

# THE ARCHITECTURAL RECORD



Vol. XLVIII. No. 1

JULY, 1920

Serial No. 262

*Editor:* MICHAEL A. MIKKELSEN    *Contributing Editor:* HERBERT CROLY  
*Business Manager:* J. A. OAKLEY

COVER—A Sketch in the Italian Majolica Style for American Faience <i>By Leon V. Solon</i>	PAGE
THE VILLA GALILEO (Il Giojello), at Pian De' Giullari, near Florence, Italy <i>By Harold Donaldson Eberlein</i>	3
THE MILLER STILE INN, Quincy, Mass.: Frank B. Wright, Architect; H. J. Kellaway, Landscape Architect <i>By Sylvester Baxter</i>	15
A SCULPTOR'S EXPERIMENT IN THE DECORATION OF CONCRETE SURFACES <i>By Antoinette Perrett</i>	31
ENGLISH ARCHITECTURAL DECORATION. Part XV <sub>2</sub> . The Adam Period (Continued) <i>By Albert E. Bullock</i>	39
GARDEN APARTMENTS IN CITIES <i>By John Taylor Boyd, Jr.</i>	52
NOTES AND COMMENTS	78

*Yearly Subscription: United States, \$3.00; Foreign, \$4.00; Single Copies, 35 cents. Copyright, 1920, by The Architectural Record Co. All rights reserved. Member Audit Bureau of Circulation.*

PUBLISHED MONTHLY BY  
**THE ARCHITECTURAL RECORD COMPANY**

115-119 WEST FORTIETH STREET, NEW YORK

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



NORTHWEST SIDE—VILLA GALILEO, PIAN  
DE' GIULLARI, NEAR FLORENCE, ITALY.

# THE ARCHITECTURAL RECORD

VOLUME XLVIII



NUMBER I

JULY, 1920

## *The Villa Galileo (Il Giojello), at Pian De' Giullari, near Florence, Italy*



By

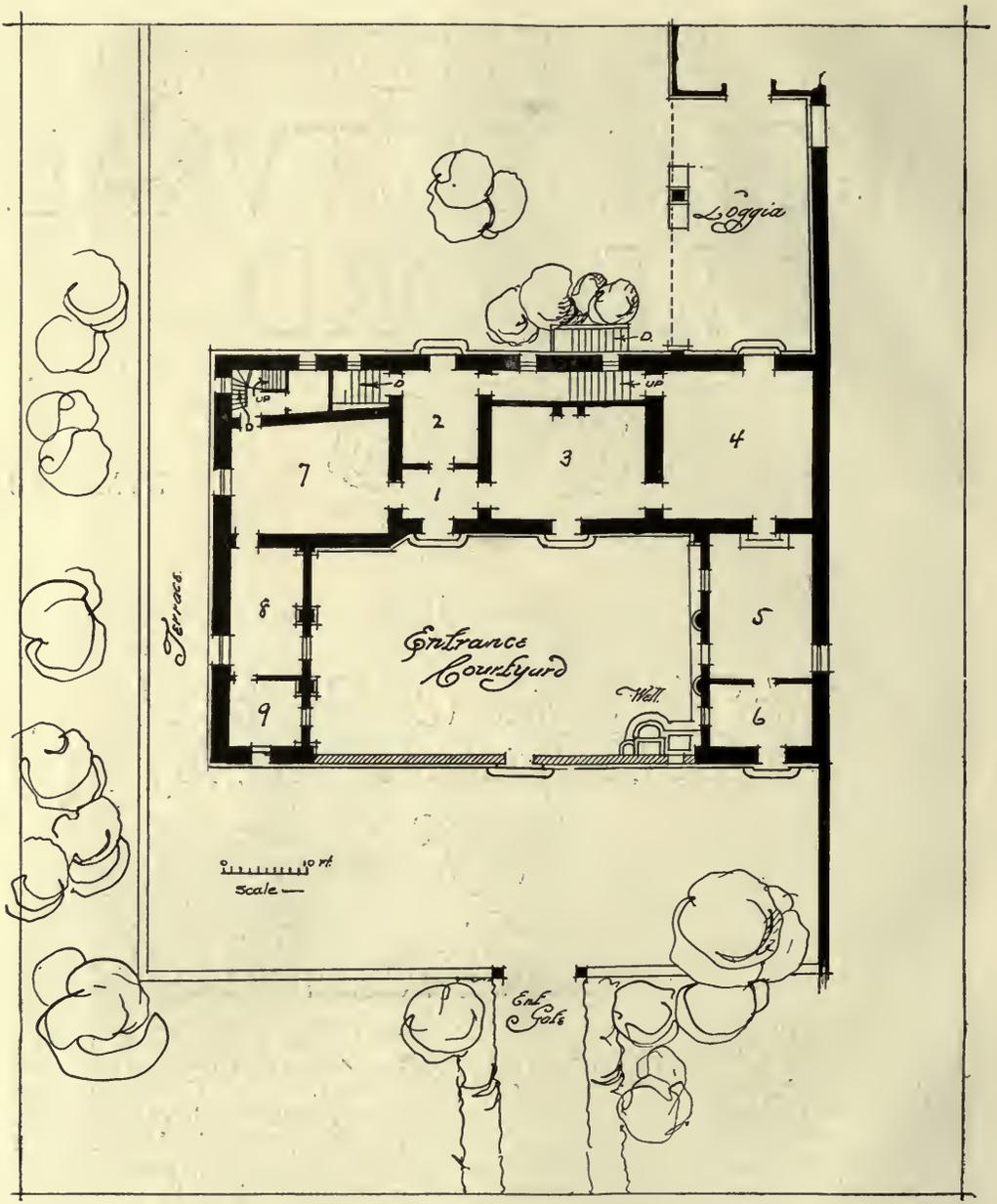
*Harold Donaldson Eberlein*

**I**L GIOJELLO, more commonly known as the Villa Galileo, is several miles to the south of Florence, in the little hill village of Pian de' Giullari. It is recorded that at the end of the fourteenth century the villa belonged to the Masi family of Florence. At the end of the fifteenth century it was sold to the Calderini, and again by them, in 1559, to the Cavalcanti.

Subsequently it passed through various hands, until, on November 1, 1631, Galileo came there to live. Thither came John Milton to visit him in his last years, and there, on November 1, 1642, he died. A marble bust of Galileo has been placed in a niche in the wall on

the road front, and a tablet beneath commemorates Galileo's occupancy and Milton's visit. Since Galileo's day no changes in the structure have taken place.

As the plans show, the house is built about three sides of an oblong cortile, the fourth being enclosed by a wall. The ground floor of the southeast wing was originally a loggia, just as the first floor space above it still is, but was enclosed at an early date to make additional rooms. A larger loggia extends towards the northeast and shuts in the rear of the villa from the road. The small windows, like portholes in the north wall, light the staircases and cupboards. The walls are of grey stucco and the window



GROUND FLOOR PLAN AND GARDEN LAYOUT—VILLA GALILEO, PIAN DE' GIULLARI, NEAR FLORENCE, ITALY.



SOUTHEAST FRONT—VILLA GALILEO, PIAN  
DE' GIULLARI, NEAR FLORENCE, ITALY.



ENTRANCE TO CORTILE FROM  
GARDEN—VILLA GALILEO, PIAN DE'  
GIULLARI, NEAR FLORENCE, ITALY.



7

WITHIN THE CORTILE—VILLA GALILEO, PIAN  
DE' GIULLARI, NEAR FLORENCE, ITALY.



GATE OF THE CORTILE—VILLA GALILEO,  
PIAN DE' GIULLARI, NEAR FLORENCE, ITALY.



SOUTHEAST END OF CORTILE, WITH  
WELL—VILLA GALILEO, PIAN DE'  
GIULLARI, NEAR FLORENCE, ITALY.



NORTHWEST END OF CORTILE—VILLA GALILEO,  
PIAN DE' GIULLARI, NEAR FLORENCE, ITALY.



SOUTH ANGLE OF CORTILE—VILLA GALILEO, PIAN DE' GIULLARI, NEAR FLORENCE, ITALY.



NORTH ANGLE OF CORTILE—VILLA GALILEO, PIAN DE' GIULLARI, NEAR FLORENCE, ITALY.



NORTHWEST SIDE—VILLA GALILEO, PIAN  
DE' GIULLARI, NEAR FLORENCE, ITALY.



NORTHEAST SIDE—VILLA GALILEO, PIAN DE' GIULLARI, ITALY.

and door trims are of the close-grained grey *pietra serena* quarried at Fiesole. In surface the stucco is smooth and easily coated with wash. The shutters are light green in color.

There is very little garden space attached to Il Giojello—only the small formal plot enclosed by the cortile and a small stretch beyond the cortile wall along the path going down to the *portiere's* lodge beside the gate. Elsewhere the olive orchards and vineyards come close up to the house, as may be seen by the views of the terrace along the northwest side. It should be noted that the well in the corner of the cortile is so arranged that the *contadini* may come and draw

water without coming inside the cortile. The ceilings of the ground floor rooms are vaulted, and the corbels at the springs of the vaultings are of simple but exceedingly vigorous design. As is customary, the floors are paved with brick and painted. The kitchen is in the basement, and the room numbered 2 is really more of a serving room than a kitchen, although cooking may be done therein.

The following is a list of the uses of the ground floor rooms:

(1) Vestibule; (2) serving room; (3) dining room; (4) drawing room or *salone grande*; (5) music room; (6) ante room; (7) living room; (8) library; and (9) private study.



VIEW OF COTTAGES THROUGH ELMS FROM  
INN—MILLER STILE INN, QUINCY, MASS.

# *The Miller Stile Inn, Quincy, Mass.*

*Frank B. Wright, Architect*  
*H. J. Kellaway, Landscape Architect*

*By Sylvester Baxter*

**D**ROPPING in for dinner, pot-luck fashion, with an old friend (a prosperous business man, partner in a prominent firm of bankers and brokers) I found his wife's seat still vacant when we were called to the table. So we waited a minute or two. When she joined us she entered by way of the butler's pantry. She had been getting the dinner!

The cook, who had been with the family several years, attached to all the household after the fashion of old-style "help," had gone away to be married and the second-girl had left. It was a good dinner. Happily my friend's wife, although born in luxury, her father a several-times millionaire, was one of the common-sense sort and had been brought up in level-headed, democratic American fashion—trained in all the domestic activities of a typical New England breeding. The adolescent son, a handsome, clean-cut manly youth, acted as butler and helped bring in the courses. I wonder if that is not the kind of attention that one should most appreciate—attention given in friendly concern for the comfort of a guest, attention from a member of the family who "helps" in the household duties, just as in the average home in the good old New England days there were no servants in the modern sense, but members of some friendly neighbor's family who joined in helping carry on the household.

When democracy has been made safe for the world that must be what we are coming to. Even in the highly prosperous families, the sons and the daughters will all share in looking after everything needed to keep the home going, just as farmers' sons and daughters do. This would not solve the problem in all cases,

of course. There might be no children to help, or the children might be too young, or they might be grown up and married off. But will not the conditions attending domestic service be so changed that a quite different grade of help, socially our equals, will then be the only sort available? The difficulties that now make the problem so troublesome will then disappear. Class distinction, based upon differences in standards of life, of manners, and in degrees of cultivation, is what now makes the trouble.

The time must come when domestic service as a vocation stands upon a footing comparable with that of a trained nurse: something likewise demanding special training and commanding respect. The calling is in such social repute that members of our "first families" enter into it both because they incline to it and because it is "the thing to do." And yet the trained nurse does things in the way of intimate daily service so essentially distasteful that nothing in the domestic servant's line of duties can be compared with them in the way of "meniality." And nobody thinks the less of a trained nurse on that account.

All this is what we are coming to. We shall be forced into it by the increased cost of living and its corollary, the acuteness of the domestic service problem. Meanwhile thousands of prosperous households are up against it; people who had always been used to taking life easy and concerned themselves little with household tasks so far as participation is concerned.

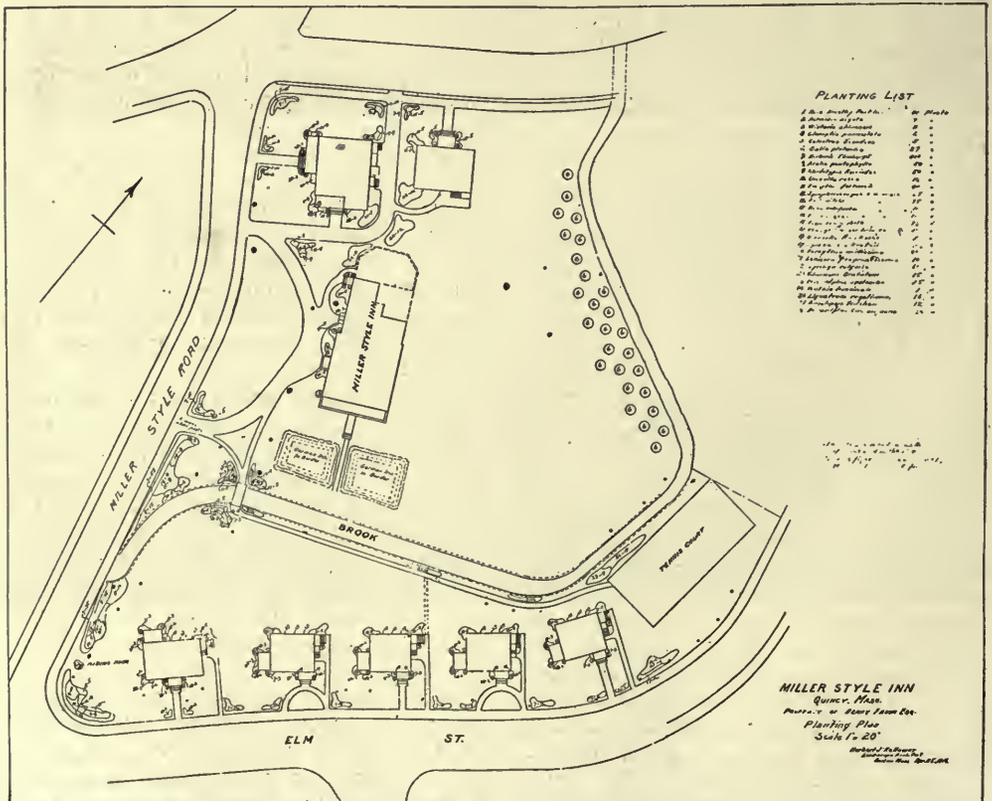
The friends I mentioned in beginning live in a typical city house, of the sort inhabited by a family of that class, a large dwelling of four stories, generous in frontage, with several bathrooms, and

the like. Naturally it is impracticable to look after a house of that kind without good domestic service. Yet it was extremely difficult to get it. "It is humiliating beyond endurance to go to an intelligence-office," said my hostess. "To act the suppliant, to be looked over in superior fashion, and have the maid in effect dismiss my case with a top-lofty 'you-won't-do' sort of air." My hostess had too much breeding ever to have adopted such an attitude towards servants; to have servants assume such airs was more than she could stand. And even second-maids would consider nothing less than fourteen dollars a week!

People will have to put up with smaller, more compact houses than they used to. Even a millionaire's income will hardly, at the present rates of wages and costs, stand living in a house that demands more than three or four servants; that is, a one-millionaire, a "mono-

millionaire," so to speak. The semi-millionaire will have to put up with two or three; the man with five thousand a year can hardly stand one—if he can that.

The dearth of servants is so great that families are driven in swarms to live in apartment houses; others are resorting to hotels to an extent that hostelries hitherto devoted chiefly to transients are now almost monopolized by permanent guests. But only childless couples can properly live in hotels; indeed, while they may exist in a hotel in great comfort they can hardly be said to *live* there, so far as that which makes for so great a part of life is concerned: the home. There is little of the home in a hotel. There is more of it, of course, in a first class apartment house, where people of all grades of income may live cosily and comfortably, and with a minimum of work. Some of the best modern apart-





FRONT VIEW—MILLER STILE INN, QUINCY, MASS.

ments are now designed entirely without servants' rooms, dependence being had on help that lives outside and comes in for the day. A most homelike apartment house that I know in Cambridge has an attractive feature in the way of spacious grounds in the rear, with a good lawn bordered by little allotment gardens where each tenant family may grow its own flowers or vegetables.

But an apartment is no place for children who are to grow up normally. An architect friend, who is blessed with a goodly family brought up under the desirable conditions of a delightful home in an outer suburb with wide expanses of open country, told me how, for the sake of convenience to business, lightening of the cares of housekeeping for the wife, the enjoyment of theatres, concerts, etc., he had last year taken an apartment for the inclement months. "But never again," said he. The children, kept under

the endless restraint, could not be reconciled to an urban environment under the pent-up circumstances of life in a flat, even though commodious for its sort, and comfortable. It was like attempting to grow plants in a cellar or to raise a colt in a box-stall.

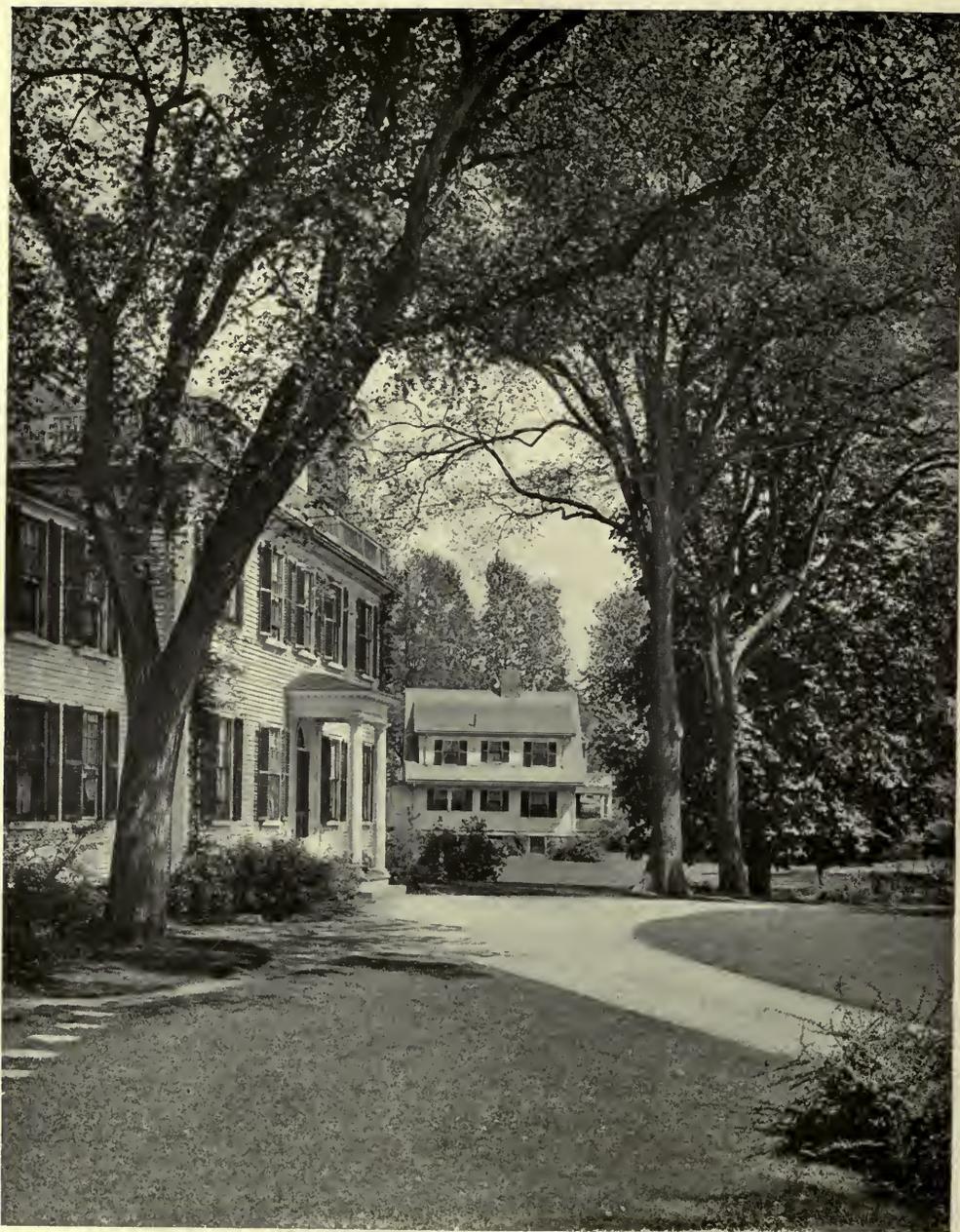
The whole problem is so new, the new conditions have arisen so suddenly, that instances of successful attempts at dealing with it are comparatively few as yet, and material for illustration is correspondingly scarce. One method of reducing the household cares, dispensing with the necessity of servants or at any rate reducing their number to a minimum of perhaps one, and thereby diminish the size and cost of the house, is to build detached dwellings in groups around a central establishment, which might be a tavern, a refectory, or clubhouse. This could be run either cooperatively, or as a business venture, or



DETAIL OF PORCH AND DOOR OF INN  
—MILLER STILE INN, QUINCY, MASS.



SIDE VIEW FROM MILLER STILE ROAD  
—MILLER STILE INN, QUINCY, MASS.



VIEW OF INN FROM REAR, SHOWING  
ANNEX—MILLER STILE INN, QUINCY, MASS.



ANNEX, WITH INN IN THE BACK-  
GROUND—MILLER STYLE INN, QUINCY, MASS.



VIEW FROM INN VERANDA—  
MILLER STILE INN, QUINCY, MASS.



ANNEX AND COTTAGES—MILLER  
STILE INN, QUINCY, MASS.



COTTAGES THROUGH TREES FROM RUSTIC  
BRIDGE—MILLER STILE INN, QUINCY, MASS.



REAR VIEW OF COTTAGES—  
MILLER STILE INN, QUINCY, MASS.



SUITE ON FIRST FLOOR OF INN—MILLER STILE INN, QUINCY, MASS.



SITTING ROOM OF INN—MILLER STILE INN, QUINCY, MASS.

by the landlord of the property in case the houses grouped around were under common ownership and let to tenants instead of individually owned. Meals might be sent in from the central kitchen in case there were no café or restaurant connected with it. This would meet the needs of invalids or others for whom it might not be practicable to go outside for meals. Or there might be open peristyle or corridor connections between the separate houses and the central building—after the fashion of connecting outlying wards of a modern hospital with the administration building. These connections would be protected from inclement weather by windows, either removable in summer or so designed as to be raised or lowered. They would naturally be capable of most attractive architectural treatment, either as elaborately as might be demanded, or for sake of economy kept very simple—perhaps metallic structural work with roll-up curtains or venetian blinds.

This system would be an application to individual detached dwellings of the plan whereby a large apartment house has its café for the convenience of tenants. It simply adapts to permanent home conditions the summer camp idea; or that of the summer hotel with its group of outlying cottages, like chickens clustered about a mother hen. Obviously space in a house designed in connection with such a feature could be greatly economized. Servants' rooms would either be dispensed with or reduced in number; also the kitchen, and possibly even the dining-room. But guard should be taken against the dying out of the good old traditions of house-keeping, whereby individuality in diet is maintained in the preparation of attractive dishes, special dainties in the way of desserts, jams, jellies, and the like, so dear to the housewifely heart and the palates of her family. So at least a kitchenette should be provided for; it would be a pity to lose all this precious heritage in family life to be replaced by the standardized menus so monotonous and dispiriting in hotel and restaurant life. Much can probably be successfully

done along the lines suggested in the foregoing under adequate co-operation. And co-operation will doubtless play an increasingly important part in our future industrial and social developments.

A most attractive example of this sort of development is that made within a few years by Mr. Henry M. Faxon of Quincy, Massachusetts. Certain aspects of that historic South-Shore suburb of Boston were touched upon in my article on the Fore River industrial housing development (*Architectural Record* for March, 1919). Quincy has been uncommonly fortunate in developing along lines that avoid many of the objectionable features so common to modern industrial growth. For instance, the Greater Boston environment, like that of Greater New York, is cursed by the prevalence of wooden "three-deckers." Vast areas in the Roxbury and Dorchester districts, once highly attractive residentially, have been covered with these obnoxious dwellings, depreciating rapidly and a constant menace to public safety in inviting the conflagration that seems bound some day to occur. Even so advanced a municipality as Brookline has permitted this infliction. More recently other Greater Boston suburbs have adopted regulations forbidding such constructions in future. But too often it has been like locking the stable door after the horse is stolen. Quincy, however, took time by the forelock and barred out the three-decker entirely before any had chance to be built—almost a wonder in so rapidly growing an industrial city with a corresponding demand for houses. In consequence the place combines, as few suburbs of a great city do, much high-class residential attractiveness with a rapid suburban development. The stately traditions of old New England Colonial families survive in the aspect of the place, and much has been done for the community in a public-spirited way, as, for instance, in the gift of a beautiful seaside pleasure-ground, Merrymount Park, by the late Charles Francis Adams.

A few years ago an old Colonial property in the midst of one of the best residential districts came into the mar-



REAR VIEW OF ONE OF THE COTTAGES  
—MILLER STILE INN, QUINCY, MASS.

ket and was purchased by Mr. Faxon. Being not far from the business center a property so located might in undesirable hands have been liable to a correspondingly undesirable development. Mr. Faxon, however, took a course that main-

later, as town-planner, so successfully designed the layout for the Fore River industrial housing project of the United States Housing Corporation in Quincy, was commissioned with making a suitable plan for developing the place in



HALL IN ONE OF THE COTTAGES—MILLER STILE INN, QUINCY, MASS.

tained the character of the neighborhood. The fine old Colonial house had been built by Chief Justice Miller, of the Massachusetts Supreme Court. Later it became the William Everett place—the home of the late William Everett, the eloquent and eccentric son of Edward Everett, long a celebrated professor at Harvard and afterwards master of the Adams Academy in Quincy. Mr. H. J. Kellaway, the landscape architect, who

conjunction with the late Frank B. Wright as architect. The results were quite in keeping with the historic dignity and residential attractiveness of the property and its environment in a typical old New England town. The “great house” was converted into an inn. In remodeling it for its new use its essential character within and without was preserved—including, of course, the fine large fireplaces with their mantels. To

meet the purposes of an inn and provide sufficient accommodations for guests a large extension was added. Seven houses of the cottage-type, designed in harmony with the central structure, were built upon the by-streets that bounded the property. These have eight rooms each, with all the conveniences, and are of a cottage type. The houses, seen in the rear from the inn, are as agreeably designed on that side as in front, with wide lawns between and no division fences. The inn is still left with grounds so spacious as to look ample, in every respect, for an old-time country-seat. The wide side-veranda faces a charming

box-bordered garden. Beyond, the historic Town Brook courses its babbling way through the property, and a rustic foot-bridge provides passage between the tavern and the cottages, permitting their tenants to avail themselves of the facilities of the inn at mealtime. The main reliance, however, is placed upon the numerous permanent guests dwelling within. The "Miller Stile Inn" is the name of the place; in the old days a feature of it was the "Miller Stile" as it was generally called in the neighborhood, used in connection with a footway across the grounds travelled by people who lived beyond.



LIVING ROOM IN ONE OF THE COTTAGES—MILLER STILE INN, QUINCY, MASS.

# *A Sculptor's Experiment in the Decoration of Concrete Surfaces*



By



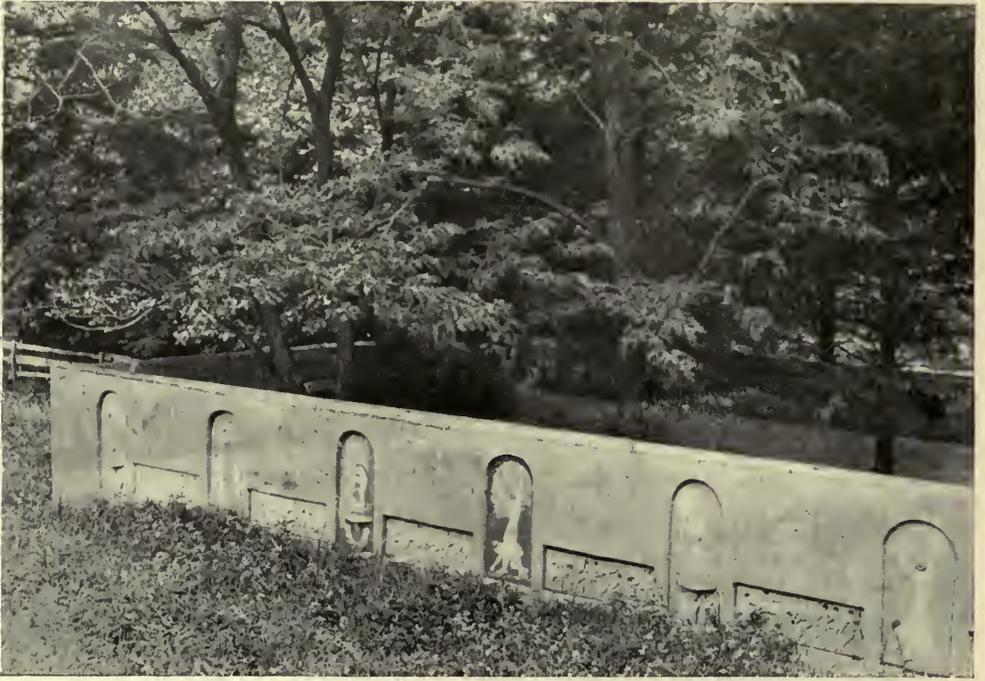
*Antoinette Perrett*

THIS is a small garden with decorated concrete walls that Charles Cary Rumsey is making beside an old barn used as his studio, on his estate in the Wheatley Hills, Long Island. It is on the edge of some sloping fields, and across a little lane from it are his hunters and polo ponies. And the longer one inspects this garden, the more appropriate this proximity seems to be, for the polychrome sculpture in relief upon the walls is essentially a world of out-of-doors, of large swift-moving animals, of exhilarating movement and vigorous rhythm.

The garden is not finished. It is to have an oblong swimming pool and some furniture from designs by Mr. Rumsey, but it will have no flowers and no vines. The planting is to be just a border of ground-covered, low green things: pachysandra and myrtle, and the tiny-leaved pachystima, with dark green ferns, like the Christmas and the single-leaved hart's-tongue. In the corners there may be some low evergreen andromedas and cassandras, and at the fountains prostrate junipers and spreading yews. Indeed, it is surprising how many interesting little plants such a border immediately suggests, but the effect would be, we judge, chiefly of pachysandra. And the reason for this restraint is, of course, that it is to be a garden in which you get all your color and all your main themes from the bright reliefs along the wall. It is just a walled garden with a pool and fountains; and as you sit in it, in the shade of some old evergreens, you begin to feel as you did when you were a boy and first began to read your Homer. It is like your early dreams of adventure, with deer in

the woods and bulls stampeding on the hillside and horses careering, and with curious birds and still more curious women along the shores. At first the women seem strange, but only until one gets into the spirit of their swift sense of life and rhythm.

But, in truth, it is less a garden than it is an experiment. One can see that at a glance, in its lack of any unity of plan in the decorations. On one long side, opposite the gateway, are panels in low relief, divided by higher-relieved women—panels of bulls and herons, horses and deer, women on the shore and under palm trees. Each is in a different color scheme; each is complete in itself; each represents a world of its own. Which makes it all the more surprising to find the varying panels combined in one long frieze on the opposite wall: women with ribboned scarfs, the long-limbed girl catching her white heron, the playful herons themselves, the women with the palm trees behind them, the bulls and horses, the deer in their twilight woods, all welded together in a single composition, in a fascinating, ingenious way. One end wall has a fountain with a low, broad relief representing women after the bath, on either side of which are groups of lounging women in smaller reliefs. The other end wall has an arched fountain with a woman in a bathing cape. On the garden side of the wall this cape is a bright terra-cotta against a blue ground, but, in repeating it on one of the outside walls, various color schemes have been tried out. This is the wall that you come upon from the hillside and that is made up of repeated arches and long, low panels. On another outer wall, the end wall, is a



VIEW OF GARDEN FROM HILL ABOVE THE STUDIO, SHOWING POSITION OF LONG FRIEZE ON INNER WALL.



THE END WALL WITH BROAD, LOW-PANELED FOUNTAIN AND SMALLER PANELS.



Photographs by Antoinette Perrett.

THE LONG FRIEZE, IN WHICH ALL THE PANELS OF THE WALL OPPOSITE HAVE BEEN ASSEMBLED INTO ONE COMPOSITION. THE COLOR IS SOFT GREEN EARTH, BLUE WATER AND PALE PINK SKY, WITH PRUNECOLORED TREES AND FIGURES IN BLACK, WHITE AND SAND COLOR (HALF-TONE FROM TWO PHOTOGRAPHS).



DARK GREY AND WHITE BULLS AGAINST A SOFT GREY GREEN HILL, WITH A FAINT PINKISH SKY. NOTE THE PLAY OF LIGHT UPON THIS PANEL AS WELL AS THE "CONCRETE" HANDLING OF THE SURFACE.



DARK GREY AND SAND-COLORED HORSES, CEMENT GREY EARTH AND A FAINT PINK SKY, WITH FIGURES OF WOMEN IN HIGHER RELIEF.



ROUND-ARCHED FOUNTAIN AGAINST THE STUDIO. FIGURE HAS A TERRA-COTTA CAPE AGAINST A DEEP BLUE BACKGROUND. PHOTOGRAPH REVEALS SOMETHING OF THE CHARM OF SUN-LIGHT AND SHADOWS UPON THE CONCRETE SURFACE.



THE HERONS ARE BLACK AND WHITE,  
WITH A PRUNE-COLORED TREE, GOLD  
EARTH, BLUE SEA AND TERRA-COTTA SKY.



THE DEER ARE WHITE AND SAND-COLORED, WITH A SOFT GREEN HILL AND A FAINT PINKISH SKY.

horse-trough with an arched panel and with small medallions of hunters and animals inserted on either side. It all has a spontaneity, a sense of playfulness, that marks it as a sketch rather than as a finished work. Yet this quality does not blind one to the essential genius of the work. It is important as sculpture.

However, the garden is not an experiment in sculpture, but in the use of form and color in the decoration of concrete surfaces; and it is for trying out various treatments that Mr. Rumsey has really put up these garden walls. The decoration of concrete is a revived problem. Here is this age-old material that has come back into our life like some old Leviathan, a crude, shapeless mass that we must mold to our purposes, into the character of our life. The old carved details, the quarter-rounds and ogees, the egg-and-dart and all our classic heritage of stone details are both inherently and economically out of place in its use; and, in addition, such details do not particularly express modern feelings. The life of our time is full of swift movement. It is a kaleidoscope of color. And Mr. Rumsey's is one of the ways out. In the use of richly or softly colored reliefs and of brilliant or monotonous friezes on the flat surface of concrete, we have a means of decoration that is at once inherent in the material and expressive of modern life.

It is an economical means of decoration—putting colored concrete into molds. But there we come upon the first problem from a sculptor's point of view, for the relief must be simple and broad, and must take well to the roughening of its outlines through the sandy nature of the concrete. Indeed, if the decoration

is good, one of its very charms will come from this softening and blurring by the material itself. Perhaps that accounts for the pictorial quality of the photographs of the reliefs, a blurring and softening that seems to cause a quickening of one's imagination.

In mixing the color with the concrete, Mr. Rumsey has obtained the effects he sought, and it now remains to be seen what influence the weather will have upon them. One panel has been out in the open for five years and has borne the exposure absolutely well, which is a good augury.

As for the colors, there are white and black, putty color and sand color, a soft grey and a soft grey green, a light and deep wash blue, a gold color, a terra-cotta, a particularly subtle prune color, which is often used for the tree trunks, and a washed-out pink, a charming shade, that is sometimes used for earth and sometimes for the sky.

The colors are varied enough to offer the greatest possibilities, from soft-toned reliefs in sand and putty and soft greens and pale pink to ladies with terra-cotta capes against deep wash-blue walls, or herons on prune-colored branches with a gold earth, a blue sea and a terra-cotta sky behind them. The experimental nature of the work is apparent in the way the color has been used in a separate and complete scheme in each panel regardless of the harmony of the whole. It is only when we come to the long frieze that we find them all combined into one continuous and harmonious whole. The colors are handled simply, as in a poster, in flat decorative fashion; and the panels reflect the spontaneous joy which the sculptor felt in working out a new technique.

# *English Architectural Decoration*

## *Text and Measured Drawings* *by Albert E. Bullock*

### Part XV-2. The Adam Period (Continued).

FROM the plan of Sion House, given in our last issue, it will be gathered that Robert Adam was imbued with the Eastern spirit of palatial grandeur, to which he directed the attention of his younger brother James.

With every new commission he endeavored to introduce the curvilinear treatment of columnar architecture, his ceilings invariably forming some combination of the dome segment with the quasi-barrel vault of coved formation above the main cornice.

In detail the chief motifs were obviously culled from ancient supulchral monuments, as has already been observed; while the principle of geometrical subdivisions to the ceilings with their ornament and plaques or bas-reliefs was followed closely by admirers and imitators of the style as with common consent.

In chimneypieces we find some permanent value, since this feature is of the nature of a movable fitment of marble or wood, usually of considerable interest and skill of execution.

In color the decorations varied considerably to ceilings—a ground of pale apple green was occasionally adopted; chimneypieces of wood were often gilt upon an azure or pale French blue ground; figures of the caryatid type exist in black and gold, and wooden candelabra occur in green and gold.

Since the school sought to design the correct setting and the furniture appropriate to each apartment, it follows that a definite color scheme must have been chosen in each instance, because harmony of environment and detail was the soul of the style of the Brothers Adam.

The form of application of the ornament and the nature of its composition rendered it capable of addition to an existing room, without recourse to drastic

reconstruction. This appealed to a large majority of clients who required an inexpensive and ready method of obtaining an effect, without excessive trouble and expense in panelling the apartment afresh. The mediums used, in addition to the carving of ornament in wood, included pewter and carton pierre, the latter probably being adopted as an economic method of exhibiting fine ornament, although less permanent than wood or marble, but of much reliability to the true representation of the subject.

From the account James Adam gives of his tour in Italy it would seem that he was a daring critic of the works of Palladio. Conceit was apparently an ill concealed quality in these days almost amounting to a virtue.

The Villa Rotunda at Vicenza (upon which the Earl of Burlington is said to have based the design for his residence at Chiswick) is accorded some mead of praise by James Adam, who was certainly very observant, defining with care the differences in the proportions of various buildings. At Pompeii he "saw a room which seemed to have been painted with arabesques, and had a very pretty mosaic pavement with a Medusa's head in the centre."

His notes indicate an extensive survey of ancient villas in the vicinity of Paesilippo, Salerno, Paestum and other places in the district of Naples, including an excursion to the sepulchre of Agrippina near Pozzuoli.

Early in 1763 James Adam returned to England to assist his brother Robert in his practice, when the latter was busily engaged upon the additions to Sion House, Isleworth. The vestibule of this mansion is as stately an apartment as one would wish to find. The dark grey marble columns with Greek Ionic gilt

capitals supporting a decorative entablature of good design and having figures over the orders, with the usual mahogany veneered doors, gives a very striking effect. The detail of the marble chimney-piece is equally effective, exhibiting a mastery of detail which at the time of its original inception was unique.

In designing furniture, in keeping with his style, Robert Adam followed the system of William Kent, who in his day was as great an exponent of the canons of good taste in decorations, furniture and dress, even if his particular code was somewhat coarser than the Adam manner.

The chief buildings in London with which the brothers were associated, apart from Adelphi Terrace, include Stratford House (now Derby House); Ken Wood, Hampstead; Lansdowne House, and No. 20 St. James's Square as completed houses, with additions to many other existing houses; also Nostell Priory and Harewood House, both in Yorkshire; Luton Hoo for the Earl of Bute and additions to Osterley House, Isleworth, the seat of the Earls of Jersey, built in the reign of Queen Elizabeth by Sir Thomas Gresham.

The earlier portions of Kedleston and Croome Court, Worcestershire, contain some typical examples of furniture and decoration, testifying to the keen application of their cult in every detail.

Kedleston was built early in the eighteenth century by one Smith (probably William Smith of Warwick) for one of the ancestors of the present Lord Scarsdale. The Adam additions consisted chiefly of the rooms on the north front.

Croome Court was a perennial source of income from the time when Robert Adam designed the first pavilion in the grounds in 1759. The original house appears to have been erected by Launcelot Brown of landscape garden fame, and is illustrated in the fifth volume of "*Vitruvius Britannicus*."

The banqueting hall of this residence of the Earl of Coventry was decorated by Robert Adam in a style closely resembling several features of the long gallery at Sion House, but without pilas-

ters. The marble mantel consists of two boldly carved caryatid figures as supporters on either side of the architrave holding a floral festoon forming the frieze, above which is an enriched overmantel with a classic subject architecturally treated. On either side are three niches containing statues.

The ceiling is composed of a series of large molded hexagonal coffers in juxtaposition. The room is sixty-two feet long and the original design (dated 1763) is preserved in the library at Croome Court. Equal care was taken with portable objects and fittings, for which many signed designs are extant.

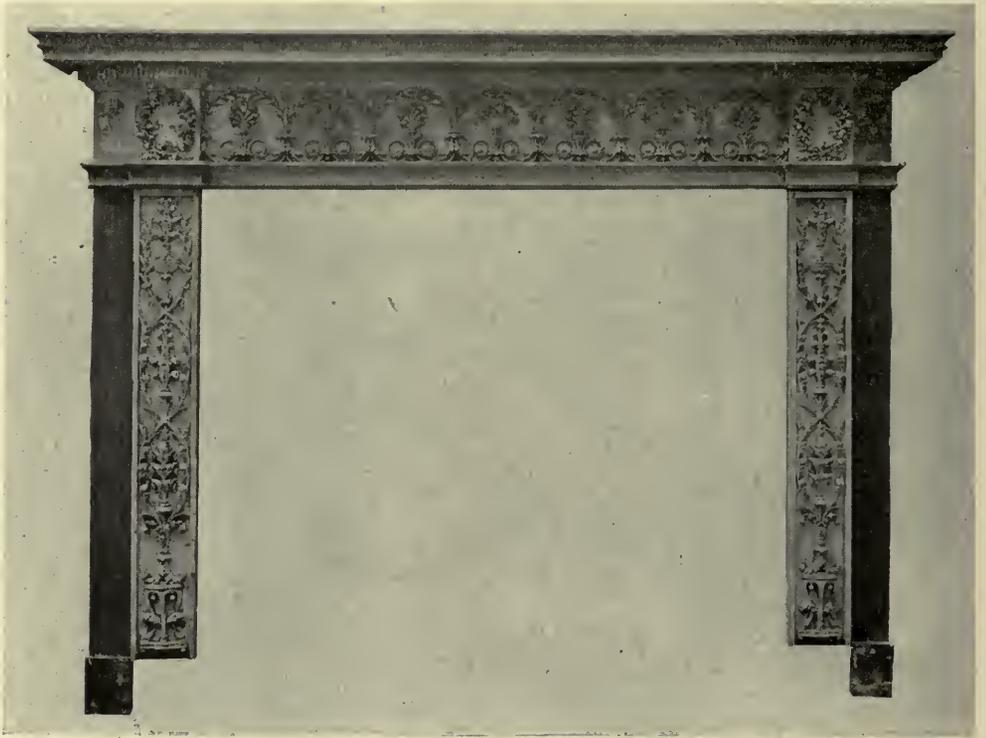
The dining room at Lansdowne House is not dissimilar to the banqueting hall of Croome Court—one end, however, having an alcove with columnar treatment. The rear drawing room is a more elaborate apartment with arabesqued pilasters, having on one side a large recess with semicircular arch over, containing a hand painted lunette. The ceiling contains several painted panels, accompanied by the usual winged griffins, acanthus scrolls and other typical and familiar motifs associated with the style. The doors are mahogany veneered and enriched with ornament very similar to the example given from the Victoria and Albert Museum. The ball room is a later introduction of a more classical nature, having little ornament and concave ceiling with square coffers, anticipating the work of Sir John Soane at the Bank of England.

How different is the ceiling of the gallery at Harewood House, Yorkshire, wherein all the richness of Adam invention appears to center. This house with its furniture is among the most beautiful of the many instances of the brothers' inventions. The jewelled character of their work is most noticeable in the decorations of this famous residence and in the remarkably delicate inlays ornamenting the writing tables, commodes, etc., which adorn the several rooms.

Luton Hoo has been somewhat altered of late years, but the original plan remains with the circular entrance hall having square courts on either side, the salon occupying the center of the



CARVED MARBLE MANTEL DESIGNED BY ROBERT ADAM FOR THE TWELFTH MARQUIS OF WINCHESTER, ABOUT 1780. ORIGINAL DESIGN IN THE SOANE MUSEUM, LONDON.



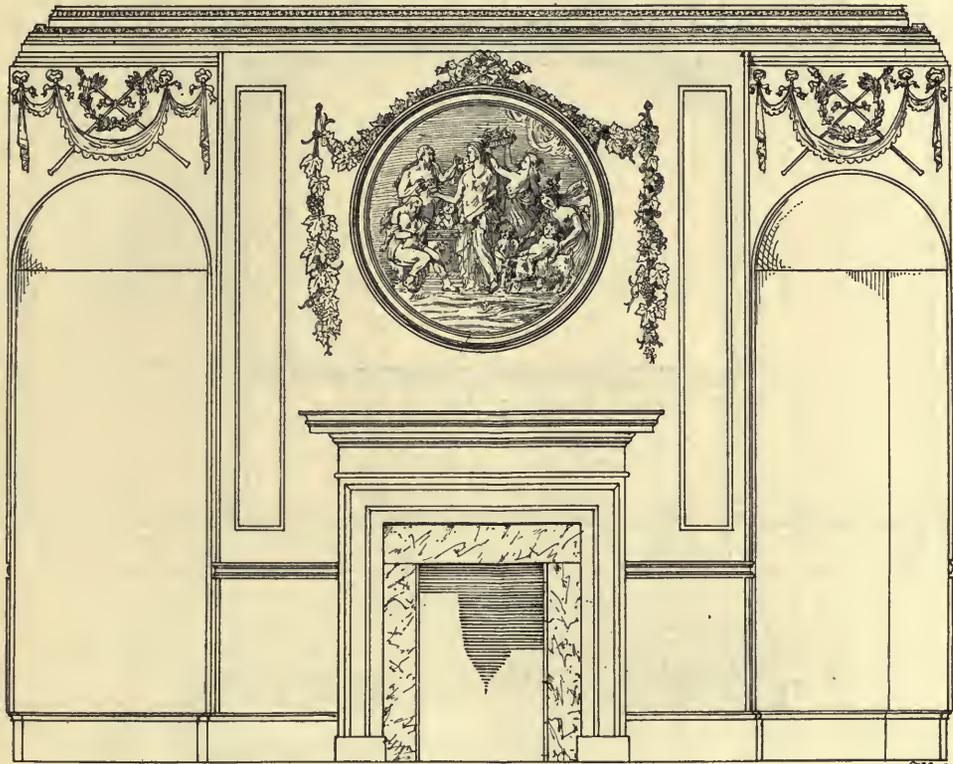
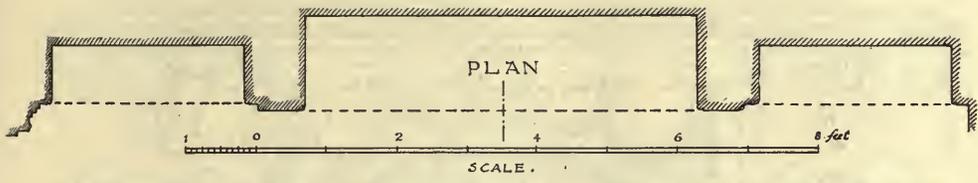
CARVED WOOD MANTEL, ADAM PERIOD, PROBABLY FROM DESIGNS BY PERGOLESI; FIVE FEET SIX INCHES HIGH, WITH EIGHT-FOOT SHELF.



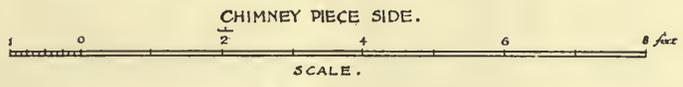
INLAID MARBLE MANTEL FROM RATHFARNHAM CASTLE, IRELAND, 1780, BY PETER BOSSI.



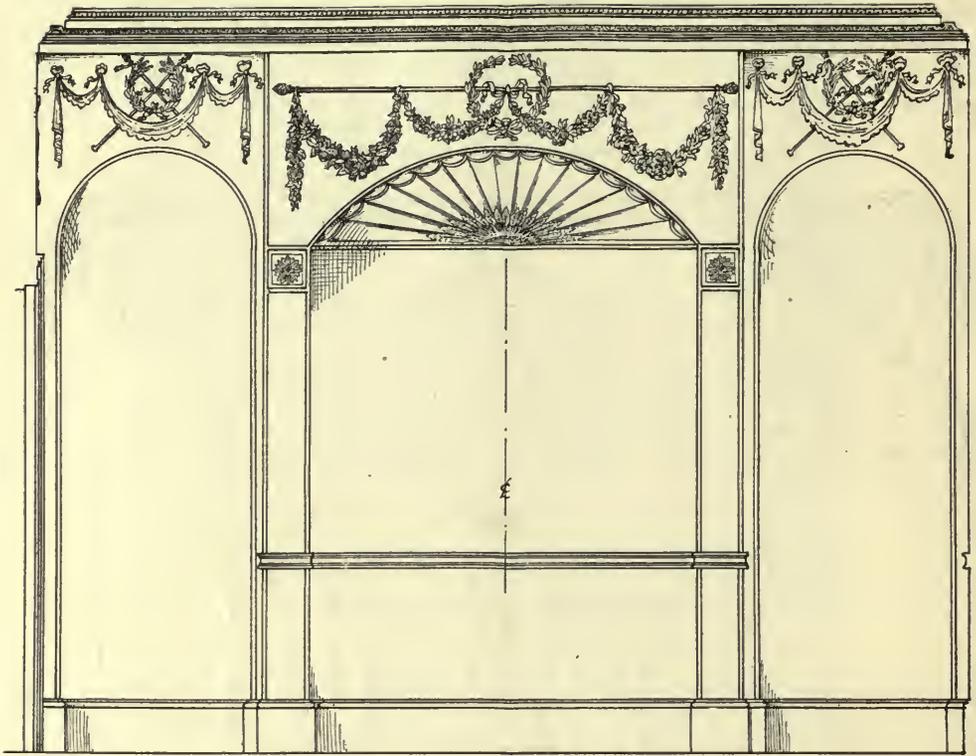
DETAIL OF OVERMANTEL IN DINING ROOM,  
ABCHURCH LANE, LONDON, E. C., ABOUT 1785.



DEB 1911-12

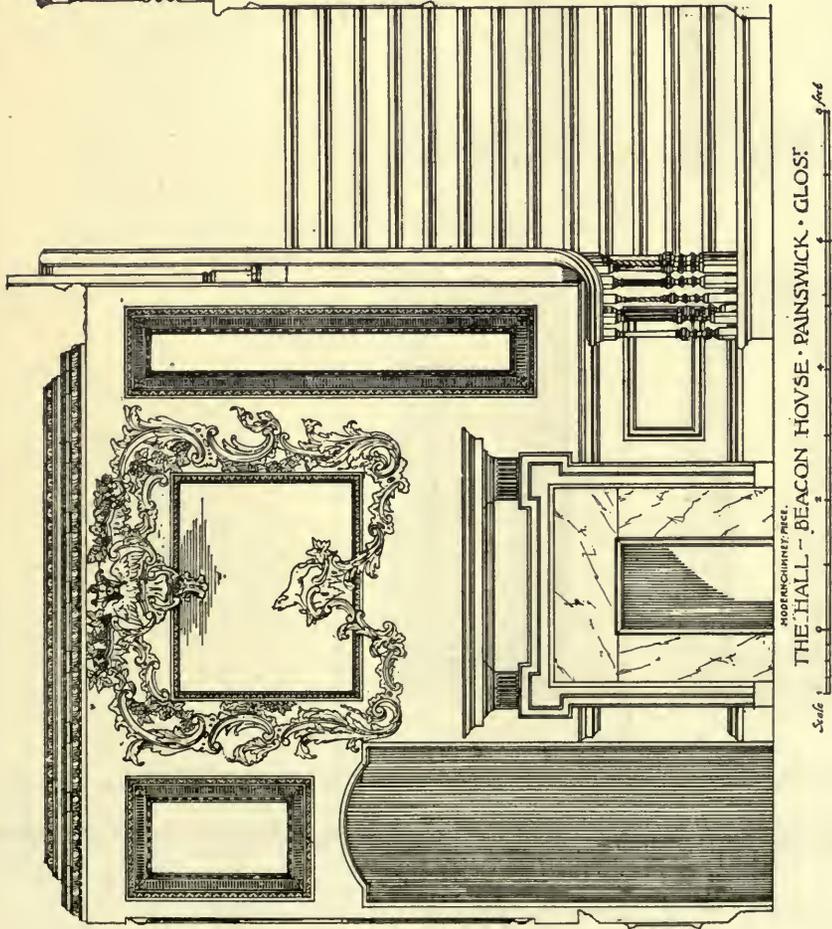


CHIMNEYPIECE SIDE IN ADAM PERIOD ROOM FROM ABCHURCH LANE, LONDON.



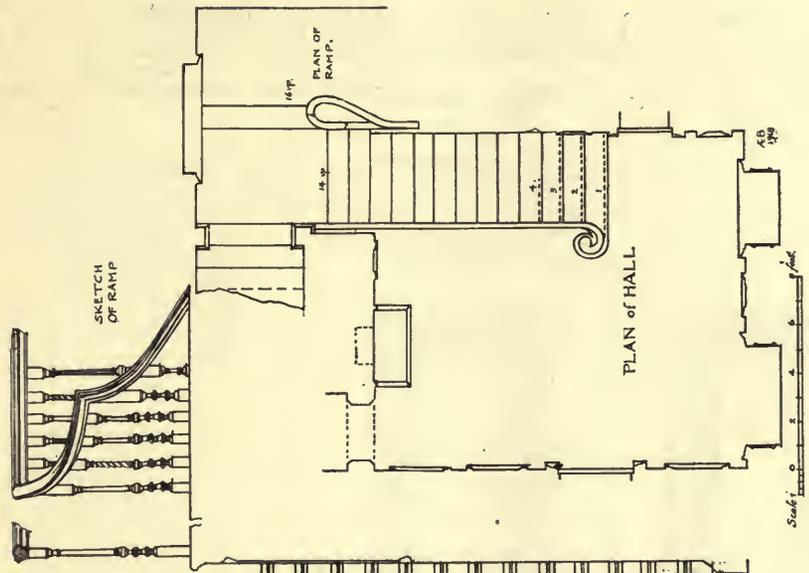
SIDE WITH ALCOVE.

SIDE WITH ALCOVE IN ADAM PERIOD  
ROOM FROM ABCHURCH LANE, LONDON.



THE HALL - BEACON HOUSE - PAINSWICK - GLOS.

Scale 3 feet



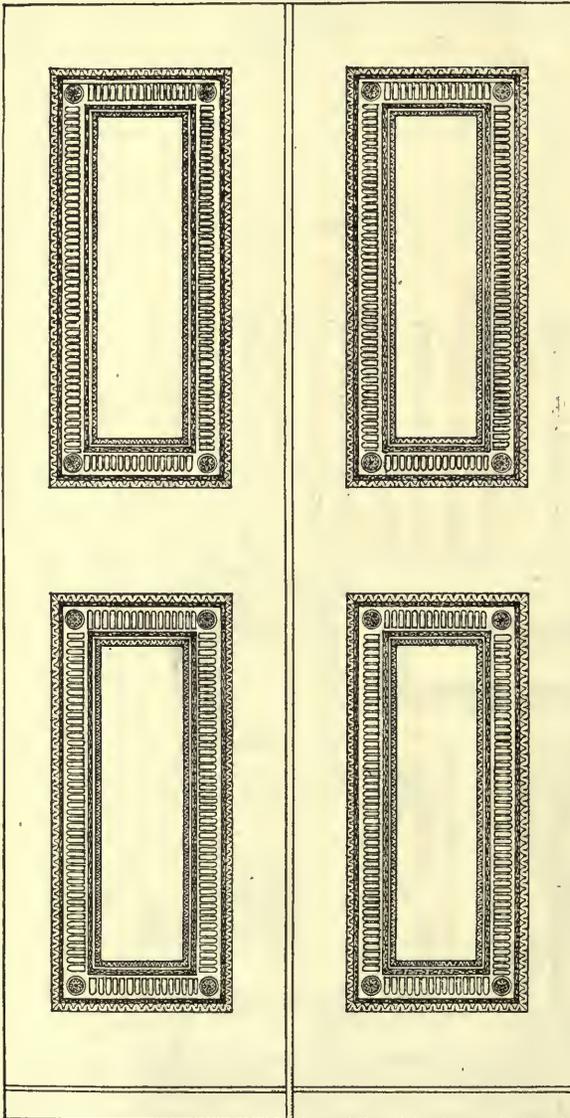
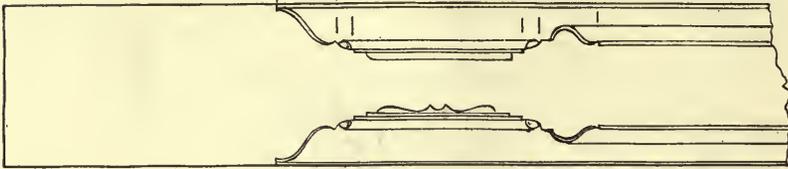
PLAN OF HALL

PLAN OF RAMP

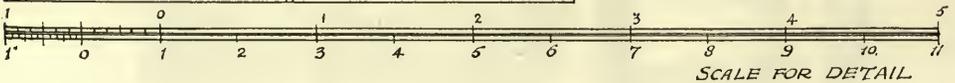
SKETCH OF RAMP

Scale 3 feet

MAHOGANY \* GILT  $\frac{1}{4}$ " EBONY =  $\frac{1}{4}$ " \* GILT MAHOGANY.



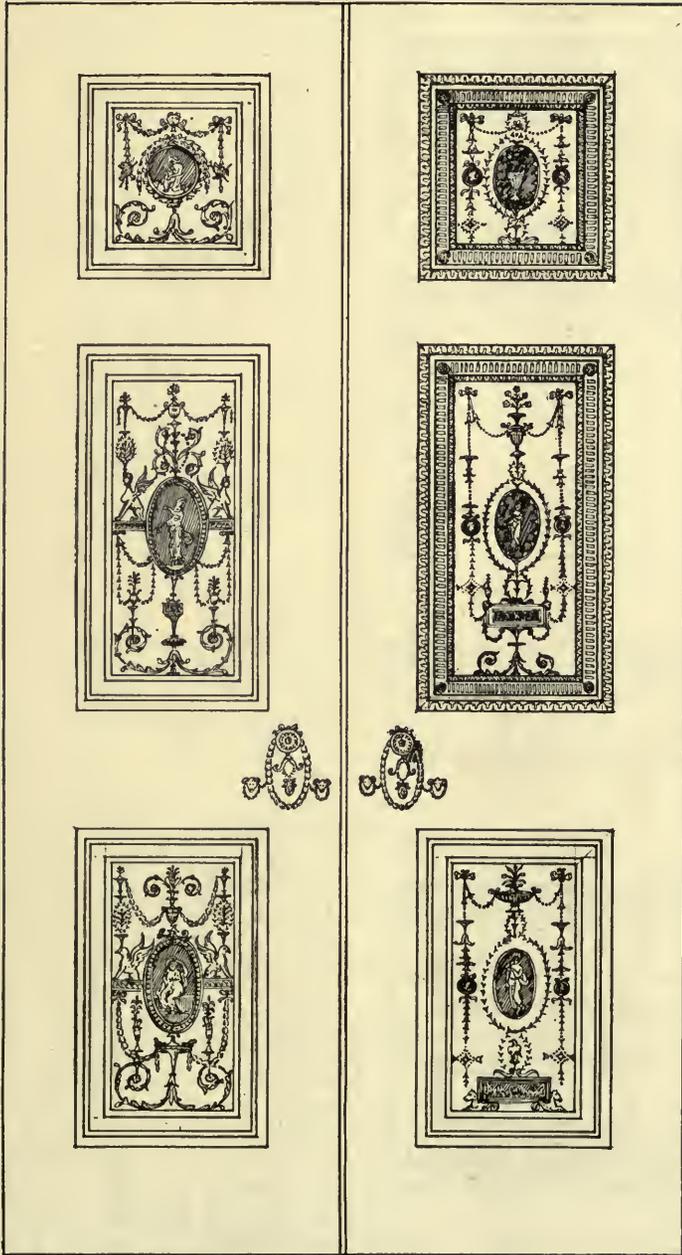
ADAM PERIOD .  
 VENEERED DOOR  
 GIVEN BY COL :  
 H. MYLLINER TO  
 V & A. MYSEVM .



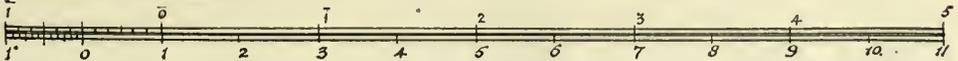
Doors for the Countess of Derby  
Designed by Robert Adam. 1774

3<sup>rd</sup> Drawing Room

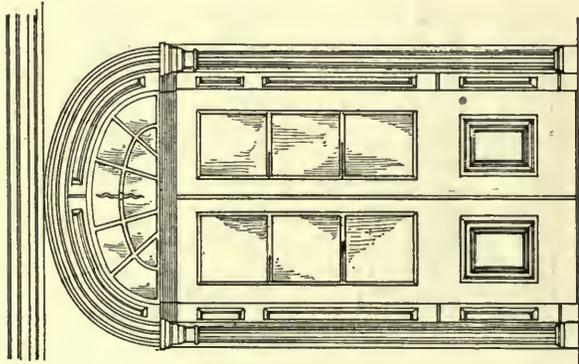
Ettrick Room



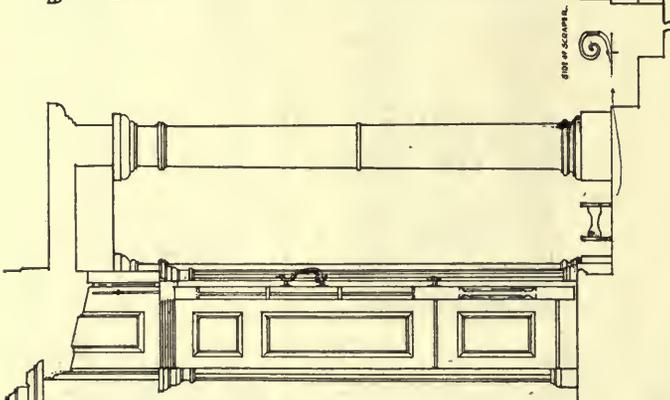
SCALE FOR DOOR



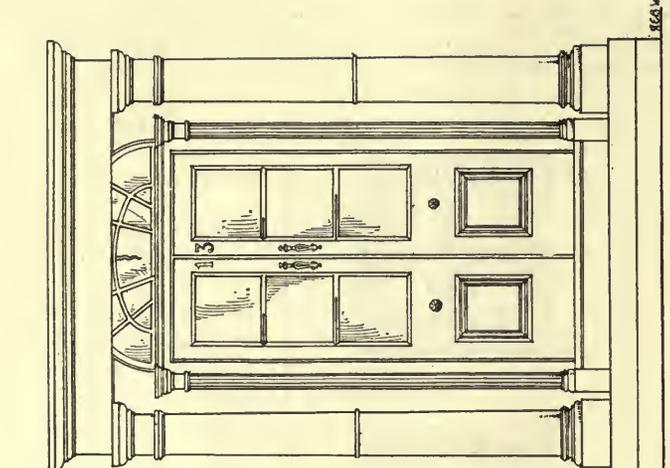
SCALE FOR DETAIL



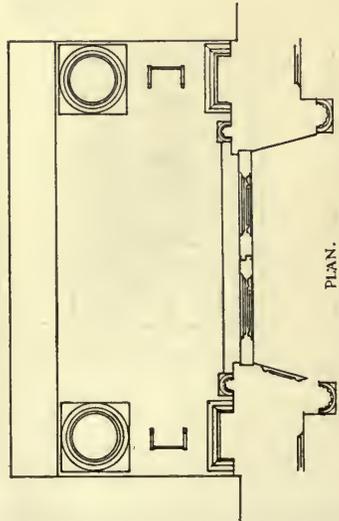
INTERIOR



SECTION.

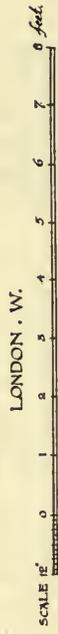


EXTERIOR.



PLAN.

DETAIL OF LATE GEORGIAN DOORWAY.  
FROM NO 13 HAMMERSMITH TERRACE.



south front. A small circular powdering room adjoins the northern end of the library, and Lord Bute's dressing room is placed to the western end of the salon.

The gardens are modern, being very charmingly arranged for the present owner, Lady Wernher, by Mr. Romaine-Walker, with many artistic variations in parterres and garden architecture.

The Brothers Adam, as has been previously observed, excelled in planning irrespective of the size of the house. No. 26 Grosvenor Square was based upon French principles, being designed in 1773 for the Earl of Derby. The house is now pulled down, but contained several very interesting features, not the least among them being the room known as the third drawing room, situated to the right of the hall, which is shown with an enriched vaulted ceiling in the "Works of Robert and James Adam."

No. 20 St. James's Square was planned for Sir Watkin Williams Wynn on similar lines, with the rooms intercommunicating and having the stables situated at the rear. With these terrace houses Robert Adam usually made a feature of the internal court, treating the blank wall of the adjoining house upon some sound architectural principle by way of interest and decoration.

It is refreshing to note the ingenious methods adopted to circumvent the pitfalls with which terrace house planning is beset, namely, the situation of the main staircase, the internal lighting and many other things which hamper the design and confine one's ideas within definite limitations.

The illustrations given indicate the types practised during this era. The Chippendale type of overmantel from the house at Painswick shows adjoining panels of distinct Adam feeling; while the room from the demolished house in Abchurch Lane is interesting as a complete theme of an original type, having recess for sideboard and niches for smaller pieces of furniture on either side.

Porches varied in character. The example from No. 13 Hammersmith Ter-

race is a late Georgian one where reeded columns are used. Fanlights have already been illustrated from London and the Provinces. Many delicate designs were executed in metal, as is instanced by the example now in the Victoria and Albert Museum, formerly at Harewood House, London.

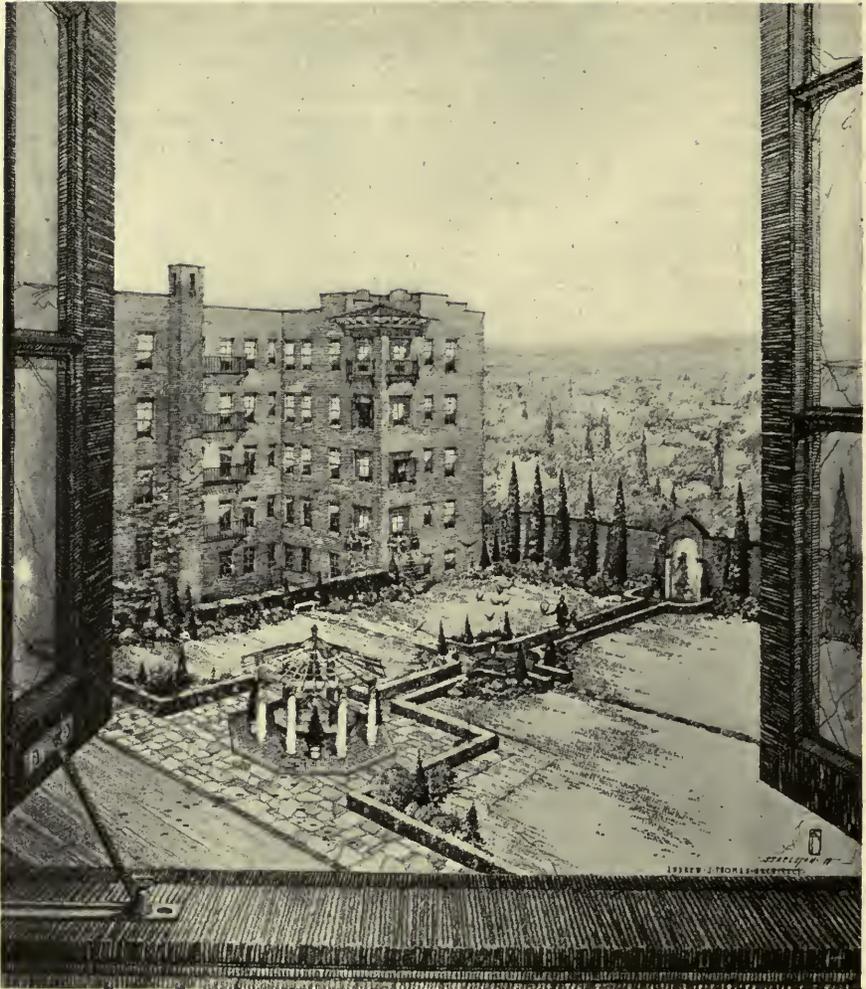
Contemporaries of the brothers practised in close conformity to their principles, often making the identity of authorship difficult to discern. There are, however, certain variations which become familiar to the connoisseur. For this reason two chimneypieces are here given for comparison of detail: one a finely carved wood mantel, an obvious Pergolesi, closely resembling his published design of 1770, illustrated on page 32 of Charles's "Compiler"; and the other a genuine Adam example, executed in marble for the twelfth Marquis of Winchester, about the same date, for which the original design exists in the Soane Museum Collection.

The work of W. Thomas, W. and H. Pain Brettingham, Sir Wm. Chambers, Servandoni, Sanderson and others was an attempted plagiarism without the subtle genius of the authors who brought a note of variety into each fresh scheme.

The brothers went to considerable pains to design door furniture in order that the handle and key hole should be combined in one ornament both for use and utility. A type of this feature is shown in the doors designed for the Etruscan room for the Countess of Derby, and many another example exists with festoons of husk or bead enrichment in ormolu or lacquered brass.

Water gilt work, as practised in France for clock mounting, was gradually adopted in England as a healthy rivalry to the continental custom.

Time and space would fail in any attempt to exhaust the many activities of this school of design or even of the works of the founders, but an effort will be made in our next issue to further the subject by reference to its general influence upon contemporary and subsequent decorations.



GARDEN APARTMENTS FOR CITY AND SUBURBAN  
HOMES COMPANY, ON SEVENTEENTH AVENUE,  
BROOKLYN. ANDREW. J. THOMAS, ARCHITECT.

# Garden Apartments in Cities



By John Taylor Boyd, Jr.

A RATIONAL system of housing is essential to the welfare of a great city. It is even more necessary there than in small communities, for in cities life grows always more complex under the pressure of modern business, and the increasing strain places citizens under greater and greater tension.

The need of more reasonable types of city housing is now well recognized. There are even some far-sighted observers who believe that good housing of itself will not suffice—that besides good housing, the city should be so planned as a whole that its economic organization can function most effectively. In the minds of such, city planning is essential to housing.

It will, therefore, be welcome news to those who seek progress in housing that recent achievements in the field have gone far toward establishing a worthy standard both for city planning and for city housing. Architects and housing experts in New York City have shown that such housing is not only possible as a matter of design, but—even more important—that it may profit the landlord more than the existing undesirable types. This, indeed, is a great step forward, for whether one likes it or not, when once good housing is proved to be sound business it will be pushed further on that basis than if it were founded solely on a programme of artistic or civic betterment.

The creation of this improved type hinges on the discovery that, in design, the city block is the true unit of planning, and not the lot. This new principle of itself would cause revision of older conceptions of housing. It gives an entirely new basis to apartment house planning, and, since it makes the block

the unit, it also renders more significant the relation of city planning to housing. In fact, the full import of this and other newer principles is not yet perceived. But that they will cause housing planning to advance far beyond previous experience seems likely.

In order to understand clearly what the new principles reveal, one may refer briefly to the standards which have been developed in small community housing, and then trace the corresponding development in city housing. This will help one to realize the difference in the two types, and also to perceive the unsatisfactory progress of the city type in comparison with the other.

Small town housing follows mainly the old individualistic American ideal of "own your own home," as it has recently been popularized; that is, the ideal of each family in sole and complete title of land and isolated house upon it. In practice, of course, this ideal of isolated ownership is not always carried out. Nevertheless, it may be said that, notwithstanding compromises in the form of tenantry, or of multiple types of design, such as semi-detached or even group or flat housing, the acknowledged ideal is individual ownership.

This ideal of individual ownership of small neighborhood housing has taken the form of standards which are themselves nearly ideal. In making this statement I do not intend to deny the obvious fact that such standards are not yet widely followed, and that they are rather models for future progress. Still they exist, and each year their influence is growing stronger. If the technical variations of these models be not considered, in the main they comprise the following essentials:

(1) A type of house unit which in

plan, is almost perfect for practical, efficient and comfortable operation; which, in its sanitary and mechanical features, reaches a higher standard than elsewhere; and which, on the artistic side, in a few of its best models, compares favorably with any existing house architecture. Moreover, since the American small house at its best provides more space and is designed for a far higher standard of living than any other type in the world, it is not exaggerating to say that no other nation has a standard that equals it.

(2) The individual units have been effectively and beautifully combined into well coordinated group and community plans, which are successful both from an economic and an artistic viewpoint.

Could our ideal of small neighborhood housing be carried much further? Is it not reasonable to say that the tradition for American town and village housing

is now determined, even though it is not yet established in many districts?

If now we turn from this splendid achievement in small community housing, in the city we meet a different situation. Here the bulk of the population is unsatisfactorily housed, in regard to individual housing units and grouping of the units. And as for any relation to a community plan, that is hardly thought of in city housing.

Nevertheless, in spite of the backward conditions, on which most observers agree, there has been a steady, even if very slow, progress over a period of years. The beginnings of this improvement reach back into history; but for us the real beginning came in New York City, when a group of housing experts under the leadership of Mr. Lawrence Veiller procured the passage of the New York Tenement Act of 1901.

Thus the first steps were in the field

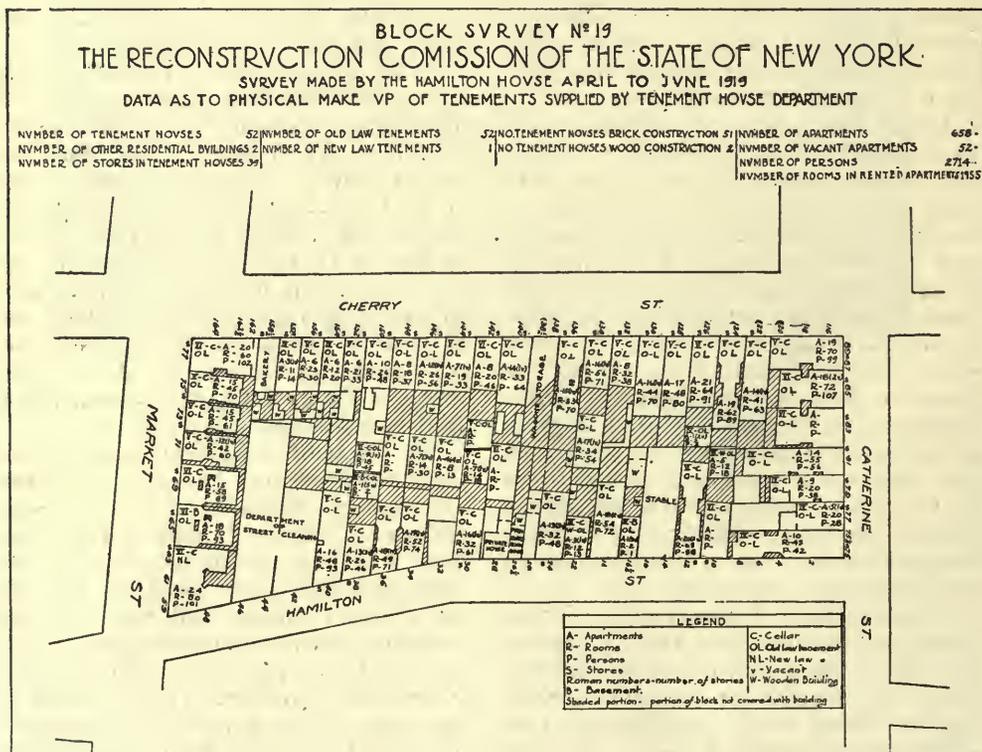


DIAGRAM A.—CHARACTERISTIC BLOCK OF TENEMENTS IN MANHATTAN BOROUGH, NEW YORK CITY, BUILT BEFORE PASSAGE OF TENEMENT HOUSE ACT OF 1901.

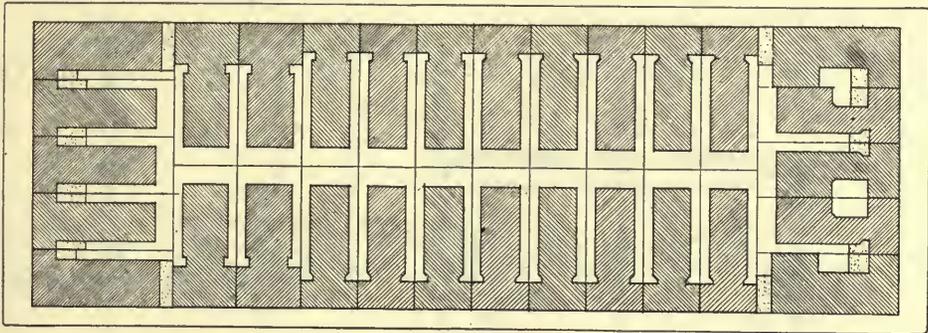
· 66<sup>TH</sup> STREET ·

DIAGRAM B.—SHOWING EFFECT OF TENEMENT HOUSE ACT OF 1901 ON TENEMENTS BUILT ON SINGLE CITY LOTS.

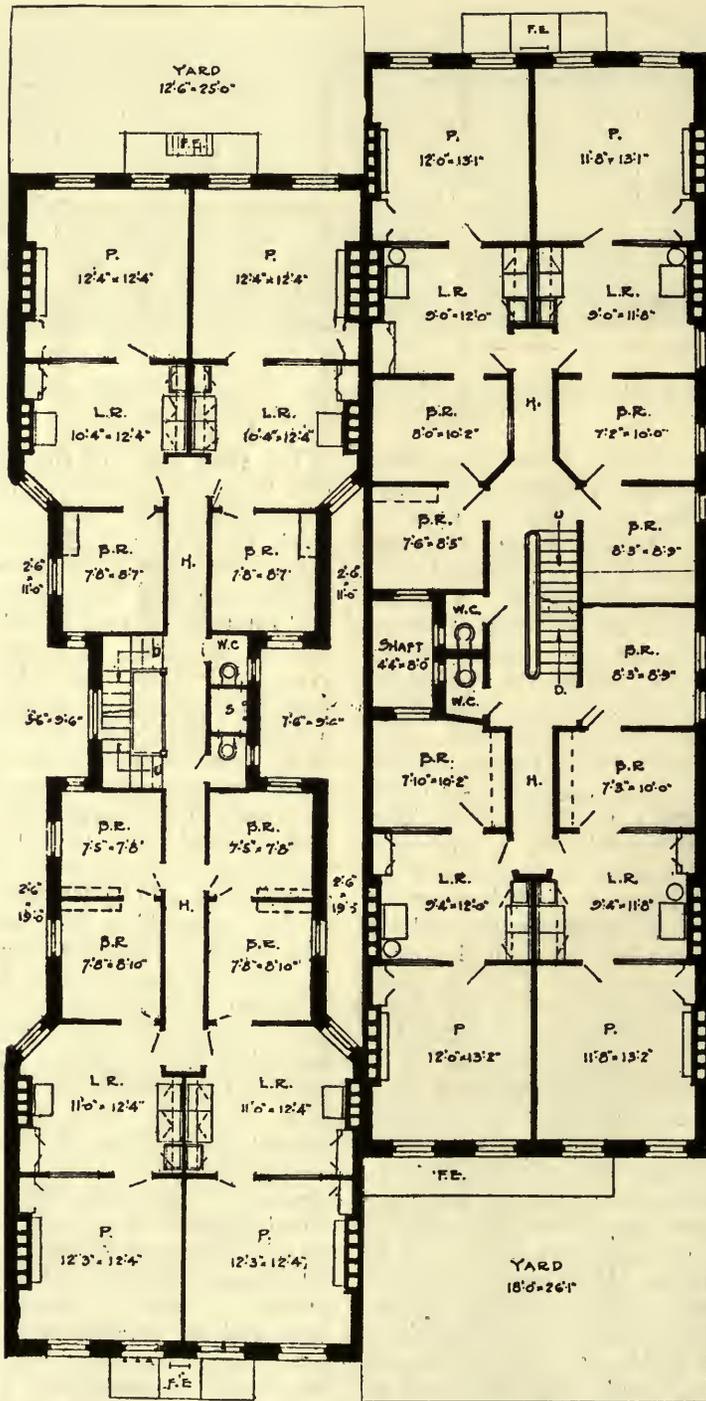
of legislation—or as it is said, they were “restrictive. That is, improvement was not sought chiefly in improved types of buildings, or following structural conceptions, but was based on principles of sanitation and of public welfare. The aim was more to prevent bad types of housing than to invent good ones. To say this is not to belittle the Tenement Act of 1901. Unless evil, cheap types were forbidden by law, better types could hardly compete in the real estate market. Certainly the Act put a stop to bad housing practices in thorough fashion. Still, since it established a minimum standard, the inertia of builder and investor and tenant all tended to accept that minimum as the maximum, and for a long time no one cared to do better than the law required.

Such a drawback was in the mind of Mr. Veiller, the author of the Act, when he so drew its provisions as to make it unremunerative to build tenements on the twenty-five foot city lot. As a result, speculators soon found that a wider frontage was a better real estate investment, and the forty, forty-five and, of recent years, the fifty-foot lot came to be the minimum, as proved by the statistics of the Tenement House Commissioner of New York City. Besides this widening of the lot unit in buildings, the Act of 1901 was of vast benefit in prescribing really high standards of construction, sanitation, fire prevention, and of light and air and ventilation, particularly as regards sleeping rooms.

The good effect of the Tenement Act may be seen by comparing diagrams “A” and “B” and “C.” “A” is a typical New York block of typical “old law” tenements. It pictures the abominable conditions resulting from the unrestricted real estate activity of speculative builder and of landlord. In many districts of New York City, hundreds, even thousands, of people are hived together in a single city block, with three out of every four exterior walls of each tenement house giving on narrow light wells. In some cases “courts” were only eight inches wide! The typical plan of the individual tenement was a string of rooms along a 25 by 100-foot lot—known as the “railroad” or the “dumbbell” type—in which the interior rooms depended on other rooms for any light and air. Diagram “C” shows a “railroad plan and a “dumbbell” plan. When it is realized that the sanitation of such hives was as rudimentary as was their planning, one gains some idea of the degraded architecture of these dwellings.

Diagram “B” is that of a block of tenements built under the Act of 1901. The betterment is striking. Although the area built upon is 70 per cent, the courts introduced between each two dwellings provide at least a decent amount of light and air in all rooms. Besides, as noted, numerous other provisions of the law enforce sanitation, a reasonable amount of cubic air space in bedrooms, and other ameliorations.

These diagrams bring out vividly the



"Dumbbell" Type

"Railroad" Type

DIAGRAM C.—TYPICAL OLD-LAW TENEMENTS IN NEW YORK CITY.

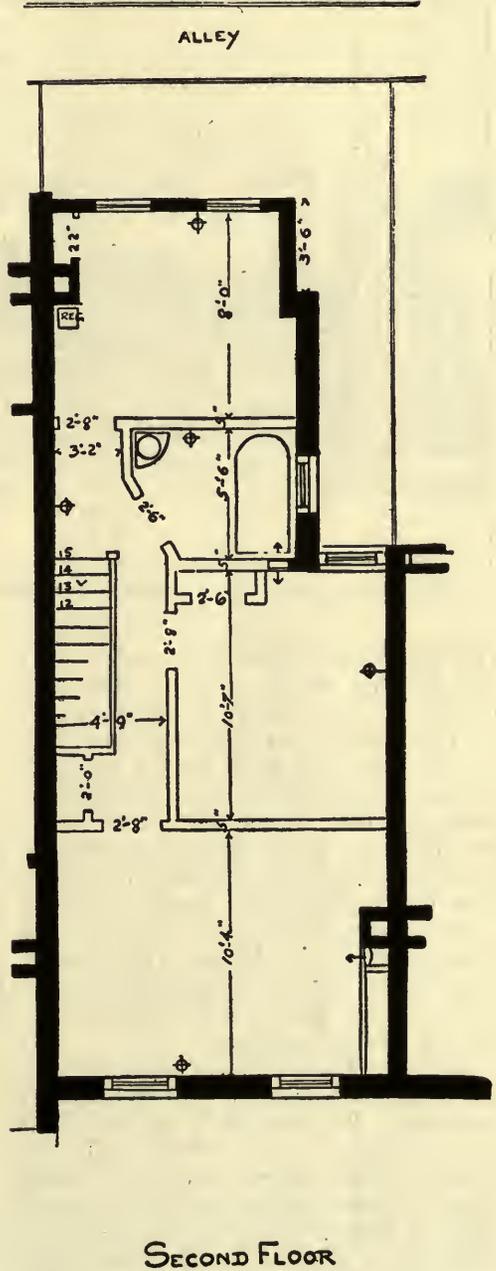
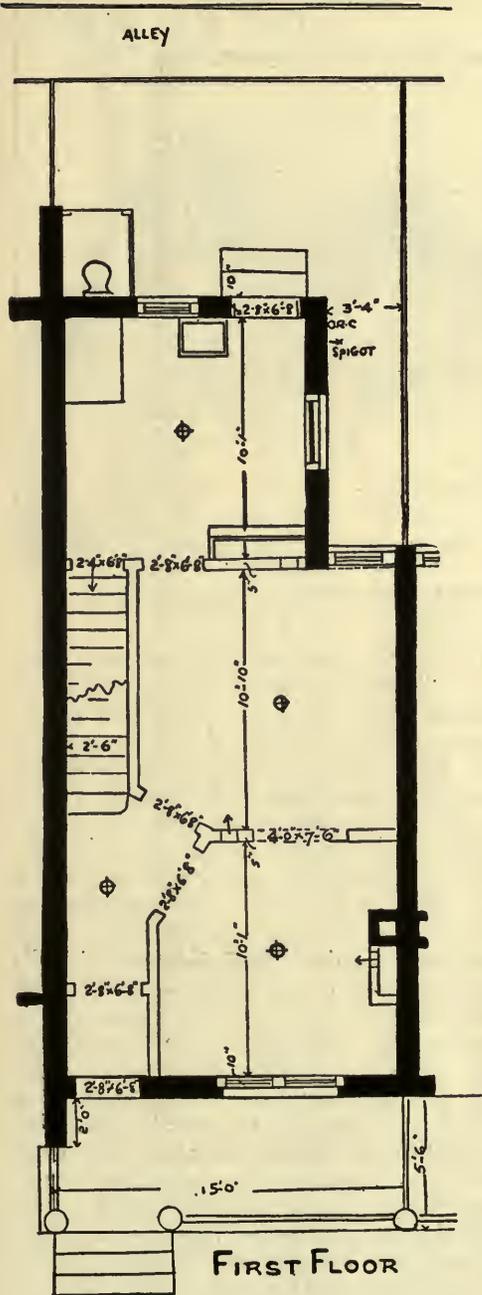
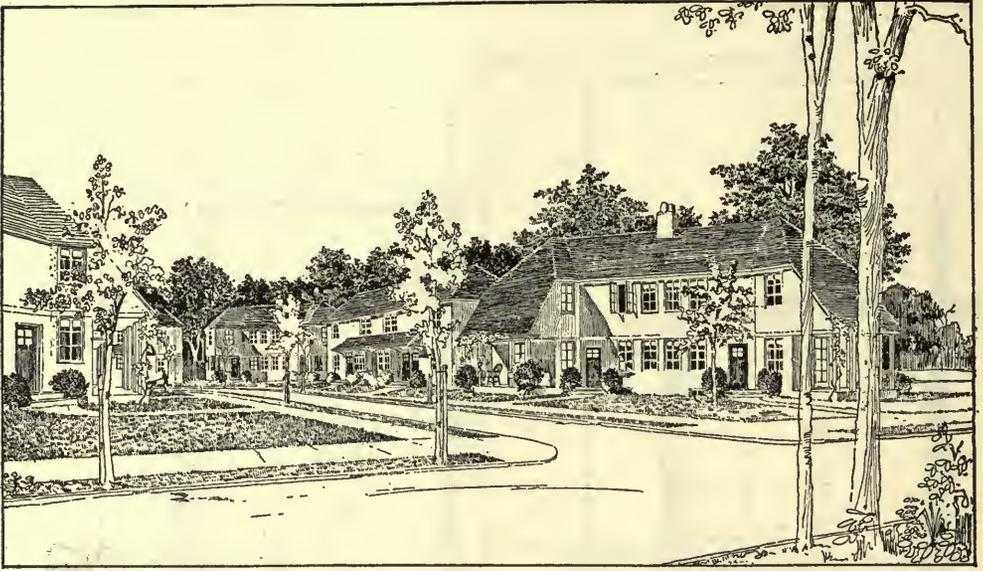


DIAGRAM D.—PHILADELPHIA ROW TYPE. REPRODUCED, BY PERMISSION, FROM HELEN M. PARRISH'S PAMPHLET, "ONE MILLION PEOPLE IN SMALL HOUSES." NATIONAL HOUSING ASSOCIATION, PUBLISHER.

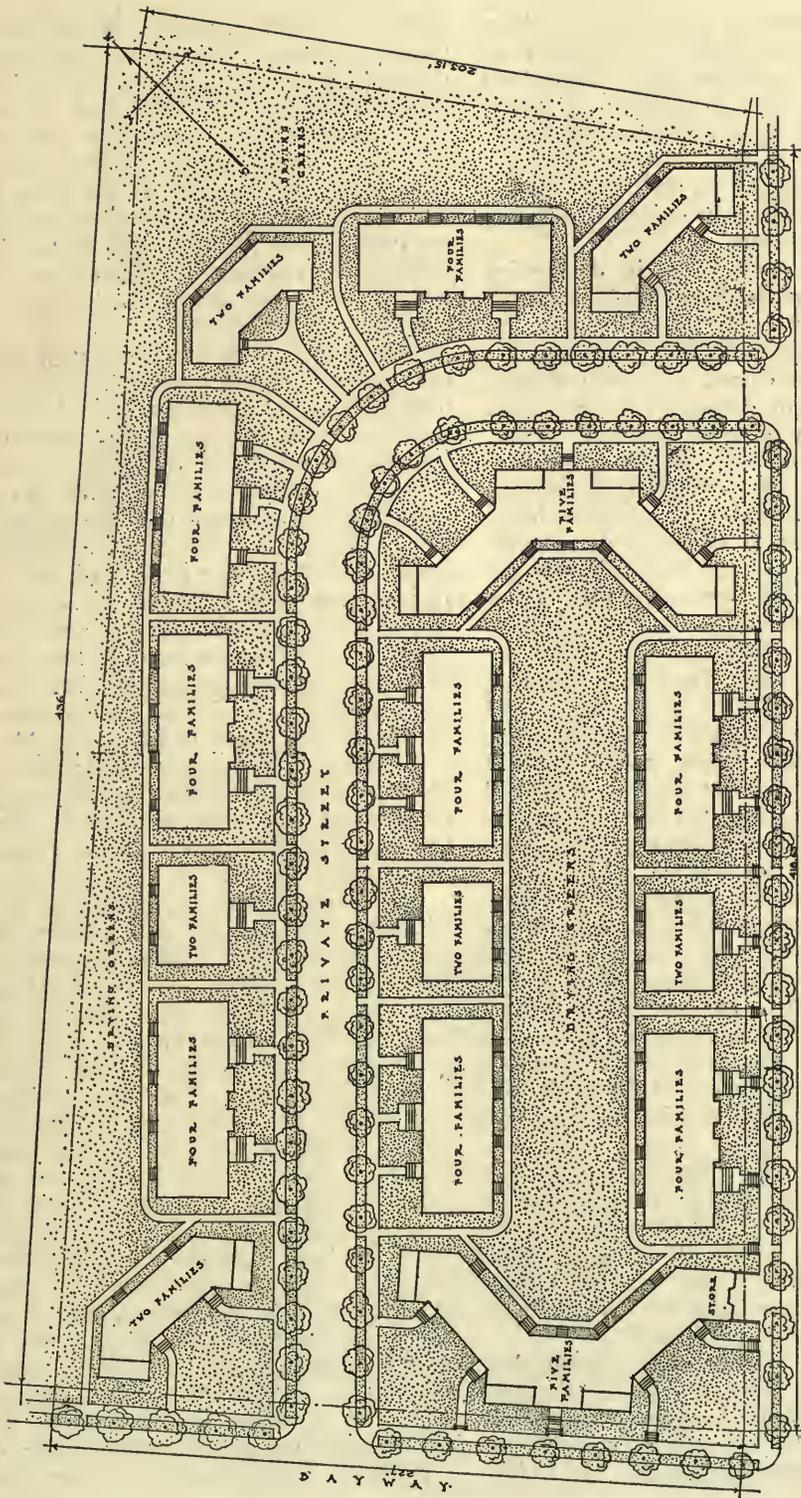


ENTRANCE FROM FAY AVENUE, TO HOUSING DEVELOPMENT AT ELIZABETH, N. J.  
Murphy & Dana, Architects.

remarkable improvement in conditions of city housing in New York that was caused by the Tenement Housing Act of 1901. One should always remember that the act was based mainly on principles of sanitation and of public welfare, and that it pushed housing progress probably as far as it possibly could on that basis. Only recently has progress been shifted into another path—a more positive one—and is now seeking a constructive development of housing which, in addition to being healthful and more decent, embodies structural ideas of well planned buildings.

For years this search for more efficient design in multiform city housing has been continued. In New York, as described, the Tenement Act of 1901 stimulated it, since it forbade the worst types of housing and thereby encouraged the development of improved types. Elsewhere, in other cities, public spirited citizens and semi-philanthropic corporations—corporations with dividends limited to about four per cent—devoted years of the most enlightened experiment to the same end. As a result, General Sternberg, a retired Surgeon General of the Army, in Washington, and the Octavia Hill Association, in Philadelphia, developed im-

proved types of the well known "row" or "block" housing characteristic of those cities, which are also found in outlying districts of New York. These types in their way attained the same standards of sanitation and decency as the new law tenements of New York City, and were superior in that fewer people were concentrated on an acre of ground. In fact, at its worst, this row housing was never so bad as the New York slums, since the houses were usually two storied, and inside rooms—rooms without windows on open air—were not so numerous. Still lately, further attempts on the side of better design were made by dividing the rows into groups, thus allowing entrance at intervals to the interior of the blocks, and also eliminating the unfortunate service alley that often ran through the center of the block. One of the best examples of this amelioration is the housing at Elizabeth, N. J., by Murphy & Dana, architects, illustrated in the Architectural Record for July, 1918, a plan of which is reproduced in diagram "E." Diagram "D" shows "Philadelphia" row housing in improved form. Diagram "F" shows typical New York tenements of several years ago built under the new law.



1/4" = 1'  
 SCALE OF FEET

**BLOCK PLAN.**  
**HOUSING DEVELOPMENT AT ELIZABETH, N. J.**  
 for ARCHIBALD H. BULL ESQ.

MURPHY, SP. BANA, ARCHITECTS  
 224 MADISON AVE., NEW YORK

DIAGRAM E.—FOR FULL DESCRIPTION OF THIS DEVELOP-  
 MENT SEE ARTICLE BY MR. LAWRENCE VELLER IN  
 ARCHITECTURAL RECORD FOR JULY, 1918.

It is clear from a comparison of these types of housing that the problem is at its worst in New York City. There land values are highest, congestion is greatest, and, what is worse, habits and customs of living in over-crowded areas are firmly established. If in New York a satisfactory solution is possible, progress elsewhere is certain.

Among the first steps in developing improved types in New York were the tenements erected by the City and Suburban Homes Company, an organization which has earned a name for itself in the history of American housing since its foundation in 1896.

The record of this company is extraordinary on all sides of housing. It provides wage earners with superior housing and service at rentals that compete with speculators. If its dividends are limited to 5 per cent—formerly 4 per cent—it has always paid dividends; and in addition, by introducing modern accounting into New York real estate, it has charged off full depreciation and obsolescence on its books, besides doing what speculators rarely ever did—kept its property in perfect repair. It is well known that under such a correct business system, most landlords in tenement housing could show no profit at all. In fact, for a long time the achievements of the City and Suburban Homes Company lay rather in the fields of finance and management, and only in recent years has it departed far from older types of design. Another fact may be mentioned about this company. It has successfully provided housing for negroes, one of the most difficult ventures in the housing business.

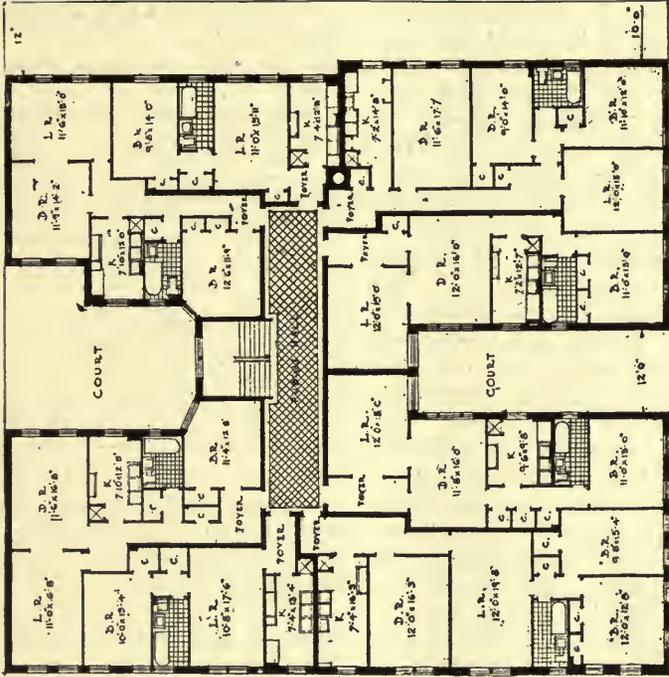
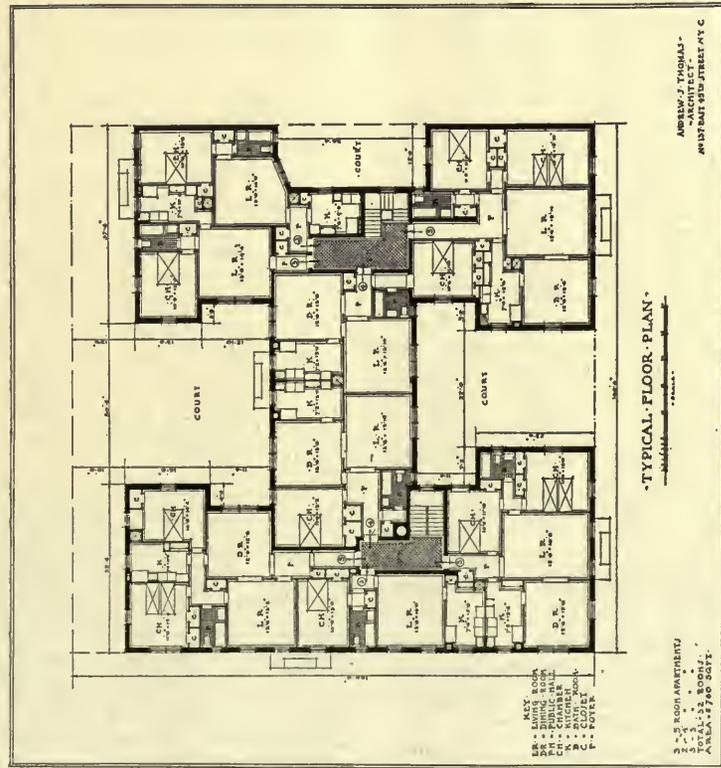
Another company should be mentioned—this is the Queensboro Corporation. The Queensboro Corporation is much the same type of corporation, with the same fine spirit of enterprise. Its field is among a higher economic class of tenants whose incomes range from \$3,000 to \$10,000 per family.

These are the two organizations that have done the most to develop the new type of multiform housing—the garden apartment. As a result of their large, successful developments the block has

been discovered to be the true economic unit of planning. Besides this important principle, they have contributed another, even more striking one. This is that it is no economy, if indeed it may not cause an actual loss, to build on much more than 50 per cent of the area of the lot, in spite of the fact that the law of 1901 allows 70 per cent of the lot area to be covered by construction on interior lots, and much more than 70 per cent on corner lots.

This second principle — that it does not pay the investor to build on more than about one-half of the lot—deserves the most careful examination, since the explanation of it may differ in different cases, for conditions are different in different classes of housing. Proceeding to the illustration of the first principle—that the block is the true unit of municipal housing—this is shown in diagram "J." This is a plan of a typical New York block, of long narrow shape. The ends of it are reserved for commercial structures and the remaining space is occupied by ten apartment houses. This block of buildings was designed by Andrew J. Thomas, architect for the Queensborough corporation, and is just completed. Illustrations of it will appear in the August issue.

It is evident that the block has been designed as a whole in a simple, but comprehensive, and highly coordinated architectural design. All the buildings have been set back from the lot and building lines, permitting shallow terraces along the streets. At the rear is a long open space about one hundred and twenty feet wide, running between all ten buildings, for outdoor gathering and for recreation. Its benefits are apparent when it is remembered that the streets are the only playground of New York children, including the children of the rich; even the luxurious Park Avenue apartment houses make a poor showing in this respect. At the bottom of each rear open court is a covered space for garages, reached by the service ways that run between the buildings, and which have the additional function of providing five alleys of circulation



12' ST. NICHOLAS AVENUE

DIAGRAM F.—TWO CHARACTERISTIC NEW YORK APARTMENT HOUSES, OF WIDE FRONTAGE, BUILT UNDER ACT OF 1901. OCCUPIED AREA COMPRISES 7,875 SQUARE FEET, OR 78% PER CENT. OF THE LAND.

through the block. Of the frontages on the street, the center house of the row is one hundred and seven feet in width along the street, and the two end ones eighty-three feet. Further details of these buildings will be taken up later, but from this short description their character is clear. It is evident that, from the point of view of convenience, comfort, cheerfulness, even of beauty, this group closely approaches an ideal type of housing once it is admitted that the average city dweller can not afford an individual house and lot, but must live in multiform houses because of the high cost of land and of fire-resisting construction required in cities. As architecture goes, it could hardly be improved on.

But, it will be objected at once, without doubt this is a magnificent ideal, but is it practical? Can it be constructed at a price that the average city dweller can afford to pay. Can it compete in rentals with the types that cover 70 per cent of the lot or more? It is here that Mr. Thomas's second principle comes into play, that it is no gain, but may even be a loss, to build on more land area.

This principle seems indeed a paradox. Most minds cannot believe it when they first encounter it. Mr. Thomas explains it as a matter of design, and the Housing Committee of the Reconstruction Commission of the State of New York adopts his statement in their exhaustive Report of March 26, 1920, on "Housing Conditions in New York." Their figures are based on another plan prepared for them by Mr. Thomas, shown in Diagram "G," and are as follows, quoting from the report.

"The Thomas plan, as per sketches attached, shows the following, on an inside plat 100 by 100, five-story building:

Number of rooms on a floor.....	22
Number of rooms in a house.....	108
Percentage of lot covered.....	33½%

"In the typical five-story apartment, built in 50-foot units in the plan common to the Bronx and Manhattan, the normal arrangements are as follows:

Number of rooms on a floor.....	36
Number of rooms in a house.....	176
Percentage of lot covered.....	70%

"Comparing the two plans, the result is as follows:

Typical plan, percentage of lot covered .....	70%
Thomas plan, percentage of lot covered .....	37½%

"The increase in lot area covered by typical plan compared to Thomas plan is 85 per cent. The increase in the number of rooms of the typical plan as compared to Thomas plan is 62½ per cent.

*Cost*

"House built on Thomas plan, on a plot 100 by 100, shows as follows:

Total cubic feet.....	241,000
Cost per cubic feet.....	30c
	<hr/>
	\$72,500
Cost of land.....	10,000
	<hr/>
Total .....	\$82,500

"House built on typical plan, on a plot 100 by 100, shows as follows:

Total cubic feet.....	448,000
Cost per cubic feet.....	30c
	<hr/>
	\$134,500
Cost of land.....	10,000
	<hr/>
Total .....	\$144,500

<b>Thomas Plan</b> —108 rooms, at \$9 per room per month.....	\$11,664
Cost of operation, estimated to equal 47% of the total income..	5,475
	<hr/>

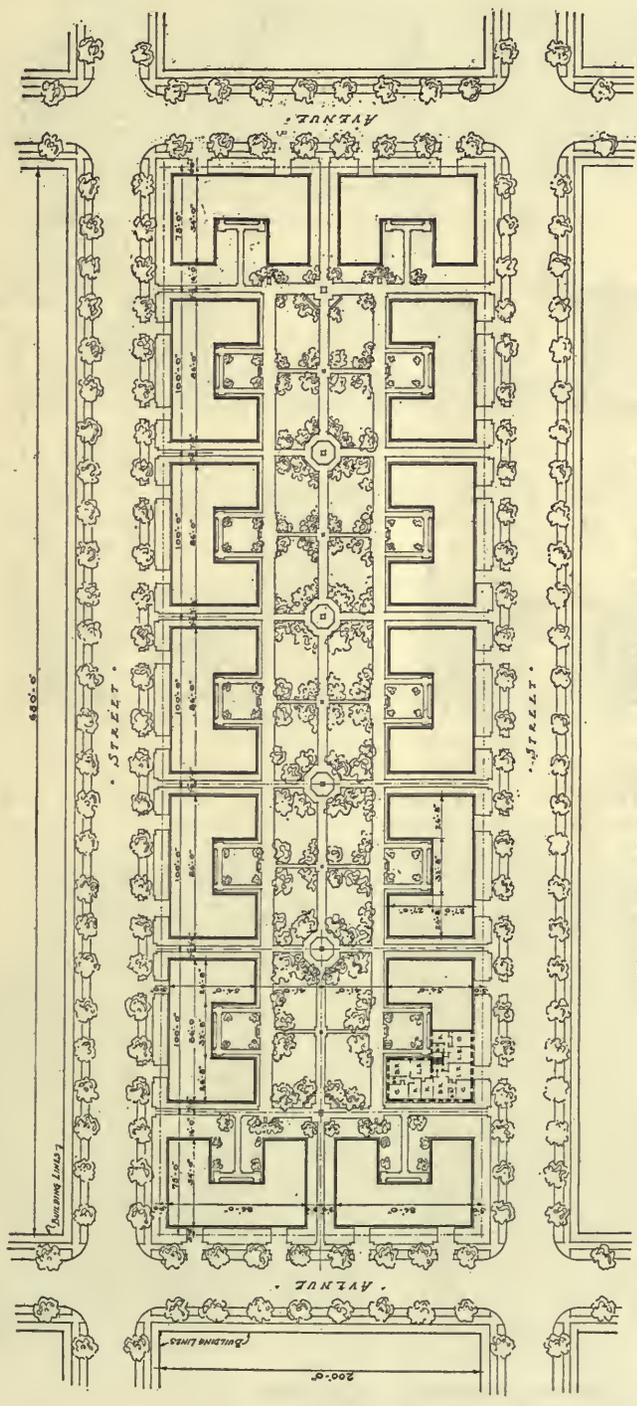
Leaving a net income (which is 7½% on the total cost).....

<b>Ordinary Plan</b> —176 rooms, at \$9 per room per month .....	\$19,000
Cost of operation, estimated to equal 47% of the total income..	8,900
	<hr/>

Leaving a net income (which is 6.9% on the total cost).....

"In computing the cost of operation, figures were furnished by various of the larger builders and owners of moderate priced apartments, showing a cost operation of between 45 per cent. and 50 per cent. of the total income on the properties."

The report furnishes detailed explanation of how these figures were chosen and checked for construction costs. Costs are uncertain at the moment, as every one knows, but one should also realize that the higher the factors for construction and maintenance are, the more favorable do they show the Thomas plan to be. It should be further emphasized that builders experienced in such work checked over these figures for construction, and that some of the ablest real es-



STUDIES FOR AN IMPROVED, DEVELOPMENT  
OF FIVE STORY TENEMENTS.

PREPARED FOR.  
ANDREW J. THOMAS,  
ARCHITECT,  
137 EAST 45<sup>TH</sup> ST., N.Y.C.

14 HOUSES  
420 APARTMENTS  
1540 ROOMS  
57% OCCUPIED BY HOUSES.  
62% LIGHT-AIR AND  
RECREATION

DIAGRAM G. — PLAN OF GARDEN APARTMENTS FOR A NEW YORK CITY BLOCK, PREPARED BY ANDREW J. THOMAS, ARCHITECT FOR THE NEW YORK STATE HOUSING COMMITTEE.

Scale 1/8" = 1'-0"

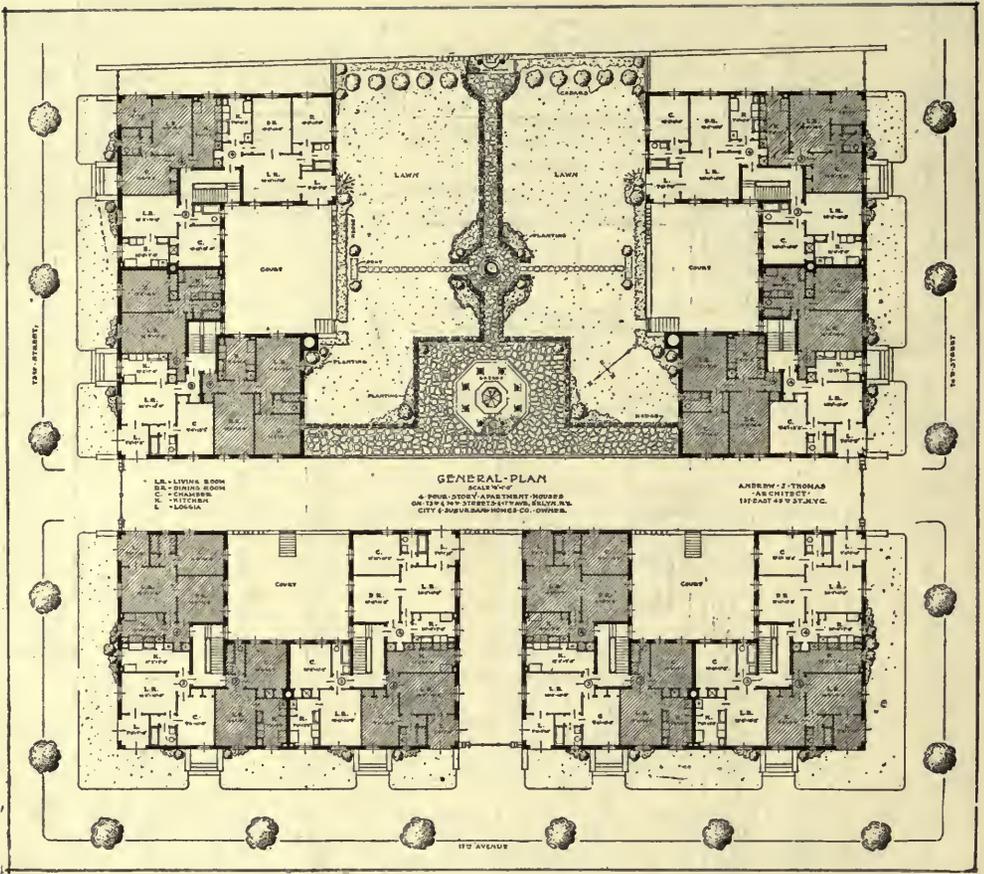


DIAGRAM H.—PLAN OF GARDEN APARTMENTS FOR CITY AND SUBURBAN HOMES COMPANY, ON SEVENTEENTH AVENUE, BROOKLYN. ANDREW J. THOMAS, ARCHITECT.



MODEL OF GARDEN APARTMENTS FOR CITY AND SUBURBAN HOMES COMPANY,  
ON SEVENTEENTH AVENUE, BROOKLYN.

tate experts in the field of renting and managing apartment houses approved the figures for income.

The secret of this paradox of design is a simple one: It is merely that Mr. Thomas has so compacted his plan, eliminating so many needless elements of entrances, and particularly of stairs, fire-escapes, corridors and passageways, both public and those within individual apartments, that the cost, of both construction and management, of these non-rent paying spaces is reduced to its lowest point.

If the number of rent-paying rooms be increased much above this point, the plan becomes quickly more complicated

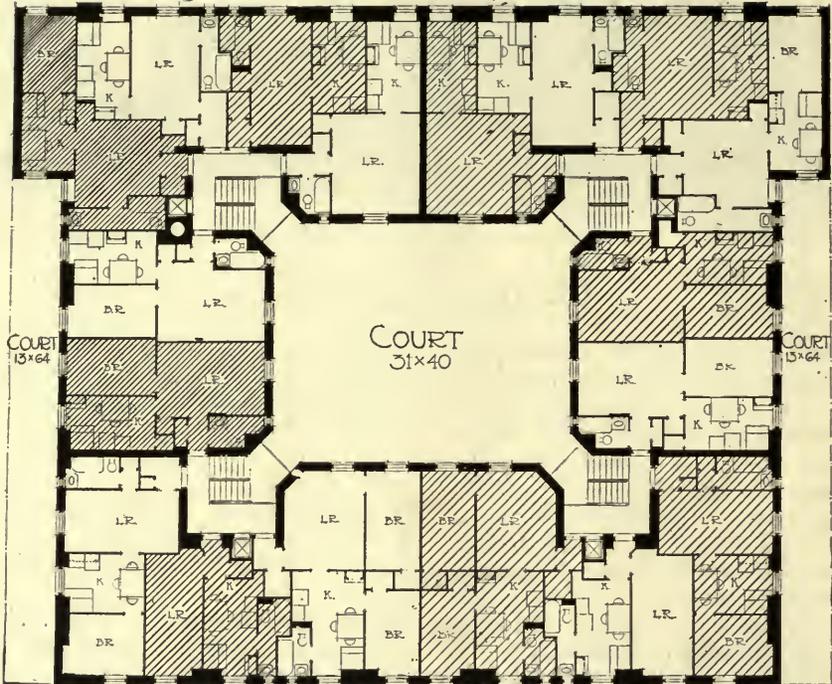
and the proportion of this non-rent paying space increases greatly, out of relation to the rest. Then the interest on their added cost more than offsets the increased net rent return on the additional rooms which may be gained by building on more of the lot area. It is, in a sense, an illustration of the old principle of the "law of diminishing returns."

This is the explanation of Mr. Thomas of the truth of his principle and he is backed in his conclusions by the opinion of some of the ablest real estate experts in New York City. As we have seen, it is founded on considerations of design. But it may be challenged as being



MODEL OF GARDEN APARTMENTS FOR CITY AND SUBURBAN HOMES COMPANY,  
ON SEVENTEENTH AVENUE, BROOKLYN.

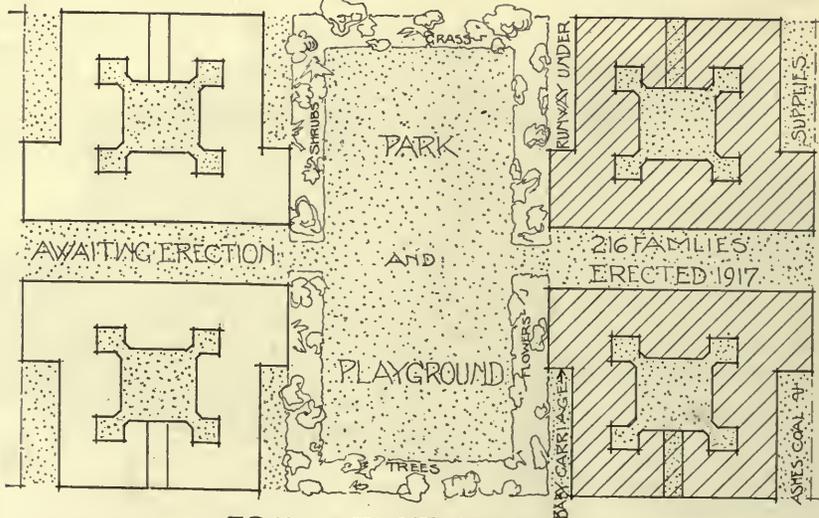
YARD 26x108



OPEN-STAIR-DWELLINGS  
WEST 146<sup>TH</sup> & WEST 147<sup>TH</sup> STREETS  
NEW YORK

HENRY ATTERBURY SMITH ARCHITECTS  
WILLIAM P. MILLER DR. VANDERBILT AVE  
N.Y.C.

OPEN STAIR DWELLINGS 211 WEST 146<sup>TH</sup> ST. NYC



52% OF PLOT OPEN

DIAGRAMS I AND J.—UNIT PLAN AND BLOCK PLAN OF OPEN-STAIR GARDEN APARTMENTS ON WEST 146th AND 147th STREETS, NEW YORK CITY. HENRY ATTERBURY SMITH AND WILLIAM P. MILLER, ARCHITECTS.



PERSPECTIVE OF OPEN-STAIR APARTMENTS ON WEST 146th AND 147th STREETS, NEW YORK CITY.

almost too simple to meet all cases, and for this reason it is well to point out that there are other factors on the financial side which tend to bear it out. Briefly these factors rest on the proportion of value of building to value of land, and they involve also management and the rental value of light and air.

In regard to the first factor, the value of land is nearly permanent, but a building depreciates and becomes obsolete in

one way or another. Mr. Allan Robinson, President of the City and Suburban Homes Company, brought this truth out admirably in his annual report of the company in 1917. As noted before, one of the achievements of this organization was to introduce modern accounting into New York real estate. Formerly it had been the custom to expect that depreciation would be offset by increasing land value. This was pure assumption, and



FIRST UNIT ERECTED—OPEN-STAIR APARTMENTS ON WEST 146th AND 147th STREETS, NEW YORK CITY.

Henry Atterbury Smith and William P. Miller, Architects.

experience proved the fallacy of it. Since land value is permanent or may increase, while building value should be amortized even in high class construction after forty-five years, it is not sound policy to have the proportion of building value to land value too high. The investment becomes too top-heavy; also, any increase in land value will not be felt so much in the value of the whole investment. In addition, less capital is risked in one operation where too great concentration is not attempted. Therefore, if housing is to be conducted on a large scale, in order to insure best results of planning and construction and finance, it may not be wise to over-capitalize the buildings.

Considerations of management also favor less concentrated building. The experience of both the City and Suburban Homes Company and the Queensboro Corporation is that larger properties are easier to manage. Tenants respond to the environment of a beautiful garden apartment and take great pride in keeping up the premises. This, in turn, causes the management less work and, what is more, it makes the depreciation item less on the books.

Still a fourth reason in favor of less congested building comes on the rental side. In the garden apartments, all suites of rooms are desirable, those on the rear being the most sought after; hence these buildings are always fully rented. On the other hand, whenever, as happens often, a surplus of housing occurs, the less desirable apartments on narrow courts or rear or side alleys of the older types of buildings are quickly vacated. The apartments on overbuilt land then are honeycombed with vacancies and become poor investments. To me this is one of the strongest arguments against overbuilding the lot area. It is most effective in cases of higher class apartments, but it may also operate with increasing power in cheaper apartments, especially as more and more garden apartments are built, with their superior attractiveness to tenants.

In fact, on a strict basis of design, superficially at least, Mr. Thomas's princi-

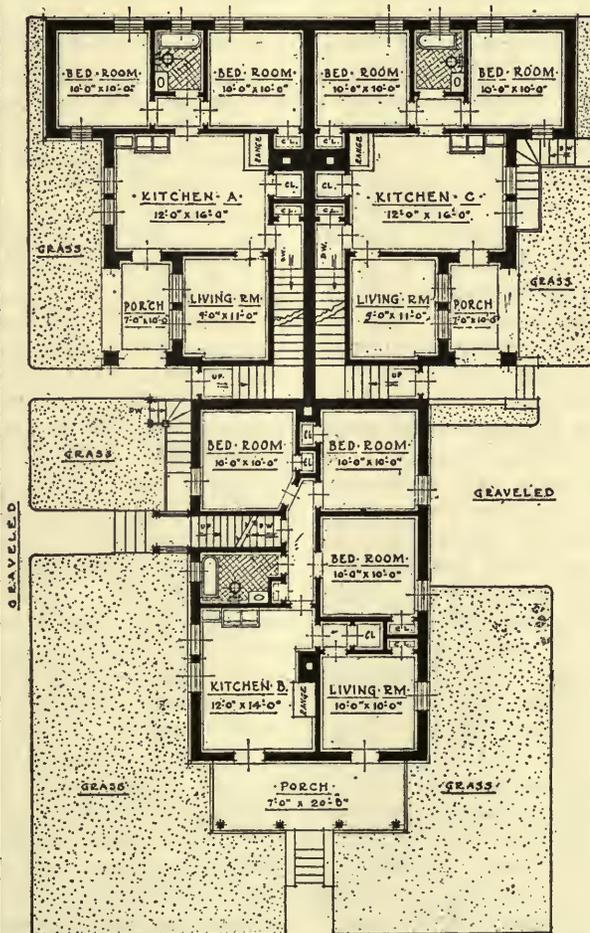
ple is somewhat endangered in one instance. This is the scheme of planning worked out by Mr. Henry Atterbury Smith, architect. His ingenious arrangement of stairs eliminates corridors and other non-rent-payment elements in the plan effectively. It is known as the "open-stair" type and appears in unit form in diagram "I." The point of this plan in relation to concentration is that four such units can be grouped together, forming a square building with hollow square enclosed court about 30 by 40 feet inside, with stairways in each corner of the court. Then these square buildings may be arranged side by side on a city block, with narrow side alleys separating the units, and back to back on a center alley running through the length of the block. Thus, to the extent that extra corridor space has been eliminated, this great concentration may be economically possible. If, however—and here is its weakness over the open garden arrangement—the majority of its apartments faced on small enclosed courts or narrow alleys, whenever tenants could find more desirable quarters elsewhere at not too great sacrifice, they would move out. The value of such a property is threatened in periods of competition.

Mr. Smith has used his openstair system—which, it should be pointed out, does not imply concentration—in a less congested scheme, half of which is built and has been operated successfully for some time, and which is shown in diagram "J." The hollow square arrangement of the units referred to above is seen here.

I have entered at such length into the question of concentration, because it will doubtless cause controversy not only as a general principle, but as regards each single case. For this reason I prefer to set it forth on a broader basis than in the report of the New York Housing Committee, and to include factors of finance and relation of value of building to value of land, of management and of rental which they have not seen fit to include, but with which, of course, the experts of the Committee are familiar. On a wider basis, the different factors

• YARD •  
64'-3" x 75'-0"

• LOT • 64'-3" x 150'-0"



• 3 • TWO • FAMILY • HOUSES •

• ERECTED • ON • WEST • 239<sup>TH</sup> STREET •  
• NEW • YORK • CITY •

• CLARENCE • S • STEIN •  
• ARCHITECT •

• 56 • WEST • 45<sup>TH</sup> ST. • NEW • YORK • CITY •

DIAGRAM K.—PLAN OF UNIT-GARDEN APARTMENTS IN BRONX BOROUGH, NEW YORK CITY. CLARENCE S. STEIN, ARCHITECT.

seem to bear out one another and they thus emphasize the relationship between the two principles—that, in both design and economy, the block is the unit of multiform housing, and that it is not financially sound policy to build on much more than one-half the ground area, leaving the rest to be used as recreation space instead of depending on the streets for that purpose. With these two great ideas of his Mr. Thomas's demonstration is an historic event in city housing. Truly, how far we have come from the old railroad and dumbbell types of tenement houses that were built scarce twenty years ago!

Only one more objection against the garden apartment remains to be considered. It is asked, how can the speculative builder who has provided most of the tenement housing handle such large scale financial operations? It may be said at once that if he insists on following his former methods, probably he cannot. This opens up the whole question of the existing shortage in housing, which may not be treated here, except to say that if in building, as in other industries, large scale methods and sound accounting require a revision of old unscientific practices, doubtless these old methods will be revised. For one thing, even in the private real estate field, the cooperative system of financing is being developed as offering a surer and untapped source of capital. Cooperative investors insist on much sounder methods of finance, and it is well known that much of the success of speculative methods lay in the fact that investors in that type of buildings had none too clear ideas of accounting. They were too willing, as noted before, by not charging off depreciation and obsolescence on the books, to accept fictitious profits.

Leaving the bearing of Mr. Thomas's site unit upon city planning until later, it is to be noted that his plans have a high degree of concentration. They house many people to the acre. They are an ideal for housing in areas of high-priced land like Manhattan Island where no further dispersion than this seems possible.

The next step is housing on land of

much lower value, as that in smaller cities, or in outlying districts of larger cities, like Chicago, Philadelphia, and even New York, where, as explained above, the row housing has been the type. Such a type is shown in diagram "K," which is a plan for houses constructed in the Borough of the Bronx, designed by Mr. Clarence S. Stein, architect, who is also secretary of the State Housing Committee. It will be thought of at first as a development of the Thomas scheme, but it should be understood in relation to the Philadelphia row housing and to the last link in the chain—the isolated and semi-detached standards of the small community. In other words, on a lot in size about 65 by 150 feet, Mr. Stein's plan could replace three houses of the block type or else two isolated houses with one apartment house containing quarters for six families. And, since each family has its separate entrance, the old American small town ideal of individuality and privacy is thus preserved to a degree, which is why the dwellings are only two stories high. With more stories, separate entrances could not be had. Then by combining this type with another type in alternate units in a group, the architect achieves the benefit of the garden apartment idea, a point of superiority over the best Philadelphia type of the Octavia Hill Association (Diagram "D") or its best derivative, the Murphy & Dana arrangement (Diagram "E"). Still another merit of this scheme is this: a lot sixty-five feet wide is really too small for two isolated houses, which are too close together on it for privacy and comfort. One of the defects of the individual dwelling is that as soon as land values rise, lots are narrowed and the little buildings are crowded close together.

Thus the account in outline of the development of city housing ends at a point where the different types tend to meet—the multiform New York type, the Philadelphia block type, and even the small town types, where the old free individualistic ideal in housing is still sought.

Only one further step remains to be recorded in this recent progress of city housing standards. This relates to the





GARDEN APARTMENT HOUSE IN BRONX BOROUGH, NEW YORK CITY.  
 Clarence S. Stein, Architect.

most difficult matter of all to work out—the economic relation of housing to city planning. When the block is established as the true unit of multiform housing, the relationship becomes clearer. Here against one is not dealing with pure theory, because Mr. Thomas has provided still another practical principle, which concerns that disputed factor in housing and city planning, namely, land value.

Mr. Thomas declares that, above a certain figure, which is so low as not to apply in cities, land value should be given little consideration in multiform housing. His demonstration of this surprising conclusion is a simple matter of arithmetic, as follows:

An apartment house covers four and one-half city lots and contains 215 rooms:

4½ lots at \$10,000 equals.....	\$45,000
4½ lots at \$3,000 equals.....	14,000

Difference.....	\$31,000
-----------------	----------

Six per cent interest on \$31,000 equals \$1,860, which equals total added cost per year of apartment house caused by building it on land more than three times increased in value. This adds to cost of room per year \$1,860 divided by 215, or \$8.65; and adds to the monthly rent \$0.70, or say \$3 per month rent for a four-room apartment.

The added cost of \$3 per month for a four-roomed apartment caused by building it on high priced land, while it cannot be ignored, is not excessive. Its significance in housing however is that it represents, other things being equal, the natural difference in rental between apartments in denser city areas and apartments of the same class in outlying districts or suburbs. Now, when one perceives that this \$3 per month is almost exactly offset by cost of transportation at a five cent carfare—to say nothing of more expensive railroad commuting—its bearing on city planning becomes evi-

dent. It tends to prove that the daily double shifting of huge masses of workers about a great city is a real loss, a direct waste. It saddles on the city the enormous cost of an over-built, over-complicated transportation system, clogging streets and causing further indirect

be located within easy walking distance he may go home at noon for lunch—a further economy. Without going further into this argument, it would seem as if it vindicated that conception—the Garden City. The garden city in its essentials is a small city, having as a



DETAIL OF GARDEN APARTMENT HOUSE IN BRONX BOROUGH, NEW YORK CITY.  
Clarence S. Stein, Architect.

losses that cannot be estimated. The cost to the workers themselves, in time and annoyance, is only too well known.

In this light it would seem as if transportation of workers to and from work in factory and business is not necessarily an economy, but is a hardship, and that the worker should be housed within a walking distance of his work. If he

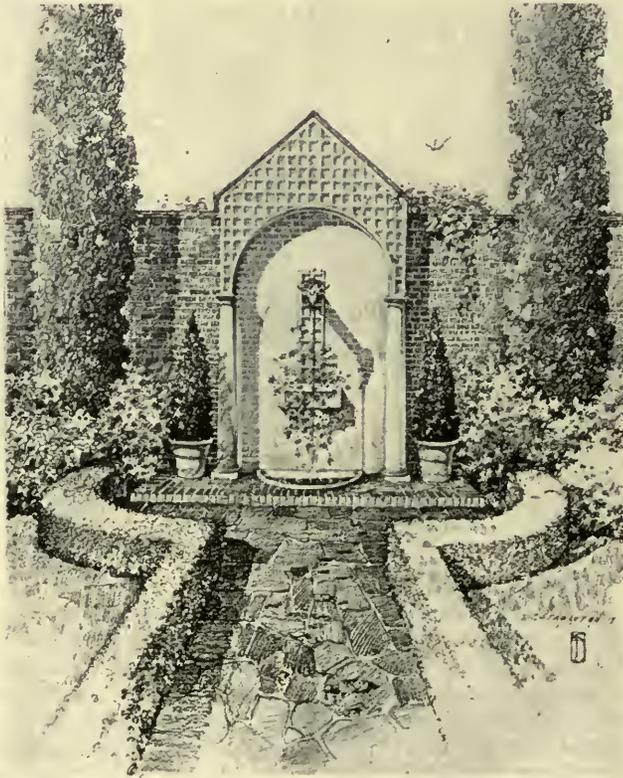
nucleus a center for factories and business, with housing grouped about—the housing located within walking distance of the work. In a large city, these small centers may be grouped around it like satellites, accommodated as far as possible to conditions of topography, main transportation routes and other factors. Some such arrangement would

seem to be the efficient one for the business and industrial city; and its practical development would need to be as carefully planned as any ideal small community, with the housing designed by blocks carefully established in the city plan. The further consideration of transportation, control of topography, restriction of zones for housing, business, industry and other activities of city life is but a slight step from this fixing of the city street plan, for naturally the city street plan in housing areas would be different from that of other areas.

Thus we have, as a result of these discoveries in multiform city housing, not only a new vital conception in housing, but one in city planning besides. Hitherto, like housing, city planning has been a matter of legal restrictions, as the New York Zoning Law of 1916. Wonderful a step or progress as it was, this law

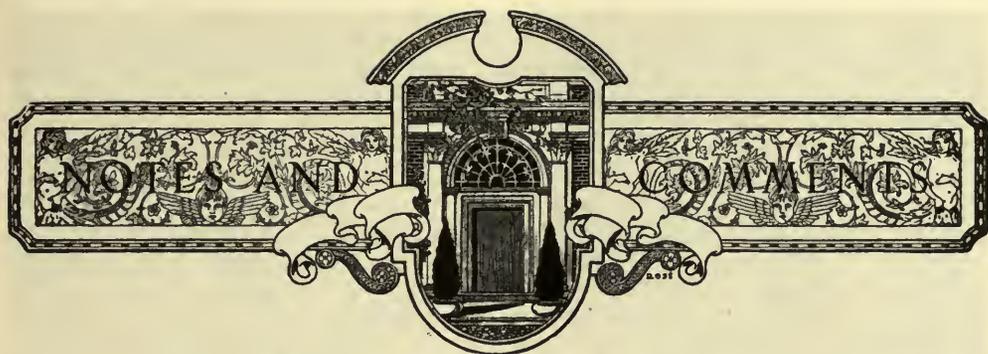
is restrictive and negative. It is not in all respects constructive. Although, in large measure, it salvages and protects real estate values from chaotic conditions of speculation, even that it may not do absolutely, without other means to aid it. This truth is coming to be perceived. With the work of these architects in establishing the garden apartment as a practical business ideal, showing the false economy of too great concentration, both housing and city planning seem on the point of passing from a negative to a positive state of activity, and we may soon have practical standards for the mechanical and structural organization of the city comparable to the splendid models now provided the American people for the life of small communities where the old individual ownership ideal still is possible.

*(To Be Continued)*



GARDEN DETAIL—GARDEN APARTMENTS FOR CITY AND SUBURBAN HOMES COMPANY, BROOKLYN.

Andrew J. Thomas, Architect.



**The Proposed  
Nebraska  
State Capitol.**

The new State Capitol of Nebraska will be of interest to the architectural profession, on account of the unusual design that won the competition and because of the novel character of the competition itself. In fact, the bold originality of the design may well have been due to the way in which the competition was conducted.

Ten competitors submitted plans to a jury of three architects—Messrs. Waddy B. Wood, James Gamble Rogers and Willis Polk. Their choice was confirmed by the Capitol Commission of the State, with whom Mr. Thomas R. Kimball acted as advisory architect. The architect selected was Mr. Bertram Grosvenor Goodhue, of New York.

The distinctive feature of the competition was that the commission—following the advice of the architectural jury—announced that it did not agree to accept the winning design, but it did agree to employ the architect of the winning design. The commission, therefore, sought an architect rather than a design, and in so doing it was able to draw up the terms of the competition in a broad, free way and bring out the best ability of the designers.

Thus Mr. Goodhue's design, as here shown, is not necessarily the design as it will be carried out. It is rather a preliminary scheme and much further study will be given to the problem, with possible changes even in essentials. Its development may prove most interesting to follow in the future.

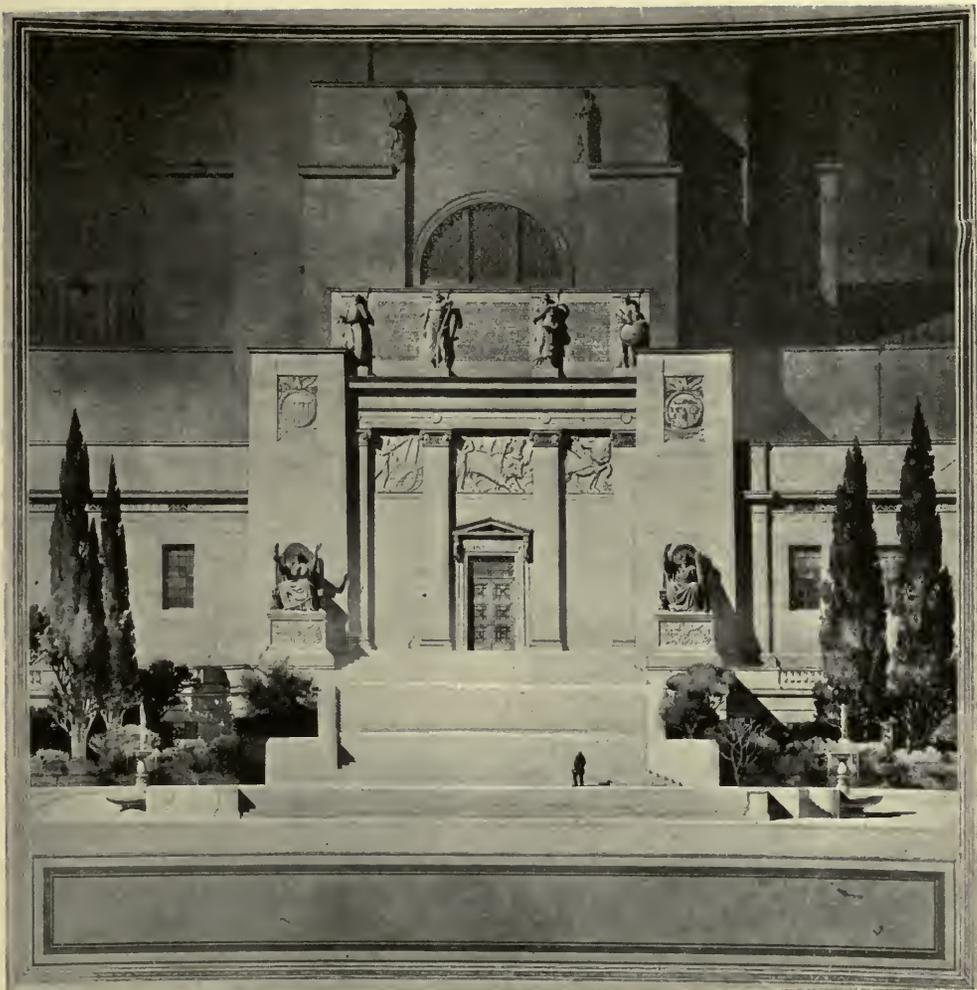
As will be noticed, the drawings show anything but the dome-palace-portico formula, or modified St. Peter's, that has become the custom for State capitols, derived as they are from the National Capitol

at Washington. The plan is a vast square, with a cross dividing it into four interior courts. In the center a monumental entrance vestibule leads into a huge memorial hall, through which one passes into the great rotunda in the center, under the tower, out of which open, left and right, the vestibules of the two legislative chambers. Behind this rotunda, in the space corresponding to the memorial hall, are antechambers of the legislative organization, consisting of the large reference room, pressrooms, etc. The State courts have a position of honor along the other front, opposite the main entrance, with rooms serving the court organization and the judges occupying all this façade and extending around on the sides of the building. Various other rooms, including a suite for the Governor, and committee rooms and offices, complete the plan. On the whole the scheme is conceived in a splendidly monumental way.

The most original feature of the design is the exterior. A long horizontal one-story building, raised on a long podium or base, its fine ample wall surfaces not too broken by windows, has as a principal feature a great center entrance motive, reminiscent at once of a Greek propylæum and an Egyptian temple entrance of pylons. From the midst of this long, low group rises a huge bold tower, nearly 400 feet high, which is the stackroom of the library. In style the design might be called neo-Greek, with occasional motives of Roman or modern origin. It is much in the spirit of the Greek revival that became popular the world over about the middle of the last century. But, although in details it reveals no conceptions that are strikingly unusual, its mass is remarkable as could be, and its motives are a welcome relief from the perfunctory formulae of long colonnaded and pilastered façades, relieved



WINNING DESIGN FOR NEBRASKA STATE  
CAPITOL, LINCOLN, NEB. BERTRAM  
GROSVENOR GOODHUE, ARCHITECT.



ENTRANCE — WINNING DESIGN FOR THE  
NEBRASKA STATE CAPITOL, LINCOLN, NEB.  
BERTRAM GROSVENOR GOODHUE, ARCHITECT.

only by a central portico or by end pavilions, that have atrophied monumental architecture in America.

It is evident that this new scheme has not progressed far enough to draw many conclusions about it from these drawings. How its huge vertical tower rising from the center of the long level group will look in perspective in relation to that group, one does not know. Only a long study of models can give an inkling as to that. But however difficult it is to read the future facts of mass and perspective from these competitive drawings of the Nebraska capitol, one feature of it is already evident—that is its splendid monumental character. It is a fit emblem of the greatness of a State. In its final form we may look forward to seeing in it another virtue that Mr. Goodhue has been able to inspire in his architecture—the illusion of life and warmth in stone and metal. All who saw his group of Fair buildings in California brought back tales of the splendor of perfectly keyed color and rich decoration, all vibrating in sunlight. Too often this air of vitality and glowing color,

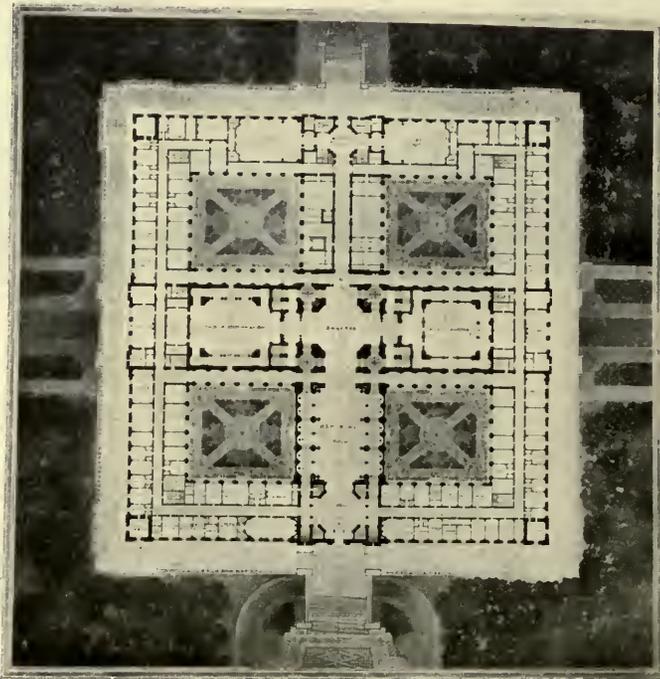
which was the very symbol of Attic art, is lost in the modern architecture that is derived from antiquity. Our monumental architecture comes almost solely out of books, where ideas of form may be derived, but ideas of color, never. Greek architecture without color is like a body without blood in it—a mummy that should be left in the tomb. Books were the last place where the Greeks thought of creating architecture. They always formed it out in the landscape, in shapes of color in sunlight.

ROBERT IMLAY.

**Memorial  
Tablets.**

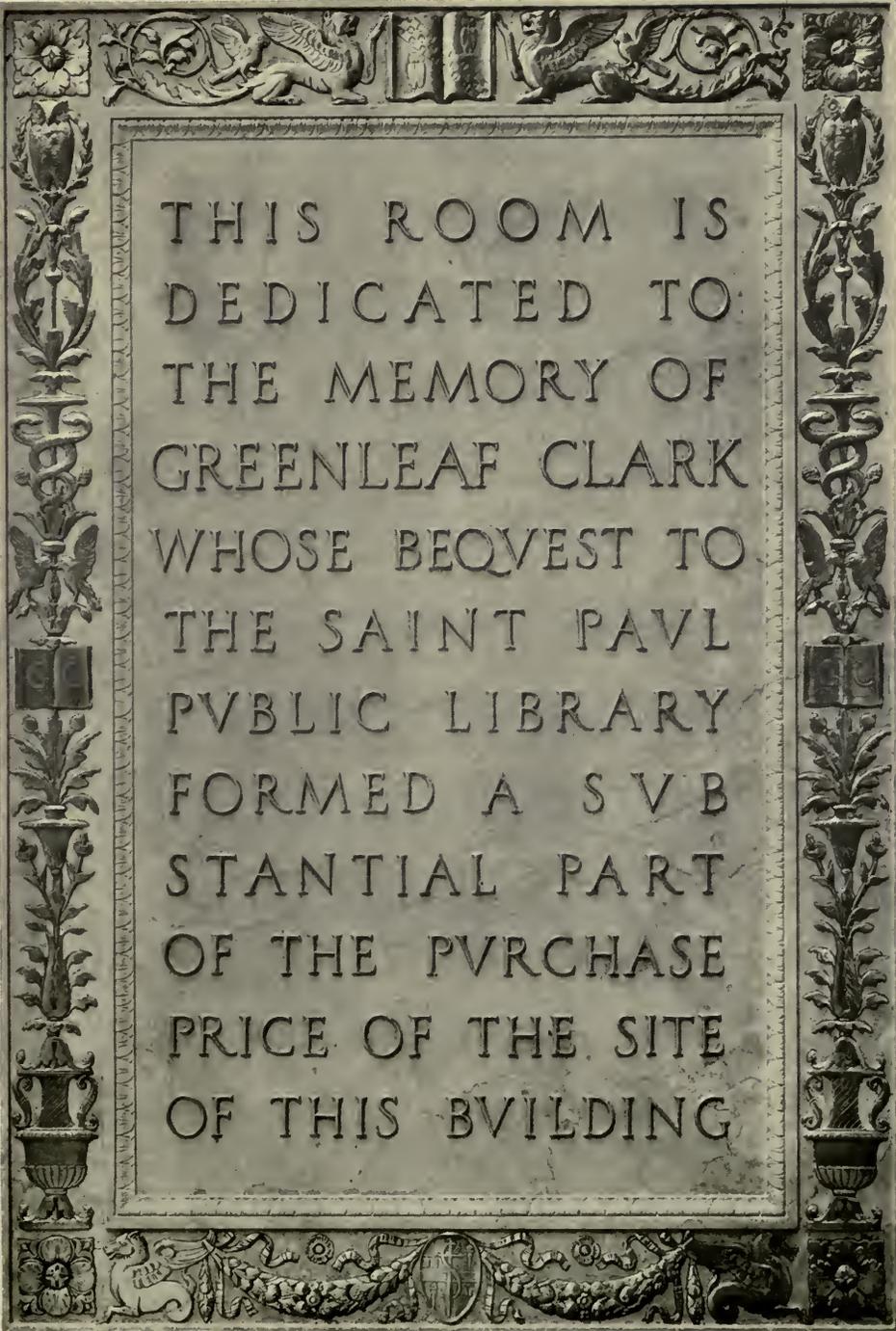
The designing and inscribing of memorial tablets, no matter how modest these may be, require of the designer conscientious attention. In such a spirit Mr. Elettus D. Litchfield wrought

the beautiful Greenleaf Clark tablet of bronze and marble in the St. Paul Public Library.



PLAN—WINNING DESIGN FOR NEBRASKA STATE CAPITOL,  
LINCOLN, NEB.

Bertram Grosvenor Goodhue, Architect.



THIS ROOM IS  
DEDICATED TO  
THE MEMORY OF  
GREENLEAF CLARK  
WHOSE BEQUEST TO  
THE SAINT PAUL  
PUBLIC LIBRARY  
FORMED A SUB-  
STANTIAL PART  
OF THE PURCHASE  
PRICE OF THE SITE  
OF THIS BUILDING

TABLET IN MARBLE AND BRONZE, ST.  
PAUL (MINN.) PUBLIC LIBRARY.  
ELECTUS D. LITCHFIELD, ARCHITECT.

Its beauty is evident. There is both the exquisite ornament of the border and the pattern of the lettering, simple in their classic grace and richness. The tablet, about thirty inches by fifty inches, is of Hauteville marble, whose color is like dark old ivory, though grayer. Its decoration of bronze ornament and letters, these being light green gold, are inlaid in the stone, for security, and they project slightly beyond the surface to yield the effect of low relief. The photograph shows the relative values of color truthfully.

Such a masterwork as this makes evident the need of a beautiful tradition of tablets and of lettering in American art. It seems strange that people do not yet know the richness of our native tradition in this field. We are fortunate in our present day design with a few examples like this of Mr. Litchfield's, which recalls the perfect tablets of the old Italian tombs. And besides that, we have our early American tradition—extraordinary both in its classic perfection of the letters of the Roman alphabet, in which it is surpassed only by the Italian masters, and in its unique use of the decorative effects of the small alphabet and of the flowing, brushlike curves, like handwriting, of the numerals of the dates. The older American churchyards contain countless examples of this art in their headstones, and one wonders why their significance is overlooked. If the reader will turn to the issue of the Architectural Record for December, 1916, he will find there

photographs of a few of these headstones of a hundred years ago, taken in the graveyard of Trinity Church, New York City. The old models show the rare, unusual personality of craftsman's art, which is only slightly excelled in pure beauty by the classic cuttings of the early Italian masters.

JOHN TAYLOR BOYD, JR.

**Thrusts  
Over  
Voids.**

In the June issue of the Record, in an article by J. R. Reid, I find the following statement attributed to me in relation to Mr. Bourgeois's design for the Bahai Temple of Peace: "The first new idea in architecture since the thirteenth century." Exactly what I said in the course of a half-hour address, and a cross-fire of questions thereafter, I do not remember, but I do know that I did not make the statement attributed to me above. I did say that I had never seen anything quite like it; that it was referable to no style with which I am familiar, but it seemed to belong to the school of which Louis Sullivan is the leader and chief exponent. I also said that I should like to see "how it would work out in execution," and I strongly advised that when executed the upper part be revolved on the central axis so as to bring the apparent thrusts of the upper buttresses to the angles of the lowest story instead of over the voids.

H. VAN BUREN MAGONIGLE.