Architects planning group developments will perhaps be interested in certain new Riddle Fitments particularly adapted to this type of dwelling, permitting pleasing results in the lighting equipment within a moderate range of cost. Details will gladly be sent to any architect on request, and also information about our Planning Service for laying out entire residential lighting installations.

THE EDWARD N. RIDDLE COMPANY, TOLEDO, OHIO
ST. JOHN'S IN VARICK STREET
Charles F. W. Mieletz, Etcher
The Racquet Club of Chicago will repay professional study. It is an admirably arranged building of a modern type that is likely to come into general use, namely, the city club with facilities for both social and athletic recreation; it was constructed at a remarkably low cost through the use of stock materials, coupled with economies of plan; and the design is a notable exemplification of the formula; expression of plan requirements in frank terms of structural method and material. The design, indeed, is particularly interesting because its affiliation with the Progressive movement does not connote repudiation of the Classic tradition.

Under present economic conditions the spacious town house of the well-to-do, with its hierarchy of trained servants, is rapidly disappearing. With this fact in mind, the Racquet Club of Chicago was designed to provide general facilities for social and athletic enjoyment. The building was conceived on the scale of a large home, each member-master of the house upon occasion providing entertainment for the entire membership of 500.

Therefore, it is through the plans that the building must be studied in order to appreciate the design of its various parts and the general significance of the building. Reduced to simplest terms, the problem contained two distinct features; one, social, and the other, athletic, distributed under the same roof, accessible to each other. The component parts of the athletic group radiate from the locker lounge, while the social group with its dining room, living room, card rooms, etc., is reached from the main hall on the first or club room floor serving the locker lounge, and in turn fed by a broad stone stairway directly from the entrance lobby below. The main entrance to the building on Dearborn Street—the site is at the southeast corner of Schiller and Dearborn Streets—opens onto a lobby, off which are the office, a small guest room, coat rooms, manager's private office, elevator and the main stairway. The elevator, reached directly from the entrance lobby, is to the right of the entrance and serves a group of twenty-eight bedrooms, arranged in four floors in a separate
CHICAGO RACQUET CLUB, CHICAGO, ILLINOIS

Rehm, Wentworth, Dewey & McCormick, Inc., Architects
wing, affording privacy to members and their guests living at the club. On the entrance axis is the main stairway with an easy rise to the hall of the first or main floor above. By reference to the first floor plan, a general idea is obtained of the accessibility of the various rooms on this principal floor. Each room is a distinct feature of the plan, isolated as it were one from the other, yet forming a functioning part of the ensemble, easily reached and frankly expressed both in plan and elevation. The main club room occupies the corner with the library adjoining; at the east end of the main hall is the dining room, with grille or kitchen service. A directors' room and a private dining room complete this side of the plan.

South of the club room is the card room with two private card rooms off it. Thus, the social group is accessibly and conveniently arranged without interfering with the athletic features of the club which open from the locker lounge, also entered from the main hall and placed on the axis of the main stairway. The locker lounge, with its adjoining dressing booths and showers, is arranged with storage lockers in charge of an attendant within direct call. All the athletic features are reached by stairs directly from this central room, either one flight up or one down. Thereby the locker lounge becomes the heart of the athletic functions of the club, its arteries reaching out to the various parts of the building without interfering with the social activities. A large room east of the locker lounge is devoted to the gymnasium. On the second floor are the tennis court, two racquet courts and two single squash courts on the balcony level, all lighted by skylights and the most modern system of lighting for evening play. A players' room, markers' room, professionals' room and a bat stringing room occupy the space under the single courts. In addition to those on the second floor there are two double squash courts and a single one in the basement. Here, also, are four bowling alleys and the billiard room.

At the entrance level, and reached from the locker lounge, but not accessible from the lobby, is the swimming pool with outside light. Connected with it is the bath department with its vapor room, hot room, therapeutic baths, scrub rooms and quiet room.

Separated from the rest of the club, with its own private entrance, is the ladies' department, a unit in itself. All these, then, with complete modern mechanical equipment, are the various plan requirements which compose the Racquet Club. It is a strictly fireproof building, built in permanent materials, with exterior masonry bearing walls, interior structural steel and concrete columns and floors, built at a cost slightly under 60c. a cubic foot.

Let us go back and see how the various important rooms are treated architecturally, for here is a building where symphony of plan is emphasized by careful selection and use of inexpensive but appropriate
CHICAGO RACQUET CLUB, CHICAGO, ILLINOIS

Rebori, Wentworth, Dewey & McCormick, Inc., Architects

September, 1924
Main Stairway

CHICAGO RACQUET CLUB, CHICAGO, ILLINOIS

Rebori, Wentworth, Dewey & McCormick, Inc., Architects
building material. From the entrance lobby up the main stairway to the first floor hall, through the secondary hall, into the dining room, the floors are surfaced with 24" square slabs of Mankato stone, honed finish, quarried in Minnesota. The trim around openings in rooms where stone floors occur, the dining room fireplace, the trim of all other fireplaces, and the treads and risers of the main stairs are of the same stone but thicker. Palm finished plaster walls set off this stone work besides affording a dignified, impressive background for pictures.

In the club room, the entire walls and ceilings are paneled, selected grain American walnut. The ceiling is made up of flat squares or coffer panels, diagonally cut matched grain, set in heavy wood beam casings which cover the structural steel floor member. Large panels subdivide the wall spaces, making the smaller divisions settings for light fixtures, and the larger panels backgrounds for full length portraits.

Mouldings are purposely kept flat in order to accentuate the rich quality of the wood, a serene richness that is further accentuated by contrast with the broad, high window openings. Even the fireplace is kept flat to the wall, subordinated to the woodwork. A natural walnut finish characteristic of the wood gives tone to the entire club room, revealing an enduring quality of design.

The dining room woodwork is rough surfaced oak, treated in keeping with the informal character of the room with its stone floor and palm finish walls. Carved wood corbels support the cross beam casings and the panel spaces between beams are made of 6-inch matched V4 boards used as form work for the thin concrete floor slab above resting on steel beams spaced uniformly. A Mankato stone fire-
Detail of Stone Mantel in Dining Room

CHICAGO RACQUET CLUB, CHICAGO, ILLINOIS

Rebori, Wentworth, Dewey & McCormick, Inc., Architects

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Small Library off Main Club Room

CHICAGO RACQUET CLUB. CHICAGO, ILLINOIS

Rebori, Wentworth, Dewey & McCormick, Inc., Architects
place over seven feet in height, reminiscent of old Italy, is the feature from which the room takes its scale.

Nowhere in the building does precedent dictate the architectural treatment. Each room takes individual form as part of the general scheme, giving direction to the diversified action in straightforward terms and achieving contrast and interest by change of materials and ceiling height.

In the library oak bookshelves, with cabinets for the more precious acquisitions, fill the wall surfaces up to the elliptical vaulted ceiling. The ceiling of the main hall has a plain ribbed arch sweep with clerestory windows reaching above the spring line over the locker lounge roof. The oyster bar ceiling is a full barrel vault springing from paneled oak wall surfaces, while the small hall leading to the dining room is octagonal headed, and the card room has its vaulted ceiling with circular penetrations. From the low entrance lobby, with its flat ceiling, up the main stairway, the movement begins with the vaulted ceiling following the slope of the stairs and from there on to the various rooms.

The locker lounge is entirely utilitarian in conception, being the natural result of a design where light, air and cleanliness were of prime importance to the proper function of the room. This note is consistently followed throughout the building where like conditions prevail. In all cases plain walls provide a good background for a fine collection of sport prints.

The exterior of the building is a combination of limestone and red brick laid in walls of solid masonry construction. Exacting plan requirements dictate the general composition. However, by careful readjustment in mass and detail, the bedroom wing is secondary to the more
Locker Lounge

Card Room
CHICAGO RACQUET CLUB, CHICAGO, ILLINOIS
Rebori, Wentworth, Dewey & McCormick, Inc., Architects
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monumental corner motive. Limestone carries the design across the lower stories up the corners, framing the brick field pattern with a suppressed cornice crowned with a simple balustrade emphasized by corner pylons, thereby lifting the solid entrance mass into the picture and subordinating the lesser wing.

Solid masonry walls, with deep reveals at the windows, give the structure solidity and grandeur which is further enhanced by flat moulded surface and colorful material combination. Stone surfaces are all straight machine cut, free of costly returns and the brick pattern screening the large interior tennis court, is laid up in actual brick size to a conventional design accentuated and made interesting by a ¼ projection for part of the work. A white mortar joint unites brickwork and stone in softened contrast.

The building as a whole shows vigorous good taste in design. It is well studied along clearly defined lines, bearing the impress of permanence without extravagance. By its directness of purpose it points the way for good, creative architecture, along the middle path of least resistance between the opposing forces of the Progressives and Classicists. In architecture, creation has no lasting value unless derived from a need expressed in terms of substantial building material. Add to this strictly utilitarian doctrine, grace and proportion, combined with unity of conception and the result is bound to reach the realm of art through buildings that will endure.
May we again enumerate the conceivable directions from which may come reductions in the costs of building and housing.

One would be the reduction of the labor cost by the admission of cheap foreign labor. The new immigration law has settled this point. We have already (in the article published in the May issue) examined the situation here, and may again have a few words to say in relation to some changes caused by the new Immigration Bill.

Another method would be by making certain changes in existing Housing, Tenement and Building laws, that now unnecessarily increase the costs of building, and actually prevent the construction of new and modern tenement houses. We believe that there is actually some prospect of substantial relief along this line. Greater knowledge of the situation is being spread; the agencies that helped to impose the restrictions are awakening to the fact that the mere enactment of preventive legislation never has corrected the situation and they are combining with others interested to so modify these laws as to obtain relief. In partial proof we offer the fact that we were last month able to announce that the Newark laws had recently been so modified as to make it possible to commence actual construction of the Model Workingmen's tenement, illustrated in that same issue.

The building "subsidy" is still another way. As it has been experimented with in New York, in the form of a "Tax exemption" we have already found it to be impracticable—at least, under the present restrictions. Better means of subsidizing have already been tried elsewhere, as we will later show before finally abandoning this phase of possible relief.

The removal of factories, from congested urban to convenient rural sites, is another means of relief that possesses potentialities not entirely unrealized by important business interests that have become involved in North America. Yet we have seen how, in Europe, much has been accomplished by this means, and if the situation in this country were as well understood and as intelligently attacked, we should undoubtedly have much more success than we have yet encountered along these lines.

Then there is the gradual removal of certain types of labor from congested portions of the city, to the less expensive and healthier suburbs, made possible by the ownership of a motor. This is a new factor in the situation, and one that will inevitably grow more important with each passing year.

But there still remains something to be said about the housing facilities of the artificially upbuilt industrial community, as undertaken in the past, as well as to indicate some directions in which these very same factors still can be bettered and expanded.

Most of the housing undertaken in this country by manufacturers, for the use of their help, has, thus far, been of two types. All the older structures, like those at Manchester, N. H., and...
other northern mill towns, have been small individual or double houses, the latter being either the two-family plan with a center party wall, and a house on each side (in rare instances extended to a short connected block of three or four houses) generally known as the “semi-detached” plan, or the type where there is a family provided for on each floor. This latter type sometimes extends upwards for another story, either adding the rooms there contained to the upper floor apartment, or dividing them between the lower and upper floor tenements. This arrangement is seldom found in the lower rental housing type, however, as it adds to the cost of construction.

In later housing, built for employees by corporations, this “two-story” tenement is the favorite because of the lower cost of construction, and the fact that it provides both tenants with exposure on four sides. Occasionally it is extended to three stories. In the cheaper grades of tenements, this type is usually built of wood and as close together as possible, often being only eight to ten feet apart, a distance that is occasionally still further lessened by projecting bays. In this case the dangers from fire are greatly increased, and the loss of privacy for the occupants is inevitable, while the actual saving is so small as to be negligible in any small size mill community where land values are low. Workmen’s housing in this country under these conditions has thus far been planned by corporations for retention under their own ownership and rental to their workmen, whereas much of the building undertaken in cities and their suburbs has been by the speculative builder, who is counting upon disposing of his venture by sale at the earliest favorable opportunity; and consequently feels it incumbent upon him to carry on his improvements in complete units of comparatively small size, so that he can the more easily dispose of them.

It has been proven again and again, that it is a better financial investment for any large property held under one ownership to be laid out as a whole, even to the extent of carrying a large number of dwelling units, over a considerable area, from a central heating plant. Such an operation requires far less initial expense in the building of roads and installation of public utilities, and makes more available the land for the buildings and the uses of their tenants, while for its obviously better appearance and the better class of tenants it attracts it has further incalculable advantages.

In Europe the employment of the “two-story tenement” type of detached dwelling is not usual. Occasionally in a “row house” development, some few houses are divided into two-family “flats,” but this is the exception, though we find this type in certain parts of our American cities, Philadelphia and Baltimore, for instance. It makes about the most permanent and least expensive dwelling, although there are certain classes of American labor that object to living in “row houses,” and much to the large “tenement” building. But in this country the “row” type of plan is not usually acceptable, except in the rather crowded portions of our larger cities; it is certainly not customary or in demand in new suburbs, nor in remote manufacturing communities where the development is new, and land values low. While in England, particularly, the most attractive results have been obtained in the newer housing communities where the small houses have been clustered into rows, thus substituting a long and more interesting architectural composition, with the greater privacy of the solid party wall, for the closely adjacent and parallel walls, each with windows looking into the adjoining houses, and the smaller separate house units scattered close together over a large territory.

The grouping of these smaller units makes the aspect of the entire development more restful, and actually less
crowded, as it then becomes possible to place the houses farther back from the streets; to insure the privacy of the yards from the noises and dangers of the streets, and to obtain larger spaces for planting.

Yet in place of these obviously better and more economical small dwellings, each protected from its neighbors by an eight-inch brick party wall, we continue to build separate wooden boxes, a family to a floor, and crowded as closely together as we can slice our lots, in long rows and interminably ugly and monotonous blocks. This is exactly what has recently been done at Thompsonville, Conn., for the employees of the Bigelow & Hartford Carpet Co. This, too, despite the fact that the houses are unusually large and expensive in plan.

It is certainly not necessary to give space here to illustrating the type of plan that has just been discussed. There is nothing but its obvious cheapness to commend it. But the point that should be emphasized is that, for a large development, the ownership of which is to be retained by a corporation, there is not even assurance that it is the cheapest in initial cost. If, instead of the rectangular "grid-iron" block plan, a property of any usual area can, from the first, be divided and laid off in a more modern and attractive manner, the whole building development is at the same time capable of being made more desirable, and of being built at an actual saving in initial cost, as well as a considerable later saving in maintenance for the buildings themselves along with the upkeep of the roads and other utility improvements.

Before undertaking to illustrate this point, it is worth while to give a certain amount of consideration to the case of the development where the manufacturer has to take care of his operatives in housing that must be built upon lots in communities partly built up, in districts where the streets and utilities are installed, and he has not sufficient undeveloped property to handle it in any other than a conventional fashion. Even then, he should not have to give up the ideals for which, it is to be assumed, he has some little appreciation. It is worth while to show a solution of a problem where
the architect had a conventional type of lot to deal with, and for which he has yet been able to find an economical, attractive, and modern solution.

The plan, Fig. 28, of the house referred to, shows a four-family tenement building, two families to a floor, each with a separate entrance and doorway, and a living or sleeping porch at the rear. Each apartment consists of a large living and dining room, a small kitchen, two bedrooms and a bath, with adequate closet facilities. The entire building, exclusive of porches, covers 1790 square feet (895 feet to each half), and cost a little over $16,000. Each apartment rents for $38 a month, so that the entire building brings in an income of $152 a month or $1,824 a year, a little better than gross ten per cent. on the investment.

The exact dimensions of the building are sixty-four feet long, by twenty-eight feet deep, and again the porches are not included in these dimensions, but, provided the Corporation owned only two adjacent 50 foot wide lots, the building here shown could go upon them easily and still leave eighteen feet over on each end, while its comparatively shallow depth leaves ample land in front and back for planting, kitchen gardens or playground development.

Fig. 27 shows the appearance of these buildings, as constructed at Harrisville, R. I., and in Fig. 29 is shown the comparative disposition of a series of buildings of this plan and a row of the ordinary "two-decker" type of two-family, five-room tenements. The economy in the land covered is evident. In addition, it is to be realized that the openness of the plan in the one instance, compared to the cramped and crowded row of buildings in the other, means far more than here appears in health, air, sunlight, cleanliness and happiness of the inhabitants.

In the upper portion of Fig. 29 is shown how the plan, Fig. 28, is much more adaptable to variations of arrangement that would give the residents the benefit of a still greater outlook and exposure than would be possible from a conventional arrangement of these units, as they appear, for instance, on lots 7, 8, 9, 10, in the upper right-hand corner of the illustration. Nevertheless, the superiority of the plan, even in that disposition to the conventional narrow "two-decker" type of arrangement, as it appears in the same four lots in the line below, is obvious. Not only is the distance between the buildings twice as wide, in actual dimensions, but the fact that the ends of the buildings are only twenty-eight feet in depth, instead of the fifty-eight to sixty feet depth of the narrower type of plan, does as much again to secure both outlook and openness of aspect for their tenants.

A comparison of the plans of the first eight lots in the upper line, with the same number in the line below, shows the amount of land area in the upper portion will take care of twenty families, while the same area as planned below will accommodate only sixteen families. The opportunities are many for planting, and for the use of trees without crowding or darkening the rooms, in the good-sized courtyards secured alternately at the front and rear of the buildings in this "echelon" arrangement. It is also possible to relieve from monotony and sameness the street fronts, while a very slight variation in the details of the entrances would lend them a note of real distinction.

Figure 30 is another plan for a four-family dwelling, of smaller size, intended for newly married couples. Each apartment has three rooms, the size of the building is sixty-two feet long by twenty-four feet deep, and, exclusive of porches, it covers an area of 1,308 square feet, 654 to a side. The cost of this plan, built a year ago, was slightly over $12,000, or $3,000 per family and at the rate of $1,000 per room. It could be utilized in the same way as the larger plan previously illus-
trated, either on smaller isolated lots in any mill community, or in the development of a larger tract of land, in irregularly grouped and related units, as indicated in Figure 29. This sort of building, intended for the small family, seems, at the present time, to be the plan that is most in demand for company housing purposes in New England.

This small four-family apartment is an excellent example of the type of arrangement that is appropriate and desirable for the small village, where it is generally best to conserve the effect of a congregation of units, such as most New England towns possess, and where the apartment building, if it is used at all, should be made to resemble as nearly as possible, in its exterior appearance, the other individual units, each housing a single family, of which the entire community would be composed. Indeed, the grouping under one roof, of several families, in a larger, better looking structure improves the appearance of the entire village.

In the same village group where these four-family houses are built, the Abbot Worsted Co., have also erected a number of small individual dwellings, equally distinctive in appearance, of five and six rooms each, about as small a single family house unit as can be employed.

Like most other mill settlements in this section, however, there has been no real attempt or expectation to provide this housing upon any practical basis of adequate financial return. For instance, these three family apartments are being rented on an $8.50 monthly basis, to the younger married help in the company's employ. They confidently count on thus securing a better class of more stable and contented employees, and are, to this extent, willing to aid their younger men employees in marrying and "settling down." On a total monthly return from the four apartments of $34.00, or $408.00 a year, from the entire building, it should be obvious that the company, in embarking upon its housing enterprise at all, is either undertaking it only of necessity—or upon an expected return more of humanitarian than financial welfare to their corporation. In this same development, the five and six room single family cottages are also rented for $14.00 and $16.00 a month, an equally unprofitable financial structure, figured upon that basis alone.

Nevertheless, this company, and most of the mills now being established in the southern states, are locating their large buildings on sites selected for convenience to power or transportation lines and have this problem to face. These locations are often so remote from established centers of population, that they will be compelled to provide no inconsiderable part of the housing facilities needed, to bring families near enough to the mills to obtain their necessary labor supply. How many of these projects in this country are now being planned upon any proper and far sighted program? How many will ever bring in any adequate return upon the money invested?

Judging by the history of experiments conducted in this country in the past by similar corporations, there is little room for optimism in the replies that might be expected. Certainly, the Government report quoted in this article contains no proof of adequate solutions of this fundamental problem ever having been evolved in this country in the past. And so far as we have been able to become acquainted with the most contemporary of developments now under way we are unable to discover any successful attempts being made in the present. While, judging from the evidence presented by both, we are confessedly quite incapable of anticipating that anything better is likely to be evolved in this direction in the immediate future! Evidently, our much vaunted American business man leaves his intelligence and discernment both at home, when he goes down to his office to initiate or undertake the development of any work along these lines. Why is he so much more short-sighted than his European competitors? And how can he expect to keep contented the skilled help from England and Germany that he is now alone permitting to enter—under the new immigration law—into these United
States, when they have been educated to expect so much better housing conditions in their old homes than have been provided for them in this new country—either by Employer, Municipality or State?

In a report recently issued by the Department of Labor and Industries of Massachusetts, are given the results of a questionnaire in regard to the housing of employees sent in April of this year to all the cotton textile manufacturing companies in the State. Certain of the conclusions thus established are of interest in connection with the study of company-owned and rented housing, so far as they apply to the territory concerned. All the 187 companies in the State replied, and it was thus established that 62 owned or controlled such housing, and from the information supplied by them to the Department it appeared that these companies controlled a total of 2,564 houses containing 31,533 rooms, or an average of six rooms each.

These houses took care of 10,257 employees of these companies, out of about 46,772 normally employed, or 21.9 per cent. From this it must appear that a number of the houses are apartment, boarding or rooming houses, which would in part explain the large average number of rooms per house; or that each house contains an average of four employees, a large number even allowing for the system of renting out rooms, often followed in mill communities. In further tabulation, however, it would appear that "semi-detached" and "row" dwellings were grouped as one structure in each case; for the report states that, of the 31,533 rooms, "13,657, or 43.3 per cent, were in semi-detached dwellings; 10,786, or 34.2 per cent, were in 'row' type of dwellings; 4,084, or 13 per cent, were in detached dwellings and 3,006, or 9.5 per cent, were in other types of dwellings" (largely apartment houses). "The average number of rooms in detached dwellings was 7.4; in semi-detached, 10.9; in row, 18.00, and in others 17.3, with an average for all dwellings of 12.3 rooms."

From this statement it would appear the two houses contained in one
semi-detached dwelling averaged 5.45 rooms to each family, and probably the “row” dwellings were principally of three and four house groupings, each house of five to six rooms, as this fact only would explain the average of 18 rooms to a “row” house. Thus we find that the statement elsewhere contained in this article, in regard to the types of housing most usually preferred in New England mill towns, are supported by these official figures, as far as they have been compiled with regard to one—and that the most important—industry, in the single State of Massachusetts.

The 62 companies supplying housing to employees were located in 36 municipalities. As was to be expected, a tabulation of the towns and cities shows that the larger cities contained less and the smaller towns more of this company housing. Although no statement is given in regard to the 125 companies who supply no housing to their employees, it would undoubtedly develop that the majority of these would be found located in the larger, well settled and built up communities.

Classified according to population, three cities of over 100,000 inhabitants contain 8 corporations supplying 184 houses to 556 from among 12,425 employees, or 4.5 percent. Two cities of over 50,000 but less than 100,000 population contain 4 corporations supplying 42 houses to 398 from among 5,210 employees, or 7.6 percent. Five cities of between 25,000 and 50,000 inhabitants contain 11 companies with 275 houses containing 1,740 of 8,789 employed, or 19.8 percent. Three cities and six towns of between 10,000 and 25,000 inhabitants contain, the former, 6 companies with 229 houses to 880 workmen among 2,605 employees, or 33.8 percent; the latter, 10 companies with 701 houses accommodating 3,245 of 9,757 employees, or 33.2 percent. Nine towns of between 5,000 and 10,000 population contain fourteen companies with 827 houses accommodating 2,741 of 6,268 employed, or 43.7 percent, and, finally, in towns of less than 5,000 population, there are 9 textile companies in Massachusetts owning 306 houses, taking care of 697 from among 1,718 employees, or a total percentage of 40.6.

In regard to materials employed for these dwellings the report states that, of the 547 detached houses, 517 are of wood frame and 20 brick construction, with 7 of cement. Of the 1,244 semi-detached dwellings, 1,131 are frame, 71 brick, and 10 cement. Of the 599 row houses, 300 are frame and 299 are brick. There are 41 houses of “other” types of construction, besides those classified. The percentages vary somewhat from those based on number of rooms. The detached houses make up 21.3 percent of the total; the semi-detached 48.6 percent, the “row” 23.3 percent and all the “other” types, 6.8 percent.

The largest housing project was one where 1,174 employees, or 55.9 percent of the 2,100 normally employed, occupied 213 company houses of 3,041 rooms. The greatest percentage of employees housed by any one company was 318 employees in 39 houses of 354 rooms, or 88.3 percent of its total of 360 workmen. The “density of population” in these company houses, by the way, provides food for some thought, although in fairness it should be added that, in the case of the “largest” example mentioned the 213 houses listed contained 7 detached, 139 semi-detached, and 57 “other” types of housing, referring to tenement and rooming houses, which in itself partially explains the situation.

Unfortunately, the report gives no information in the matter of costs of buildings, or the method of figuring returns on the investments of the companies involved. Neither does it give any complete returns in the matter of rentals. It is to be hoped that these important economic phases of the problem may be covered in later reports. The single paragraph contained in this report that is concerned with the matter of rentals, however, is quoted below. Unfortunately, it
covers only three "communities," and no clue is given either as to their size or location. The paragraph follows:

"In Community A there are 493 tenements, rented on a weekly basis, in various types of dwellings, averaging six rooms per tenement. Of these tenements, 273 rent for $2.50 per week, only 17 renting for more than that amount and not exceeding $4.00 per week; the remainder of the tenements rent for less than $2.50, and some as low as $1.13 per week. . . . Community B consists entirely of row type of brick buildings containing, in all, 238 tenements, averaging nearly five rooms each. More than one-half of the tenements rent for from $5.50 a month to $6.30 a month. In Community C there are 212 tenements of various types of dwellings, averaging between five and six rooms per tenement. The largest single group is one of 50 tenements of five rooms each, renting for $2.19 per week per tenement. Including this group, more than one-half of the tenements rent for less than $2.20 per week, and as low as $1.77 per week."

Further information in support of these facts, and the most recent official data to be obtained in this field, may be secured from the Bulletin issued in October, 1920, by the Bureau of Labor Statistics of the U. S. Department of Labor, on "Housing by Employers in the United States." On the whole, this publication does not supply us with much information on apartment housing, with which we are now most particularly concerned; although it is possible to glean occasional incidental information on tenements, as well. But on the broader outlines of this whole matter of "Company housing" we can find some facts that supplement and may lend authority to certain statements that have been made in these articles.

The large number of employees per house or room is remarked upon, and in explanation is given the fact that many companies favor tenants who promise them the largest labor supply from their occupancy of a property; in other cases a set rule is made demanding an average of at least one employee from each room rented, and conditions of over-crowding are frequently mentioned. The percentage of distribution of the four following types of houses in New England textile towns is given as "detached houses, 15.6 per cent; semi-detached houses, 29.9; row houses, 32.0, and flat, apartment, and other types as 22.5." The average sizes of the housing, in rooms, is given as, three rooms, 1.8 per cent; four rooms, 8.5; five rooms, 23.9; six rooms, 32.2; seven rooms, 16.6; eight rooms, 3.1, and nine rooms and over, 13.9. It is also remarked that the average of 5.2 rooms per family is higher than in the southern textile and western mining communities.

Some slight information in this report is also included, on the matter of costs and rentals, both unfortunately now much out of date. Some four family stucco-on-frame apartment buildings of five rooms and bath to the family cost, in 1914, $1,063 per family, a rate of $213 per room. The rooms were small, and not conveniently planned, and the rental was $13 a month to each family. Some four-room four-apartment buildings, built at the same time, cost $975 per family, or $244 a room, and rented at the same amount per month, or $13. Some larger brick apartments, housing sixteen families, built the following year (1915), cost $2,375 for a five-room apartment, or $475 a room, and rented at $13 a month; while some six-room apartments of the same date, cost $2,679, or $466 a room, renting at $13.50 a month.

Of 10,679 dwellings studied for types of plans, and the dates of construction of which were known, it was found that "before 1881, more brick row dwellings were built, for use singly or as flats, than either detached or semi-detached frame houses," but that, since that time, almost no brick rows had been erected. Between 1891
covers only three "communities," and no case is given either as to their location. The paragraph follows:

"In Community A there are 622 tenements rented on a weekly basis in various types of dwellings, averaging six rooms per tenement. Of these tenements, 238 rent for $2.35 per week, or more, than that amount and not exceeding $6.00 per week; the remainder of the tenements rent for less than $2.35, and some as low as $1.13 per week. In Community B consists entirely of row type of brick buildings containing in all, 238 tenements, averaging nearly five rooms each. More than one-half of the tenements rent for from $2.50 a month to $6.30 a month. In Community C there are 712 tenements of various types of dwellings, averaging between five and six rooms per tenement. The largest single group is one of 50 tenements of five rooms each, renting for $2.19 per week per tenement. Including this group, more than one-half of the tenements rent for less than $2.20 per week, and as low as $1.77 per week."

Further information in support of these facts, and the most recent office data to be obtained in this field, may be secured from the Bulletin issued in October, 1920, by the Bureau of Labor Statistics of the U. S. Department of Labor on "Housing by Employers in the United States." On the whole, this publication does not supply us with much information on apartment housing, with which we are now most particularly concerned, although it is possible to glean occasional incidental information on tenements, as well. But on the broader outlines of this whole matter of "Company housing" we can find some facts that supplement and may lend authority to certain statements that have been made in these articles.

The large number of employees per house or room is remarked upon, and in explanation is given the fact that many companies favor tenants who promise them the largest labor supply.
and 1900, one-third the houses erected were semi-detached frame houses; fewer being built in later years, until 1916 and 1917, when rather more than one-third the number of houses constructed became of the two-family type.

This whole survey covered 213 different companies, operating 423 various establishments in different sections of the country, and employing a total of 462,991 men, of whom 160,645, or 34.4 per cent, were living in company-owned houses.

Of the textile employees alone, 19.3 per cent of the 10,624 then covered in New England (and mostly in Massachusetts) lived in company houses; while 71 per cent, or 25,289 of the 35,643 employees of the southern textile mills were already so housed, largely, of course, because of the fact that these mills were generally placed where natural power was available, and so they were most often not near already established centers of labor supply.

In support of the tendency toward the gradual removal of labor-requiring industries from cities to towns or country, this same report, in 1920, had commented that "decentralization of industry" was already in marked evidence. In thirteen industrial districts, it had then been shown by census returns that from 1909 to 1914 the proportion of wage earners living in districts lying outside of towns and villages had increased 12.9 per cent, while the increase in proportion within the central zone itself had been only 6.1 per cent. It was further remarked that, at the time the report was being compiled, "practically all company housing developments recently undertaken are new town developments or are located in the suburbs of cities."

Of the 236 employer's housing enterprises investigated, 16, or 6.8 per cent, were on lots already laid out in established dwelling sections; 31, or 13.1 per cent, were in new real estate sub-divisions; 16, or 6.8 per cent, were in new suburbs of older towns, and 157, or 66.5 per cent, were in altogether new towns or sites hitherto undeveloped, showing that the companies themselves had had entire liberty in the laying out of these new developments, in over two-thirds of these ventures. A fact that is even more true today, when we are opening so many more of these industrial plants in the south rather than in the north; the middle west rather than the east!

The type of building we are illustrating this month, is the kind that we could appropriately use in the smallest village, and whose exterior treatment would be particularly appropriate to any New England town. It would go upon a lot of very low cost, under these conditions, possibly amounting to only three to five hundred dollars, so that the cost of the property, per family housed, would be negligible. At the most, it would run only from $100 to $200, while the cost of construction, per family, would amount to about $4,000. Even this is far less than would be required to build a small separate cottage, or even a house in a "row."

In a larger town, or in a suburb of a city, where property values are higher, the cost of construction would still so far outweigh the land value that this type of plan could be advocated with entire consistency. If the lots were even as valuable as $1,000 apiece, still the two lots necessary for this width of building would only amount to $500 per family, or one-ninth of the total investment of the entire unit.

In the city suburb, it is more than probable that both labor and material costs would be on a scale that would carry the cost of the structure to a higher total, say even to $20,000, in which case the proportionate cost of the land would be relatively still smaller. And in the event of the labor costs reaching a higher average, the rentals of the apartments themselves would also probably be correspondingly higher.
As a general rule, it may be said that the cost of a building remains the same, irrespective of property value. That is, in the same suburb, it would cost no more to build this structure upon property worth $5,000 than upon lots worth only $2,000, while the rental for the better location would be even higher in its investment return, than the advance in the total cost made by the increase in land value alone.

In a comparison of the costs of city and suburban housing conditions, there is not so much difference as is usually supposed. The land values in the suburbs are less, but in the article in the June issue, it was disclosed that the actual cost of the land containing a New York City apartment housing 108 families was only about $30,000 in a crowded section of that city, while the construction of the building ran about $150,000. Today the cost of building is rather more than doubled; but it is a question whether, even in New York, land could not now be secured for approximately $60,000. Upon this basis, then, the land value continues to remain at about one-seventh of the total investment cost.

In a better suburban or larger town location, a much larger sized lot would probably cost anywhere from $10,000 to $18,000, and it would carry an apartment building of 18 to 24 families, of the four-room type that was shown in this series of articles in May, in Fig. 6, and that would have to be estimated today to cost from $60,000 to $80,000. A rough comparison would show that, while the city property would now cost about $3,350 per family, the suburban type would cost about $2,900, a difference so small that it would actually more than be made up in the probable difference in rental values. The rooms in the suburban apartments would be much more spacious, have more outlook, and command more ground in the buildings' surroundings, but the probable wage income of the family in this situation would still have to be figured as considerably less than in a larger and more congested metropolis.

In addition, there would be some slight saving in the construction costs in a suburban locality. The land would cost less, the labor would be less expensive, taxes might be more to the thousand, but insurance would be lower and the utilities slightly less. Materials also might conceivably be less, as some of them would probably be manufactured nearer at hand than would be the case in a larger city.

But to offset all this, there is the lower scale of wage return to the occupants, which would be the most effective means of scaling down the whole rental and living plan of the community.

Nevertheless, we must face the fact that, so far, the tendency of development of the American group has been away from the rural and toward the urban location. Our larger city ganglions are increasing with constantly accumulating impetus. The trend of population is toward these larger groups. We have not yet found any certain and universal motive that is likely to operate with sufficient power to stem this natural and already well established trend.

Can we depend upon our manufacturing corporations to accomplish sufficient in this direction, even if they generally come to recognize it to be to their own advantage; and so begin to base their experiments upon former successful precedents, and to correct the many mistakes they have already made in this direction in the past? From the records above quoted it appears more than doubtful. Even if undertaken intelligently and successfully, it will at this late day be but a ripple upon the surface of a current that has already set in strong and wide.

Note: Through an oversight we neglected to give credit to Ernest Flagg as architect of the Charlesbank Homes, Boston, Massachusetts, published in our July, 1924, issue.
The Literature of architecture may be said to have had its origin in modern times; at any rate so far as abundance and variety are the signs of it. The extensive literature of "the orders," the plates of Classical and Renaissance monuments, the volumes of criticisms and rules governing the art of building are to be traced back no farther than the Renaissance. Strangely enough, the great bulk of our literature of architecture is subsequent to any of the recognized periods or styles of architecture. The ten books of Vitruvius, ("de Architectura") are from the first century of our era, but they are the only surviving publication on architecture from Roman times and their greatest influence began during the Renaissance. The invention of printing stimulated architectural thought and writing and brought in its wake countless changes in the art of building.

Mr. Egerton Swartwout

When asked what books the young architect or draftsman should own, Mr. Egerton Swartwout comments that most young draftsmen that he has known didn't own any at all, but supposed that they do acquire them after a while. He says that the "books like Mont St. Michel and Chartres and the Autobiography of Benvenuto Cellini can be obtained from any public library and are undoubtedly interesting, but have not much to do with architecture. I think I can best answer your question by simply telling you the books that I have found most useful myself. As you may know, I am what is called a Classicist, in that I have done chiefly monumental stuff, and consequently what appeals to me would hardly appeal to everybody, particularly those interested in small houses or city planning or Gothic work. "One of the most valuable all-around books in an office, I have found, is Buehlmann. There is an enormous amount of stuff in it, very clearly expressed and it is fairly accurate. Canina is very valuable, because of the enormous amount of stuff it has and because of the general classic character of the drawings. I grant you that the details and restorations are not very accurate but still the things have a classic look, which is more than I can say of the French restorations. There is a book by Charles Normand, entitled 'Parallele des Ordres d'Architecture,' which is a very valuable book on the orders, and as far as I have been able to prove, is quite accurate and the plates are good. The restorations of D'Espouy are valuable, although sometimes a little misleading in their character. Of course, there is always our old friend Vignola, who is a handy man around the house, although not to be taken without a thorough knowledge of what he is. I think these books would give the classical student a very good idea of what the antique stuff was. From a standpoint of design, I have always been interested in the publication of the early 'Grand Prix' drawings. These, as you know, are engravings and run from about 1790 to 1815. I think there are four volumes. Some of these are quite rare. There is also a book fairly recently published by Richardson, entitled "Monumental Architecture in Great Britain and Ireland." It has a good deal of interesting English work of Georgian character and particularly some of the Irish and Scotch stuff that is not often
published. The publications of Early American Architecture, of which there are many, are all good and valuable for an American architect. The large book on 'London Churches' and Belcher's 'Later Renaissance in England' are good. I won't attempt to go into the books on French architecture because I am not very familiar with them. I think Guadet could be read with interest. Possibly there is a translation, although I do not know of one. The above is only a fragmentary list, but as a matter of fact I don't use books very much and my library is not large. I have always regretted that there was not much literature on classic subjects. I am referring of course to the text. There are a good many histories and dictionaries but they are almost entirely written by archeologists and historians and not by practicing architects, or rather I should say by practical designers. Consequently the authors have been unable to place themselves in the position of the artist or architect who designed the old structures. I myself have written a few monographs on this subject which have been published in various magazines. They are not at all complete and the illustrations are not much, but the later series of articles I think I called 'The Use of the Order in Modern Architecture,' are the result of a good deal of experience in practical design and I think contain some things that are not to be found elsewhere."

Mr. Irving K. Pond.

Mr. Irving K. Pond furnished a list of books for the use and constant companionship of younger, (and as for that, older) architects and draftsmen with ambitions. "I gave a limited list of that nature in the introduction to my own book, 'The Meaning of Architecture' (Marshall Jones, Boston, 1918) which book, among others, I am going to add to the list I am giving you.

"The books cited in my introduction were:
Phillipps, L. March—Art and Environment.
"Taylor, H. O.—The Classical Heritage of the Middle Ages.

Babbitt, Prof. Irving—The New Laocoon, an Essay on the Confusion of the Arts.
"Bourne, George—The Ascending Effort.
"Murray, Gilbert—Four Stages of Greek Religion.
"Holborn, Ian B. S.—An Introduction to the Architecture of European Religions.

"To this list I add:
Phillipps, L. March—Form and Color.
"Emerson, Ralph Waldo—Essays and Poems; and good anthology of English Verse.—say the Oxford Book of English Verse—and some standard volume of sonnets (The Little Classics are good editions and can be carried in the pocket); Shakespeare; the Bible; Mark Twain; 'The Substance of Gothic' by Ralph Adams Cram; 'The Meaning of Architecture' by Irving K. Pond; Owen Jones or Racinet; Book of plates covering the great styles of Architecture. Read works on modern science; on astronomy, on modern chemistry; these will stir the imagination. Read books on the Evolution of Religion in its broader aspects, these will quicken the intellect and the emotions. Learn poetry by heart to have at command a solace or a stimulant for every mood. Every work is a picture of an idea and so, in reading, try to visualize the content. Read understandingly. Take nothing on mere say so; make everything square with your own inmost nature before you accept and make it part of yourself.

"But for sheer beauty of style the English Bible is not to be exceeded and should be read and passages committed to memory for that if for no other reason. On a par with the Bible are passages of Shakespeare, which should be at one's command. In reading one must keep abreast the swiftly running current of life; history, ancient and modern, and philosophy, ancient and modern are necessary to a fair understanding of modern trends and conditions. A sense of humor should be cultivated and 'Mark Twain' can contribute to this
phase of life and he is a fine stylist. The young architect will not read too much of good literature, and what he does read must stir the imagination and appeal to the ethical and the aesthetic judgment.”

Mr. Elmer Grey.

“I have felt for years,” says Mr. Elmer Grey, “that educational processes for architects, both by means of the college and those of the office, were not broadening enough. Our colleges and our architectural offices are too prone to turn out men who are merely draftsmen and will always remain draftsmen, whereas, the object should be to turn out architects. The difference is, of course, a vital one and consists very largely in breadth of view. Just as you say, the young architect should be a serious student as well as a capable draftsman, and this should mean a student of human nature as well. The way men live and transact business should interest him and why they do thus and so.

“Therefore, I should by all means recommend a course of reading that would have a tendency to enlarge his grasp of affairs. For this purpose I suggest the following:

"Grimm’s—Life of Michelangelo.

"Benvenuto Cellini—Autobiography of.

"Reynolds, Sir Joshua—Discourses on Art.

"Patridge, Wm. O.—Art for America.

"Mabie, Hamilton Wright—Essays on Work & Culture.

"Mabie, Hamilton Wright—Essays on Books & Culture.


"Emerson’s Essays."

Mr. Aymar Embury II

Mr. Aymar Embury II believes very thoroughly that it is essential that an architect should have a broad acquaintance with the “background” of the various architectural periods and that this can be gained better through the history and literature of the various countries than by any books about architecture.

“I would strongly advise, where possible,” says Mr. Embury, “the reading of contemporary historical documents as you suggest in the Autobiography of Benvenuto Cellini. For example, Herodotus is full of interesting things about Greek, Persian and Egyptian architecture. Vitruvius ought to be read and one of the early Roman histories, possibly Suetonius or Dion Cassius. The ‘Chronicles of Croyland’ contain some very interesting information about early English construction and I think that ‘Froissart’ will enable people to travel with more interest in France than any guide book in the world. I like also memoirs as giving a personal side of history which one doesn’t see otherwise. For example, Philippe de Comines of the time of Louis XI and the Memoirs of Sully of the time of Henry III and IV. I think also that an architect should read especially books upon the minor arts, of which occur to me ‘The Art of the Plasterer’ by Bankart, and the ‘History of the Signboard’ by Larwood and Hotten, in addition to the strictly architectural books.

“I think no architect can be considered really educated until he has looked over Villard de Honnecourt, and such a very informative book about Renaissance French architecture as Blomfield’s ‘History from 1494 to 1661.’

“On American work I myself like Asher Benjamin’s handbook and ‘Colonial Furniture in America’ by Lockwood, extremely well.

“Richardson and Gill’s ‘London Houses from 1660 to 1820’ is a very illuminating work on English construction of that period.”

Mr. Henry Bacon.

“I believe,” said the late Henry Bacon, “that young architectural draftsmen in our offices should acquaint themselves, by means of photographs and drawings, with the best examples of work executed in the past. In becoming acquainted with this work the student should make a comparison of the actual sizes of the ancient and modern structures.

“He should study Vignola and Gwilt or Fergusson. He should study the history of countries, especially Greece and Rome, and should become acquainted with the mythology of the ancients. He should read Vasari’s ‘Lives of the Painters.’ He
should study the work in his own country through publications and current magazines and periodicals. It is important that he study both French and Italian in order to get the greatest good out of his visits to the countries where these languages are spoken.

"Last, it is most important that he study or travel abroad before pronouncing his education completed."

Mr. HUBERT G. RIPLEY.

Mr. Hubert G. Ripley assumes that the "springald" is a designer; else, he says, "it does not matter whether an engineering draftsman is acquainted with books outside his immediate activities.

"The most inspiring and comprehensive work (as it includes the very best in a large number of monographs and standard folios) is D'Espouy, in the five or six volumes that have appeared to date. These books contain details, measured drawings, and views of the most famous buildings and monuments of Antiquity, the Middle Ages, and the Renaissance. Many of the most inspiring plates have appeared in the architectural magazines, and may be had at little cost."

"Nash's 'Mansions of England in Olden Times' gives the best that there is in domestic work in the Fifteenth and Sixteenth Century in England. Belcher and Macartney's 'Later Renaissance in England' and works on our own Colonial Period, such as 'Soderholtz' and 'Chandler,' and several recent books of moderate cost should be studied.

"Pencil Points is the best architectural magazine published for young draftsmen; bulletins and publications of the Art Museum contain valuable suggestions, and may be had for a series for the asking. Loose plates and odds and ends should be kept in scrapbooks and frequently consulted."

"For cultural reading, Victor Hugo gives the following list of 'Les Genies' in his work on William Shakespeare: Homer, Job, Aeschylus, Isaiah, Ezekiel, Lucretius, Juvenal, St. John, St. Paul. Tacitus, Dante, Rabelais, Cervantes and Shakespeare. 'This is the avenue of the immovable giants of the human mind.'"

"Herodotus, as well as Symmond's 'History of the Renaissance in Italy,' in five volumes, is absolutely essential. The autobiography of Benvenuto Cellini is one of the most interesting books ever written; and the lives of Leonardo da Vinci and Michelangelo, while not so interesting, are even more helpful. Breasted's 'History of Egypt' must be read and studied. The reading of these books will lead the individual to consulting many others and will result in a well-balanced mind."

Mr. JOHN V. VAN PELT.

Mr. John V. Van Pelt says that when he asked a similar question concerning reading for the architect of John Stewartson thirty years ago, "he advised me to read Ruskin's 'Seven Lamps of Architecture,' his lectures on 'Architecture' and the 'Stones of Venice.' Unquestionably such books as Henry Adams, Mont St. Michel and Chartres are especially valuable from the literary point of view. There are inexpensive editions of 'Vasari' and such books as John Addington Symonds. Cram has written two or three books,—one on 'Ruined Abbeys' that is quite charming. Day's Windows and Moore's Gothic Architecture, and Mumford's Oriental Rugs, are good. If a man reads French, Muntz's Tapestry and Mayer's 'Le Composition Decoratif.' I believe the latter was translated, but the edition is quite out of print. I really think that my book 'Essentials of Composition' is useful to the younger men. The above list is of books of talk.

"Unquestionably the designer finds books of plates of more imperative value."

"In Colonial there is a student's edition of the Georgian Period, that is not very expensive. The architectural reprint is published in Washington."

"The following books are of interest: "Mauch—Greek and Roman Orders."

"Buehlmann—Classical Antiquity & Renaissance Architecture."

"Durand—Reprint of Parallels of Architecture."

"Gromort—Choix d'Elements d'Architecture Classique."

"Esquie—Vignola."

"Then there are all of the Guerinet
reprints which, at present rates of exchange, are not so expensive as to make them prohibitive. All of these reprint books can be obtained from William Helburn, Inc."

Mr. Louis C. Mullgardt.

Says Mr. Louis C. Mullgardt, "I have thought over your question of titles of books on the Fine Arts, Science, and Literature, which architectural students should own or become familiar with. I am of the opinion that it might consist of a select list from a great, great many good books which may be found on the shelves of a substantial library. . . .

"Any books which intelligently convey the subject matter in an interesting manner, are good books to recommend. We know, of course, that the knowledge embraced by those three captions, is highly essential to the architectural student, and, that such knowledge, once acquired, always produces wisdom, but, very seldom, a real architect.

"Architectural students must learn what the peoples of the world have accomplished, not for the purpose of reiteration, but to use the knowledge as a concrete mass, upon which to advance architectural design which is most suitable to modern needs. — Creative genius, combined with adequate knowledge, is of course essential to architectural progress.

"I am of the opinion that too intensive cultivation inclines to still creative personality. Protracted study of antique creations, tends to evacuate the untried creative genius with which some men have been endowed and to substitute a tendency akin to archaeology.

"Archaeology has a domineering tendency in conventionalized modern thought, which retards creative genius with its overwhelming profusiveness.

"When archaeology is allowed to become rampant in an individual, then its influence is in the nature of an old orchard, reproducing degenerated fruit.

"Untrammeled creative genius is rare and supersensitive. It bears new modern fruit, provided it is not sapped by excessive grafting from the old orchard. — The fruits of genius comes, unheralded."

Mr. Bertram G. Goodhue.

The late Mr. Bertram G. Goodhue has submitted a library of books, which, he says "does not pretend to be at all exhaustive or indeed to cover the best known and standard books. It does, however, represent the sort of books that I personally regard as the most valuable for the kind of training the men get, or are supposed to get, in this office. I have very distinct theories on the subject of architectural education and wholly disapprove of the 'vocational' element that is usually made the chief feature.

"In the fewest possible words,—it seems to me that an architect should be, first, one born to the profession, second, an educated man, if possible a gentleman and, third, trained in the technique of his work; therefore many of the books in the enclosed list might not, would not, in fact, by most architects, be regarded as architectural books at all. There is no such thing as a 'five foot shelf' of architectural books.

Lethaby — Architecture.
Lethaby — Architecture, Mysticism and Myth.
Simpson — History of Architectural Development.
Middleton, J. S. — Rome.
Jackson, Sir F. J. — Gothic Architecture.
Jackson, Sir F. J. — Byzantine and Romanesque Architecture.
King, Thomas — Study Book of Mediæval Architecture & Art.
Viollet-le-Duc — Dictionnaire de l'Architecture and other works.
Bond — English Church Architecture (and other works).
Perrot & Chipiez — Egyptian Architecture.
Perrot & Chipiez — Storia della Arte Italiana.
Symonds, J. A. — History of the Renaissance (and other works).
Baxter, Sylvester — Spanish Colonial Architecture.
Baxter, Sylvester—Picturesque Architecture of Mexico.
Baxter, Sylvester—La Architecutra en Mexico.
Whittlesey, A. — Architecture of Southern Spain.
Whittlesey, A. — Architecture of Northern Spain.
Anderson — Architecture of the Renaissance in Italy.
Bankart—Art of the Plasterer.
Weaver—English Leadwork.
Prior & Gardner — Mediaeval Figure Sculpture in England.
Prior & Gardner—Affreschi Decorativi in Italia, and other works of the Collezione Artistica Hoepli.
Reynolds, Sir J.—Lectures.
Murray—Translation of Greek Plays.
Lang, Andrew—Translations of Homer and Theocritus.
Pater, Walter—Marius the Epicurean.
Cram, R. Adams—The Substance of Gothic.

Mr. Charles A. Platt.
Mr. Charles A. Platt submits a list of books which he says he has found the most useful in his practice. It is as follows:
Uhde—Architectural Forms of the Classic Ages.
Latarouilly — Edifices de Rome Moderne.
D'Espouy—Fragments d' Architecture.
D'Espouy—Monuments Antiques.
Grandjean & Famin, Andre, Daly Fils
—Architecture Toscane.
Arnott & Wilson—Petit Trianon.
Ware—Inigo Jones.
Belcher & Macartney—Later English Architecture.
Macartney—Practical Exemplar of Architecture.
Field & Bunny—English Domestic Architecture.
—The Georgian Period.
Soderholtz—Colonial Architecture.

Mr. Walter Mellor.
Mr. Walter Mellor of the firm of Mellor, Meigs & Howe, feels the need of a very broad education, and the more the architect reads and knows about the several Fine Arts, Science and Literature, the better qualified he will be to fill the position he is to occupy during life.
"The two books you have suggested,—Mont St. Michel and Chartres and the Autobiography of Benvenuto Cellini, are very good, and might be supplemented by 'Form and Color' by March Phillipps, and 'Ancient Rome and Modern America' by Ferrero.
"When it comes to suggesting technical books, it is rather hard to make a selection, since it will depend a great deal upon the lines that are being followed out in the practice of the architect what these books should be. In short, a man who designs residential work would not necessarily have to have the same books one would own whose practice pertained to public buildings. However, I am giving in the accompanying list, the books that we have found to be advantageous here in this office.
Biogi, C.—La Renaissance en Italie.
Vitry, Paul—Hotels et Maisons de la Renaissance.
Latham—The Gardens of Italy.
—Georgian Period of Colonial Architecture.
Tanner—English Interior Woodwork.
Macartney—Practical Exemplar of Architecture.
Field & Bunny—English and Domestic Architecture of the 17th and 18th Century.
Millar—Plastering Plain and Decorative.
Hunter—Italian Furniture and Interiors.
Mr. Thomas Hastings submits the following, according to countries:

**English:**
- Latham—In English Homes.
- Garner & Stratton—The Tudor Period.
- Macartney—The Practical Exemplar of Architecture.
- Tipping—Gardens Old and New.
- Pugin—Gothic Architecture.

**Italian:**
- Letarouilly—Palais et Maisons de Rome.
- Platt—Italian Gardens.
- Strack—Brick Architecture in Italy.
- Geymuller—Architecture Toscanne.

**French:**
- Daly—Motifs Historiques.
- Gailhaband—Monuments Anciens et Modernes.
- Rouven et Darcel—l’Art Architectural en France.

**American:**
- McKim, Mead and White—The Works of.
- Charles Platt—The works of.
- American Competitions—The Georgian Period.

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**THE ARCHITECTURAL RECORD.**

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**BURTON-ON-THE-WATER, GLOUCESTERSHIRE, ENGLAND**

[224]
Facade
LINCOLN STORAGE WAREHOUSE, CLEVELAND, OHIO
Designed by the Watson Engineering Company
Entrance Detail
LINCOLN STORAGE WAREHOUSE, CLEVELAND, OHIO
Entrance Detail
CORONADO HOTEL, ST. LOUIS, MISSOURI
Preston J. Bradshaw, Architect
The Foyer

Lounge Looking Toward Foyer
CORONADO HOTEL, ST. LOUIS, MISSOURI
Preston J. Bradshaw, Architect
Architectural Library
The Lobby

CORONADO HOTEL, ST. LOUIS, MISSOURI
Preston J. Bradshaw, Architect
Façade

ST. MARK'S PAROCHIAL SCHOOL, EVANSTON, ILLINOIS

Joseph Steinkamp & Brother, Architects
St. Mark's Parochial School, Evanston, Illinois
Joseph Steinkamp & Brother, Architects
ST. MARK'S PAROCHIAL SCHOOL, EVANSTON, ILLINOIS
Joseph Steinkamp & Brother, Architects
Side Entrance Detail

ST. MARK'S PAROCHIAL SCHOOL, EVANSTON, ILLINOIS

Joseph Steinkamp & Brother, Architects
View From Road

FARM BUILDINGS ON JACOB RUPPERT FARM, GARRISON, NEW YORK
William La Zinsk, Architect
ARCHITECTURAL RECORD

General Layout

FARM BUILDINGS ON JACOB RUPPERT FARM, GARRISON, NEW YORK
William La Zinsk, Architect
Silo and Dairy Building

FARM BUILDINGS ON JACOB RUPPERT FARM, GARRISON, NEW YORK
William La Zinsk, Architect
Poultry Building and Duck Pond

FARM BUILDINGS ON JACOB RUPPERT FARM, GARRISON, NEW YORK

William La Zinsk, Architect
FARM BUILDINGS ON JACOB RUPPERT FARM, GARRISON, NEW YORK
William La Zinsk, Architect
ANDALUSIAN GARDENS AND PATIOS

By Mildred Stapley and Arthur Byrne

Photographs and Drawings made expressly by the Authors

PART X. PATIOS AND GARDENS OF SEVILLE AND CORDOVA

The modern Parque de Maria Luisa has recently been prepared for the mise-en-scène of the Spanish-American Exposition. The whole extensive area known by this name was once the garden of the Duc de Montpensier, brother-in-law to Isabel II, and surrounded the great Baroque palace of Santelmo. Towards the end of the last century his widow, Maria Luisa, presented the palace and the grounds nearest to it to the Archbishopric of Seville, and the remoter and larger portion of her nondescript park to the public. This was known as the Park of Maria Luisa. When Seville decided to arrange a Spanish-American Exposition the upper part of this park was chosen as the site. Building and garden-making were at once begun, but the Great War appears to have deferred indefinitely the opening of the exposition. All the preparations are in true Andalusian character; and if one feels that the buildings are perhaps too intensely regional, not so the gardens.

In these a Frenchman, M. Forrestier, collaborated. The same expert is now busy metamorphosing the once barren side of the Montjuich, Barcelona, into a public garden of great distinction. This problem at Seville was to lay out in the Andalusian manner an area vaster than any existing prototype; also to make it public in character and provide it with long drives and esplanades; yet to more or less conform to the previous layout, thus avoiding the expense of unmaking the old before starting the new. The solution is most creditable. The designers have given Seville what it never possessed before—a truly Andalusian public garden, enjoyed by all classes (who here know how to be happy in a park without bandstands, merry-go-rounds, cages of unfortunate wild beasts, soda-water fountains, and other embellishments which in certain countries are considered indispensable to mass recreation).

Although the Andalusian garden is usually without architectural features, one such indulgence—the pergola—was permitted here. Used sparingly, without orders, it is merely a succession of square pillars surmounted by equally simple wooden beams. In every alternate bay are stucco benches, and their edging of green tiles and the lozenge-shape tile insert in each face of the pillar are the only decoration. The vines at the base of the uprights are interestingly confined in a trefoil formed by three common roof tiles imbedded vertically. Another departure from precedent is the large estanque, perfectly rectangular and with an island of the same shape in the center. Both borders of the water are accentuated by a stout brick coping, that of the island holding an unbroken row, hundreds and hundreds, of potted plants. The surface of the water is covered with lilies and frogbit. While this pool is larger than any other in Andalusia there is no doubt that it was suggested by the little water garden, or Court of the Cypresses, at the Generalife, whose rectangular simplicity and rows of flower pots it repeats.

The tile fountains in the park are for the most part well designed, low and broad; (as much cannot be said for the marble Fountain of the Lions—poorly
Cypress arch leading to the stucco pergola
MARIA LUISA PARK, SEVILLE

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Pergola in white stucco with green tile insets
MARIA LUISA PARK, SEVILLE
Quadrangle defined by a colored tile seat
MARIA LUISA PARK, SEVILLE

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Outdoor reading room dedicated to the celebrated novelist, Cervantes, and executed in colored tiles which illustrate the history of Don Quixote

MARIA LUISA PARK, SEVILLE
Summer and winter view of lily pond and island. The curbs made of molded brick

MARIÁ LUISA PARK, SEVILLE
This charming and respected corner makes our own park nooks, all too often bestrewn with hideous comic picture supplements and the other debris of "nature lovers," exceedingly sad by contrast.

Worth a line or two before leaving the Parque de Maria Luisa is the picturesque uniform of the guardians—the traditional dress of the Spanish game-keeper, brown with green facings and leather accessories. The tasseled leggings buttoned only at the ankle and the top particularly engaged the attention of Théophile Gautier, likewise the broad-brimmed hat with green cockade. Something about the nicety of design and emphasis of small items makes this uniform specially appropriate to the Sevillian "park police."

carved, and the beast too realistic). Some of the polychromy is too garish, but in this matter it is probable that the over enthusiastic tile manufacturers of Triana had their say. A tile innovation that attracts, and justly, much attention is the outdoor reading room. Not so much for its design, which happens to be excellent, but for its purpose. An exedra to the memory of Cervantes, who spent weary months in a Sevillian prison, it tells the adventures of his fantastic hero, Don Quixote, in a fine series of burnt clay pictures, while at each side of the seat is a tile book stand where repose vellum-covered volumes of the great novelist. These for the mental refreshment of the loiterer; and not chained like the old-fashioned park tin cup, but at the disposition of all—richman, poorman, beggarman, even

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THE ARCHITECTURAL RECORD.

EL JARDIN DE MURILLO

Another but very small public garden has recently been made, called the Murillo Garden. On this site the idolized Sevillian painter is supposed to have lived; certain it is that he was buried in the church of Santa Cruz, now demolished, which stood nearby. A few attractive box-bound flower beds, good tile fountains and seats, make up the typical composition.

The most notable item is the caretaker's lodge, a nice bit of design in the spirit of the modern revival, carried out in white stucco, and adorned by fine iron window rejas. Potted plants, the reserve supply for the garden, are set about with great prodigality. Those who enjoy looking into small details will be interested in the iron rings in the facade and again at each side of the rejas for holding flower pots. These can also be seen on many an Andalusian balcony.

EL MUSEO PROVINCIAL

A small garden carried to a high degree of finish, and beautiful in the special way that certain highly finished old paintings are beautiful, is that of the Museo Provincial de Bellas Artes. Until the Disestablishment of the Monasteries (1835) this was the Convento de la Merced, and the garden referred to is in the southernmost of its two large cloisters. In design it is probably what it was when the cowled inmates laid it out, but its freshening-up is due to the modern renaissance of garden craft in Seville. Now it is a study in blue and white tiles, yellow earth paths, and dark green shrubs; all placed with consummate precision and admirably kept in order. As it is illustrated in color it is hardly necessary to point out that nothing could be simpler than the scheme—wide paths of yellow earth well tamped down, narrow bisecting paths, only two feet wide, of brick tile enlivened with color insets and edging of alternate blue and white blocks, two by eight inches; basin in blue and white checkers but reverting to green and white in the central font; yellow curbing to the yellow paths, as the juxtaposition of the blue and white blocks would have been a disturbing note. The planting is as conventional as the ceramic arrangement—low dense creepers carpet the plots, in which are set out two sizes of dwarf shrubs, one about eight inches high, the other about two feet; the contents of the alternate blue and white glazed pots which stand on the coping of the basin vary with the season, but red geraniums, carnations, and purple lilies appear most often, never two colors at the same time. Under the bright white arcade of this cloister runs a wainscot of polychrome tiles, and the walls are hung with old pictures of the Sevillian school. No detail has been overlooked, and the center of the quadrangle is like a highly polished and beautifully laid mosaic.

NUMBER 8, GUZMAN EL BUENO

As a specimen of the small city garden, and one more or less similar to many others in Seville, we illustrate that to the rear of the Osborne palace at No. 8, Calle de Guzman el Bueno. Portions of the house date from before the Christian reconquest, but the garden would not be anterior to the XVII century. It consists of two plots embraced on three sides by the house and its wings. One motif is square, the other oblong; between the two is a triple-arched marble screen with a delicate iron grille. For the rest the composition consists of polychrome tiles and dark green garden plots. Flowers, except those in pots, hardly enter into the scheme. In each enclosure is a tile fountain, and against the far wall—that separating the adjoining house—a tiled bench with tall panel behind. In the arcaded gallery that surrounds the garden stand fine old pieces of Spanish furniture and on the walls hang some excellent canvases by seventeenth-century masters, the contem-
Plan of the tile garden
MUSEO PROVINCIAL, SEVILLE
Detail of the garden
MUSEO PROVINCIAL, SEVILLE
Loggia and garden

HOUSE IN THE CALLE DE GUZMAN EL BUENO, SEVILLE
Rear garden with seat of polychrome tiles built into the white walls
HOUSE IN THE CALLE DE GUZMAN EL BUENO, SEVILLE
poraries of Velazquez and Murillo. These help to give the garden that lived-in aspect which Sevillians may properly regard as their own special achievement.

GARDEN OF THE MARQUES DE VIANA, CORDOVA

Our remaining small flat garden is found not in Seville, but in Cordova: Calle de las Rejas de Don Gomez, palace of His Excellency the Marques de Viana. The curious name of the street refers to a legend wherein the three large grilles of the Viana wall figure prominently. The palace dates from the sixteenth century, but the garden appears much more ancient. It probably represents a small fraction of one of the large Moorish gardens for which Cordova was celebrated in the eleventh century—places where exotic flowers and fruits from distant India grew in profusion, where water gushed over quicksilvered glass to glisten in the sun, where rare birds of brilliant plumage, invisibly netted, darted about. Hard to visualize in the decayed city of today! With the exception of the great Mosque, and this sadly tampered with by Christian zeal, scarcely a vestige of Moorish architecture remains; and as for palace gardens, we are reduced to the single small example illustrated.

The Viana palace stands on the north part of the town, near the Convent of Santa Isabel. From the street one enters a spacious patio arcaded on all sides, the entrance being ingeniously arranged in a corner. At once the eye is confronted with an entirely new picture; no polychrome tiles but color supplied instead by bright yellow kalsomine. Stone columns of the arcade are thus painted, likewise string courses and cornices. The plants around the central fountain grow from glazed yellow pots. No other color enters into the scheme. Under the arcade is a beautifully laid walk of black and white river stones, and the open court is of coarse white gravel. Everything here is as orderly and as polished as a ship's deck.

To reach the garden one has to pass through the palace, a Moorish way of doing things which did not in the least disturb the Spaniards. As seen in plan it is arranged on the principle of a series of open air rooms, surrounded by lofty walls eighteen or twenty feet high, and the enclosures approximately forty feet square. The first, de los Naranjos, is set out with orange trees whose foliage is trained into a dense screen overhead; the black soil is carefully banked for irrigation with a not undecorative result. The second, de las Rejas, is devoted entirely to potted plants set about in groups on the brick pavement, and the only visible earth is that at the base of the walls where vines are planted. The third enclosure has a beautiful central group of cypresses trained in the form of a Gothic arcade and enclosing a marble fountain; off in each of the four corners is planted a huge semi-circular clump of box. Here, too, there is a simple brick pavement. Access from one enclosure to another is by means of wooden rejas painted with blue kalsomine and the walls are covered with bougainvillea, its deep green and bright purple most effective against the white. The white façade of the house itself is set off by ultramarine blue cornice and string course, while the woodwork, such as shutters and sash, is painted green. At the level of the piso principal and extending almost the entire length of the garden is an imposing iron balcony; this, too, is painted green except for the repoussé motifs of lions and castles, which are gilded. From this balcony one gets charming views of the garden in combination with the attractive roof-tops of the old town beyond.

A visit to this garden in summer, and one readily appreciates the raison d'être of its walls. Except when the sun is on the meridian they are always casting a welcome shadow. Lofty though they are one never feels shut in, for besides the generous archways connecting one patio with another there are additional small openings in the form of recessed windows; also the three large ones overlooking the street and barred by the "Rejas de Don Gomez." It will be noted that
White walls softened by vines
GARDEN OF THE MARQUES DE VIANA, CORDOVA
Loggia paved with river pebbles

GARDEN OF THE MARQUES DE VIANA, CORDOVA
Blue wooden gate, the vertical members cut with the profile of a spindle

GARDEN OF THE MARQUES DE VIANA, CORDOVA
One of the paved enclosures whose central motif is a Gothic arcade formed by ancient cypress trees
GARDEN OF THE MARQUES DE VIANA, CORDOVA
this Cordova example, in contrast to those examined in Seville, is devoid of azulejos.

The smaller towns of Andalusia supply little of importance in the way of real gardens; here and there as at Ecija, Osuna, Jerez, Cadiz, pretentious patios of considerable architectural merit and good planting may be found; but what the lesser towns chiefly yield would be small patios and garden details of a simple picturesque quality.
Architects and town planners from all over the world recently met in Amsterdam for the annual conference of the International Garden City and Town Planning Association. The choice of the meeting place was a happy one, not only because of the central location of Holland, but also because the work of the Dutch on housing and city planning problems is of peculiar interest and importance.

Many of the cities of Holland have grown in accordance with preconceived plans and all of them have always theoretically possessed the legal powers for constructive city planning. The modern work in this field is based on a national law of 1901 and its later changes and extensions. This law and those since enacted contain some provisions of special interest to American architects and the machinery set up under them is illustrative and suggestive. Particularly important is the control exercised by the Dutch cities over zoning and platting, appearance and design of buildings, and the preservation of monuments. These are just the subjects with which American city planners have long been struggling.

The law of 1901 made it compulsory for every city in Holland with more than 10,000 population to prepare a city plan and to revise it at least every ten years. The plan determines the location of all public properties, streets and parks, provides that the city shall build all streets and decrees that no structures may be erected except in relation to an authorized street. The citizens are protected in their rights by the machinery of the plan, which entails a vote of the City Council, a month for filing objections and hearings, and the repassage of the adopting ordinance, either in the original or a modified form. After this second passage appeal may be still taken to the Crown.

Control of the appearance of buildings started at The Hague in 1910 in connection with the leasing of city-owned land to certain building societies. The leases made after that date contained provisions requiring the filing and approval by the City Council of the plans for all structures. The Council set up an advisory committee to administer these affairs and thus the "Beauty Commission" was born. The Commission is composed of nine members serving two year terms, of whom six are nominated by the Council and three by the local architectural societies. The directors of various city departments, such as those of town planning, public works, parks, arts and sciences, and the inspector of buildings, are also members but they have no votes. The work of the Commission is chiefly preventive. It can forbid the erection of ugly structures, including billboards; and it has the power to stop the building of any structure and to require the adoption of a new or modified design.

But this is not all. For the development of city-owned land a general architectural design of street frontages is prepared by the Commission and must be followed by private builders. If an owner insists on having his own architect, the latter must cooperate with the city designer. The original sketches are paid for by the Commission, the final plans are paid for by the owner and developer.

In Amsterdam the "Beauty Commission" is a larger body with a membership of architects, landscape architects, archaeologists and laymen. Their authority is not final and their advice may be rejected by the City Council, but the field
of their jurisdiction includes the preservation of old buildings as well as the prevention of ugly new ones.

The work for the preservation of monuments in Holland is similar to that in other European countries. Attempts to broaden the scope of the work to include scenes of natural beauty have not succeeded, but the methods of selecting buildings to be preserved are worthy of note. At The Hague, a commission of architects, historians and educationalists prepares a list of buildings or groups of buildings which is submitted to the City Council and published. Notification is sent to all owners of buildings concerned and after the Council approves the list no change in external appearance is allowed without the consent of the Commission.

But the progress of city planning in Holland is marked not only in the field of control but also in the field of construction. Since the war the larger cities have increased considerably in population and area and almost always along lines laid down by preconceived general plans. The results are distinctive in several ways.

The new houses in such cities as The Hague, Amsterdam and Rotterdam have usually been built by the city government or by "public utility societies." The work has been done on a large scale so that group compositions and quantity production have been possible. These compositions of whole streets or neighborhoods, conceived and executed by a single or by cooperating architects, constitute the most distinguishing characteristic of modern city planning in Holland.

The quality of the new work shows the dominating influence of the followers of the new school of Dutch architecture. Architects have played the leading rôle in formulating the street plans as well as the street elevations, and the result of this intimate relationship between the arts of City Planning and Architecture has been to increase the possibilities open to the City Planner. In most countries the lack of any control over the architectural treatment of the streets and squares laid out by the city planner has resulted in the adoption of the most simple and self-evident forms of lay-out, forms which will be least marred by jarring notes and which are least likely to be spoiled by the particular design of any single building. From these severe restrictions on his art the Dutch city planner has been largely freed. The great areas of land owned and developed by single authorities and the intimate relationship existing between
Municipal building program in the "Vviksloterham" which is reclaimed land situated to the north of the Y or harbor.
architects and town planners—often the same individuals—has made possible all sorts of novel compositions.

As might be expected from the predominance of architects in city planning work, the plans show a strong tendency towards formal compositions, geometric designs, and the almost entire absence of so-called "naturalistic" lay-outs. On consistently flat land, there is not the excuse of grades or topography to cause the introduction of picturesque and informal compositions, but nevertheless the new Dutch work is not lacking in "picturesqueness." The new school of architects seem to have felt the need for relief from the formal and have developed new and often frankly queer forms in the architecture of their buildings. They have concentrated their attention on the juxtaposition of planes and relief of surfaces so that while there is proper balance and symmetry there is also variety.

The first impression on seeing examples of the new architecture in Holland is certain to be one of surprise at the abandonment of the familiar expressions of wood and stone and their replacement by new forms intended to express structure of brick, concrete and steel. After all, why not? It is certainly legitimate and creditable to seek a modern expression of modern materials and methods of construction. Although sometimes the new forms seem a bit forced and exaggerated, the results have a distinct vitality.

The importance of horizontal lines in contrast to the domination of the vertical in modern German work, is one of the most striking characteristics of the new architecture in Holland. A second characteristic is the use of color en masse, either with different colored stones, bricks and tiles, or with extensive glazed surfaces. But these two features, important though they are, do not attract the eye so immediately as do the variety of strange shapes and curves, and the odd uses of materials which one associates with different environments. Whether or not one considers the attempt to express materials and uses successful, whether or not the new Dutch architecture appeals to one as beautiful or fine, every one must admire the courage of the architects and the virility of their work.

What is true of the architecture considered by itself is also true of the arrangement and design of buildings in the city plan. It is particularly true as regards the interior development of blocks and the treatment of streets as unified compositions. Here again, whatever one may think of the use of solid row or "terraced" house development, one must admit that the Dutch have succeeded in forming unusually effective and interesting street and block compositions.

The development of interiors of blocks has been handled with great skill at both Amsterdam and The Hague. The enclosure in these cases is complete and the buildings are carried right over the vehicular entrances. Often the outside ring of buildings is higher than the inside ring, or vice versa, so that the mass forms a concave or convex composition. Sometimes the difference in height is con-
fined to the sections over the entrances where the space lost to provide for the roadway is regained by provision of an additional story at these points.

The street compositions are equally interesting and here the emphasis is on the street intersections. Each street, in the best work, is definitely treated either as an enclosed unit or as a passage between units. Whichever course is followed the crux of the problem lies in the handling of the corners of the buildings. The rest of the street design is unified by similarity of architectural line and form, and by texture and color of materials. The Dutch have made some new and important contributions to the solving of the problem of making the corner buildings express the relation of the street to itself and to its surroundings. They have erred occasionally in making the middle sections of their streets almost monotonous. Sometimes the compositions are too extensively long and the angle of view desirable to enjoy the balance and symmetry is too wide, but these faults are only incidental while the achievement of strongly unified blocks and streets is most worthy of study by all city planners.

The conference at Amsterdam in July was devoted especially to discussion of Regional Planning. This is the work of the future for Holland as it is for other countries. The program that Dr. Hudig arranged was full of interest and inspiration, but the delegates from foreign countries found equal interest in the actual accomplishments of their Dutch hosts.
RECENT WORK OF CLEMENT HEATON IN STAINED GLASS

A series of stained-glass windows has been installed recently in the Church of the Blessed Sacrament, New York City, designed and executed by Clement Heaton, architect of ecclesiastical buildings. One will be well repaid for any time consumed in their inspection, by the unusual degree of pleasure which they impart. Work of such calibre is rare at any period; it is an important item of professional information to know from whom it can be procured when the occasion arises. These windows reveal the great skill which this artist possesses in calculating and controlling subtle decorative values in design; this form of adjustment is rarely found in modern glass, though in medieval times it was apparently an innate faculty of the craftsman; the facility with which he utilizes this rare gift places him, in our estimation, in the leadership of his craft. There is not a phase of the mechanism of effect which he overlooks, nor an artistic capacity of his material which is undeveloped. In studying these windows we find the true relation which should exist between architecture and its allied arts, as the latter is entirely subordinate in its decorative development to the premises established by the former.

Each section of these windows has an individual formal value; its decoration is so designed that there is no risk of its overlapping its stone boundary to associate itself with the ornamentation of an adjacent space, which, through lack of artistic foresight, happens to be of similar decorative character: mullions and tracery rigidly control the variations in decorative quality, serving as an inspiration to imaginative effort instead of an obstacle. In the window which we reproduce, this adjustment of formal values can be appreciated in the accentuation of the rose, and in the treatment of the two outer windows which act in transition between the luminosity of the rose to the more subdued treatment of the subject windows in the centre.

One of Mr. Heaton's rarest gifts embodied the true decorative function of stained glass; he uses light in precisely the same manner as the painter uses pigment. Every detail impresses us primarily with its luminosity; we never feel that we are looking at a transparent painting with the light shining through, as so frequently happens with modern glass, but that light in its prismatic phases has assumed ornamental significance; admiration is compelled by the technique which produces so valuable a result. With the purpose of controlling light decoratively always before him, he uses motifs of great simplicity by preference, but with such excellent judgment in the manner of their mutual relation and the character of their coloring, that effects of the most sumptuous order are attained. A life-long study of works by the past masters of his art, has placed him in possession not only of their technical methods, but also of the admirable manner in which they distributed color in composition. This skill in regulating chromatic values is of considerable assistance in the adjustment of his carefully considered pattern-values. The quality of ornamental virility attracts us powerfully in Heaton's design and coloring; it makes his work essentially a man's contribution to the beautifying of the House of God, compelling the light of the heavens to pay artistic tribute.

In the treatment of Heaton's figures we find the austere grace of the Middle Ages; he disdains the sensuous appeal of the conventionally pretty face and that display of physical charms which is so frequently tendered as bait to stimulate religious devotion to sacred or saintly personages. We regret
A Clerestory Window
CHURCH OF THE BLESSED SACRAMENT, NEW YORK CITY
Stained Glass by Clement Heaton

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to note a prevailing tendency in the clergy, and also in architects of our time, to resort to this vulgar prescription for curing the modern lack of religious enthusiasm. The clerical argument which supports this error of taste is, that the mentality of the illiterate majority is the controlling factor determining the personal appearance of the saints; the position is taken, that the popular concept of purity and sweetness which is materialized in the type representing Our Lady of Lourdes is more devotionally stimulating to the masses than the archaic dignity of the aesthetically beautiful Madonnas of the Romanesque periods. There is material for considerable discussion in this consideration; should the representation of sacred and saintly personages be regulated by the current popular concept of physical comeliness, or should the maximum degree of detachment from the mundane be conducing to thoughts and sentiments that are essentially not of this sphere? In these pages we are concerned only to the extent of registering regret when we find the stained-glass windows of a finely designed church featuring angels, etc., transposed from Mid-Victorian Christmas cards; or dismay, when the Neo pre-Raphaelite manner gives them the lips of the dryad, and sunken eyes which imply anything but vigils spent in prayer.

In the course of his travels and residences in the countries of eastern Europe, Clement Heaton has accumulated an unequalled wealth of information concerning the design and technique of ancient windows, which he has recorded in color studies and notes. Owing to its dimension, and the necessity for a large number of color plates, this great monograph remains unpublished; it is to be hoped in the interest of progress, that one of those great educational institutions which have done so much of recent years with their publications in the cause of art, will grasp the opportunity to publish this invaluable record.

LEON V. SOLO

THE LATE WM. D. HEWITT

With the death of Wm. D. Hewitt Philadelphia loses one of her oldest and best known architects. The firm of G. W. & W. D. Hewitt, so well known to an older generation, was founded 52 years ago and reached the culmination of its work in the late nineties and early part of this century. Two of the largest buildings done by this firm were the Philadelphia Bourse and the Bellevue-Stratford Hotel. They built over fifty churches, mostly in the Victorian Gothic style, in various parts of the country, even Ireland and South Africa calling on this Quaker City firm for their church plans.

The Devon Inn and the Wissahickon Inn show the strong leaning of this firm toward the English style and all through their work, especially those buildings largely due to the creative ability of William D. Hewitt, there was a saneness of design and simplicity of plan that ever mark his work.

There was nothing small about William D. Hewitt; large and strong physically, his work too was robust and free from mannerisms and bespoke a grasp of the problem which ignoring unnecessary frills reached for the solid essentials.

While Mr. Hewitt's work showed little influence of the Beaux Arts school, which was to be expected of a man who got first inspirations from Frank Furness, still I know of no architect more concerned with the proper development of the plan as the necessary starting point in the design than he. Prout's saying, that if the plan be straightforward and logical and solve the problem at hand, then the elevations would take care of themselves, seemed to be ingrained in Mr. Hewitt's work.

A large residence on the Main Line, a bank in Burlington, a church in Allentown, and a hospital in Philadelphia, whether in English Gothic, or Classic, or French or Renaissance, through them all runs the same sterling note, a straightforward, simple plan with the elevation rather massive and the details strong and at times almost coarse, but never frivolous, nor effeminate.

It is only necessary to consider the large amount of work done by Mr. Hewitt to realize how successful he was as an architect, but as a man he was even more successful if one is to judge by personal worth and sterling character; indeed to me he always seemed to have some of the qualities of Lincoln, big hearted, generous, self-effacing, with a keen sense of humor and a fund of anecdote.

Just about a year ago the Philadelphia Chapter of the A. I. A. tendered a dinner and presented a loving cup to Mr. Hewitt, a former president of the Philadelphia Chapter, upon the completion of his fifty years of unbroken membership. On that occasion he was full of life and vitality and responded to one of the toasts with a song; now his song is hushed and we have only the memory, but in these days of strenuous competition that memory is inspiring, breathing of simplicity and sincerity of character.

Mr. Hewitt was born in Burlington, N. J., about 76 years ago. His father was a musician and Mr. Hewitt was always very fond of music. He was educated at Burlington
College and the Polytechnic Institute of Philadelphia, receiving his degree a few months before his graduation to enable him to respond to the call for troops before the battle of Gettysburg.

Later he travelled and studied in Europe and for a number of years was head draftsman for Furness and Hewitt. The late Louis Sullivan in his “Autobiography of an Idea” refers to the favorable impression that Bill (only he miscalled him John) made upon him on his entering the office of Mr. Furness. He particularly referred to Mr. Hewitt’s charming way of illustrating his ideas with very clever and crisp sketches.

From this position Mr. Hewitt later formed a partnership with his brother George, which lasted until about 1902 when his brother retired from business and the firm became Hewitt, Stevens & Paist, which was succeeded by Hewitt and Granger, and finally in 1917, by Hewitt & Ash. Mr. Hewitt was indefatigable in his attention to his work and was busy with his plans until the very end. His hobby was hunting and fishing, and he had at one time a fine collection of rifles; his idea of a real vacation was a trip in the woods of Maine or Canada, not only for the game, but in the enjoyment of the out-of-door life.

In the passing of Mr. Hewitt, Philadelphia who knew him has lost much, and the architects a friend in whom there was no guile.

PERCY ASH

NATHAN CLIFFORD RICKER
1843-1924

The death of Dr. N. Clifford Ricker, Professor Emeritus of the Department of Architecture of the University of Illinois, marks the passing of one of the pioneers in architectural education of America.

The University of Illinois was the first educational institution in America to graduate a student in architecture. Nathan Clifford Ricker was the first student in the United States to have completed a full collegiate course of architectural training. Doctor Ricker continuously maintained his connection with the Architectural Department of the University of Illinois from his graduation until his death.

While Doctor Ricker’s mind was not of the brilliant, creative type, his scholarship was profound. For many years he adhered to the fixed daily rule of translating a certain number of pages of some foreign scientific or historical work. His tenacity of purpose was almost beyond belief.

In the early days of his teaching there were no text books available on the many architectural subjects which he had to teach, but he prepared and issued them in blue-print form, making the drawings for illustration and hammering out the typewritten negatives, with his own hand. In this manner he issued a text on “Stone, Brick and Metal Construction;” others on “Architectural Office Practice;” “Graphical Statics” and “Trussed Roofs;” “History of Architecture;” “The Science of Heating and Ventilating;” “Estimates and How They Are Made,” besides numerous lectures and translations on various architectural subjects.

Doctor Ricker was a discriminating collector of books on architectural subjects. His extensive knowledge and experience enabled him to collect in the Ricker Library of the University of Illinois, at least one of the best, if not the best, architectural research libraries in America.

At the inception of architectural registration in Illinois, Doctor Ricker became a member of the Illinois Architectural Commission as representative of the University of Illinois and he continued a member of the Commission for many years, a large portion of which time he served as Chairman of the Registration Board. His work during the formative period of the administration of the Registration Law was careful, sane, consistent. He worked always with an ideal only for the elevation of the educational standards of the architectural profession to the end that the interests of the public might be better protected in the service of that profession.

TWO EARLY OHIO CHURCHES

Few features of a New England village are more distinctive than the white meeting house with its spire pointing upward from among the trees. It is the first indication the traveler has that he is approaching the town and it is apt to leave the most lasting impression on his memory as he leaves it. Religion was so essential a part of life with our Puritan forefathers that it is fitting that the church should be the highspot in their architecture, and there is in the simple dignity of these old churches a quality that is an index to the character of the people and their religion.

After the Revolutionary War there was a great exodus from New England to the newly opened Northwest Territory, or to that part of it now known as Ohio, and as the immigrants settled in their new homes, their first care after providing the absolute necessities, was to build meeting houses which they naturally modeled after those in which they had worshiped back East.
CONGREGATIONAL CHURCH, TALLMADGE, OHIO
Built 1822-1825
So we find today scattered about Ohio, particularly in the smaller towns that have not been afflicted with the mania for modernizing, most interesting old churches which, so far as style is concerned, might belong in any early New England village.

They were built by men who had learned their trade on just such buildings in the East; whose knowledge of architecture was limited probably to this style of building; and whose text books, if they had any, were the works of Asher Benjamin or others of his kind whose designs were of this school.

The Congregational Church at Tallmadge is one of the oldest in the state, having been begun in 1822 and completed in 1825. It is quite impressive in effect, has a square tower with an octagon open belfry and a pedimented portico with a rather attenuated Ionic order, the spacing between the two middle columns of which is quite exaggerated.

Somewhat similar in general appearance but quite different in detail is the Clariden Church, which was erected in 1834. This is unusual in having three pilasters to carry the pediment, thus dividing the projecting front into two parts, each of which is pierced by a door and window. The pilasters have recessed panels which are enriched top and bottom by crude frets and are surmounted by even cruder Doric capitals. The detail of the entablature follows Doric traditions with considerable fidelity.

By some freak of fancy the windows have been given pointed heads, but it may be that this is a later "improvement."

Churches as pretentious as these are quite exceptional today in this locality, for they located in towns that have grown and prospered. With this prosperity grew a feeling that the old churches were old-fashioned and out of date, and they were destroyed to make way for "up-to-date" structures, most of which are pitifully inferior to their predecessors in beauty, even if not in convenience.

Those that have escaped are to be found mostly in small and remote localities and are disappearing all too rapidly or, what is equally regrettable, are being "improved" beyond hope of redemption.

It is to be hoped that before it is too late means will be found for preserving the finest of these old churches, or, better still, that a spirit of appreciation for them will be developed which will preclude any possibility of their destruction.

NOTE—Since this article was written, records have been found which show that the "joiner" work on the Tallmadge church was superintended by Col. Lemuel Porter, who came from Waterbury, Connecticut, in 1817. He was a well trained draftsman, designer and carver as well as a carpenter and in 1826 took the contract for the first of the buildings for Western Reserve College at Hudson. In 1829 he was given the contract for the college chapel, but he died in September of that year, leaving the completion of the work to his son, Simeon Porter 19. These buildings were illustrated in the Architectural Record of December, 1923.

I. T. FRAZER

ALBERT J. MACDONALD

The sudden death of Albert J. MacDonald, at Wareham, Mass., on Sunday, August 17, comes as a shock to his many friends. Possessed of a singularly genial and sunny disposition, it might be truly said that he made a friend with each new acquaintance. Born at Brookfield, Mass., December 17, 1889, he studied at the Massachusetts Institute of Technology, and later was employed as a draftsman in the office of Aymar Embury II. Always interested in the editorial aspect of publishing as well as in architecture, he was for a time Assistant Editor of The Architectural Review, then published by Bates & Guild in Boston, and in 1913 he became associated with the late Arthur D. Rogers in The Brickbuilder, which later became The Architectural Forum. Upon the death of Mr. Rogers he became President of the Rogers and Manson Company and Editor of The Architectural Forum, in which capacity Mr. MacDonald rendered a singular service to the architectural profession. His clear sighted appreciation and unfailing understanding of the essential elements of architectural design and practice, as well as his untiring endeavor to give the profession fresh inspiration and constructive information will ever remain as enduring evidence of his rare ability and generous spirit.