

THE AMERICAN ARCHITECT

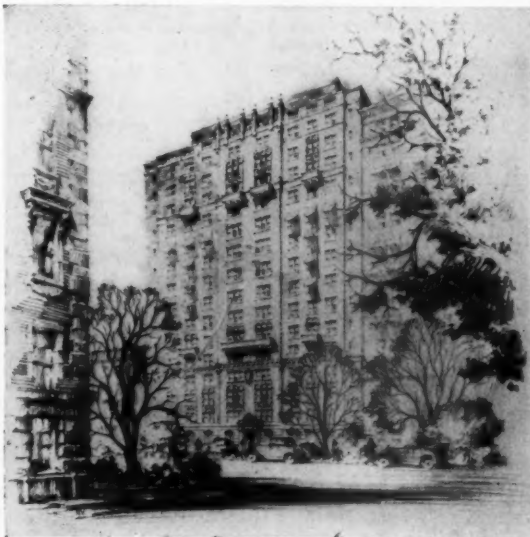
FOUNDED 1876

PLAN OF THE MODERN APARTMENT HOUSE

PROBABLY the most perplexing problem that the twentieth century has so far offered to architects is the design of apartment houses. In the main, the problem consists of devising means of providing a home for five, fifty or even five hundred families, as the case may be, under one roof, retaining at the same time all the domestic advantages of the private house and with its cares reduced to a minimum. The chief value of the apartment house lies in successfully coping with the economic problem. It reduces land cost, original cost of building and operating expenses all at once. Its popularity is, therefore, readily explained, on account of which the newly erected private city house has become practically non-existent, particularly in the larger urban centers. But by no means is the apartment house confined to the city. It is growing more and more in favor in suburban and outlying districts,

and it seems to be but a matter of time before dwellers of the city, and in its immediate suburbs as well, will be confined exclusively to apartment houses, and the private house and the country house will become synonymous terms.

This is, perhaps, the big problem that apartment house design presents: to make each apartment as much as possible like a home. The greatest fault with the average apartment house today lies in its unhomelikeness. To a certain extent, this is due to low ceilings. A prominent architect has devised a plan which has been incorporated into an apartment house, now in the course of construction, whereby this fault is partially overcome without loss of floor space. An illustration reproduced herewith, showing a section through the building, explains the manner in which this has been worked out. It is also claimed that the uniformity of plan



THE JOHN MUIR APARTMENTS, NEW YORK CITY
SUGARMAN & BERGER, ARCHITECTS
SLOAN & ROBERTSON, CONSULTING ARCHITECTS



THE FULTON TOWERS APARTMENTS,
EAST ORANGE, N. J.
HECTOR O. HAMILTON, ARCHITECT

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of apartments on the several floors, whereby one apartment is identical in plan and arrangement with every other, directly above and below it, throughout the building, results in a lack of individuality which further increases its unhomelikeness.

Probably the modern apartment house has reached its highest state of perfection in the garden apartment. Providing, as it does, park walks, playgrounds for children, and, in suburban houses, tennis courts, and even individual garden plots for tenants, it makes an especial appeal by an absence of crowding and congestion and an atmosphere of privacy and domesticity. It has been prophesied that the apartment house of the future, whether in the city or in the suburbs, will be developed along the lines on which the garden apartment now bases its greatest appeal. Although the law in New York City allows for building on seventy per cent of the area of the property, the most successful apartment houses in the city today rarely cover more than fifty per cent, and in the suburbs are often as low as thirty-five per cent. This is due to the influence of the garden apartment, for it automatically denotes that a considerable portion of the property is devoted to those features by which it is characterized.

The success of the apartment house, whether in the city or in the suburbs, depends, to a great ex-

tent, on its plan. Unlike most other problems in architectural design, the interior is generally considered more important than the exterior. It is necessary, so far as is possible, to give proper balance to wall spaces, especially in the more important rooms, to allow of correct window dressing and



ENTRANCE DETAIL OF APARTMENT HOUSE AT 65TH STREET AND AVENUE A, NEW YORK CITY
ANDREW J. THOMAS, ARCHITECT

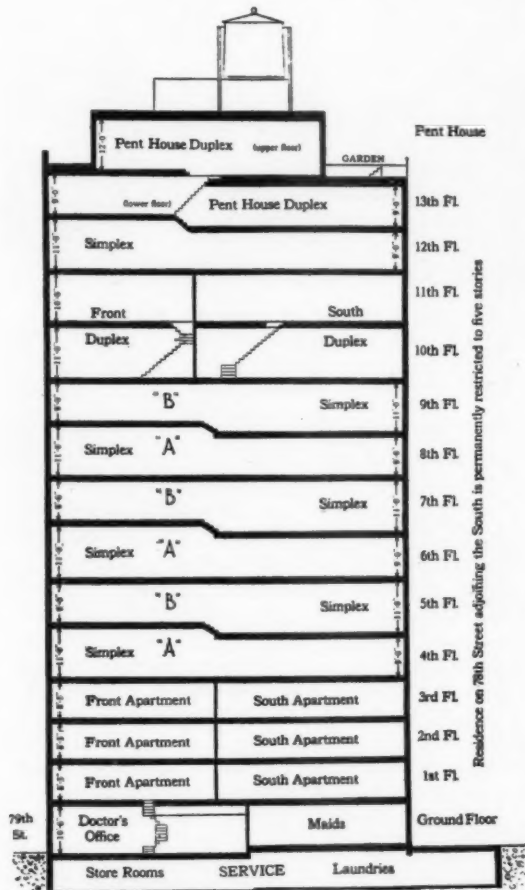


ENTRANCE DETAIL OF APARTMENT HOUSE AT 430 CLINTON AVENUE, BROOKLYN, N. Y.
SLEE & BRYSON, ARCHITECTS

better furniture planning. This determining of location of windows from within makes the problem of exterior design that much harder. The plan of the individual apartment is based on the principles which govern the plan of the private house. This fact must ever be borne in mind, for it is in offering a home for the tenant that the apartment makes its greatest appeal. The theory lies in dividing the floor area into three portions: the private portion, the public portion, and the service portion. It is advisable, if possible, to retain a similar distribution of every floor of the building, the advantage of which may easily be seen, although in certain planned buildings this is neither possible nor desirable.

The old-fashioned apartment house owner thought it a waste of money to have more than one service elevator in the house. This often necessitated long, narrow passages, frequently marring the plan, in order to give access to the elevator from every apartment. The modern apartment house owner, however, realizes that he cannot cut down on service to save a dollar or two. In the apartment house at 430 Clinton Avenue, Brooklyn, N. Y., which is illustrated herewith, it will be seen that owing to the grouping of the service portions

of the several apartments on each floor it is possible to serve all four apartments with only one elevator. This particular apartment house is based on the dumb-bell or "H" plan, penetrated on either side by a court. In certain buildings of unusual plan it is not so desirable to retain this arrangement, for it frequently results in the loss of good location for the master portion of the house. The



SECTION THROUGH APARTMENT HOUSE BUILDING AT 66 EAST 79TH STREET, NEW YORK, SHOWING AN ATTEMPT TO VARY CEILING HEIGHTS IN VARIOUS ROOMS

PLEASANTS PENNINGTON, ARCHITECT

location of the building determines to a very great extent the distribution of space to master and service portions. In the modern apartments, the introduction of a garden serves to create a more pleasant outlook from certain windows. Another advantage of a garden apartment in the city is seen in the fact that certain tenants prefer inside rooms to avoid noises of the street. The value of a southern exposure in a room is appreciated when it is understood that an apartment with a southern exposure is worth ten to fifteen per cent more than one not so arranged.

In the plan of the public portion of an apartment it is important that such rooms as the living room, the dining room and the library be intercommunicative. It is especially desirable that two of these rooms adjoin one another, with a large opening and no doors in the wall between them. This will tend



PELHAM GABLES, PELHAM, N. Y.

GEORGE FRED PELHAM, INC., ARCHITECTS

to effect greater space, and space in the average apartment is always at a premium. Furthermore, it offers opportunity for entertaining on a larger scale, in case that is desired. The unattractive foyer, three feet wide, as well as the long narrow hall, so conspicuous in old-time "dumb-bell" apartments, is now a relic of bygone days. One of the greatest improvements of the modern apartment house over the old-timers is the making of the foyer large enough to allow of furniture to make it attractive. The dining alcove, which was formerly designated as the pantry, by order of the old building laws, is of comparatively modern conception. It is now considered a valuable adjunct in the design of the modern apartment house. By doing away with the necessity of a dining room, a room which is seldom used, except for dinner, it allows of greater space



MELMORE GARDEN APARTMENTS, EAST ORANGE, N. J.

DODGE & MORRISON, ARCHITECTS



ONE OF A GROUP OF APARTMENT HOUSE BUILDINGS WHICH MAKE UP THE LARCHMONT HILLS DEVELOPMENT, LARCHMONT, N. Y.

EDWARD D. PARMELEE, ARCHITECT

for the living room, a room of which it may truthfully be said, "the bigger, the better."

The combination living-dining room, an earlier invention, was not found to be as satisfactory as the dining alcove, as the average tenant finds it more to his liking to retire to a room other than the living room to eat his meals. A difficulty which the introduction of a dining alcove presents is in locating the kitchen in such close proximity to the private portion of the apartment. From this arises a necessity for proper ventilation in the kitchen to carry off odors of cooking, for without that, the advantages which the scheme holds are all wasted. Should a dining room be included in the plan, the bedrooms and the other rooms of the public portion should be given preference over it in location. It is logically given the most undesirable location of all on account of being so little used. Careful consideration should be given to the relation of the kitchen to the dining room or dining alcove. These two rooms should be intercommunicative. It should not be necessary, for example, to cross the master's space at any point to pass from one to the other. Summing up, it might be said that a successful apartment includes a big living room, with a desirable exposure; at least one good-sized bedroom, with southern exposure, if possible, and outside exposure in any event; service quarters entirely apart from the other rooms, and a fair-sized foyer. All the rest is of minor consequence if these are right.

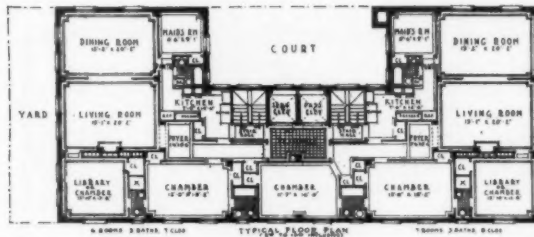
The fixing of certain windows with relation to the interior walls which they penetrate, makes the problem of the design of the exterior of the city apartment house complicated. It is the difficulty in successfully overcoming that problem that is accountable more than anything else for poorly de-

signed apartment houses. In apartment buildings, especially, the appearance of the room, with which the tenant is so concerned, cannot be sacrificed for the design of the exterior. The problem thus presented in the design of the exterior of the apartment house is one of fenestration. It is a fact that the exterior design seldom "sells" an apartment within. The design must be simple, but ever in good taste. Ornament, even the most simple, such as pilasters, band courses and cornices, should be used with restraint. It is desirable that the design of the exterior be not confined too closely to any one style or period, but rather that it retain a neutral character. It must be dignified and not conspicuous, unobjectionable and above criticism. Two well designed grilles, carefully executed, are more desirable than a dozen poorly designed and of a cheap quality of workmanship. Appreciating the fact that the design of the exterior cannot suggest the style of the interior, as the design of a private house may do, it can and should suggest to the observer the quality or class of workmanship that is adhered to in every detail of its construction, both inside and out.

The public entrance hall of the apartment house is just as important as the entrance hall of a private house. The first impression, which counts so much, is made there and the house is judged, to a considerable extent, by it. Architects frankly admit that they spend more money on the entrance hall than on any other one part of the house. Here again the design must be dignified and in good taste, and it is even desirable to make it conform to some particular style or period. But if so, it must be accurate in every detail, beyond reproach and criticism.

Considering the difficulties to be met with and the obstacles to be overcome, only a few of which

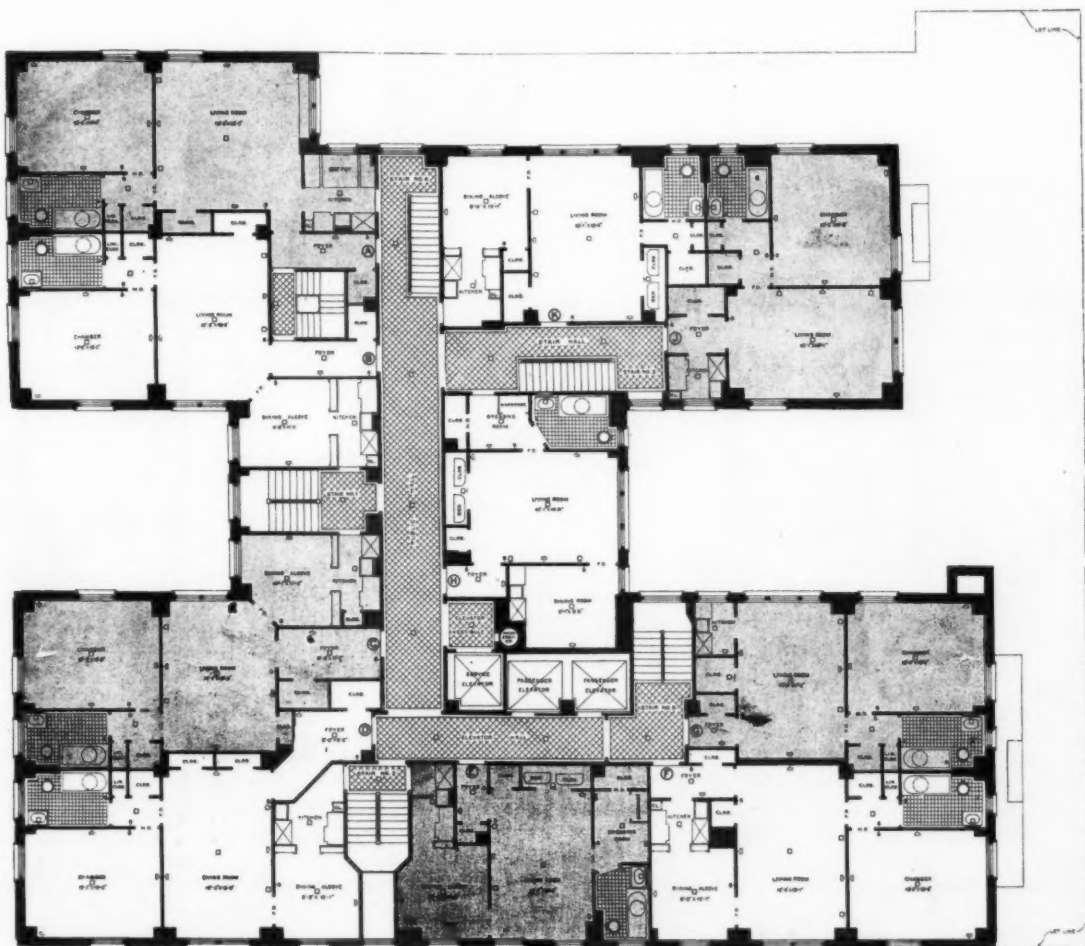
DEUTSCH & SCHNEIDER,
ARCHITECTS



A SUCCESSFUL
ADAPTATION OF
THE "U" PLAN

APARTMENT HOUSE AT 32 WASHINGTON SQUARE,
NEW YORK CITY

IN THE HOUSE AT 32 WASHINGTON SQUARE THERE ARE TWO APARTMENTS TO A FLOOR, ALL THE ROOMS IN THE MASTER PORTION OF EACH APARTMENT BEING OUTSIDE ROOMS. IN THE HOUSE AT 175 WEST 73RD STREET THERE ARE TEN APARTMENTS TO A FLOOR, ARRANGED SO THAT THEY ARE ALL SERVED BY ONE SERVICE ELEVATOR, AND VARIOUS STAIRCASES INTRODUCED TO ACT AS MEANS OF EXIT

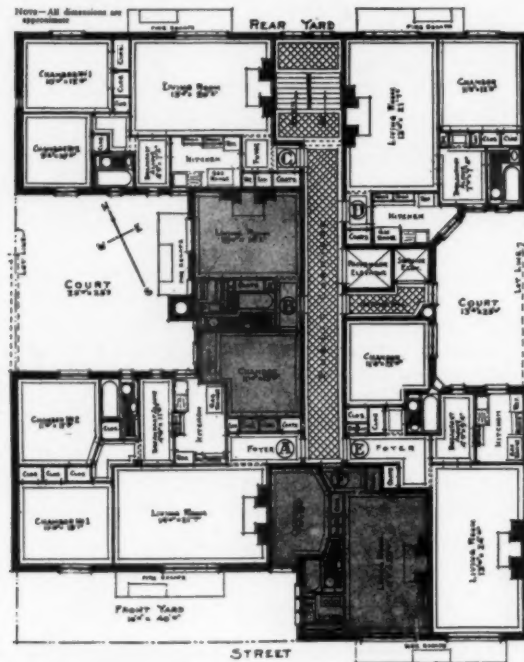


TYPICAL FLOOR PLAN OF APARTMENT HOUSE AT 175 WEST 73RD STREET, NEW YORK CITY

HERMAN M. SOHN, ARCHITECT

AN ADAPTATION OF THE "H" PLAN BY WHICH WINDOWS ARE INTRODUCED INTO EVERY FACADE

**SIX APARTMENTS
OF VARIOUS SIZES
INTRODUCED
INTO A FLOOR**

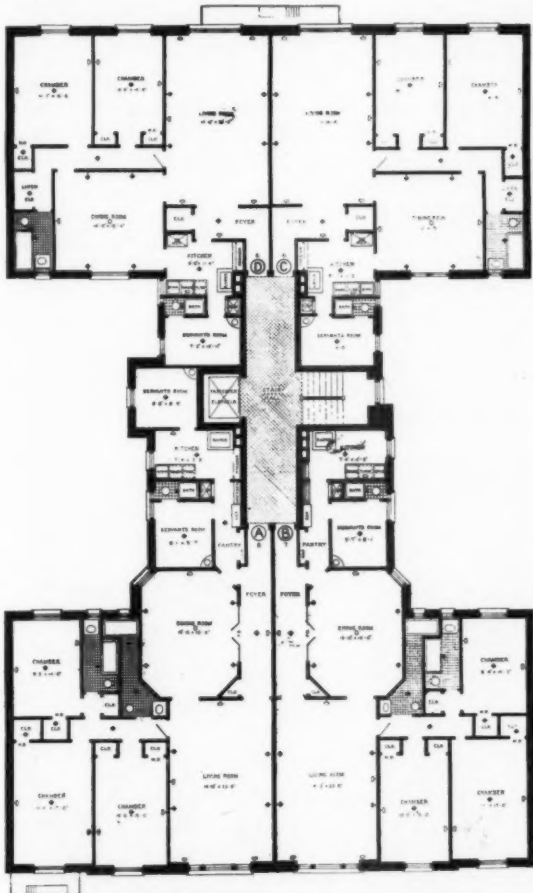


EVERY ROOM AN OUTSIDE ROOM
IN THE SENATE APARTMENTS,
ST. LOUIS, MO.

PRESTON J. BRADSHAW,
ARCHITECT

Architectural floor plan of the Senate Apartments, St. Louis, Mo., designed by Preston J. Bradshaw. The plan shows a symmetrical layout with a central public hall and stairs. Rooms include Chambers (Nos. 1, 2, 3), Living Rooms, Dining Rooms, Kitchens, Baths (Nos. 1, 2, 3), and a Sun Room. The plan is labeled "EVERY ROOM AN OUTSIDE ROOM IN THE SENATE APARTMENTS, ST. LOUIS, MO." and "PRESTON J. BRADSHAW, ARCHITECT".

have been recorded here, the design of the exterior of the city apartment house would seem to be a problem which deserves the attention of the best architectural talent. The illustrations reproduced in these and the following pages, are representative of the work of various architects who have devoted much thought and time to the design of apartment houses.



THE "H" PLAN, WITH FOUR APARTMENTS TO A FLOOR.
TYPICAL FLOOR PLAN OF APARTMENT HOUSE AT 430
CLINTON AVENUE, BROOKLYN, N. Y.

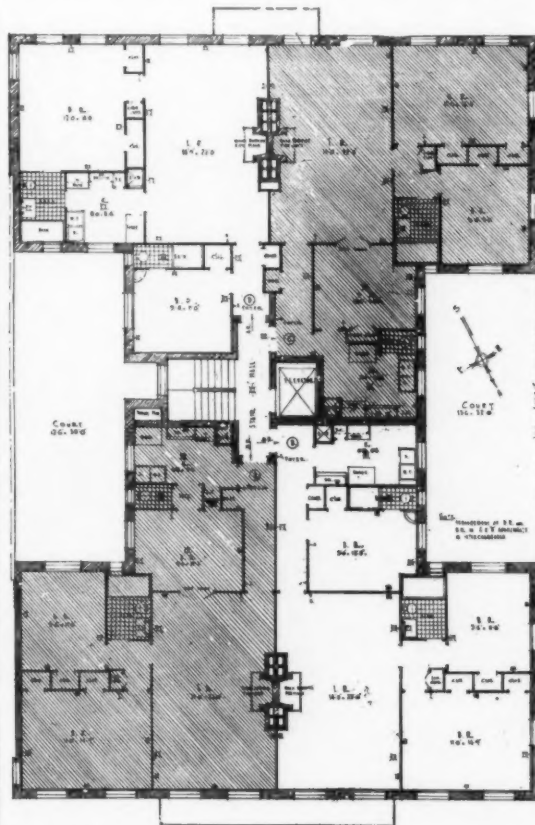
SLEE & BRYSON, ARCHITECTS

The design of the suburban apartment house differs materially from that of the city prototypes. They have much less in common than their titles would lead one to expect. Probably the exterior design of the suburban apartment house is a more important factor in its success than is that of the city house. It must embody in its exterior design as many characteristics of the private country house as is possible.

The dweller in a suburban apartment house seeks first a home in the country. He looks for the apartment to embody all the economic advantages of the city house, a similar elimination of many of the

cares of housekeeping, but retaining in addition the fascinations associated with living in the country.

The suburban apartment house was originally a building of not over three or four stories, so that this suggestion of the country was easily retained in the design of its exterior. But the increased value of land in the suburbs and the striving to reduce the land cost per family and retain moderate rentals have brought the tall elevator apartment house into the suburbs as well. The automatic elevator has reduced operating costs to a minimum, but the problem in design has been greatly increased. Character of the country is frequently introduced by gabled roofs, immediately avoiding any similarity to the city type and offering opportunities by which its design may be distinctive. Open fireplaces are included in many of the rooms, which give to the apartment a homelike atmosphere that the tenant finds so desirable. These naturally necessitate chimneys, which, in themselves, allow of introducing an element typical of the country house into the design of the suburban apartment house. The fact is that the average tenant of the suburban apartment house, realizing that he is one of tens, per-



AN OPEN FIREPLACE IN EVERY APARTMENT IS A FEATURE
OF THIS PLAN. TYPICAL FLOOR PLAN OF APARTMENT
HOUSE AT 222 EAST 71ST STREET, NEW YORK CITY

TREANOR & FATIO, ARCHITECTS

haps, and not one of hundreds, as is the tenant of the city apartment house, has a personal pride in the house, both inside and out. He refers to it as "his house in the country," and the house must live up to that reputation. The building must bear no suggestion of city life. It must suggest neither a hotel nor an office building in any detail.

The location of the windows with relation to the interior is just as important in the suburban apartment house as it is in the city type. But the problem in exterior design is not made nearly so difficult by this stipulation, owing to the more informal quality of the design of the exterior of a country house. It does, however, quite naturally increase its difficulties. Perhaps an even greater consideration is given to the possible arrangement of the furniture in the planning of the rooms in an apartment in the suburbs, due to the fact that the average tenant is generally of limited and even moderate means, and cannot so easily afford to buy new furniture as his city cousin.

Even greater consideration should be given to the size of the rooms in the design of the suburban apartment house. In order to avoid any suggestion of city congestion, the rooms must be as large as

possible. A suburban apartment house must not be considered as simply a city apartment in the country. The garden apartment in the suburbs has greatly increased the desirability of the suburban apartment. The suburbs offer opportunities for introducing attractive driveways, walks and playgrounds, which give to the garden apartment "atmosphere" that the city prototype cannot even hope to attain.

Another difficulty is presented in planning the suburban apartment house in locating the service portion. Buildings being further apart in the country, there being fewer narrow courts and less disagreeable outlooks, it often becomes a problem as to what portion shall be devoted to the service to the better advantage of the master portion. The entrance hall of the suburban apartment house is of much less importance than it is in the city type. The impression that the hall is supposed to create in the city house is formed by the design of the exterior in the suburban house. The hall is more of a passage from the exterior to the interior. Otherwise the plan of the suburban apartment house is governed by the same principles that govern the plan of the city house.



A PROPOSED SUBURBAN APARTMENT HOUSE IN WHICH THE CHARACTER OF THE PRIVATE COUNTRY HOUSE IS SUCCESSFULLY RETAINED

ANDREW J. THOMAS, ARCHITECT



INTERIOR LOOKING WEST, SHOWING THE NAVE
(Courtesy of Metropolitan Museum of Art)

THE CLOISTERS—THE FIRST BRANCH MUSEUM OF THE METROPOLITAN MUSEUM OF ART

THROUGH the benefaction of John D. Rockefeller, Jr., the Metropolitan Museum of Art, New York, has been enabled to purchase the rich and varied collection of medieval art assembled by George Grey Barnard, sculptor, for the cloistered garden adjoining his residence in Washington Heights, New York. In addition to furnishing the money to acquire the building, collection and grounds, Mr. Rockefeller provided liberally for the maintenance of The Cloisters. A further gift from Mr. and Mrs. Rockefeller added a large group of medieval sculptures from the donor's private collection. Thus springs into being the first branch museum of the Metropolitan Museum of Art in New York.

The history of the collection briefly summarized in the official guide issued by the Museum constitutes an absorbing story. It was during one of his many long sojourns in France, about twenty years ago, that George Grey Barnard, an enthusiastic devotee of Gothic art, first conceived the idea of collecting examples of Gothic sculpture for the instruction and enjoyment of his art classes in New York. While Mr. Barnard could not compete with millionaires for the purchase of the most expensive examples of good art, he could, however, make use of his artistic knowledge and enthusiasm, and this

he did in a marked degree. Taking as a center of operation the site of some ruined abbey or church, he would visit the neighboring farms, for he had many times noticed that peasants would use the debris to serve for one utilitarian purpose or another. He found that a pigsty would yield the slab of a crusader's tomb, or an attic some long forgotten statue that had at one time graced an altar or church portal. For these reasons the collection assembled by Mr. Barnard is one of exceptional interest.

In the *May Bulletin*, the official publication of the Museum, Joseph Breck, Assistant Director, who has been in charge of the work at The Cloisters since its purchase in June, 1925, entertainingly writes:

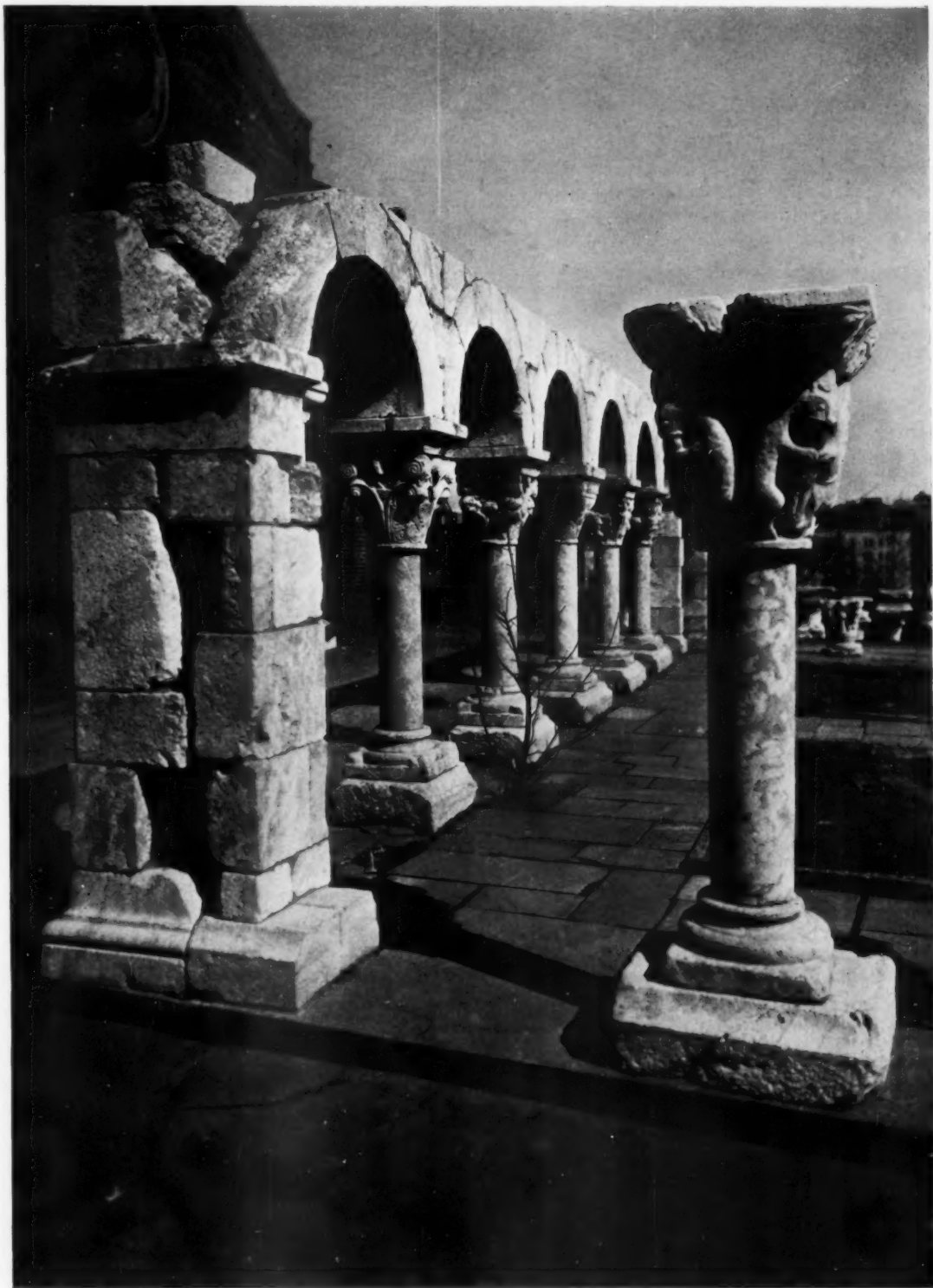
"The collection thus assembled includes many works of art of the very first order, but naturally it is not composed wholly of masterpieces. What collection is? On the other hand, in the sympathetic surroundings created by Mr. Barnard, each work of art is encouraged to reveal the full measure of its beauty.

"For those to whom the ideal museum is a collection of labels illustrated by specimens, The Cloisters will be a disappointment. Here is no lifeless aggregation of 'typical examples,' so classified,



THE ENTRANCE

(Courtesy of Metropolitan Museum of Art)



PART OF THE CUXA CLOISTER
(Courtesy of Metropolitan Museum of Art)

so ticketed, that the gentle voice of beauty is lost in the drone of erudition. On the contrary, The Cloisters is a shrine, where medieval art is not so much on exhibition as at home.

"In several respects The Cloisters differs from the usual museum of art. The collection does not include all phases of art, but is restricted to European medieval art of the Romanesque and Gothic periods; and this collection is shown informally, in a picturesque setting, which stimulates the imagination and creates a receptive mood for enjoyment.



XIVTH CENTURY STONE STATUE OF VIRGIN AND CHILD
(Courtesy of Metropolitan Museum of Art)

The opening of The Cloisters adds to the public institutions of New York a museum of sheer delight."

During the intervening period of the purchase and the actual opening of The Cloisters, a new entrance gate to the grounds and a house for the heating plant were constructed, the paths in the ground flagged and the Cuxa cloister garden laid out. The exterior of The Cloisters is of plain brick, except for two rare statues of Virgin and Child in niches, a gateway and some gargoyles projecting from under the eaves.

As one enters through the ancient type gate, there is at once the feeling of being transplanted for the moment to some isolated monastery of the Old World. The interior of The Cloisters, dim in candlelight, suggests a small medieval Basilica church. The room is approximately cruciform in shape, with a high altar to the east and divided into a

western and eastern half by a brick screen. The balcony corresponds to a triforium and the galleries beneath to aisles.

A profusion of objects has been embedded in the floors and walls of The Cloisters, as well as in the surrounding grounds. Ninth century French colonnades, primitive Italian frescoes, German, Flemish and Spanish fragmentary and complete sculptures, stained glass windows in the walls, tomb slabs and effigies in the floor, excellent examples of woodcarving—all these find their appropriate setting in the building. Everywhere, on brackets along the wall, on columns or balcony, are to be found statuettes of varying types and periods. From the official guide issued by the Museum, it is learned that parts of four different medieval cloisters are included in the collection. No one of the capitals or columns exhibited will be found to be a repetition of another, these being individually the carefully conceived idea of the particular architectural sculptor engaged in the work. One of the most interesting pieces of sculpture to be seen here is the Romanesque torso of Christ, in carved and painted wood. It should be noted that the painting and gilding of many of the sculptures are remarkably well preserved. This brief description would not be complete without mention of the truly remarkable bits of Old World ironwork to be seen in The Cloisters, stressing particularly the beautiful hanging chandelier in the center of the nave.

In establishing this branch museum, the Metropolitan Museum of Art has made available to the general public, as well as to the student, the most lavish collection of medieval art extant. This should prove a source of profitable study and much enjoyment to the art world in general and New York in particular.

BALTIMORE MUSEUM OF ART

BALTIMORE is soon to have a new building for its Museum of Art to be built from a million dollar fund provided by popular vote at the 1924 election, when an ordinance was passed with a safe majority in every ward of the city. The site of six acres in the most beautiful residential section of Baltimore was presented by the Johns Hopkins University.

The Municipal Art Commission has just selected Howard Sill of Baltimore, as architect of the Museum of Art. With him will be associated John Russell Pope of New York, who is the architect of several buildings of the Johns Hopkins University group. The new museum is to be conducted along lines generally similar to the policy of the Metropolitan Museum of Art in New York.

Until the new building is completed the Baltimore Museum of Art will continue to function in the house at 101 West Monument Street, which now belongs to a stock company formed by the trustees of the Museum.



EDITORIAL COMMENT



THE United States, in mere population growth during the past five years, has acquired more consumption power, or new potential markets, than if she had taken into her confines the entire population of Canada, or that of Australia and New Zealand combined. Canada in 1925 ranked second only to Great Britain as a customer for American exports.

The recently estimated population increase of 10,229,000 during the five years 1920-25, according to the National Industrial Conference Board, is 15 per cent more than the population of Canada and 40 per cent more than that of Australia and New Zealand; it is 38 per cent more than the 1920 population of all the New England states and 15 per cent more than the aggregate population of the Mountain and Pacific states.

On the basis that the 10,229,000 additional inhabitants of the United States comprise proportionately as many gainfully employed persons as did the total population of the country when the 1920 census was taken, the increase in the gainfully employed would number approximately 3,965,000. At the latest accepted calculation of average annual earnings per gainfully occupied person, according to the Board's study, the increase in population therefore would represent an approximate increase in national purchasing power of more than 5 1/2 billion dollars per annum.

In actuality, however, the total purchasing power of the people of the United States has increased considerably more than these figures would indicate, because of the generally reduced cost of living and the resultant higher "real" earnings since 1920, leaving a greater margin of surplus after the purchase of the necessities of life. This is clearly reflected, according to the Board, in the growth of savings of the American people, the accumulation of which has strikingly accelerated during the past five years as compared with previous years. While individual deposits in savings banks in the United States increased 40 per cent per capita in each decade from 1900 to 1920, they have been growing at the rate of 55 per cent per decade since 1920. Still more impressive is the rate of increase in life insurance policies in force, representing merely another form of saving, which from 1900 to 1910 increased 58 per cent per inhabitant, 115 per cent during 1910-20 and 104.5 per cent, or at the rate of 209 per cent per decade, since 1920. Savings as represented in the assets of building and loan associations have likewise shown a progressive rate of growth, having increased 14 per cent per capita from 1900-10, 120 per cent during 1910-20 and

105 per cent, or at the rate of 210 per cent per decade, since then.

This progressive rate of increase of savings, according to the Board, is the more significant because it has been concomitant with a rising standard of living, during a time when the automobile changed from a rare luxury to an almost everyman's utility, and during a period when such articles as phonographs, radios and telephones were more widely distributed in the United States than in any other country on earth. The wholesale value of passenger automobiles produced in the United States annually, for instance, rose from 6 cents per capita of total population in 1900 to \$21.77 per capita in 1925, while total per capita savings during the same period accumulated at a rapidly progressive rate of increase.

WHILE the annual report for the year 1925 of The Fifth Avenue Association of New York deals with purely local matters, it nevertheless treats of conditions that find a parallel in every large city in the United States.

We doubt if any group of men, organized to conserve the safety of a city's development, has worked harder or to more constructive ends than has The Fifth Avenue Association of New York. That Association has not only safeguarded, by prompt and vigorous action, the growth and æsthetic development of what is perhaps the most important and dignified commercial thoroughfare in the world, but it has studied the problems of every condition as affecting Fifth Avenue, and that is equivalent to a general regard for the entire city's development.

The report in question is a complete presentation of the activities of the Association during 1925, and will be of great suggestive value to those many groups throughout the country engaged in similar work. From this report we learn how strenuous has been the work to maintain the dignity of the Fifth Avenue section. Medal awards are made each year for the best types of new buildings. Begging and peddling on the Avenue have been prevented. The question of loitering, which at one time threatened the future of this section, has been met and successfully solved. Street noises have been eliminated; fake auctions find no lodgment here, and traffic regulations, as originally put in force, have served as models for the entire city. Withal a record of the best expression of civic pride backed by the most complete results. The report may be had by addressing The Fifth Avenue Association, 358 Fifth Avenue, New York.

NEW YORK CITY is soon to have a City Plan Commission. The wonder of it is that it has not had one before. With such a body functioning with a representative membership, the city will become safeguarded from the insidious attacks of predatory private and political interests. We may not worry over encroachments on park areas, of the schemes of special interests and all those many "grabs" that afford a certain type of politician an opportunity for self-advancement in loudly proclaimed championship of "the dear peepul." The time has passed when a city's growth may be safely left to the good taste of its inhabitants, particularly when the population is composed of so many different racial elements. There is needed just such a body of capable and experienced men, as we learn will constitute this commission, to watch development and see to it that no costly errors are made.

We learn that the names of those who will form this Commission are soon to be announced.

THE cultivation of civic pride is an essential of good citizenship. In a city of such mixed population as New York, one of the big tasks is to keep it clean and sightly. Those in our city government who are most directly interested in the tidiness of our out-of-door spaces have very wisely, at this season, set afoot efforts to impress the people with knowledge of existing ordinances that have been so generally ignored, and violation never adequately punished. Litter, as seen in parks and on streets, has become so general that it is now proposed vigorously to enforce the ordinances referring to this matter. In some sections of the city the sidewalks are never swept. The police department will strictly enforce the law, and it has been arranged that conviction following arrests shall find substantial punishment. A fine, or to a second offender a jail sentence, will do much to overcome a condition that was during last summer so very bad as to become a disgrace to the city.



THE STAIRCASE AND NORTH TRANSEPT—THE CLOISTERS

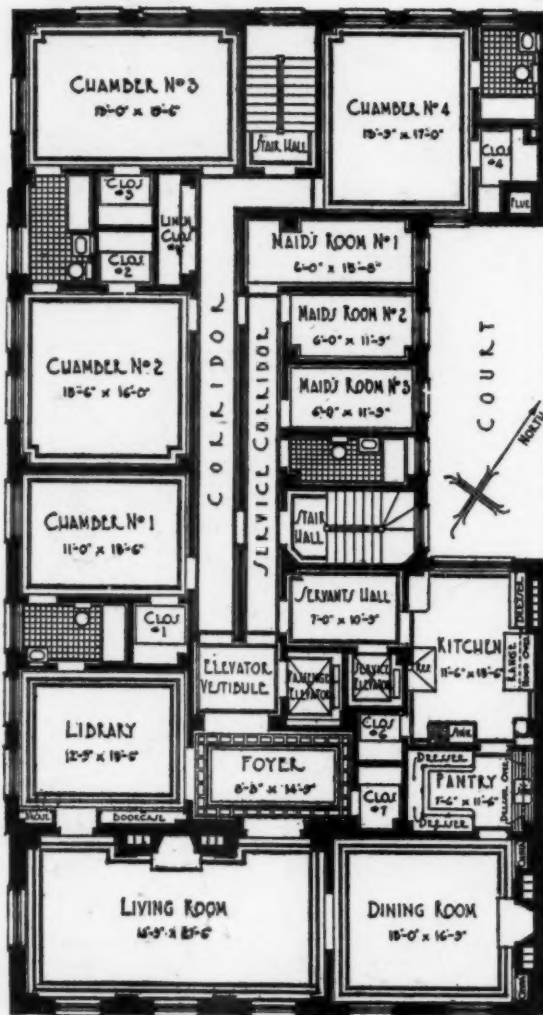
(Courtesy of Metropolitan Museum of Art)



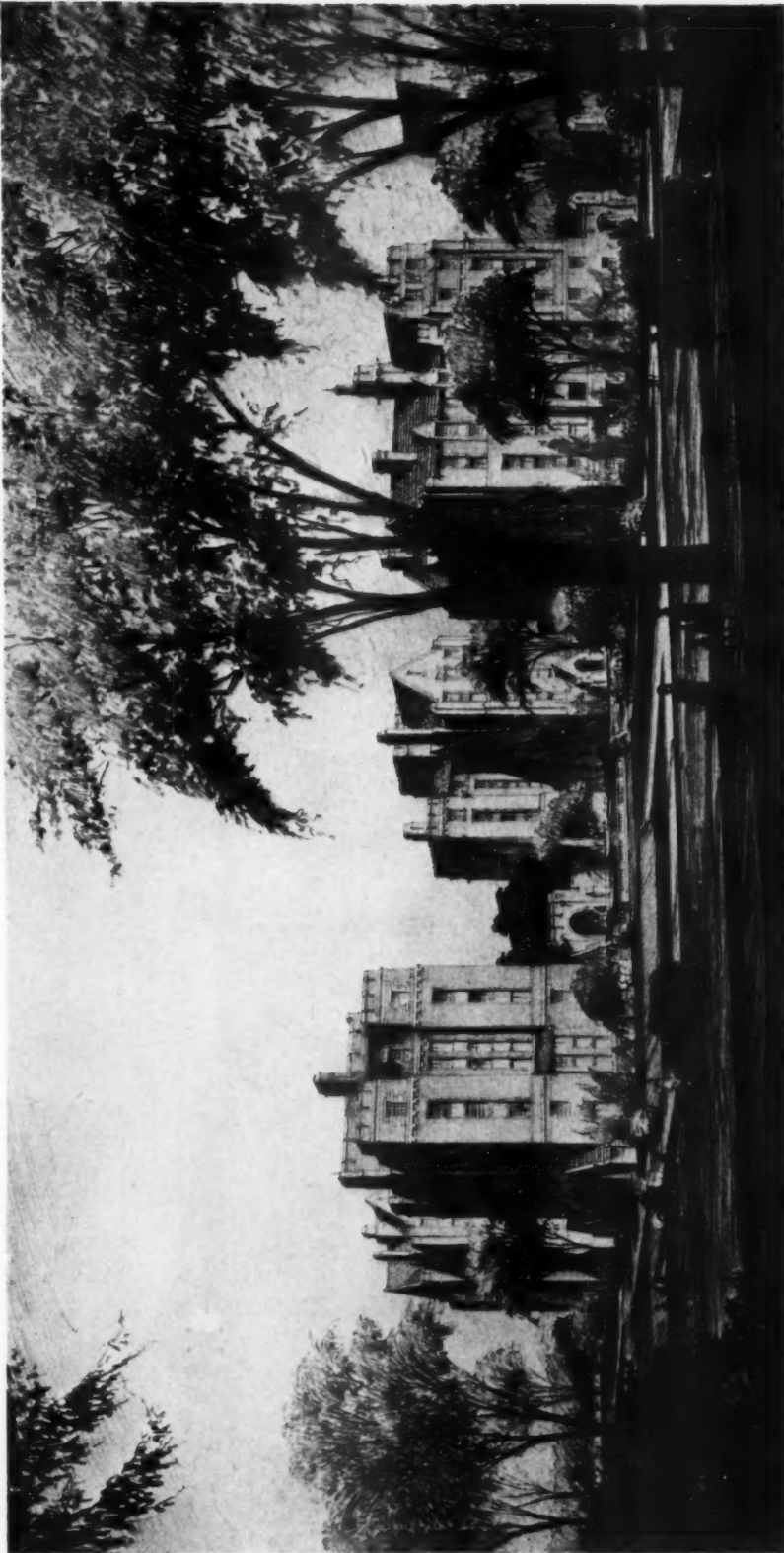
APARTMENT HOUSE AT 301 BERKELEY STREET, BOSTON, MASS.

PARKER, THOMAS & RICE, ARCHITECTS
(See plan on back)

THE AMERICAN ARCHITECT
June 20, 1926 PLATE 137



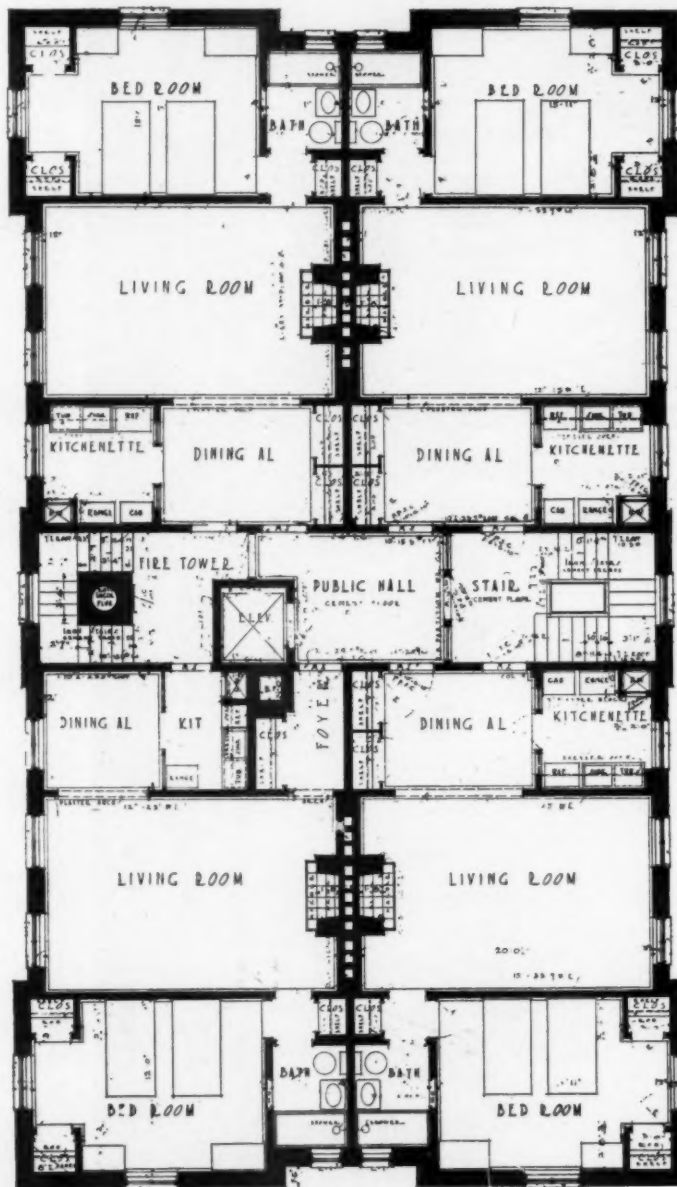
TYPICAL FLOOR PLAN
 APARTMENT HOUSE AT 301 BERKELEY STREET,
 BOSTON, MASS.
 PARKER, THOMAS & RICE, ARCHITECTS



FLEETWOOD HILLS COUNTRY CLUB APARTMENTS, FLEETWOOD HILLS, N. Y.

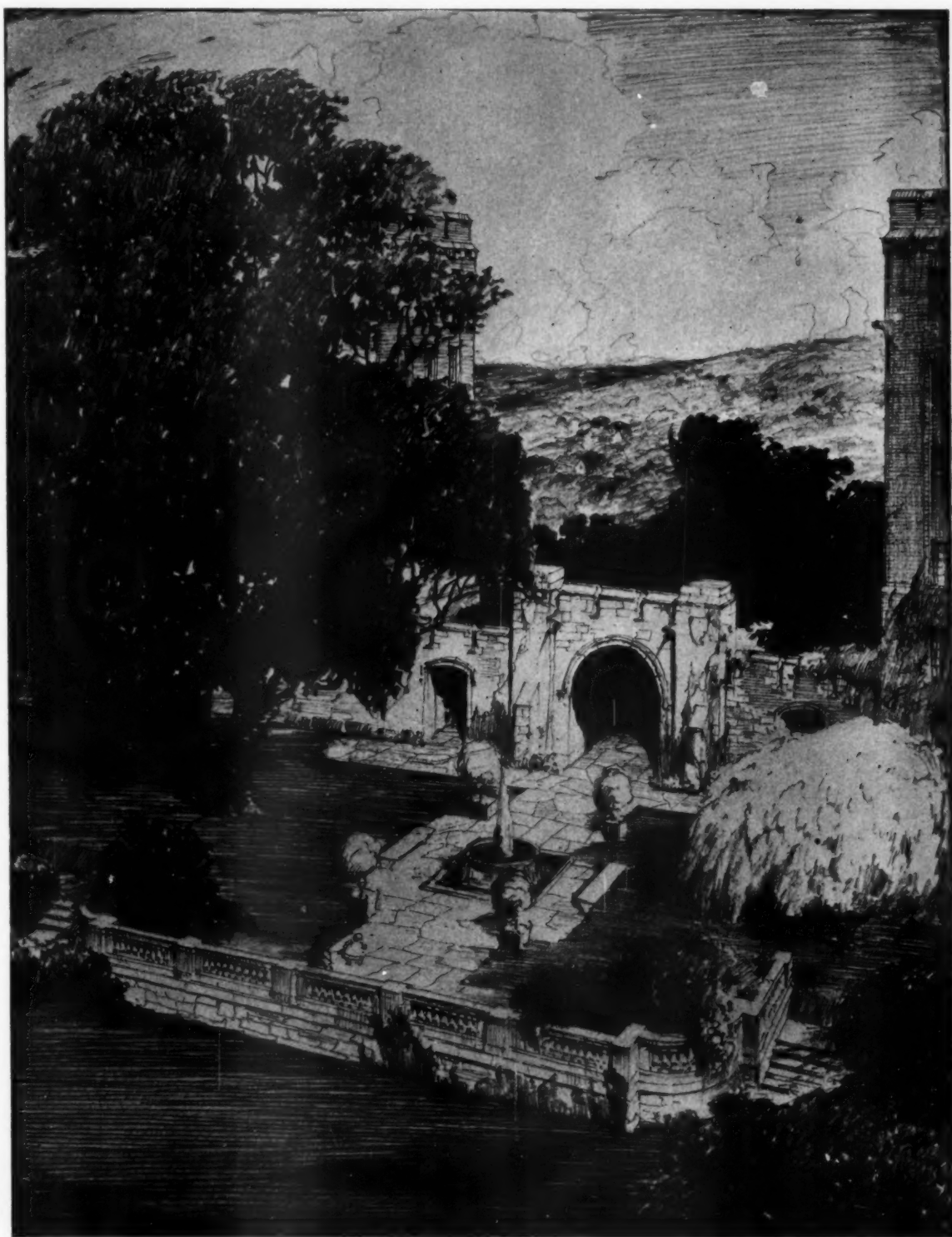
CLIFFORD C. WENDEHACK, ARCHITECT
(See plan on back)

THE AMERICAN ARCHITECT
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TYPICAL FLOOR PLAN OF ONE UNIT OF FLEETWOOD HILLS
COUNTRY CLUB APARTMENTS, FLEETWOOD HILLS, N. Y.

CLIFFORD C. WENDEHACK, ARCHITECT



THE GARDEN

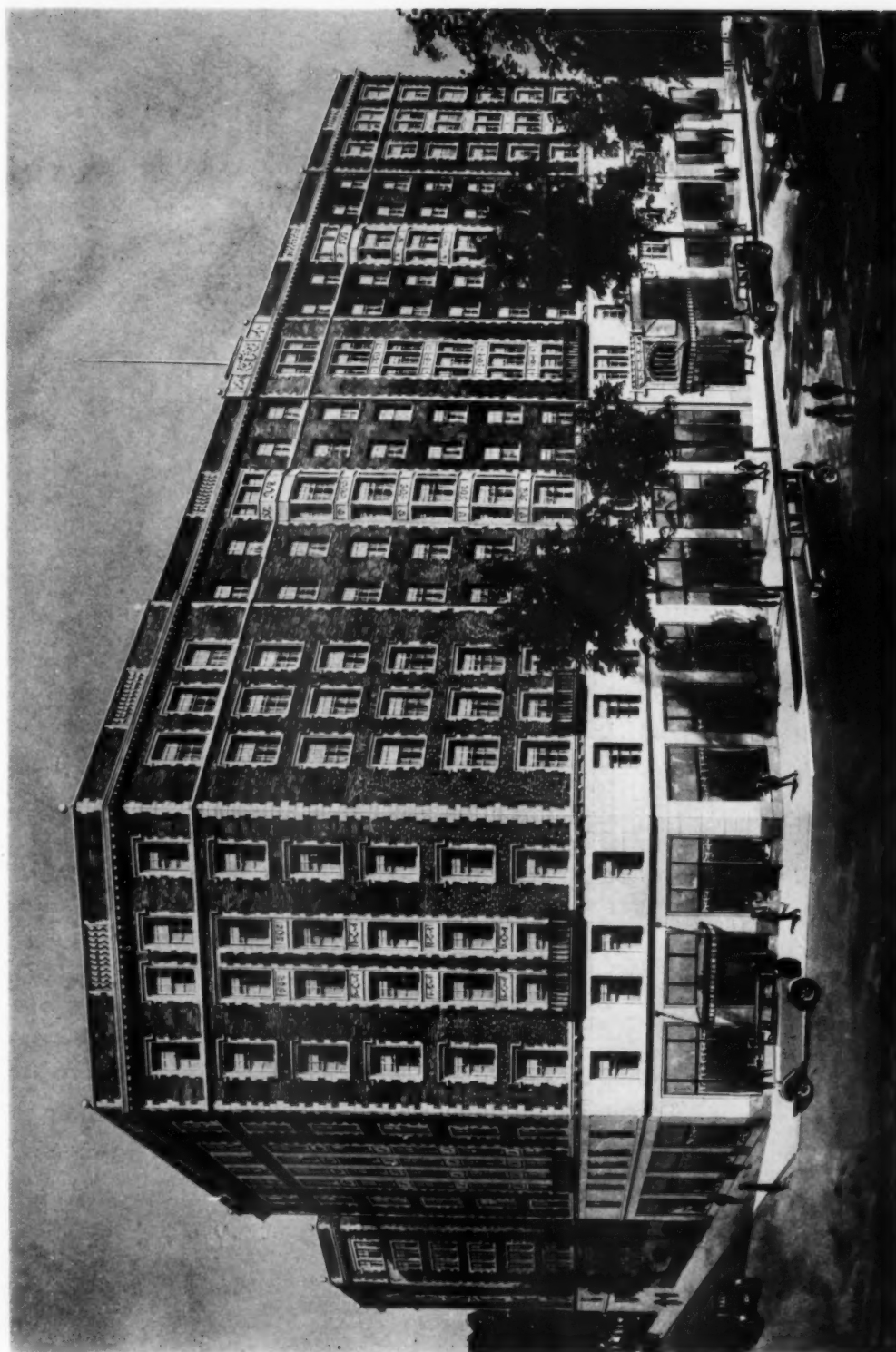
FLEETWOOD HILLS COUNTRY CLUB APARTMENTS, FLEETWOOD HILLS, N. Y.

CLIFFORD C. WENDEHACK, ARCHITECT

THE AMERICAN ARCHITECT

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PELHAM HALL APARTMENTS, BOSTON, MASS.

ARTHUR H. BOWDITCH, ARCHITECT

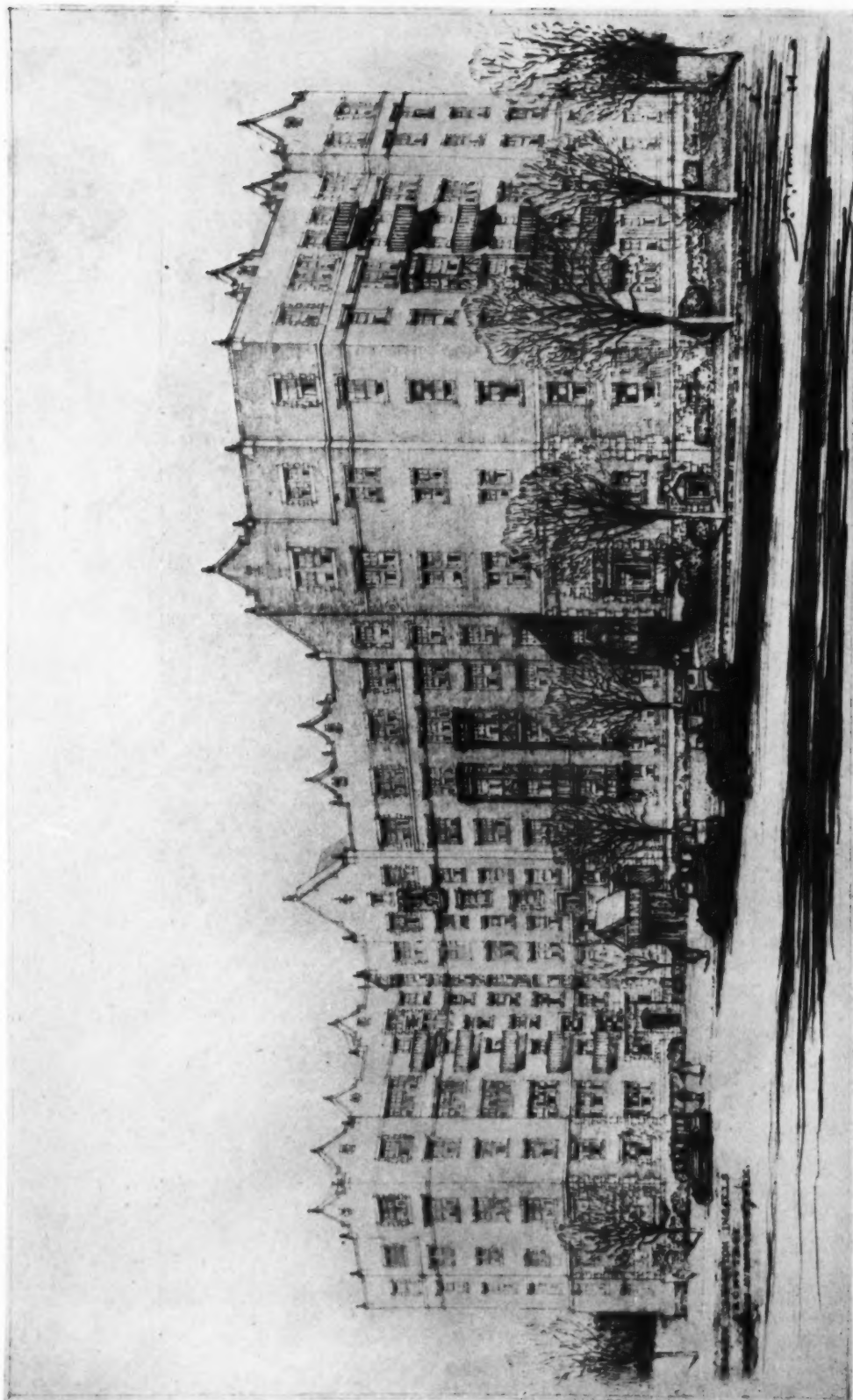
THE AMERICAN ARCHITECT

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ENTRANCE DETAIL, BEEKMAN MANSION, NEW YORK CITY
 VAN WART & WEIN, ARCHITECTS; TREANOR & FATIO, CONSULTING ARCHITECTS

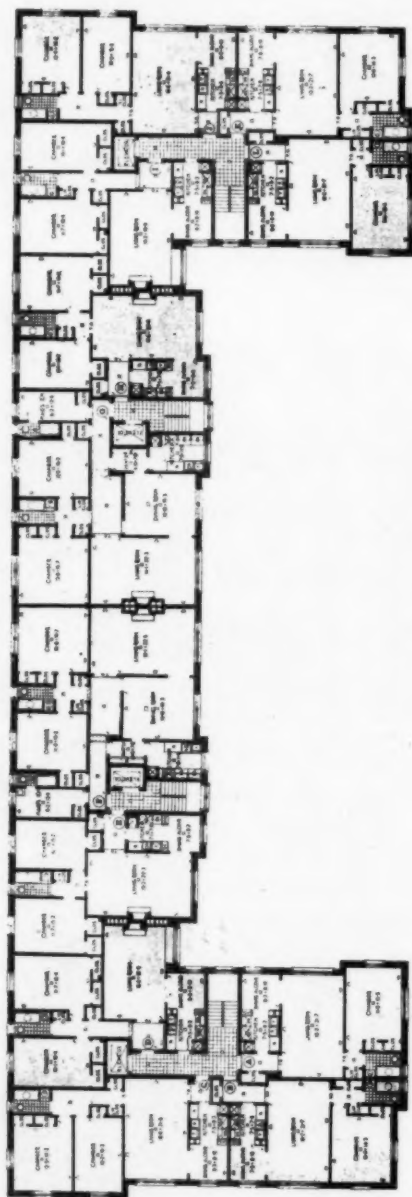
THE AMERICAN ARCHITECT
 June 20, 1926 PLATE 141



HALSTEAD APARTMENTS, WHITE PLAINS, N. Y.

HARRY CREIGHTON INGALLS, ARCHITECT
(See plan on back)

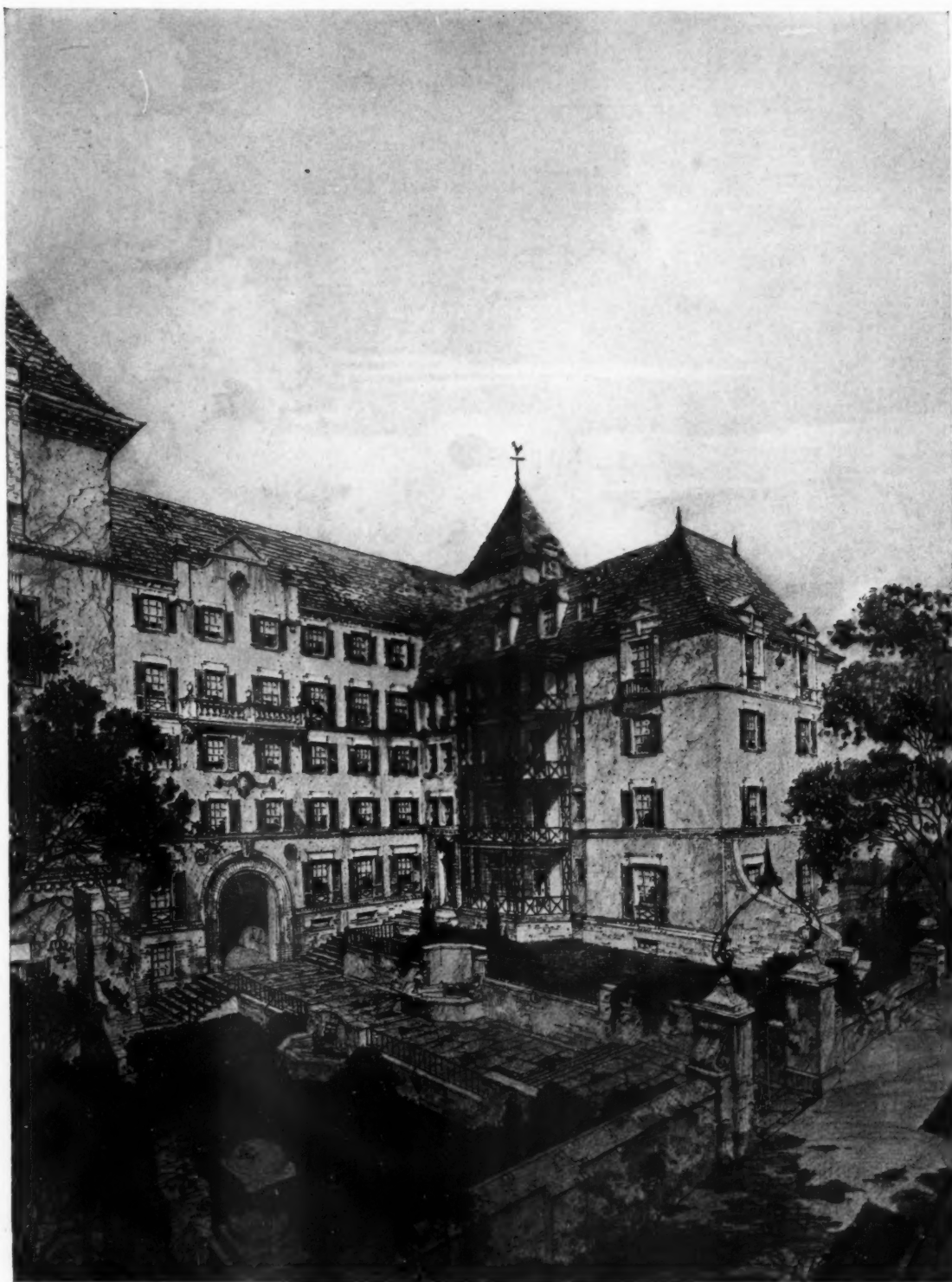
THE AMERICAN ARCHITECT
June 20, 1926 PLATE 142



TYPICAL FLOOR PLAN

HALSTEAD APARTMENTS, WHITE PLAINS, N. Y.

HARRY CREIGHTON INGALLS, ARCHITECT



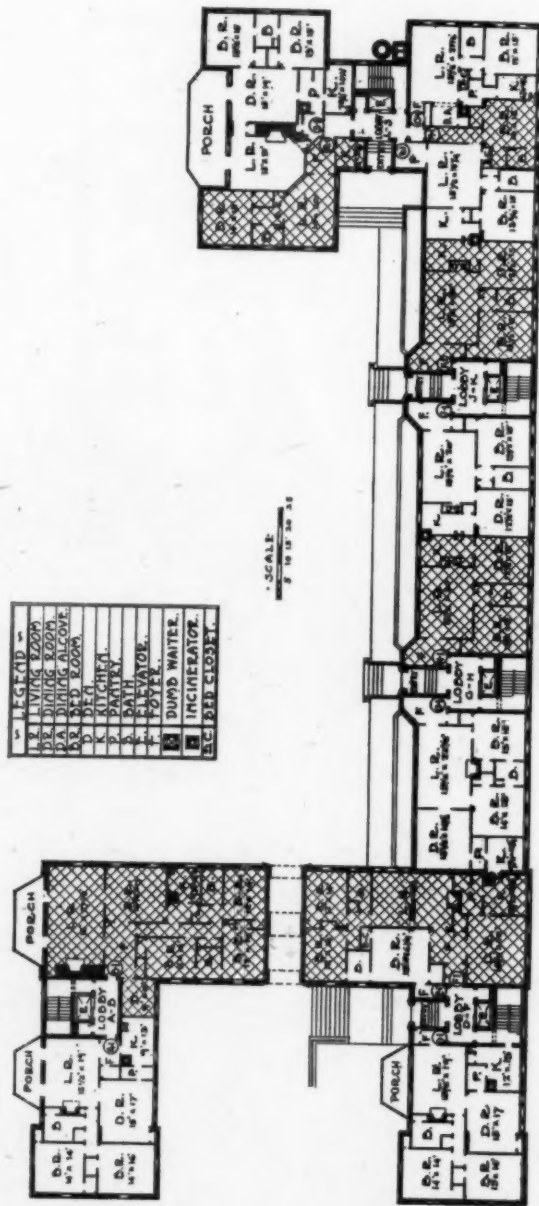
ROLAND PARK APARTMENTS, BALTIMORE, MD.

PALMER, WILLIS & LAMDIN, ARCHITECTS
(See plan on back)

THE AMERICAN ARCHITECT
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LEGEND
1. LIVING ROOM
2. DINING ROOM
3. BREAKFAST ROOM
4. KITCHEN
5. BATH
6. CLOSET
7. HALL
8. PORCH
9. INCINERATOR
10. DUMP WARE
11. REFRIG. CLOSET

SCALE
1" = 10' 0"



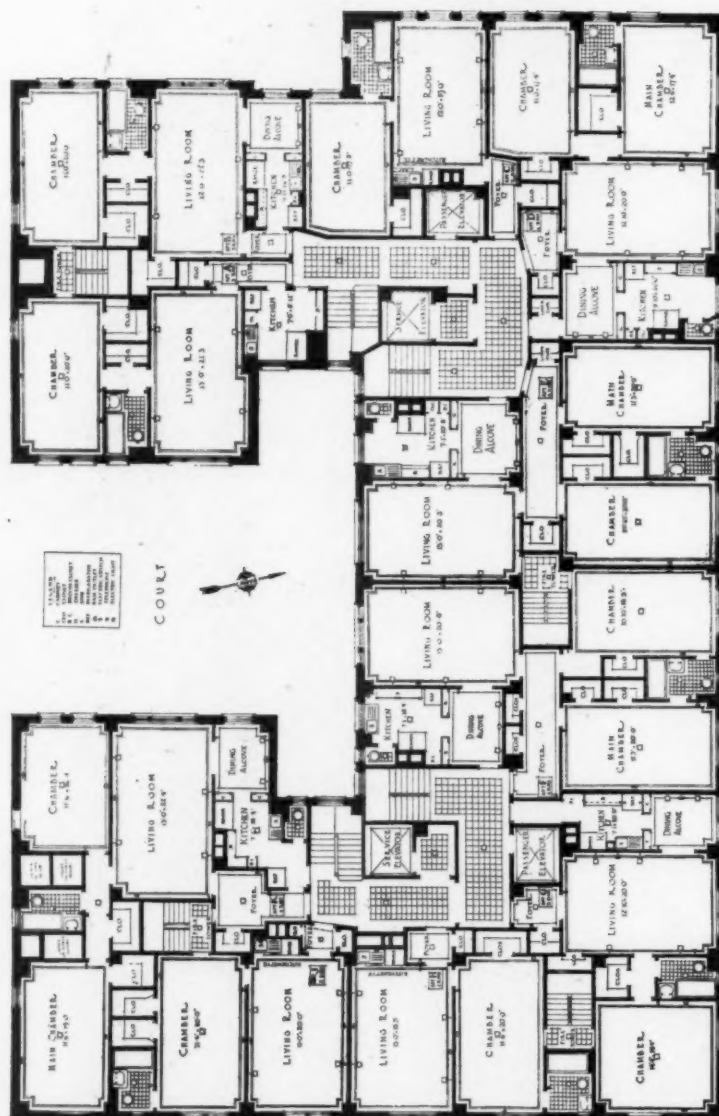
FIRST FLOOR PLAN
ROLAND PARK APARTMENTS, BALTIMORE, MD.
PALMER, WILLIS & LAMBIN, ARCHITECTS



APARTMENT HOUSE AT 30 FIFTH AVENUE, NEW YORK CITY

SCHWARTZ & GROSS, ARCHITECTS
(See plan on back)

THE AMERICAN ARCHITECT
June 20, 1926 PLATE 144





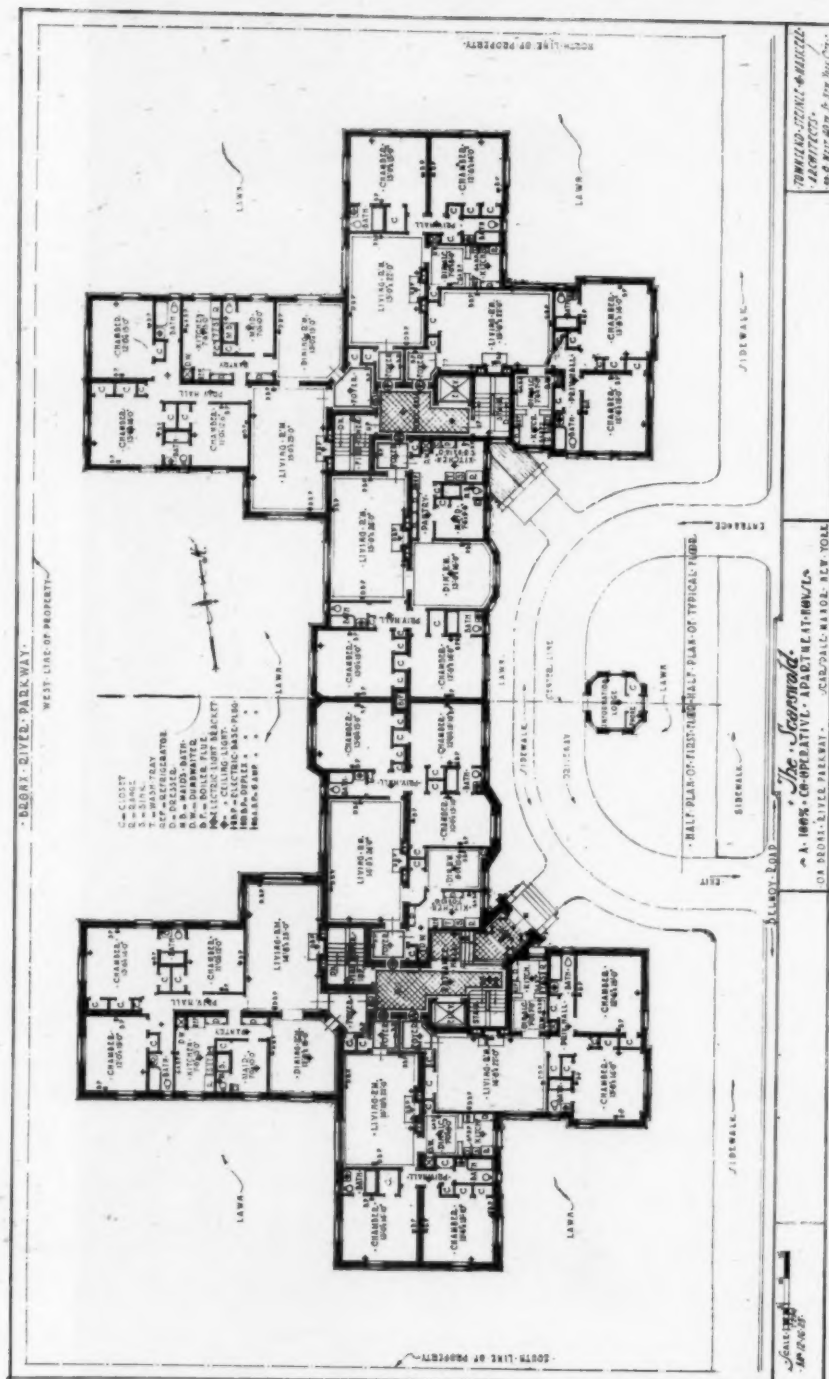
SCARSWOLD APARTMENTS, SCARSDALE, N. Y.

TOWNSEND, STEINLE & HASKELL, ARCHITECTS

(See plan on back)

THE AMERICAN ARCHITECT

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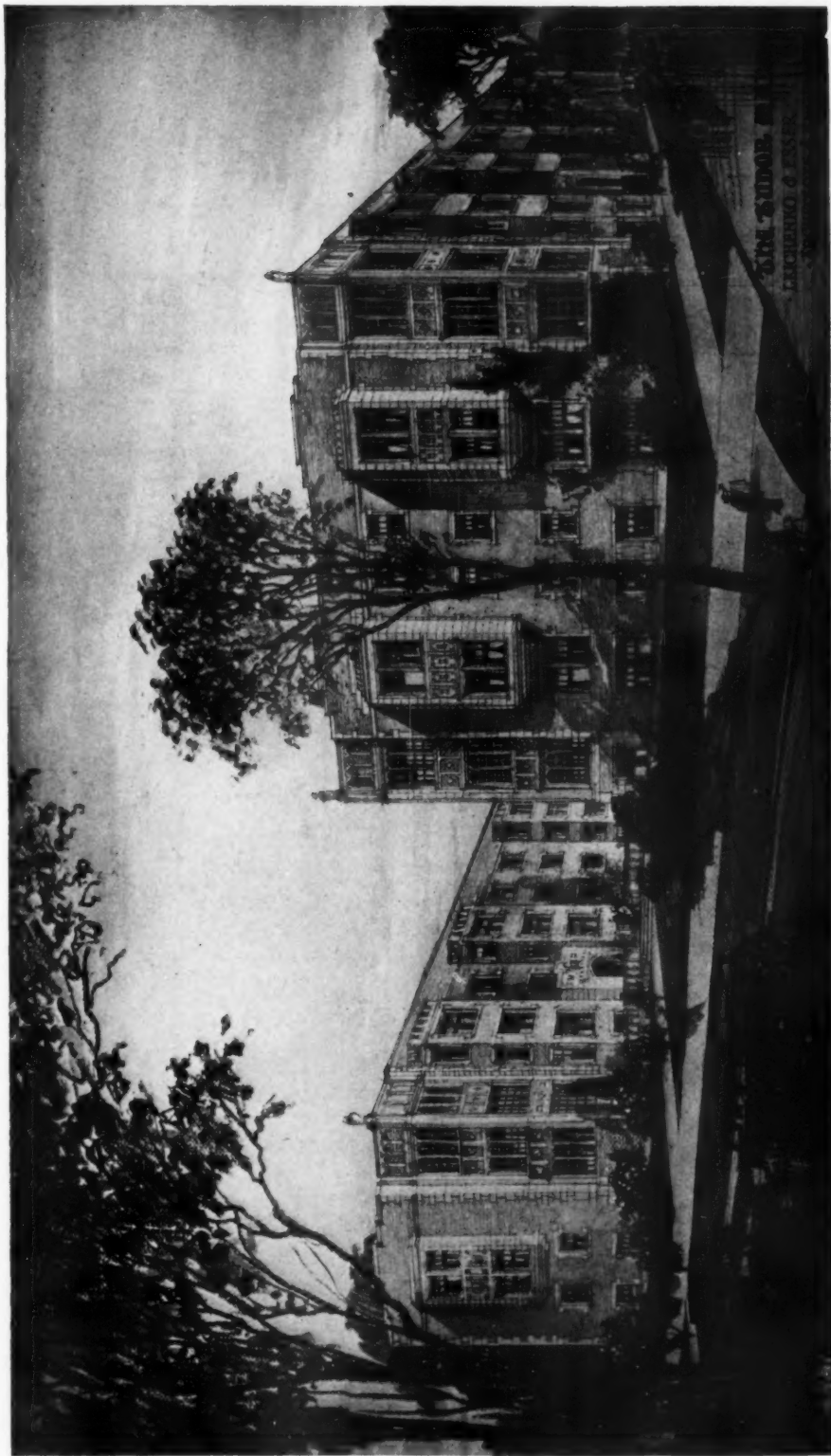


ENTRANCE DETAIL, THE TOWERS APARTMENTS, JACKSON HEIGHTS, N. Y.

ANDREW J. THOMAS, ARCHITECT

THE AMERICAN ARCHITECT
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TUDOR MANOR APARTMENTS, CHICAGO, ILL.
 LEICHENKO & ESSER, ARCHITECTS
 (See plan on back)

THE AMERICAN ARCHITECT
 June 20, 1926 PLATE 147



TYPICAL FLOOR PLAN
 TUDOR MANOR APARTMENTS, CHICAGO, ILL.
 LEICHENKO & ESSER, ARCHITECTS



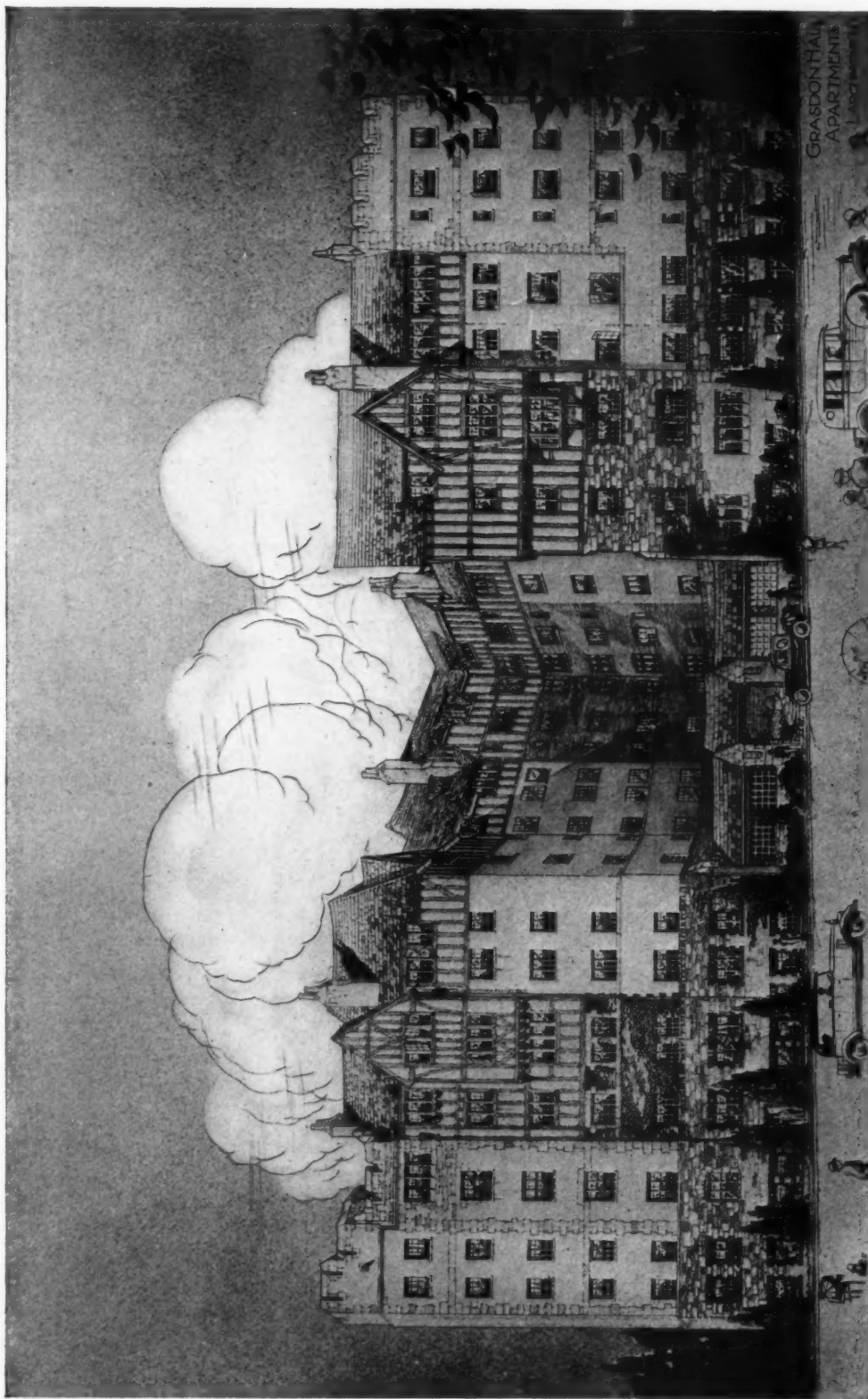
APARTMENT HOUSE AT 61 WEST 9TH STREET, NEW YORK CITY

SUGARMAN & BERGER, ARCHITECTS

(See plan on back)

THE AMERICAN ARCHITECT

June 20, 1926 PLATE 148



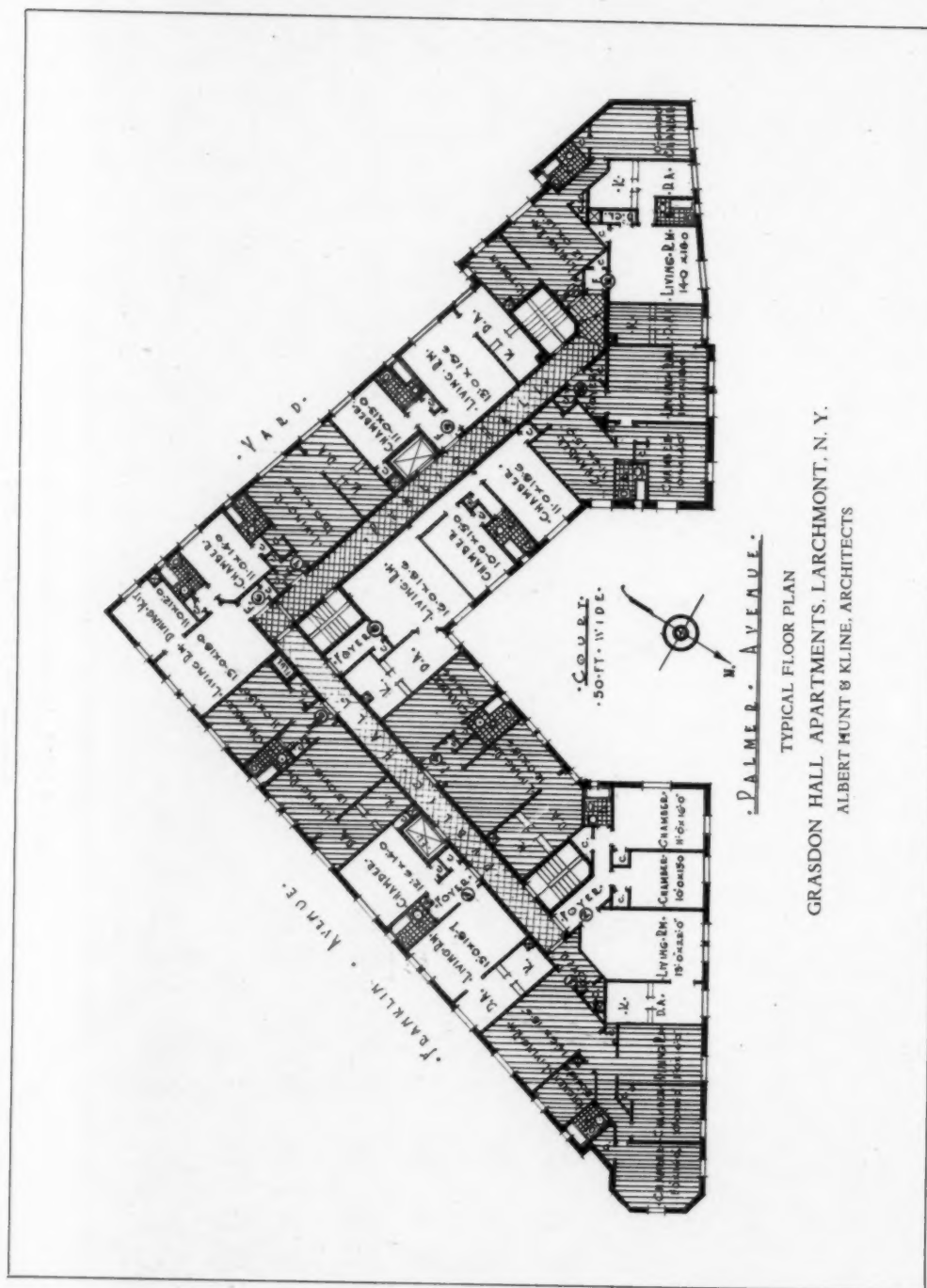
GRADDON HALL APARTMENTS, LARCHMONT, N. Y.

ALBERT HUNT & KLINE, ARCHITECTS

(See plan on back)

THE AMERICAN ARCHITECT

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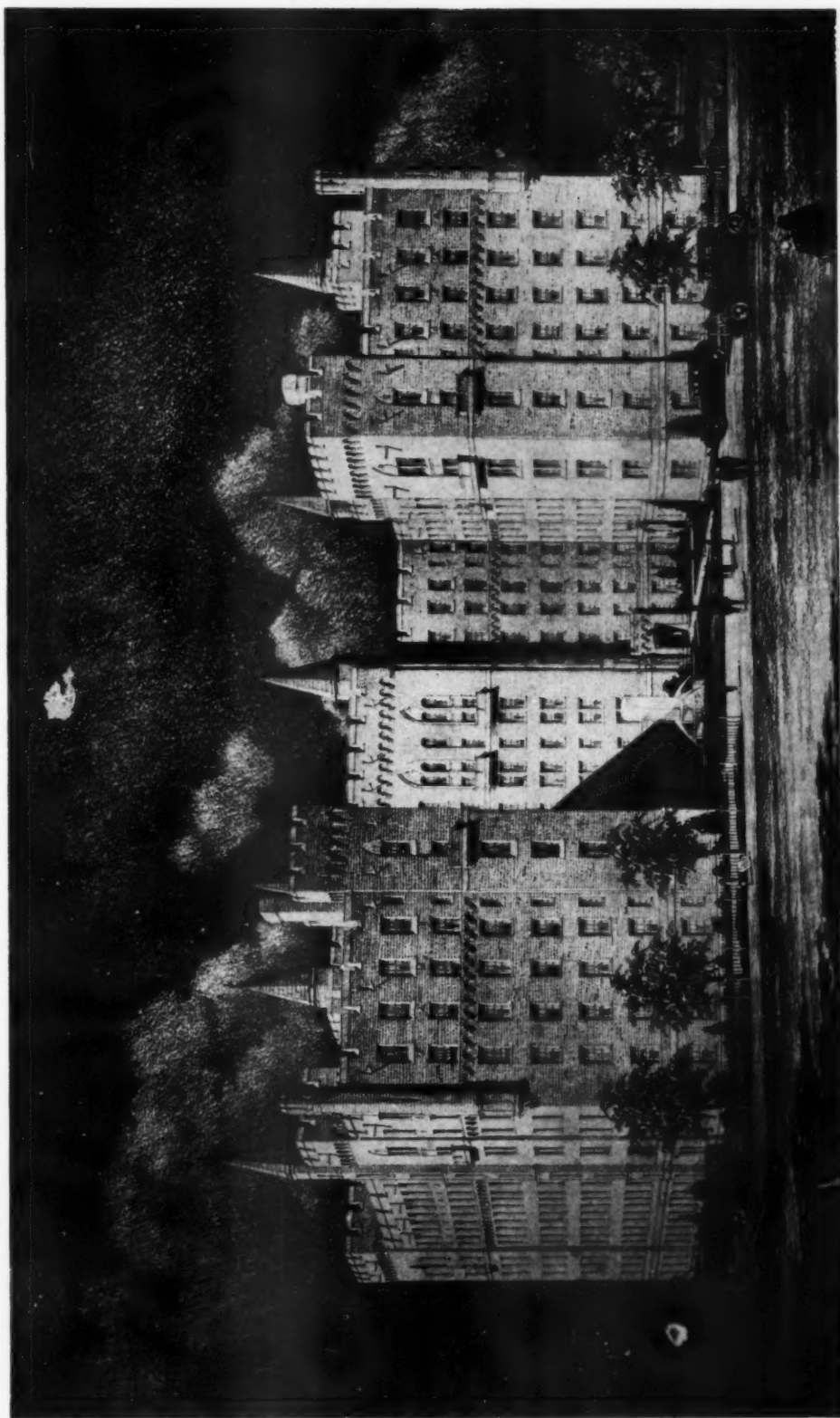
FRANKLIN AVENUE.

Y&D.

GRADDON HALL APARTMENTS, LARCHMONT, N. Y.
ALBERT HUNT & KLINE, ARCHITECTS

30-FT. WIDE.

Palmer Avenue.



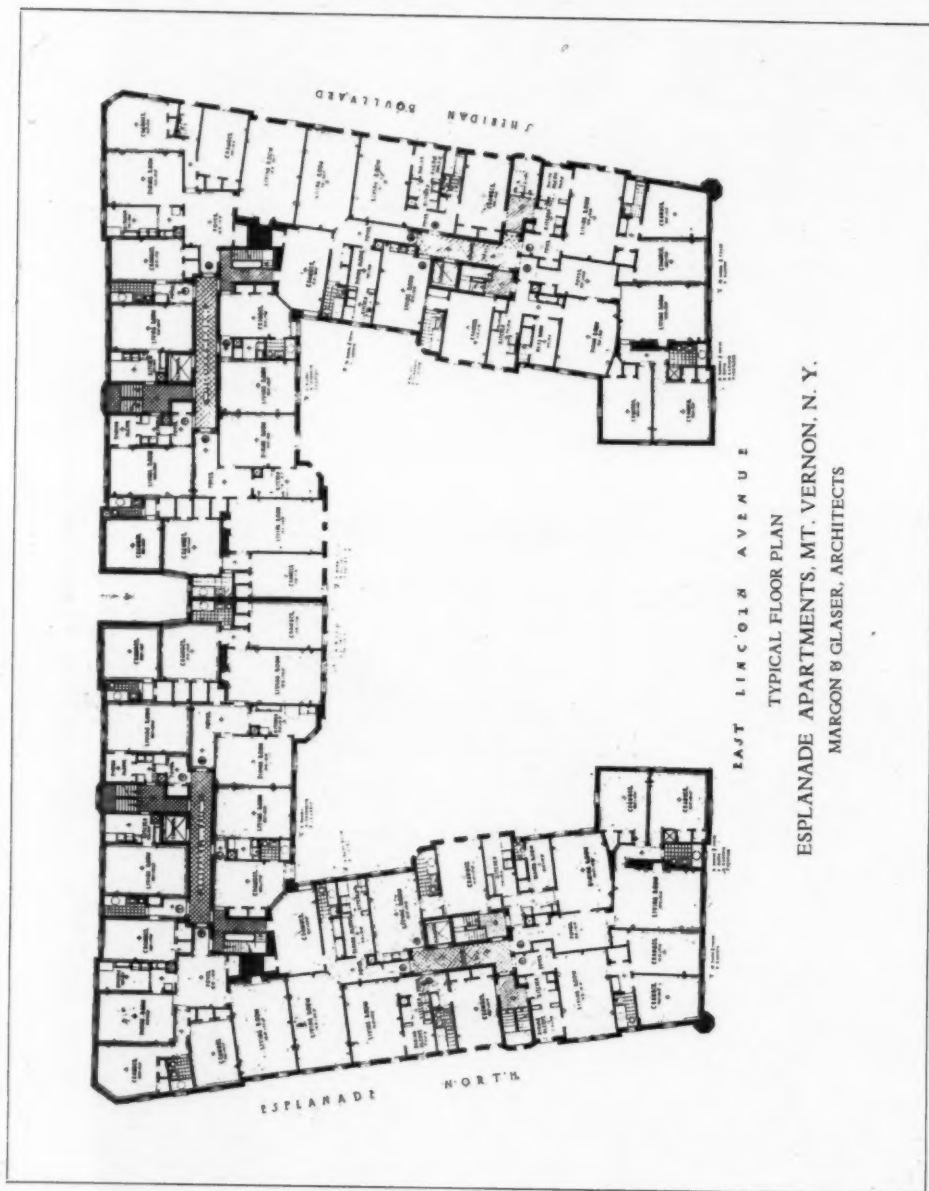
ESPLANADE APARTMENTS, MT. VERNON, N. Y.

MARGON & GLASER, ARCHITECTS

(See plan on back)

THE AMERICAN ARCHITECT

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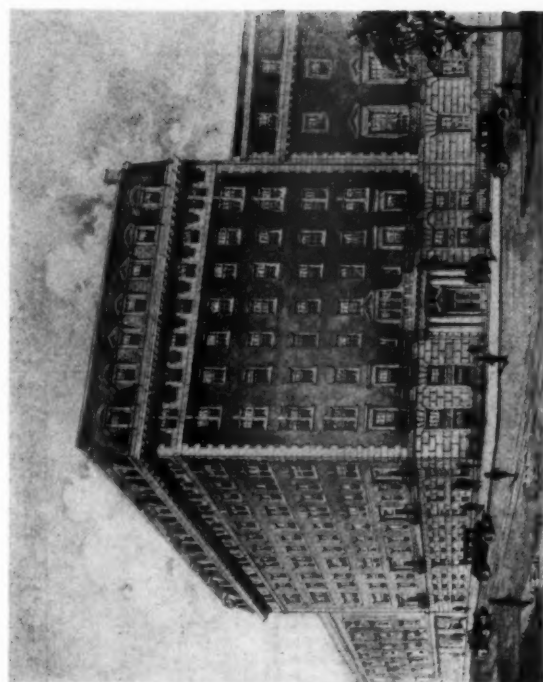
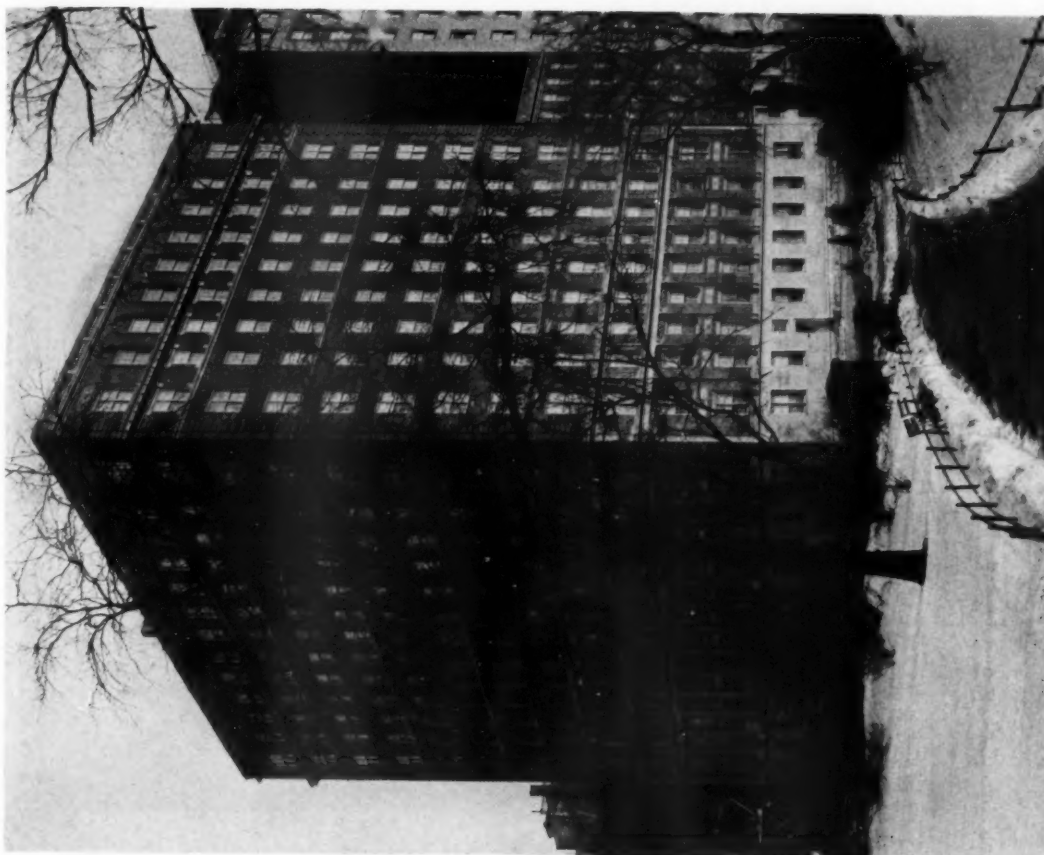


GRIFFING APARTMENTS, DANBURY, CONN.—ROUSE & GOLDSTONE, ARCHITECTS



PRESIDENT WILSON APARTMENTS, JAMAICA, N. Y.—SHAMPAN & SHAMPAN, ARCHITECTS
(See plan on back)

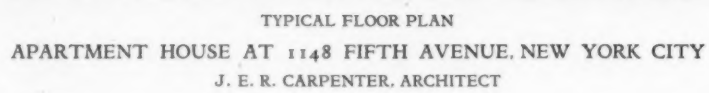
XUM



ABOVE: ELIOT APARTMENTS, BOSTON, MASS.
HAROLD FIELD KELLOGG, ARCHITECT

AT LEFT: APARTMENT HOUSE AT 1148 FIFTH AVENUE, NEW YORK CITY
J. E. R. CARPENTER, ARCHITECT
(See plan on back)

THE AMERICAN ARCHITECT
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INTERIOR ARCHITECTURE

THE INTERIOR OF APARTMENTS

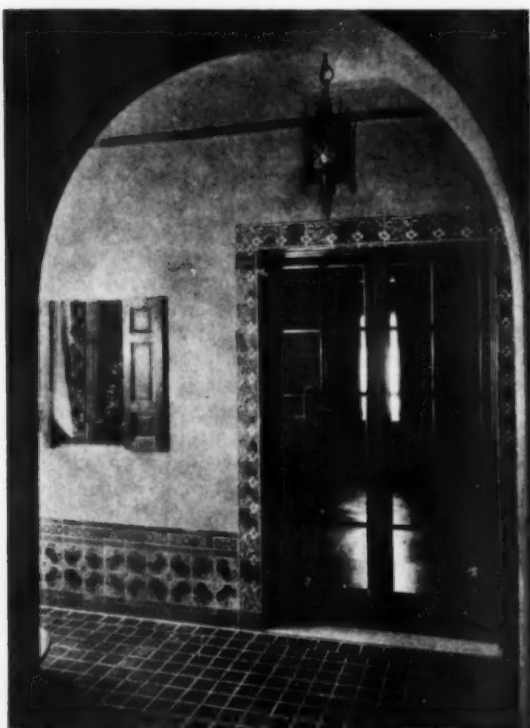
THE apartment of today makes its greatest appeal by its plan, or arrangement of rooms, which so successfully masters the pressing social and economic problems of the times. Its future, or its permanency as a housing institution, for others than a certain nomadic class of dwellers, depends, however, almost wholly on the refining of many of its details, suggestive of private domestic life. This, in essence, is a problem in architecture, and its greatest difficulties arise in the design of the interior. Such inconsistencies as fixed heights of ceilings, irrespective of the floor area of rooms, and ill-proportioned rooms, present themselves, and a serious question is to be met with in how best to treat the design of a room that serves alternately during the day as a living room and dining room and at night as a bedroom. Yet it is due to such incongruous ideas as these that the economic value of the apartment house, on which its success is based, is attained.

The care exercised in locating windows in apartment houses, to retain a symmetrical arrangement of the interior walls which they penetrate, is, unfortunately, not evidenced in other phases of the design of the interior. In order to allow of a window in every room, so that "every room is an outside room," according to the renting agent, the plan of rooms is frequently of awkward proportions, and daylight is intensified and poorly distributed. Ceilings are invariably too low to allow of good design and details are entirely lacking in scale and structural significance. The lack of ownership by the occupant of the premises which he chooses to make his home has a decided tendency to eliminate any suggestion of individuality in the design of the interior—an element which influences so strongly the interior design of the private house. The general temporary occupancy of apartments further emphasizes this fact. A peculiar problem is here pre-



MAIN FOYER IN APARTMENT HOUSE AT 295 ST. JOHN'S PLACE, BROOKLYN, N. Y.

SHAMPAN & SHAMPAN, ARCHITECTS



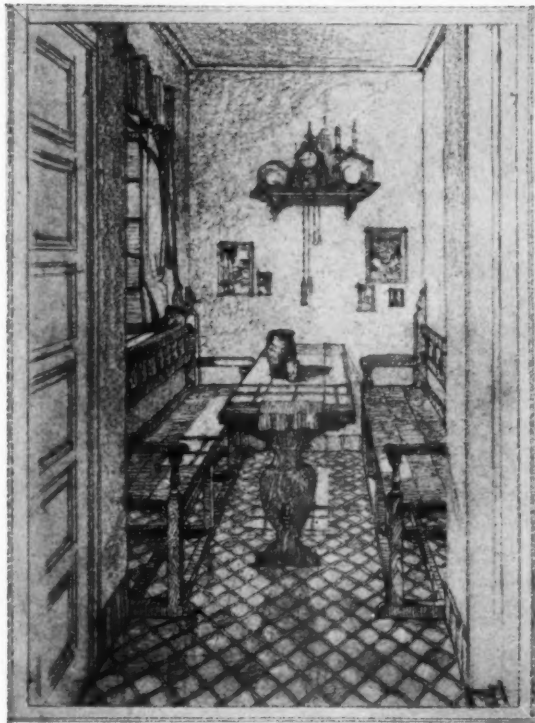
ENTRANCE HALL IN AN APARTMENT HOUSE
ANDREW J. THOMAS, ARCHITECT

sented to architects. Rather than attempt to give material expression to the peculiar tastes and individuality of their clients, according to their wont, architects must so design the interior of the several rooms of each apartment that they may be readily decorated and redecorated to suit the individual tastes of the ever-changing tenants. It stands to reason, therefore, that the design must be free from decided period ideas, unmolested by stylistic ornamentation and enrichments; in other words, neutral in character, confined exclusively to structural details, avoiding the decorative element entirely.

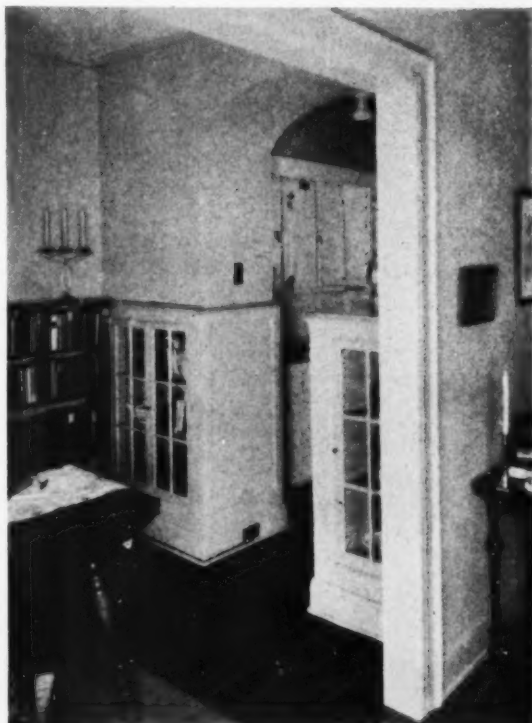
The decoration of an apartment thus becomes somewhat superficial. Structural significance gives way to effect. The problem resolves itself into transforming overnight, so to speak, at a minimum cost, a Louis XVI salon into an old English lounge. Modern American manufacturers realized the situation and grasped their opportunity. A craftsmanship that may justly boast of keen creative ability, combined with artistic knowledge, has produced materials to meet this emergency by which the charm of a handcraft tile floor, the interest of hand hewn timbers and the fascination of hand modeled plaster are retained without the necessary structural preparations that always accompany the original products. By their use, individuality is introduced into a design purposely lacking in individuality, and the apartment is made a home, instead of being merely "three rooms and bath."



TYPICAL LIVING ROOM IN SPRUCELYNN APARTMENTS, LARAMIE, WYO.—WILBUR A. HITCHCOCK, ARCHITECT



DINING NOOK IN AN APARTMENT HOUSE, NEW YORK
ANDREW J. THOMAS, ARCHITECT



DINING ALCOVE, LATHAM APARTMENTS, COLUMBUS, OHIO
MILLER & REEVES, ARCHITECTS



DINING ALCOVE IN A CO-OPERATIVELY OWNED HOUSE, BROOKLYN, N. Y.—CAUGHEY & EVANS, ARCHITECTS



TYPICAL LIVING ROOM IN HUDSON VIEW GARDEN APARTMENTS, NEW YORK CITY

GEORGE FRED PELHAM, INC., ARCHITECTS



INTERIOR OF AN APARTMENT IN A CO-OPERATIVELY OWNED HOUSE AT 1 PIERREPONT STREET, BROOKLYN, N. Y.

CAUGHEY & EVANS, ARCHITECTS



IN AN APARTMENT AT JACKSON HEIGHTS, NEW YORK
ANDREW J. THOMAS, ARCHITECT



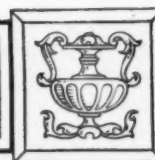
IN AN APARTMENT AT ROCHESTER, N. Y.
WALTER S. LEE, ARCHITECT



LIVING ROOM IN THE LATHAM APARTMENTS, COLUMBUS, OHIO—MILLER & REEVES, ARCHITECTS



ENGINEERING AND CONSTRUCTION



STEAM CLEANING A STONE BUILDING

By H. H. DUTTON

*Research Associate, Indiana Limestone Quarrymen's Association Fellowship,
Bureau of Standards, Washington, D. C.*

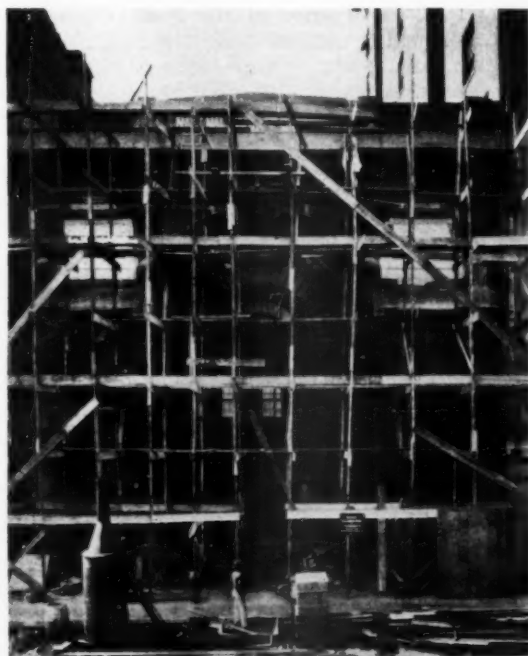
(PUBLISHED BY THE PERMISSION OF THE DIRECTOR, NATIONAL BUREAU OF STANDARDS.)

THE rapidly changing demands of the present day commercial world frequently make necessary the remodeling of old structures or the erection of additions. In practically every case, and especially in industrial cities, the exposure of the walls to many years of smoke and dust has resulted in a darkened exterior to which the color-tone of new material presents an undesirable contrast. Attempts are usually made to clean the old wall surfaces by the various means suited to the materials involved and it is with a process recently evolved for cleaning Indiana limestone that this article deals.

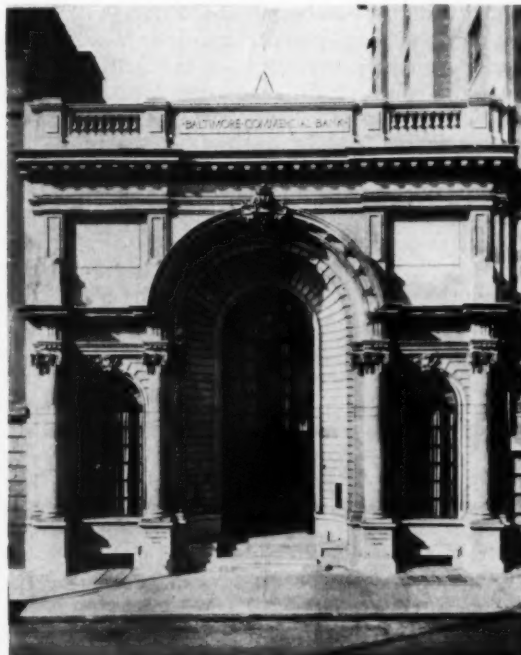
Near South and Redwood Streets in Baltimore, Maryland, the Baltimore Bank of Commerce was

erected in 1905, just after the great fire. In 1925 the building was bought by the Baltimore Commercial Bank and remodeled. The raised letters of the original bank name and two large ornaments above the windows on either side of the entrance were cut off the wall, leaving these areas of freshly tooled stone which contrasted markedly with old surfaces surrounding them. A choice of either coloring the new areas to match the much darkened stones adjoining them or of cleaning the entire wall to bring the surface to one tone was made necessary. Attempts at coloring having failed, it was decided to clean the building.

The use of sandblast or acid upon Indiana limestone is not recommended. The finished sur-



The contrast between the old and the freshly tooled surfaces where the original bank name and the ornaments above the windows, on either side of the entrance, were cut off will be noted. The 40 horse-power boiler in the foreground supplied the steam used in the cleaning process



The Baltimore Commercial Bank Building after the cleaning process. A slightly weathered appearance resulted from the use of the steam method of cleaning. Sandblasting or acid cleaning restores the original color of the stone, but has an injurious effect on its surface

face of the stone is damaged when sandblasted, as the pores are opened and the stone so roughened by the cutting action of the sand that it catches the dirt more readily than before and becomes dirty more quickly than when first set in the building. With cleaning solutions containing acids insufficient rinsing, practically always noted, frequently causes efflorescence and disintegration of the surface, particularly in the case of carved work, which affords an opportunity for the solution to be caught in pockets in the ornamentation where its concentration may lead to very unfortunate results. Besides the possible destructive effect of the acid on the stone the resulting color is usually objected to as being "dead" and totally unlike the true tone of the stone.

A request for advice in this matter was made of the writer, who is carrying on the research work on Indiana limestone at the Bureau of Standards, Washington, D. C., under the co-operative research program undertaken by that institution and the Indiana Limestone Quarrymen's Association, Bedford, Indiana. Problems connected with the cleaning of stone are included in this program and considerable experimental work has already been done on that problem. The purpose of this phase of the research is to develop an economical, safe and efficient method of cleaning that would take the place of the rather slow and costly scrubbing down of old stonework, without resorting to any detrimental procedures such as sandblasting and acid washes. Scrubbing the stone with wire brushes and soap powder solutions would ordinarily have been suggested for the Baltimore job, but on account of the extremely large amount of molded and carved stone on the building it seemed probable that such a method would prove too slow and laborious. The results of a number of experiments with the use of live steam blown directly against the stone had indicated that this scheme might be of great value in cleaning off old stonework, especially in just such a case as this where the steam jet could easily reach the sinkages and deep pockets in the stonework.

A demonstration of this method was made in Baltimore on a piece of the old stone which had been removed from the building, after which the architects and owners agreed to have the steaming done. Since this was the first job ever to be attempted on a large scale, no estimate of the time or cost was possible and an arrangement was made with the general contractor and the stone contractor to proceed on a time and material basis.

After erecting the scaffolding and setting up the 40 horse-power boiler, the work was commenced with a foreman and three laborers under the supervision of the writer. The building was first washed down with water to remove the loose dust and grime. Three ½-inch rubber steam hose lines connected to a 1 ½-inch riser pipe run up the face of the building were used to blow live steam

at 80 pounds per square inch pressure directly against the stone through the nozzles. These nozzles were made of pieces of ¾-inch pipe flattened down at one end and fitted with quick-acting shut-off valves. Asbestos gloves were supplied to the men handling the hose lines. Except for the occasional inconveniences of the vapor obscuring the work of blowing, when pockets in the carvings were being cleaned out, there was no difficulty experienced in using the steam.

A water hose was used continuously both to wet down the stone before steaming and to wash it down after steaming. Most of the surface was easily cleaned, but under the cornice and other projecting members there were areas of an almost pure black deposit which could not be readily removed by the steam alone. An analysis made of scrapings of this material showed it to be practically all carbon with a slight amount of siliceous matter which probably acted as a binder. When hardened on the surface of the stone this sort of deposit can hardly be scratched with a wire brush under strong pressure, and about the only means of removing it is by grinding it off with carborundum bricks and sandstone or sand. Deposits of this nature are usually found in similar situations, where the smoke and grime of industrial cities come in contact with the stone over long periods of time. In this case a weak solution of ammonium bi-fluoride was used to loosen the material, and steam was then applied and a comparatively complete removal of most of the black deposit resulted from the repeated application of the solution and the steam. A large amount of time was spent on this part of the work, the cornice alone requiring about two days out of a total of eight days for the entire job.

The general appearance of the complete job was quite satisfactory to both architects and owners, although it was noted that the stone was not quite the same light tone as when first erected. Sandblasting by cutting off the entire seasoned surface and thereby spoiling the stone could have produced the original color, or if acid had been used a lighter bleached appearance would have resulted, although the "dead" effect would most likely have been noticeable.

Considering the cost of the work the following time and material record will be of interest. Because of the difference in labor charges in various parts of the country no hourly rates are given and no total charge is shown.

Erecting and tearing down scaffold:		
Carpenters	166	hours
Laborers	96	"
Hauling scaffold and boiler to and from job:		
Truck time	35	hours
Laborers	14	"
Engineer's time:		
Setting up boiler and firing	82 ½	hours
Washing and steaming the building:		
Foreman's time	70	hours
Laborers	188	"

Fuel used on job:
3 tons soft coal
Pointing up after cleaning:
Mason's time 32 hours
Material supplied:
Rough lumber for scaffolding
72 feet 1 1/2-inch galvanized pipe
3 50-foot lengths of rubber steam hose
3 pipe nozzles with quick-acting valves
Asbestos gloves, pipe fittings, water hose, etc.

It will be seen that the cost of the scaffolding was a major part of the expense and much of that could have been eliminated if there had been sufficient time to procure a ladder scaffold. There is no reason why this work could not be done from a swing scaffold if men accustomed to working on such a footing can be secured.

While the labor for the pointing is listed as part of this schedule it will be understood, of course, that this item must be included no matter what method of cleaning is used.

Reviewing the results of this practical trial of the steam cleaning of limestone, the following statements may be made:

1. The use of live steam blown directly against the stone was found to be amply effective in cleaning the major portion of the surface of the twenty-year-old wall.

2. The steam jets were very effective in reaching the dirt in sinkages and in molded work where but little could have been done either with brushes or washes.

3. Deposits of carbon and siliceous matter did not yield to the steam alone but did respond to treatment with a weak solution of ammonium bifluoride combined with steaming.

4. In this particular case the resulting weathered appearance after steaming was considered desirable from an architectural standpoint.

5. No injurious effects were noted after steaming. Neither the heat from the steam nor the force of the blowing made any appreciable difference in the existing surface condition of the stone.

6. The job was done quickly and at a favorable cost in comparison with a bid received for acid cleaning. The equipment was easily assembled and handled by common labor.

7. It is believed that the use of steam would be advantageous both for cleaning dirt or soot from new work and in the cleaning of old buildings where a rapid and non-injurious low cost method is desired, especially where the detail or scheme of ornamentation is such as to make the use of brushes difficult.

In conclusion, the writer wishes to express his appreciation of the willingness of the architects and owners to engage in the trial of a hitherto untried process. Thanks are also due the general contractors and the cut-stone contractor to whose hearty co-operation a large part of the success of the experiment was due.



THREE-EIGHTH-INCH PIPE NOZZLES, WITH QUICK-ACTING VALVES, CONNECTED WITH ONE-HALF-INCH RUBBER STEAM HOSE SUPPLIED THROUGH A ONE-AND-ONE-HALF-INCH RISER, USED IN CLEANING THE SURFACE OF THE STONE

LIGHTING EQUIPMENT FOR THEATRES

ARCHITECTS interested in theatrical, decorative and spectacular lighting will find catalog M, recently issued by Kliegl Bros., a valuable addition to their materials and equipment files. The catalog illustrates and describes special equipment used in theatres and for similar purposes, from spotlights and sciopicons for producing scenic effects to lamp guards, footlights, aisle lights and dimmers.

COLOR STAINING OF CONCRETE

IN A booklet recently received from the A. C. Horn Company of Long Island City, N. Y., Keramik, a color penetrant for concrete surfaces, is described as to its application and the results attainable. The booklet is 8 3/4 x 11 inches in size, illustrated in color and contains 27 pages. The subject is well presented, and should find a place in the files after a careful reading.

MODERN STUCCO WORK

THE Portland Cement Association has recently issued for the use of the architectural profession a valuable booklet covering the subject of Portland cement stucco. The booklet is illustrated in color and describes numerous stucco finishes. Methods of



ILLUSTRATION FROM "PORTLAND CEMENT STUCCO," PUBLISHED BY THE PORTLAND CEMENT ASSOCIATION

application of the various coats and the operations required to secure these finishes are illustrated by means of a series of progressive photographs. Condensed specifications, recommendations on design and construction, construction details and other valuable data are included. Booklets of this nature are highly commendable and should be found a useful addition to architects' construction files.

A BIBLIOGRAPHY ON RESEARCH

A BIBLIOGRAPHY of articles relative to industrial research that have appeared in the current technical press in this country and abroad has been issued by the National Research Council. The booklet lists about 1,500 articles selected during the years 1923, 1924 and 1925. The articles as grouped, arranged and indexed, follow the numerical reference numbers of the Engineering Societies' Library and enable references to any particular subject to be readily found. The booklet contains 46 pages, is 6 x 9 inches in size and may be obtained from the National Research Council, Division of Engineering and Industrial Research, 29 West Thirty-ninth Street, New York.

SLATE ROOFS

A MANUAL FOR THE ARCHITECTURAL PROFESSION

SLATE Roofs is the title of a valuable publication recently issued by the National Slate Association. This book, as stated in the foreword, is the result of the active co-operation of architects, slate producers and distributors, roofing contractors, and many other authorities. The essence of all the information supplied to the Association and to the Structural Service Bureau and its consulting architect, D. Knickerbacker Boyd, has been incorporated into a book of unusual value to the architectural profession.

Information on slate and its proper use, heretofore scattered, has been brought together in one volume. Slate roofs have been placed in four general classes, which are clearly described. Slate as a material for roofing is described as to its characteristics, color, grading, quality, sizes, etc. A comprehensive section on the laying of slate has been incorporated, as well as chapters on flashings, roof construction, including tables of rafter sizes, and other valuable general data.

The chapter on Slate Color Nomenclature and the geographical distribution of American roofing slates is of more than ordinary interest. The proper location and punching of nail holes as well as data on slaters' nails is information of much value toward securing permanent roofs.

The complete and short form standard specifications for metal work and four different types of slate roofs, which can be incorporated directly into architects' specifications, will be found invaluable.

Albert Kelsey, F. A. I. A., has written a chapter on the "Possibilities in the Use of Slate."

Slate Roofs is of standard filing size, 8½ x 11 inches, contains 84 pages, and is fully illustrated with photographs and drawings.

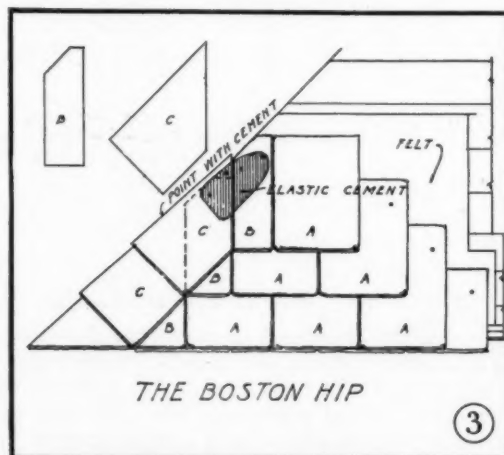


ILLUSTRATION FROM "SLATE ROOFS," PUBLISHED BY THE NATIONAL SLATE ASSOCIATION

AUTOMATIC ELEVATORS FOR APARTMENT HOUSES

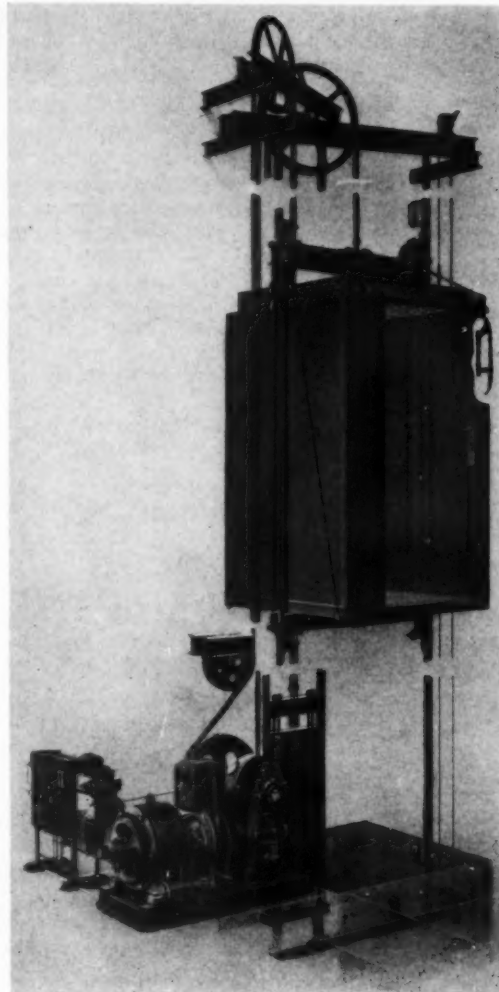
THE apartment house problem, as it involves the elevator question, automatically divides itself into two classes. In the smaller towns the apartment house usually begins as a three or four story building, and twenty years ago very few of them included an elevator installation. Gradually, competition among buildings developed, until some sort of elevator became a necessity in furnishing proper service to tenants. The expense of maintaining two or three operators for an elevator in a small building of this kind was almost prohibitive, so that the builders immediately turned to the automatic elevator, which was most suitable prior to that time for private residences, with their extremely light traffic requirement.

This type of elevator soon became very popular, and its use spread very rapidly throughout the smaller apartment buildings, even up to five, six and seven story buildings of fairly limited floor area. The principal objections, of course, were the comparatively slow speed required in order that accurate floor stops might be made, and the unfamiliarity of the ordinary apartment house tenant with the operation. This latter feature, however, was soon overcome, and in a remarkably short time even visitors to the apartment were familiar with the operation and had no hesitancy about operating the car themselves.

As apartment houses became larger in area and increased in height, there was a desire to adapt the automatic elevator to the larger buildings, on account of the saving in operating expense. The objection, however, was the fact that with the automatic type of operation then in use, the proper service could not be rendered the higher buildings because of the feature whereby the elevator could only serve one floor at a time, and intending passengers on other floors were obliged to wait until the elevator reached its destination and completed its trip.

From this condition there was developed the dual control elevator, which consisted of a combination controller, permitting the use of either car switch operation or automatic push button operation by means of a throw-over switch. This permitted the use of operators on the elevator during the morning, noon and evening rush hours, and changing the machine over to automatic operation during the periods of light service, thus requiring part time of only one operator and leaving him free to devote the rest of his working day to other purposes.

The smaller apartment houses are now very extensively scattered throughout all parts of the country. However, in New York and other large cities the congested conditions have forced the use of much larger buildings for apartment house purposes, starting from eight and ten stories and now running up to twelve or sixteen floors or more, with large floor areas. This type of building demanded entirely different elevator service, and practically

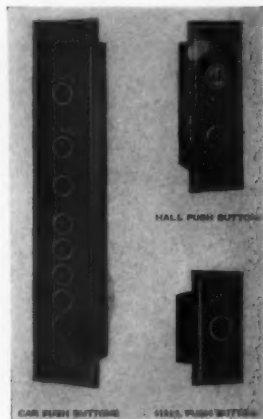


GEARED PUSH BUTTON ELEVATOR SHOWING OVERHEAD SHEAVES, CAR AND COUNTER WEIGHT WITH PANEL BOARD, HOISTING DRUM AND MOTOR LOCATED IN THE BASEMENT. THE LATTER IS OFTEN PLACED ABOVE THE SHAFT AS A FLOOR SPACE SAVER

equaled the service required in hotels. Automatic elevators, therefore, were very seldom used in this type of building, and, in fact, were prohibited in New York City for apartment house service until a few years ago.

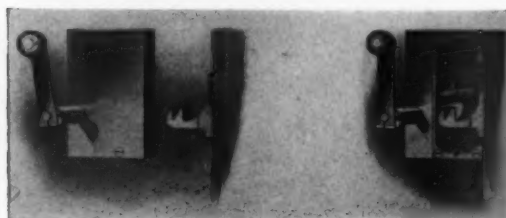
The development of the signal control elevator, operating at speeds up to 800 feet, made it possible to develop, with the aid of the Micro-Drive operation, a new form of automatic control, known as collective control, which will completely revolutionize elevator service in even the largest apartment houses. This type of control, with automatic operation, provides speeds which will make it applicable to the highest type of apartment building.

and exact level landings will be accomplished even at high speeds by the Micro-Drive operation, which is an inherent part of this type of control. With the further combination of unit multi-voltage, there is provided the smoothest possible acceleration and re-



AT LEFT: TYPICAL CAR AND HALL PUSH BUTTONS FOR AUTOMATIC PUSH BUTTON ELEVATORS

BELOW: DOOR INTERLOCKS SHOWING DOOR OPEN, ALSO DOOR CLOSED WITH COVER PLATE REMOVED TO SHOW INTEGRAL ELECTRIC CONTACT AND LATCH IN LOCKED POSITION



tardation, giving comfort to the passenger at these speeds with automatic control.

The higher speed and the Micro-Drive are essentials which make this type of elevator adaptable to the large apartment houses and also for other types of buildings, but the principal feature which makes it possible is the control which permits of the car automatically taking care of all passengers by stopping at floors on which buttons have been pressed, in the direction for which the car is traveling. This is an adaptation of the signal control feature, and makes the elevator, in fact, as efficient in picking up passengers as the ordinary car switch elevator with an operator and signals to indicate floors on which passengers have pressed a button, no operator being required with collective control.

An additional feature of this type is the automatic return of the car to a stated position after it has completed its trip in response to the pressure of a button in the car by a passenger. This can be so arranged that during the morning hours the car will be "parked" at the top of the hatchway, and after it has answered a call and picked up one or more passengers and has stopped at the first floor to let them out, it will immediately, upon closing of the hatchway door, automatically return to the top of the hatchway, to be ready for the next call. This saves considerable time for the next waiting

passenger. During the evening rush hours the parking station may be transferred to the first floor, so that after the car has taken passengers up and the last one has left the car, it will automatically return to the first floor and be ready for the next call.

In some of the larger buildings, where more than one elevator will be required, they can be so interconnected that both cars will answer calls, the automatic feature also preventing duplication of service, in that the second car will only be called into operation after the first car has received a certain number of calls, and will be automatically shut down as soon as the first car is able to take care of the calls registered.

In the smaller type apartment houses the location of the elevator hatchway is somewhat determined by the surrounding rooms and the construction of the hatchway, so that no noise may be transmitted to the bedrooms. In the larger and more substantially constructed buildings this is not quite so much of a factor but should be given due consideration.

The larger dimension of the platform should always be its width, in order that passengers in the rear of the car will not have to force their way any great distance past others in front of them, this being the general shape of all elevator platforms—that is, fairly wide and shallow. The size, of course, depends entirely upon the capacity of the elevator machinery, based on the carrying capacity per square foot, and in many cities this is definitely set by code requirements covering the average weight of passengers. For a small apartment house elevator, lifting 1,500 lbs. at a speed of 150 feet per minute, a platform about 5' 4" wide x 4' 4" deep would be suitable. For 2,000 lbs. at 200 feet, the width could be increased to 6' 6", with a depth of 4' 6". In the larger buildings, with duties of 2,500 lbs. at 250 feet per minute, and 2,000 lbs. at 300 feet per minute, the platforms could be 6' 6" x 5' 6" and 6' 0" x 5' 0", respectively. These latter two duties are only applicable to the higher apartment houses in the larger cities, and with considerable floor area. The use of collective control will now permit of even higher speeds and installation in larger buildings, so that the speeds may be increased to 450 to 600 feet per minute, with capacities of 2,000 to 2,500 lbs. In other words, this type of control will remove practically all limitations of service up to 600 feet per minute.

In the larger type of buildings the elevator machines are invariably placed overhead, and in some of the smaller buildings they are still placed in the basement, as was formerly the practice when elevators were of the drum type. With the inauguration of the geared traction type of elevator the machines have been placed overhead wherever possible. In the smaller apartment houses the location of the hatchway, as regards the rooms, has some bearing on the location of the machine itself.

On ordinary rheostatic types of elevators the penthouse can be approximately the same size as the width of the hatchway in that direction, and two or three feet larger toward the front of the hatch. Where machines are used having unit multi-voltage control greater space should be provided toward the front, of approximately six to eight feet, and be slightly wider than the hatchway. Representatives of elevator companies consider each individual case and give the working dimensions required for machine rooms, depending upon the surrounding conditions in the building.

With the geared machines, having counterweights in the back of the hatchway, the clearances between the platform and the walls of the hatchway normally required for average conditions will be about 7" at the sides, 12" in the rear and 1 1/2" in the front.

The height required from the top landing to the top of the overhead supports, or underside of the overhead beams, depends entirely upon the speed of the machine, and varies from about fourteen feet with 150 ft. speed cars to anywhere from twenty to twenty-five feet for the 600 ft. speed gearless machines, depending upon code regulations in certain cities. The elevator pit varies from four feet in depth to twelve feet with gearless machines having oil buffers. The minimum height of a penthouse on the roof would be about six feet with the smaller machines, and running up to twelve or fourteen feet with a bank of gearless elevators, so that a crane could be provided for lifting out the heavier parts, such as the armatures, if this should become necessary.

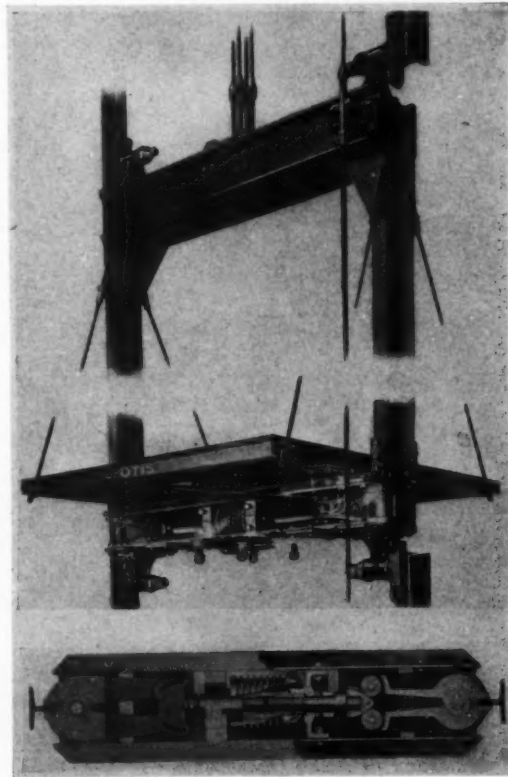
At the present time on all automatic elevators the doors should be manually opening, so that there will be no possibility, with power operation, of opening the door and leaving it open after the car has reached the floor in response to a call, and the person might have changed his mind and gone away without using the elevator. This would tie up the service. Also, automatic self-closing doors should be used so that the door cannot be inadvertently left open after the passenger leaves the car.

One of the objections to the use of automatic elevators has been the tendency of persons not familiar with the operation to leave the car gate or hatchway door open when leaving the car, not realizing that it is impossible for the elevator to answer calls from other floors under these conditions. This has been obviated by a device, in the nature of a movable platform, so arranged that when there is no passenger in the car, if the car gate should be left open, the car could still answer a call from another floor. The hatchway gate, however, must always be closed and locked, and if there is a person in the car the car gate must also be closed, the movable platform being designed to cover only the condition of an empty car.

Steel hatchway doors are being generally used, and much of the success of their operation depends

upon the reliability and proper operation of the door hangers. These should be of the high duty type, sturdy and well constructed, and operating with minimum friction.

The construction and operation of automatic elevators, particularly the controllers, have now been perfected to such an extent that they are easily maintained as any other type of electric elevator. The various elevator companies usually have a repair or maintenance service for taking care of elevators in the smaller apartment houses, where a regular engineer would not ordinarily be required for the operation of the building. In the larger apartment houses, where engineers are regularly



THE ELEVATOR CAR PLATFORM IS SUPPORTED BY A STEEL SAFETY FRAME ATTACHED TO THE HOISTING ROPES WITH ADJUSTABLE SPRING HITCHES. SPRING-ADJUSTING, SELF-ALIGNING GUIDE SHOES SECURE SMOOTH RUNNING. A SAFETY DEVICE IS MOUNTED UNDERNEATH THE CAR PLATFORM. IF THE CAR ATTAINS EXCESSIVE DESCENDING SPEED, THE GOVERNOR AT THE TOP OF THE HATCHWAY IS TRIPPED AND GRIPS THE ROPE WHICH ACTUATES A DRUM MOUNTED ON THE SAFETY FRAME. HEAVY STEEL JAWS GRADUALLY GRIP THE GUIDE RAILS AND BRING THE CAR TO A STOP

employed, they usually take care of the elevator, although some of the elevator companies now have a full maintenance service, which takes complete care of the elevator, including the furnishing of small parts as they wear out or require renewal,

thus relieving the building management of responsibility in that respect.

As already stated, one of the most important features of automatic elevator service to the building owner is the reduction in expense, due to the saving in salaries of operators. With the Micro-Drive feature all false stops are also eliminated, which is a saving in current consumption. From the standpoint of the tenant, the automatic elevator provides better service, because it never loafs in the hallways and never forgets to stop at the floor, as is so often the cause of trouble with apartment house elevators where the operators are indifferent or inefficient.

The prime consideration of all elevators is, of course, complete safety to the passenger, this requirement being even more rigid on automatic elevators, where they are operated by the passengers themselves. Such elevators are, therefore, always equipped with all possible safety devices, in addition to the regular automatic operation. This includes, first of all, the car safety device underneath the platform, which is connected to an automatic speed governor at the top of the hatchway and so arranged that excessive descending speed of the car will throw the governor and call the safety device into operation, which will then grip the steel guides and bring the car to a stop. In case of elevators operating on wood guides, the safety jaws dig into the wood guide strips and also stop the car within a short space. Automatic limit switches are provided to stop the car at the top and bottom of the hatchway, if, for any reason, it should run by the terminal limits. A stop button is provided in the push-button plate in the car, the momentary pressing of which will stop the car immediately at any point in the hatchway. A signal button is also usually provided, whereby the passenger can signal to the building superintendent or engineer if the car should stop, due to failure of power supply, or for any other reason.

A safety gate or door on the car platform is called for in most building codes, and is usually furnished as a protection to the passengers, even if not mandatory. This gate is equipped with a contact so that the elevator cannot be operated if the door is open, except in cases where the elevator is equipped with a movable platform, as above described. This gate prevents any passenger from coming in contact with the walls of the hatchway as the elevator is moving.

The elevator hatchway doors on other types of elevators can only be opened by the operator from the inside of the hatchway, so that it is impossible for anyone to open a door from the hallway and fall down the hatch if the elevator is not there. On automatic elevators, however, it is necessary for the door to be arranged so that it can be opened from the hatchway, and it must, therefore, be very specially guarded and protected so that it cannot be opened unless the elevator is at the landing. This is

accomplished by means of a door lock and contact, which are operated from a cam on the car, so that the door is unlocked only when the elevator is at the landing. The most modern device is used in connection with what is known as a retiring cam on the elevator car, which engages the roller on the hatchway door lock only when the car is *stopped* at that landing.

The following is a brief description of the operation of an ordinary automatic elevator:

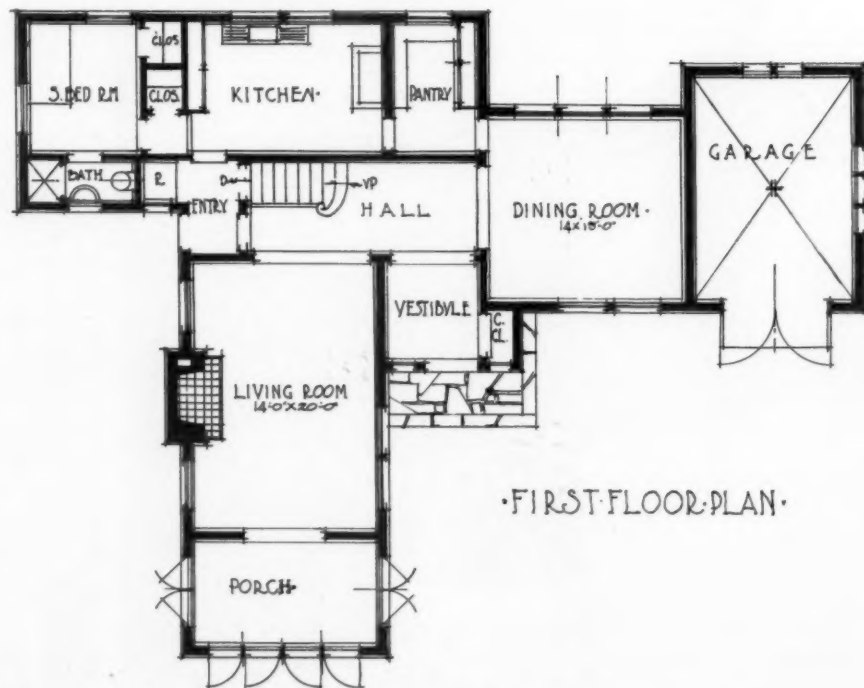
When an intending passenger approaches the hatchway door and finds the car is not at that landing, he presses a button to call the car to his floor. If the car is not already in use, the pressing of the button will first raise the retiring cam, which then automatically locks the hatchway door at the floor at which the car is standing, so that it cannot be opened. The elevator then automatically proceeds to the floor from which the call was made. When the elevator slows down and stops at its destination, the retiring cam is then released, which unlocks the door, making it possible to open it from the hallway. The passenger then opens the door and the car gate and enters the car, closing both hatchway door and car gate after him. He then presses a button in the car to correspond to the floor to which he wishes to travel. The operation of the elevator is then the same as in answering a call. After the passenger has reached his destination and left the car, closing the gate and door behind him, it is ready for another call. With this type it is impossible for any other intending passenger to interfere with the operation of the elevator until the passenger has left the car.

With the collective type of automatic control, however, each call will be registered on the controller, and if, for instance, the passenger is starting down from the eighth floor and calls are registered in the down direction from the fifth and third floors, the car will automatically stop at those floors in succession, when these intending passengers may also enter the car. Upon closing the gate the car will then resume its trip, stopping at the first floor, for which a button in the car has been pressed, as well as stopping at any other floor from which a hall button has been pressed.

The automatic type of elevator is necessarily more expensive in first cost than the ordinary car switch operation, on account of the more extensive controlling device required. This difference in cost, however, is more than compensated for in the saving in cost of operation, including operators' salaries. The much improved service is also a big factor in compensating for this cost, as when a button is pressed the car absolutely responds and is not dependent upon the whims of an operator, which is the complaint so often made in the smaller apartment houses. Those who make the apartment house their place of habitation, and even their visitors, have quickly adapted themselves to the use of the automatic elevator and appreciate its service.



HOUSE OF DION W. KENNEDY, LARCHMONT GARDENS, N. Y.
CLIFFORD C. WENDEHACK, ARCHITECT



HOUSE OF DION W. KENNEDY, LARCHMONT GARDENS, N. Y.

CLIFFORD C. WENDEHACK, ARCHITECT

A GROUP OF SMALL HOUSES

BUILT AT LARCHMONT, N. Y.

Designed by C. C. MERRITT, Architect

THIS group of small houses, built in a nearby and well developed suburb of New York, forms an interesting contrast to the apartment dwellings shown on preceding pages. Each house sets detached on its lot, with ample surroundings to permit the exercise of such gardening features as the real home maker delights in. The design in each instance is unusually attractive and shows a decided ability in the handling of materials. The floor plans are particularly interesting, and while varying in each house, are, in their main essentials as to location of rooms and utilities, practically alike. The floor area exceeds that of the average six-room city apartment, and the living aspect is more desirable.

For the small family and in the beginning of domestic life, it may not be successfully denied that the domestic and social advantages rest with dwellings of this type and location. They contribute in the finest way to the preservation of a home atmosphere, providing the family of moderate means a home amidst the best surroundings. It is possible that in years to come, when greater rest becomes essential, and the long daily trips to town more or less irksome, that the family may seek residence in a city apartment. But when that happens the real knowledge of the true meaning of American home life will have been so deeply implanted that apartment living will not eradicate it.

GENERAL SPECIFICATIONS

Exterior Materials
as shown

Shingles—Wood

Sheet Metal—Copper

Ornamental Metal—Iron

Windows—Steel Sash

Partitions—Wood Studs

Doors—Wood

Wall Surfaces—Wallboard

Floors—Wood and Linoleum

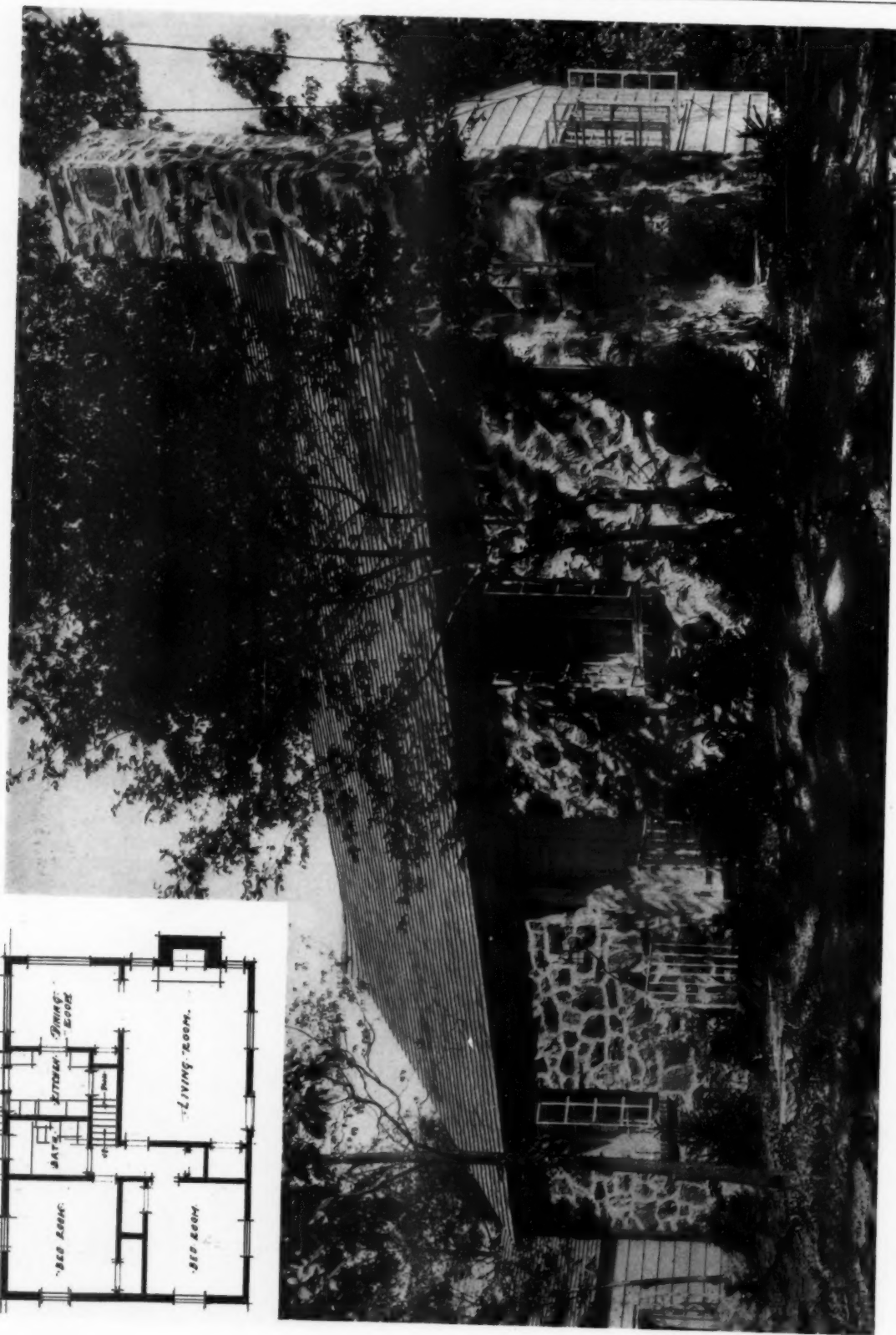
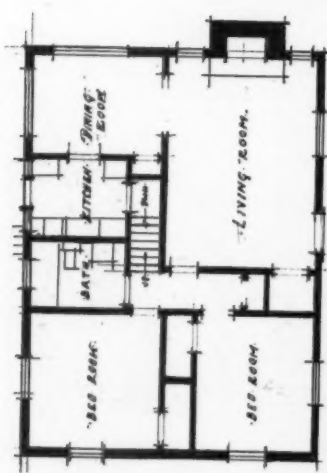
Trim—Wood

Hardware—Brass

Hot Water Heating System

Cost per cubic foot not available





HOUSE "A"
HOUSE AT LARCHMONT, N. Y.
C. C. MERRITT, ARCHITECT

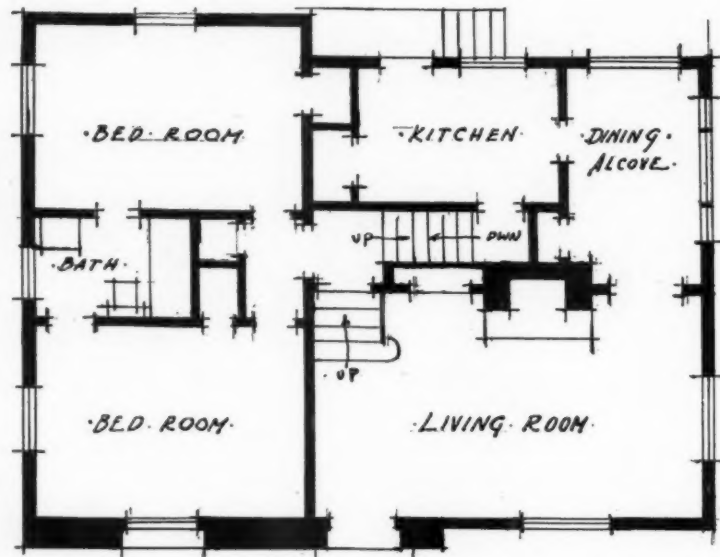


HOUSE "B"

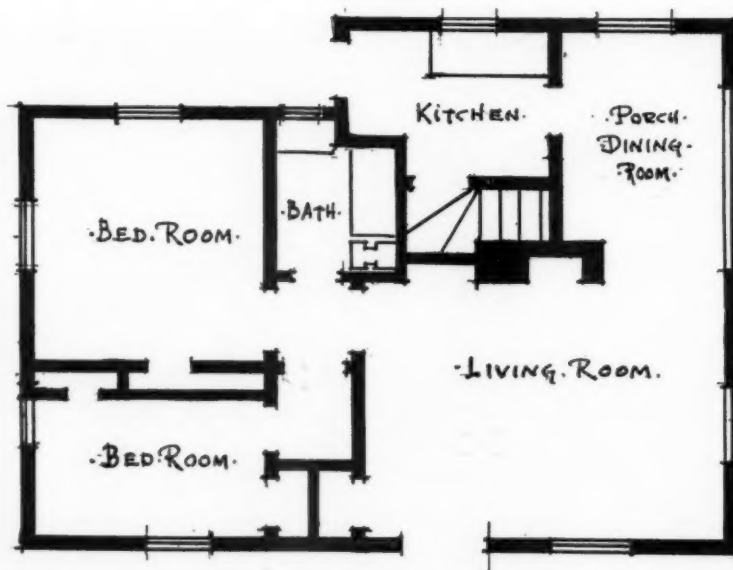


HOUSE "C"

HOUSES AT LARCHMONT, N. Y.—C. C. MERRITT, ARCHITECT



PLAN, HOUSE "B"



PLAN, HOUSE "C"

HOUSES AT LARCHMONT, N. Y.

C. C. MERRITT, ARCHITECT

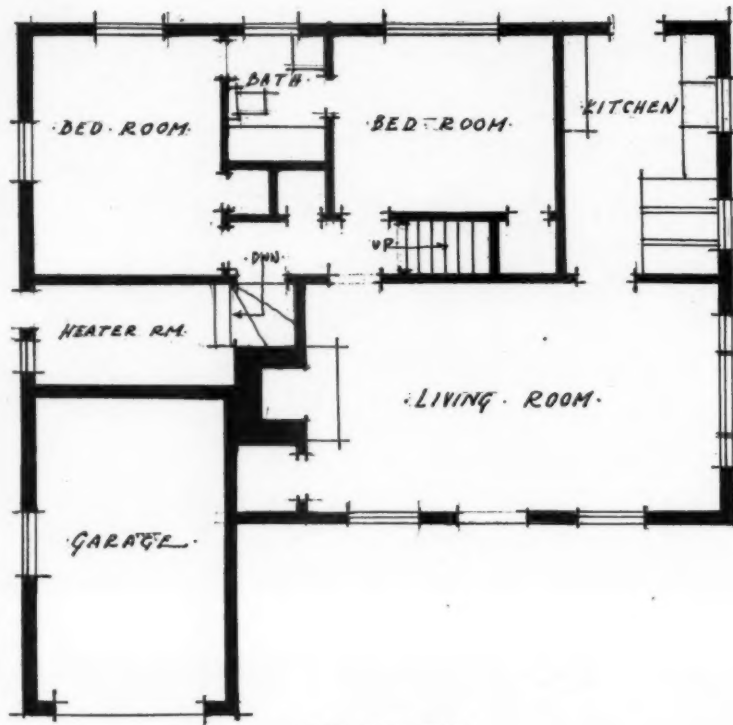


HOUSE "D"

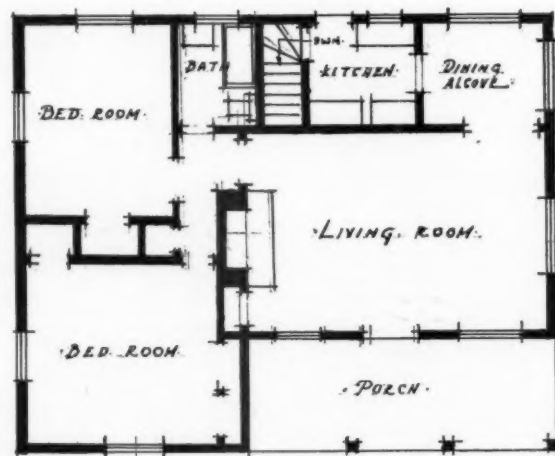


HOUSE "E"

HOUSES AT LARCHMONT, N. Y.—C. C. MERRITT, ARCHITECT



PLAN, HOUSE "D"



PLAN, HOUSE "E"

HOUSES AT LARCHMONT, N. Y.

C. C. MERRITT, ARCHITECT

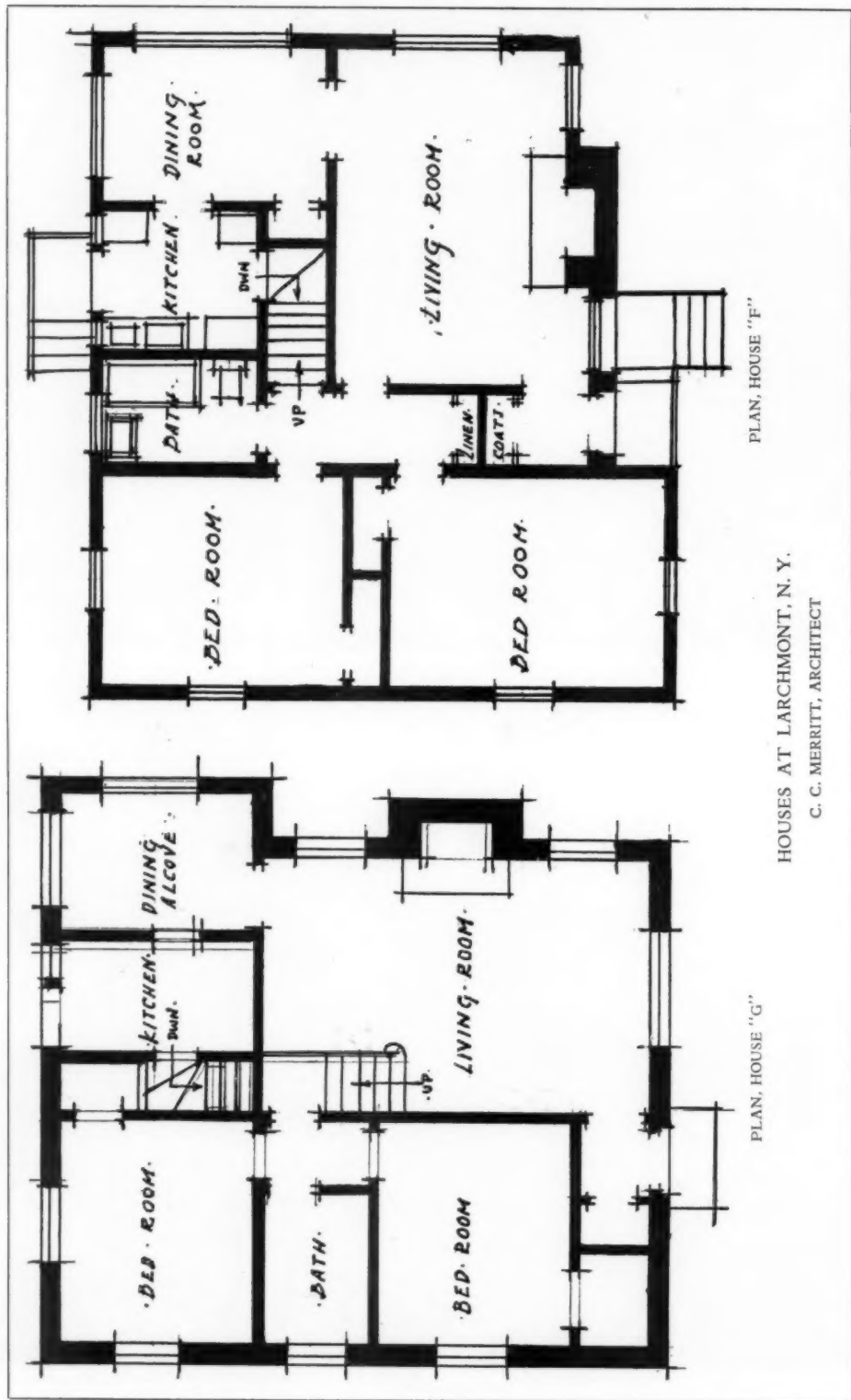


HOUSE "F"



HOUSE "G"

HOUSES AT LARCHMONT, N. Y.—C. C. MERRITT, ARCHITECT



HOUSES AT LARCHMONT, N. Y.
C. C. MERRITT, ARCHITECT



Architects, Neff & Thompson, Norfolk, Virginia
Consulting Architects, Geo. B. Post & Sons, New York

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THE LAW AS TO ARCHITECTURE

By CLINTON H. BLAKE, JR., of the New York Bar

MANY strange claims have been made by contractors, owners and architects. One of the most unique, however, it seems to me, is that advanced recently by a contractor acting under a cost-plus contract with an upset price. The contract included the usual provision that in the event the cost should be less than the upset price, any savings should be divided equally between the owner and the contractor.

The contractor made various errors, to correct which it was necessary to make changes in the work done. Much of the plaster work had been marred, also, through the fault of the contractor. The contractor claimed that it was incumbent upon the owner, and not upon him, to make payment for the required changes and also to pay the cost of cleaning the plaster and placing it in proper shape. His argument in this connection was that while in the ordinary case of a fixed price contract, the obligation would be upon a contractor, a different rule should apply where a contract is a cost-plus contract with an upset price. The theory which he advanced in making this contention was that if the work had been done as called for in the first instance, and if the plaster walls had been protected in the first instance, so as to prevent them being defaced and injured, the cost to the owner would have been greater; that the owner, in effect, had received the benefit of the saving in these details, and that consequently he should bear the expense of making good the defects.

This is a very entertaining and ingenious argument, but obviously it will not hold water. The fact that a job is handled on a cost-plus basis, with an upset price, cannot relieve the contractor from his obligations to perform the work in accordance with the plans and specifications. If he makes errors and fails to perform the work in accordance with the contract, he should correct his mistakes without charge to the owner, and the cost of correcting them should be borne by the contractor and not by the owner. The owner is entitled to get the job which is called for by the contract, and his rights in this respect are not modified or abridged because the contract happens to be a cost-plus upset price agreement, rather than a fixed price contract. It is perfectly true that under the cost-plus contract, if the work had been properly done in the first instance, and if proper safeguards had been provided to prevent injury to the work, the owner might properly have been charged with the actual cost of the proceedings. This is a very different proposition, however, from the claim that, because this expense would have been properly charged to the owner, the contractor may deviate from the contract terms and fail to protect the plaster or other work in-

stalled, and then charge to the owner the entire cost of making necessary corrections and repairs.

The contractor, by failing to live up to the terms of his contract has placed himself in a position where he must bear the expense necessary to make good his defaults. If it can be ascertained accurately what the cost of doing the work correctly in the first instance would have been, as compared with the cost of the work as done, plus the corrections and repairs made necessary by the fault of the contractor, the contractor might reasonably claim that his additional liability was limited to the difference between these sums. As a practical proposition, it would be extremely difficult, ordinarily, to ascertain, after mistakes had been made, what the exact cost would have been to do the work correctly in the first place. This would have been dependent on the factors such as the amount of work done by the workmen in a day, existing market conditions at the time, and the like, which of necessity would be somewhat speculative. If it is found that an exact computation cannot be arrived at, the contractor who has been at fault must bear the burden of the loss and not the owner.

Any other rule would lead to an absurdity, in that a contractor could, by making repeated mistakes or variations from the contract, add to the cost of the work and of his fee to the extent at least of the upset price, and, in the absence of an upset price, without limit. The fact that an upset price is included does not mean that the owner is supposed to pay that amount in any event and does not relieve the contractor from his moral and legal obligation to do the work in accordance with the contract and at cost plus his allowance and for less than the upset price, if this be possible.

30

LEGAL DECISIONS

A MUNICIPAL body requested architects to prepare plans for a city building and an estimate of the cost of the work. The architects prepared the plans and submitted an estimate. The amount called for by the estimate was appropriated and the contract was entered into with the architects, providing that they should be paid a five per cent fee on the cost of the building, with the proviso, however, that the cost of erecting the building pursuant to the plans prepared should not exceed the amount appropriated in accordance with the estimate. When bids were received, it was found that they exceeded the estimate, and that it was not possible to secure bids to carry out the work within the limits of the estimate. Thereupon the municipal body repudiated the contract, secured a larger appropriation and subsequently erected the building under plans prepared by other architects.



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The architects sued the municipality to recover the agreed price for drawing the plans and for damages for breach of contract. The plaintiff sought to recover 2½% on the proposed cost of the building covering the work on the plans and specifications and also damages under a separate cause of action for an alleged wrongful discharge. The court held that in view of the provision in the contract that the cost should not exceed the stipulated amount, the architects had, by failing to prepare plans which could be carried into effect at this estimated cost, failed to perform their contract and could not recover the percentages provided under the contract for their services.

The court held further, however, that inasmuch as the plans of the architects had been used by the municipality to determine the actual cost of the building, the architects might recover on the theory of *quantum meruit* the actual value of the services performed, which in this case the court determined should be the amounts paid out by the architects to their clerks and assistants and a reasonable compensation for the time spent by the architects themselves and the advice given by them.

Hogan v. City of New York, 114 Appellate Division 555.

(NOTE: In considering the above case, it is well to bear in mind that, notwithstanding the fact that the court here allowed a reasonable compensation to the architect, the architect is in real danger of losing his right to any compensation whatever, where he agrees, as part of his contract, that the cost of the work shall be within a stipulated amount, and it develops that this will be impossible of accomplishment. Under these conditions he may well be faced with the application of the usual rule that one who is in default under a contract cannot recover for the work done.)

THE law of the State of Washington, governing the registration of architects, provides in Section 1 thereof as follows:

"Any person residing in or having a place of business in the state, who, before this act takes effect, shall not have been engaged in the practice of architecture in the state of Washington, under the title of architect, shall before assuming the title of architect, secure a certificate of his qualifications to practice under the title of architect, as provided by this act. Any person who shall have been engaged in the practice of architecture under the title of architect before this act takes effect, may secure such certificate in the manner provided by this act. Any person having a certificate pursuant to this act may assume the title architect. No other person shall assume such a title or use any abbreviation thereof, excepting only landscape architects and naval architects, and not excepting these two classes if they combine with their landscape and naval work respectively the planning of buildings and supervision of their erection."

Section 2 provides for a Board of Examiners. Section 8 provides for penalties for a violation of the act.

An architect in the State of Washington, who had not secured a license as required by the act, performed architectural services for a client, prepared plans and specifications, signed the drawings as architect and, as the court found, held himself out to be an architect. A suit was brought by the assignee of the architect to recover for the services rendered. The client claimed that the architect had acted in an unlawful manner, in that he had not complied with the law requiring that he should be licensed, and that the contract between the architect and the client, whereby the architect agreed to perform architectural services, was therefore illegal and unenforceable. The architect claimed that the services in question had been accepted by plaintiff and that the latter could not properly question the legality of the contract. He also claimed that the act requiring an architect to secure a license was unconstitutional, on the ground that it was an improper regulation or prohibition of business and occupation.

The court held that while the law did not, in express terms, make the rendering of architectural services by one not holding an architect's certificate unlawful, nor expressly make a contract by such a one unlawful, the intent of the legislature was clearly to cover both of these contingencies, and that the intent would be given full effect; that the acceptance of the services by the client did not render the contract legal or the compensation agreed upon recoverable; that the law was not an illegal regulation or prohibition and was not, therefore, unconstitutional.

In connection with this rather important decision, it should be noted, however, that the court decided the case on a state of facts which it found clearly showed that the architect had held himself out to be an architect, and had hence come within the exact wording of the statute, and that it did not hold that one who was not an architect could not prepare plans and the like without being licensed. In fact, a close reading of the decision would seem to indicate that it is questionable whether one who was in fact an architect would be held to violate the law if he performed architectural services, provided he did not hold himself out as architect in connection therewith. The court held in this connection:

"We are not holding that an owner may not employ a builder to construct a building for him without the services of an architect, but are only holding at this time that one who holds himself out to be and assumes the title of architect and contracts for his services as such, without being licensed as this law requires, cannot recover compensation for such services, because in so holding himself out and in so contracting he violates this law."

Sherwood v. Wise, 132 Washington 295.



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P & L Products Occupy a High Place

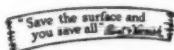
It is singularly appropriate that Vitralite, the Long-Life Enamel, and "38" Preservative Varnish, were used in the recently-completed 44 story Morrison Hotel, to enhance and preserve indefinitely the beauty of its interior. The selection of these products for this hotel—said to be the highest building in Chicago—symbolizes the high place Pratt & Lambert occupy in their respective field.

Where price must be considered, as well as quality, P & L Products again favorably meet this condition by reason of greater spreading, opacity and durability than similar materials

which cost less per gallon, but more per job—from the standpoint of application and service.

Vitralite is guaranteed three years on exterior surfaces; on interiors it lasts indefinitely. "38" Preservative Varnish, in many instances, looks well after fifteen, twenty or even twenty-five years have rolled by. These are products the master craftsman delights in using, for with minimum effort he can quickly and economically beautify and protect that which the architect has painstakingly conceived.

Consult the Pratt & Lambert Architectural Service Department relative to any finishing problems.



PRATT & LAMBERT-INC., 93 Tonawanda St., Buffalo, N. Y.
Canadian Address: 8 Courtwright St., Bridgeburg, Ontario.

PRATT & LAMBERT VARNISH PRODUCTS

Specifications of most products advertised in THE AMERICAN ARCHITECT appear in the Specification Manual

Vitralite

The Long-Life Enamel

Prominent, nationally known hotels today no longer depend upon a circumscribed clientele, but attract patrons from near and far. Travelers from all parts of the world rub elbows with local citizens who find a home-like atmosphere in even the largest metropolitan hostelry.

Fine appointments, quiet dignity and efficient service are taken for granted and are the hall-marks of the better-known hotels of this continent.

A contributing factor of this quiet elegance is the right selection of finishing materials. In this respect, Pratt & Lambert Varnish Products enjoy an enviable place in the minds of architects, decorators and owners.

If, for example, there is a desire for the patrician charm of enameled woodwork, Vitralite, the Long-Life Enamel, can admirably express this. The clean-cut simplicity of its beauty can be found to such a marked degree in no other type of architectural finish.

When beautiful woodwork is to be enhanced, "38" Preservative Varnish is the choice of leading architects and painters, for they know that it brings out the beauty of the wood grain and combines with its depth of luster—durability, full body and a high gloss which may be rubbed to a satiny dull finish.

In big, busy, bustling, progressive Chicago are to be found a number of recently erected prominent buildings which possess marked architectural beauty, or are otherwise noteworthy from an architectural standpoint. The interiors of these structures are beautified and protected by Pratt & Lambert Varnish Products.

Besides the 44 story new Morrison Hotel, there are a number of other hotels and buildings in the metropolis of the West, where Pratt & Lambert surface-saving materials have been used, including the new \$60,000,000 Union Station, where 2,000 gallons of "38" Preservative Varnish were required for the woodwork.

The preference in Chicago for Pratt & Lambert Varnish Products is but a reflection of a similar preference in other communities throughout the United States and Canada.

The Pratt & Lambert Specification Manual, containing helpful information on painting, varnishing and enameling, will be sent to any architect upon request.



BOOK NOTES

AN ARCHITECT'S SIMPLE ENGINEERING PROBLEMS

AN Architect's Simple Engineering Problems, is the title of a book by DeWitt Clinton Pond, recently published by Charles Scribner's Sons. This book has been written to enable architects to solve the simple engineering problems which arise in daily routine and which can be easily solved through an ordinary knowledge of arithmetic and engineering. The first paragraph carries the warning, "There will be no attempt to explain complicated methods of deriving formulas." The use of this book should be confined to problems of a very similar nature.

Floor loads, the design of floor slabs, steel beams, use of safe-load tables, wood and concrete beams, steel columns, concrete columns and other construction features are discussed in a manner simple and easily understood and illustrated with practical examples.

An Architect's Simple Engineering Problems. By DeWitt C. Pond. Charles Scribner's Sons, New York. 99 pp., illustrated. Size 5 1/2 x 7 3/4 inches, cloth bound. Price \$1.50.

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GOOD PRACTICE IN CONSTRUCTION

PHILIP KNOBLOCK has prepared and recently issued through the Pencil Points Press, Inc., Part II of Good Practice in Construction. This volume contains many special, as well as usual, types of details used in building construction. The work is presented in a form readily used in the drafting room.

The preface states that Mr. Knoblock examined a large number of drawings from some of the best architectural offices, chose details, modified and combined them in the light of his experience, and worked out details that may be used as the starting point by draftsmen in solving similar problems. The details were then subjected to the criticism of men whose work has given them a thorough knowledge of some one type of construction or material.

The volume is truly representative of good practice in construction and is a valuable addition to any architectural library. The details are well selected and drawn, and will prove of a wide range of usefulness.

Good Practice in Construction, Part II. By Philip G. Knoblock. Pencil Points Press, Inc., New York. 52 full-page plates. Size 9 x 12 inches, bound in boards. Price \$4.00.

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THE PAGEANT OF AMERICA

VOLUME XIII of a series called The Pageant of America, issued by the Yale University Press at

New Haven, treats of the American Spirit in Architecture. It is edited by Talbot Faulkner Hamlin. The work presents a pictorial review of architecture in this country from the beginning of the Colonies up to the present time. The selection of subjects and the accompanying text are marked by the utmost skill and knowledge. Every "period" or phase of our architectural development is set forth chronologically and correctly. It is a work that should prove of large value to architects, historians and students of American life.

The lure of archeology is not always in the discovery of relics of a period long past, but largely that it enables a close and accurate study of the daily lives and habits of a long forgotten period. What we in this country may know of the lives of the Colonists is largely gleaned from investigation of the homes of those people. From such crude beginnings to the present day, one may, if properly led, trace through architectural development the history of this nation.

This valuable addition to our knowledge of such things, this tracing of the development of the American Spirit of Architecture, is admirably accomplished in this volume of the series known as The Pageant of America. The work, profusely and well illustrated, is divided into twenty-four chapters, dealing successively with early European backgrounds and then with regional locations in this country as referring to the Colonial settlements. Coming to the period following the Declaration of Independence, the various revivals and foreign influences are discussed. There is an interesting chapter on the Greek Revival and the Gothic Influence. The Westward course of Empire, prior to the Civil War, that "great expansion," dominated by the influences of pioneering, is discussed in a comprehensive section. The stagnation in architecture that followed the Civil War, the Victorian Era, forms the subject of an interesting chapter. All these pages present a fine opportunity to study actual conditions and to mark our progress toward what may be called the beginnings of the American renaissance. From that point on the subjects illustrated and the discussion of the architectural development lie within the field of observation of the reader of mature years, who will be able to judge the accuracy and thoroughness of the earlier sections of the work by the comprehensive treatment of this later period.

The Pageant of America, Volume XIII, The American Spirit in Architecture. By Talbot Faulkner Hamlin. Full cloth, 350 pages, profusely illustrated. Price, \$4.50. New Haven, Conn., The Yale University Press.



Your Superintendent will like this Carney Feature

WHEN Carney goes on a job, you will find one member of your staff particularly grateful—the job superintendent. It means the striking of one burdensome detail from his list. It means that the mortar is bound to be right—it can't be otherwise.

In mixing Carney mortar, there are just three elements to be considered—water, sand and Carney. Nothing more. There's no slaking to be supervised, no soaking to be watched, and no lime to be added. If the mixer carelessly adds too much sand, that fault is instantly detected by the masons. The natural plastic quality of the mortar is affected, and troweling becomes difficult.

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*Carney Mortar was used for all the brick and tile in the J. L. Hudson Store, Detroit, Michigan.

*Architects—Smith, Hinchman & Grylls, Detroit, Mich.

*Contractors—Bryant & Detwiler, Detroit, Mich.

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CARNEY

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MORE THAN HALF THE URBAN POPULATION OF
THE UNITED STATES LIVE IN ZONED
CITIES AND TOWNS

MORE than half the urban population of the United States live in zoned cities and towns at present against about one-tenth in 1916, according to information obtained by the Division of Building and Housing of the Department of Commerce. There are now 436 municipalities with a population exceeding 27,500,000 inhabitants that have zoning ordinances in effect, as against six cities with less than six millions in 1916.

The greatest development of zoning has taken place practically within the last ten years. The number of zoned cities increased from six at the end of 1916 to 73 by the end of 1921; to 265 by the end of 1923; to 425 by the end of 1925; and 11 additional places have reported zoning ordinances adopted since the first of the year.

Grouped according to population, 47 of the 68 largest cities having over 100,000 population, and 150 of the 287 cities and towns having over 25,000 population, have zoning ordinances in effect.

In an effort to protect home owners, and other land owners, in the reasonable use of their property, these cities, towns and villages adopted zoning ordinances, according to Dr. John M. Gries, Chief of the Division of Building and Housing. He said that "zoning seeks so to regulate the use to which buildings may be put, the area of the lot that may be covered and the height of buildings in different sections of the city, so that the land in each district may be used for the purposes to which it is best suited." Provision is made, consequently, in properly drawn ordinances, to secure a neighborhood of small houses, for example, against having a noisy factory site in its midst, with resulting losses not only in property values but also in peace and quiet. The factory owner, likewise, is apt to have the better choice of desirable level plant sites with good transportation facilities.

The number of zoned municipalities in the leading states follow:

New Jersey	73	Wisconsin	18
New York	72	Michigan	16
California	47	Indiana	13
Massachusetts	41	Connecticut	7
Illinois	38	Iowa	7
Ohio	24	Kansas	6
Pennsylvania	24	Rhode Island	5
		Other States	45

BRICK AND STONE MASONS LAG

STATISTICS recently furnished by the U. S. Labor Bureau covering the seventy years from 1850 to 1920 show that while carpenters have increased in numbers proportionately with the population, brick and stone masons and plasterers have made perceptible decreases. Plumbers and electricians show the greatest gains, with electricians leading.

PERSONALS

Joseph J. Wernette and William H. McCarty announce that they have formed a partnership to practice the profession of engineering and architecture under the firm name of Wernette & McCarty, engineers and architects, with offices at 441-444 Houseman Building, Grand Rapids, Mich.

Richard Williams, architect, and Walter J. Bishop, architect, have consolidated their individual businesses into one office under the firm name of Williams & Bishop, architects, 1838 Whitney Avenue, New Haven, Conn.

Howard Steitz, architect, has recently opened an office for the general practice of architecture in the Weathersbee Building, Pompano, Fla., where he would be pleased to have manufacturers send catalogs and samples.

C. Hobart Sherwood announces the opening of an office for the general practice of architecture at 226 Bryan Court, Fort Lauderdale, Fla. Manufacturers' samples, catalogs and other publications are desired.

Lockett & Chachere, architects, have moved their offices from 521 Baronne Street to 603 Title Guarantee Building, New Orleans, La. Manufacturers are requested to send catalogs and samples.

Edwards & Green, architects, have moved their offices from 23-25 Broadway to 548 Federal Street, Camden, N. J. Their Philadelphia office remains at 34 South Seventeenth Street.

James J. Baldwin, architect, has moved his office from Anderson, S. C., to 205 Taylor Building, Asheville, N. C. Manufacturers' catalogs and samples are desired.

Klingensmith, Rice, Wilkins, architects, have moved their offices from the Arcade Building to 1217-18 Louderman Building, 311 North Eleventh Street, St. Louis, Mo.

Edward H. Davis and George M. D. Lewis, architects, have moved their offices from the Union National Bank Building to Suite 809, Board of Trade Building, Linden Street, Scranton, Pa.

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