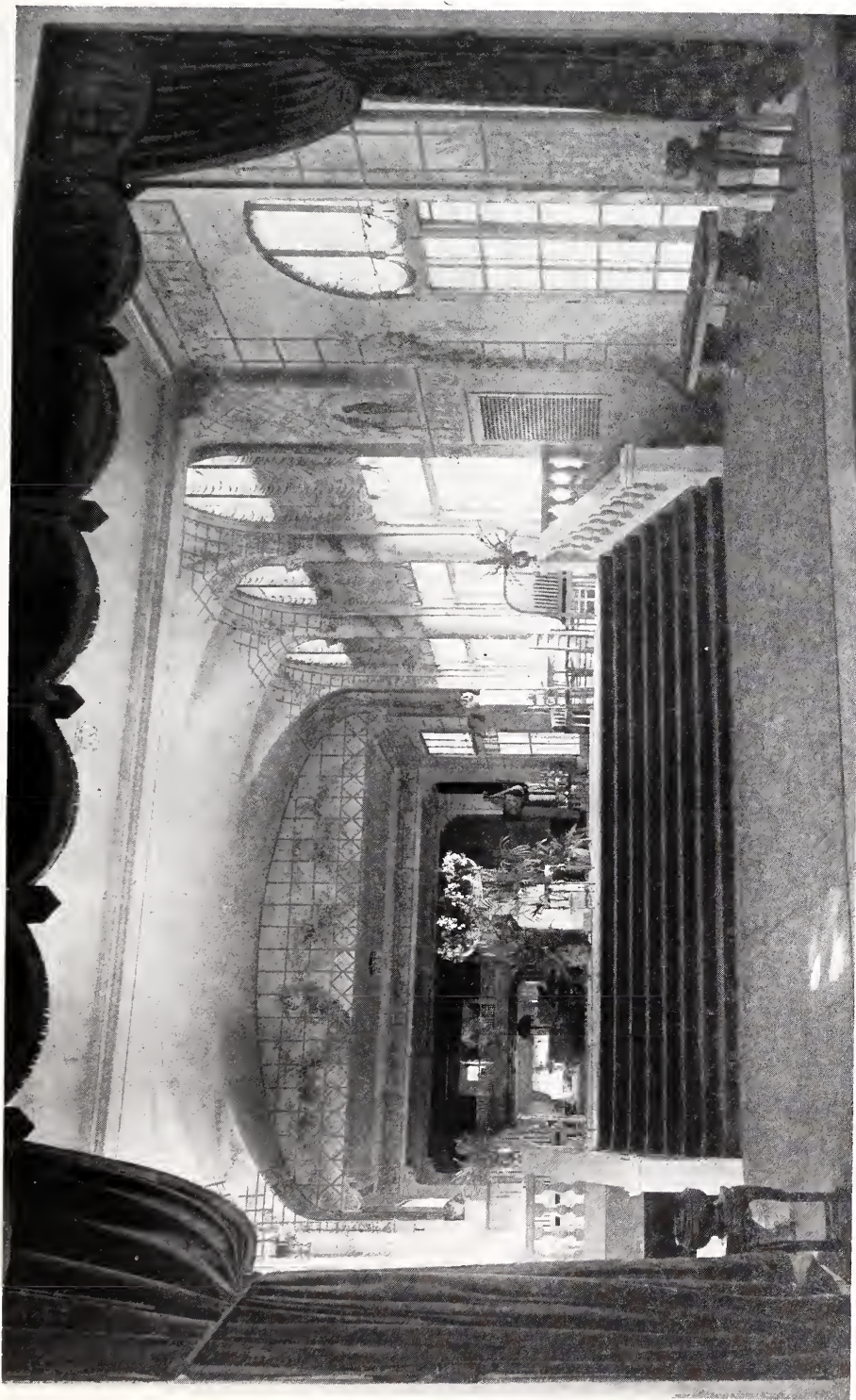


FIG. 17. GRAND PROMENADE, AS SEEN FROM THE BALLROOM—SOUTH SHORE COUNTRY CLUB, CHICAGO. MARSHALL & FOX, ARCHITECTS.



FIG. 18. GRAND BALLROOM—SOUTH SHORE COUNTRY CLUB, CHICAGO.
Marshall & Fox, Architects.

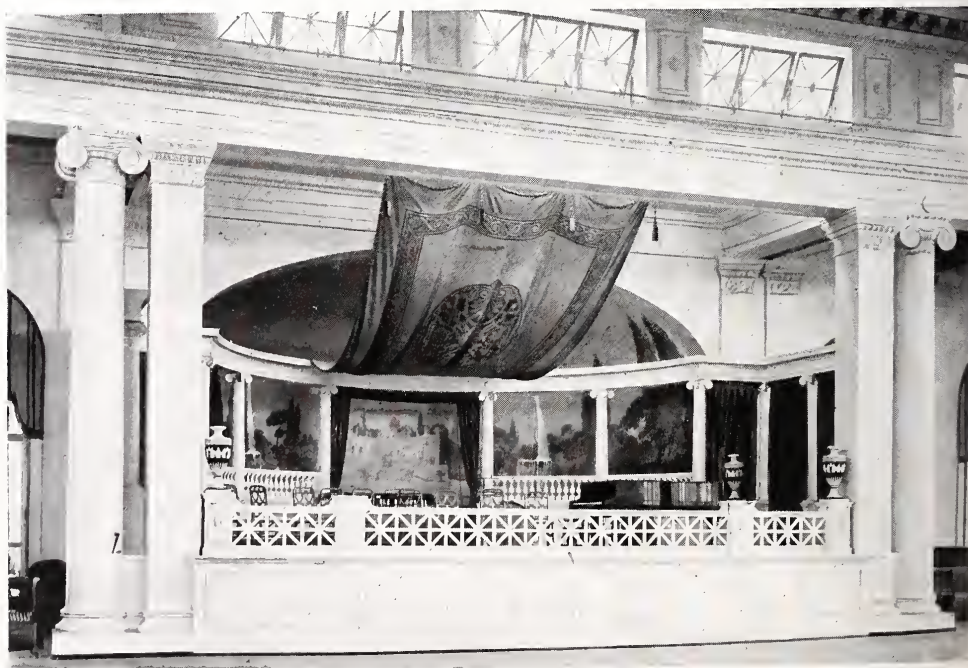


FIG. 19. ORCHESTRA AND STAGE IN BALLROOM—SOUTH SHORE COUNTRY CLUB, CHICAGO.
Marshall & Fox, Architects.

buffet and smoking room, and on the south side is the card room. The billiard room, writing room and library are on the mezzanine floor. Above the mezzanine floor the main building is occupied by ninety sleeping chambers, arranged singly and *en suite*, each with a bath. These are occupied by members, and, in some instances, by members' families.

The basement is occupied by the kitchen and service departments and the refrigerating plant. The kitchen is immediately beneath the dining room and occupies a space of 87 by 145 feet. It is extended out under the terrace which surrounds the dining room, and is connected with the dining room by a system of ramps, there being no stairways between them. A broad corridor from the kitchen under the grand promenade extends the entire length of the building, connecting with other service rooms. At the last New Year's Eve party 2,300 diners were served simultaneously from these service rooms, tables being placed in the grand promenade as well as in the dining room. The entire main floor of the club house can be turned into one great dining room with a seating capacity of 3,000, and all the tables can be reached directly from the basement.

The drive to the club house enters the grounds at the southwest corner through an appropriate lodge. Passing around an oval flower garden, the house is approached through a covered porch. The entrance vestibule, as seen from the interior, is shown in Figure 9. Having crossed the grand promenade, the visitor looks through the fountain court (Fig. 10) into the solarium on the lake side (Fig. 11). Entering the solarium, he turns around and has another view of the fountain court in Figure 2. On the right in this illustration is the entrance to the men's buffet, on entering which he has the view shown in Figure 12. He can pass out through another door to the grand promenade. Figure 13 is a general view of the grand dining room. On leaving the dining room through the great door shown at the left in Figure 13, he returns to the grand promenade through the north section illustrated in Figure 14, and has a

view of its entire length, 338 feet, to the entrance of the ballroom, at the south end of the building. Having descended a few steps at the south end of the grand promenade and entered the ballroom, he turns around and has the beautiful perspective looking back through the promenade shown in Figure 17. This I conceive to be the most beautiful view in the building. Figure 18 is a perspective view of the ballroom, looking east. Its classic details, designed several years before the new building was erected, are in marked contrast with the informal and purely festive character of the new parts of the building. The orchestra and stage, shown in Figure 19, continue the classic motive; but the splendid silk tapestry suspended over the stage repeats the festive motive of the grand promenade. It is a piece of embroidery and appliqué work that accentuates the Ionic screen and the wall frescoes behind it.

The exterior of this building does not strive for effect through applied ornament. It is merely a building of good proportions, eminently suitable for its purposes. It screens and, by contrast, accentuates that other effect produced by the cheerful decorations of the interior. This is as it should be. The building stands on an exposed site on the shore of Lake Michigan, where it must combat the storms of winter. It is not a country club for summer, but for all the year, easily accessible to urban residents. More than this, it is a family club, for the wives and sons and daughters of its members as much as for themselves; and it is safe to say that, in summer at least, it is frequented more by women than by men. The club holds great functions at all times in the year, each appropriate to the season. Among these are the annual horse fair and country fair, which are conducted in temporary pavilions. For summer sports it has its bathing beaches, its trap shooting lodge and its yacht harbor. Family gatherings, dances and dinners are held throughout the year.

Restful, cheerful, appropriate to its purposes, the South Shore Country Club is an admirable example of festive architecture, executed in a way that elicits genuine admiration.



FORTIFIED ARCH OVER THE ROMAN BRIDGE AT
ALCANTARA, NEAR THE PORTUGUESE FRONTIER.



ROMAN BRIDGE WITH FORTIFIED GATE, AT ALCANTARA. BUILT 103 A. D.

The Bridges of Spain



By
Arthur Byne



GIVEN the physical characteristics of the Spanish Peninsula—unusually deep, narrow gorges where rivers rush between high mountains, and unusually broad, shallow river-beds meandering across plains—and one will see that bridges must have been an important problem from the earliest civilization. The country is an arid one; its rivers generally dry; yet nowhere can water pile up more torrentially in the brief rainy period. In the gorge of the Tagus, near the Portuguese border, the usual depth of the water is thirty-seven feet; in flood time it amounts to one hundred and eighty. This is but one of many such jumps. Roman, Moorish, and Spanish engineers have successively grappled with their bridge problem; and the result is that Spain contains the most im-

pressive bridges to be met with in Europe. Surely these are the survival of fitness; for not only has Nature herself repeatedly tried to wreck them, but they have been the prey of more invading, wrathful armies than any other European land has had to reckon with. Mighty erections, scarred by repeated buffetings, and surrounded, most of them, by a sublimely desolate landscape, they are among Spain's most interesting monuments.

Many of them are original Roman structures; many others are rebuilt on Roman foundations; a very few are modern (meaning sixteenth and seventeenth century) but following Roman prototypes; for, though Spanish architects never turned to the wealth of classic buildings in the Peninsula for inspiration, Spanish engineers always turned to the



ROMAN BRIDGE OVER THE RIVER TORMES, AT SALAMANCA.

massive prow-shaped piers with which the Romans always met the problem of a swift current. Indeed, in remote provinces like Estremadura and Leon, Rome still endures in the form of these massive bridges and—in the most popular jokes among the inhabitants.

Even the Moors, never noted for constructive ability, acquired the knack of building the Roman type of bridge; in several cases on old Roman foundations dating from the second or third century, like the Alcántara at Toledo. But in no instance have the imitators built as impressively, or as well, as their masters. Their work is constantly crumbling and needing repairs. The stones they used, often comparatively small, are held in place only by the adhesion of the cement and the grace of God. The Romans trusted to neither, but depended solely on their arch forms and bronze dowels, just as they did in building their huge aqueducts at Segovia and Tarragona.

Broadly speaking, there are but two types of bridge in Spain, both determined by the topography of the surroundings. The more impressive is the one of few,

unequal arches and great height, spanning a rocky chasm. This is best represented by the famous Roman bridge at Alcántara—not to be confused with the Alcántara Bridge at Toledo; both have the same etymology: the Moorish *al=the*, and *kantara=bridge*; both span the Tagus, and both are of the lofty, few-arched type; but they happen to be some three hundred miles, as well as some ten centuries, apart.

Opposed to this type is the long, low structure of many equal sized arches striding across an unusually broad riverbed that is often absolutely bare in summer, but carrying a wide expanse of water in spring. This type is seen at its best at Salamanca, Córdoba, and Mérida. Whatever impressiveness these examples may lack in height is made up in their interminable perspective of low arches. Indeed, the very monotony of these would alone command attention, bringing forcibly to mind those earlier structures that stalk for mile after mile across the Roman Campagna.

To reach one of the earliest and most famous examples of the first mentioned

type, one goes by train to Arroya de Malpartido on the Madrid-Lisbon line, thence by diligence (which has no particular schedule) to Alcántara, a drive of about thirty miles. The town in itself is quaint enough to be worth a visit; furthermore, having been the seat of the Knightly Order of Alcántara, it contains some beautiful churches and the finely sculptured tombs of the Grand Masters; but its great sight is the Roman Bridge which strides across the Tagus in six majestic arches. It is six hundred and seventeen feet long, twenty-six feet wide; the middle arches have a span of fifty feet, and their piers a height of one hundred and ninety feet. Above one of these, that is, in the middle of the structure, rises that frequent feature of Roman bridges, a fortified gateway, which adds another forty-three feet of height to the one hundred and ninety foot pier. Granite only was used for the whole—granite laid up without mortar; granite whose stern weathered face makes an almost startling harmony with the barren, unfriendly landscape.

In Roman days this was the province of Lusitania, and eleven Lusitanian communities furnished the money to build the bridge in 103 A. D. Until 1214 it stood intact; then the Moors in war-time took away sixty stones of the smallest arch on the left side of the river—a gap which remained until 1543, when it was repaired from the original quarries more than forty kilometers away. The colossal bridge suffered no further damage till Spain herself had to destroy its second arch on the right side to keep out a Portuguese army. This was repaired by Charles III in 1762. Spain it was again, or rather Spain with her allies, the Portuguese and English, who was forced to inflict the next wound, when French invaders were about to march over it in 1809. The same second arch on the right bank was dynamited. In 1819 it was temporarily repaired by wood and later, in 1860, by stone.

Obviously the strength of any arched structure depends on its continuity and on the integrity of its end abutments. To have been left for years deprived of these was a cruel test. Yet, as the Alcántara Bridge stands to-day, hardly a

trace of these vicissitudes is discernible. It still looks as mighty as when its builders placed their inscription to the effect that the work was ordered by the Emperor Trajan in the year 103. No description of how this and similar bridges at Orense and Toledo were built has ever been found, and engineers are left to conjecture for themselves on how the centering was managed. What a find a wooden arch truss dating from Roman days would be! The likeliest solution is that the centering was built straight up from the ground and the entire arch-space used for bracing; but even this was no simple task, for where arches are largest and the centering correspondingly more elaborate and difficult to construct river beds have water in them all year round; also arches had to be expeditiously built, for no scaffolding could withstand the oft-recurring floods. To realize this, one has only to see the Tagus in flood season as it piles up in the Alcántara gorge, where that ancient Roman bridge, which has been withstanding such onslaughts for some two thousand years, fills the heart with reverence for venerable masonry.

Owing to the proportions of the Alcántara Bridge and the way it is hemmed in by the lofty river banks, it is almost impossible to get a good photograph; but near it is a quantity of accessible Roman architecture which is worth picturing and studying.

At Mérida, comparatively near Alcántara (but the railroad connections are most unsatisfactory) is another imposing ancient bridge. This time it is the broad and generally sluggish Guadiana, and not the narrow rushing Tagus, that taxed the ingenuity of Roman builders; taxed their ingenuity because the great breadth of the river bed and the lowness of the foothills beyond required an extraordinary number of arches (sixty-four of them) and a correspondingly great number of piers—a veritable wall of abutments. To overcome this weakness—for paradoxical though it sounds, the very strength became a weakness—a solution both practical and architectural was reached. While maintaining the spread of the pier abutments the builder intro-



THE MOORISH BRIDGE OVER THE GUADALQUIVIR, AT CORDOVA, BUILT ON ROMAN FOUNDATIONS. THE MASSIVE *TETE-DE-PONT* STANDS AT THE BEGINNING OF THE ROAD TO SEVILLE.

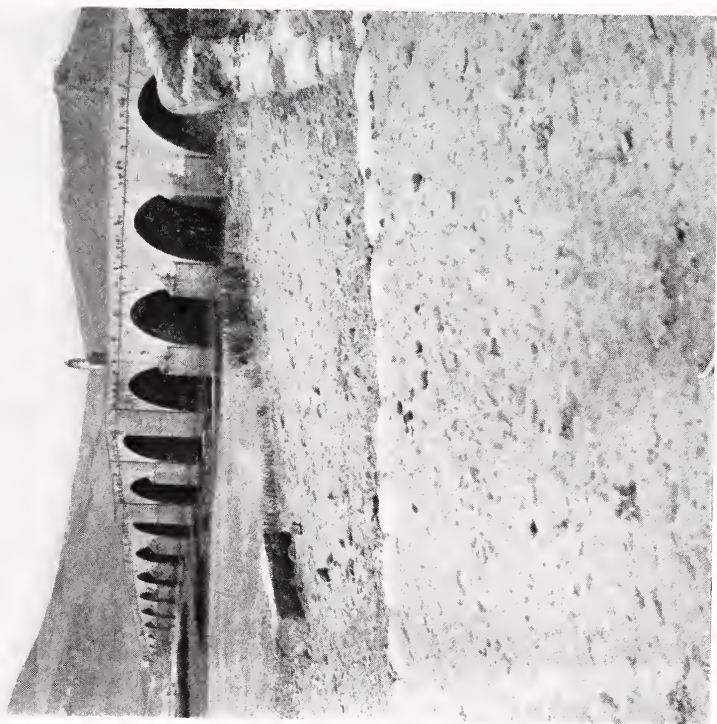
duced above them, at a point where solid masonry is no longer necessary, a small subsidiary arch between the main arches, thus relieving much of the water pressure. This happy solution is as picturesque as it is practical. On a sand-bank to the southeast is a further protection in the shape of a Roman structure which splits the current and thus prevents its beating with full fury against the center of the bridge.

The town of Mérida, founded 23 B. C., grew to be so wealthy and important that it was referred to as the "Spanish Rome." As capital of Lusitania, one of the three great provinces into which Roman Spain was divided, Mérida was filled with large public buildings whose grand ruins bring many a traveler to-day to this remote spot.

The Guadiana, in those days when Mérida was a metropolis, was navigable; what is now merely a sand bank amid-streams was an island filled with docks and warehouses to receive the merchandise brought from other lands. "No man on earth can describe the wonders of

Mérida," wrote a Moorish historian after his people had conquered the city in 713. This was probably not so exaggerated as it sounds, for in addition to its Roman buildings, the Visigoths had given it, according to the "Chronicle of the Cid," a strong wall with eighty-four gates and three thousand towers (which figure a modern is at liberty to question).

Of what remains of all this grandeur the magnificent Puente Romano, built by Emperor Augustus, alone stands entire. Not, however, with its Roman entirety, for it, like its Alcántara neighbor, fell upon evil times. In Gothic days a flood swept away nearly all the pentagonal island and its structures, including the bridge piers resting on it. Sala, Visigothic Duke of Toledo, repaired these last in 686. Nearly a thousand years later Sala's five island arches were again demolished by floods. Mérida and all towns within fifty leagues defrayed the expense of rebuilding these in 1610. In 1812, when Wellington was besieging the French in Badajoz, on the nearby Portuguese border, two arches were blown up



THE BRIDGE AT MEDELLÍN, WHERE CORTÉS, THE CONQUEROR OF MEXICO, WAS BORN. BUILT IN 1636 ON ROMAN FOUNDATIONS.



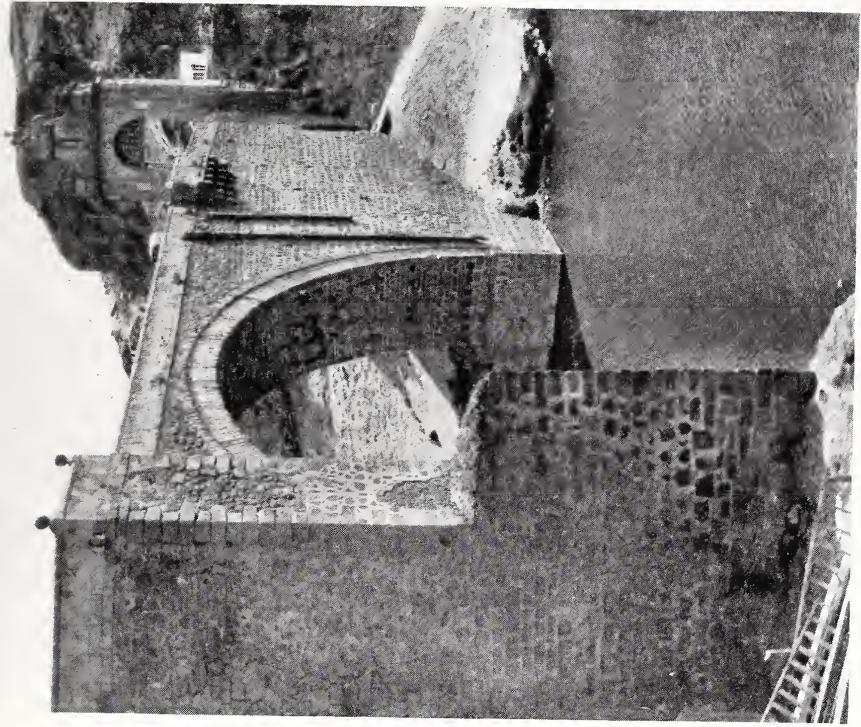
PART OF THE ROMAN BRIDGE OF SIXTY-FOUR ARCHES AT MÉRIDA.



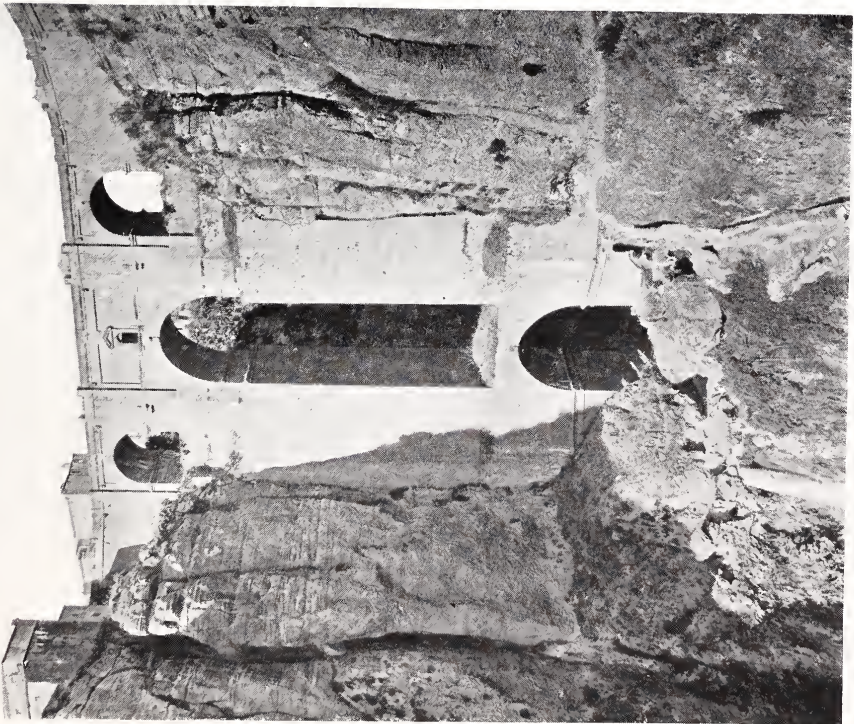
BRIDGE OF SAN MARTIN, AT TOLEDO. BUILT IN 1212.



BRIDGE OF SAN MARTIN, LOOKING TOWARD THE PARCHED HILLS ACROSS THE TAGUS.



ALCÁNTARA BRIDGE, AT TOLEDO, MOORISH BUT REBUILT IN 1288. THE GATEWAY, CROWNED BY A SEVENTENTH CENTURY TOP, STANDS AT THE BEGINNING OF THE ROAD TO ALCÁNTARA.



BRIDGE SPANNING THE IMPOSING TAJÓ, OR GORGE, WHICH DIVIDES THE CITY OF RONDA INTO TWO PARTS. LAST REBUILT IN 1761.



MEDIEVAL BRIDGE IN THE PROVINCE OF JAÉN, ANDALUSIA.

to prevent the enemy from getting into Andalusia. These were replaced by wood until 1833, when stone ones were built. The winters of 1860 and 1876 brought terrific floods that necessitated several new arches and general overhauling, all of which is hard to believe if one visits Mérida in summer when the Guadiana seems almost stagnant and shrunken to half its winter proportions.

Mérida Bridge is thirty-three feet high, twenty-one feet wide, and one-half mile long—an enduring monument of human skill and patience stretching away into an interminable perspective of bare pathless hills.

The two bridges just described do not begin to cover the Roman period, but are chosen as the best of two distinct types. Our illustrations will serve to further indicate the wealth of such structures left by that great building nation who occupied Spain from 205 B. C. till the Visigothic King Euric put an end to their weakened dominion in the fifth century A. D.

In medieval days, comprising Visigothic, Moorish, and Spanish rule suc-

cessively, but few new bridges were added until the twelfth century, all energies being bent on keeping the Roman ones in repair. But with the Reconquest new efforts were put forth and no spot seemed too remote or too sparsely inhabited to receive this civilizing touch. Bridges erected in the very capital, Toledo, were no grander than the one that served the little far-away and never important town of Medellín in Estremadura. All show how thoroughly the Spanish engineer was impressed by classic work; and all, conforming to the topographical conditions already mentioned, follow the two main types conceived by the Romans.

Of the first, since we are again considering the gorge-enclosed Tagus, Toledo holds two admirable examples—the Puente Alcántara (on the old road to Alcántara) and the Puente San Martín. Than the former no subject in Spain has been more often photographed or painted; and deservedly, for with the swirling river beneath, and the city piled up beyond on its calcined rock, it is a striking sight that stirs every imagination. This picturesque bridge rests on Roman foun-



MEDIEVAL BRIDGE OF SAN JUAN DE LAS ABADESAS, AT THE FOOT OF THE PYRENEES.

dations. The Moors used these in their day, but what they built was mostly destroyed and what we see to-day dates mainly from 1258 and 1380. About its masonry there is nothing remarkable, the bridge being rather a *tour de force* in conception than in execution. It has only two arches, but these are very lofty, and, combined with the narrowness of the bridge (only seventeen feet) and the tall tower at each end, they seem to breathe the spirit of the great bridge builders of a thousand years before.

The five-arched San Martin, built a little earlier, in 1212, has more of the medieval aspect. Of its building the English architect, George Street, tells the following quaint story: "The builder, while the work was going on, perceived that as soon as the centering was removed the arches would fall. He confided his grief to his wife. She, with woman's wit, forthwith set fire to the centering and when the whole fell together it was attributed to the calamity of the fire. When the bridge had been successfully rebuilt she confessed her proceedings to Archbishop Tenorio, who, instead of making

her husband pay the expenses, seems to have confined himself to complimenting him on the treasure he possessed in his wife."

The San Martin, with its vast pointed arches, the center one over one hundred feet in span; its huge spreading piers, the one nearest the town building out in seven gigantic steps; its corbeled balconies and turreted towers, satisfies every romantic requirement. Why, at a moment when round-arched Romanesque was in full swing in Spain, this bridge was built in Gothic style is a question. The greater strength of the former must have been known, but perhaps the fact that the steep sides of the Tagus form powerful natural rock buttresses for any bridge to spring from was supposed to offset the weakness of a two-centered arch. As to execution, its stonework is well designed and cut, and its roadbed is flagged instead of being of dirt, as in the Alcántara and many others. The only provision for the pedestrian is the corbeled balconies, where, while waiting for a score of pack mules to pass, he may enjoy wonderful views both up and down the Tagus.



PUENTE DE PIEDRA, OR STONE BRIDGE, OVER THE EBRO AT SARAGOSSA, DATING FROM 1447.
THE CATHEDRAL OF EL PILAR BEYOND.

Of the medieval many-arched type, Medellín Bridge over the Guadiana is one of the most monumental. Here again the foundations are Roman; but as nothing of the original superstructure remains, the bridge is entirely of the seventeenth century in character. It is thirteen hundred and fifty feet long, twenty-three feet wide, and has twenty arches; in addition to the impressiveness which such dimensions give when carried out in grim granite, is the added effect of the ghastly loneliness and desertion that stretches far away on each bank of the river. This is the most sparsely inhabited part of Spain; and how the handful of hamlets within a radius of fifty leagues ever raised, as they did, the money to pay for this magnificent bridge is a problem in economics that I am unable to grapple with. This was collected in 1636 when Philip IV sent D. Juan de Villagoitia to rebuild a

fallen structure which Ferdinand the Catholic had ordered; the Roman bridge having been long before demolished by the Arabs.

The pointed crown of the Medellín arch is slightly eased, and this effect is repeated in the whole composition where the bridge rises to a gentle crown at the middle. At this point stands an adornment with the arms of Spain and the commemorative inscription dated MDCXXXVI. The Don Juan de Villagoitia whom it records has left a marvelous bridge that should stand forever. He could have put no greater skill and energy into his task had it been in the center of the world's metropolis, to be used and admired by millions of people annually, instead of serving merely for the migratory herds of sheep that come down each winter from Leon to feed in Estremadura.



THE RIVER FRONT, ON THE COSSON.

THE CHÂTEAU OF LES GROTTÉAUX

By FISKE KIMBALL

THE architect returning from Blois to Chambord, in days when travel in France was still possible, was but too likely to share the disappointment of Mr. Henry James in the vast but arid splendor he had just left. If he permitted the lazy *cocher* to follow the shortest and least interesting road, he passed midway the little village of Husseau-sur Cosson. There, behind a shaded gate-lodge, is hidden an estate the very opposite of Chambord, which, if he but knew, would delight him with a beauty subtle and intimate. "*Le Château des Grotteaux*," jerks the driver, "*On ne visite pas.*" So the traveler goes by, unconscious that he has missed one of the most delicious morsels in Europe.

The château, dated 1620, comes from a unique time in the architectural history of France, the early years of the reign of Louis XIII. Peace and security were fully established; enclosures, towers and moats no longer necessary. Paris and the court had not yet become the sole dwelling place of society; to live on one's estate was not yet to live in exile. An ideal of sincere austerity and simplicity

remained in certain quarters, the legacy of Protestantism and Henry IV. Under these conditions the country house in the modern sense—not castle, or palace, or villa, or grange—received its first expression, in France almost its only expression.

Even among the houses of the period Les Grotteaux is all but unique. Its small size, its immediate contact with nature, devoid of every vestige of formality—in which it resembles many houses of to-day—are the results of the exceptional personality of its owner and builder.

A plain oblong central block with two slightly projecting pavilions, each with its own steep roof, a few tall square windows with dormers over them, that is all—all, except the fine sense of proportion, the nice departures from obviousness, which fuse these simple elements into a composition of unusual unity and perfection. There is no longer the joyous exuberance of the Renaissance, with its elaboration of individual detail; but in its place have come moderation and consistency of general effect. The phrase



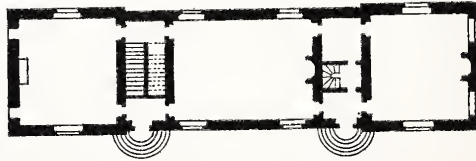
THE ENTRANCE FRONT—CHÂTEAU OF LES GROTTAUX.

which Mr. Ward applies to the architecture of the time might well have been written with this building before his eyes: "Belief in law and order and conformity to reasoned canons, in clear, logical presentment and perfection of form, obtained by rigid self-criticism and elimination of the unessential."

It is such a building as this that makes us realize the *reductio ad absurdum* self-implied in the dogmas of Ruskin, who found that "the only admiration worth having attached itself wholly to the sculpture and color on the building," and that "every building whose excellence consists merely in the proportion of masses is to be considered as nothing more than an architectural doggerel, or rhyming exercise." No wonder he was driven to say: "The fact is, there are only two arts possible to the human race, sculpture and painting." The serene presence of such works as this obscure French house reasserts the existence of a pure art of architecture, which he had sought to abolish by definition, on a complete equality with the other arts. Whatever the next swing of the pendulum may

bring, we of to-day are convinced, with Mr. Reginald Blomfield, "that architecture is an art with its own limits and ideals, not dependent on sculpture and painting as the later mediaevalists had made it, but complete within itself and capable of realizing its full effect by simple qualities of line, mass and proportion."

The house shows, too, that it is not only in works of classical bombast, where



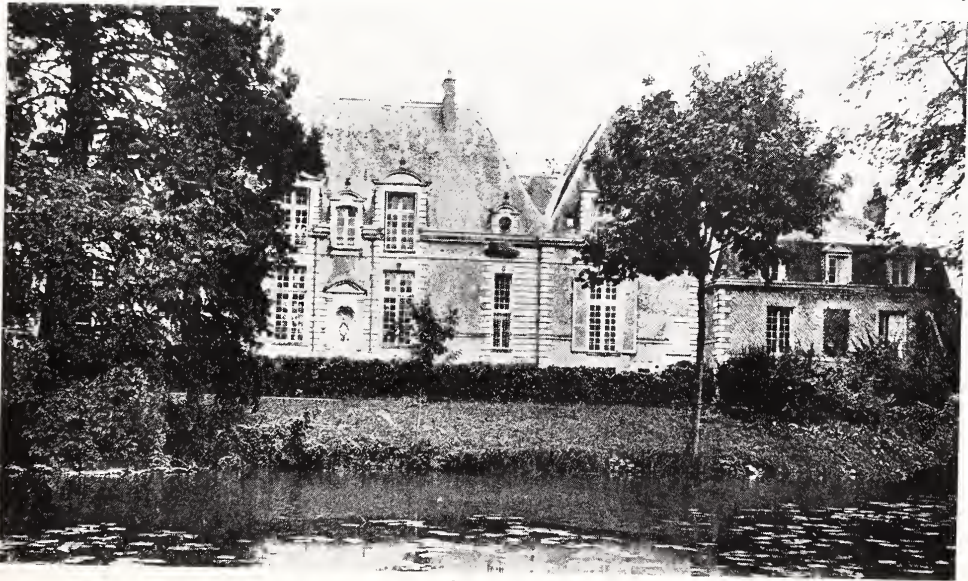
PLAN OF THE CHÂTEAU, FROM REYNAUD.

Mr. Blomfield has so often unearthed them, that these effects are to be found. Here is little that might not serve as an illustration for Guadet, or even for Viollet-le-Duc, in its frank expression of the simplest functions. The plastered wall with corners and openings strengthened with quoins of white stone, the light cornice, steep roof, and tall plain chimneys, are nothing but the most utilitarian elements of building. The only vestiges of ornament, the enframements of doors and niche, the pediments of the dormers, are almost immaterial to the charm of the ensemble. What is classic here is not the forms, but the spirit of breadth, dignity and repose.

The artistry which has drawn an effect so exquisite from means so simple is not as unconscious as might at first appear. There is a good deal of freedom in the choice of heights for the cornices and strings, a subtlety in the expression of the little hallways by the use of quoining alone, that show the builder realized that *architecture raisonnée* is not tied hand and foot by utility and structure. The service wing, which might have unbalanced the composition, is cleverly detached from it by a covering of treillage. The variety secured between the two façades by minute changes which transfer the emphasis from the ends to the middle, is another proof of high artistic powers. A final refinement might escape even the most slavish attempt at reproduction—the displacement of the pavilion windows of both front and rear, from the center of the pavilions toward the center of the building. Léonce Reynaud, who chose Les Grotteaux with Chenonceaux as his examples of French manors, missed this powerful device altogether, and gave his drawings with the windows squarely on axis. As the interior of each pavilion is a single room, there can be no question that the irregularity was introduced solely for a more unified exterior which should have but one true axis of symmetry in-

stead of three. The displacement in front is over a foot, in the rear it is more than three feet. In this difference, too, the reason is not far to seek, though the boldness denotes a master. The *parti* adopted for the rear façade—emphasis on the middle in spite of pavilions close at hand—was counter to all ordinary canons and almost foredoomed to failure. Moving the windows so far completely destroyed the axis of the pavilions and left a piquant composition wholly dependent on its center.

The internal arrangement is clearly betrayed at first glance: three rooms, all running the full depth of the house, separated by narrow hallways containing the entrances and stairs; four bedrooms above, with dressing rooms between. Paneled wainscot, beamed ceiling, tall windows, and painted shutters give an air of stateliness and lingering mediaevalism. The dining room is the most interesting, with its fine Flemish tapestry and furniture from Chambord. Here is the original porcelain stove of Marshal Saxe, of which visitors now see a copy in the palace. Most beautiful, however, is a work modern in date, but mediaeval in its spirit and craftsmanship—the wreathed iron crown which hangs above the table, made for a former occupant by



THE RIVER FRONT—CHÂTEAU OF LES GROTTAUX.



THE DINING HALL—CHÂTEAU OF LES GROTTAUX.



THE DINING HALL, WITH THE STOVE OF MARSHAL SAXE—CHÂTEAU OF LES GROTTAUX.



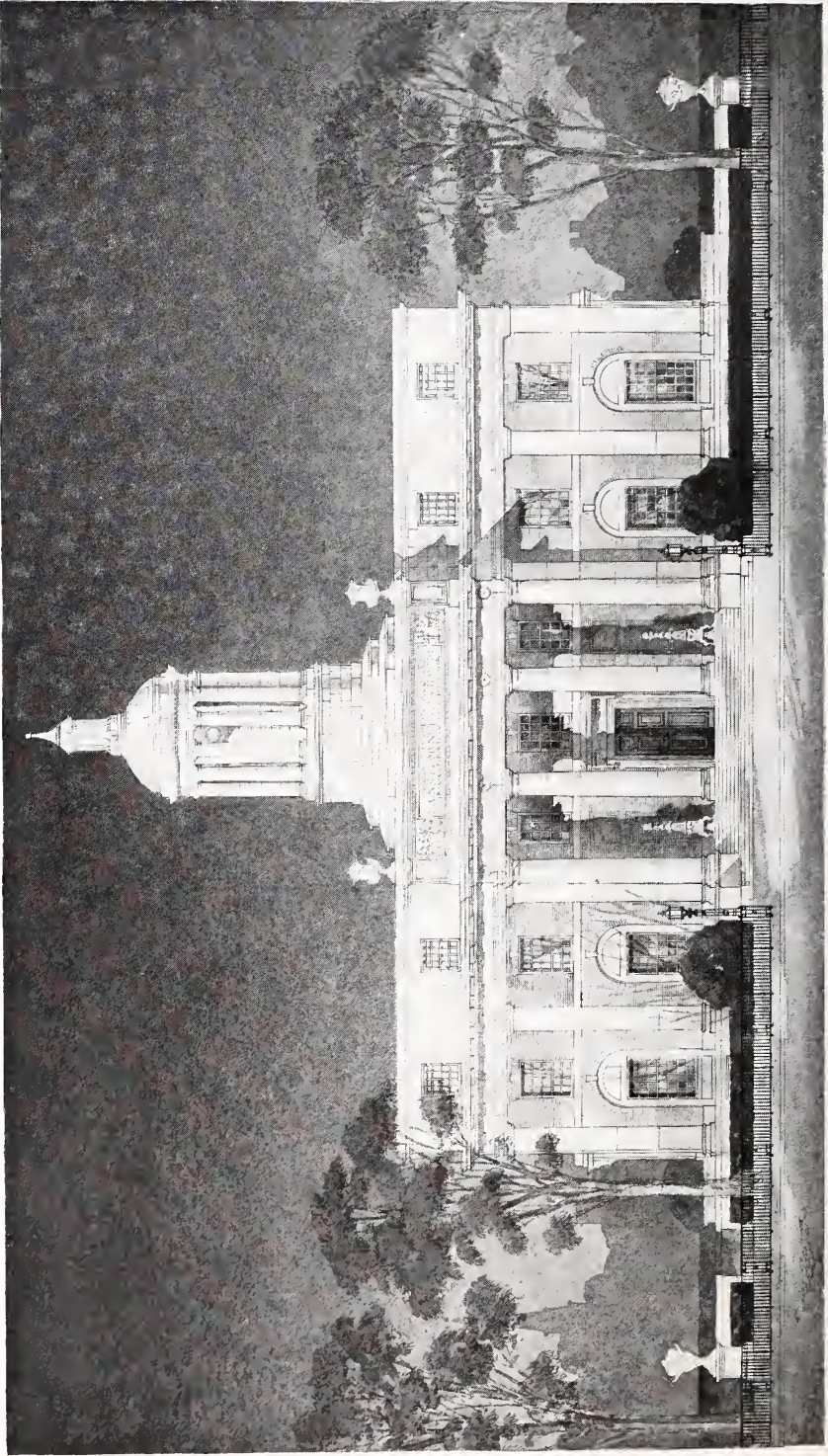
THE SALON—CHATEAU OF LES GROTTAUX.

a humble Rhenish smith still worthy of the old traditions of his art. The salon is now chiefly remarkable for its chimney-piece, richly carved in white stone, and for the arabesques of its ceiling. From one looks down the portrait of Guillaume Ribier, modest and chivalrous, the first owner of the château; from the other, the symbols and mottoes which express his life. One's curiosity cannot fail to be aroused concerning the man to whom report ascribes not only the execution but also the design of this *chef d'oeuvre* of refined beauty.

To satisfy it one cannot do better, perhaps, than to turn to the enthusiastic pages of the Comte de Salaberry in the *Memoires* of the Société Académique de Blois. "The little château of Les Grotteaux," he says, "was the seat of the wise, the good, the virtuous Guillaume Ribier, retired privy councillor, witness and actor at the States General of 1614. Guillaume Ribier made himself admired in that assembly by his vigor of mind,

and obtained from the King Louis XIII and from the queen-mother all that he demanded for his country. The title of privy councillor, for which he did not ask, was given him out of respect. Marie de Medici during her retreat or exile at Blois took his counsels and had him offered the post of secretary, which he refused through modesty. Finally Cardinal Richelieu, after the taking of La Rochelle, on his passage through Blois, proposed that he should follow the court and serve the king, in his confidence, promising him elevation sure and high. Ribier still refused. . . . The character, the manners, the studies, the piety, the fidelity, the whole life of Guillaume Ribier are historically in accord with the devices with which he loved to surround himself in his dwelling."

Among the inscriptions quoted from these devices is one which we may heartily echo. It is a prayer of the old philosopher that the château may remain as long as the Cosson shall flow at its feet.



FRONT ELEVATION—MUNICIPAL BUILDING, PLAINFIELD, N. J. LAURENCE F. PECK AND WILLIAM LAWRENCE BOTTOMLEY, ASSOCIATE ARCHITECTS.

The Municipal Building at Plainfield, N. J.



Laurence F Peck and
William Lawrence Bottomley
Associate Architects



THE winning competitive design, by Laurence F. Peck and William Lawrence Bottomley, for the Municipal Building at Plainfield, N. J., is interesting as an adaptation of American tradition in architecture, and may best be understood by first glancing at the particular conditions which dictated the design.

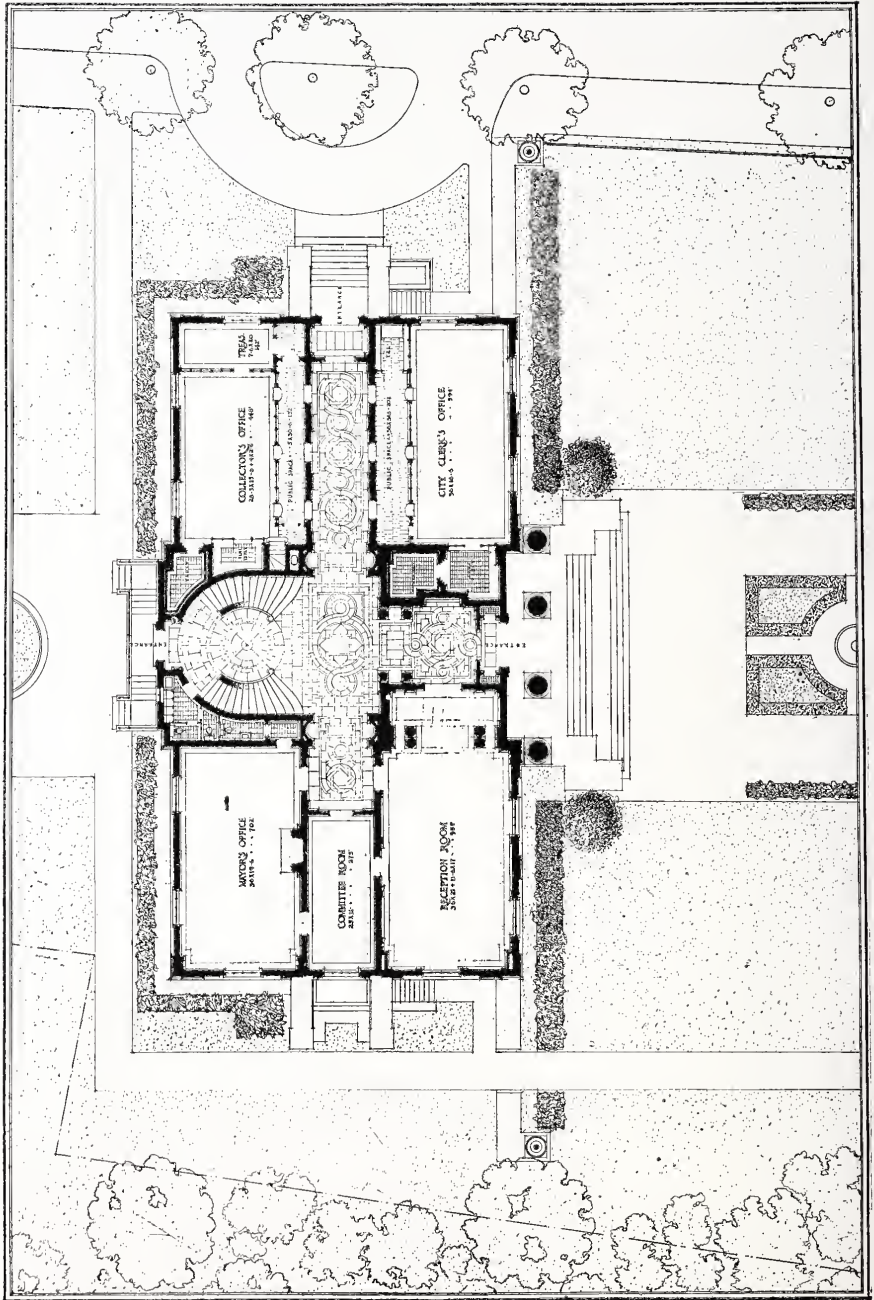
That any structure should make the most of the site provided for it is always a first consideration, and in this case has largely determined the general lines of the building. The site is a well chosen plot of land at the corner of Watchung avenue and Sixth street, shaded by a few fine trees and well open toward the southwest, but partly obscured from the direction of the station by small frame structures built close to the sidewalk. A study of these factors shows that the building should present a more important front to the avenue than to the street, and yet be in no way slighted at either end, and that it should be placed far enough from the avenue to assure ample approaches and lawns in front of the main entrance, without permitting it to be hidden by the adjoining houses.

The building is therefore planned to be twice as long as it is wide and to be situated a little to the rear of the centre of the property, with entrances, front and rear, giving circulation of air and light and a view of the grounds as one enters from either side. There will be an old-fashioned walk—flanked by two large trees—leading across the lawns to the steps of the portico, and a drive to the entrance on the opposite side; and surrounding the property will be a low Colonial iron fence with lamp posts at intervals.

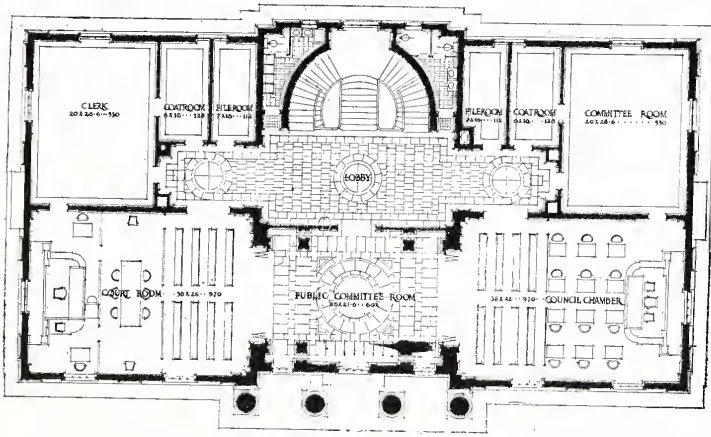
The portico, the cupola, the Colonial brickwork, with limestone pilasters and window trim and cornice, will be Colonial in scheme and in refinement, but will have less of conservatism and more of vigor and freedom in treatment than would be possible in an archeological adherence to precedent; while the details of moldings and decoration will be handled in the same way, and the limestone, instead of having a hard white surface, will be what is known as "American travertine," of light buff color with a slightly pitted surface.

Responsible also for the general scheme and outline of the building were the requirements of the two principal floors and the necessity of allowing for future additions. The various city departments will be comfortably housed for years to come; but the possibility of an enlarged building has nevertheless been provided for, and the present structure is so designed that it will be helped rather than marred by the addition of wings. The interior arrangement is such that no structural alteration will have to be made.

A maximum of accommodation for a minimum of expense has dictated a very simple treatment for the interior. The entrance vestibule will give onto a lobby with the Mayor's suite on the left and the City Clerk, Collector and Treasurer on the right; opposite will be a sweeping circular stair from top to bottom of the building. The Mayor's suite will consist of a library in front and a private office in the rear, connected by a small committee room between. Both Collector and City Clerk will have vaults, private stairs to the Assessor's and Street Commissioner's offices below, and a public space entered from the lobby.



PLAN OF GROUNDS AND FIRST FLOOR—MUNICIPAL BUILDING, PLAINFIELD, N. J. LAURENCE F. PECK AND WILLIAM LAWRENCE BOTTOMLEY, ASSOCIATE ARCHITECTS.



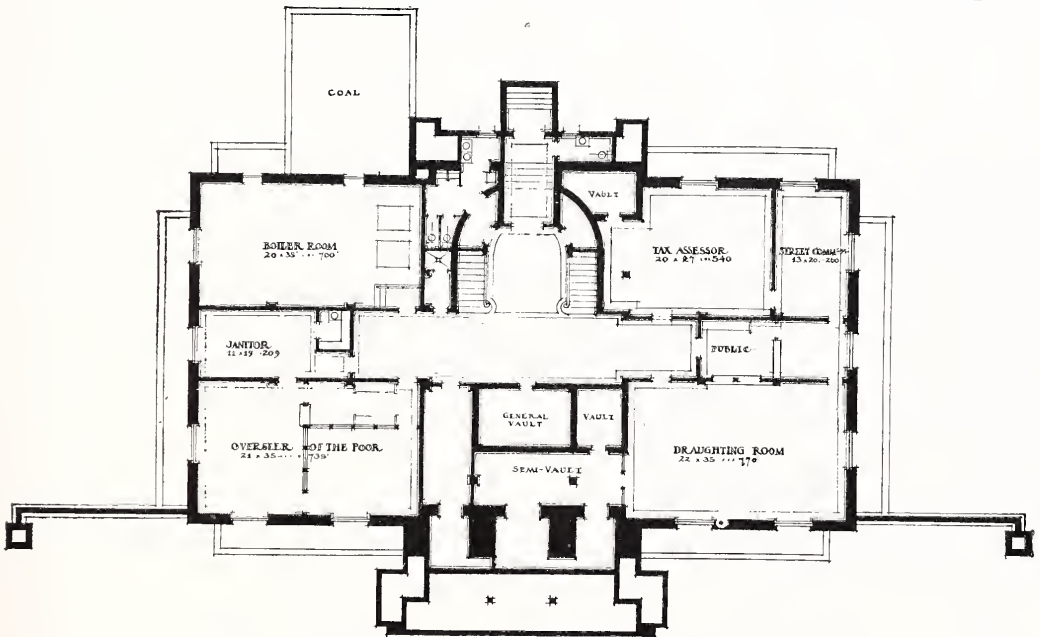
PLAN OF SECOND FLOOR—MUNICIPAL BUILDING, PLAINFIELD, N. J.
Laurence F. Peck and William Lawrence Bottomley, Associate Architects.

On the second floor will be a council chamber and a courtroom, equal in size, each occupying an end of the building. Between the two will be a large public committee room, so arranged that it can be thrown into either the chamber or the courtroom and used for overflow. On this floor there will also be a clerks' room, a committee room, and file and coat rooms, telephone booths, etc.

The basement, which will have win-

dows from the ceiling to three feet above the floor, will contain offices for the Assessor, the Street Commissioner, the Overseer of the Poor, the boiler and janitor's rooms, storage and vault space, showers for employes, etc. The top floor will be given over in part to the Health Department and to city planning, leaving considerable space unassigned.

In general, the floors will be finished in terrazzo in the halls and in wood in

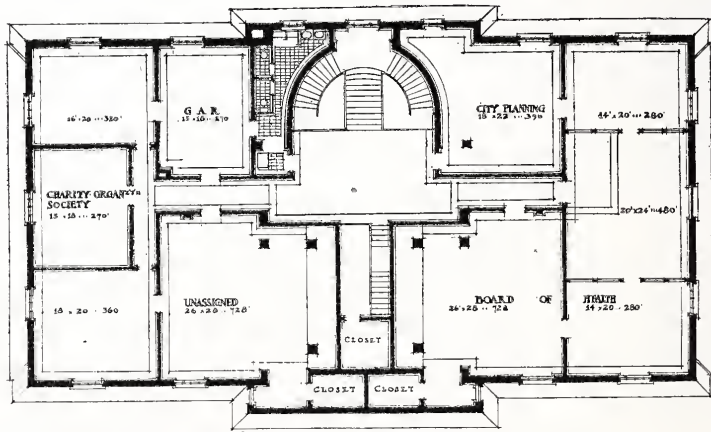


PLAN OF BASEMENT—MUNICIPAL BUILDING, PLAINFIELD, N. J.
Laurence F. Peck and William Lawrence Bottomley, Associate Architects.

the various rooms. The walls throughout will be painted. A simple architectural treatment will be given the walls of the first and second floor halls, the Mayor's suite, and the council chamber and courtroom, with such decorative effect as can be obtained by the use of color, and by bookcases in the Mayor's library, a large fireplace in his private office, and the necessary fixed furniture in the council chamber and the courtroom.

The construction will be thoroughly fireproof and planned with regard to the least expensive methods of obtain-

ing lasting results and avoiding deterioration and charges for upkeep and management. In consequence, reinforced concrete will be used wherever possible in place of steel, such vaults as need to be burglar-proof will be reinforced with chrome steel bars instead of the usual laminated steel, a scheme of natural ventilation has been devised to overcome the expense of installation and upkeep of a ventilating system, and the arrangement of rooms and entrances has been worked out so that they may be supervised by a minimum of employes.



PLAN OF THIRD FLOOR—MUNICIPAL BUILDING, PLAINFIELD, N. J.
Laurence F. Peck and William Lawrence Bottomley, Associate Architects.

CHURCH PLANNING IN THE UNITED STATES

Part IV

Sunday School and Audience Hall on Separate Levels

By Richard Franz Bach

HERE remains, then, the other alternative of considering the Sunday School an entirely separate department and its meeting place a distinct room or hall, isolated or set apart from the audience room and not even connected with it on a single level by means of passages, as was seen in certain of the examples illustrated in the preceding paper. This implies the disposition of the whole building in two levels. The Sunday School in this arrangement logically finds its place below the main auditorium. (Figs. 1, 2, 3, 4, 5, 6, 7.) This arrangement suggests itself obviously for reasons of economy in land or in construction, but does not avoid certain serious difficulties attendant upon the difference in the type of use to which both levels in such a building are put. The chief difficulty encountered in this connection is that of lighting. The Sunday School requires plentiful light, while its position under the audience hall, that is to say, in a basement, usually restricts it to low windows. The necessary glass area must then be gained by widening the windows of the basement story, to make up in width the loss in height, with the resultant discrepancy between window dispositions in the upper and lower stories of the building. Furthermore, in the plan of limited size, the greater the window space the less the remaining wall space, which—*aesthetically, if not structurally*—must serve to support the taller wall areas above. This difficulty has led to great

dissatisfaction with the two-story plan, although it has still found frequent application through stress of financial or space limitations, and especially in churches located in crowded cities. We must credit the advance in the understanding of the needs and proper interpretation of the scope of the Sunday School for the gradual abandonment of the double level scheme in which the Sunday School must be relegated to a basement story. A constantly increasing number of churches are now built in which the double level is retained, but the space beneath the church proper is occupied by other activities, not requiring daylight and usually not involving the presence of children except at play. In country or suburban churches, the two-story plan has certain advantages for the builders and congregation alike, if the site is on sloping ground, so that on one side at least greater height is available for the under-structure, thus granting the lower windows additional length, and achieving thereby a corresponding appearance of firmer support for the upper church or audience hall.

If, on the other hand, the lower story is given ample window height, a double difficulty follows. First, in the exterior there will be a disagreement between the two levels as to their relative importance, concerning which the design should otherwise leave no doubt. Such a consideration might not be allowed to weigh so heavily in the case of a building of an-

other type, especially if it be of more decidedly utilitarian purpose, but the persistent and intimate relation between the fine arts and the church through so many centuries has made practically mandatory various important but often purely aesthetic considerations, not to mention the ineradicable effects of rooted tradition, which the use of any style closely associated with the church in the past

of the stairway by all persons entering either level of the building. The two types of service would therefore conflict if they should occur at the same time, to the extent that there would be overcrowding at the exits. Stairways in such double level churches are rarely of such proportions as to alleviate even in a small degree the confusion and discomfort attendant upon this crowding. This ob-

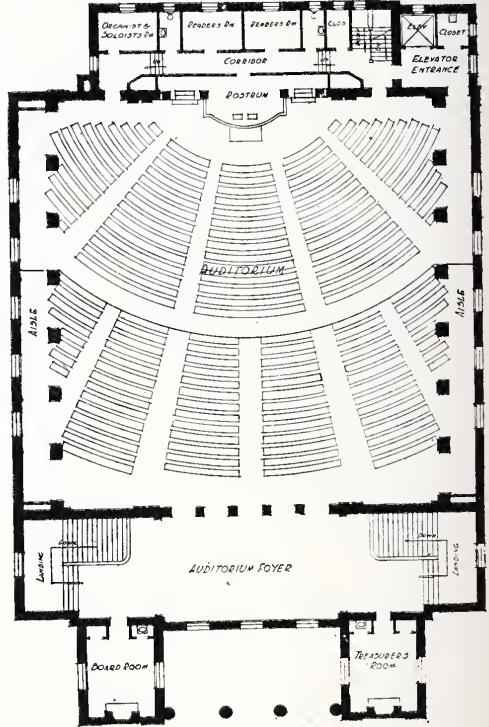
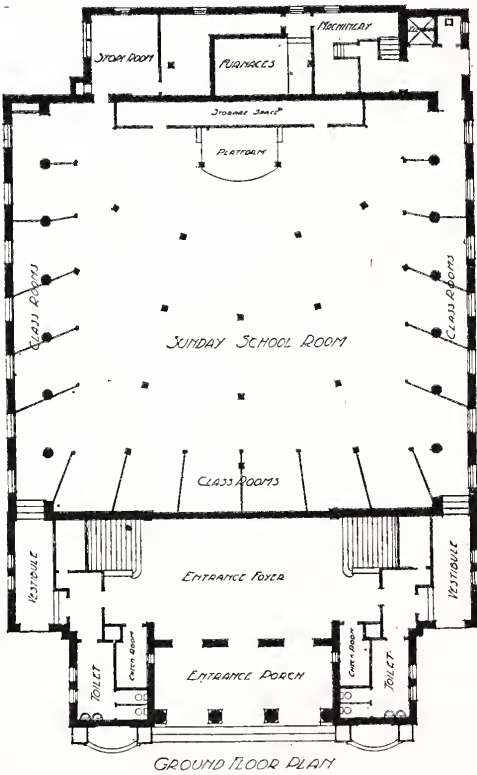
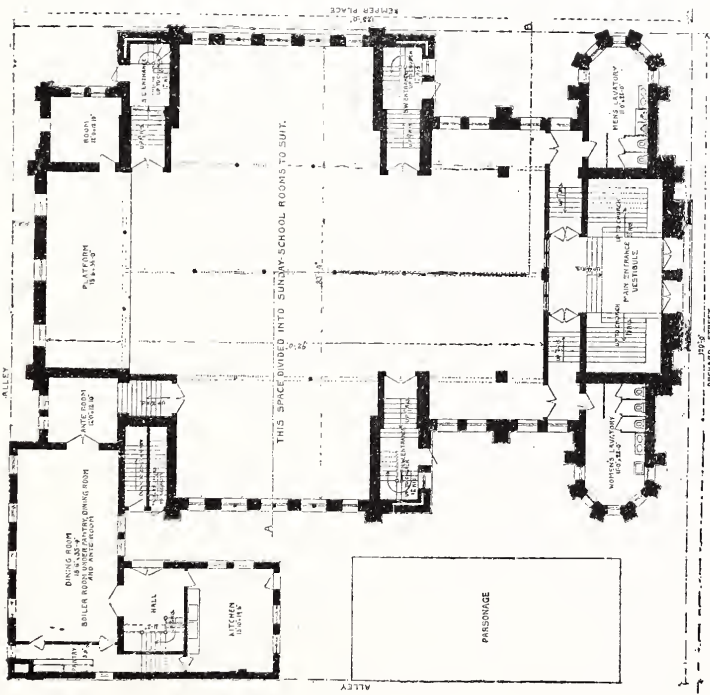


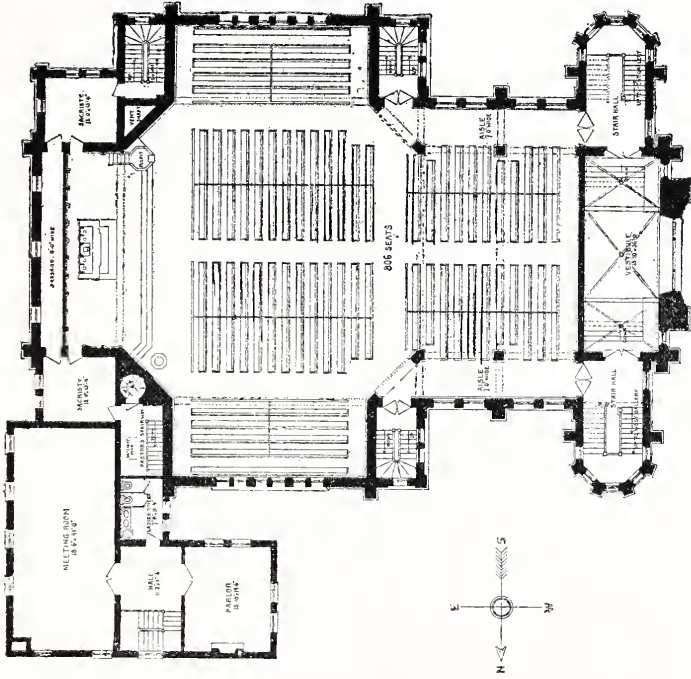
FIG. 1. FIRST CHURCH OF CHRIST SCIENTIST, LONG BEACH, CAL.
Elmer Grey, Architect.

will cause to assert themselves. Should we be able to avoid this exterior difficulty in design we should yet have to reckon with that of interior facility of access to the main auditorium, which would then be placed so high as to require too great stairway approach, with consequent inconvenience to worshippers. This would also entail more expensive construction and make greater demands upon original plan area, in most cases already overtaxed. It would, in addition, necessitate the use

stale would also operate to render unimportant the design of the stairway approach to the church, which likewise would encroach upon valuable land, and therefore the approach is prone to be out of accord with the interior to which it leads. There are numberless examples of this fault, in most cases unavoidable, for reasons already mentioned. The only entirely adequate remedy from the Sunday School point of view would be, of course, to grant this part of the edifice



Plan of Basement.



Plan of Church Floor.

FIG. 2. ST. PAUL'S EVANGELICAL LUTHERAN CHURCH, CHICAGO.
Hill & Wolfersdorf, Architects.

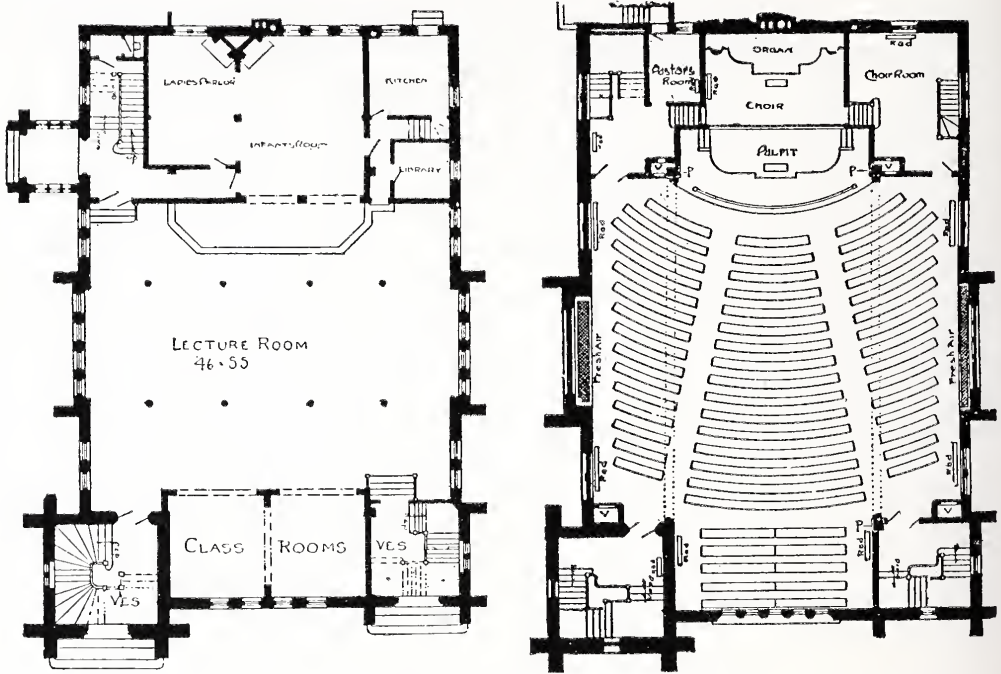


FIG. 3. CHRIST M. E. CHURCH, DENVER, COLO.
Kidder & Humphreys, Architects.

such height as it might require and then to carry the remainder of the building up to whatever height it in turn might require; the congregation must then be reconciled to a constant climbing of stairways, but would have the consolation that the work of the Sunday School, in many respects more important than its own, had been adequately provided for. There is, to be sure, the possibility of dividing exactly or approximately in half the height of the Sunday School space, so that the level of the street becomes also the level of a stair landing from which one travels an equal number of steps up or down to the audience hall or Sunday School room respectively. This expedient has been frequently resorted to, but can rarely be said to be entirely satisfactory. The lighting of the lower story is practically never of the desired intensity, unless a very wide areaway all around is available.

Beyond the purely exceptional case of the church edifice blocked in between city buildings, occupying as much of its

lot as the law will allow, and making no pretense at anything but entrance façade design, only few legitimate opportunities would present themselves of placing the Sunday School level above that of the audience hall. Such arrangement has found use in some city churches, which have been built in isolated cases to three or four stories, with offices, residence quarters and other rooms in the upper floors, not to mention spacious accommodations for a number of outside activities of the congregation, meeting rooms, and the like. In most examples of this kind, however, the church motive as an integral feature in the exterior and usually also in the plan must be sacrificed to the exigencies of collateral service in allied fields and possibly also to the value of land, and it becomes but a subordinate hall with not even the quantum of dignity of its own expression which is granted in university or hospital chapels when these are built into the fabric of group plans.

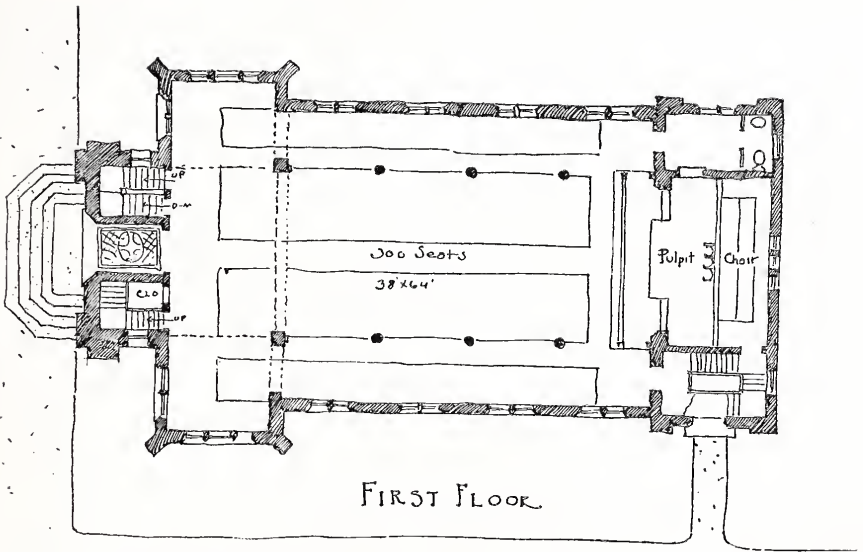


FIG. 4. CHURCH AT KATONAH AVENUE, NEW YORK CITY—MAIN FLOOR PLAN.
Milton See & Son, Architects.

SUNDAY SCHOOL AND AUDIENCE HALLS IN ADJACENT STRUCTURES.

We have, then, only two possible and convenient plan dispositions to accommodate both audience hall and Sunday School room in the same building: that

of placing them in juxtaposition, with or without the possibility of combining them into a single hall at will, as was outlined in the September issue of the Architectural Record, and that of placing one above the other, as has been indicated in

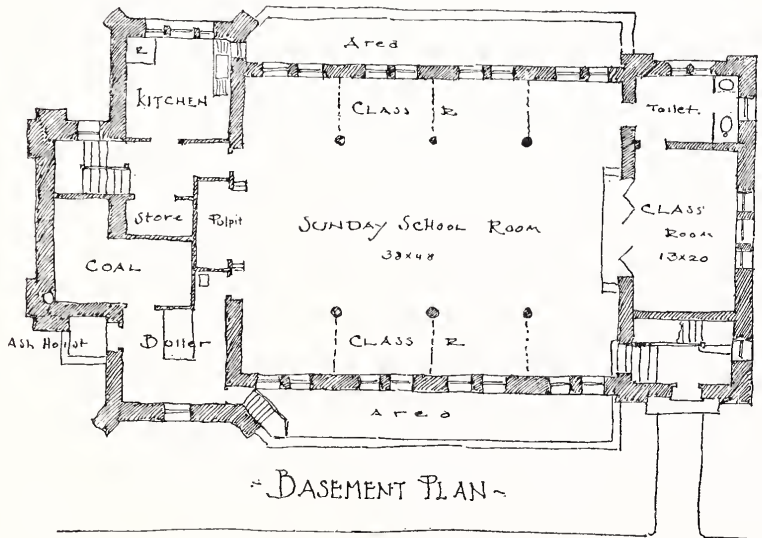


FIG. 4a. CHURCH AT KATONAH AVENUE, NEW YORK CITY—BASEMENT PLAN.
Milton See & Son, Architects.

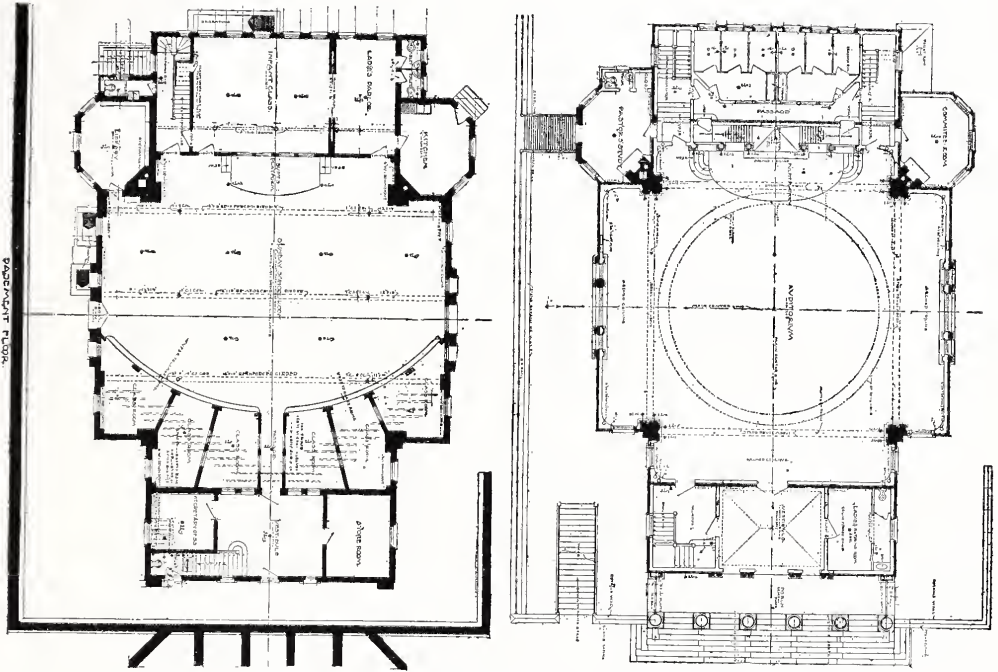


FIG. 7. PONCE DE LEON AVENUE BAPTIST CHURCH, ATLANTA, GA.
Haralson Bleckley, Architect.

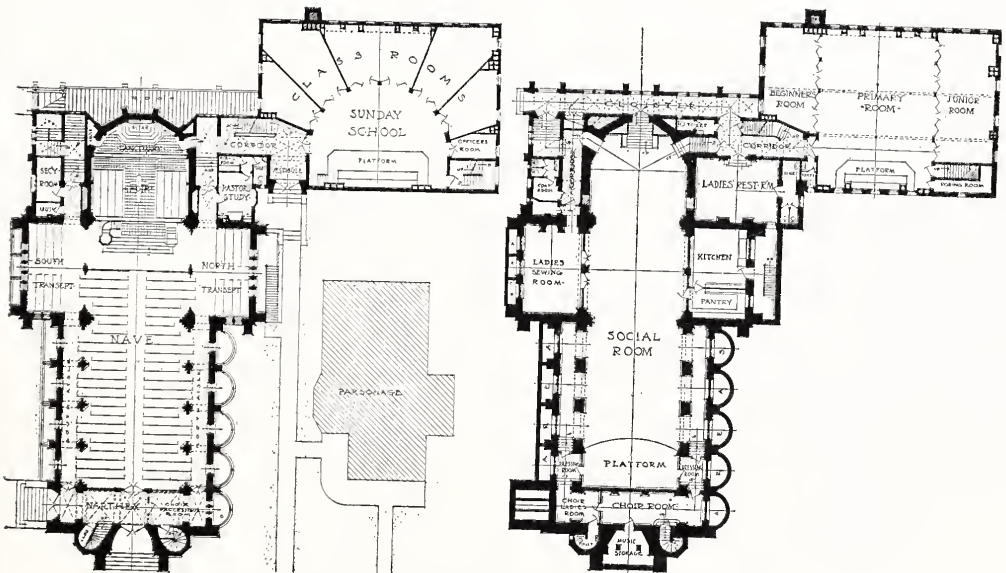


FIG. 8. TRINITY LUTHERAN CHURCH, AKRON, OHIO.
J. W. C. Corbusier, Architect.

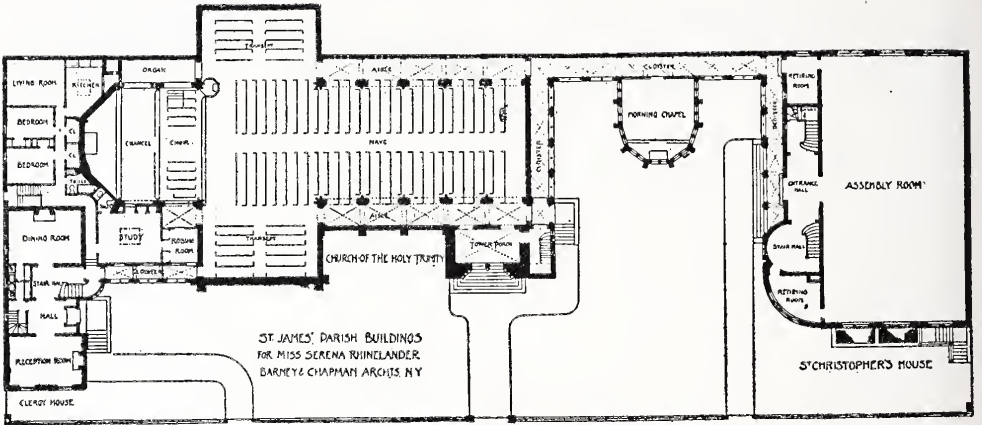


FIG. 9. ST. JAMES PARISH BUILDINGS.
Barney & Chapman, Architects.

also places a severe limit upon the capacity of both buildings, as indicated by the maximum dimensions of a single floor with galleries, for the large area made

possible by the combination plan has in this arrangement been recast into more than the equivalent space, but disposed in a number of floors. The reasonable

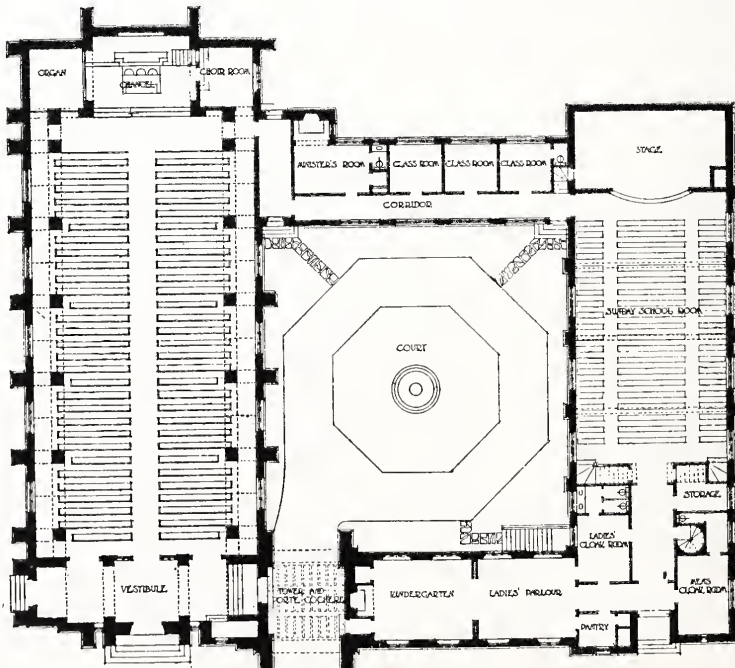


FIG. 10. UNITARIAN CHURCH, WEST NEWTON, MASS.
Cram, Goodhue & Ferguson, Architects.

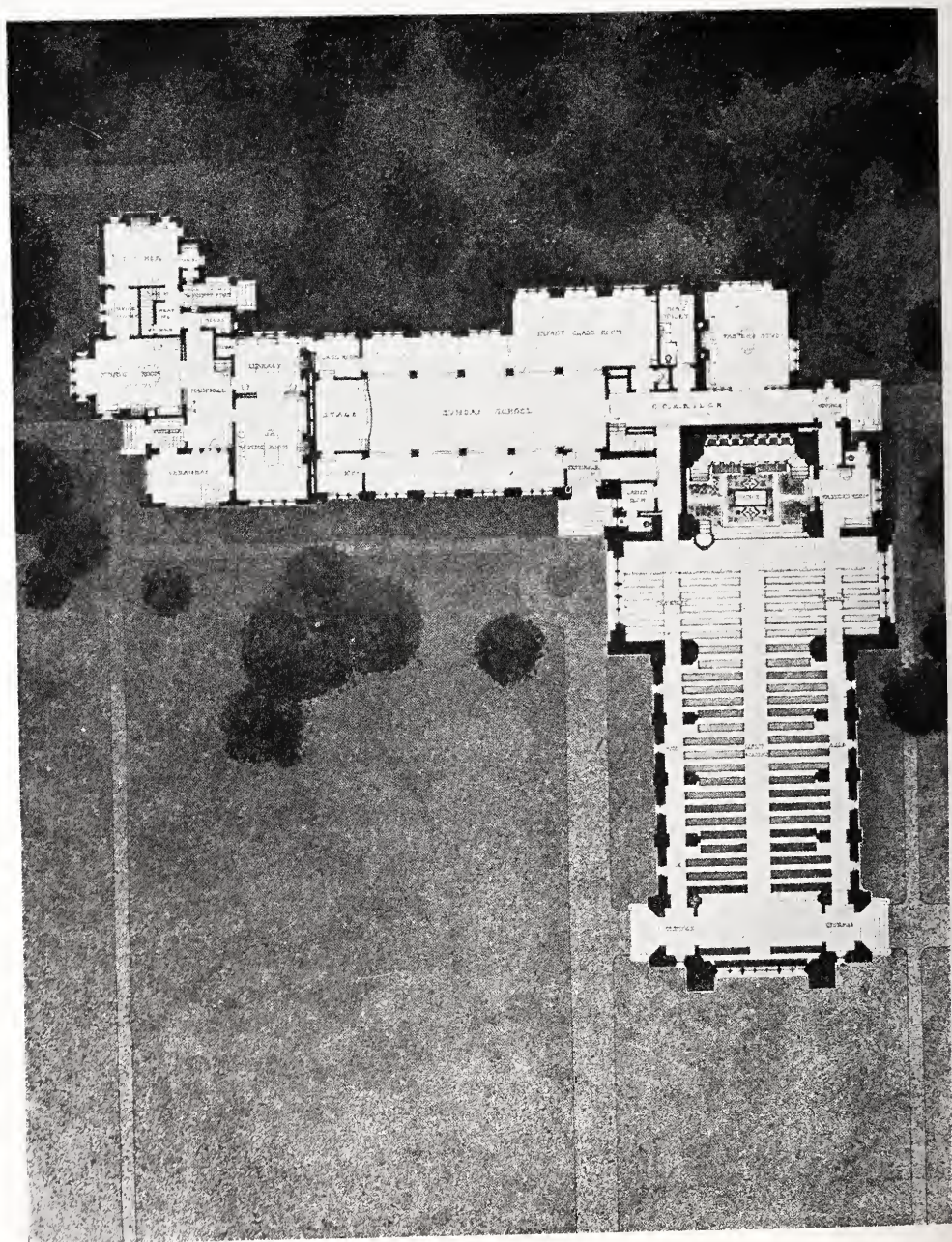


FIG. 13. RUSSELL SAGE MEMORIAL, FAR ROCKAWAY, N. Y. CRAM, GOODHUE & FERGUSON, ARCHITECTS.

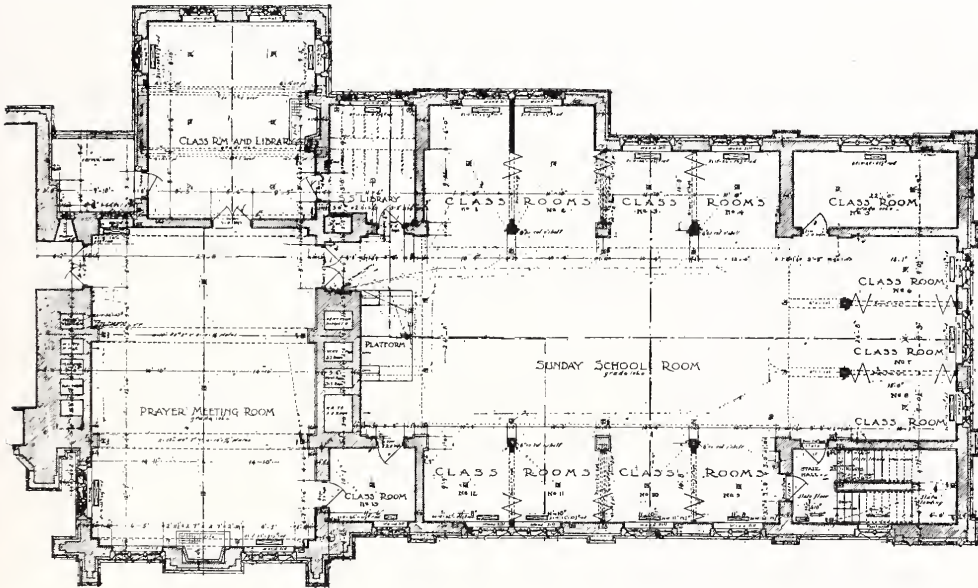
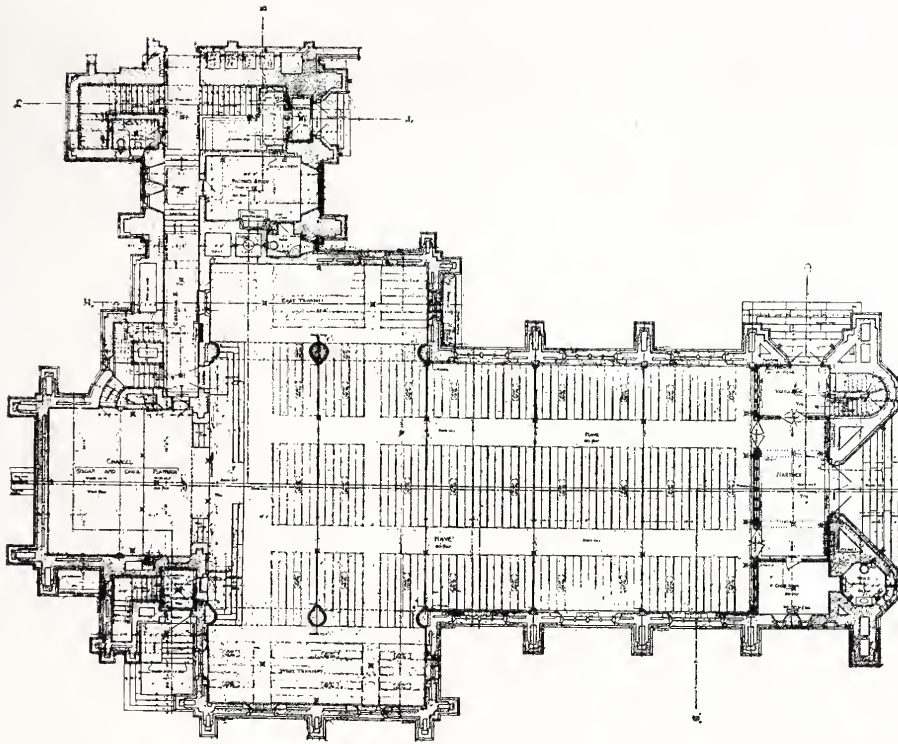


FIG. 14. EUCLID AVENUE PRESBYTERIAN CHURCH, CLEVELAND, OHIO. CRAM, GOODHUE & FERGUSON, ARCHITECTS.

sary height in the Sunday School, for the whole matter of the provision for this requirement in a separate building is still in a state of flux and there has yet been established no precedent to limit its height or area, beyond the actual demands of any individual plan or design with regard to the conditions it is calculated to meet. It becomes a problem similar to that of any school, involving

to-day. This problem of the congregation of complex activity will be separately considered in a later article.

THE SUNDAY SCHOOL ROOM.

It would seem feasible to consider at this point, before continuing to the discussion of the church building and accessories which constitute what may be called the complex plan, the question of the interior disposition of the Sunday

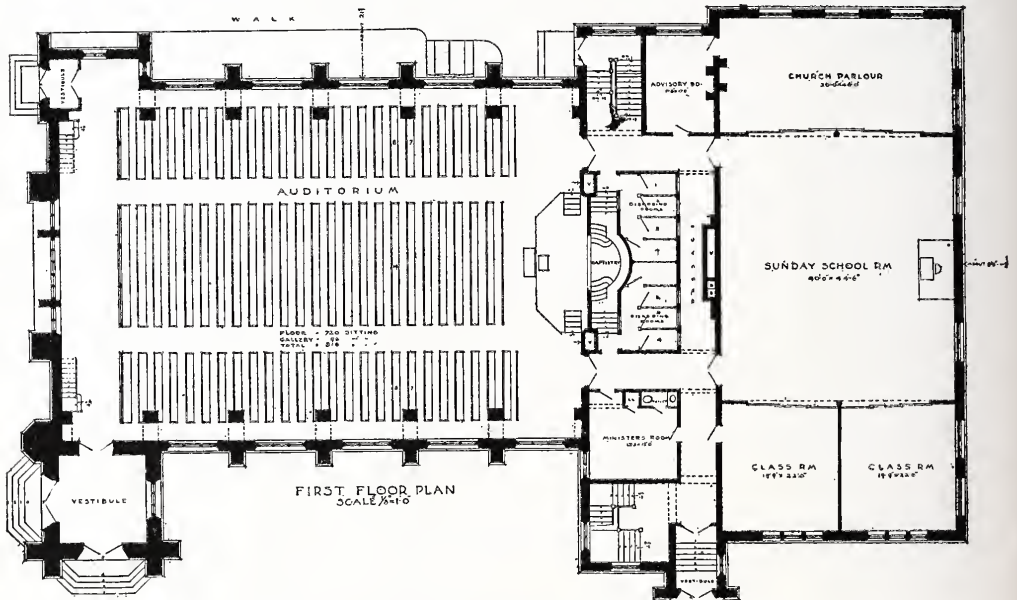


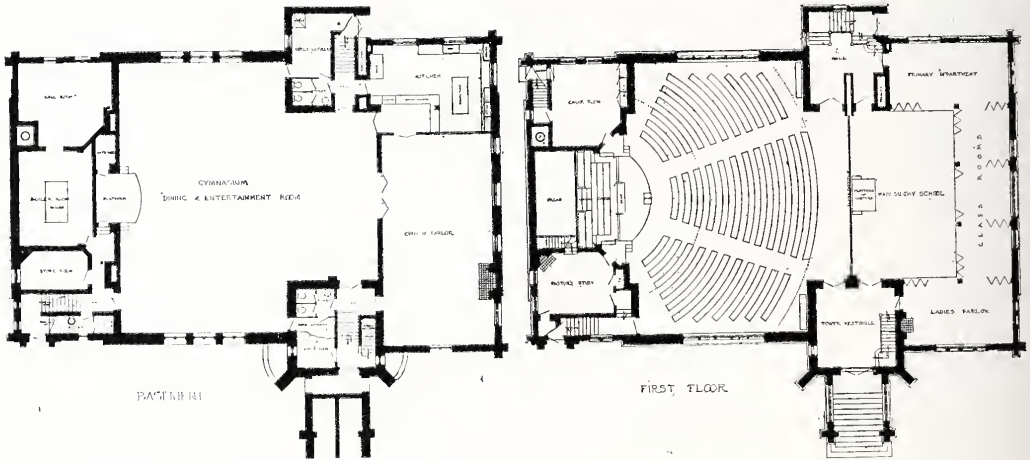
FIG. 15. BAPTIST CHURCH IN BROOKLINE, MASS.
J. A. Schweinfurth, Architect.

more and more the same facilities and safeguards and conveniences which may be expected in a building devoted to regular scholastic purposes. Since the structure may, therefore, be in several stories, the complex activities of the busy modern church may be housed therein and ample provision is thus made for the rapidly increasing field of community service. In this manner we approximate the parish house problem, with which that of the Sunday School is inextricably bound up, and this carries us quite away from the actual church plan itself and involves ultimately a variant of the club house plan, combined with the Sunday School plan, in accord with the broadening civic scope of the church of

School room. In this we are at once confronted with the alternative of disposing its parts so that they may or may not be thrown into a general open space as the exigencies of the service may demand. An old method of arrangement, which has been relegated entirely with the newer and better appreciation of the needs of the Sunday School, is that which brings the pupils together for the opening and concluding parts of the service, or for other purposes as occasions might arise, and then sends each class to a separate classroom, such rooms being separated by permanent walls, for the study of its lesson. (Fig. 11.) This plan is still used upon rare occasions, when particular conditions of a given building or site so

require, or when the rooms thus gained may be of particular use for other purposes. But it is obvious that the best purposes of the Sunday School are not thus met.

rangement, however, where not even a temporary subdivision of the main room is possible, the all too frequent lack of discipline is apt to nullify the whole value of the teaching.



Again, if the Sunday School room is to serve for the many meetings, fairs and other entertainments usually thrust upon it, and if it be regarded primarily from that angle, instead of from that of actual school requirements, it must be built with the minimum number of supports and the seats may not be fixed. To be sure, these conditions are not necessarily incompatible with Sunday School needs, for while the whole school participates during a portion of the service, the teaching is done in classes, and if no other provision is made for the class work, it will be necessary to eliminate all fixed seatings so that a seat grouping system may be used therefor. In such an ar-

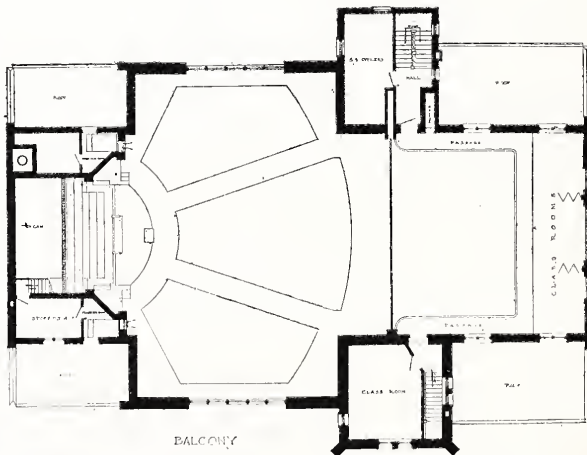


FIG. 18. FIRST PRESBYTERIAN CHURCH, HOWELL, MICH. Sidney R. Badgley, Architect.

It had gradually come to be recognized, therefore, that a scheme which would prove expedient for both joint and individual meetings of classes and involving a minimum of movement and circulation would be necessary. The solution was found in what has been termed the

Akron plan (Figs. 20, 21, 26, 27), developed largely through the efforts of the architects, Walter Blythe, Jacob Snyder, George W. Kramer, and a number of others more recently identified with the problem. This type of plan involves an arrangement of subdivisions, on one floor level or also in a gallery, all arranged radially with reference to the position of the superintendent's platform, and all

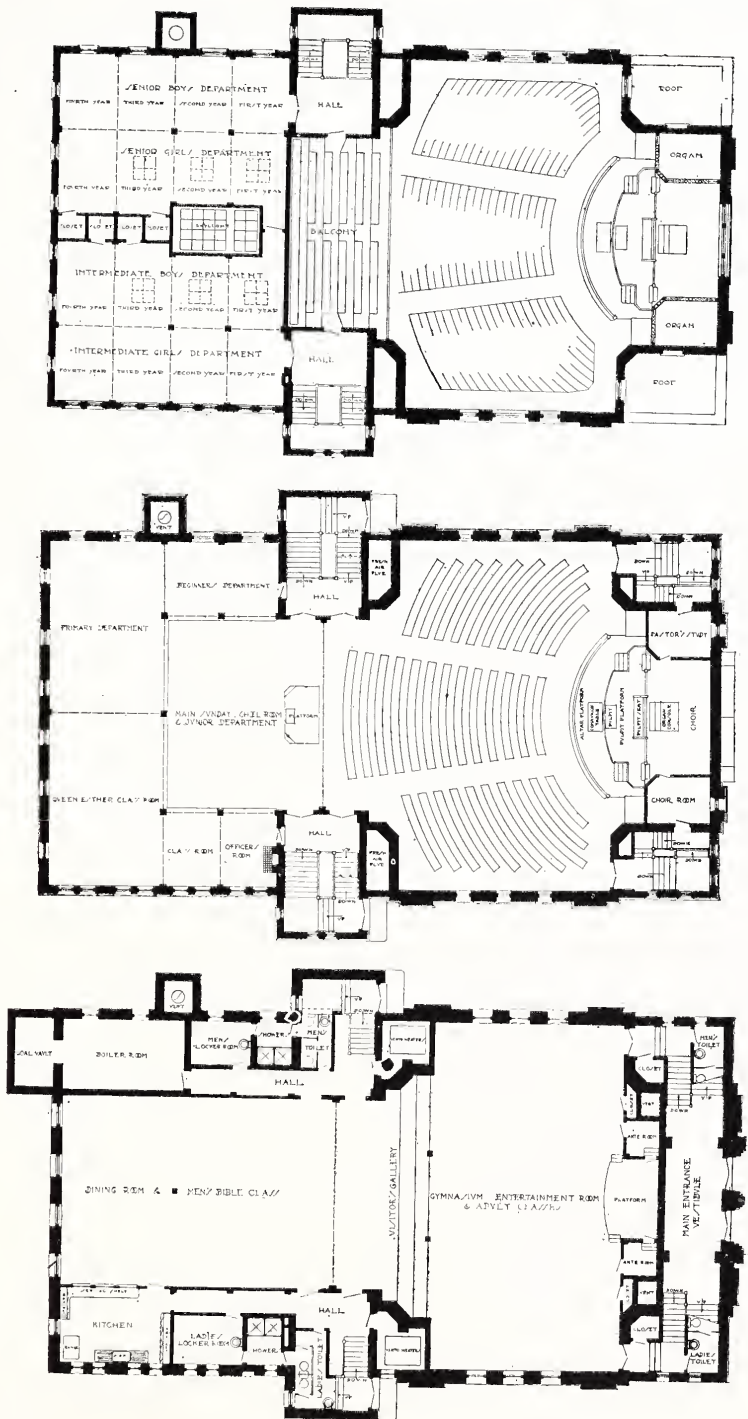


FIG. 19. FIRST METHODIST EPISCOPAL CHURCH, CLINTON, IND.
 Sidney R. Badgley, Architect.

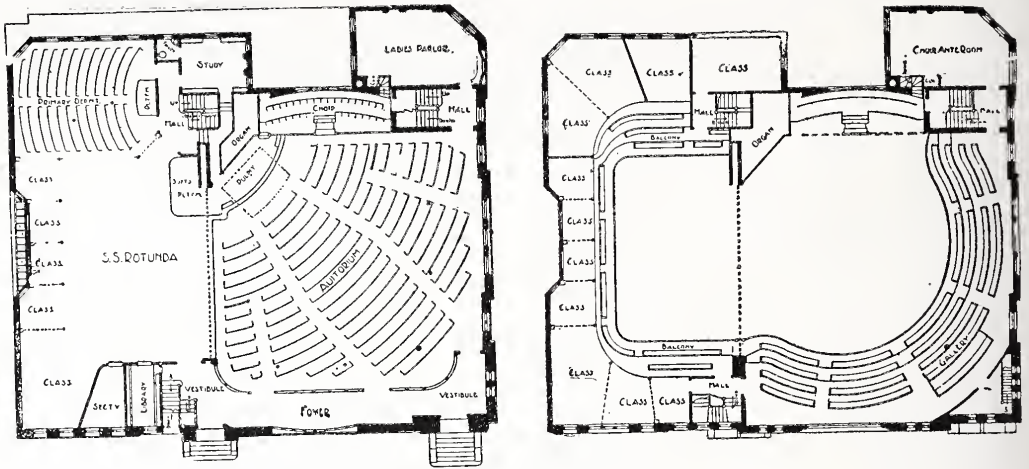
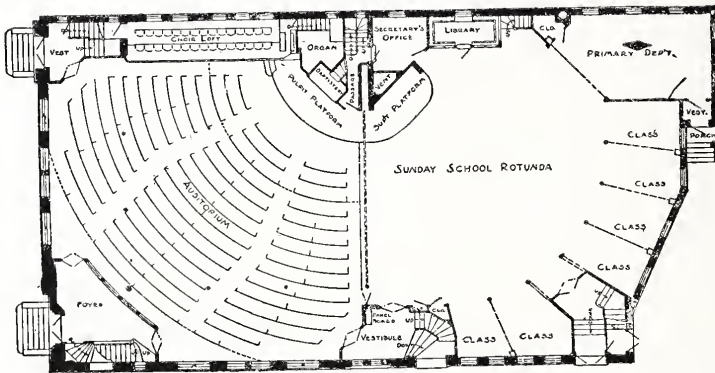
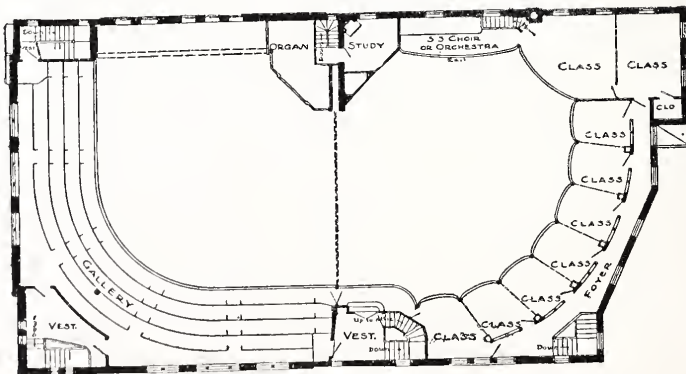


FIG. 20. ARK CONGREGATIONAL CHURCH, NEW YORK CITY.
Kramer & Hamilton, Architects.



Main Floor Plan.



Gallery Level Plan.

FIG. 21. CENTRAL CHRISTIAN CHURCH, HUNTINGTON, IND.
George W. Kramer, Architect.

opening upon a main central space, usually denominated the rotunda. All subdivisions are provided with means of shutting them off from one another and from the rotunda with but the slightest loss of time, and all when opened into the rotunda are within speaking and visual range of the speaker on the platform. In this manner both types of service, collective and individual, are provided for without actual movement of the classes, except on the main floor of the rotunda, if this also is to be used for class work. This expedient was obviously a decided advance over the method of walled classrooms, to which classes were to retire, chiefly because of the practical elimination of moving about of classes.

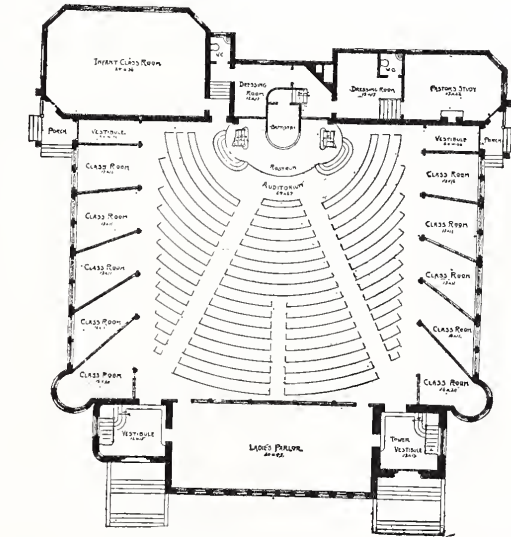


FIG. 22. THIRD BAPTIST CHURCH, OWENSBORO, KY.
R. H. Hunt, Architect.

All commotion in the handling of groups of persons, even of adults, is the equivalent of lost time, which in a service occurring once weekly implies a serious detriment. To be sure, there remains the Utopian ideal of a change of rooms as methodical and closely managed as that of the departmental system in the public schools, with the utmost regularity and precision, but this has not yet been realized in any other type of school, and the young mind promptly sees the difference in the possibilities for disorder in schools, which happen to convene upon Sunday instead of upon weekdays. Ultimately, of course, the new graded system in Sunday Schools will bring a more thorough management throughout into being and this difficulty could be obviated, but in the meantime the solution has followed, however, the channel of the other solution indicated above, namely, that of the Akron plan, which was much in favor and is still in

vogue in all buildings of the combination plan types discussed in an earlier paper. This plan really dates from about 1866 or 1867, and was the original inspiration of a layman, Lewis Miller, who worked it out in the First Methodist Episcopal Church of Akron, Ohio, whence its

name was derived. The Akron plan, together with its variations (Figs. 16, 20, 21, 25), has been the foundation of practically all Sunday School planning, both under good and under unfavorable conditions, for many years, and has had to cede the field only in most recent years to the advance of the graded lesson plan, to be indicated below.

However, the Akron plan has not held undisputed sway, despite its obvious utility. Instead of its semi-circular or semi-elliptical plan, some have favored a rectangular scheme of classrooms. (Figs. 12, 13, 14, 15, 18, 19, 23.) In almost all examples of this type the need for all available floor space seems not to have been so urgent, and classes were required to move from rotunda to class room and back again respectively at the beginning and ending of the lessons. In such arrangements, on the other hand, the same types of collapsible partitions are favored, because of the opportunity of throwing all parts of a single floor level into one large room for general purposes.

In order to facilitate the subdivision of available space into class rooms, a number of varieties of collapsible partitions have been devised, which may fold or roll or coil or slide into sockets built for them. Their movement may be vertical or horizontal, and they may be built to collapse or telescope or roll together in sections or to rise or slide as units. The mechanical operation of these par-

titions has been made entirely "fool proof," and latterly a system of control levers or buttons has been devised by means of which all class room subdivisions, and, if required, also the partition between church and Sunday School room in the combination plan type, may be opened or closed from the central platform in a few seconds without movement on the part of members of the school or congregation.

In similar manner it has been found feasible and useful to have the Sunday School room provided—where the general plan permits—with a separate keyboard connecting with the organ of the church auditorium, so that when both rooms are not simultaneously in use the organ may be operated from either side at will.

The platform itself in the case of the combination plan type may be of movable or collapsible construction, but if permanent or if situated in a building in which auditorium and Sunday School room are separated by a permanent wall, the platform may be amplified in proportions so as to respond more readily to the various requirements which the Sunday School space must meet under average conditions. If the denomination places no restrictions upon theatrical performances, provision for these can easily be made and dressing rooms provided at

the sides of the platform, which may then be called the stage. The latter would probably also be large enough, or could readily be made of sufficient size, to accommodate a chorus or orchestra for choral concerts.

Sufficient toilet space in accordance with these additional provisions, coat rooms, property storage space, archives for music and instruments and school text books, possibly also retiring rooms for superintendents and teachers would then complete the equipment of the Sunday School room, most of these considerations being dependent upon the size and activity of the school body and other societies within the congregation.

The question of the subdivision of the main floor space or rotunda during the lesson period cannot, however, even in the Akron plan, be adequately met. At best the subdivisions, if this floor space is to be used for lesson purposes, must be

of a portable and therefore very slight type. Usually an arrangement of poles and curtains is resorted to, but this is highly unsatisfactory, because it is not sound proof. In fact, the solution usually results in placing the oldest children or even adults in this space to reduce the amount of unconscious movement.

The question of lighting deserves special notice likewise. In the Akron plan the issue is directly met and exterior light

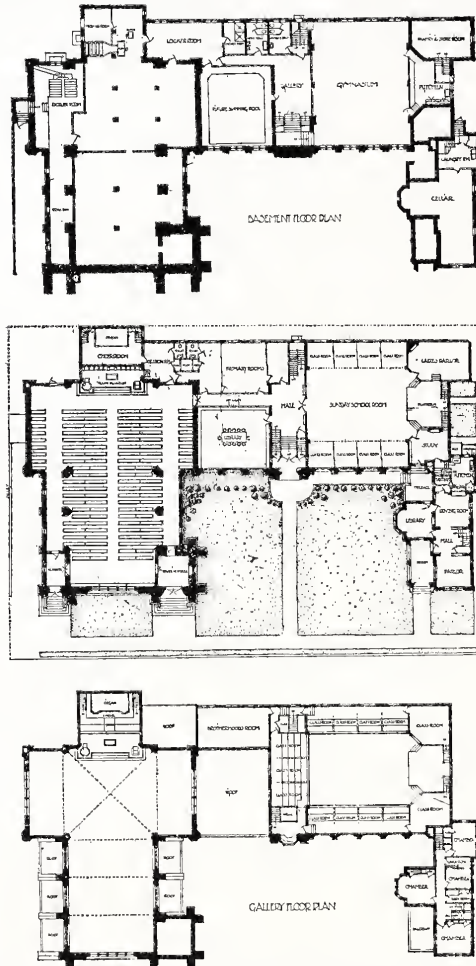


FIG. 23. RICHARDSON MEMORIAL PRESBYTERIAN CHURCH, PHILADELPHIA, PA. Chas. W. Bolton & Son, Architects.

is provided for all of the alcove subdivisions, although always with the restriction that all but the corner alcoves must be content with light from only one side, while the central floor space or rotunda receives diminished light from the same source and additional direct light from skylights.

In this plan type, also, there is the

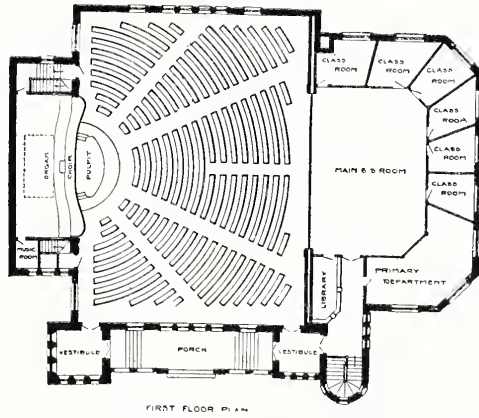
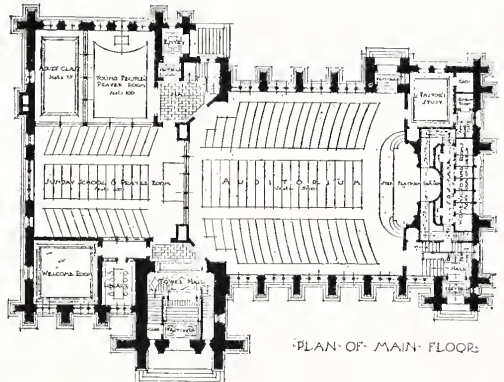
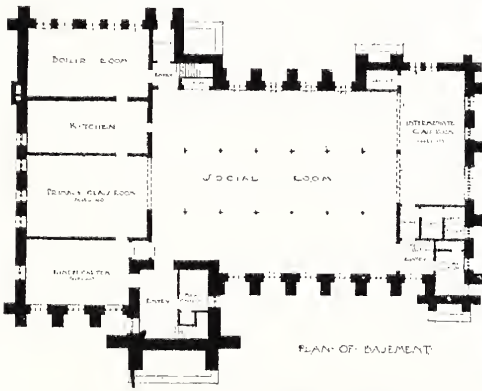


FIG. 24. FIRST PRESBYTERIAN CHURCH, GOVERN-NEUR, N. Y.
S. R. Badgley, Architect.

or three steps of this gallery are often left unencumbered in front of the alcoves (Fig. 25). A variation of this gallery plan provides for class rooms behind the gallery, to which classes withdraw for lessons. In this scheme the gallery is not used for lesson purposes (Fig. 17).

It should be understood, of course, that in all plans



advantage of the duplicate semi-circle of class rooms for which space is available in the gallery (Figs. 16, 20, 21, 23, 25, 26, 27). In the usual Akron plan there are class rooms in the gallery itself, and, when the partitions are in place each room becomes a small stepped theatre in a r r a n g e m e n t.

When the partitions are raised or otherwise withdrawn, the whole is thrown into a single gallery with continuous seating levels. For circulation convenience two

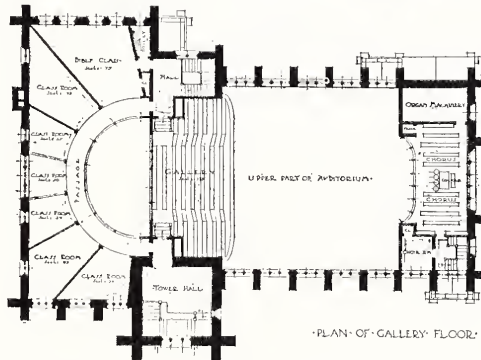


FIG. 25. FIRST BAPTIST CHURCH, MELROSE, MASS.
COMPETITIVE DESIGN.
C. H. Blackall, Architect.

others again in which only the corner rooms are thus permanently set apart and the others may be thrown together as indicated above. In the same manner considered to be of the Akron type, no single system of arrangement, beyond that of the fundamental idea of radiating class rooms has been followed. There are numerous examples showing derivative dispositions, in which, for instance, the subdividing walls of the class rooms are in form of fixed glazed partitions,

others again in which only the corner rooms are thus permanently set apart and the others may be thrown together as indicated above. In the same manner

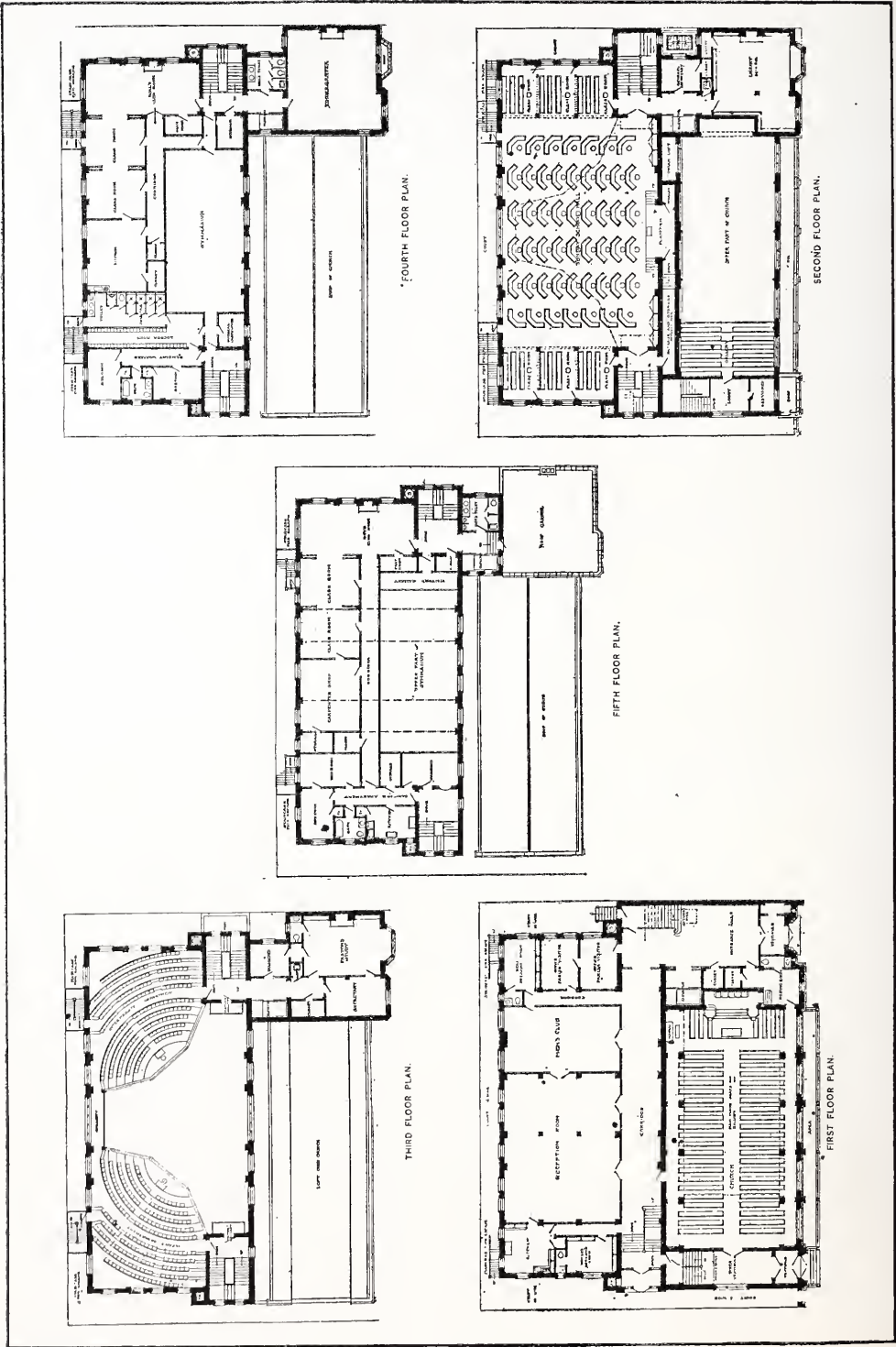
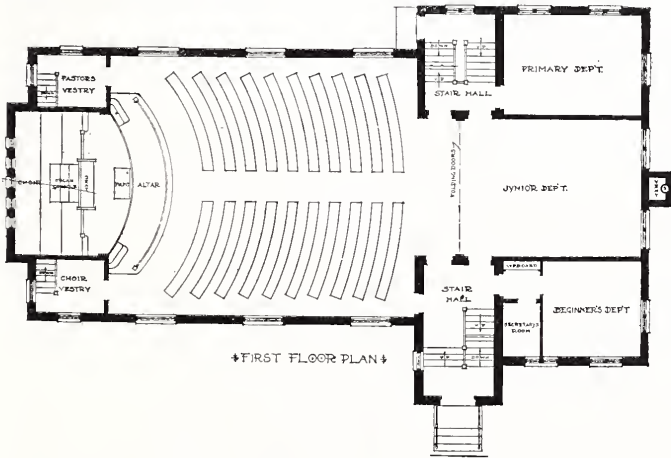
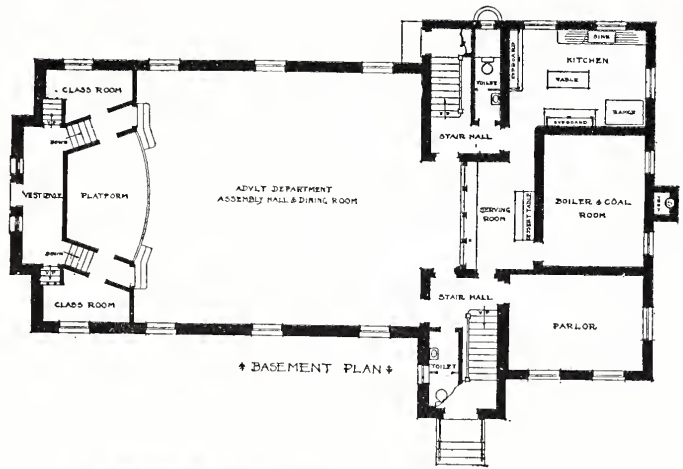


FIG. 26. CHRIST CHURCH AND BABCOCK MEMORIAL HOUSE, NEW YORK CITY. Parish & Schroeder, Architects.

this or that department or subordinate part of the general school may be placed separately in a particular part of the edifice and cut off from the services at large.

And finally there is the combination of the auditorium with the Akron plan type of Sunday School, so that the audience hall galleries may be subdivided for school purposes, the space beneath the galleries, likewise, while the main seating space of the congregation



plies the separate building for the Sunday School, planned in accordance with its own needs, and combined or not as may seem expedient or necessary in individual cases with other secular activities of the church. The separate building is made necessary, furthermore, by the rapid growth of the grade system of Sunday School teaching. Thus we find that the greater detailed character of the lessons has necessitated bet-

may or may not be used as the size of the school may demand. (Fig. 22.)

These various expedients, however, all point toward the single solution which must be considered final if the best service of the Sunday School is regarded as the first requirement of the Sunday School building. (Figs. 23, 28, 29.) This solution im-

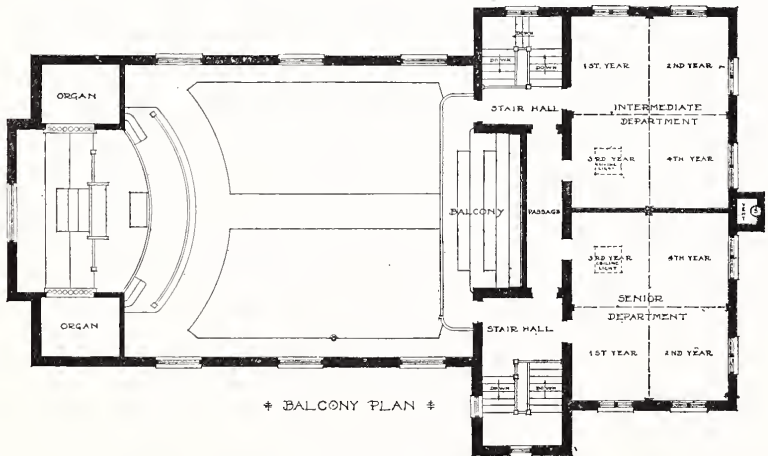


FIG. 27. SUGGESTED SUNDAY SCHOOL BUILDING.
S. R. Badgley, Architect.

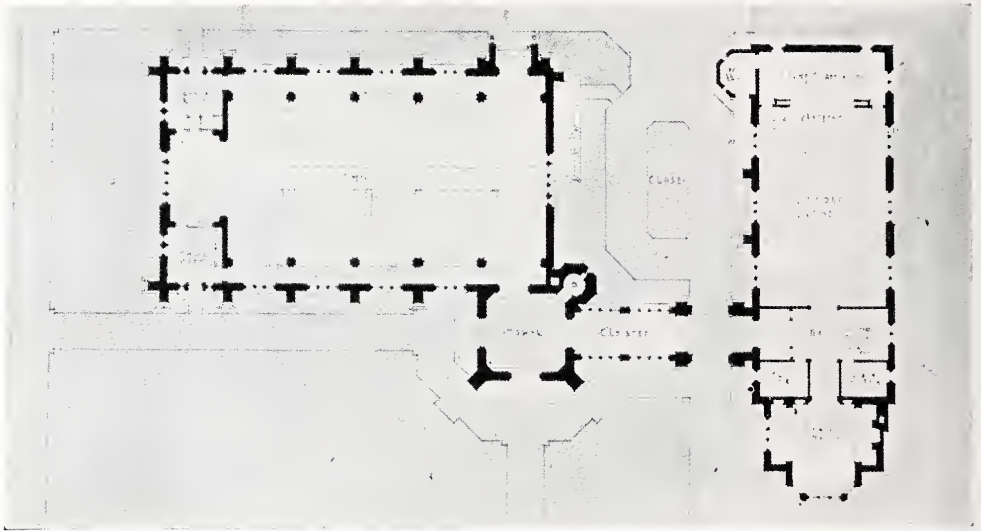


FIG. 28. SECOND CONGREGATIONAL CHURCH, LYNN, MASS.
Nelson & Van Wagenen and George H. Breed, Associate Architects.

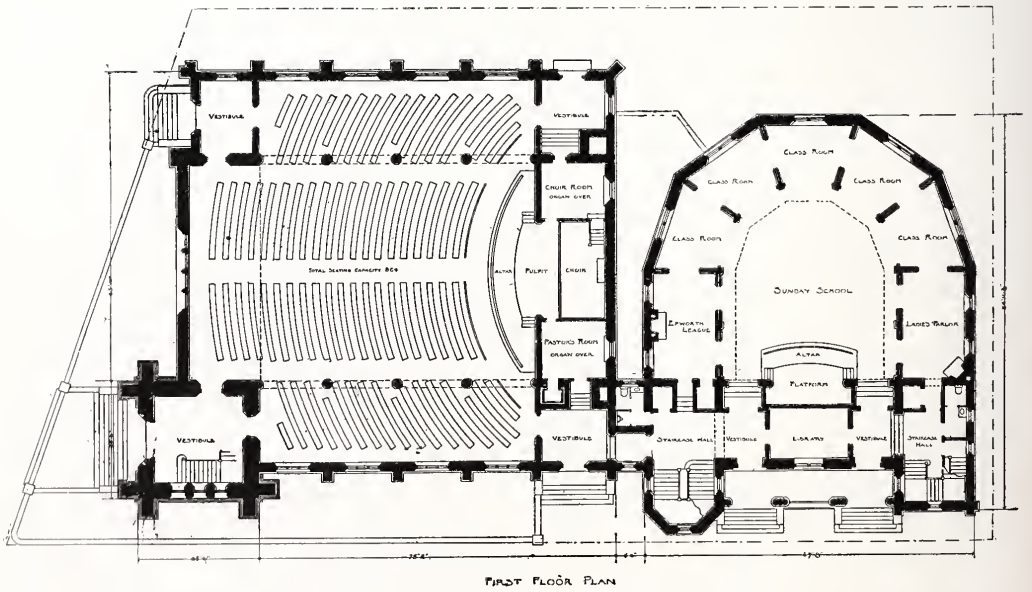


FIG. 29. FIRST M. E. CHURCH, GERMANTOWN, PA.
Rankin & Kellogg, Architects.

ter facilities for isolating classes, and this is further abetted by the number of grades in which the material brought to the knowledge of pupils is arranged according to difficulty, character and meaning, in other words pedagogically,—as the word school would connote. The conception of doling out to children the truths which adults themselves in many cases must have explained to them, the idea of simply a younger congregation, has lost favor entirely and the proper management of the Sunday School primarily as a school has led to a number of interior plan changes which more adequately respond to scholastic requirements.

As a school building, the Sunday School then becomes subject to certain further requirements in regard to safety, sanitation, lighting, construction, and other considerations distinctly characteristic of a teaching institution. (Figs. 26, 27.) The class rooms are no longer subdivisions of a larger room, but sound proof compartments. The teachers are themselves taught to teach and the pedagogics or methods of teaching have been found indispensable. It is notable that this development is not of long standing and that only in fairly recent years has the teaching basis or school basis been considered at all necessary in the Sunday School. If it is borne in mind that the

Sunday School in its graded system must provide for fourteen or even more grades of instruction gauged and grouped in a series of departments according to age for children, adolescents and adults, it will be seen that the whole question has come to be regarded as a serious business and that its problems seem in a fair way to be given the necessary attention, and various schemes of planning have been devised in which the classes are grouped in departments in the plan, but without loss of the opportunity of throwing all departments together. Nor does the problem end there, for parallel with the growth of the graded system is also to be witnessed the growing complexity of the civic or community activity of the church, so that it has begun to minister to human needs in a multitude of directions, all to be accommodated within its own or accessory buildings. This brings us to the complex plan type, which deserves separate study in a subsequent paper.

Note:—Due to typographical errors caused by alterations in sizes of illustrations just before going to press, certain plans in the August issue were incorrectly attributed. Readers are requested to note the following errata: The captions of figures 10 and 11, and of figures 14 and 15 should be interchanged.

(To be continued.)





HOUSE OF S. S. HINDS, ESQ., PASADENA,
CAL. MARSTON & VAN PELT, ARCHITECTS.

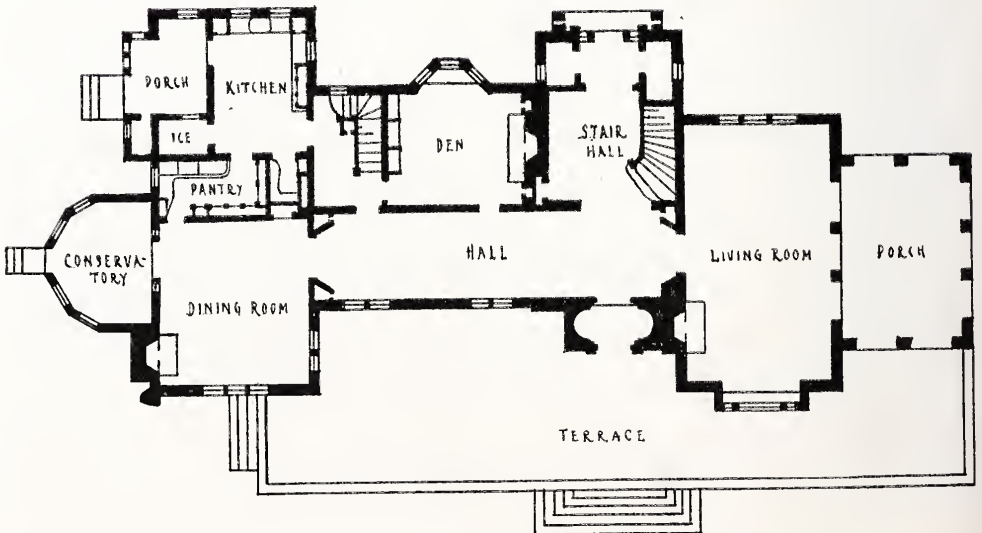
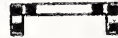
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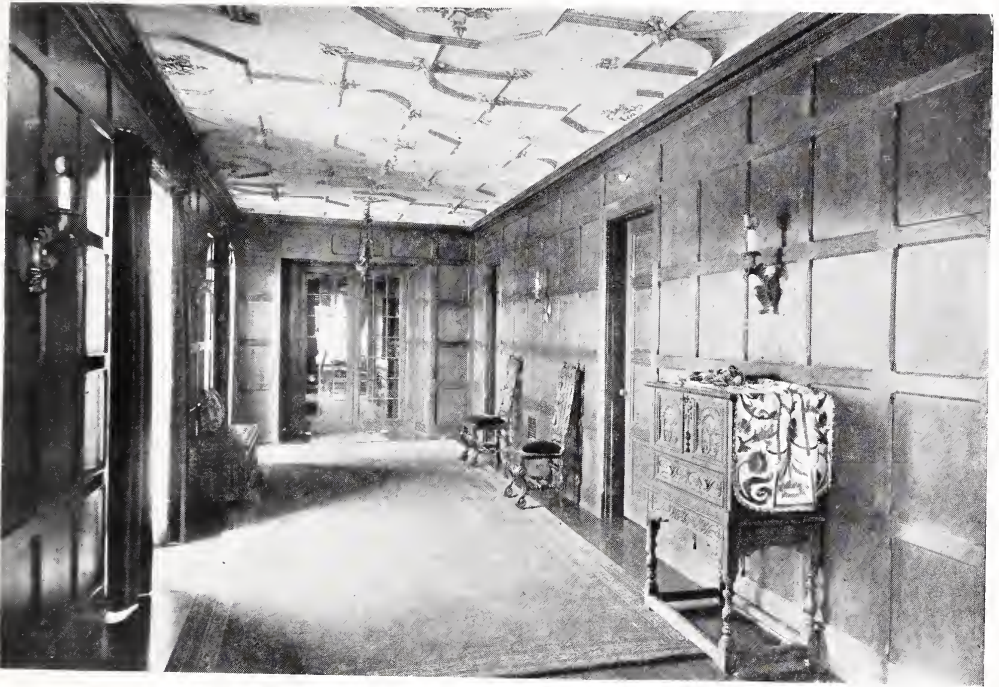
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LIVING ROOM—HOUSE OF S. S. HINDS, ESQ., PASADENA, CAL.
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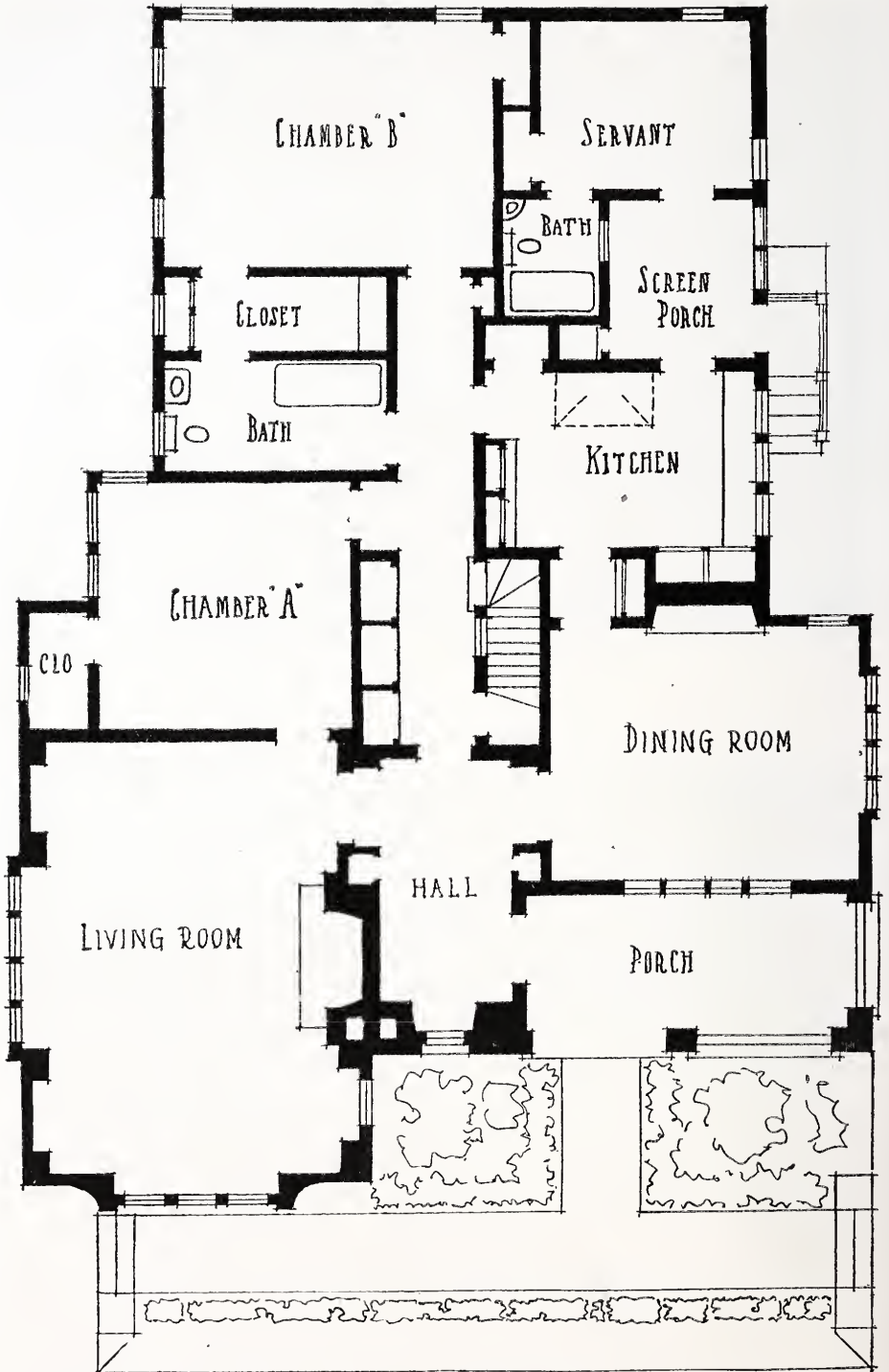
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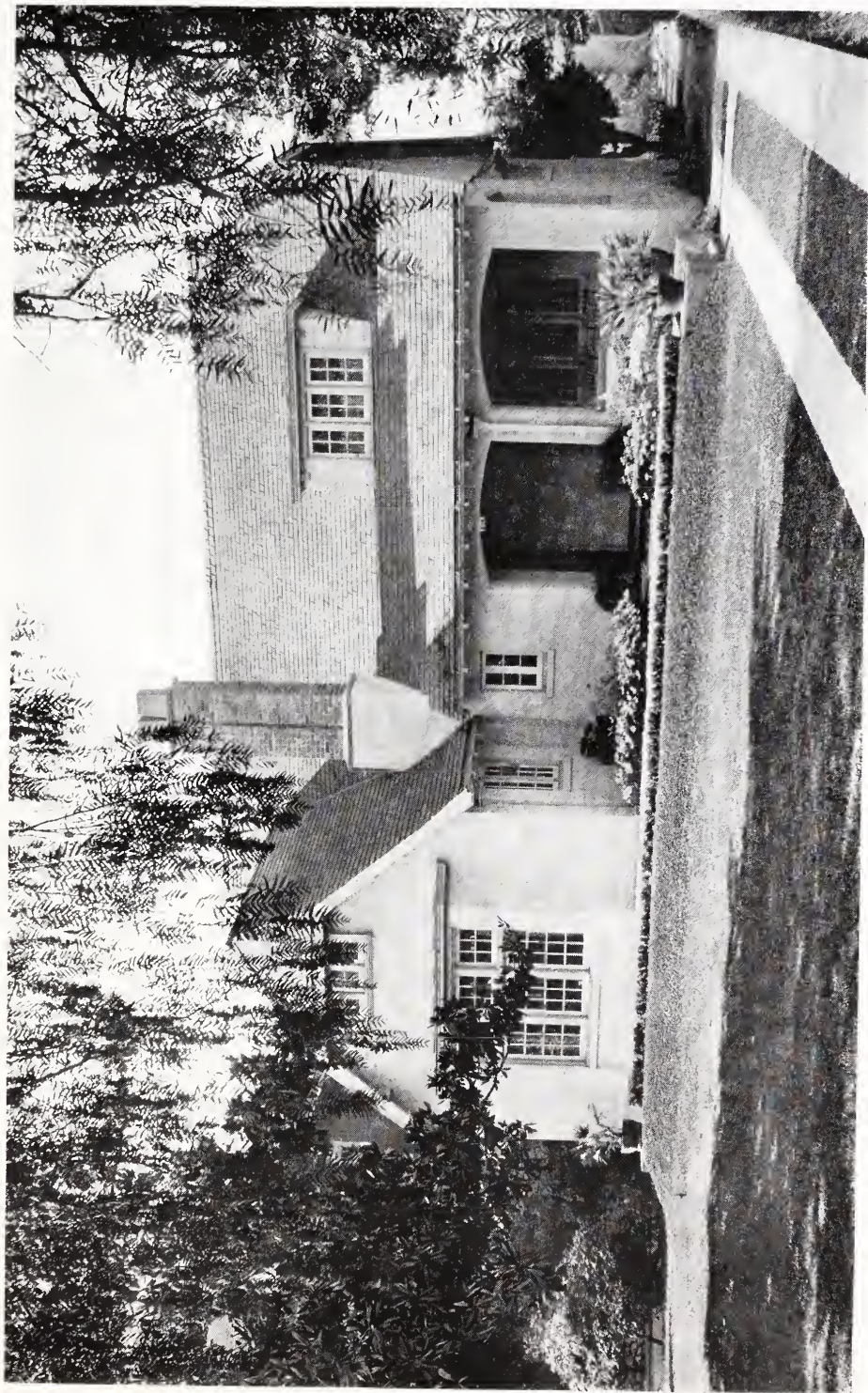
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HOUSE OF PROF. H. F. WHITE, JR., PASADENA,
CAL. MARSTON & VAN FELT, ARCHITECTS.



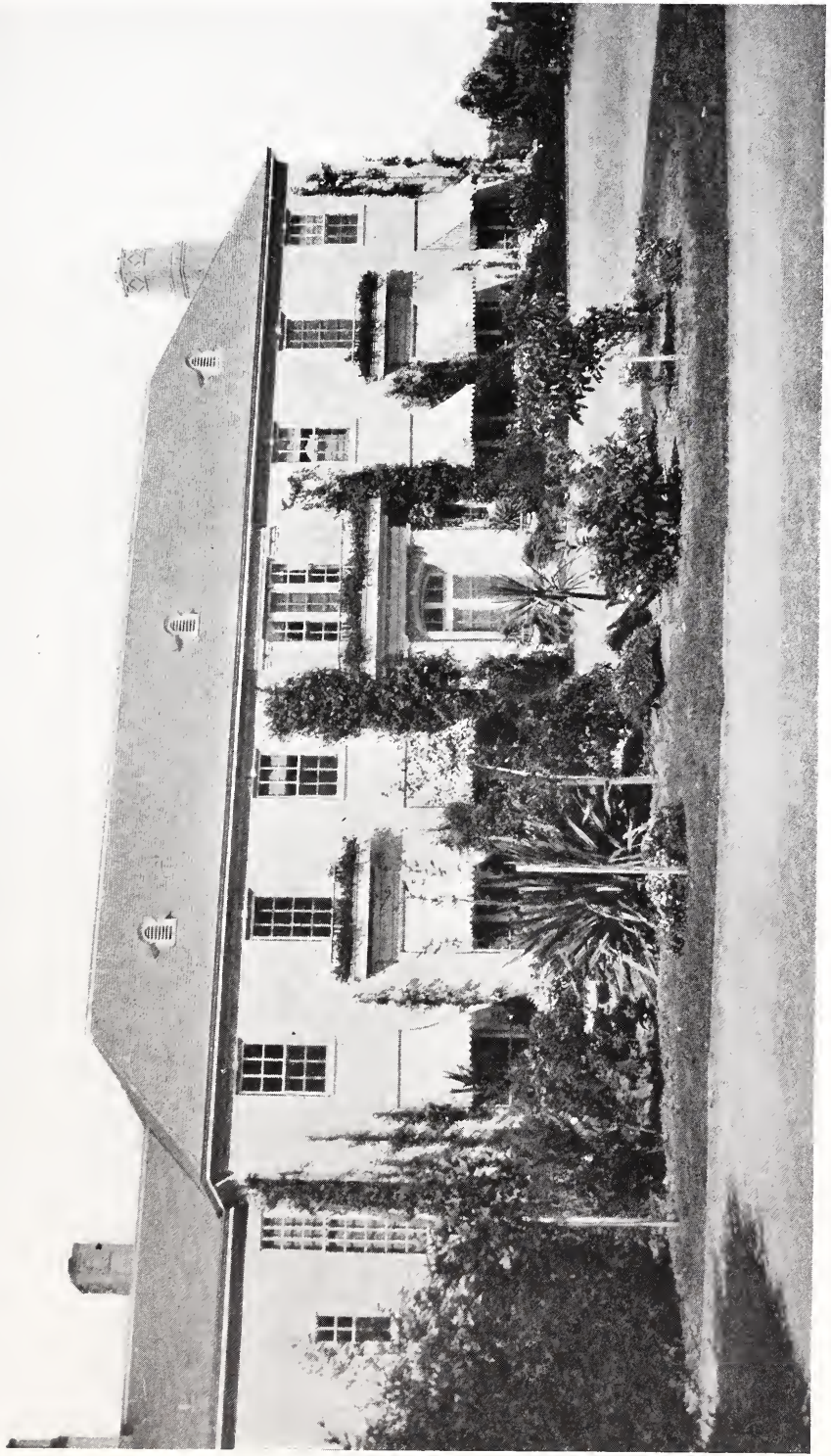
LIVING ROOM—HOUSE OF PROF. H. F. WHITE, JR., PASADENA, CAL. MARSTON & VAN PELT, ARCHITECTS.



HOUSE AT SAN DIEGO, CAL. WILLIAM
TEMPLETON JOHNSON, ARCHITECT.



ENTRANCE DETAIL.—HOUSE OF THOMAS DRIS-
COLL, ESQ. LEWIS P. HOBART, ARCHITECT.



HOUSE OF THOMAS DRISCOLL, ESQ.
LEWIS P. HOBART, ARCHITECT.



HOUSE OF DR. GATES.
Maybeck & White, Architects.



HOUSE OF DR. TUFTS.
Maybeck & White, Architects.



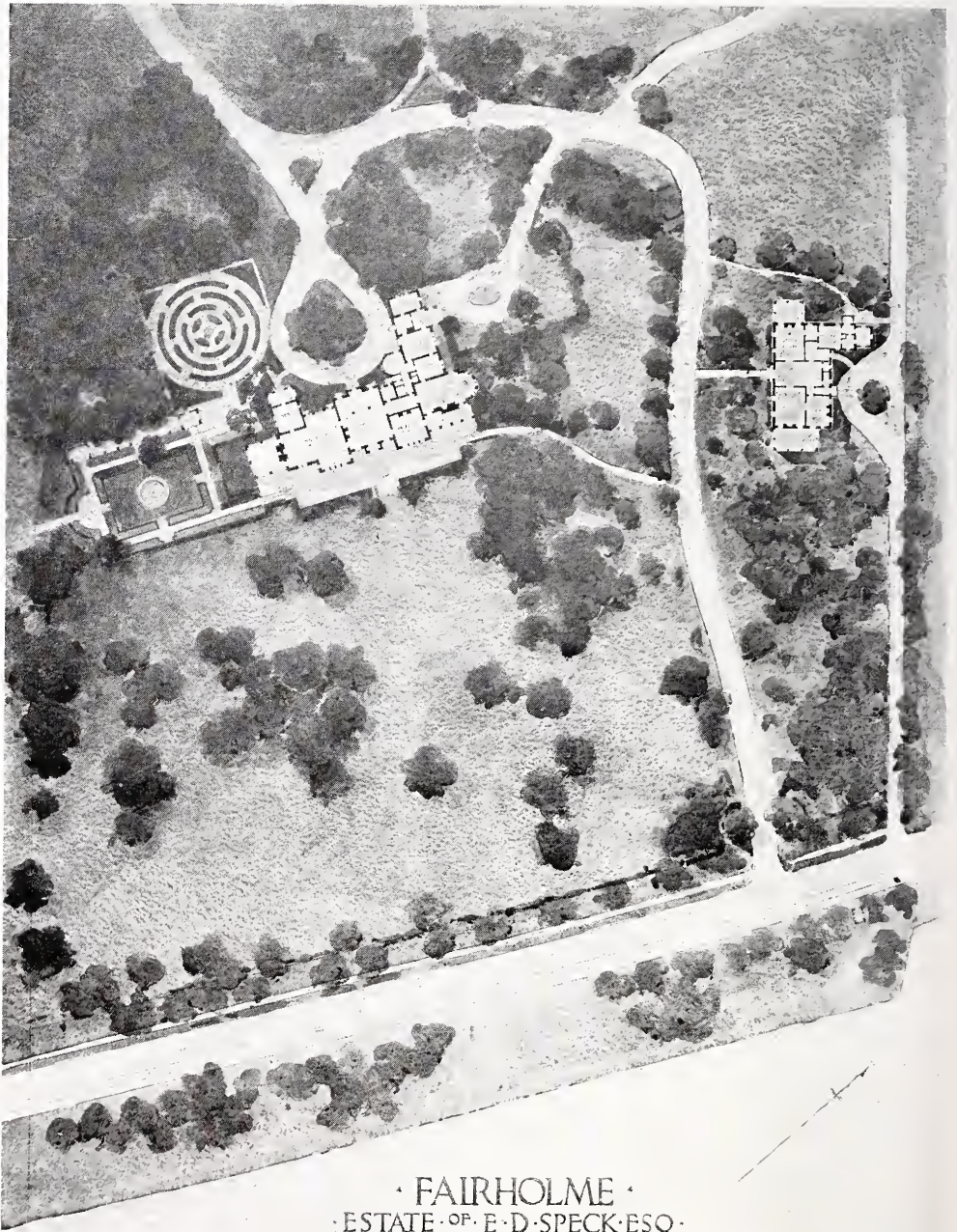
A CORNER OF THE GROUNDS AT THE HOME OF
PROF. SENGER, SHOWING TREATMENT FOR SCREEN-
ING THE BARN. MAYBECK & WHITE, ARCHITECTS.



HOUSE OF E. D. SPECK, ESQ., GROSSE POINTE,
MICH. ALBERT H. SPAHR, ARCHITECT.



REAR VIEW—HOUSE OF E. D. SPECK, ESQ., GROSSE
POINTE, MICH. ALBERT H. SPAHR, ARCHITECT.



· FAIRHOLME ·
· ESTATE OF E. D. SPECK, ESQ. ·
· GROSSE POINTE, MICHIGAN ·
· ALBERT H. SPAHR, ARCHITECT ·

BLOCK PLAN—ESTATE OF E. D. SPECK, ESQ., GROSSE
POINTE, MICH. ALBERT H. SPAHR, ARCHITECT.

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BOOKS ON COLONIAL ARCHITECTURE

By RICHARD FRANZ BACH

Curator, School of Architecture, Columbia University

Part III.—Dwellings (Continued)

I N the Southern colonies we must expect in the formative years of our architectural history an atmosphere distinctly different from that found in either the New England district or the region of the Middle Colonies. We have to consider here a decidedly English stock, with a minimum admixture of other blood, brought about either by reason of a grouping together of different nationalities for economic advantages within defined charter limits of a single colony, or grant, or by reason of historic Continental influences at work on the eastern shore of England long before Puritanism or even Catholicism had become a fact in the British Isles. Unlike New England, these settlements drew their people and support from what might be termed the upper strata of English life, from the class accustomed to the control of landed estates, the country gentlemen. To be sure, the Southern district is not to be regarded as an exclusive settlement by the aristocracy, but it was largely populated by persons of wealth, and developed into a plantation region, each plantation centering about a manor house, frequently under the control of a younger son or

other disgruntled member of the nobility from the home country. The Puritan was not by any means so strong here as farther north, and not a few of the Southern colonists were of Catholic persuasion, as a review of early colonial history will promptly indicate. Then there was also the class of servants, notably indentured servants and others, whom fate obliged to purchase or work out their freedom, and who ultimately became in many cases landholders in a small way, building homesteads or small manor houses as characteristic as those whose grandeur has been heralded through a score of decades.

The domestic architecture of these colonists, then, was decidedly that of the gentry to the manor born, as close a reflection of the type of life from which they were descended as alien conditions, difficult materials and constant danger and hardship could be made to concede. The old wooden house, which must have been the first Southern manifestation in the architectural field, has left no representatives of its character—with the reservation, of course, that its character must be assumed from that to be discerned in

later brick and stone buildings. The latter, unfortunately, have also been superseded in numerous cases here as in other districts by the more gorgeous and decidedly less representative Georgian type, but are still readily to be studied from extant examples. It is a matter for congratulation that such a number of the early buildings has actually come down to us. No doubt their original materials, being of more permanent character, are largely responsible for this heritage. The type of these buildings is easily recognizable; its charm is unavoidable. Its history runs a separate course, occasionally to be seen making contact with the forms of the Middle Colonies and in rare instances offering some indication of a migratory influence from farther north.

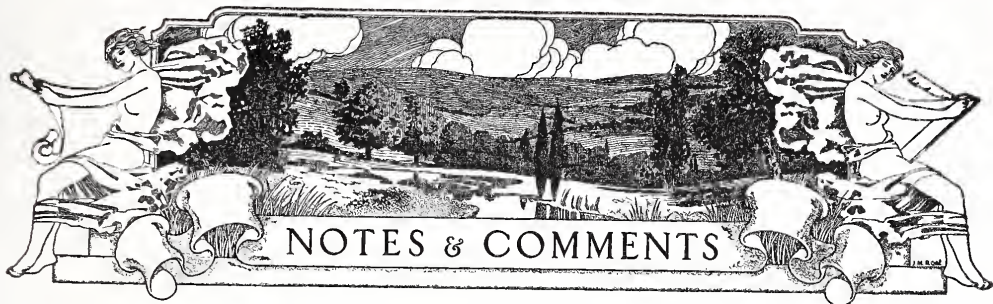
The quality of the gentry found better scope and representation in the later Georgian phase of our formative architecture, which very obviously bore the earmarks of their station in life and original mode of living before the journey across the Atlantic had been undertaken. We must allow for wealth, partly their own and partly the direct gift of a generous environment, and also for the intelligence which is the concomitant of culture. Their buildings were centers of hospitality and reflected this quality in their spacious interiors and in their greater decorative treatment, not infrequently giving ample indication of an idle class in the population that well knew the comfortable existence that might be drawn from an easy soil carefully managed. The Georgian buildings are usually of considerable size, and convey the peculiar charm of the rambling house, the rambling being, however, a matter of careful disposition.

Southern colonists also betray the interest for architecture and the understanding of its qualities and principles that during a few score years before their time had formed so pleasing a characteristic of the minds of English nobility. One recalls the Society of the Dilettanti and the efforts of no mean calibre as-

cribed to the hand of Lord Burlington. In this country we note in similar capacities, but in minor degree of polish and finesse of execution, the efforts of Washington and Jefferson in various dwellings and churches, as well as the beginnings in the way of new structures in the embryonic capital city and the comprehensive scheme of the University of Virginia.

For general discussions of this region we must draw attention again at the beginning to the inclusive collections of measured drawings mentioned at various times in these papers, and to the historical material likewise mentioned previously. Nothing has yet appeared covering the whole Southern colonial area with proper subdivision into separate colonies. But this type of project would not, perhaps, be as gratifying an undertaking for the compiler or writer as are the more numerous volumes covering individual colonies. A book treating of the whole Southern district would be of decided interest, however, and we look forward to the vaulting ambition of some of our more recent students in this rich field to make the effort that will bring it into existence. By this we mean again, not the work of family history, but the compilation of carefully measured details, plans, structural features, and the like, with adequate photographic and architectural descriptive matter. Only the searcher in these fields can say with any degree of exactitude what a wealth of work is yet to be done to bring these buildings within the reach of the student. To be sure, a goodly number are in the hands of careful owners, but not always of overscrupulous owners, when the question of modern comfort is set over against that of voluntary preservation, while, on the other hand a large number of these old buildings that yet remain are given no care whatever or are the property of families without adequate funds for comfortable living, let alone restoration or preservation of their ancestral homes.

(To be continued)



NOTES & COMMENTS

Efflorescence on Brick Work.

Efflorescence on brick work is formed by a process known as salt-petering and varies in its chemical composition as in its appearance, for it can be yellow or green, besides white. It is generally most noticeable in places liable to dampness, such as rain water heads, eaves, window sills and other places where rain is liable to soak into the bricks.

The crystals that form on the surface, chemically analyzed, prove to be sulphates, such as potassium sulphate, sodium sulphate, calcium sulphate, magnesium sulphate, these varying according to circumstances. Sulphate of magnesia is generally found in much greater quantity than the sulphate of lime, as it is far more soluble in water. If sea water or sea sand is used in the making of bricks, chlorides are almost sure to form, as potassium chloride and sodium chloride. In a few extreme cases it has been known for efflorescence to form by the absorption of ammonia from the air.

With the exception of calcium sulphate, all the salts above mentioned are readily soluble in water and most of them exceedingly so, but notwithstanding the relative insolubility of calcium sulphate, this compound is the most fruitful cause of efflorescence, which is much less readily washed off by rain than that resulting from more soluble salts.

The cause of efflorescence is sometimes due to the composition of the bricks or stones, and even sometimes to the mortar, and may be classified as follows:

- (1) The use of clay containing soluble salts.
- (2) The use of clay tempering water containing soluble salts.
- (3) The formation in the kilns of soluble salts by the oxidation of minerals in the clay, or by the reaction of sulphurous kiln gases on the clay.

(4) The introduction of soluble salts into the bricks after burning, generally from the mortar employed.

The effects of efflorescence are not only unsightly, but they injure the surface of the wall, leaving damp patches, and it will eat through any coat of paint that has been applied after the efflorescence has once commenced, and has been known to break off pieces of material and disintegrate the surface of the wall.

Efflorescence can be avoided, providing suitable brick and mortar are used and the structural part of the building is carried out as it should be, with water-tight gutters, good cornices and no leakage of any kind from any place.

If after all these precautionary measures have been taken efflorescence does occur, the surface may be treated by the application of alternate washes of soap and alum solutions in the proportions of 2.2 pounds of hard soap per gallon of water to one pound of alum per gallon of water. Instead of using common alum, it is more efficacious to employ aluminum sulphate in the alum wash. Surface deposits due to calcium sulphate and therefore not carried away by the rain can be removed by scrubbing the face of the work with hydrochloric acid diluted with about five times its volume of water. The brick work should be thoroughly moistened before the acid is applied, and after washing the surface with water to remove the traces of the acid. Another method is to wash down with a wash of Venetian red and levigated coke breeze.

To cover the wall with a wash of powdered stone or brick-dust, sand and water has had excellent results in removing the crusting, but it will only last for a short time and will have to be repeatedly renewed. The efflorescence will not be so marked after each application and should eventually disappear when the pores have been completely filled up.

A. REDFERN CORNWELL.

**A Work
of
Reconstruction.**

The Belgian Scholarship Committee was founded about a year ago in Washington by the well-known author, scientist, and traveller, Dr. Nevil Monroe Hopkins. At first it confined its activities to the District of Columbia, and its aim was simply to collect money for destitute scholars, but its scope has become broader and broader. The committee now includes among its members the presidents or chancellors of the following universities: Johns Hopkins, Princeton, Michigan, Missouri, Leland Stanford, Pennsylvania, George Washington, State of New York, Nebraska and many other leading men of this country.

The aims of the Belgian Scholarship Committee are the following:

1. To give to the Belgian scholars, writers and artists a chance to resume their work of art or science. To accomplish this aim the Belgian Scholarship Committee acts as a clearing bureau between the American universities and other educational institutions and the Belgian victims of the war.

2. To raise a fund for the reconstruction of a new and better Belgium, especially in the educational field.

The first aim is only of a temporary nature; the second one becomes every day more important. Our ambition is to be ready, as soon as the war is over, to help in putting Belgium on her feet again for a new and greater career.

We are appealing for books to the American libraries; we hope that they will be willing to give some of their duplicate copies and also that we shall receive free sets of their publications from the educational institutions and learned societies.

We cannot afford to store and keep the books until the end of the war. Therefore, we do not ask for books, but rather for promises of books. We suggest that the whole business be managed in the following way: Each library would simply send us a list of the books that it is willing to give to Belgium. This list would contain all bibliographical information that is necessary to identify the books without mistake (author, title, number of volumes, date and place of publication, editor). We should acknowledge receipt of these lists, and enter them on a duplicate list on cards. After the

war, as soon as circumstances permit, the Belgian Scholarship Committee would write a letter to all the libraries, recalling their promise, and asking them to send all the books to some central storehouse in New York City, from where they could easily be shipped to Belgium.

We shall concentrate our efforts upon the making up of a collection of American books—books published in America or relating to American affairs. We should thus be able to offer to Belgium, soon after the war, an American library. No gift would be more appreciated and would do more to bring about a better understanding of American conditions and ideals, and greater international friendship.

Of course books given by publishers and authors will also be welcome. We would suggest leaving in each book its former ex libris, a short note being added to show how and when the transfer to Belgium was made.

We are also appealing for money. Money is needed to help Belgian scholars and artists; money is needed to carry on our activities; lastly, we must be able to remit a huge reconstruction fund (to be used for educational purposes only) to the Belgian people when the war is over.

We cannot expect to be helped by the general public, as is the case for the general relief fund, but we earnestly appeal to those who are especially interested in the development and diffusion of knowledge and art.

The best way to show one's sympathy is to become a fellow or member of the Belgian Scholarship Fund for the duration of the war and two years thereafter. The associate members agree to subscribe at least ten dollar a year; the sustaining members at least one hundred, and the fellows a thousand. Please draw checks to the order of John Joy Edson, treasurer, and send them to the Belgian Scholarship Committee, 309 Wilkins Building, Washington, D. C.

When the war is over the Belgian Scholarship Committee will publish a book containing a complete record of its activities and a list of the fellows and members.

We wish to lay stress upon the fact that ours is not simply a relief work; it is essentially a work of reconstruction, making for international friendship and peace.

GEORGE SARTON.

University of Ghent, Belgium,
Secretary of the Committee.

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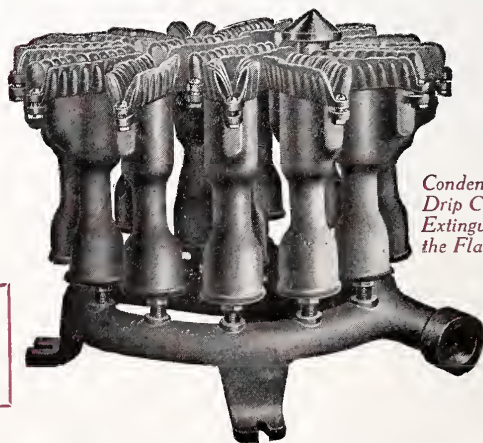
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Editor: MICHAEL A. MIKKELSEN.

Contributing Editor: HERBERT CROLY

Advertising Manager: AUSTIN L. BLACK

Yearly Subscription—United States \$3.00
—Foreign \$4.00—Single Copies 35 cents

Entered May 22, 1902, as Second
Class Matter, at New York, N. Y.

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PUBLISHED MONTHLY BY

THE ARCHITECTURAL RECORD COMPANY

115-119 WEST FORTIETH STREET, NEW YORK

F. T. MILLER, Pres.

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WADING POOL IN "THE GROVE," KANSAS CITY, MO.

THE ARCHITECTURAL RECORD

VOLUME XL



NUMBER VI

DECEMBER, 1916

The PARK SYSTEM of KANSAS CITY, MO.



By

GEORGE B. FORD



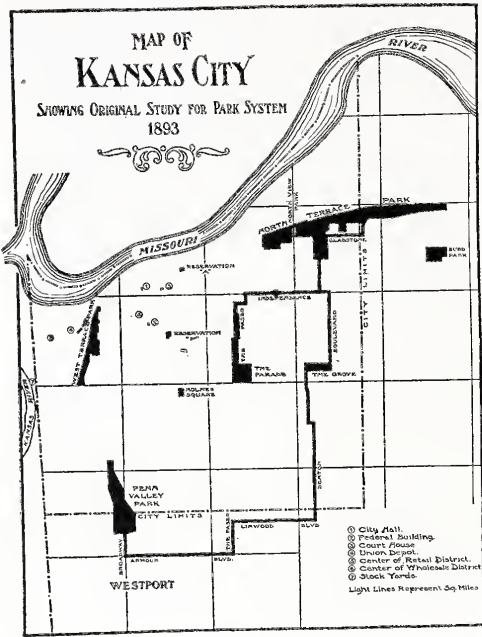
THE working out of an adequate system of parks and boulevards, playgrounds and playfields, is a civic enterprise that architects and landscape architects are peculiarly fitted to inspire and to lead. Such a project has been carried forward in a younger Western city in a manner and on a scale that might put most of the older cities of the country to shame. Much of the inspiration and the greater part of the plan are due to a landscape architect, George F. Kessler, working with an intelligent and far-seeing Park Board.

Kansas City, Missouri, has developed the most extensive park system in the country for a city of its size, and the system is being continued farther and farther afield. For the citizens, generally, have learned to appreciate the value

of their parks to the city and realize that new sections and still newer ones beyond must be set aside while the desirable sites are still available.

Although the parks have cost a large sum of money, about \$15,000,000, almost all of which has been paid for by the property owners benefited, the taxpayer, and even the real estate operator, not only does not object, but is continually asking for more. The reason they give for wanting the parks is that they have found that the parks lend tone and character to the part of the town in which they lie.

Everywhere, within a distance that can be easily walked by the children of any neighborhood, are places in which they can play as their fathers and mothers used to play, under the trees, in the fields



nected three of the four parks with boulevards. The parks and boulevards were near the center of the city, where all could see them and study their effect on their surroundings. Of course, they did not all come at once—the Park Board did not have a competent law under which it could act until June, 1895—but as they did come the people became habituated to their use and developed a marked preference for living near the parks and parkways.

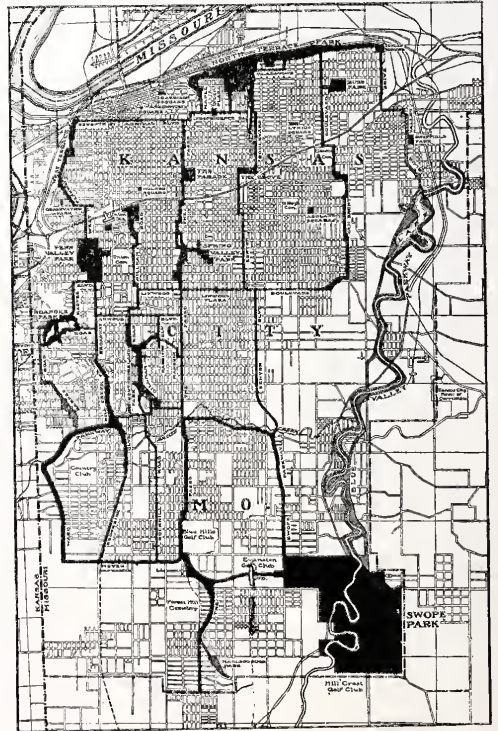
The Park Board soon found itself importuned to add one feature after another to the system—a creek bottom here, a wooded area there, a charming hill, a slightly spot, interconnected by boulevards. Then came the great gift of Swope Park, with 1,334 acres of fields and woods, hills and valleys. It was given because the donor felt that it was the one thing that the people wanted most. They had acquired a hunger for parks.

Today there are 1,985 acres in parks and 590 acres in parkways, and other

and among the flowers; where they can draw close to nature, a right which no child should be denied. They are accessible, too, to the mothers, of an afternoon, and they are especially enjoyable in summer evenings to the members of the family who have been confined all day in factory, store, or home; all have an opportunity to get out into the open, where they may fill their lungs deeply with fresh air. Then, also, the parks have a pronounced effect upon the atmosphere, which in summer is often ten degrees cooler in the parks than it is nearby in the sun-baked streets.

It all started back in 1892, when Mr. August R. Meyer and his associates began to translate into concrete form their conception of what a great system of parks might mean to Kansas City. Their first plan, which was made in 1893 by Mr. Kessler, seems timid now; but it seemed big to them then, and well it might, for they were pioneers.

The Park Board started with an ideal first plan, embracing two cliffs with a fine outlook and the charming Penn Valley, which was fast turning into a slum. Then the Board cleaned up the worst slum district of the city, turning it into the delightful "Paseo," and finally it con-



PARK AND BOULEVARD SYSTEM OF KANSAS CITY, MO., 1914.



PENN VALLEY PARK, KANSAS CITY, MO.

reservations are planned which will bring the grand total up to 3,337 acres, or nearly an acre of park space to every 100 people in the community, a showing equaled by hardly any city in the country except Washington, D. C. No wonder the Board of Park Commissioners has recently published for general distribution a souvenir booklet amply illustrated, telling all about it. The 1914 report, just published, is a model in its completeness and breadth of view.

How are these parks paid for? Is there anything about the method of procedure that would not be applicable elsewhere just as well? The total cost of land, improvements and maintenance, since 1895, has been a little over \$15,000,000. All of this, except a \$500,000 general bond issue in 1904, has been paid for locally by assessments on property near the parks or parkways. In the working out of this principle, the whole city was divided into five districts, which number has latterly been increased by

adding three more as the city has taken on more territory. Each district pays for the land, improvement and maintenance of the parks within its area. No extra fund in any one district can be allotted to any other. Therefore, it has become necessary to pay for the improve-

ment and maintenance of parks in the newest districts, where there are few buildings, out of the general fund. To that end another \$550,000 was made available in the spring of 1916.

The general scheme of payment is this: The property immediately abutting on the park, and also that



THE PASEO AT TENTH STREET, KANSAS CITY, MO.

on one parallel street back, on each side, pay for the cost of the land. The improvement, except planting, is paid for by the abutters. The entire cost of planting and maintenance is assessed as a supertax by the Park Board, subject to the approval of the City Council, over the entire district within which the park lies, although in the poorer districts the city often pays part of this cost. Twenty



WADING POOL IN WASHINGTON SQUARE, KANSAS CITY, MO.

years' time is allowed for paying the larger assessment, and the assessment becomes a lien.

Another thing that the Park Board has a right to do, which is highly important, and the neglect of which has seriously affected the value of parks in many other cities, is to restrict the use of private as well as public property fifty feet back from the park or parkway. This means

that the Park Board is empowered to prohibit billboards within this area, to exclude tall apartment houses and to prevent stores or garages or roadhouses from vitiating the immediate neighborhood of the parks. Of course, the owner affected can claim damages, which the courts must determine; but the courts can also determine benefits, and the latter have usually equaled or surpassed the



WEST TERRACE AT TENTH STREET, KANSAS CITY, MO.



SWOPE PARK, KANSAS CITY, MO.

former, and the owner has received no award.

What have been the results of this great movement? To quote from the April 19, 1915, report of Mr. Kessler: "Largely through this (park system) there has been no concentration at any point in Kansas City or a congestion of population.

"Investigation of the problem here will unquestionably show that, altogether aside from the development of parks and local playgrounds, the boulevards so-called have made possible residential districts of every character, consistently and

properly connected with each other and with the business districts. They have distinctly encouraged uniform residential conditions in their proper places. If no other results had been attained, then the

best expenditure which the community in Kansas City has permitted during these past twenty years has been more than justified in the resultant proper use of the lands in Kansas City for their several uses, in equalizing the values of residential lands throughout the city.

"With the comparatively large area of parkway and boulevard frontage, no values have gone beyond a reasonable basis of investment.

"Nowhere in Kansas City is there an indifferent private improvement or maintenance of private home places that does not respond

immediately to the well-developed and well cared for public boulevards, parkways and parks.

"The comfortable residential conditions, due very largely to the establish-



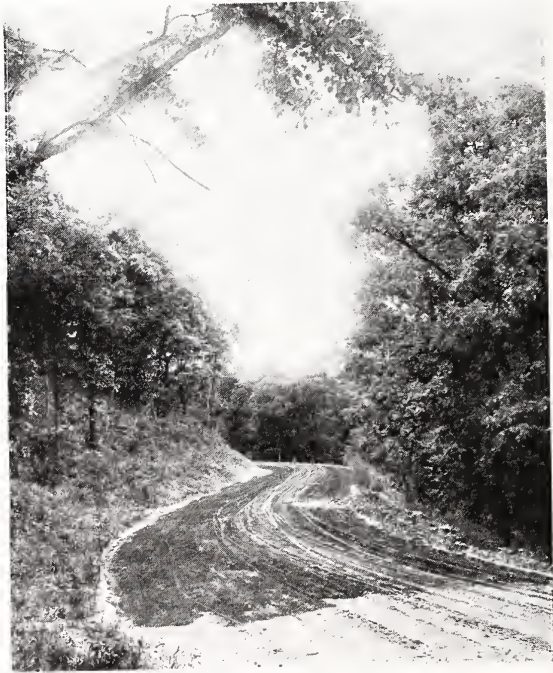
THE PASEO AT TWELFTH STREET, KANSAS CITY, MO.

ment of its park system, has made Kansas City attractive in a sufficient degree to attract a very large population which should normally have gone to much larger cities. In this sense alone the community's investment in the park system has proved to be a decidedly wise one."

The citizens have unconsciously come to find ugliness distasteful. They are becoming discriminating. Their public and private buildings are improving in taste, the streets are becoming less tawdry

and now the people are demanding that the surroundings and approaches of their public buildings be made more attractive. Particularly are they, through the architects, trying to work out a fitting approach to their new Union Station, so that the first impression of the city may be as good as the later impressions are bound to be.

The architects and landscape architects are the natural leaders in this work. It is the great contribution that they can make to any community.



WILD CAT HOLLOW AND DRIVE IN SWOPE PARK,
KANSAS CITY, MO.

ALONG THE SENECA TURNPIKE



*Introducing a Distinct Type
of Post-Colonial House*

By

EDWIN BONTA



IN the development of New York State, it was not until 1794 that Onondaga County was cut off from Herkimer County, on the east, and put under a jurisdiction of its own. Up to 1790 all pioneers entering the territory had to travel over the trails blazed and worn by their predecessors, the red men. In the year 1790 or 1791 a party of emigrants under the direction of General Wadsworth attempted to cut the first road through this region, then entirely a wilderness, from the settlement at Whitestown to Canandaigua. This primitive road, enlarged and improved by the State government, and called at that time the State Road, served as the only thoroughfare until 1800. In that year a private company was chartered to lay out a better one, later known as the Seneca Turnpike, closely following the original route, coinciding with it for miles at a stretch, and running from the village of Utica in the east to Canandaigua in the west. The new highway, passing through all the important settlements that had sprung up along the old State Road, was laid ribbon-like up hill and down dale, with a charming disregard for steep grades and wide detours. Through Onondaga County it ran from Chittenango over Eagle Hill and down again to Manlius, in the valley of Limestone Creek; climbed the western slope and continued along the hillsides until it dropped into the Butternut Creek valley at Jamesville; then up the west hill, over the highlands, and descended once more into the basin of historic Onondaga Creek. The present city of Syracuse was not then even a possibility in the minds of these pioneer road builders; so the "pike" crossed Onondaga Valley a long three and a half miles south of the present civic center, ascended Onondaga Hill on the west, passed through the old

county seat of that name, and continued down and up again, through Nine Mile Creek valley, with its classic town of Marcellus, and on across the county line.

Over this road the restless, energetic New Englanders constantly pushed their way westward, numbers of them settling along the route and forming the nucleus of the present population of this county. Even the phlegmatic Dutch of Long Island and the Mohawk Valley would occasionally pack their household goods into the picturesque vehicle so familiar under the name "prairie schooner," and seek new home sites along this highway.

In succeeding years new arteries of travel and commerce—highway, canal and railroad—have been run through to the north of the old turnpike, following a more feasible water level route. The once important towns along the "pike" have dropped into comparative insignificance, and its surface has been sadly neglected in spite of the hundreds of miles of new "State road" built within the last few years. But though it may have lost much of its old prestige, it has gained immeasurably in charm. Without doubt its builders never lived to enjoy, as we may, the miles of pleasant overarching trees with which they so farsightedly lined their highway. The newer roads to the north speed arrow-like between bustling commercial towns, hard as asphalt, lined with the indifferent architecture of a commercial age, choked with the dust of countless motor cars, and with few trees to shield one from the hot rays of a summer sun. But the old turnpike still continues its laborious way, dreaming through the heat of summer and early autumn, peacefully cool under the shade of century-old maples, seldom disturbed by anything save the lumbering horse-drawn wagon of former times. Its path is lined with old home-



THE SAMUEL FORMAN HOUSE, ONONDAGA VALLEY, N. Y. BUILT IN 1812.

steads dating from those early pioneer days—days steeped in the charm of classic revival, as evidenced not only in the architecture, but in the very names of the nearby towns, Manlius, Marcellus, Pompey, and Cicero.

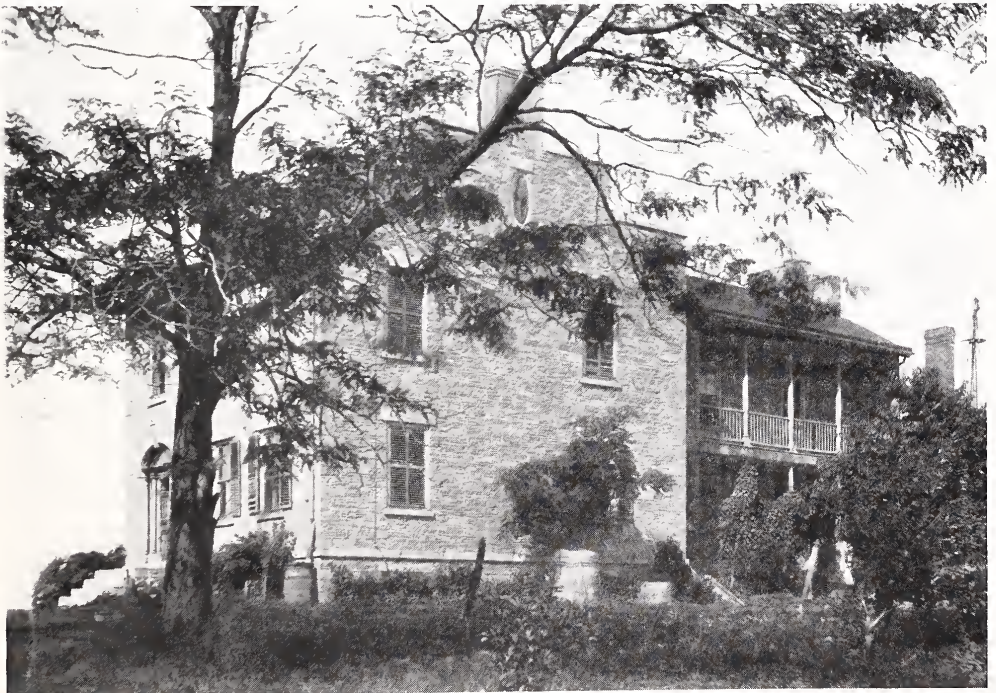
I wish to speak particularly of the architecture, for along this highway there was developed a type of brick house different from any others built in Colonial and post-Colonial days, a style with a charm peculiarly its own, to which the attention of architects has apparently never been drawn. In spite of the fact that this type was very prevalent in the locality mentioned, I know of few examples of its kind outside of Onondaga County. I have already pointed out that this part of the country was scarcely settled before 1800, so that, in point of time, the local architecture cannot be called Colonial. But it surely merits that honor for its loyalty to material, delicacy of detail, restraint, and simplicity. We might go by motor to study this work, and cover the entire locality in a morning. It would be much more congenial to walk.

But we should enjoy it most in the saddle. The old neglected road is in splendid shape for riding. You will like brushing along under the low-hanging branches of the trees, galloping up the short, steep grades and meandering leisurely down again. The small scale of our landscape will delight you. Its low, rolling hills, snug little valleys, and cut-up fields, all quite within the grasp of the imagination, will seem charmingly homelike and lovable.

Starting from Syracuse, the metropolis of the region, we swing into the turnpike first at Onondaga Valley, and come almost immediately upon the Samuel Forman house, erected in the year 1812 by a brother of Judge Joshua Forman. This is not the most interesting one we shall see, but it has many of the characteristics, and much of the charm, of the type. Notice the crow-stepped gable ends, the flat, elliptical arches of the façade, and the delicate doorway, with its Dutch seats, on either side. I have pointed out that this country was settled both from New England and New Netherlands, and the

influence of each is apparent in this example. The crow-stepped gable and the seats flanking the doorway are of Dutch descent. The exquisite refinement of the wood detail in cornice and doorway, and the restraint and flatness of relief, are quite unlike the Dutch Colonial down-State. They are undoubtedly a reminiscence of New England. So also are the ellipses, true curves every one. No compass-struck ellipses are found in the type. Their flatness and delicacy, and the slight reveal of the pilasters, are well in harmony with the refinement of the woodwork. The doorway of the Forman house is one of the most beautiful we have. As I have said above, the flanking seats are unquestionably Dutch, as is the curved cornice of the transom bar. On the other hand, the precise little scroll brackets under the cornice and the pairs of shapely, slender columns, are just as surely a memory of New England. Have you ever thought what a twofold air of security and hospitality these old designers gave to their doorways by recessing them deeply within wide jambs?

How faithfully these builders have observed the dictum that a designer should "feel" the material in which he works, its possibilities and its limitations. It is as if the old-time master had reasoned entertainingly with himself: "With this simple brick alone I will fashion and ornament my house." There is no temporizing with molded forms in clay, no falling back upon carved stone for either caps or moldings. The mason has not even attempted to grind the voussoirs of his arches. The pilaster caps are simple blocks built up of brick. And yet the result is satisfying, captivating! See how delicacy is attained in the arches, and the "masoning in" of the gable window, by using only a single rowlock of brick. I like the loyalty to material of the stepped-up gable end; from silhouette alone one could guess that it was built of brick. How well, too, the designer of the cornice felt the material of his wood detail, as shown by the attenuation of its moldings and the wide projection of the whole. The bed mold is suppressed to almost nothing. Instead of being built up



THE GENERAL HUTCHINSON HOUSE, ONONDAGA HILL, N. Y.

hollow on rough lookouts, like our work of today, you will find that most of the old cornices of this region are built up solid of molded-edged boards, one above the other, the mutules each in one piece,

Gathering our horses now, we turn their heads westward and clatter up the steep hill out of the creek valley, skirting a picturesque rock-strewed glen on our left, passing the neglected graves of two American captains who fell sick and died by the way during the passage of troops over this highway in the War of 1812.



THE SENECA CLUB, MANLIUS, N. Y.

then the fascia, then the corona. It has always interested me that the rugged, red-blooded pioneers of that day should have fancied such dainty moldings, almost effeminate in their over-refinement; while our effete generation has craved detail as strong and masculine as the nature of the pioneer.

Climbing still, we enter the whilom county seat of Onondaga Hill, now dozing in reminiscence of the past.

At the four corners we pass another noble place, this time with the crow-steps on the end and the entrance in the middle of the long side,—the more common arrangement. The big elliptical window in



HOUSE ON HIGHBRIDGE STREET, NEAR FAYETTEVILLE, N. Y.

the gable end now stands open to wind and rain, sleet and snow, the year round; and many migrations of birds have nested in the garret. The house has a pleasing location on a knoll overlooking the road, set well back from it and surrounded by a picket fence. The straight stone walk from the front door to the gate in the fence is flanked on either side by two venerable locust trees. Unfortunately the style is debased by a quasi-Gothic porch, probably a later addition. But in spite of this the doorway still remains the chief point of interest on the exterior. It is entertaining to observe in this respect how logical these early builders were in the concentration of their ornament. In approaching a house our first subconscious query is: "Where is the entrance?" And here, as invariably in these buildings, it stands accused for us, brought out in sharp contrast with the rest of the façade, because the designer has been wise enough to concentrate his ornament around it. There are no ornate bay windows, no meaningless panels of ornament or other restless features, to detract from the focus of interest.

The next homestead we pass is that of General Hutchinson, on an eminence a mile or two beyond the town. This one differs from the others in being built of the local limestone. I do not feel that the chimney in the center of the gable is a great addition. The chief interest here centers in the porch, which looks toward the east and commands a view over the highlands toward Onondaga Valley. Porches are rare in the Colonial work of the North, particularly two-story porches. One finds them not infrequently on the "taverns" of this locality and period, of which they seem to have been a characteristic, but very rarely on houses. The work of this porch is worth study. Its members are so slender and fragile in contrast to the very coarse stone work of the building itself, and yet withal so archaic in execution—sufficiently departed from classic tradition and replete with academic shortcomings—as to seem quite individual. It seems to have a personality of its own, quite human and lovable.

The window lights are cut up into small panes, as they invariably are in this old work. There is a very interesting story

behind small panes. It is known, of course, that glass was not made in large sheets in those days, and that small panes were a necessity long before they were recognized as a virtue. But there is really much more to it than that. A designer demands a pattern in everything he does. A work must not only be interesting as a whole, but, if the work is to have any great merit, every little feature of it must repay the observer's attention and study. In the small windowpane the designer saw and appreciated another opportunity for pattern; and, consequently, interest and charm. But the whole story of the charm is deeper seated still. The essential atmosphere of a house is one of protection. An air of shelter, security, and self-content should pervade the entire scheme. There is no such sense of security in a broad sheet of plate glass; but the muntins of a small-paned sash, useless as they might prove as a genuine safeguard, do give that sense, that symbol, so essential to homelikeness.

We have now reached the extreme west

limit of the locality, and shall have to retrace our course to the city and start out another day.

This time we turn our mounts eastward from Onondaga Valley. We pass an interesting frame church at the Valley, with marked Dutch traits, but this we shall have to discuss at another time. Behind the church on the village green, in a beautiful setting of old trees and lesser shrubbery, stands the Sabine house, built in 1808. In the same year Judge Joshua Forman, one of the leading pioneers of the county, built his residence on the north side of the turnpike, opposite the church. Farther along the road, on the left at the foot of the east hill, is still another dwelling, in stone, the Philo Gridley house, erected in 1812. A newspaper article would describe the last two as having been recently "improved by modern additions," a statement we are willing to dispute. None of these present any new features, so we will push on up the hill. Winding up the steep road, we see on the knoll above us the old stone arsenal, built just before the War of 1812



THE PALMER HOUSE, NEAR FAYETTEVILLE, N. Y. BUILT IN 1825.



HOUSE AT 115 GRAPE STREET, SYRACUSE, N. Y.

as a repository for arms and ammunition. For several miles we ride along under a stately row of elms, their great branches almost meeting over the roadway. On either side we pass numerous frame houses that antedate the Greek revival, many of them with quaint simple doorways of familiar Colonial design, and many good cornices of the thin flat kind spoken of above. But we find nothing of immediate interest until reaching Manlius village.

Here we come upon the building of the Seneca Club, on the left of the turnpike, just as it starts climbing out of the long town square on its way to Eagle Village. In the gable end of this house there is a different window arrangement from any heretofore seen. The four chimneys symmetrically placed, two to a gable, are a new feature also, but very common in the type. The proportions of these gable ends are carefully studied. In those I have measured the middle step has been calculated to appear twice the width of the lower flanking steps. In height, taken from the top of the wood cornice to the coping of the lower step,

I find this measurement designed to look the same as that from this coping to the coping of the top step. The chimneys ordinarily rise an equal distance again above the top coping; sometimes a brick-course or two more, in order to offset any optical illusion. The step is twice as wide as it is high. The entire end of the building, from grade to the top of the lower copings, exclusive of the top step and chimneys, is, in the best examples, a perfect square. The crow-steps are the standard twelve-inch brick wall, almost invariably coped with wood. The chimneys are ordinarily twenty inches in their smallest dimension, varying in width with the size of the building. The width always bears some simple relation, however, to the total width of the top step, one-third, one-fourth, or one-fifth.

Behind the Seneca Club, on the side street, is the Van Schaick house, a particularly complete little specimen, and here and there through the village are scattered several others of more or less merit.

In less than five years the builders of the Seneca Turnpike realized the mistake



HOUSE AT 917 EAST GENESEE
STREET, SYRACUSE, N. Y.



HOUSE AT 212 WILLOW STREET, SYRACUSE, N. Y.

they had made in running their highway so tortuously over the southern hills of the county. Moreover, new villages were springing up to the north of it, with no connecting thoroughfare. So, in 1806, the same company applied for an amendment of charter allowing them to build a new road along the more level land through Fayetteville, the growing settlement of Syracuse, and Camillus. This was called at that time the North Branch of the Seneca Road, but afterward became known as the Genesee Turnpike. It is this we must now reach, heading north from Manlius to the picturesque little town of Fayetteville, named upon the visit of the French patriot.

Under the magnificent elms of Genesee street, at the corner of Academy street, stands the Hurd house, apparently of later date, and consequently not so good. A diminutive house, delightfully inviting and picturesque, stands on the Flats to the west of the village, on High-bridge street, just off the Genesee Road.

I have just one strong criticism of all

the gable-end examples yet shown. Their designers seem to have ignored the inviolable rule that the chief ornamentation of any work should come at the top. The paired chimneys of the Seneca Club, or the elliptical arches and ornate cornice of the Samuel Forman house, do not any of them count for enough, to my mind, in centering the interest there. That ideal remains to be attained in the Palmer house, which we are now approaching.

For a mile or more out of Fayetteville, westward toward Syracuse, the road is flanked on either side by great hard maples, forming an inspiring allée, through which we ride. On the right, about a mile from the village, stands the house, a little back from the road and facing pleasantly toward the south. The date of erection, 1825, fixed conspicuously on the front, gives a good idea how late into the century these buildings were constructed. The house has the distinction of being still occupied by the family that erected it. Here, in addition to the paired chimneys and elliptical arches, a



THE LATHROP BLOCK, ON THE ERIE CANAL, SYRACUSE, N. Y.

turned balustrade is run above the cornice between the crow-steps, giving the desired finish to the façade. Although interest is concentrated around the doorway as usual, that ornament is properly subordinated to the chief glory of the front, the cornice and balustrade above. How delightfully, too, the soft skyline made by the open balustrade contrasts with the hard line of gable-ends and chimneys! The severely plain ends, like those of the Seneca Club, have nothing to recommend them aside from their carefully studied proportions. Their chief function seems to be to serve as foils for the ornate façade. The sides and backs of these houses are invariably plain, no matter how much the front is ornamented. I do not know how largely this is chargeable to the insistent New England traits of thrift and pretentiousness—to a desire to make the best showing possible with limited resources. But one cannot but admit that the front gains in interest through contrast with these end walls. Another happy use of foils is in the large areas of unbroken brick wall. The

aesthetic value of such plain areas seems to have been appreciated by Colonial designers throughout the country. Outside of the artists of the Spanish Renaissance, I know of no architects who had courage and restraint to use them, or who appreciated their value in contrast, as did these men of early American days. The coupled windows in each bay seem to overcrowd them. The three porches are quasi-Gothic in detail, and probably an afterthought, but their flat roofs and generally square contour harmonize with the type, and one cannot help wondering if similar porches of Colonial design would not be a distinct addition to it.

The Genesee Turnpike still runs straight through the heart of Syracuse, preserving its name in the name of the street, just as it does in all the towns through which it passes in crossing the State. On our return, therefore, we enter Syracuse along East Genesee street; and either on this street itself or immediately off from it we find several more houses less pretentious, but more picturesque than previous examples.

Up to the present time we have been concerned chiefly with very dignified dwellings only. The main body of the house has been built of brick, and the frame additions behind have not added much in charm, nor have they contributed to develop the style. The brick structure itself has been rigorously symmetrical, dignified, and austere. I am glad of an opportunity, therefore, to point out that the type may be very informal and picturesque. We have already passed one of the informal kind on Highbridge street, Fayetteville. Another, better, example on the same plan is the house at 115 Grape street. In both of the last named houses the ells are also built of brick, with gable ends corresponding to the main body of the building.

With an informal plan, the builders did not see any necessity for either symmetry or consistency in the arrangement of the exterior. Sometimes the chimneys ran through the center of the gable, as at 917 East Genesee street; sometimes they were paired in the main gable and single in the lesser one; sometimes there were no chimneys at all in one gable. I remember one or two instances where one of a pair of chimneys has been cut off just above the crow-step and closed over with a stubby pyramid of brick. This was undoubtedly done at some later day, and with no idea of beautifying the scheme in any way; yet it gives the crippled end an attractiveness akin to that of the Gothic. There is a peculiar appeal in these incomplete, asymmetrical features, lovable little symbols of the imperfection of the race.

Number 212 West Willow street is a genuine town house of the one-time aristocratic quarter of Syracuse. How sophisticated it looks in comparison to the Samuel Forman house, and how much it loses in attractiveness! The crow-steps are here coped with stone instead of wood. Stone has taken the place of wood for the window sills, and of brick

for the water table. The details of the doorway have almost regained their original classic proportions. It is only a step from this detail to that of the Greek revival. Even the minutely perfect brick work lacks the charm of the cruder bond of the Forman house.

The Lathrop Block, on the Erie Canal bank at Warren street, shows the type applied to an old-time warehouse. Buildings of this general type are found in other parts of the country, in some of the old mills of New England, for instance, and may serve definitely to connect the local type with other Colonial work. This picturesque pile has stood within a block of the center of Syracuse long as the memory of any one now alive. True to its type, it has nothing to recommend it aside from its extreme simplicity, its old-fashioned panes, and its interesting proportions. Would that our later designers of business blocks could content themselves with these. The business streets of Fayetteville and Skaneateles are lined with such store buildings, their party walls rising between the gently pitched roofs that slope invariably toward the street. These party walls are stepped up in the usual manner and give the streets a delightfully quaint look, reminding one of old Holland.

There are many more of these houses in the locality, all possessing one or more of the earmarks of the type. No one is ideal in itself. I have long hoped to find a house that combined the general scheme of the Palmer house, the excellent proportion of bays of the Samuel Forman house, and the porch detail of the Hutchinson homestead, perhaps with a picturesque wing or two running off to the side and rear. But, as has been true of the great styles, the ideal was never built. I hope, however, it may exist in the minds of my readers, and that they may enjoy, as I do, the dignity, refinement and beauty of this particularly pure expression of brick construction.



POOL—RESIDENCE OF JOHN GLASS, ESQ., HIGHLAND PARK, ILL.
FRANK B. MEADE AND JAMES M. HAMILTON, ARCHITECTS.

— CRAVARDAN —

THE RESIDENCE OF JOHN GLASS, E^{sq}
.. HIGHLAND PARK, ILLINOIS ..

*Frank B. Meade &
James M. Hamilton*
Architects

BY I. T. FRARY

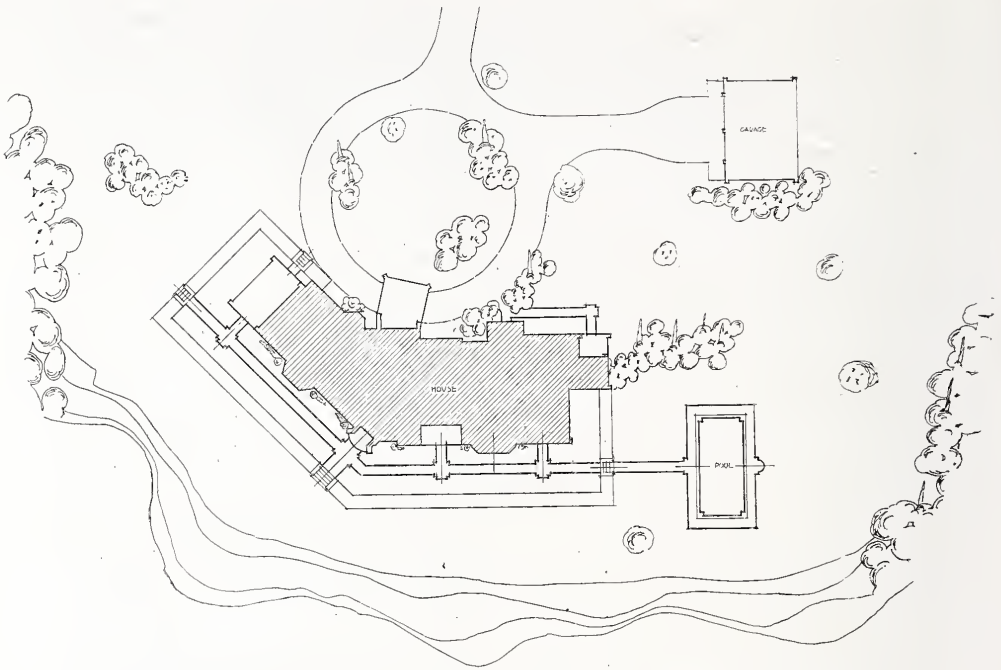
THESE has been a great deal said and written from time to time regarding the outcome of America's architectural development. Some have contended that a distinct type should be created which would reflect the character of the American people. Others have maintained that the creation of an architectural style is not a question of going to work deliberately to produce a type that is original and new, but is a process of gradual evolution and its character is determined largely by such influences as environment, climate, social conditions and the building materials available. Some even claim that the past has long since exhausted the possibilities of anything new and unique, thus leaving it incumbent upon us to go to that past for inspiration. However, while this discussion has gone on, at times almost with bitterness, there has been growing, perhaps unconsciously, a type if not a style which does seem to reflect the American character.

Ignoring the skyscraper, which is already recognized as essentially American, the product of American needs and not of a desire to be unique, we find that the American home is coming more and more to reflect the national temperament, and yet it does not confine itself to any particular style—in fact it may take its inspiration from Italy, France, England or any other source. If all were of one style they would not reflect the American. He is not that kind of a man. He is cosmopolitan, he travels, he reads, he knows the architecture and art of the world, either from a first hand inspection of it or through the medium of photographs and other forms of illustration and reproduction. His horizon is not restricted as was that of the designers by whom the great styles were

produced. They worked along prescribed lines, not because their hearts were set upon the development of a particular type of construction or ornament, but because that was the only type they knew or the only one they deemed practicable, and so they "rang the changes on it" to the limit of their ability. Thus in a given area or at a given time we find practically all the work reflecting certain fixed characteristics, and where wealth and opportunity permitted an extensive development of such a type there came into existence what we call an architectural style. However, let some new influence be introduced, as for instance the Italian of the fifteenth century, and how quickly the new ideas were grasped and the old discarded, thus proving conclusively that it was conditions, not choice, which set the limitations.

It is therefore logical to assume that in a country familiar with the work of all times, possessing every variety of climate and topography, whose population contains representatives from every race on earth, which has at its disposal every form of building material together with fabulous wealth with which to build, the builders are not going to confine their architectural expression to some one narrow prescribed style. Yet in a way, despite the variety of styles employed by our American architects, our residences do begin to show certain marked national tendencies.

The American likes comfort, he likes to have things convenient, he likes outdoor life, and he wants his home to conform to his wishes and requirements. The feudal castle, the French château, the Italian villa, and even the English manor house are all very good in their way, but if he is going to live in one, its internal aspect at least must conform to



BLOCK PLAN—RESIDENCE OF JOHN GLASS, ESQ., HIGHLAND PARK, ILL.
Frank B. Meade and James M. Hamilton, Architects.

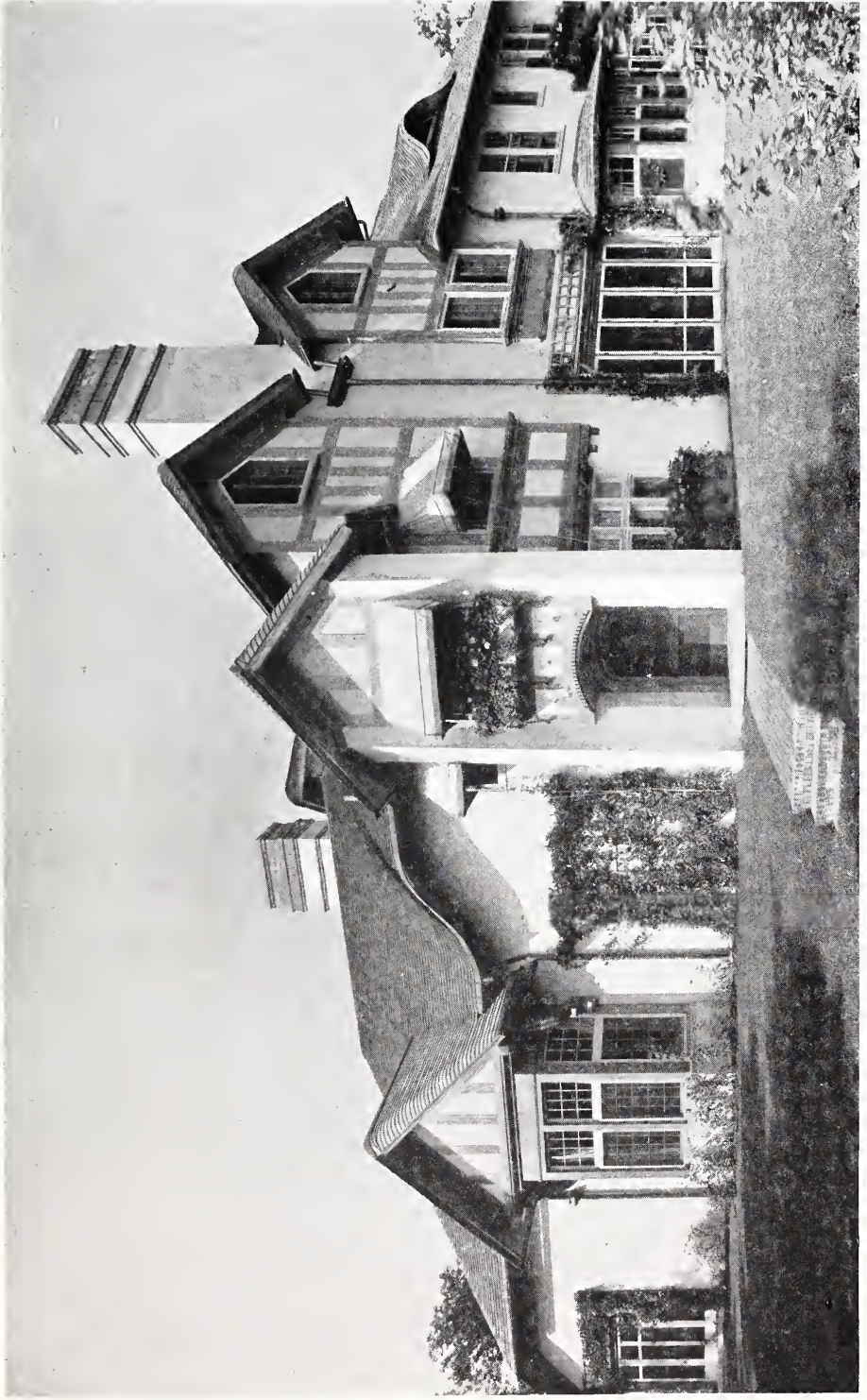
his ideas of comfort and convenience. So we find that the representative American homes of to-day, whatever may be the style which they follow, are tending away from the stiffness and formality of their prototypes, and are being planned with the idea primarily of providing for the comfort of the occupants.

The English country house has long been regarded as the nearest approach to our ideal of what a home should be, and so we find that it has exerted a strong influence over the American homes of to-day. But whatever may be the stylistic influence in a house there is an American influence evident.

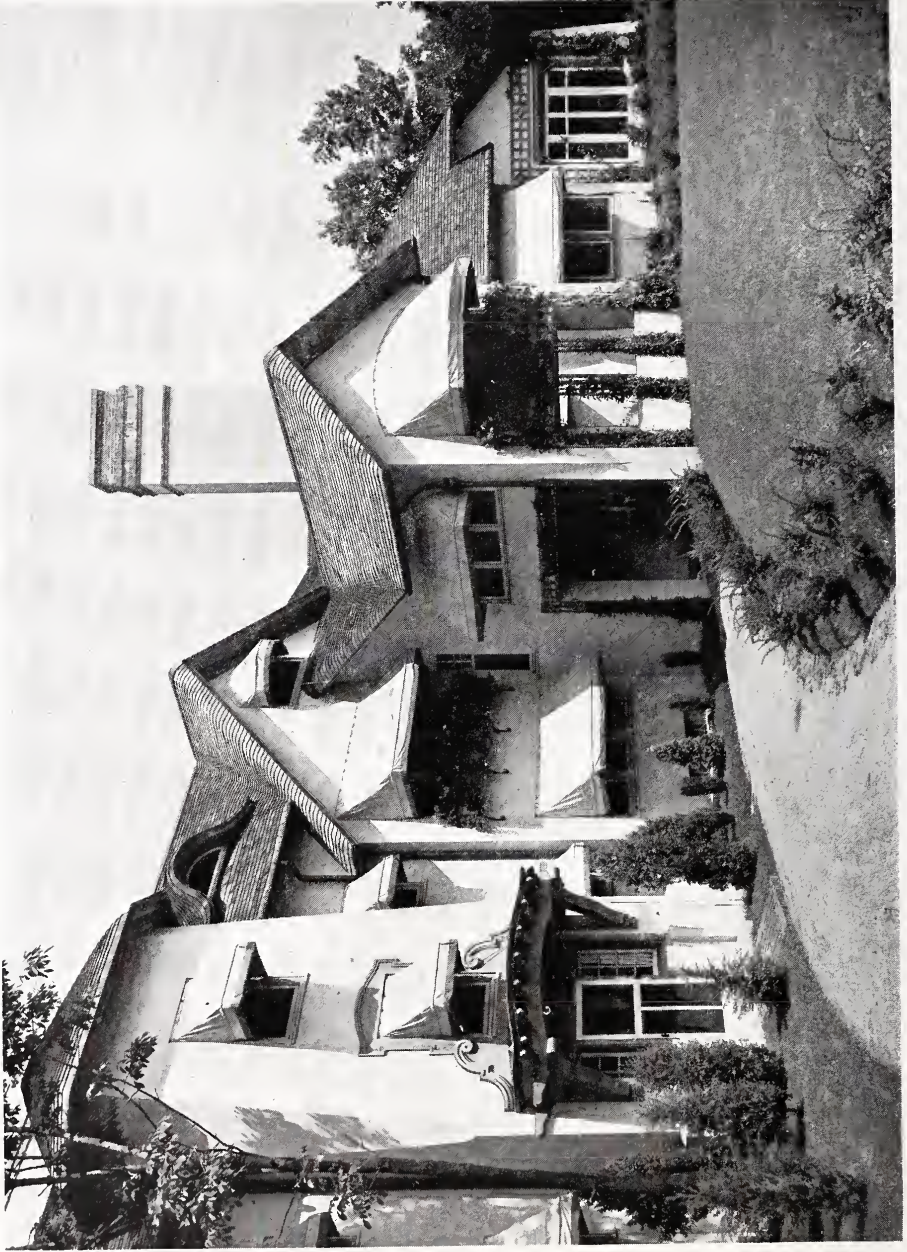
Among the architects who have given especial study to American residence work is the firm composed of Frank B. Meade and James M. Hamilton, whose houses are familiar to readers of the Record. An interesting example of their work is to be found in the residence of Mr. John Glass at Highland Park, Illinois. It has the earmarks of the modern movement in English domestic architecture, yet it has withal a thoroughly American atmosphere pervading

it. The exterior is of stucco relieved by the use of timber work, and derives much of its interest from the broken roof lines and pleasing treatment of the numerous gables. The porch, which so often proves a stumbling block to the architect and becomes a mere excrescence on an "otherwise fair" exterior, has in this case been most skilfully handled by means of the long sweep of roof which so incorporates it in the body of the house that at first glance the fact of its being a porch is not noticed. The composition of the house, which is irregular and rambling, loses something of its character in the photographs because of the numerous awnings which destroy the effect of the fenestration, thus tending to give the whole an air of restlessness.

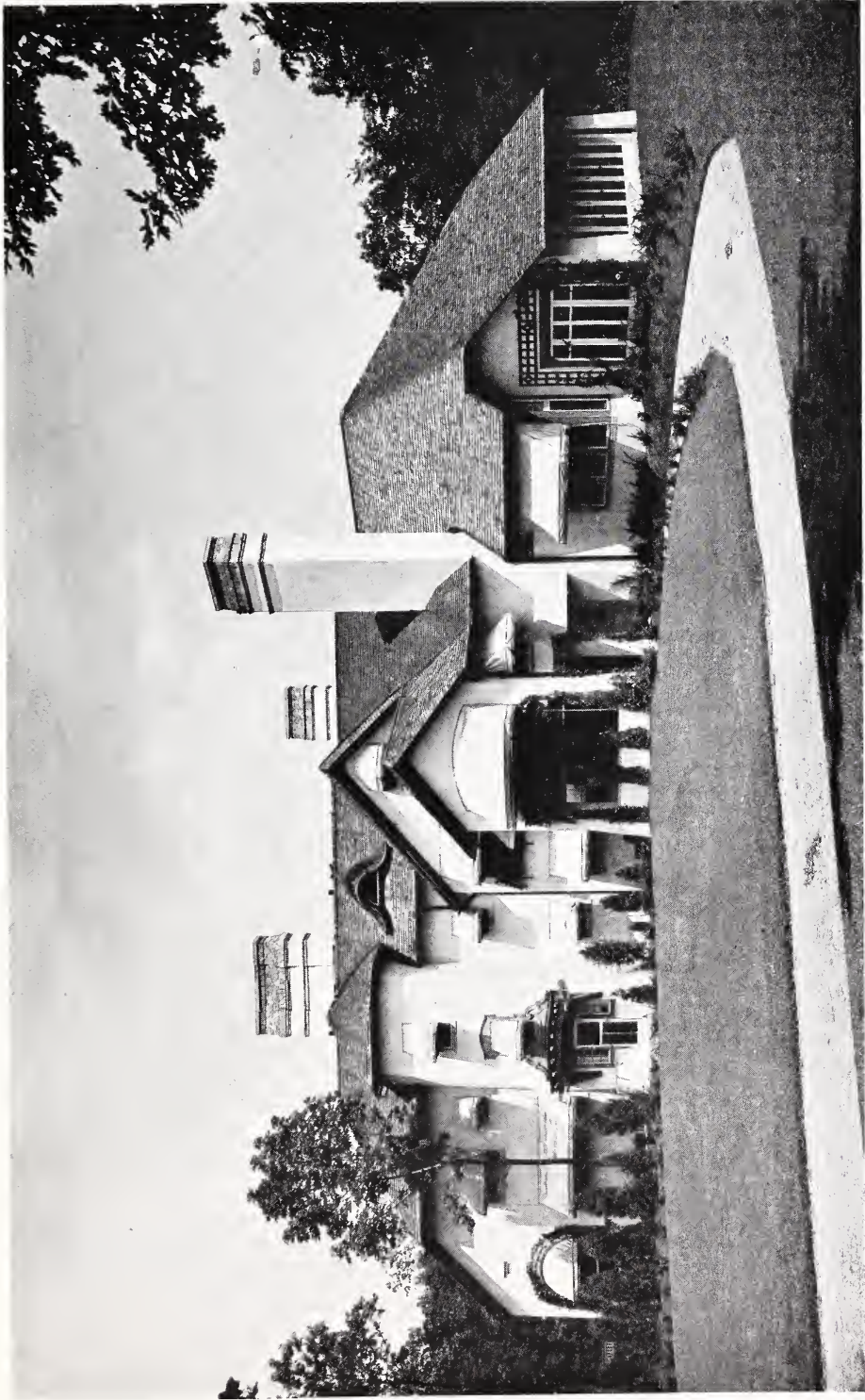
The setting of trees, among which the house is placed, is a valuable asset, and when the young planting in front has thickened up with a few years more of growth, the architecture will tie into its surroundings even more effectively than at present. The pool at the side of the yard provides the reflections which are so desirable in a garden, and



FRONT VIEW—RESIDENCE OF JOHN GLASS, ESQ., HIGHLAND PARK,
ILL. FRANK B. MEADE AND JAMES M. HAMILTON, ARCHITECTS.



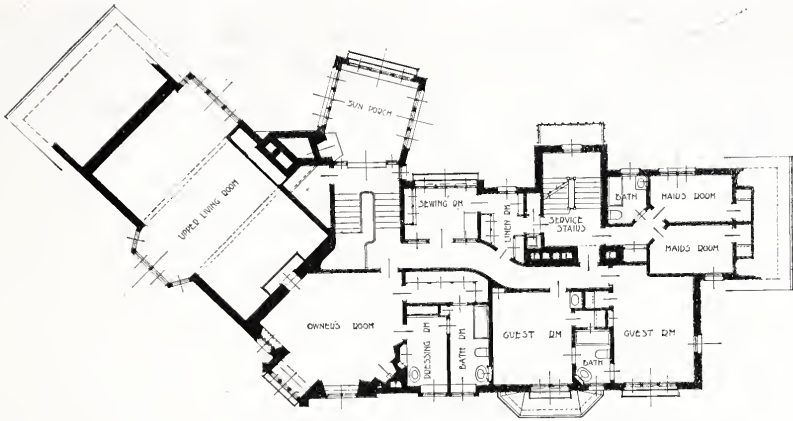
FORTE-COCHERE—RESIDENCE OF JOHN GLASS, ESQ., HIGHLAND PARK,
ILL. FRANK B. MEADE AND JAMES M. HAMILTON, ARCHITECTS.



REAR VIEW—RESIDENCE OF JOHN GLASS, ESQ., HIGHLAND PARK, ILL., FRANK B. MEADE AND JAMES M. HAMILTON, ARCHITECTS.



HALLS—RESIDENCE OF JOHN GLASS, ESQ.,
HIGHLAND PARK, ILL. FRANK B. MEADE
AND JAMES M. HAMILTON, ARCHITECTS.



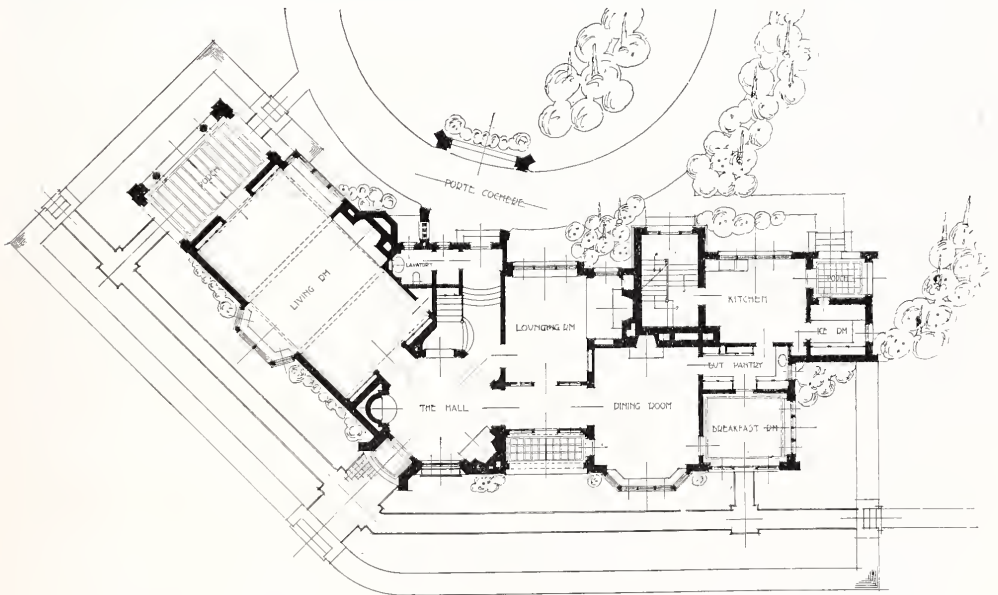
SECOND FLOOR PLAN—RESIDENCE OF JOHN GLASS, ESQ., HIGHLAND PARK, ILL.
Frank B. Meade and James M. Hamilton, Architects.

also suggests enticing thoughts of early morning plunges.

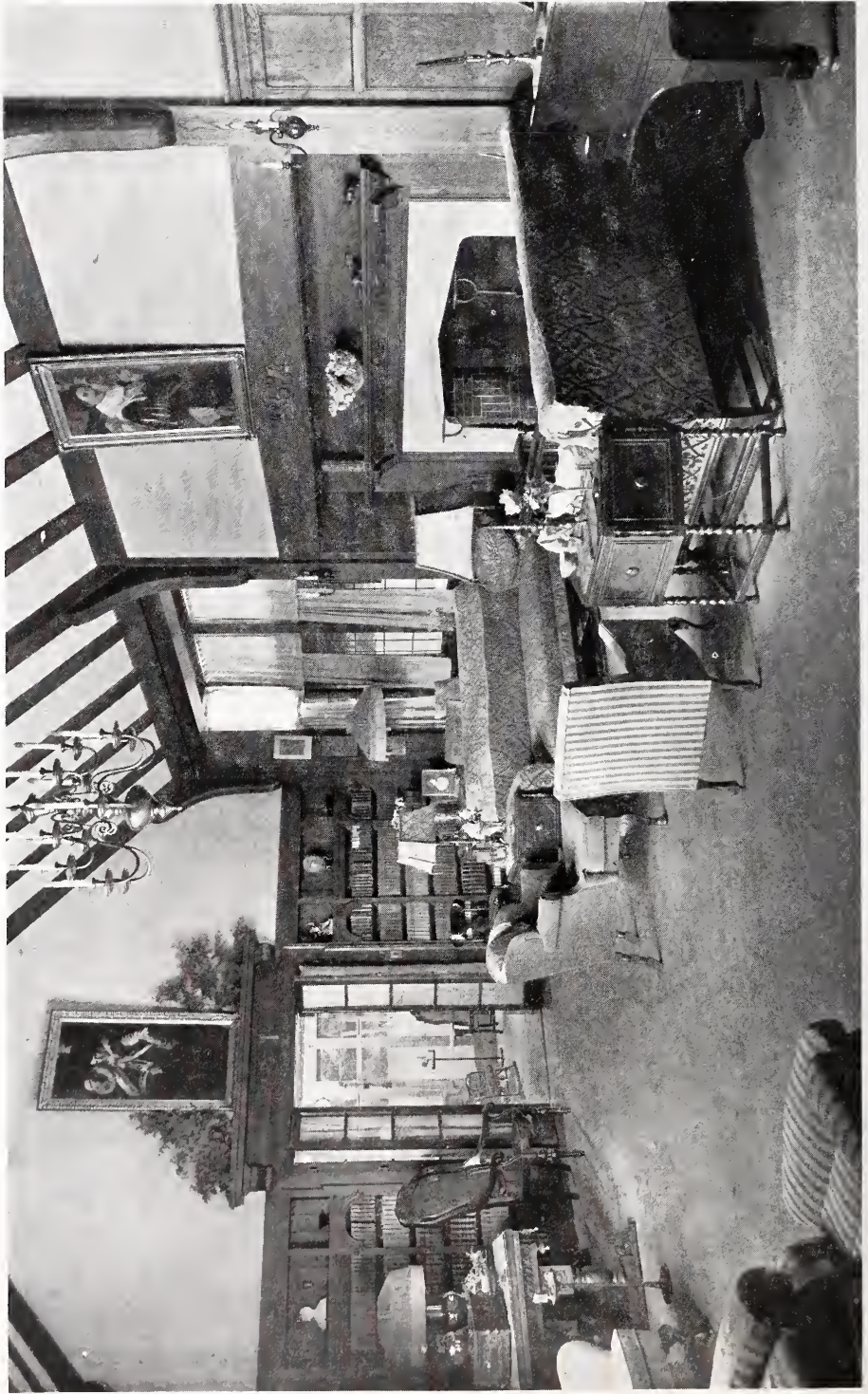
The plan is well studied, the two main axes providing vistas, each of which is terminated in the hall by a focal point of pronounced interest, the vista from the living room leading up to the mantel, while the one through the dining room and loggia hall has the fountain for its termination. From the center of the octagonal entrance hall, practically the entire living portion of the first floor is

visible, yet the angle at which the main axes diverge from this point is such as to secure a pleasing sense of privacy to the two wings. Further vistas are provided along the minor axes through the loggia hall and lounging room, and through the front and rear entrances.

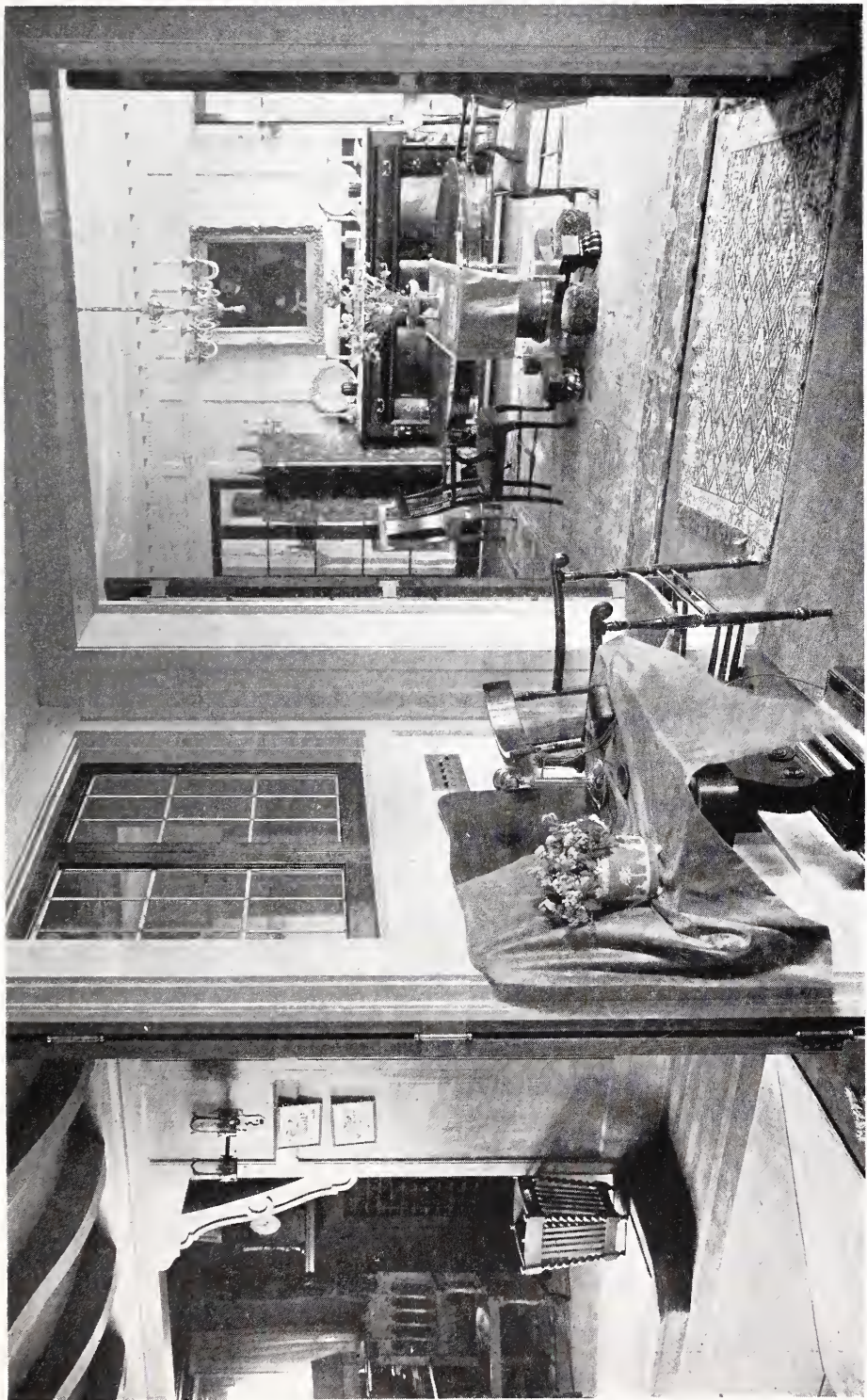
The color scheme of the interior is taken from a collection of rare old samplers which hangs in the hall, but which is not seen in the photographs. Soft tones of tan or fawn color predom-



FIRST FLOOR PLAN—RESIDENCE OF JOHN GLASS, ESQ., HIGHLAND PARK, ILL.
Frank B. Meade and James M. Hamilton, Architects.



LIVING ROOM—RESIDENCE OF JOHN GLASS, ESQ., HIGHLAND PARK,
ILL. FRANK B. MEADE AND JAMES M. HAMILTON, ARCHITECTS.



LOGGIA HALL, BILLIARD ROOM AND DINING ROOM—
RESIDENCE OF JOHN GLASS, ESQ., HIGHLAND PARK, ILL.
FRANK B. MEADE AND JAMES M. HAMILTON, ARCHITECTS.



BREAKFAST ROOM—RESIDENCE OF JOHN GLASS,
ESQ., HIGHLAND PARK, ILL. FRANK B. MEADE
AND JAMES M. HAMILTON, ARCHITECTS.



DINING ROOM—RESIDENCE OF JOHN GLASS, ESQ., HIGHLAND PARK,
ILL. FRANK B. MEADE AND JAMES M. HAMILTON, ARCHITECTS.

inate, together with dull blues, old rose and greens. A reproduction of an old Chinese rug in the dining room together with some bits of Chinese embroidery in the table cover and a screen give a decided Chinese note to the color scheme of that room. In the breakfast room a striking feature is found in the trellis work upon which living vines are growing, and the touch of color in the tile floor and in the painted decoration of the white furniture gives to this little room a lively and inviting air.

The living room, which is thirty-five feet long, is carried up into the slant of the roof, and is given a heavy timber treatment; in fact the decorative effect is largely dependent upon the contrast of woodwork and plaster. The homelike appearance of this room is enhanced materially by the arrangement of furniture into various groupings, the two large sofas, with their companion lamp tables, which flank the broad fireplace, forming the most important group, while various inviting corners tempt one by their air of comfort and seclusion.

No overdraperies are to be found in the house except in the billiard room, or lounging room, as it is designated on the plan. Elsewhere throughout the house the only curtains to be found are heavy linen sash curtains, whose natural color blends harmoniously into the general scheme.

Taken as a whole the house impresses one as being of the sort that is well adapted to the requirements of the average American family possessing good taste and comfortable means; it is situated in an environment of trees, shrubbery, and open lawn that indicates and

cultivates a wholesome love of nature and of outdoor life; its interior, while sufficiently roomy to permit of a generous degree of hospitality, is so planned as to provide the "cozy" atmosphere so necessary to the enjoyment of home life.

This house does not exhibit any radical departure from houses of like character which may be found in England. The architect would not claim that he was creating a new American style, but rather that he was using a style suited to American needs. Neither would he acknowledge that he was deliberately "cribbing" from English prototypes any more than he would if he were to incorporate an Ionic order in a classic building. He has merely chosen a type that is pleasing, and has adapted it to the requirements of the problem before him.

Is not the rational attitude toward an American style the one which permits the designer frankly to pick and choose from the wealth of material with which the past has endowed him, but which requires of him a standard of skill and judgment in the use of these materials commensurate with the advantages which they bestow upon him? Accepting this basis of judgment are we not now making rapid progress toward the goal of an American style, and are not houses like the Glass house and the multitude of others with which the pages of the architectural press are crowded, more truly American than are those in which an attempt has been made to produce a strictly original style, in many of which, alas, the fact of originality is the chief source of merit?

CHURCH PLANNING IN THE UNITED STATES

Part V. Plan Types Responding to the Complex Needs of the Modern Church

By Richard Franz Bach

METHODS of solution in favor of the separate wing for the Sunday School are also reached through another avenue of church development. We have witnessed in previous articles the plan's growth in the single building by increase of area in the "combination plan," by use of a basement story in the plan providing for more than one level, and finally by accommodations in a separate structure, more or less integrally connected with the main audience hall, ultimately developing into an entirely distinct building. This growth we have based chiefly upon the requirements first of the church proper, secondly on those of the Sunday School in its broader educational interpretation.

Another phase of church activity which must be accounted for in this whole course of plan modification, closely allied with the Sunday School requirements, and which is responsible for many modern problems in church planning, is the outside or social life of the congregation. This takes many forms, and not all of these require individual accommodations within one of the church buildings themselves; while only a few demand space gauged according to the number of members or participants involved.

The modern church has become a community centre. Its importance to the locality in which it functions has grown out of all proportion to architectural considerations, and, as is usually the case in similar rapid developments, the older

structures cannot be replaced by appropriate and adequately planned new buildings at sufficient speed to take care of the growing complexity of the activities, duties and types of public service they are required to house, while the old buildings themselves are hopelessly impossible places for much of the work of a busy church of the present day.

The earliest of these activities were along missionary lines and along lines of social interchange, largely under the control of the women of the congregation. For the first of these no great space allowance needed to be made, beyond meeting rooms for societies and committees which could often be accommodated elsewhere, perhaps even at the residence of a member. The room allotted to the Sunday School was occasionally again requisitioned, and class rooms formed spaces of convenient size. Again, a general committee room was frequently found quite sufficient for meetings of a goodly number of committees, governing and otherwise, even for clubs and societies formed for varied purposes, although a crowded calendar for such a room might also have resulted in most cases. The more extensive home missionary or neighborhood work was ultimately provided for in buildings of the dependent chapel or settlement house type, usually or at least often situated at some distance from the church itself, and so quite beside our present question, as must be all other aspects of the missionary problem

in their many ramifications except in very large congregations in poorer districts, where the church buildings must shelter at various times or for limited periods of time the persons profiting by the allied

But as many of these branches of church life are managed by societies or deputed individuals attached to the church, we must again account for committee meeting rooms (Figs. 5, 7, 9, 10), and likewise for public space to care for those assisted by certain of these organized services to the people of the neighborhood at large, when the congregation undertakes relief of their suffering or needs. Since refreshments or even complete dinners are the frequent accompaniment of entertainments, provision must be made for cooking and serving. (Figs. 1, 3, 5, 6, 10.) The usual equipment of kitchen, pantry, possibly also storage space for collapsible tables and chairs, and other appurtenances, would then appear in the plan adjacent to the Sunday School room, unless the arrangement is spacious enough to permit the introduction of a dining room proper (Figs. 1, 3, 5, 6, 10), in which case this baleful intrusion upon the Sunday School room could be avoided.

It will be seen, then, that our space beneath the church would be amply filled by the Sunday School, dining room, kitchen and dependencies, and heating plant, together with the necessary storage

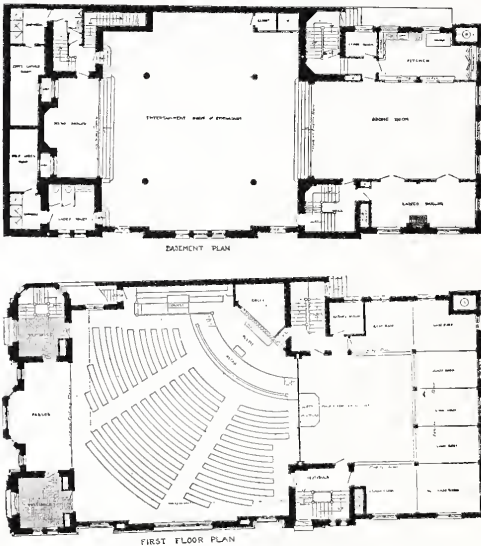


FIG. 1. FIRST METHODIST CHURCH, WELLS-VILLE, OHIO.
Basement and First Floor Plan.
S. R. Badgley, Architect.

services of the church, as will be seen presently.

Various phases of the social life of the church, i.e., in the looser interpretation of these words, long recognized as a distinct and essential accessory of congregation and Sunday School alike, are an outgrowth of the desire to give added interest to the church, its problems and field of activity, by offering its members other opportunities for social intercourse, entertainment and community effort, in the way of club organization for study, relief of the destitute and the sick, for amusement, and the like, or in the way of lectures, concerts and similar methods of bringing together large numbers of persons among whom to extend the church influence. As for space available for these many purposes, which in the end become multifarious, recourse is usually had once more to the overworked Sunday School room, which in many cases is occupied in such fashion on most evenings as well as afternoons during the week.

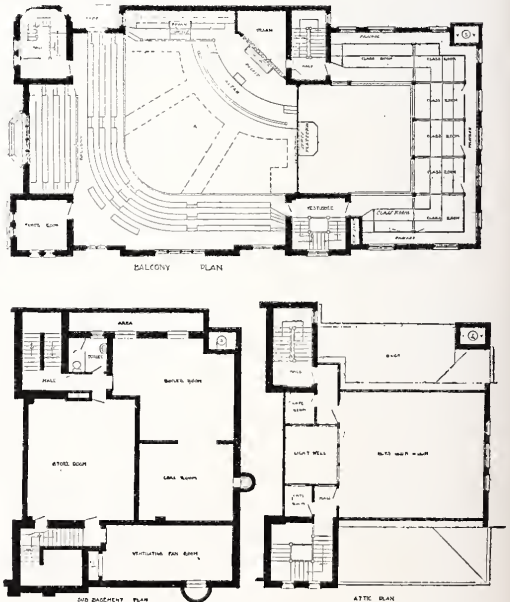


FIG. 1A. FIRST METHODIST CHURCH, WELLS-VILLE, OHIO.
Balcony, Sub-Basement and Attic Plans.
S. R. Badgley, Architect.

appropriate for certain other phases of church life that might otherwise be housed within the same space. The country church may, of course, call on Nature to assist in providing drill space for the Scouts or cadet company, but the city church is obliged to fall back once more upon its Sunday School room, unless munificence from some direction furnishes a separate room for these purposes or makes the hiring of additional space elsewhere a possibility.

Again, a number of churches have instituted a gymnasium (Figs. 3, 4, 6, 7, 8, 10, 11), sewing classes, and classes for the teaching of languages, music, crafts and manual training (Fig. 10). Space can easily be found for certain of these forms of educational work, but the teaching of crafts and manual training again demand special equipment, space for storing of tools and materials, and plan accommodation for work benches or tables. This space is once more of such nature as to be of little use otherwise. The same is true of the gymnasium, which requires considerable ground space, not usually given sufficient use to warrant the expense of its equipment, unless this be demountable, in which case the room would become available for the use of

other activities already mentioned, notably that of the cadet company. But the apparatus needed for physical education is not all readily movable, and the room therefore does not receive sufficient use to make its inclusion in the plan of value in a smaller church. But it should be said, in this connection, that certain churches have built up a system of classes involving the use of the gymnasium, which fully guarantee an adequate return for the expenditure necessary. Additional provision must again be made for lockers and dressing rooms, shower baths, possibly even a pool, and, if there are girls' classes, for the proper segregation of sexes, although, if necessary, this can be handled in the average sized church, by reservation of certain days for meetings of classes, in which event an increase of locker space—or even of lockers in the same locker room—might suffice.

Among the educational responsibilities assumed by an increasing number of churches, notably in the larger cities, should be included the classes for foreigners, especially for Orientals and immigrant laborers; likewise the effective agent of the circulating library; and campaigns against vice, liquor, cruelty to

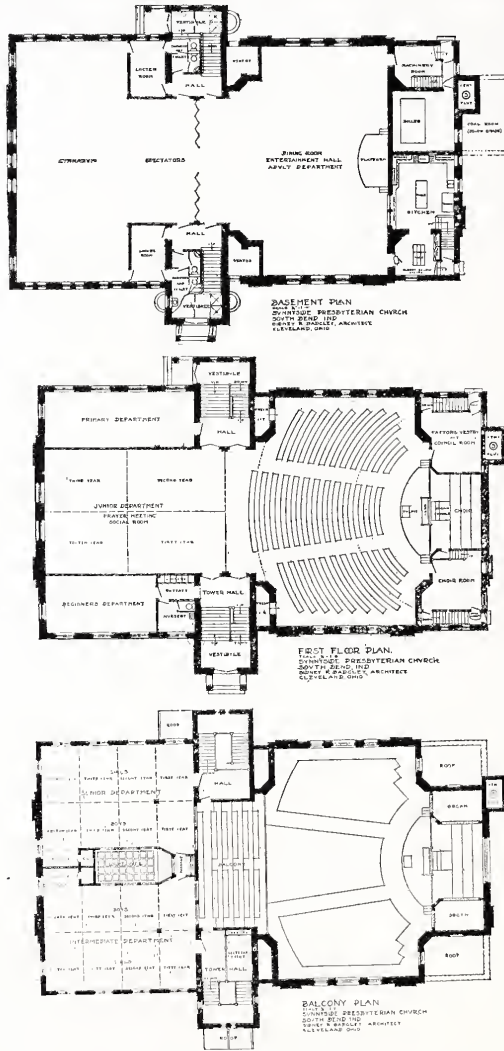


FIG. 3. SUNNYSIDE PRESBYTERIAN CHURCH, SOUTH BEND, IND. Proposed Plans. S. R. Badgley, Architect.

children, all of which require fairly small space, frequently none at all, at least none with specific equipment, in the plan. The same cannot be said of the dispensary and

additional motive in the plan in such cases.

Then, finally, though quite beyond our province at the moment, comes the con-

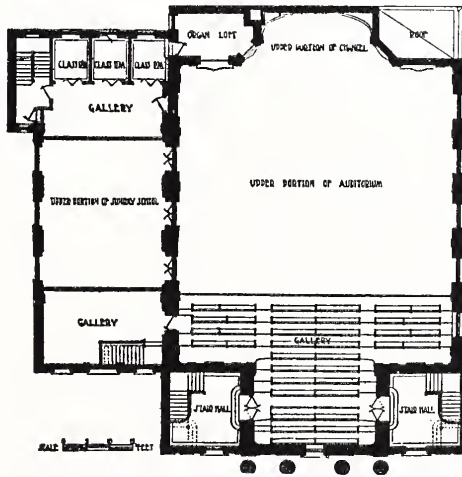
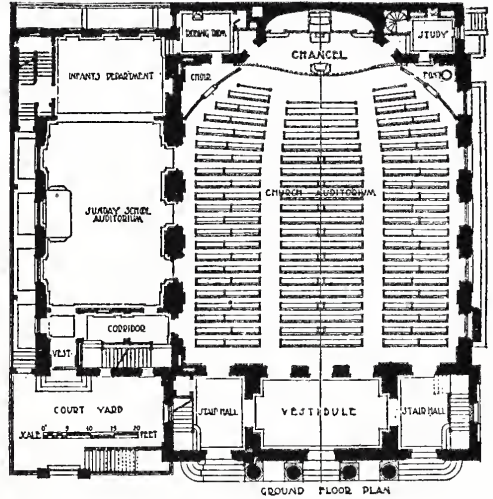
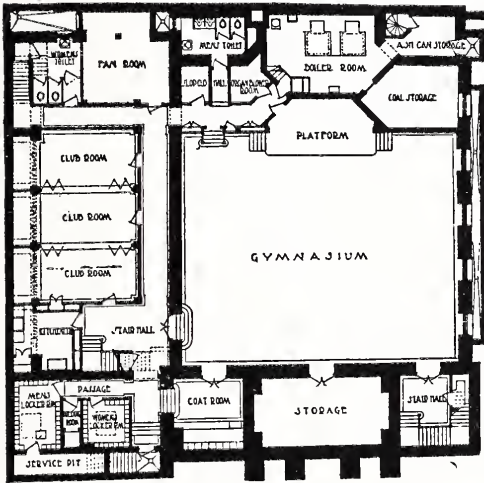


FIG. 4. WEST PARK PRESBYTERIAN CHURCH, NEW YORK CITY. Carrère & Hastings, Architects.

playgrounds or playrooms, the latter instituted to make good a deficiency in cities which offer no reserved playgrounds for smaller children to remove them from the danger of street traffic. The dispensary service has in numerous cases assumed very large proportions; the need for an independent equipment and for reserved space not available or even accessible to other church functions would make an

sideration of the very large city church, usually the cathedral, with extensive metropolitan responsibilities and corresponding control, with halls for synods and convocations, several dependent chapels situated elsewhere within a given parish, and a corps of clerks and clerics alike to attend to its complex work in many directions. Such churches or cathedrals are usually grouped with several accessory

buildings, and their needs are too specific to engage us here.

The question of the rectory may be bound up with that of the church plan itself, or with that of the Sunday School, or even with that of the church house, or parish house. It is usually a separate building, but the space allowed for the minister's personal needs is not, generally speaking, so great as to make serious inroads upon a building already of considerable size, and a number of examples have demonstrated the feasibility of including his residential quarters in the plan of any of the buildings mentioned. This

of an always sharper division between the purely religious and the secular work of the church, and the representation of both by individual structures. As the duties of the church in the secular field increase, the need for a church house or parish house becomes increasingly apparent, for within its walls may be accommodated all and sundry of its activities. Such a building is not necessarily subject to traditions of usage or design, it may be raised to any desired number of stories, and it may be planned to shelter any or all of the complex types of service and assistance outlined in the preceding (Figs. 10, 11).

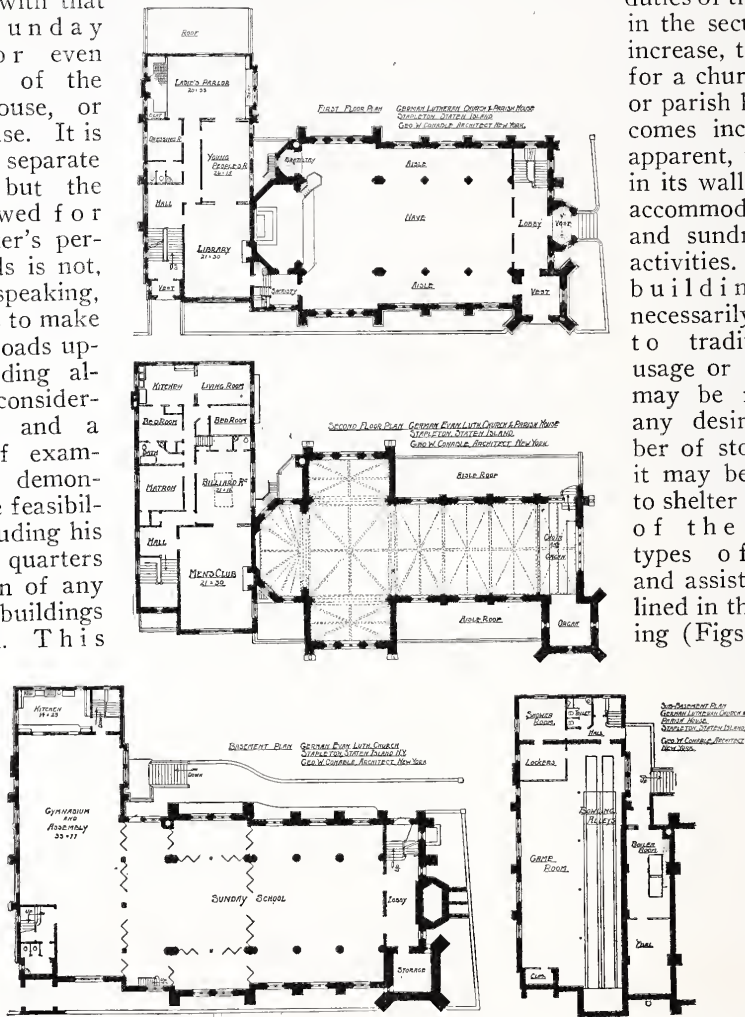
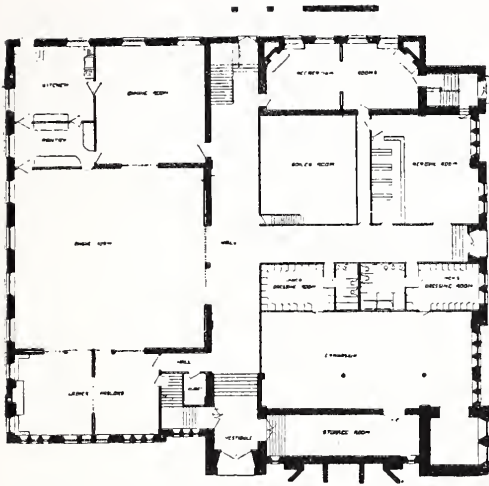


FIG. 5. GERMAN EVANGELICAL LUTHERAN CHURCH AND PARISH HOUSE, STAPLETON, S. I. George W. Conable, Architect.

has the great advantage of the convenience of proximity to the centre of his labors, although not without the disadvantages of noise and other disagreeable features inseparable from the constant use of the same building for a number of varied purposes.

The whole trend of these various developments is decidedly in the direction

In the case of large examples, such a building may even give quarters for a day school, the latter being infrequently of such size as to demand a special building, while the requirements of a kindergarten are readily met in much smaller buildings, or in one or the other of the spaces already reserved for other purposes in the Sunday School room or its



accessories. But the Sunday School must invariably be regarded as a feeder to or may readily be made an attraction for practically all other church functions, thus accenting its semi-secular character, and bringing it more and more logically under the same roof with the purely secular side of church work. We therefore find an increasing number of church houses, in which as much as one-third of a large building must be given over to Sunday School needs. (Figs. 1, 2, 3, 6, 7.) When the parallel social service of the congregation is not of great extent the trend, nevertheless, is in favor of a separately designed building for the Sunday School, arranged for its own graded and thoroughly scholastic purposes, as suggested in the preceding article in this series.

The conclusion must be, in the rapid development of these varied phases of church activity, that adequate equipment is essential to success and efficiency in

service cannot be brought into its activities without an organized administration of such equipment. Therefore proper accommodations should be provided for, if at all possible, at the outset, to meet unhampered the needs of any and all church duties—for in such cases service is duty—to its community without conflict in plan reservations assigned to them.

Nor does the task end there. There is the growing need for counteracting the evil influences of the streets, of compensating for the effects of dance halls and other types of poor or improper entertainment, so largely accessible to the youth of large cities. This duty many churches have also assumed in a definite sense by providing various types of entertainment, as

good and as cheap, but of different moral calibre, for persons susceptible to the evil influences mentioned, but in each case only to encounter again the need for space, more especially for space not already overtaxed. In a busy church this problem becomes very complex, and from the trials of this or that large city church,

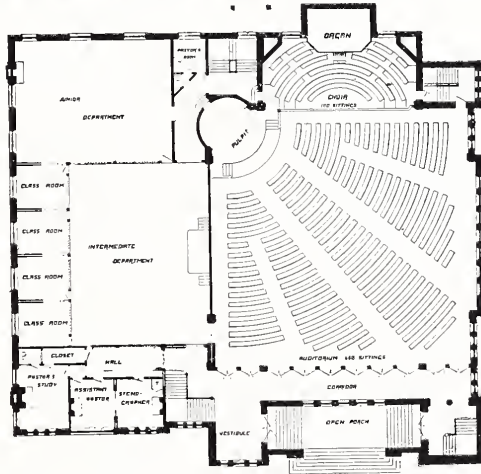
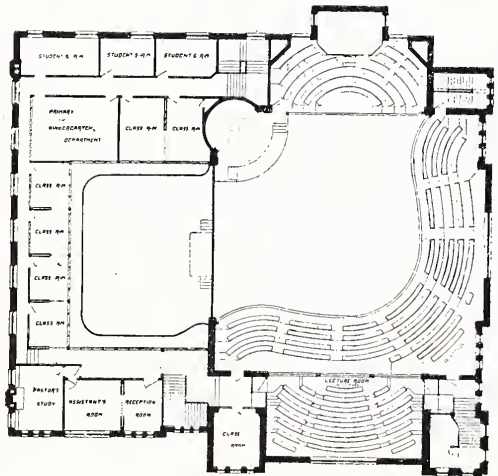


FIG. 6. PILGRIM CONGREGATIONAL CHURCH, CLEVELAND, OHIO. S. R. Badgley, Architect.



not yet of sufficient affluence to provide a building to meet its needs in these respects, for the Sunday School room cannot serve all semi-secular and outside purposes without in the end causing a deterioration of its own good quality and character, not to mention the simpler matter of wear and tear upon its equipment. The writer is acquainted with the

tables and other games have been provided and have served a good purpose, but always with the additional requirement for space not available otherwise.

In general it may be said that many a large church is approximating the type of service rendered by the Young Men's Christian Association. In the course of our discussion of the subject various as-

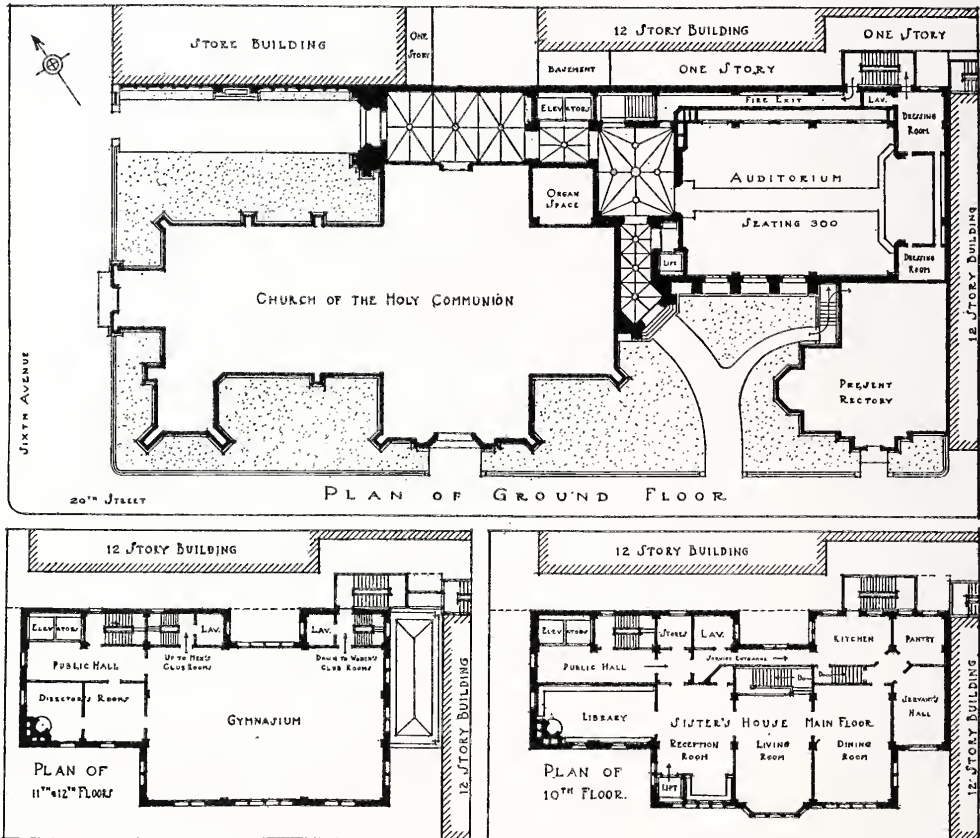


FIG. 7. PROPOSED PARISH HOUSE AND CHURCH OF HOLY COMMUNION, NEW YORK CITY. Charles C. Haight & Githens, Architects.

affairs of one church in New York where efforts to provide for the surplus time and energy of adolescence which might find evil channels, have gone to the extent of regular motion picture performances. In this church no less than 40,000 children attended free "movies" in the course of last year, while at special times the small admission charge invited their parents also. With the same end in view pool

pects of the service of the latter have been mentioned.

There are distinct opportunities for unlimited growth and broadening in this type of community service for the church in the United States; its increased importance and civic responsibilities at the moment offer but a foretaste of a highly complex organization in the future, and this will ultimately apply not only to the

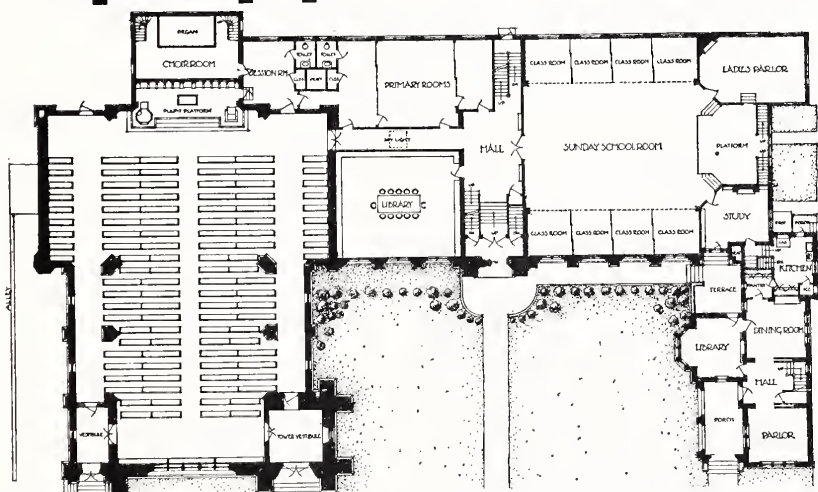
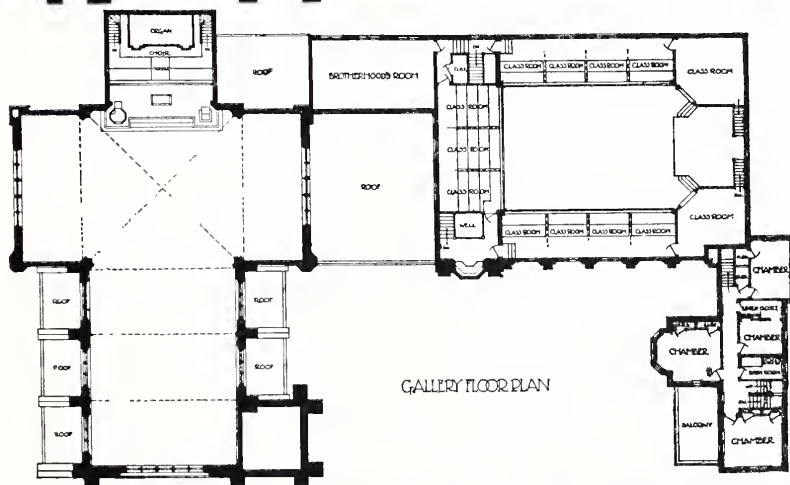
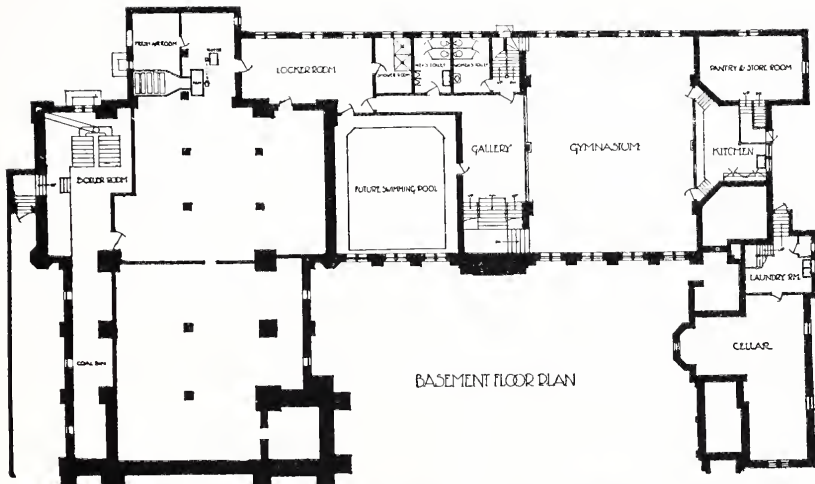


FIG. 8. RICHARDSON MEMORIAL PRESBYTERIAN CHURCH, PHILADELPHIA, PA.
Charles W. Bolton & Sons, Architects.

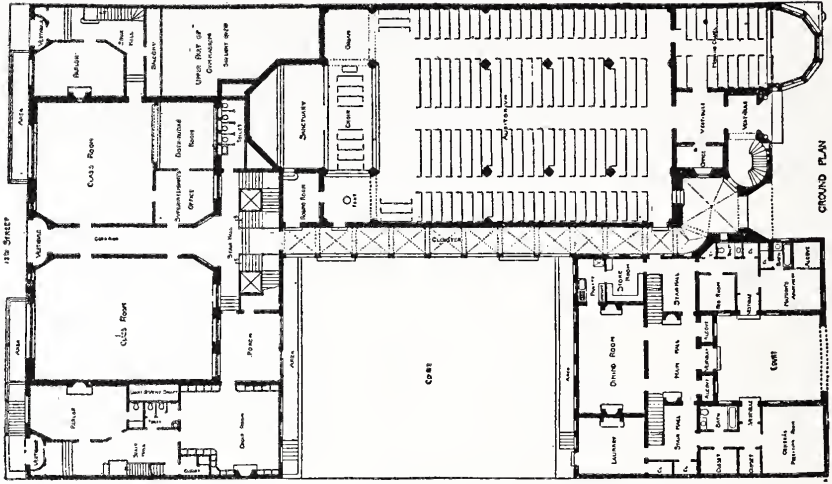


FIG. 9. GRACE CHAPEL AND MISSION BUILDINGS, NEW YORK CITY.
Barney & Chapman, Architects.

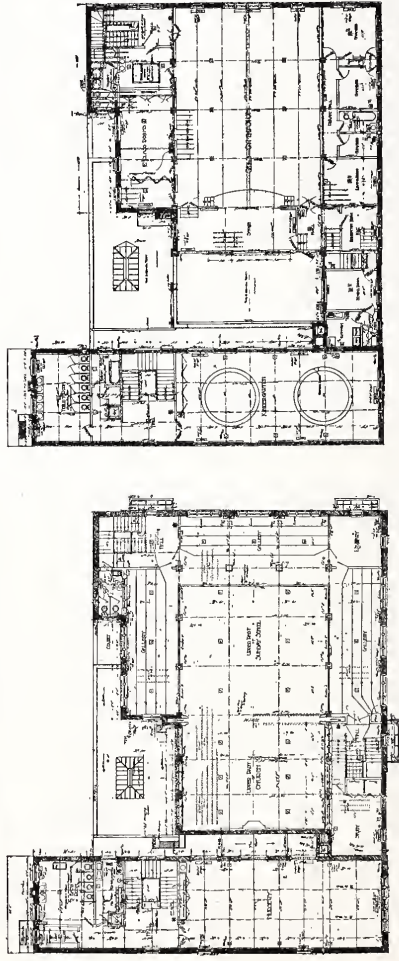
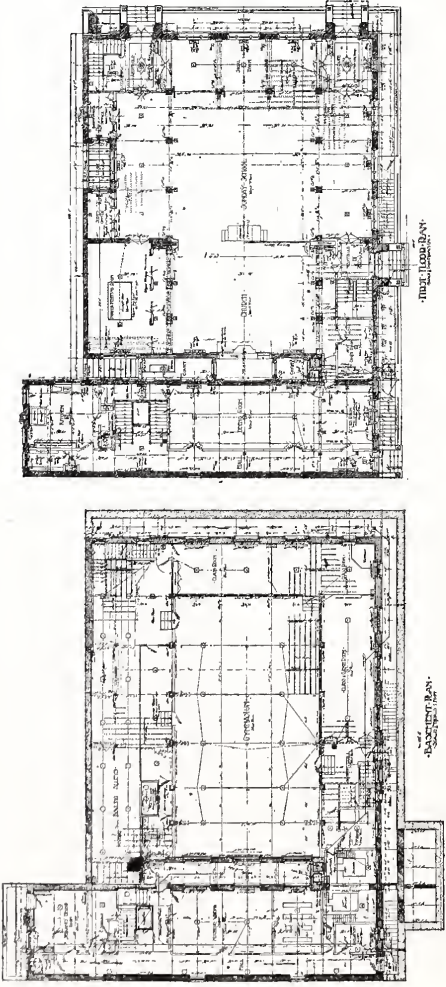
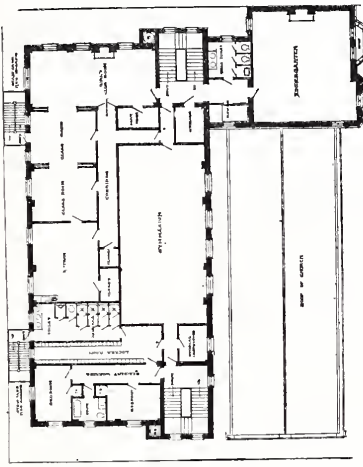
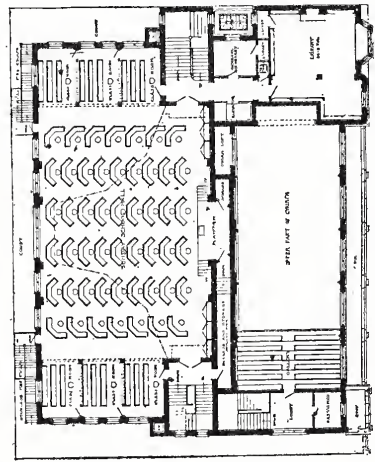


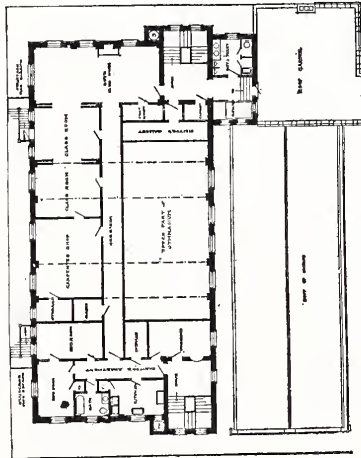
FIG. 11. BETHANY MEMORIAL CHURCH, NEW YORK CITY.
Nelson & Van Wagenen, Architects.



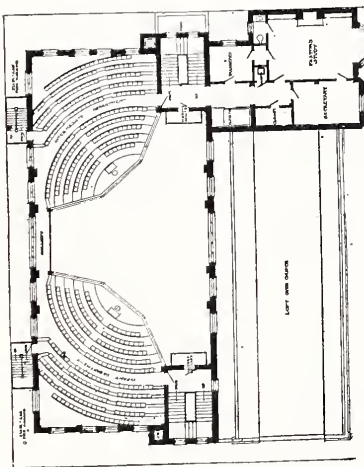
FOURTH FLOOR PLAN.



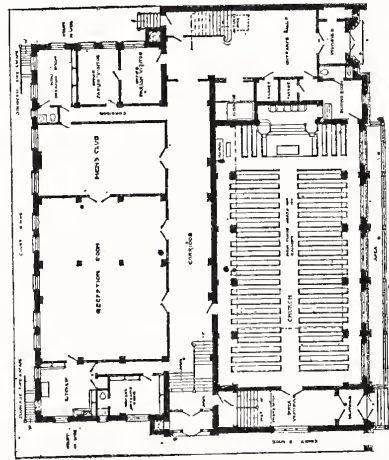
SECOND FLOOR PLAN.



FIFTH FLOOR PLAN.



THIRD FLOOR PLAN.



FIRST FLOOR PLAN.

FIG. 10. CHRIST'S CHURCH AND BARCOCK MEMORIAL HOUSE, NEW YORK CITY.
Parish & Schroeder, Architects.

city but to the country church, and especially to the church in a chartered village where its authority and service may grow with the community. The Federal Council of Churches has published statistics demonstrating that there were no less than 170 religious organizations in this country at the close of 1914. Their total membership was 38,708,149, a figure representing about two-fifths of our popula-

tion, exclusive of outlying possessions. This will yield a partial explanation of the broadening scope and function of the church edifice in community life; all of its activities must in the end be transformed into specific problems and conditions to be laid before the architect. The subject offers a pregnant study in architectural development, notably as indicated in the planning of such buildings.

Bibliographical Note.

A number of useful references of value in connection with the subject matter of this series of articles on *Church Planning in the United States* is given herewith, in the hope that the too meager material presented in these pages may have prompted further study on the part of those for whom this field holds a particular professional or personal interest. No inclusive text embracing the general subject has yet been issued, but there is substantial information and plentiful illustrative material in Cram's *Church Building* (Moffatt, Yard & Company, Boston); Kidder's *Churches and Chapels* (Wm. Comstock & Company, New York), and Kramer's *The What, How and Why of Church Building* (published by the author, New York).

There are also good illustrations in two volumes entitled *American Churches*, issued by *The American Architect* (New York); and of particular value in its own field because of its systematic development of discussion and its plentiful plans is Lawrence's *Housing the Sunday School* (Westminster Press, Philadelphia). The subject has been approached from numerous angles in various periodicals. Interesting papers will be found in earlier issues of *The Architectural Record*, written by H. W. Congdon and others, and in *The Brickbuilder*, notably vols. 13, 14, and 15 (1904-1906), in a series of articles dealing with separate denominations, by a number of architects and representative ministers.



NORTH ELEVATION—"RUTHVEN LODGE," WASHINGTON, D. C.

NEW HOUSES *from* OLD MODELS

By

WILLIAM G. MASSARENE



NEARLY every client has in mind a lively recollection of some house which he insists shall serve as a type or model for the dwelling the architect is about to design for him. Compliance with preconceived pictorial notions is often possible, but it usually involves a sacrifice of one or more of the conventions of modern interior arrangement. Before attempting, however, to realize a reproduction of the client's ideal it will be well for the architect to make sure whether the charm of the original is due to features connected with the plan, acquired, perhaps, through successive alterations, or whether the appeal comes from vernacular materials, texture and peculiarities of local craftsmanship that it would be well nigh impossible to duplicate. If the pictorial effects are of the former class it is frequently within

the architect's ability to effect an arrangement of rooms, stairs, fireplaces and other items of necessity or convenience in a modern home to suit the position of door and window openings, the location of chimneys or other exterior features, and produce a complete external semblance of the structure that has seized upon the client's imagination and embodies the expression of his individual tastes. The following examples illustrate several types of moderate-sized old houses, both at home and abroad, that may be adapted in their interior arrangement to the requirements of today.

The "Abbey," at Audley End, is an agreeable English example of the long, low rambling house. The effect of length is accentuated by the corbelled line of the slight overhang above the ground floor, the sharply defined horizontal lines of

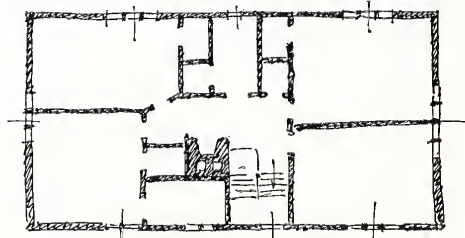


HALF-TIMBERED HOUSE AT PLAXTOL, KENT, WITH SKETCH PLANS SHOWING POSSIBLE LAYOUT OF FLOORS.

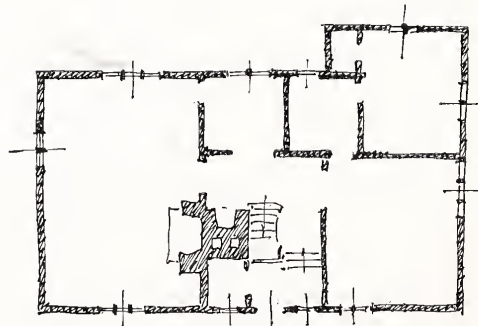
the cornice plainly visible beneath the scanty eaves and by the close proximity of the garden wall, which materially increases the horizontal emphasis. The shapes of the windows, the contour of the chimneys and the line of the roof intensify the architectural interest of the style. As may be seen by the position of the second floor windows in relation to those of the floor below and by the wide chimney breasts, the ceiling height of the rooms underneath the roof is not seriously affected by the slope at the eaves. In the plain brick detail of the cornices, chimney caps, window trims and especially in the thin mullions between diamond-paned lights, there is combined richness and

simplicity. The use of soft and swelled brick with irregular joints would aid in simulating the texture of the old walls.

The exterior suggests, as a possible modern plan, a living room in the foreground, entrance hall, dining room and kitchen, with stairs, pantry and closets to the rear. These rooms would occupy the area of the main building. A laundry and garage, with servants' rooms above, might be contained in the extension shown at the extreme end. On the second floor would be four bedrooms with closets and three baths, while, if it were de-



Second Floor Plan.

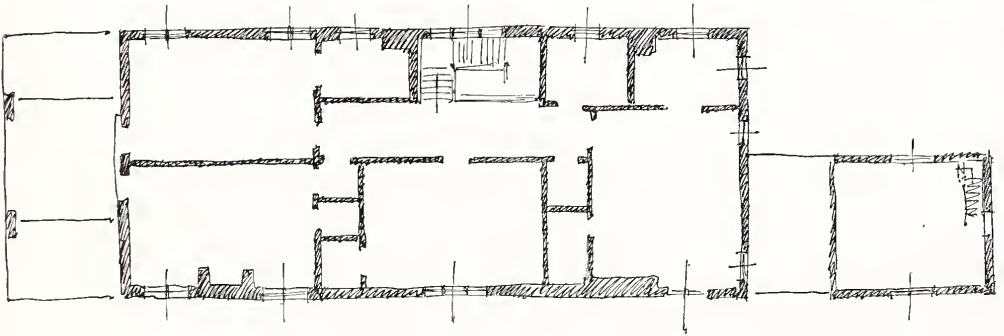


First Floor Plan.

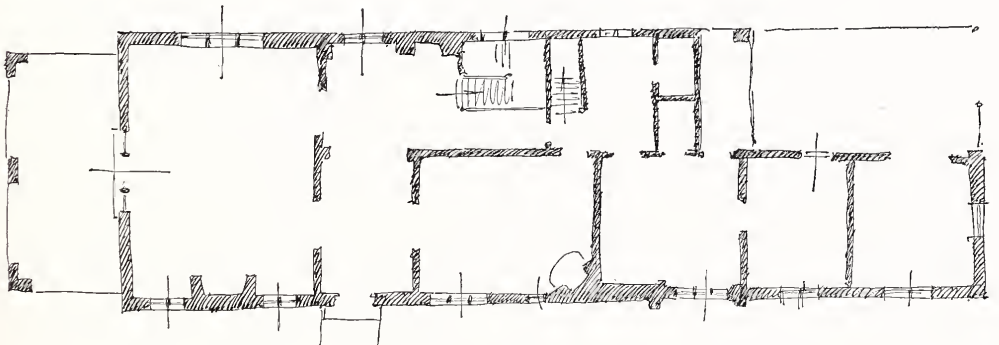
manded, a sleeping porch might be concealed in the large triple-windowed gable that is seen in the foreground.



THE "ABBNEY," AT AUDLEY END, STAFFORDSHIRE, WITH SKETCH PLANS SHOWING POSSIBLE LAYOUT OF FLOORS.



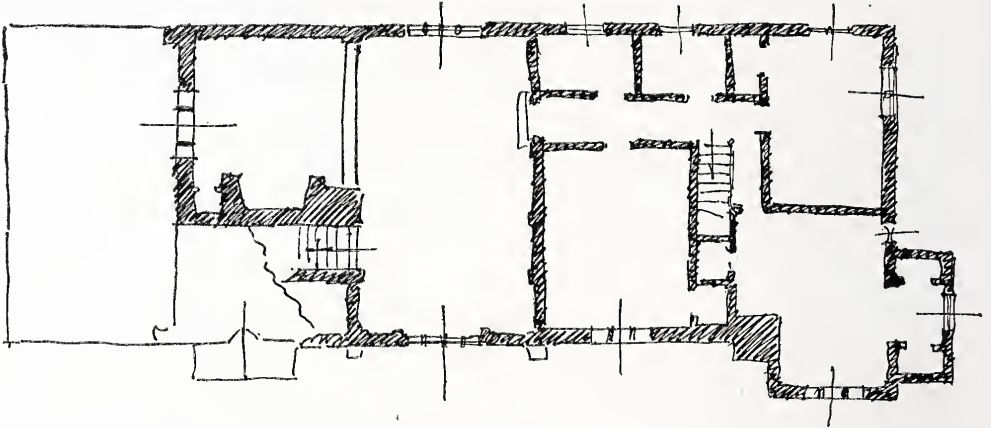
Second Floor Plan.



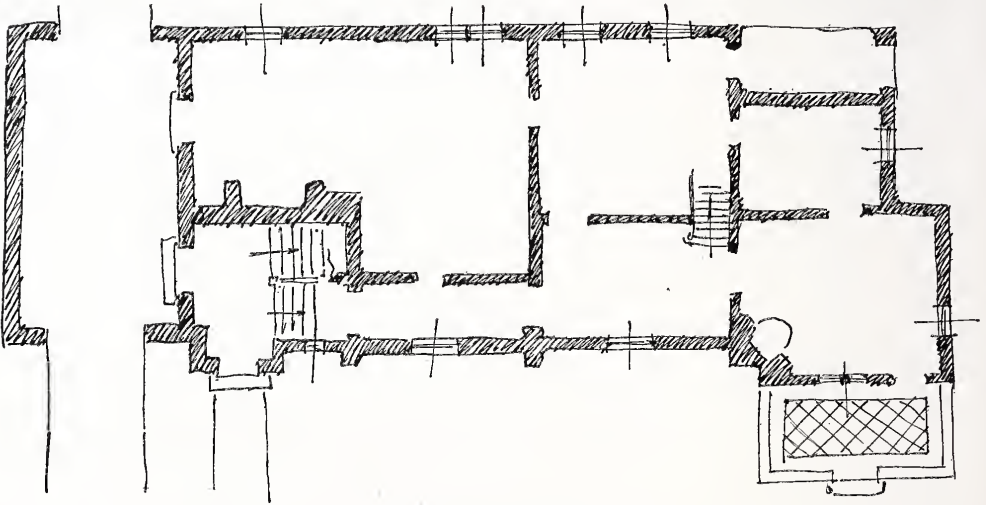
First Floor Plan.

The half-timbered house, at Plaxtol, in Kent, shows a double tier of hewn posts with stucco-pugged panels between and an overhang at one end, resting on simple brackets. The peculiar wave of the

addition to the entrance hall, the first floor consists of a living room, a dining room, and a service room, with fireplaces in both the living room and hall. On the second floor are four bedrooms and space



Second Floor Plan.



First Floor Plan.

INTERIOR ARRANGEMENT POSSIBLE IN A REPRODUCTION OF THE "ALMONRY."

hipped roof has almost the effect of thatch. The windows are seemingly placed without relation to each other or with regard to their positions in the rooms they light. A stairway from the entrance hall to the second floor, alongside the massive chimney, curiously set on one side of the roof ridge, with the small dormer to light the second floor hall, are pleasing features to be preserved. In

enough for ample closets and two bathrooms.

The old "Almonry," at Evesham, dating from an early period, has probably undergone many changes in its long existence, which may account for the irregularity of its lines. The positions of the windows are partly due to the floors being on different levels. Such an example of domestic architecture might be eco-



THE "ALMONRY," AT EVESHAM ON THE AVON, WORCESTERSHIRE.

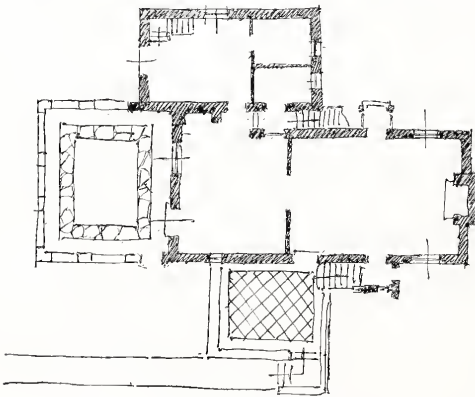
nominically carried out in reproduction by the use of stucco walls and a dark shingle or slate roof. To fit a present day arrangement of rooms to this exterior necessitates a departure from the customary living rooms on the first floor, with sleeping rooms on the second. It would make a livable house of the studio type. A main entrance is suggested by the low doorway, and the blank wall on the left suggests a place for a garage, the roof of which would form the floor for a porch above. The large gable and square casement window indicate the possible position of a living room with ceiling formed by the under side of the beamed roof and an ell-shaped wing or alcove at the back with fireplace and floor elevated so as to be on a level with the porch over the garage. The door to the right, in the picture, is approached by a paved terrace and opens into a dining room. There would also be an approach to the dining room from the main entrance through a corridor, from which a convenient stair would lead to an upper hall. Three bedrooms and two baths could be located on this part of the upper floor, which is two steps higher than the living room floor.

The old Welsh farmhouse at Bar-mouth, built on a hillside, has two gabled wings and a lean-to. The right wing has a large chimney at the far end and outside stone steps that give access to a loft through a dormer window. The walls are of stratified rock, laid on its bed, and the joints are rough-pointed or dry in some cases. A dry stone wall and an enclosed yard add to the irregular grouping. This exterior suggests an interior arrangement for a small house of what might be called the bungalow type, with a living and dining room in the larger wing and lean-to, and a kitchen, pantry and bathroom in the rear wing to the left. The level surface between the stone wall and steps suggests a paved terrace and the enclosed yard a small walled garden. On the second floor of the large wing are sleeping rooms. An inside stairway would descend to the bathroom. Over the kitchen would be a maid's room.

The small Italian house shown is on the Strada Chioda, just outside of Verona. The easy slope of the roof, adorned with minaret-like chimneys with characteristic Italian tops: the windows haphazard in thick walls; the flat stone



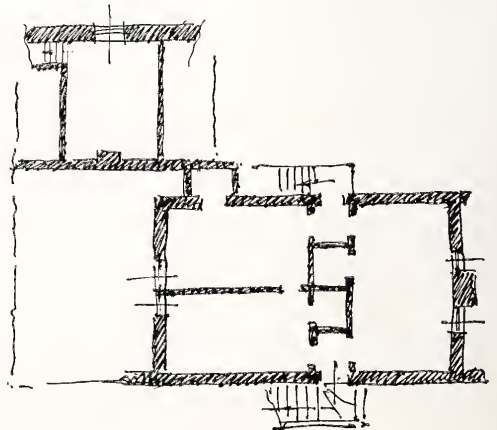
STONE FARMHOUSE, ON A HILLSIDE AT BARMOUTH, WALES, WITH SKETCH PLANS SHOWING POSSIBLE LAYOUT OF FLOORS.



First Floor Plan.

lintels; the projecting sills for potted flowers, lending both color and shadow—all are points of interest and make for the happy result of a plain house quite free from rigidity. The unusual position of the arched door, and the fact that its trim of stone is beautifully carved and moulded, indicate that the house, as it now stands, is the reconstructed ruin of an old villa. A further evidence of this is found in the dim frescoes that show through thinly applied tints of later days. The house is a practical example of what

may be accomplished with artistic results by following simple and graceful lines and the employment of one of these stone doorways as a central feature. To conform to the exterior of this house there should be a vestibule and hall across the front, having a floor level with the ground. This will require inside steps from the entrance hall to the stair hall. A dining room to the left of the hall and, to the right, a living room will prove a convenient arrangement. On the second



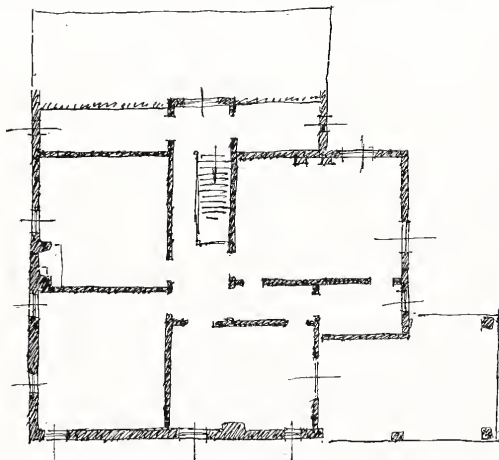
Second Floor Plan.



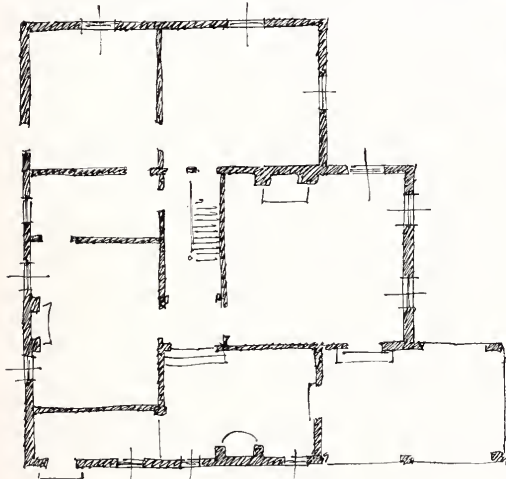
ITALIAN HOUSE ON THE STRADA CHIODA, NEAR VERONA. WITH SKETCH PLANS SHOWING POSSIBLE LAYOUT OF FLOORS.

floor would be space for four bedrooms, closets and a bathroom.

An example suitable for a formal one-story type is shown in the illustrations of "Ruthven Lodge," on Connecticut avenue, in Washington City. The plan is a square central pavilion with equal wings laid out on a double axis. The openings are evenly spaced. The floor and ceiling levels of the central pavilion are higher



Second Floor Plan.

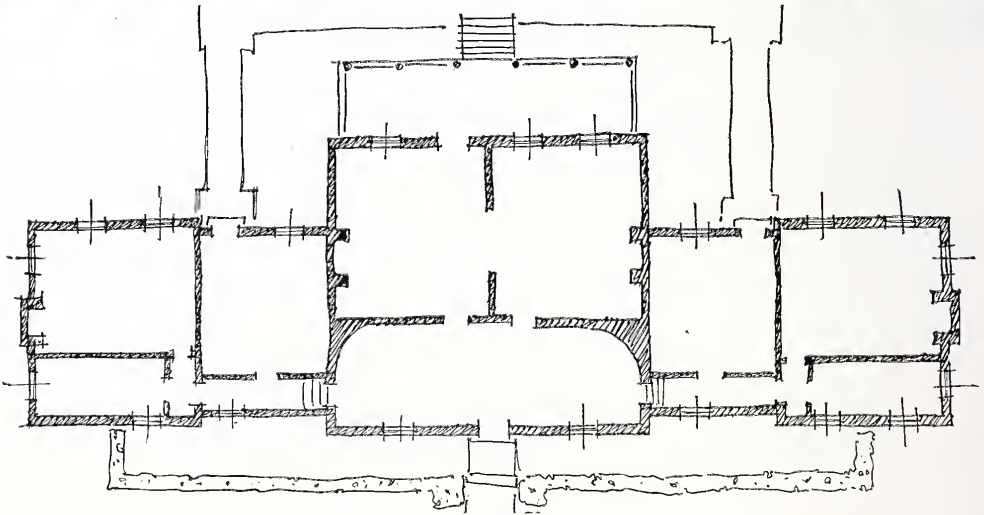


First Floor Plan.

than those of the wings. The north elevation once faced a formal garden, as indicated by the boxwood planting. The structure was probably intended originally for a two-story house, as the round cornered partitions point to the location of stairs and the panels in the parapets seem to mark the position of intended windows. The walls are of brick, heavily coated with many thicknesses of



SOUTH ELEVATION—"RUTHVEN LODGE," WASHINGTON, D. C.



First Floor Plan.

whitewash. The porch has slender columns and a delicately moulded cornice.

This exterior is adaptable for inexpensive masonry or frame construction. The surface of the walls may be of stucco or clapboards and the roof of slag without losing the effect. The plan, as taken from the building, provides for an entrance hall, with corridors leading to bedrooms and bath in the west wing and to service rooms in the east wing. The two rooms facing the porch may be readily

converted into one large living room by removing a partition.

The designing of a small house is a large undertaking, but the problem is often replete with interest to both architect and client, and when some small house, such as one of those just discussed, is taken as a base to work upon, there is a strong stimulus to the exercise of ingenuity and a possibility of achieving interesting and eminently characteristic results.

THE PALACE OF DIOCLETIAN

By FREDERIC LEES

AMONG the ancient buildings of the Old World which the American architect, on setting out for Europe, should make up his mind to see, is one that ought to be given a particularly high place on his list—the ruins of the Palace of Diocletian, at Spalatro, on the shores of the Adriatic. Architecturally, they are of the very greatest interest, since they mark a transitional period in the history of the builder's art—the decline of the Roman style and the dawn of that of the Middle Ages; historically, owing to the story of how and through whom they came into being, they are to be classed with those monuments which, the more we study them, seem to exercise all the greater power of fascination over us.

It was after a reign of twenty-one years that the Emperor Diocletian—sick, tired of holding office and probably foreseeing the disintegration of the Roman Empire—decided to retire to his native Dalmatia and build a palace in which he could tranquilly pass the remainder of his life. The exact date of its construction is unknown, but there is every reason to believe that at the time of the Emperor's abdication, in 305, the building was fairly well advanced, if not actually completed. This, however, is certain: Diocletian lived eight years there, until the end of his days, and his remains were buried in the mausoleum which he had had constructed in the palace and which has now become the Cathedral of Spalatro.

Salona, the town which probably gave birth to Diocletian, and near to which he placed his magnificent residence, was destroyed at the beginning of the seventh century by the Avars and the Croats. The inhabitants fled and took refuge behind the high walls of the Palace of Diocletian, which became the nucleus of a new city, now called Spalatro.

What was the original aspect of the Palace of Diocletian? How were its rooms, its corridors, and its terraces arranged, and what was the nature of their ornamentation? That is a problem which has occupied the thoughts of architects

and archaeologists for more than two hundred years. In the eighteenth century, an English architect, Robert Adam,* entered into a serious study of the ruins, and published a monumental work, entitled *The Ruins of the Palace of Diocletian at Spalatro*, in which he set forth a complete plan of restoration. Since then, thanks to many discoveries made by excavators, fresh light has been thrown on the subject, and these have made it possible to form a clearer idea of the exact appearance of this imperial residence.

M. Ernest Hébrard, a well-known Parisian architect and a former *pensionnaire* of the Academie de France at Rome, has, like Adam and others, been attracted by this fascinating subject, and the result of his work, made known to the French architectural world, certainly constitutes the most important contribution to the history of the Palace of Diocletian we possess. Patient research among the ruins of Spalatro has enabled him to reconstitute the building in all its details and to prepare a series of plans and drawings which have brought him the *médaille d'honneur* of the Salon of the Société des Artistes Français. But he has done more than this. For the benefit of non-professional students, who are little accustomed to plans and sections, he has executed, with the assistance of two sculptor friends, MM. Germain and Châtillon, an accurate model of the Palace as it must have appeared in Diocletian's lifetime. This beautiful little work of art, which is to the scale of one centimeter per meter, was commissioned by the fêtes committee of the Exposition held in Rome in the Palais des Thermes of Diocletian.

Through the kindness of M. Hébrard (whose name and work are already well known in the United States, since he lived in New York for some years and has a brother, M. Jean Hébrard, who was Pro-

*Robert Adam (1728-1792) was architect to the King of England and the author, with his brother James, of numerous works of decoration. They gave their name to the celebrated Adam style. In his work at Spalatro, Robert was assisted by the French architect Clérissieu, a man of considerable attainments.

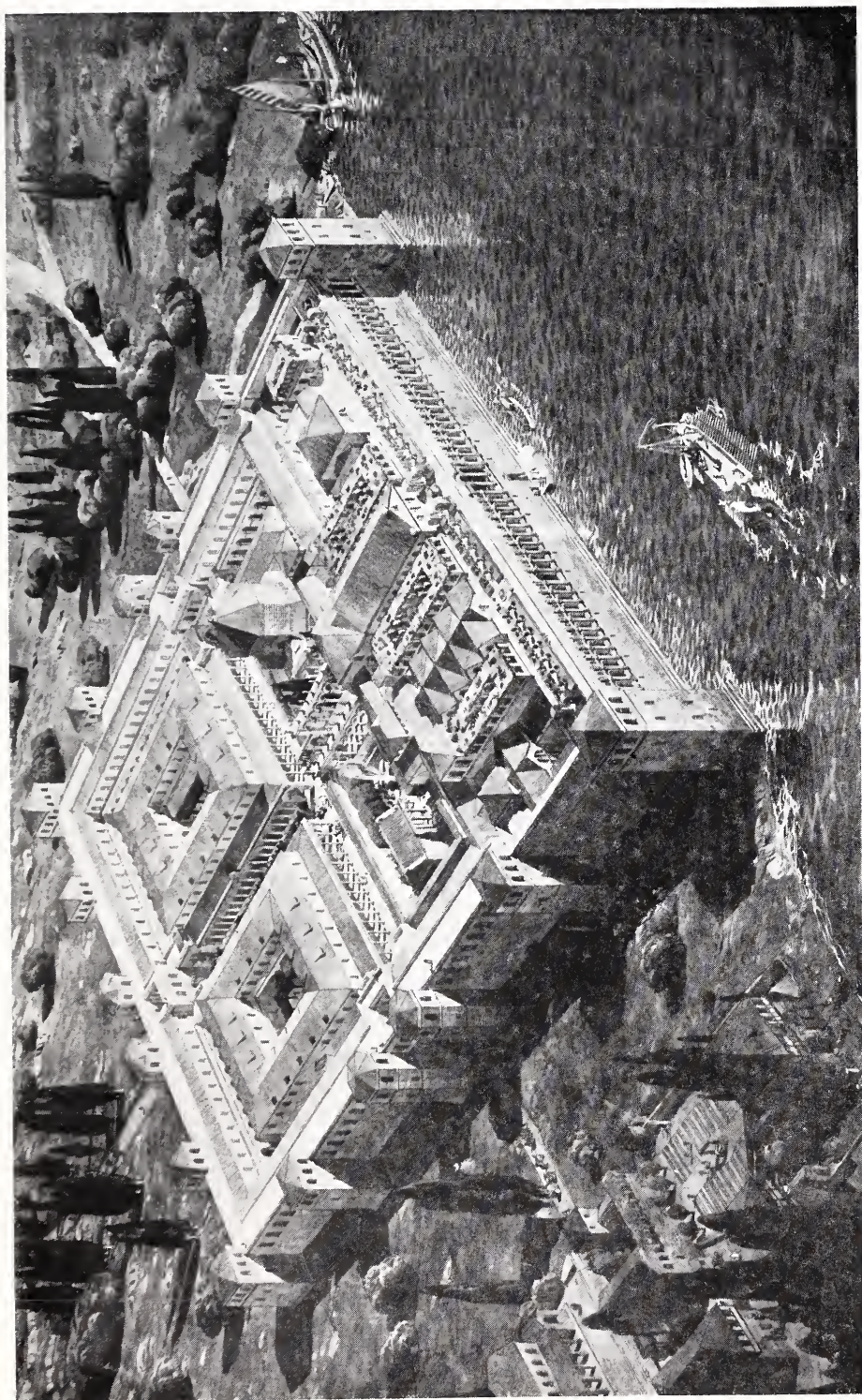
fessor of Architecture at Cornell University) I am able to publish not only the accompanying photographic reproductions, but also to give my readers the benefit of the voluminous notes which he collected during his sojourn in Dalmatia—notes that form by far the most picturesque and convincing history of Diocletian's Palace yet given to the public.

As will be seen, on looking at some of the illustrations, the Palace of Diocletian was built on the seashore. It formed an irregular quadrilateral, 215 by 175 meters, the latter measurement being that of the southern end of the building. This irregularity arose through the conformation of the ground. The unknown architect or architects who designed it were obliged to deviate the eastern wall owing to some important obstacle—probably a small village. The constructions composing the palace were surrounded by a fortified enceinte, at the four corners of which were four square towers, three of which still exist. Each of the four walls was provided in the middle with an entrance. On the north there was the Golden Gate—the *Porta Aurea*, a name which has come down to us from the Middle Ages; on the east, the Silver Gate—the *Porta Argentea*; on the west the Iron Gate—the *Porta Ferrea*; and on the south, the Bronze Gate—the *Porta Aenea*. The last named, much less important than the others, gave access to the sea by means of subterranean passages. Each of the northern, eastern and western doors was flanked by octagonal towers; whilst other towers—rectangular ones—were placed between the octagonal towers and those at the corners to further strengthen the already powerful walls.

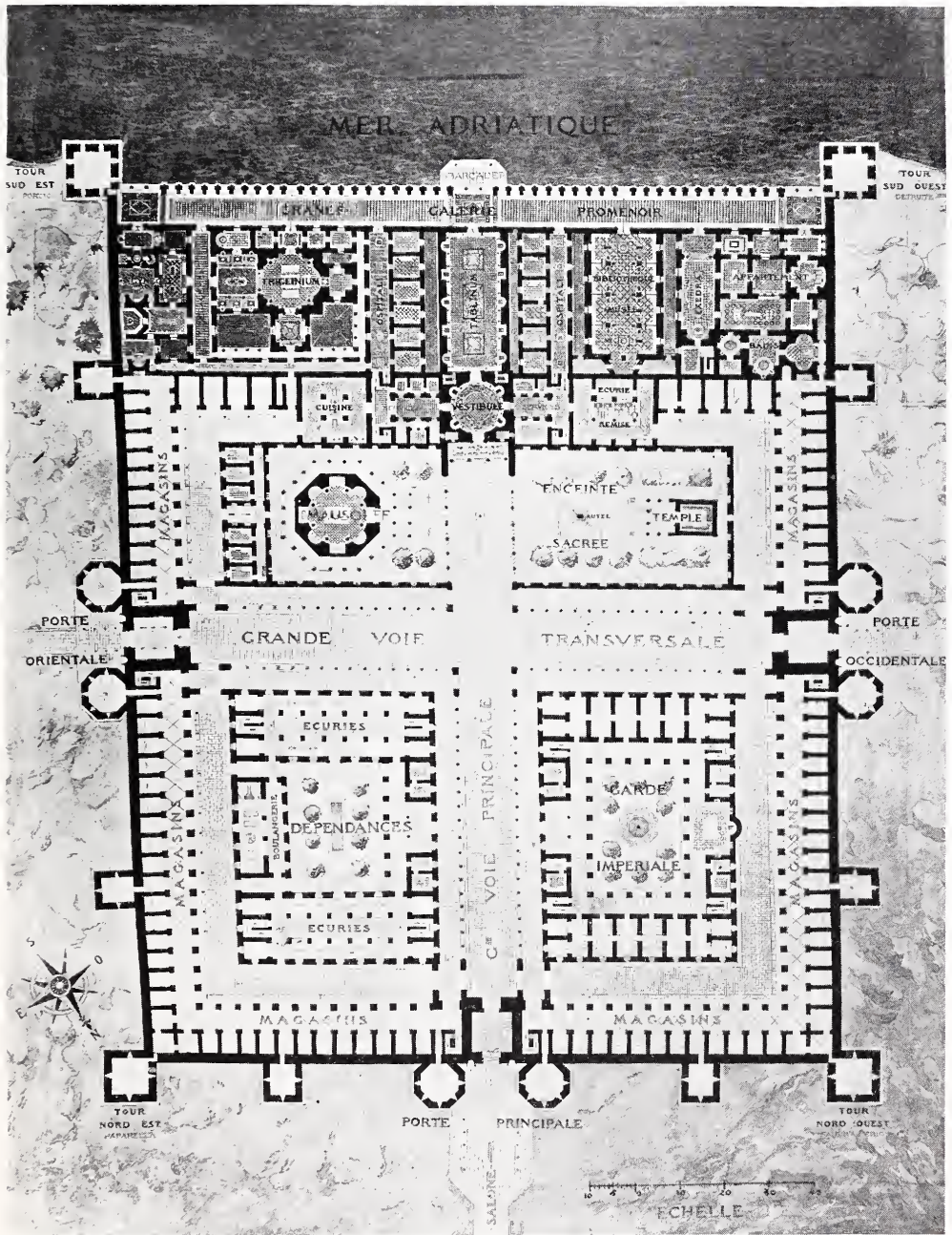
A fortress—a Roman *castellum*—rather than what we should call a palace, such indeed was the residence where the tired Emperor spent the close of his life. But one of its façades—that facing the sea—was less severe in its aspect and just saved the building from the reproach of being too austere. Here was a gallery, with arcades and columns, and in the centre and at the ends spacious *loggie* where Diocletian could sit and view his galleys as they sailed past on the blue Adriatic.

The interior arrangement is clear. Starting from the principal entrance was a broad way bordered by porticos—a thoroughfare which, after crossing another similar avenue which connected the side gates, terminated at a sort of square, called the peristyle, which formed the heart, as it were, of the palace. This peristyle led to the imperial apartments, the mausoleum and the temple.

"At first sight," says M. Hébrard, "this arrangement reminds one of a Roman camp. These broad avenues formed the *cardo* and the *decumanus*. But as many ancient towns were built in this manner, it is extremely difficult to say where the architect of the palace found inspiration. The central peristyle, which is still in a fine state of preservation, is bordered on the right and left by openings with beautiful columns, and these, whilst leading the eye towards the entrance to the imperial apartments, enabled people to see both the Mausoleum and the Temple. The exterior of the Mausoleum, which has been handed down to us in a perfect state, is octagonal. Built on a high basement, it is surrounded by a columned portico. The interior is circular and divided into eight parts, corresponding to semi-circular or square recesses. Two rows of columns, surmounted by rich entablatures, decorated this room, which has a domed roof constructed of brick. The sphinxes which flanked the entrance came from Egypt and are preserved: one on the peristyle, the other in the Spalatro Museum. The temple, which was probably dedicated to Jupiter, was preceded by an open space where sacrifices took place. Its *pronaos* has entirely disappeared. The entrance to the cella is the most interesting architectural feature of the palace. It consists of an immense casing decorated with foliage, in the midst of which animals are playing and children gathering grapes. The modillions of the cornice are very varied; there are the heads of Apollo, Hercules, Victories, and other figures. Two beautiful consoles accompany this casing, but without supporting the cornice—a noteworthy feature which is also to be seen at the famous *Maison Carée* at Nîmes. At the end of the peristyle is a majestic porch



GENERAL VIEW OF THE PALACE OF DIOCLETIAN
AS IT APPEARED IN THE DAYS OF THE EMPEROR.



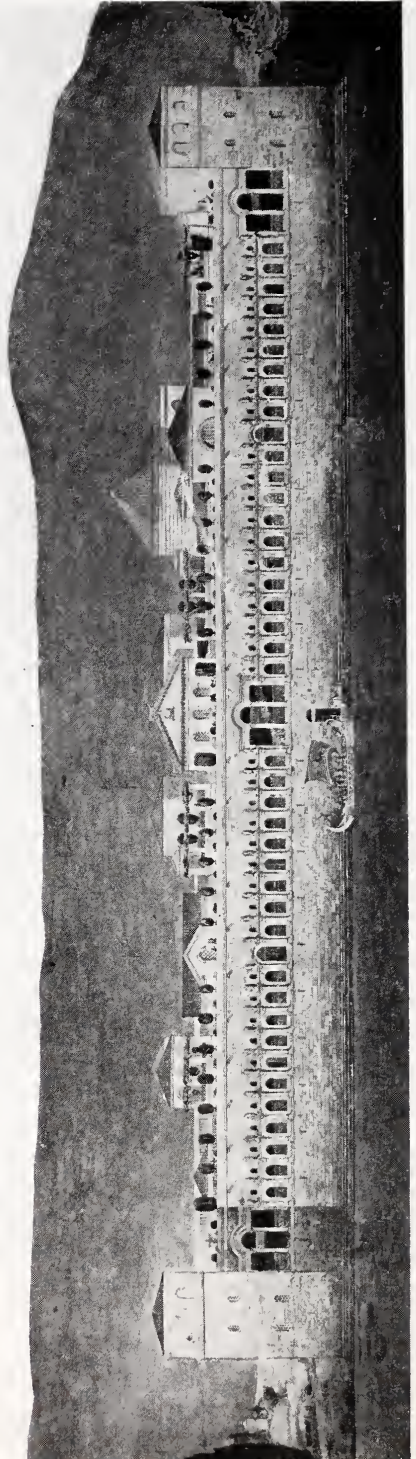
RESTORED PLAN OF THE PALACE OF DIOCLETIAN.



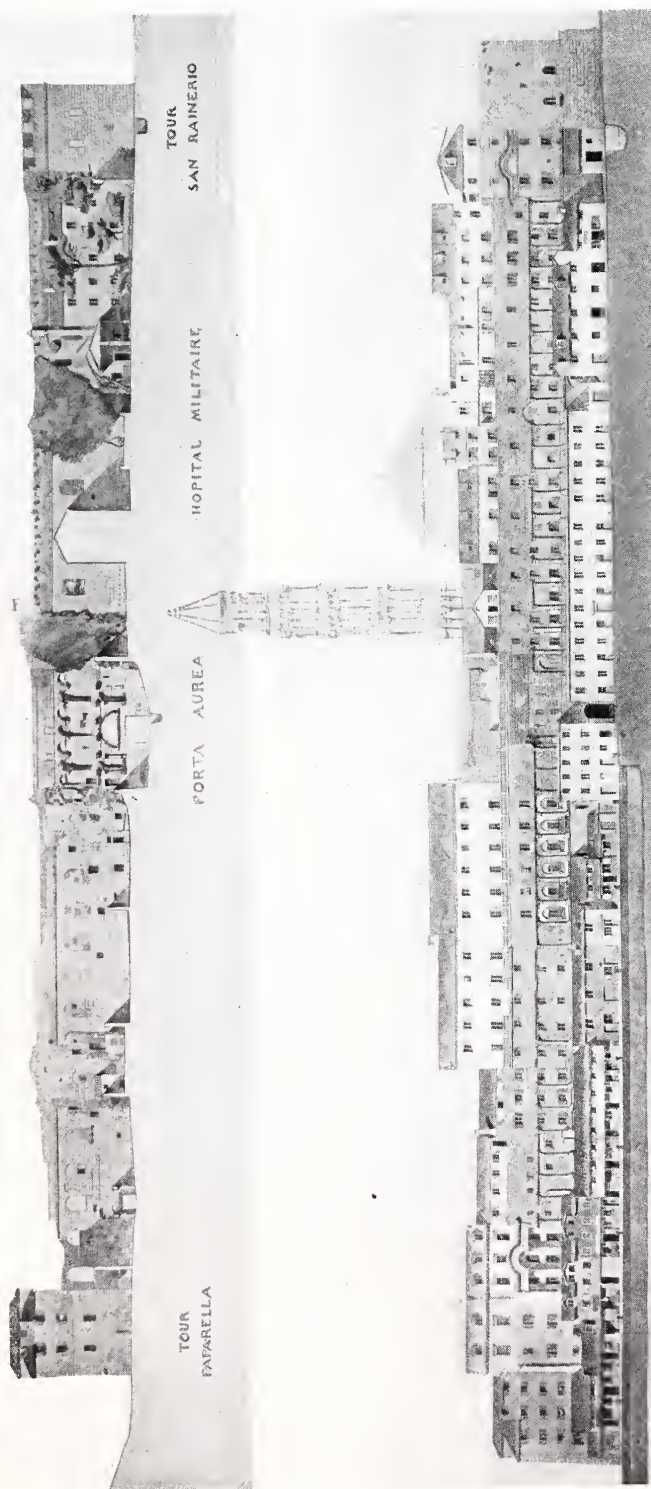
TOUR NORD-EST
PAPARELLA

PORTE PRINCIPALE

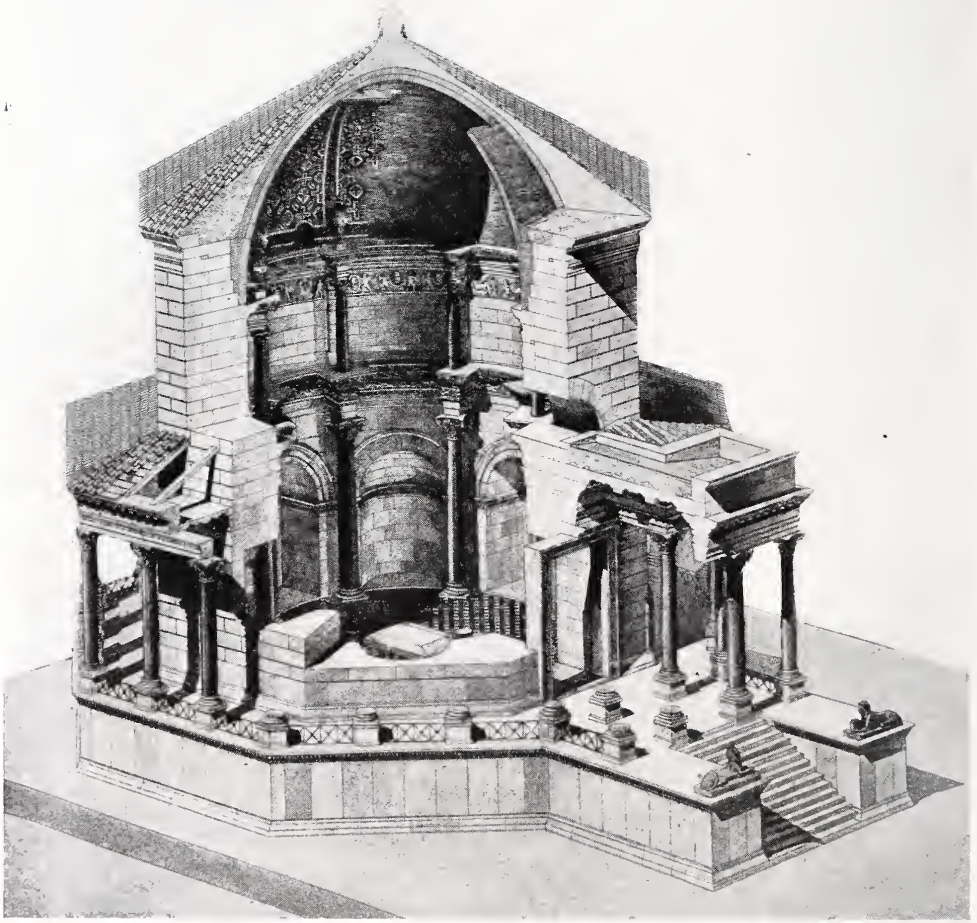
TOUR NORD-OUEST
SAN MARINO



THE PALACE OF DIOCLETIAN AS IT MUST HAVE
APPEARED IN THE DAYS OF THE EMPEROR.



THE PALACE OF DIOCLETIAN IN ITS PRESENT STATE, ABOVE:
NORTHERN FACADE, BELOW: FACADE ON THE ADRIATIC.



THE MAUSOLEUM, SHOWING
DETAILS OF CONSTRUCTION.

formed by four granite columns surmounted by a pediment. The entablature is curved, in the case of the central bay, and partly fills the tympan of the pediment—a feature which I have encountered at Damascus. Finally, this porch leads to a circular vestibule, the form of which can still be easily distinguished.”

Apart from a few ruins on the west, the remains enumerated above are all that now exist above ground of what was once an imperial residence. Fortunately, however, owing to the difference in the levels between, the northern entrance and the sea, there are still many subconstructions of the old palace preserved under the modern houses of Spalatro. By means of excavations (often executed with the very greatest difficulty) M. Hébrard had been able to redraw the plan of the whole of this very important part of the palace.

“The restoration which I have planned,” he says, “has consisted in adapting the rooms which I have discovered to the needs of a spacious Roman dwelling. In carrying out this work I have been assisted by similar buildings, by ancient documents, and especially by Constantin Porphyrogénète’s description of the Palace of Constantinople, which gives one a very excellent idea of the wealth of ornamentation employed in a similar though later building. The materials which I have found in the course of my excavations—materials such as porphyry, serpentine marble, alabaster, and fragments of mosaic—lead me to suppose that the Palace of Diocletian, in spite of its austere façades, must have been a building of great richness. It must have reflected the taste of the Emperor who introduced the pomp of the East at his Court, and who, under the name of Jupiter, insisted on being worshipped during his lifetime.”

After the circular vestibule came the *tablinum*, a large reception room, flanked on each side by six guest-chambers, called *ospitali*. A large room on the west was used as a library. Further on was the Emperor’s private apartment with a reception or conversation room, the *exedra*,

and the baths. Or the east was the *triclinium*, together with a *cympheum* and various other smaller rooms. A corridor led to the *gynecium* or women’s quarters. Finally, the palace was crowned by charming terraces, which in the opinion of M. Hébrard were probably transformed into roof-gardens, where—it is permissible to fancy—the Empress Prisca and her daughter Valeria strolled and took the air on summer evenings.

“Comparing the ruins of Spalatro with Diocletian’s *thermae* in Rome,” says M. Hébrard, “we find that they present a very different style of architecture. In Rome we note a continuation of the architecture of the capital, whereas at Spalatro both construction and decoration are quite different. First of all, it is a noteworthy fact that the task-workers’ marks are Greek letters. The enceinte reminds one of Syrian fortifications. Nowhere in Italy at the present day can we see the same style of building and ornamentation; we must go to the East for buildings of the same family—to Damascus, Palmyra in Syria, Aphrodisias in Asia Minor, and other places where I have studied.

“In the fourth century the centre of eastern civilization was Antioch. Diocletian completed there a palace which had been begun by Gallienus and which, according to a detailed description by Libanus, bore a striking resemblance to that of Spalatro. It is very probable that at that time there existed in Antioch a school of architecture, that some of its members were responsible for the Dalmatian palace, and that the workmen who helped to build it came from that town or district.”

It is clear from this, as M. Ernest Hébrard truly remarks, that the Palace of Diocletian is of the greatest importance from the point of view of the history of art. For it represents, as it were, “one of the stages in the evolution of ancient architecture into that of the Middle Ages—an evolution which was to culminate in the Mosque of St. Sophia at Constantinople and the influence of which was to appear in the buildings of the west.”

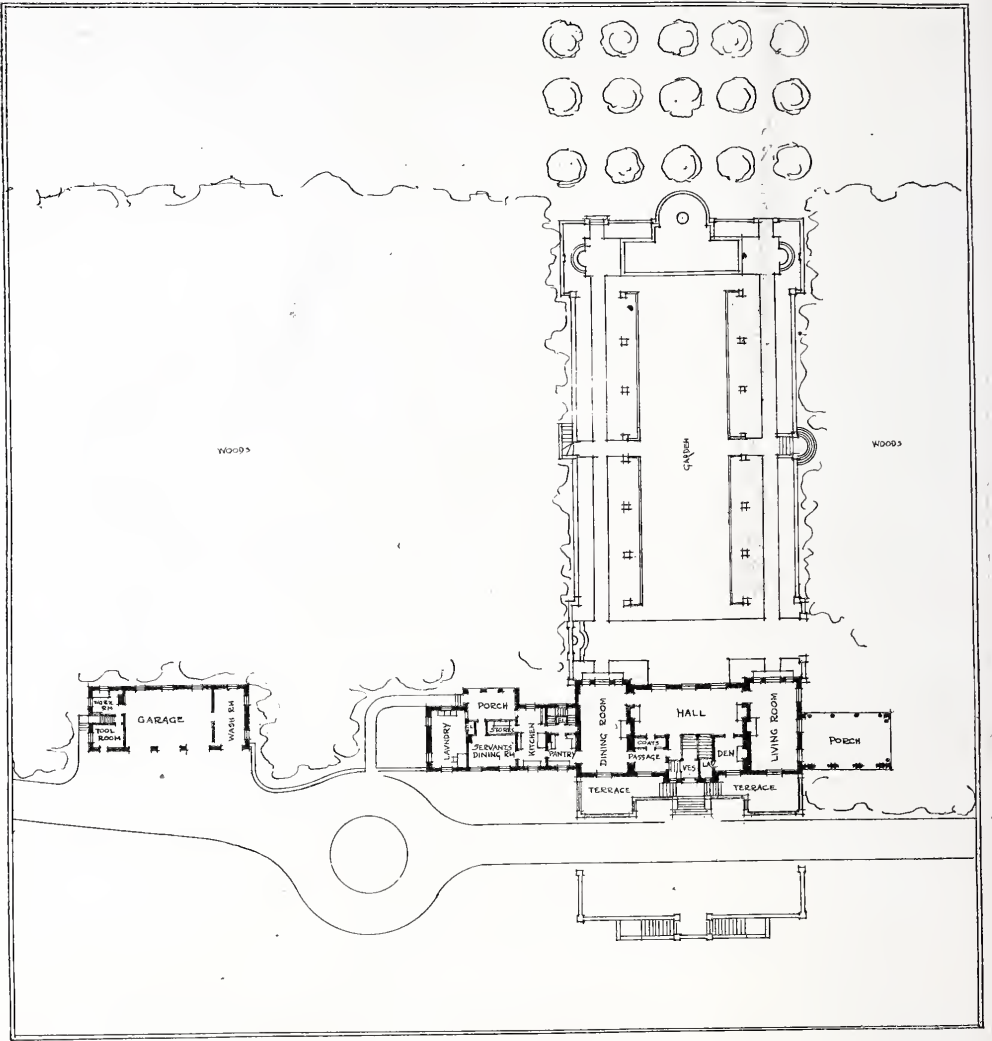


HOUSE OF EDGAR P. HOWARD, ESQ., BRYN MAWR, PA.
CHARLES WILLING, OF FURNESS, EVANS & CO., ARCHITECT.

PORTFOLIO
OF
CURRENT
ARCHITECTURE



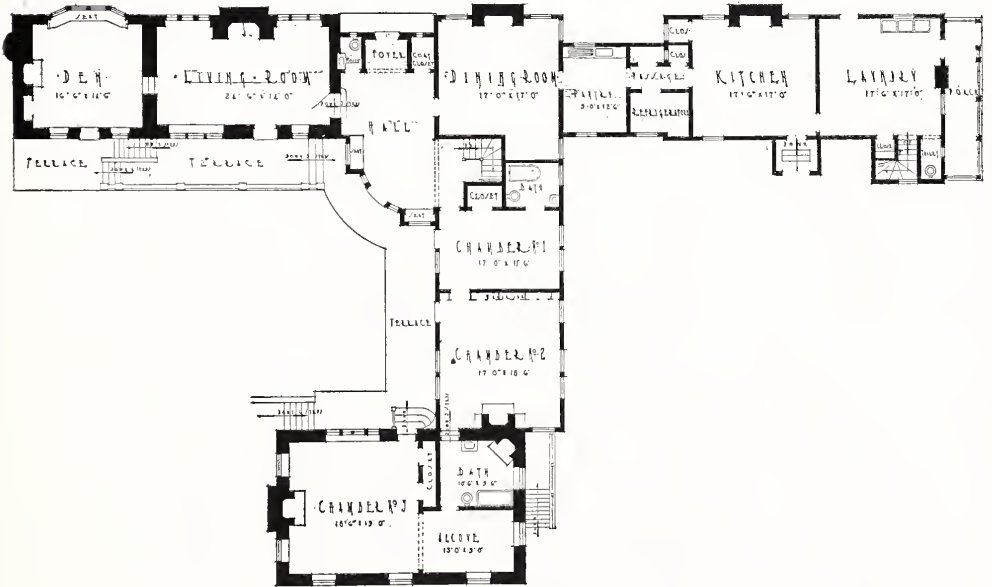
DINING ROOM DOORWAY—HOUSE OF EDGAR P. HOWARD, ESQ., BRYN MAWR, PA. CHARLES WILLING, OF FURNESS, EVANS & CO., ARCHITECT.



PLAN OF GROUNDS AND FIRST FLOOR—HOUSE OF
 EDGAR P. HOWARD, ESQ., BRYN MAWR, PA. CHARLES
 WILING, OF FURNESS, EVANS & CO., ARCHITECT.



SECOND FLOOR PLAN.



FIRST FLOOR PLAN.

PLANS FOR ALTERATION OF HOUSE OF JOSEPH LAROCQUE, ESQ., BERNARDSVILLE, N. J. HARRY ALLAN JACOBS, ARCHITECT.



GARDEN VIEW, SHOWING STAIRWAY TO MRS. LAROCQUE'S STUDIO—HOUSE OF JOSEPH LAROCQUE, ESQ., BERNARDSVILLE, N. J.
Harry Allan Jacobs, Architect.



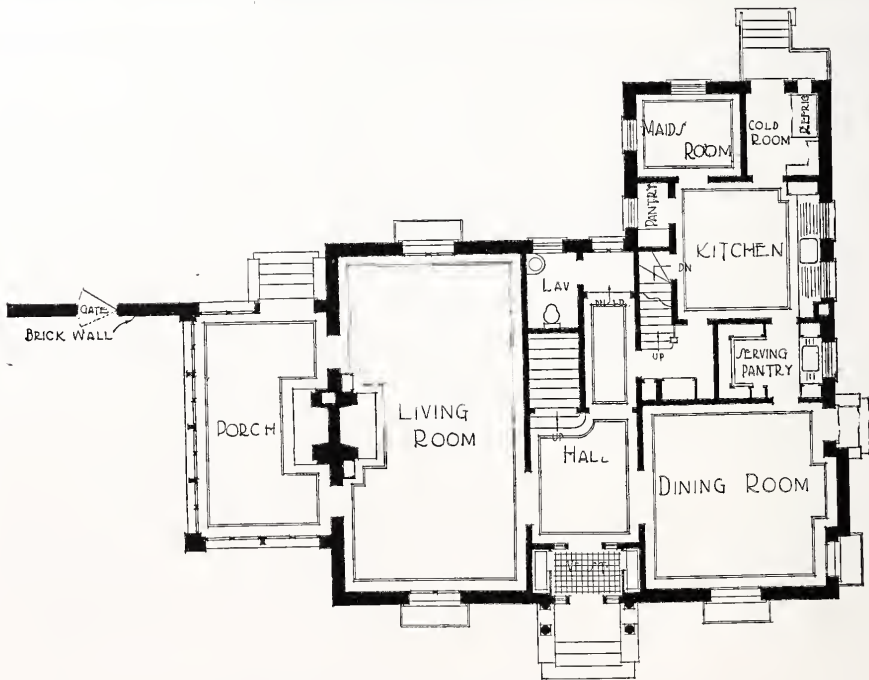
NEW WING—HOUSE OF JOSEPH LAROCQUE, ESQ., BERNARDSVILLE, N. J.
Harry Allan Jacobs, Architect.



HOUSE OF JOSEPH LAROCQUE, ESQ., BERNARDSVILLE, N. J. PART OF HOUSE IS OVER 100 YEARS OLD. HARRY ALLAN JACOBS, ARCHITECT.



FRONT VIEW—HOUSE AT EVANSTON, ILL.
Brown & Walcott, Architects.



FIRST FLOOR PLAN—HOUSE AT EVANSTON, ILL.
Brown & Walcott, Architects.



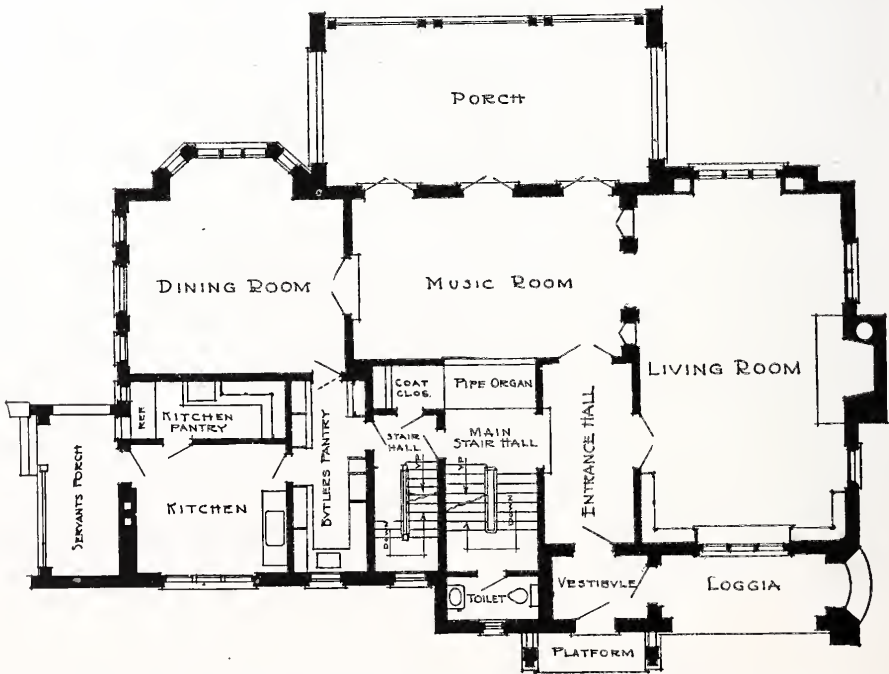
ENTRANCE DOOR—HOUSE OF FRANK KUHN, ESQ.,
DETROIT, MICH. ALBERT KAHN, ARCHITECT.



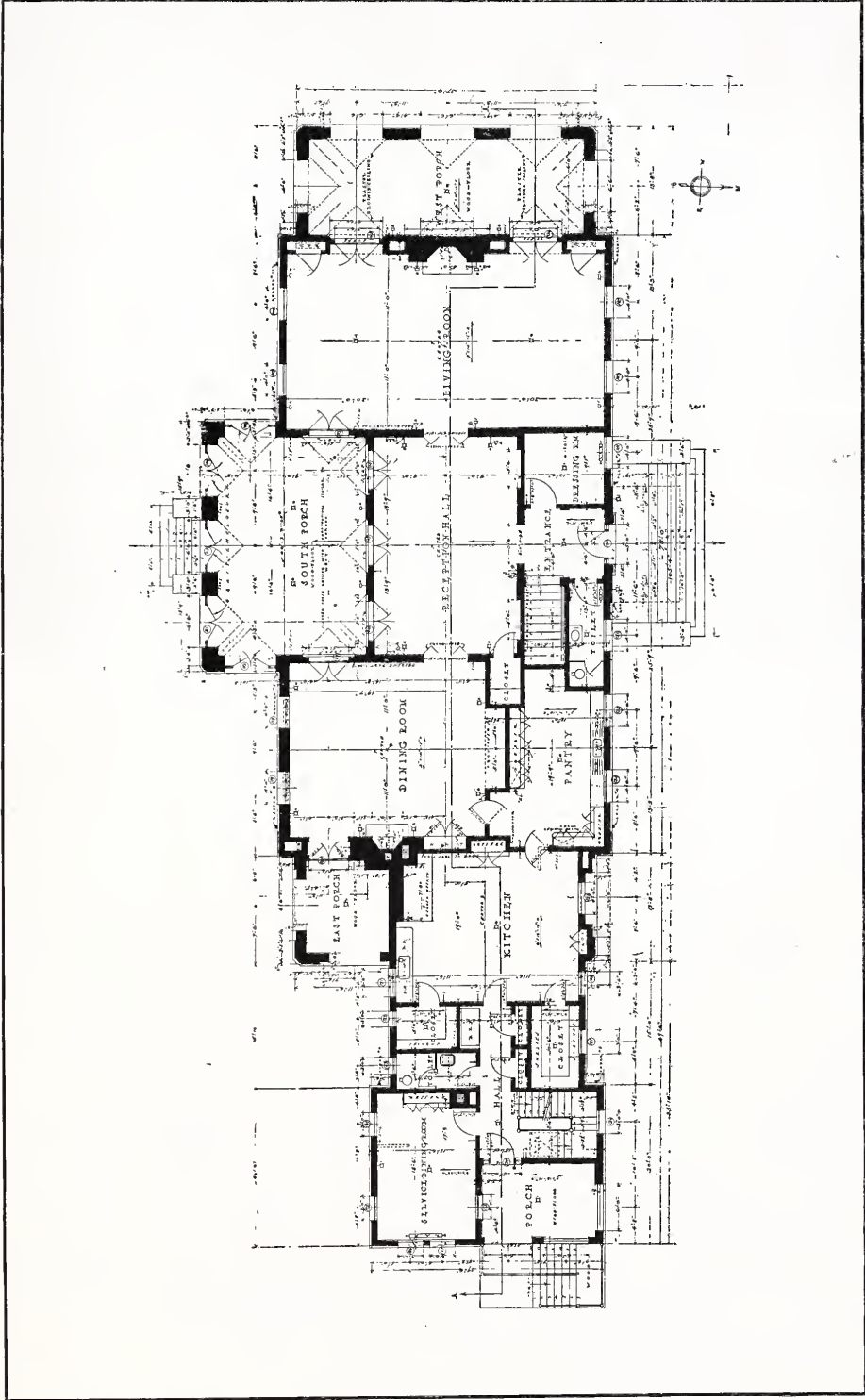
HOUSE OF FRANK KUHN, ESQ., DETROIT,
MICH. ALBERT KAHN, ARCHITECT.



HOUSE OF A. W. HARTMAN, ESQ., DULUTH, MINN.
Frederick W. Perkins, Architect.



FIRST FLOOR PLAN—HOUSE OF A. W. HARTMAN, ESQ., DULUTH, MINN.
Frederick W. Perkins, Architect.



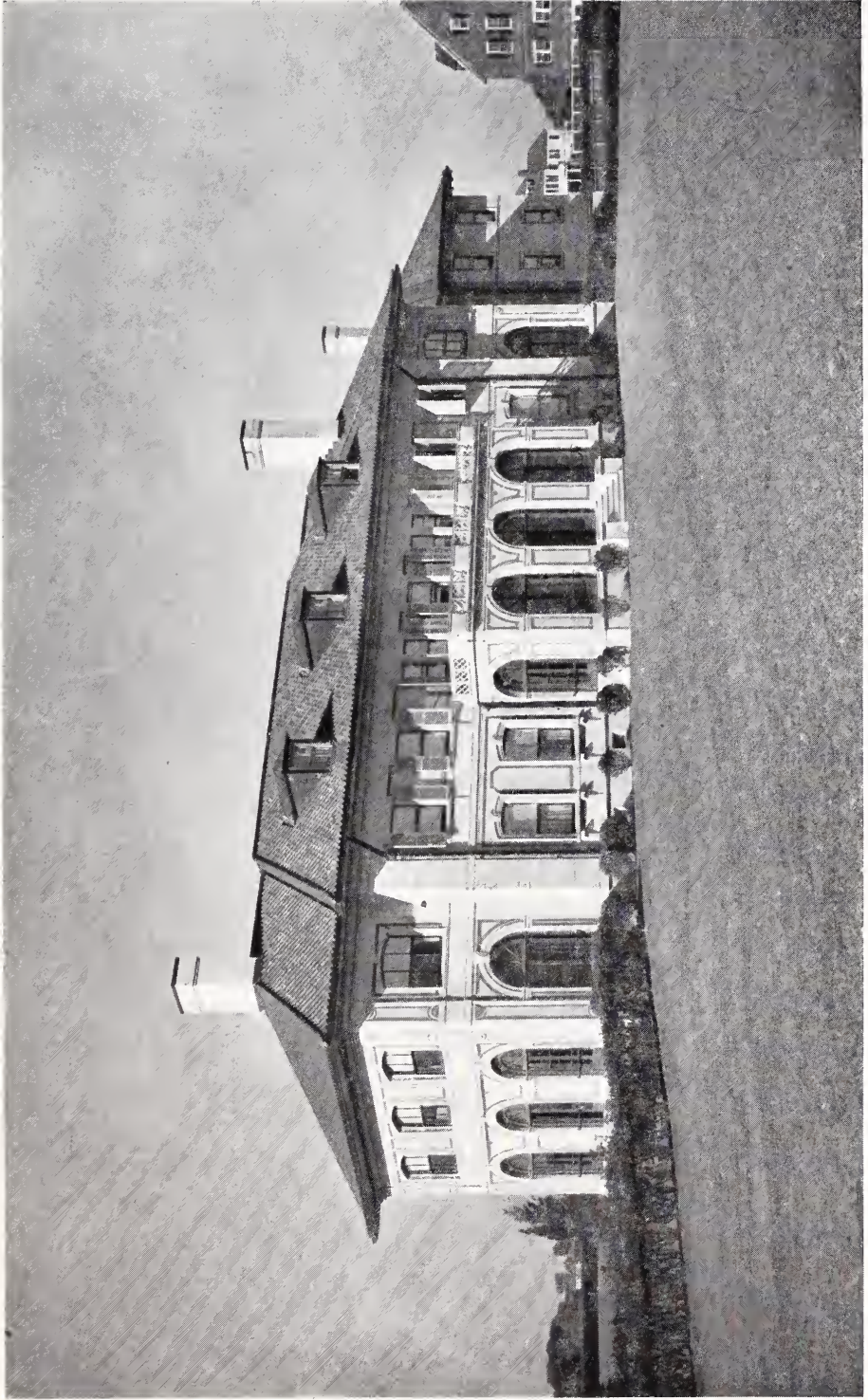
FIRST FLOOR PLAN—HOUSE OF MRS. FREDERICK BAKER,
SOUTHAMPTON, L. I. HISS & WEEKES, ARCHITECTS.



LOGGIA—HOUSE OF MRS. FREDERICK BAKER, SOUTHAMPTON, L. I.
Hiss & Weekes, Architects.

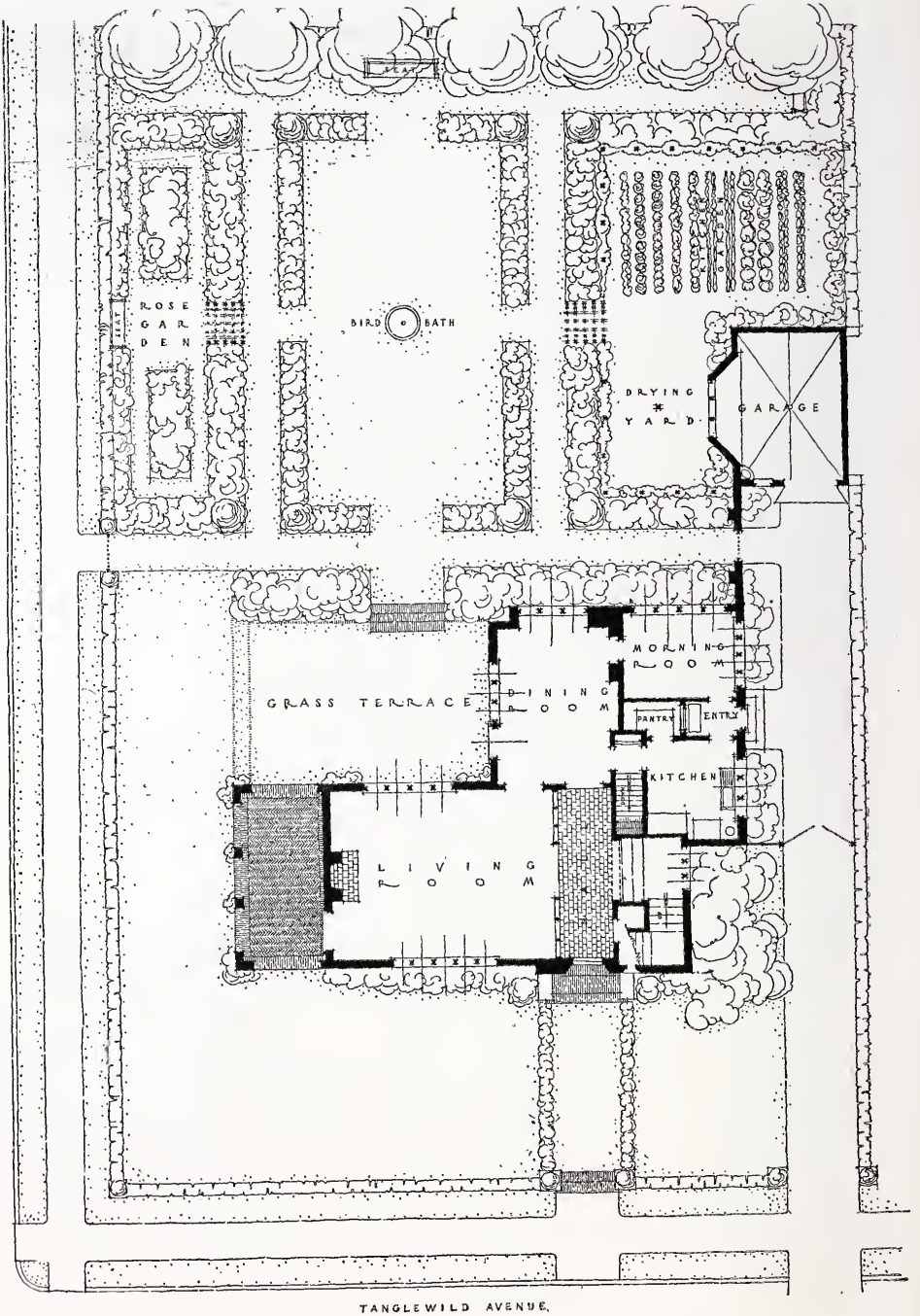


SUN PORCH—HOUSE OF MRS. FREDERICK BAKER, SOUTHAMPTON, L. I.
Hiss & Weekes, Architects.

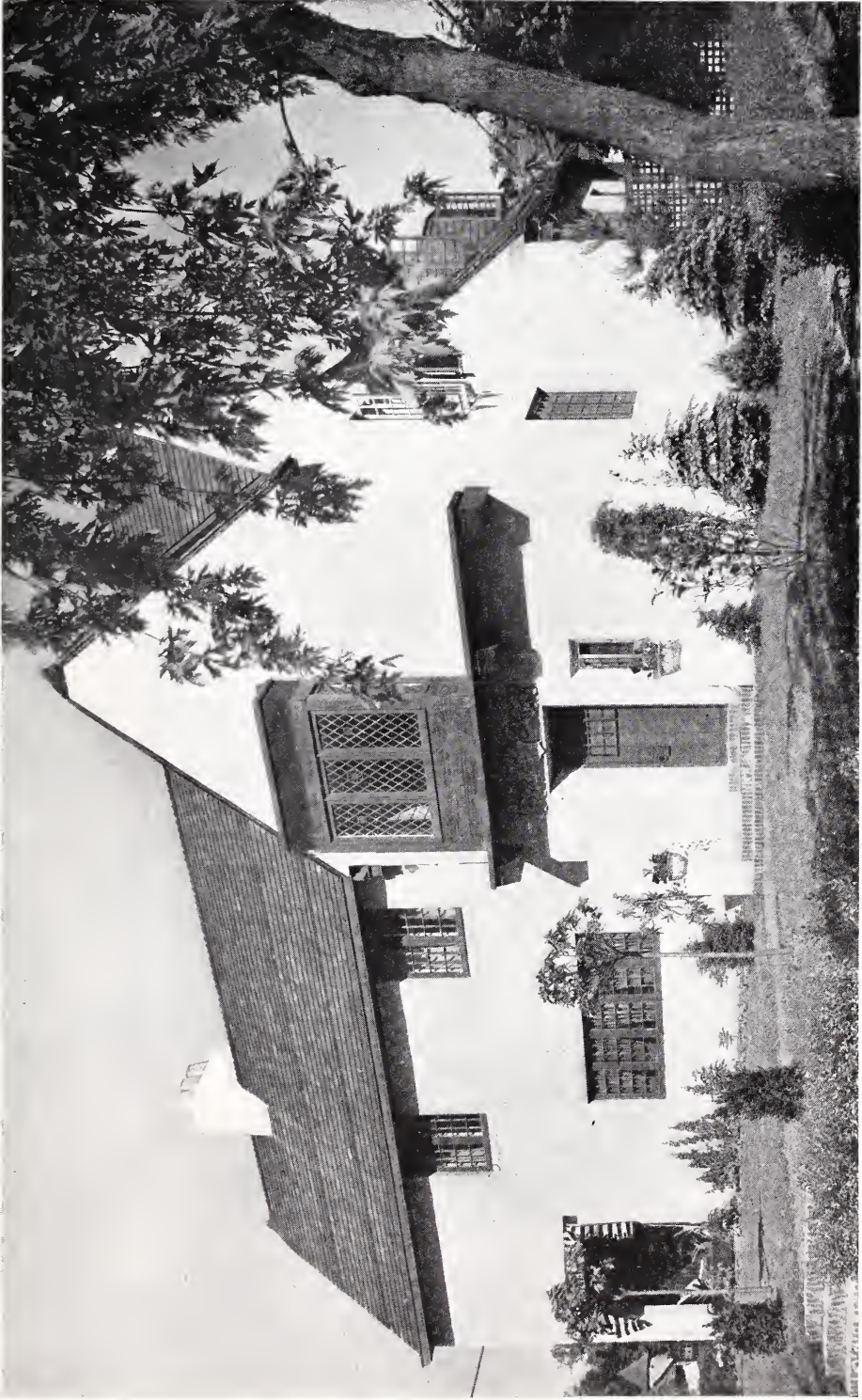


HOUSE OF MRS. FREDERICK BAKER, SOUTH-AMPTON, L. I. HISS & WEEKES, ARCHITECTS.

VINE STREET



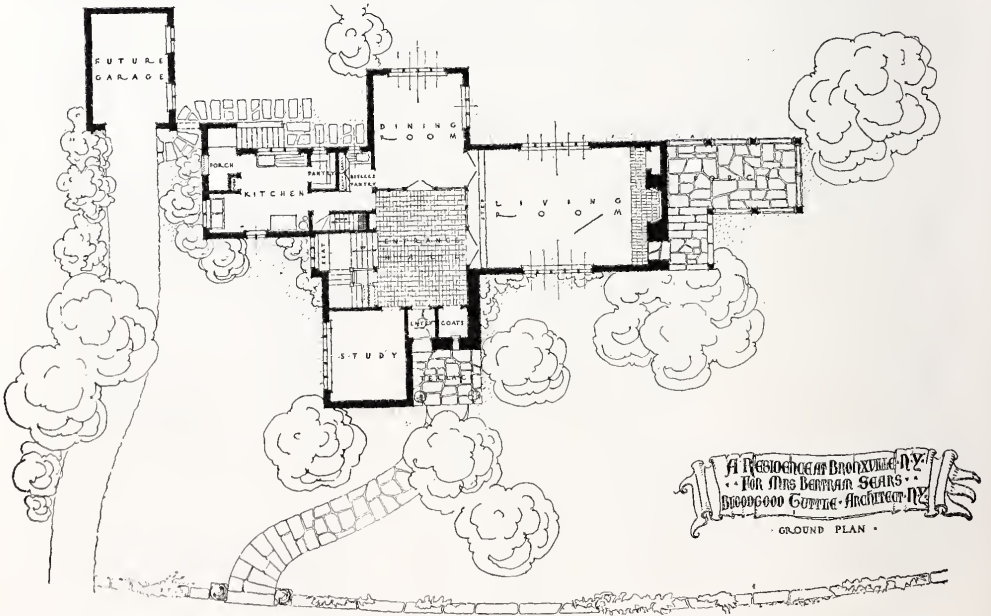
PLAN OF GROUNDS AND FIRST FLOOR—
HOUSE OF MRS. L. V. Z. OWENS, BRONXVILLE,
N. Y. BLOODGOOD TUTTLE, ARCHITECT.



HOUSE OF MRS. L. V. Z. OWENS, BRONXVILLE,
N. Y. BLOODGOOD TUTTLE, ARCHITECT.



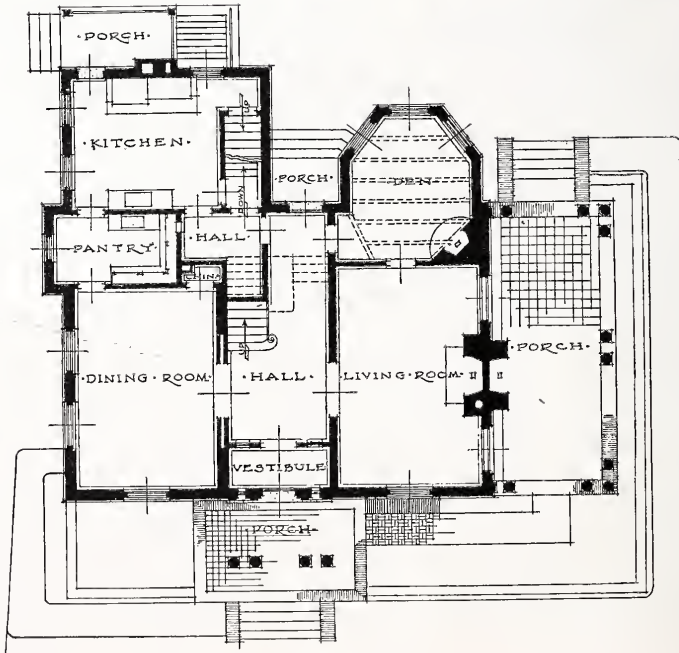
REAR VIEW—HOUSE OF MRS. BERTRAM SEARS, BRONXVILLE, N. Y.
Bloodgood Tuttle, Architect.



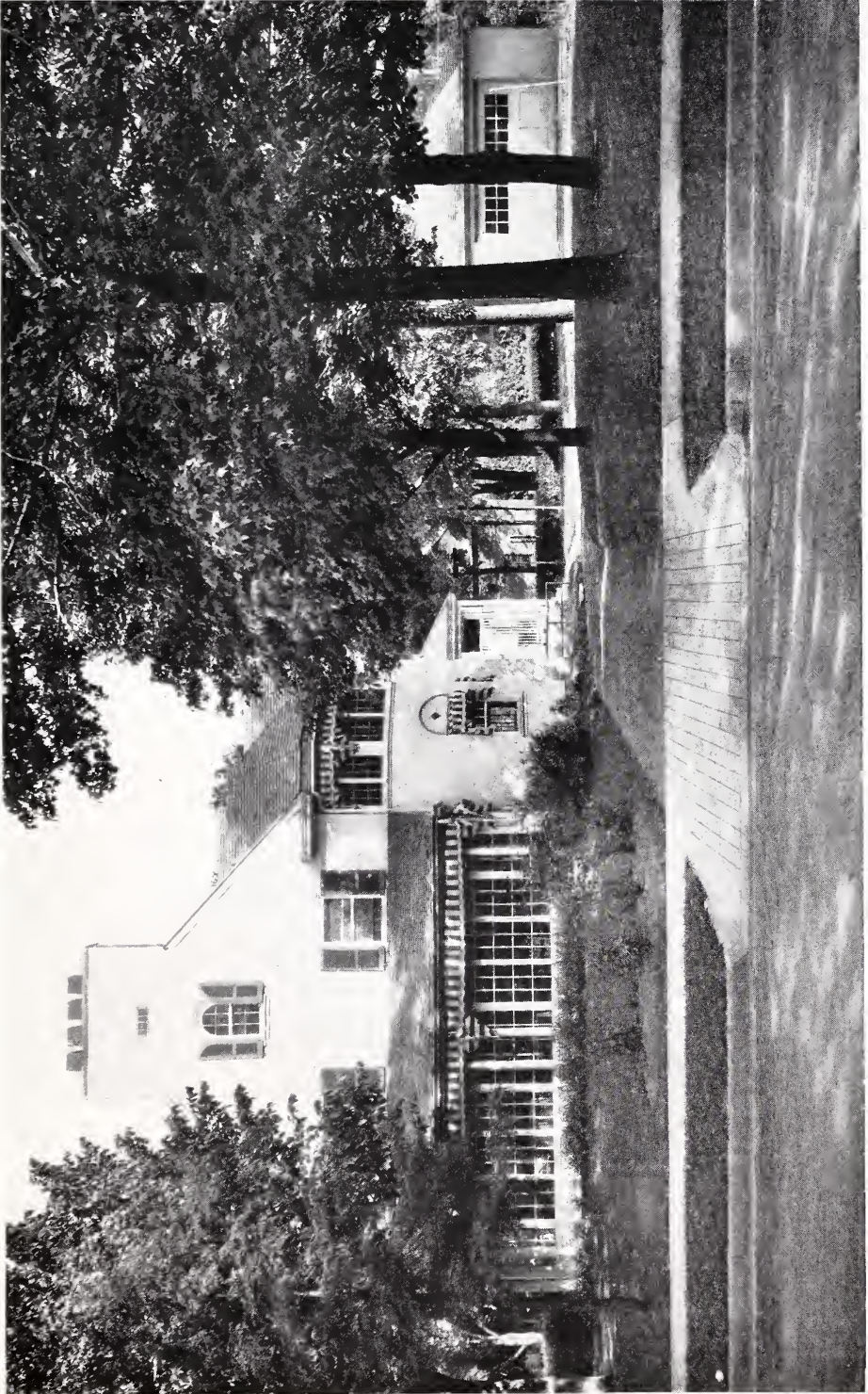
PLAN OF GROUNDS AND FIRST FLOOR—HOUSE OF MRS. BERTRAM SEARS, BRONXVILLE, N. Y.
Bloodgood Tuttle, Architect.



FRONT VIEW—HOUSE OF MRS. BERTRAM SEARS, BRONXVILLE, N. Y. BLOODGOOD TUTTLE, ARCHITECT.



FRONT VIEW AND FIRST FLOOR PLAN—HOUSE
OF M. J. COMERFORD, ESQ., RIDLEY PARK,
PA. HEACOCK & HOKANSON, ARCHITECTS.



SIDE VIEW—HOUSE OF M. J. COMERFORD, ESQ., RIDLEY PARK, PA. HEACOCK & HOKANSON, ARCHITECTS.

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BOOKS ON COLONIAL ARCHITECTURE

By RICHARD FRANZ BAGH

Curator, School of Architecture, Columbia University

Part III.—Dwellings (Continued)

GOOD collections of photographs and drawings, dealing with separate states or groups of states in the southern district and occasionally bringing together colonies belonging in different regions as we have considered them here, are those by James M. Corner and Eric Ellis Soderholtz, entitled *Examples of Domestic Colonial Architecture in Maryland and Virginia* (Folio, 50 plates. Boston; Boston Architectural Club; 1892. Rare), and by Joseph Everett Chandler, entitled *The Colonial Architecture of Maryland, Pennsylvania and Virginia* (Folio, pp. 5 and 50 plates. Boston; Bates, Kimball & Guild; 1892. Rare). Works by all of these authors have been mentioned in connection with other phases of the present discussion. The first of the above works is of the same format and general handling as the other publications in which the hand of Mr. Soderholtz appears, always demonstrating careful selection of subjects to be reproduced and uniformly thorough execution, but in all cases simply photographic reproductions. The field of detailed meas-

ured drawings is entirely eschewed. Both of the volumes mentioned are among the earliest collections of well handled and well understood illustrations available; they were both published nearly twenty-five years ago and have not yet lost their appeal. The plates are well selected and reproduced throughout, and the volumes remain among the first books to gain the attention of the student of Colonial architecture.

Another collection of photographs, perhaps of not quite the standard of those in the Soderholtz books, is that by Newton D. Elwell, bearing the title: *Architecture, Furniture and Interiors of Maryland and Virginia During the Eighteenth Century* (Large folio, 1 p. and 63 plates. Boston; G. H. Polley and Co.; 1897. \$30). When it is seen to what extent writers have given their time to the chronicling of genealogies and local histories it becomes a matter of no little surprise that authors are so slow to take advantage of so fertile a field for illustrated works, photographs of exceptional quality, clearness of detail and well chosen point of view, and finally measured drawings.

Much has yet to be done in this practically inedited region before the numerous decaying structures have become an irreparable loss.

The local historical and genealogical character is found in full measure in Edith Tunis Sale's *Manors of Virginia* in *Colonial Times* (Large octavo, pp. 310, ill. Philadelphia; The J. B. Lippincott Company, 1909. \$5), published with sixty-seven good photographic illustrations and a collection of twenty-two coats of arms, but with no discussion of the buildings with regard to their planning or construction, beyond the mention of beauty of detail modeling or date of erection and occasional description of disposition of rooms. A similar quality is found in a recent publication of the same firm entitled *Historic Virginia Homes and Churches* and written by Robert A. Lancaster, Jr. (Small quarto, pp. xviii+527, ill. Philadelphia; The J. B. Lippincott Company; 1915. \$7.50). This is, however, devoid of the accumulation of romances and genealogical history which so largely characterizes so many works in this quasi-historical field and the production of which is ably encouraged by the glamor and the glow of verdant age with which so many of these hoary structures are endowed. Mr. Lancaster's work is perhaps the most complete compilation of its kind in any one district that has thus far found publication. There are three hundred and seventeen illustrations, in all cases chosen with reference to the earliest possible form of the buildings listed. Therefore illustrations appear of structures no longer existing and of many others now hardly recognizable because of alterations and well-meaning "restorations." Because of his care in bringing together his collection and especially because of the length of time he has been willing and able to devote to this seemingly ungratifying task, Mr. Lancaster has succeeded in providing us with an exceptionally useful volume. Its value must be sought, however, in the effectiveness of record and history, for there is nothing in the way of architectural discussion. This and the preceding work have been very well issued by The Lippincott Com-

pany; great care has invariably been characteristic of their publications, of which there have been several in the Colonial field. It is hoped that it will be found feasible in the near future to grant some of the homes and other buildings shown in this and others of the books mentioned in these studies more individual treatment, so that their details may likewise be recorded by taking time by the forelock, as Mr. Lancaster has done in making his comprehensive collection of material, a task which has engaged his attention for a matter of twenty-seven years.

In conjunction with Edward Andrew Crane, Mr. Soderholtz also published a collection of photographs covering two important Southern cities, with the title: *Examples of Colonial Architecture in Charleston, S. C., and Savannah, Ga.* (Folio, 52 plates. Boston; Boston Architectural Club; 1895. Rare.) This is in all respects similar in treatment to the other volumes by these collaborators which have been mentioned at various times. Note should also be made of a volume of sepia reproductions of careful sketches by Alice Ravenel Huger Smith bearing the title: *Twenty Drawings of the Pringle House, on King Street, Charleston, S. C.* (Folio, measuring 16 inches by 18 inches; pp. 4+20 plates. Charleston, S. C.; Lanneau; 1913. \$10.) This volume includes also in three preliminary leaves following the title page a short article by Daniel Elliot Huger Smith on "The Colonial House of Miles Brewton, with Some Account of Its Owners." We are informed that a more inclusive volume on Charleston houses to be issued by the same author is in course of preparation.

Undoubtedly the finest single piece of work in the Colonial field is the monograph on the Octagon at Washington, headquarters of the American Institute of Architects, published under the auspices of that body, and under the immediate direction of Glenn Brown. The name of this architect and scholar is sufficient to guarantee the excellent quality of the work, for one is prompted to recall his splendid history of our national Capitol, a de luxe publication in two vol-

umes reviewed at length in an earlier issue of the Record. The present volume is of large folio size, its plates measuring twenty-four by seventeen inches, and it is entitled *The Octagon, Dr. William Thornton, Architect. Drawings and text made under the direction of Glenn Brown for the American Institute of Architects.* (Fol., p. 25, 30 plates. Washington, D. C., publ. by the Institute; 1915. \$12.50.) The workmanship, viewed from the standpoint of careful measurement, painstaking draftsmanship and archaeological interest, is of the highest calibre, and the size of the plates renders particularly useful the well composed sheets of measured details. The volume presents in its text section a historical sketch of the building, which was the residence of President Madison immediately after the presidential mansion was destroyed by the British in the War of 1812-1815, and under whose roof the Treaty of Ghent was signed in February of the latter year. This is followed by a biographical sketch of the architect, Dr. William Thornton. The text is further illustrated by 21 large half tones. We cannot speak too highly of this monograph, practically the only one of its kind and character thus far published in the Colonial field. May it be the first of an extensive series of equal value and quality emanating, if possible, from the same source, or at least countenanced by the aegis of the Institute.

Just as this paper goes to press an entirely praiseworthy volume by Paul Wilstach on the beloved mansion of Washington on the Potomac comes to hand. It is entitled *Mount Vernon, Washington's Home and the Nation's Shrine.* (Octavo, pp. xviii 301, ill. Garden City, Long Island; Doubleday, Page and Company; 1916. \$2.00.) We have long awaited this volume, because we have been aware that a building so enshrouded, or even encumbered, with romance and tradition, requires the light of intelligent research and study to make it appear in its true guise. Together with a host of traditions based upon facts or their immediate derivatives, the author had also to test as great a number of sometimes more attractive accounts that proved to be but

the natural accumulation to be expected in the case of an edifice that has for so many years held the attention of Americans as the home of the founder of their country. We may say unreservedly that Mr. Wilstach has well accomplished his task, and that his work will fill a long existing want in the annals of American buildings of our early time. The book is well illustrated but lacks an adequate architectural interest, as portrayed in measured drawings, plans and details, to satisfy our present needs in these reviews. Above all the author gives ample space—and justly so, in view of our oft repeated pleas in these pages for the preservation of our fast disappearing heritage of Colonial buildings—to the amount of effort that seemed to be necessary to procure popular interest and financial support for the project of caring for this of all buildings. To the eternal disgrace of our federal government, be it said, private means and the generosity of Washington's descendants had to be relied upon to obtain for this fine old mansion the dignity of being termed a "national monument."

These few volumes stand alone in the Southern field. The ground is a fertile one and much valuable work could be done, in fact really must be done, if the record shall be accurate. We cannot too often urge upon the attention of writers, publishers and laymen this matter of preserving our Colonial heritage. It is easy enough to consider the few examples of well preserved buildings near at hand and not give further thought to the large number of others, their ranks daily diminished by the attrition of decay and neglect, which have never been adequately recorded for the use of the student of the future, when these structures will be no more than an unsubstantiated memory. In the Southern Colonies this lack is particularly evident and the literature of Colonial architecture so far as this region is concerned leaves much to be desired.

In connection with the discussion of works dealing with Colonial architecture in the Middle States, undertaken at length in a preceding issue of the Architectural Record, note should be made also of an older volume by Thompson West-

cott, no doubt the earliest to give extended notice of the Colonial buildings of residential type in Philadelphia. This bore the title: *Historic Mansions and Buildings of Philadelphia, with Some Notice of Their Owners and Occupants* (Octavo; pp. 528, 1 plate; Philadelphia; 1877), and is now out of print. Its value for our present discussion is negligible, since its material may be found elsewhere, but it should have due credit in accordance with the early date of its publication. Of like character, laying again a minimum of stress upon purely architectural features, but offering slight compensation for this lack by good illustrations, is a volume by Charles Andrew Ditmas, entitled *Historic Homesteads of Kings County*. This is of quarto size, illustrated from photographs, and treats of no more than twenty homesteads each illustrated by a colored photograph. The usual historical and genealogical matter takes up much space, and no emphasis whatever is laid upon architectural detail, construction, stylistic type or other features of present interest in this review. It should be said, however, that volumes such as this and a number of others which have been given similar notice from time to time, have a distinctive value. They form part of the general body of literature—and necessary literature—which will ultimately supply the complete picture of our early architectural history. When in the near future our formative architectural history shall have been given adequate attention and study, and a full and detailed chronology of buildings, records of construction types of style, planning and structural details, shall have been set down for posterity, these volumes will be seen to take their proper place as parallel evidence of decided interest.

Thoroughly interesting in this connection is also the life story of *Philipse Manor Hall at Yonkers, New York. The Site, the Building and Its Occupants* (Duodecimo; pp. 225, 14 plates. New York; American Scenic and Historic Preservation Society; 1912. \$0.75) by Edward Hagaman Hall. But the book in this case

is not of such great note by any means as is the splendid work undertaken by the society which published it, in the restoration and remodeling of the fine old building which is now the City Hall of Yonkers.* We cannot too highly commend such an undertaking, both in its intrinsic merit and in its value as a precept for similar ventures on the part of other public spirited bodies. It seems that individuals can but rarely be brought to such an understanding and high regard for our past architecture as to restore old buildings, unless they themselves are to occupy them, as has been the case with a multitude of "remodeled farm houses," most of them now so remodeled as to be new and so divested of all glamor that a true restoration would bring—for these old buildings cannot be rejuvenated, they can only be preserved. If the good work of the American Scenic and Historic Preservation Society, and that, incidentally, of the Sons of the American Revolution and of the Daughters of the American Revolution were taken as a text by the numerous other bodies which devote themselves so largely to study along a thousand intricate and rarely appreciated tangents, much valuable effort might result. And this attitude of preservation of old buildings is not by any means to be considered a rational part of our moral fibre. Only constant prodding will bring public feeling in this direction to the "sticking point," so that the inviolability of notable old buildings may be regarded as a sort of unwritten law. The matter may readily be brought home to us, if it be recorded that only as long ago as 1893, in New York City, the City Club saw fit to pass the following resolution in regard to one of the finest of Colonial buildings: "Resolved, that the city authorities are earnestly requested on no account to permit the destruction of the present City Hall, not only because of its historical associations, but also because it is one of the most beautiful and celebrated architectural monuments of our city and country."

*The Philipse Manor Hall will be discussed and illustrated in an article by Mr. Bach in a future issue of The Architectural Record.

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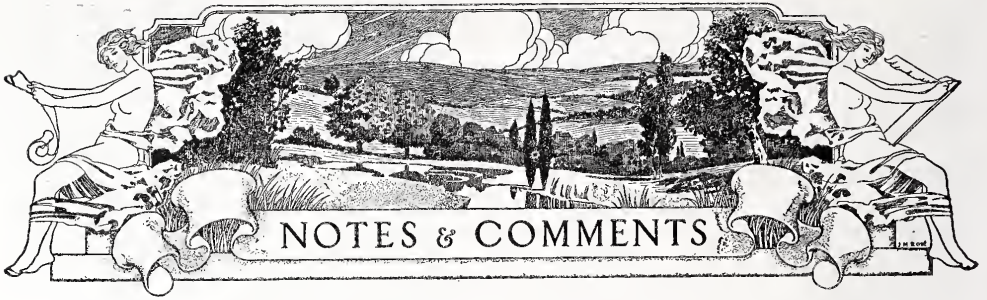
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**Robert Mills,
Architect
and Engineer.**

Anyone interested in American historical research cannot fail to perceive that this country carries an unpaid debt to the genius of Robert Mills. While some avenues of architecture have, since his time, been traveled with greater originality, brilliancy even, it was through this man's unswerving adherence to the classic in art that we were guided at a period when national taste was at the zero point—1800-1850—in the direction of tried simplicity and artistic sureness.

Robert Mills, born in Charleston, S. C., was the son of William Mills, who came from Scotland, and who married Ann Taylor, recorded as "a lady of ancient and honorable Caroline lineage"—a descendant of Landgrave Thomas Smith, Provincial Governor in 1690, one of four Americans to receive the title (equivalent of Marquis) for distinguished Colonial service.

Educated in Charleston, Robert Mills married a Virginian, daughter of Gen. Smith of "Hackwood Park," Revolutionary Commander of his county, and granddaughter of Sir James Miles. One of Mills' daughters married Alexander Dimitry, Minister to Central America under Buchanan, a descendant of whom, Thomas Dabney Dimitry, is living in New Orleans.

Beginning his professional life in Washington in the year of its being made the seat of government, Mills was the first native-born American to pursue the study of architecture exclusively in America, which fact alone stamps as remarkable his after career.

Before he was twenty there fell to his apprentice hands the distinction of draughting, under the accomplished Latrobe, the plans for the U. S. Capitol. Subsequently, accompanying the latter to Philadelphia, responsible undertakings were given him.

Mills' reputation started, perhaps, with the successful execution of the vaulted con-

struction of the old "Penn Bank," with its odd-looking exterior sentry boxes, and the Stoughton circular church, immense for the time, neither now in existence, and cuts of which are treasured Americana.

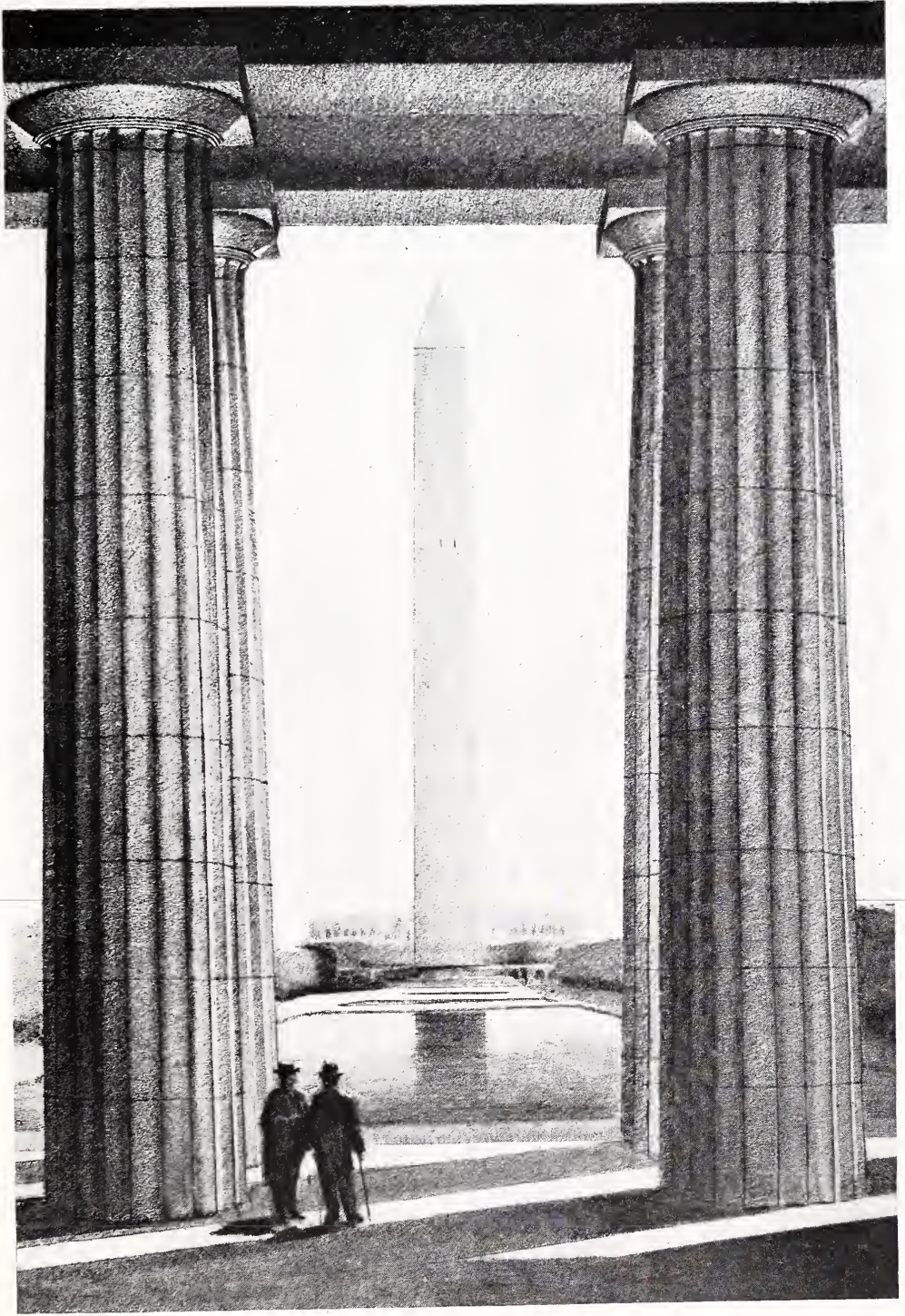
He remodelled the old State House; and additions to Independence Hall, already held in reverence, were left to Mills' now established taste and judgment.

The old single arch bridge in Philadelphia, over the Schuylkill, its span ninety-eight feet greater than any then existent, and partial plans for the State Capitol at Harrisburg were his work.

About 1812 patriotic Marylanders, determining upon a memorial to Washington, offered the munificent premium of \$500 for a best design. In the nation-wide contest, it was our architect to whom fell the award; and after fifteen years of harassment, including scarcity of funds (it is piquant history that the latter were largely raised by lottery, as were also the funds for the Baltimore Cathedral, Latrobe's work), there was unveiled, on Mt. Vernon Place, Baltimore, amid booming of guns, a monument which, of its type, stands incomparable, and justly gives to Baltimore her title of Monumental City. How many in these four generations have revelled, in brave sunlight or misty moonlight, in the grace and charm of its proportions. As you study this tapering shaft from a slight distance, summon to your mind all monuments of its genre. To which will you accord a verdict of more satisfying perfection in the ideal it embodies than that of this first monument to the first American President, by our first American architect?

The Sub-Treasury building on Wall Street, with its columned façade, fine as any temple of old Greece, was Mills' bequest to New York. Did you know it? Probably not, his name being all but forgotten, although the reliable taste, dignity and efficiency of his work is amply revealed in buildings from Maine to Louisiana.

His monumental church, upon the site of



WASHINGTON MONUMENT, WASHINGTON,
D. C. FROM "LINCOLN MEMORIAL."

the Richmond theatre fire, caused Mills to develop the then crude art of fireproofing; an old Washington newspaper ascribed the saving of valued records and patents at time of a fire in the Patent Office (Mills' building) to the science and honesty of its construction.

Three unassailable Washington buildings which still dominate their section, the Treasury Building, the Land Office, the Patent Office, were planned by Mills; he had architectural control for thirty years of both the Capitol and the White House, and he made distinguished additions to the University of Virginia and, indubitably, to Monticello, for it is history that an interview demanded by Thomas Jefferson of Mills was prolonged over the leisurely span of two years on this estate.

Mills' engineering inventiveness and his able writings (the Congressional Library contains seven contributions by him of scientific, historical and literary value) brought him, while State Architect and Engineer of South Carolina, to the attention of the Federal Government. The latter was then (1829) realizing a need greater than it may ever again feel for one of his wide capacity and conscience.

In the following year Andrew Jackson appointed Mills Government Architect; but before leaving his State, Mills had given to it not only her most important structures—at one of which Lafayette laid the cornerstone—but also the honor of possessing within her borders the first railroad operated continuously in the world—the Charleston and Hamburg Railroad (1831).

Without thought of personal gain, Mills was heroic in his efforts to realize the possibilities of "the iron horse." In 1826 he pleads with the Postmaster General that there be a railroad constructed from Washington to New Orleans, thereby reducing the time of transit from twenty-six to four days.

Old files of the Scientific American attest to his being first in recommending the feasibility of a railway to the Pacific. It

was gratifying that but a short time before his death the U. S. Senate reported favorably upon his project for this trans-continental road. One of his dreams, persisting to the last, was that of the monorail.

That neither wealth nor even the fame he merited became his was due partly to the self-effacement of the man; he often omitted signing his plans and was frequently absent at unveilings or dedications of his structures. Besides, he lived during a young nation's sternest industrial struggles and he died on the eve of the world's greatest civil war.

Over in England, Stevenson was born the same year as Mills. He too was developing the same scientific thought. George Stevenson is buried in Westminster Abbey. Our genius, many sided as Benjamin Franklin himself, lies buried just outside Washington, in an unmarked grave.

My sensations were not happy as I stood by that pathetic mound of earth—one which should be so precious to Americans. The air was full of the scent of roses; birds sang

as my guide in this especial God's Acre counted the graves between designated trees. The grave of this distinguished man was known simply as—111.

In the Old World, the names of such pioneer masters as Mills are household words. Are we not placing a low estimate upon art itself when we forget its interpreters once the brush, the chisel, or the pen, are laid aside in death?

Oh yes! Mills was paid for actual services; but have his unceasing efforts to leave the world richer than he found it been paid for in that other coinage: acknowledgment?

One of the finest pleas ever listened to by Congress was that of Mills in urging an unbroken vista through Pennsylvania Avenue, from the Capitol to the White House, and though refused, Mills' valiant fight to secure to America the most impressive boulevard of the world, did much to elevate him in the eyes of that great, though stubborn President, Jackson, who per-



ROBERT MILLS, 1781-1855.



WASHINGTON MONUMENT,
BALTIMORE.

ceived too late his own irrevocable lack of vision.

The heating and lighting facilities of the Capitol were remodelled by Mills. He also won the award (against Bullfinch) for improving acoustic conditions in the Hall of Representatives.

But the story of Mills' creations—custom houses, court houses, asylums, penitentiaries, hospitals, light houses, etc., often supervising their construction (usually without railroad facility), is an almost incredible narrative, taking one from coast to coast.

Though millions of the country's money, often without vouchers, passed through his hands, he died during the administration of his intimate friend, Franklin Pierce, a poor man.

As to Mills' personality, a Washington lady of ninety, of phenomenal mentality, whose reminiscences date back to the levees of Dolly Madison—describes his dignity and charm, his strong face and his humor of a Bobby Burns.

Amid her chronicles of his manly virtues it is comforting to know that Mills did possess a "redeeming vice"—he was intemperate in the use of snuff. He must have been a man of magnetism for memory, of him to abide through sixty-five long years.

But to sum up. In honoring Mills, we should be honoring the four great one-man monuments of our country. The same inspired mind that conceived the monument at Baltimore gave to Richmond her Equestrian Washington; to our Capital City, her Obelisk, and to Boston, her Bunker Hill monument.

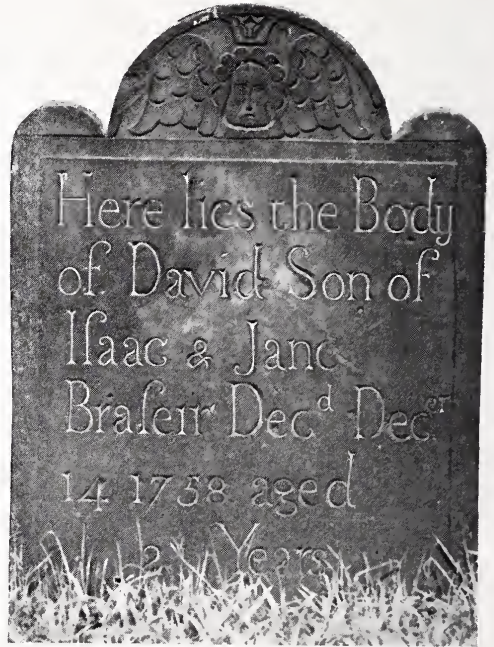
Italy has a monument to Goethe; at least I trust she still has it. It was a single poem, "Kennst du das Land," that caused it to be erected. It was their beautiful way of saying "Thank you" to him who, though dead, has best made known to the world their beloved land of the flowering citron.

I must refrain from describing my dream memorial to this man, which would be "putting the cart before the horse"—funds being the horse.

Robert Mills, we salute thee in the hope that a little later, and within the shadow of your masterpiece, our salutation will assume the form of enduring bronze and stone.

MRS. AUSTIN GALLAGHER.

Carroll Orchards,
Westminster, Md.



HEADSTONE IN TRINITY CHURCHYARD,
NEW YORK CITY.

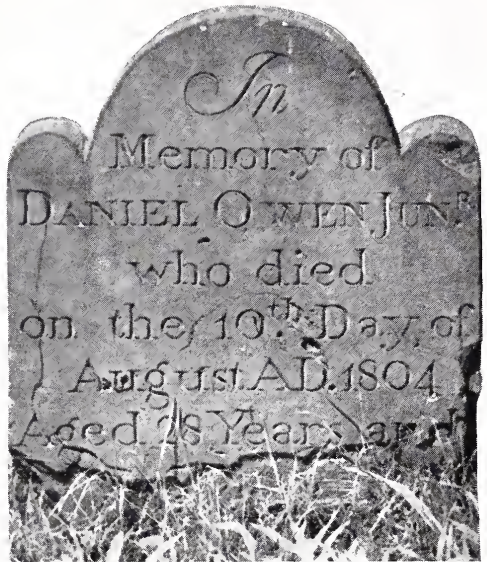
**Some
Examples of
Colonial
Lettering.**

As an instance of the odd demands made upon an architect's services, there came recently to a member of the profession a commission for the design and lettering of a headstone, which was to be placed in an old Connecticut graveyard. A quick decision to maintain something of the spirit of early American lettering in the work proved not so easy to carry out. A search in the pages of that indispensable book, "Letters and Lettering," of Mr. Frank Chouteau Brown, showed no examples of Colonial productions, an omission that is doubly surprising when one considers how beautiful they are and how appreciative of early American art Mr. Brown is.

However, all the inspiration that could be desired was found in the churchyard of Trinity Church, on lower Broadway, in New York, a further revelation, if any be needed, of the variety and perfection of early American art forms. A few of the Trinity churchyard inscriptions are illustrated herewith, though it must be remembered that some of the finest examples are so damaged or so weather-stained that they may not be photographed.

All the best elements of the letterer's art will be recognized—sense of form of individual letters, the decorative spotting and variation of sizes and kinds of letters, a fine sense of space relations and of patterns of light and shade. In these cases, where only a few words are used, each word, and even each letter, is made to stand out separately as decoration, whereas in a long inscription, such as those exquisite examples on the Renaissance Italian tombs, the words and letters merge into bands of design. To use a more familiar metaphor, our old headstones partake more of the effect of headlines of a newspaper or a title page than of paragraphs. It is this principle of decoration that has caused the emphasis of the serifs, the quirks of the "y's," the high dotting of the "i's," the elongating of the taller letters, and the graceful use of penman's letters. These pen letters are exquisite in their delicacy; the curves are wisp-like, as if made by the stroke of a brush, and afford thus a contrast to the strong chiseling of the round Roman letters.

It is apparent that the unknown hands who turned the Trinity inscriptions were masters of the "small" or minuscule letter, which Mr. Brown shows has not been given the same study as has been bestowed on the "capital" or Roman letter. In this respect, the Braseir inscription, with its

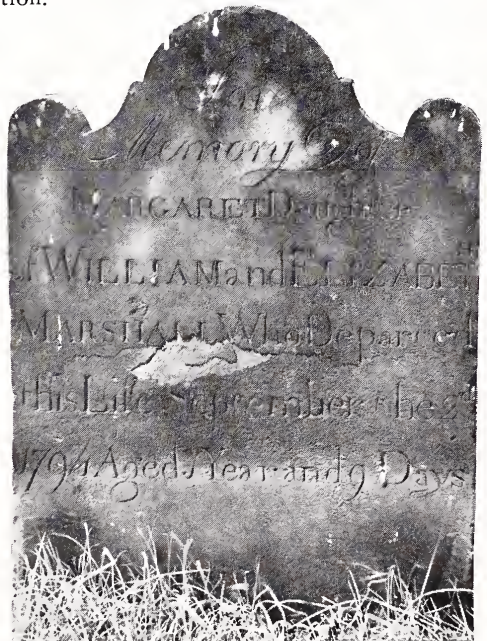


HEADSTONE IN TRINITY CHURCHYARD, NEW YORK CITY.

rich, almost mediaeval, pattern is an achievement, just as the Marshall tablet is in the use of Roman letters. These two tablets are remarkable pieces of decoration.



HEADSTONE IN TRINITY CHURCHYARD, NEW YORK CITY.



HEADSTONE IN TRINITY CHURCHYARD, NEW YORK CITY.

It would be well to encourage the study of old American lettering, for there is much need of it now that the "Colonial" style has been so extensively revived. Most important buildings contain some lettering or a memorial inscription, which should conform to the spirit of the architecture and decoration. Lettering is really a modeller's or sculptor's task, but as modern sculptors see fit to neglect it, it furnishes but another one of the countless burdens shouldered by the architect.

JOHN TAYLOR BOYD, JR.

The Prairie Style of Landscape Architecture.

I noted with interest in the October issue of the *Architectural Record* quite a lengthy discussion on the "prairie spirit" in landscape architecture in the article entitled "Country House Architecture in the Middle West." I also read the original pamphlet by Prof. Miller to which this article refers.

To me this new style of landscape architecture seems a bit far fetched, and hence detrimental to the future welfare of the profession; for a style which does not develop from necessity, or circumstances, but is forced, will surely do more harm than good.

As I understand it, the chief characteristic of the prairie spirit is best developed by the use of stratified plants, or plants which have a tendency towards horizontal growth. In this way, we are told, we continue to carry out the spirit of the flatness of the prairies and the strong horizontal lines of the predominant architecture.

That architecture may justly be affected by the broad flat prairies is very natural, as is shown by the strong influence the desert had upon the temples of the Egyptians. But architecture is the work of man, consisting of buildings, over which he has absolute control.

How different is landscape gardening! In this art man must bow to the overpowering strength of nature. We do not find the Egyptians trying to force nature to the horizontal lines of their architecture, but planting freely from whatever she had to offer. The tall stately shaft of the date palm was placed against the façades of their temples, much to their own satisfaction and the satisfaction of the centuries which have followed.

Why then should we put a ban upon the free use of the abundant materials offered to the Middle Western section of our country and tell the people they should use as far as possible "stratified" plants?

As I said before, it seems forced and unnatural, and as if Prof. Miller is trying to develop a form of informal gardening by tying the hands of nature, as the topiarians did in their highly formal gardens of clipped hedges and grotesque figures.

JOHN H. SMALL, JR.

I have been asked to "explain the principles of art which inspired the so-called 'prairie style of landscape gardening'" and to make a statement of my own "artistic creed."

Before explaining the principles and the name, may I mention the big reality out of which the theory and discussion have arisen? When I came to Illinois from the East, four years ago, I was struck by the large amount of landscape work that had been done with new materials and in a new manner. I found that about \$10,000,000 worth of work had been done since 1901 by Messrs. Jensen, Simonds and Griffin. During the next three years I saw all the work of these men that I could, and I came to three conclusions: First, that these men use a high percentage of planting materials native to the Middle West. Second, that they develop their themes in ways different from those of Eastern men, even when the latter practice in the Middle West. Third, that their designs have been profoundly influenced by the "oldest tradition" or most characteristic feature of Middle Western scenery, viz., the prairie. The work of these men seemed to me important enough to publish. So I collected about 100 photographs and printed them in a book or circular.* Thus any person may decide for himself as to whether their achievements are good, beautiful and true, and whether they are important enough to be called a style.

Anyone can see that the work of these three artists is markedly different. The men have apparently had little direct influence on one another. Moreover, economic necessity forces every artist to magnify the differences between his work and another's. Also, every great artist tends to develop a style of his own. Nevertheless, I believe that these three men all belong to one group, differing no more than conservative, progressive, and radical members of the same school. They all have a deep appreciation of the prairie. And they all tend to

*The Prairie Spirit in Landscape Gardening: What the People of Illinois Have Done and Can Do Toward Designing and Planting Public and Private Grounds for Efficiency and Beauty. By Wilhelm Miller, Department of Horticulture, Division of Landscape Extension, University of Illinois, College of Agriculture, Urbana, 1915.

work in a broad style that harmonizes with the scenery of the region and with that intangible but real thing popularly called the "Middle-Western spirit."

For the lack of a better name, I called this manner of doing things the "prairie style" of landscape gardening, defining it as an "American mode of design based upon the practical needs of the Middle-Western people and characterized by preservation of typical Western scenery, by restoration of local color, and by repetition of the horizontal line of land or sky, which is the strongest feature of prairie scenery."

The most characteristic of these principles, in my opinion, is repetition. At the bottom, every genuine style of art is religious. The Gothic style of architecture is exemplified by the spire—a symbol of aspiration. Its dominant line is the vertical. The contemplation of a vast prairie stirs every soul with a suggestion of the Infinite. The boundless cornfields of the Middle West symbolize God's bounty. The horizontal line of the prairie has become a symbol of aspiration. The architects who have taken this line as the foundation of a new style have expressed that line in a thousand different ways, obvious or delicate. The landscape architect can echo the same note by means of his "stratified plants," or "repeaters of the prairie," i. e., plants with horizontal branches or flat flower clusters, like the prairie crab apples and the hawthorns.

In reviewing all the published criticisms of my work, I find that the hardest things said against me can be simmered down to four propositions: (1) That the principles of the prairie style are not new; (2) that the materials are not distinctive; (3) that stratified plants can be overdone, and (4) that the prairie style is not a style in any true or important sense.

Of course, the principles are not new. So far as I am aware, America has contributed no new principles of design in any fine art—at least no new ones that are fundamental. Yet the sky-scraper is new and some sky-scrapers are now conceded by critics to be beautiful. So, too, are Macdowell's "Woodland Sketches." The work of these Middle-Western landscape architects also impresses one as being new and American. It is the sort of thing that could hardly have been produced in any other part of the world. Just how and why it is new I cannot say and I doubt if anyone really knows. Some people believe that the only new things under the sun are fresh enthusiasm, new combinations of old principles. Others say that all new effects are produced by adapting old principles to new conditions. But

the fact of novelty and Westernism no honest person, I believe, can deny, after examining the photographic illustrations in my book, especially Figures 1 to 5, 25 to 34, and 45 to 66.

So, too, with materials. Any botanist can demonstrate that the Middle West contains few plants of the first importance that are not also native to the East. Nevertheless, nature has emphasized certain things in the Middle West—bur oak, stratified haws and crabs, prairie rose and low rose, American bluebells, wild blue phlox, phlox divaricata, sunflowers, purple coneflower, gaillardia, compass plant, and others. The result is a landscape very different from one dominated by pine or palm. It is the frequent combination of a few species that makes "local color."

There is little or no danger of overdoing the stratified plants, because the upright growth of all vegetation makes the vertical line generally more prominent than the horizontal. I have never seen a landscape composition in which the horizontal lines prevail over the vertical, as they do in many buildings. I doubt the possibility of making such a thing. For many of the stratified plants echo the horizontal only when their flat flower clusters are in evidence. Crab apple branches are conspicuously horizontal in winter. These "repeaters of the prairie" never make strong, artificial lines, like the roof of a house. They are merely suggestive. Nor is there any danger of monotony, for there are eighty-seven species of them listed on page 24 of "The Prairie Spirit." Twenty-nine of the photographs show stratified materials and no one has yet complained that they are monotonous or excessive.

Is the prairie style of landscape gardening a real style? Yes, in the human and practical sense. I have never pretended that it is a style coordinate with the formal and informal styles. But I have never heard any one object to the phrase "gardenesque style of planting." But artists are well agreed that any kind of landscape gardening is more permanent, dignified and pictorial than the gardenesque style, which is typified by the canna bed in the middle of the lawn. And that is the great enemy of landscape architecture—the spirit of gaudy display which uses temporary, foreign plants. Surely the prairie style is better than that, because it uses permanent, native plants. Why, then, should anyone object to the phrase "prairie style" and not object to "gardenesque style"? A "style," according to Webster, is a "characteristic or peculiar mode of developing an idea or

accomplishing a result." I appeal to American architects to examine these 100 photographs of Middle-Western work and decide for themselves as to whether such work does not illustrate a prairie style. If not, what better name have you to propose?

No name is perfect, but the name "prairie style" has been accepted by one man who has sent me an itemized list of \$6,000,000 worth of work which he declares was influenced primarily by the prairie.

I will not bind myself indefinitely to any creed nor force my creed on others, but it helps every one to formulate his own creed, and since I am asked for mine, here it is. And it is not an academic creed, for I have left the university life and am now practicing what I preach:

I believe that one of the greatest assets any country can have is a national style of architecture and landscape architecture.

I believe that the foundations of an American style of landscape architecture are now being laid.

I believe that materials native to America should be more numerous than foreign materials in all compositions largely affecting American scenery.

I believe that every natural scenic region in America should have a style of its own, based upon its characteristic trees, shrubs, and wild flowers.

I believe "local color" is more important in landscape architecture than in any other fine art, and that every locality should preserve, restore and intensify as much as possible of its peculiar native flowers in scenery and vegetation.

I believe that examples of every scenic unit in America should be connected into one great national scheme of scenic and historical parks, national, state, county and local, which will be made accessible to every community in the United States by means of a national system of highways.

I believe that the horizontal line of the prairie is a noble symbol of the Infinite, which has been well used in Middle-Western architecture and landscape architecture.

I believe that the prairie style of land-

scape architecture has been adapted to all the different types of scenery in the Middle West, including woodland.

I believe that the prairie style of landscape architecture is the first successful attempt in America to develop a style of gardening based upon scenery of a well-marked, natural region.

WILHELM MILLER.

A Southern School of Architecture.

In the Department of Architecture of the Alabama Polytechnic Institute, at Auburn, post-graduate work is encouraged by means of fellowships paying two hundred and fifty dollars annually. For undergraduates, in addition to the regular four years' course leading to a degree, a two years' special course is offered, primarily for the benefit of draftsmen. Tuition is free to residents of Alabama and nominal for others.

The greatest possible amount of time is devoted to design, as ability in this line is the first requirement in architecture. A general course is given in building construction and superintendence, with the preparation of working drawings, details, specifications and contracts. This is followed by special work in the various engineering departments of the college, along such lines as heating and ventilation, wiring and illumination, reinforced concrete and steel frame construction. Freehand drawing in some form runs throughout the four years; history of architecture and allied branches complete the technical work.

To give the fundamentals at least of that broad cultural training which is so necessary to an architect's success, courses in languages, literature, history and economics are required, and the student is encouraged to make constant use of the architectural and general libraries.

FREDERIC BIGGIN.

Professor of Architecture, in charge of the department.

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