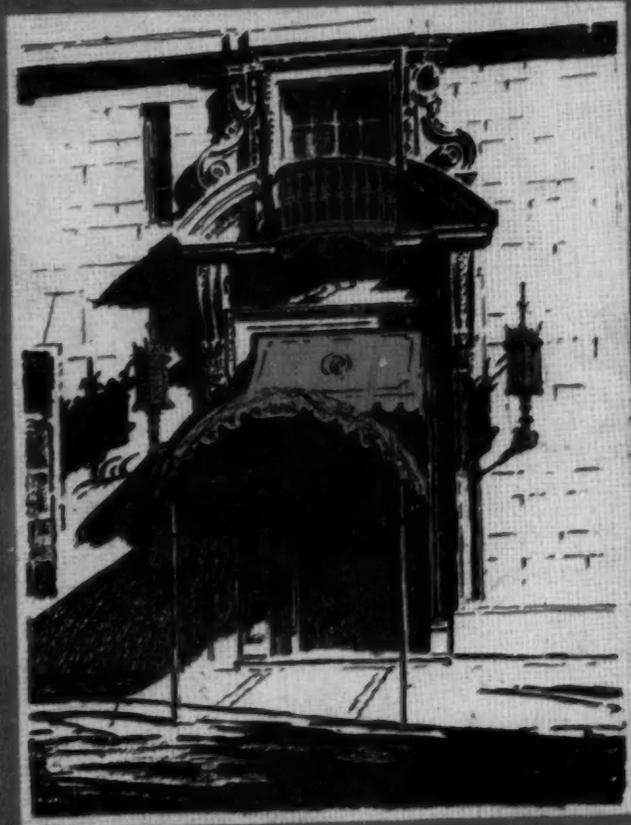


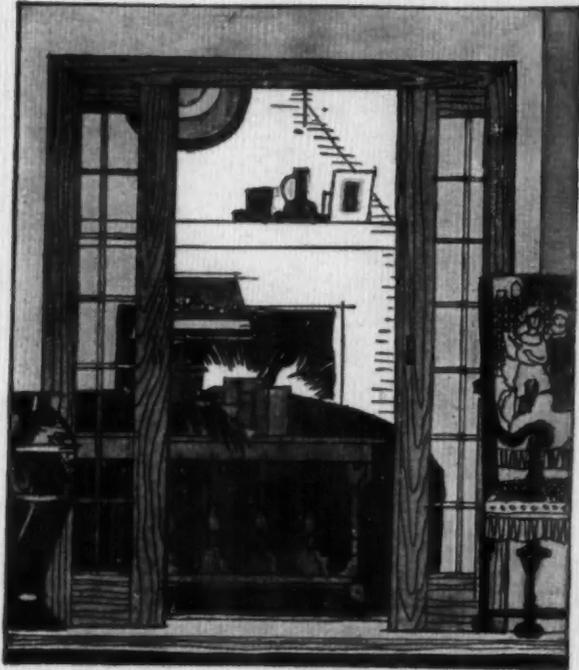
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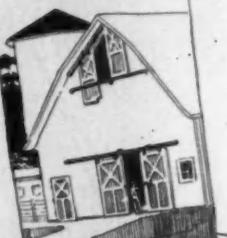
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FOUNTAIN IN THE WEST LOBBY OF THE BELMONT HOTEL, CHICAGO
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The Architectural Forum

The ARCHITECTURAL FORUM

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Number 5

Planning the Modern Apartment Hotel

By S. FULLERTON WEAVER

Of Schultze & Weaver, Architects, New York

THE present trend of metropolitan living, away from the old "town house" and toward the higher type of group dwelling, has considerably increased the interest in developing the planning of apartment houses and apartment hotels to a highly specialized architectural accomplishment. From present indications it seems very likely that the next 20 or 30 years will see an almost complete abandoning of the individual city house, due to the uneconomical aspect of the cost of maintenance, repairs, taxes and other items on premises which are occupied for only a small part of each year, and due also to the increasing difficulty of securing and keeping the satisfactory servants necessary for proper service in the individual city house.

The large apartment houses of the more exclusive type now being built in New York are variously classified according to the extent to which they are coöperatively owned by the tenants (if such ownership is a feature of the incorporation or financing of the building) or according to the provision or absence of provision for housekeeping. The New York Building Code designates as an "apartment hotel" any building in which the rooms are laid out in suites or apartments and the meals served from a main kitchen. The classification of "apartment house" covers any building in which the suites or apartments each have individual kitchens or kitchenettes where meals are to be cooked within the apartments, and all such buildings come under the jurisdiction of the Tenement House Department. The "Park Lane," New York, illustrated in these pages, is distinctly an apartment hotel.

Planning for Economy of Construction and Light. A provision for maximum light and air is among the first requirements in the planning of an apartment hotel designed to command high rentals and cater to an exclusive clientele. The best method of securing a maximum of light and air has been found in the type of plan in which a three-sided court is formed by two wings. These wings should be wide enough to allow for rooms of not over 25 feet, and never less than 20 feet in depth, with corridors 6 or 7 feet wide between them. Obviously

the wing depth and room depth would depend on the size of the lot. In the case of the Park Lane, with its whole 200 feet of block front, only two wings were planned, each wing thus being 60 feet wide, allowing 27-foot living rooms and 6-foot corridors on the street fronts, and 23-foot living rooms facing the courts. Ample light and air are afforded by courts as wide as those of the Park Lane, which exceed in width that of the average side street,—so wide, in fact, that three smaller wings could have been built, within the building laws. These, however, would have reduced the dimensions of the rooms to 20 feet, and the courts to about 28 feet.

Orientation. The better suites in any apartment building should be placed facing south and east, where they will get the maximum of direct sunlight, as well as the calmer winds. Buildings in New York which face on two streets must naturally present one face to the north, and on this side of the house provision for increased heating should be made to obviate any discomfort through the winter. Because of the even "working light" of the northern exposure, studio apartments are planned to make the most of it, and for this purpose it is a distinct asset rather than a detrimental feature.

Where the total ground area of any apartment or hotel building will permit, the exterior or three-sided court is much to be preferred to the interior or enclosed court. Exterior courts not only afford better ventilation and light, but also give the apartments an outlook over streets, and avoid the "shut in" sense of enclosed courts. In order to allow a greater perimeter, with more southern exposure for rooms, the exterior court is best planned to face south. The main facade of the building, with the main entrance, should be designed for frontage on the principal street which bounds the site.

It has been found in practice that the best procedure in laying out the plans for any apartment building is to thoroughly work out the arrangement of the apartment units on the typical floors before planning the main floor and its public rooms, because the most important element of apartment house design is the layout of the floors in suites.



Photo. Dix Duryea

Lobby Side of Entrance Vestibule

Service Facilities. In planning the apartment suites at Park Lane the idea was to provide tenants with all the service and freedom from responsibility that characterize a well managed hotel, but at the same time to make it possible for them to have, if they wish, the privacy of their own apartments. Each apartment in Park Lane, therefore, includes an ample service pantry, with refrigerator, warming oven, sink and china closet, with which equipment food prepared in the main kitchen is easily and perfectly served. A constant change of air in every pantry is insured by mechanically operated vents, and care was taken in locating the pantries so that the waiters do not pass through the apartments in order to bring in and prepare the food. On each floor of Park Lane there is a large service hall, centrally located to make the distance from it to every apartment as short as possible, with the factor of speed further aided by three high speed service elevators running directly from the main kitchen to the service halls on every floor. For those tenants of Park Lane who retain personal servants, the larger apartments provide maids' rooms, and each floor has also several additional maids' rooms.

The Average Demand for Rooms and Arrangement. The greater demand, in apartment accommodations, appears to be for the smaller units, of from two to three rooms, each comprising a fairly large living room and one or two bedrooms. In buildings of the Park Lane type the living rooms should be from 12 feet, 6 inches wide and from 20 to 30 feet long, a good average size being 14 by 27, with bedrooms 14 by 19, or 12 feet, 6 inches by 18 feet.

In small-unit apartments it may be noted that the device of the disappearing bed has recently become very popular. Where space is limited and it is desired to make every square foot pay, the large living room, with the bed-closet and a bath, can be called a "two-room apartment." When the disappearing bed is used, whether it is required by law or not, the closet in which it is concealed should be artificially ventilated in order to keep bedding aired.

Although the greatest demand is for the smaller apartments, each floor should be planned with a few larger suites to provide for larger families who would require all the accommodations of a home, such as a private foyer, living room, dining room and two bedrooms, increased to three if necessary, and a maid's room. In addition to this typical apartment unit, the Park Lane apartments also include boudoirs or dressing rooms; this has proved a very attractive feature, and one which has been shown to have a strong appeal to women. The well designed apartment unit has ample closet space, as at the Park Lane, where the main closet, with an outside window, is large enough to store a trunk in, with enough spare space to walk around it. In estimating the proper size for a closet, provision should be made for about 20 suits or dresses, and at Park Lane the closets also have boot-shelves.

The duplex apartment idea, which became popular in New York 12 or 15 years ago, has always been identified more with buildings of the apartment house type, and is very seldom the basis of apartment hotel planning, with which it rarely agrees.

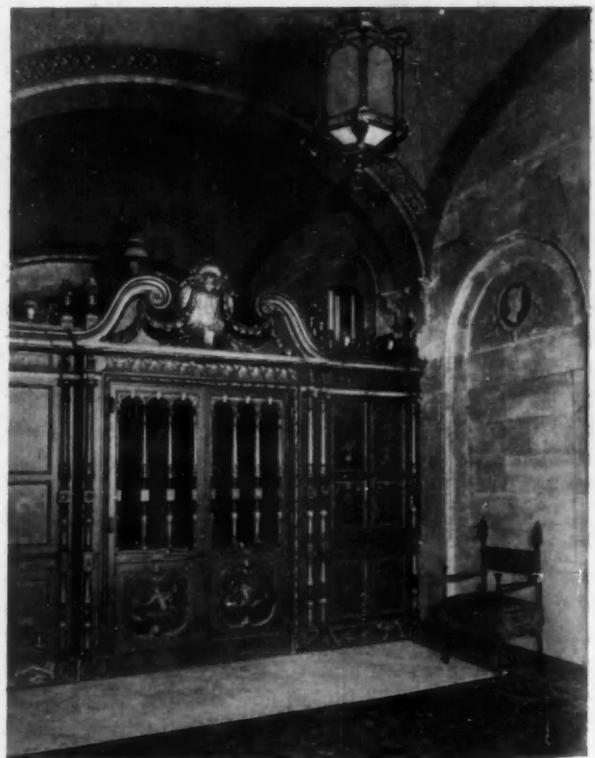


Photo. Amemiya

Screen in Dull Gold and Polychrome Shuts Off Ballroom Suite

The Typical Floor Plan. Modern apartment planning has abandoned the old "long hall" type of plan, in which all the rooms opened off a long, narrow corridor, in favor of the "foyer" type of plan, in which the rooms are arranged to open all from a foyer hall. The larger apartment units, on the foyer plan, should be placed at the ends of the wings, and the other apartments, entered from the elevator halls, should also have each its own private foyer, no matter how small, in order to give a separate entrance to each room, and to avoid the bad arrangement of the long communicating hall or the even worse arrangement by which one room is entered through another, the "railroad" type of plan.

The number of elevators required for a building has never been reduced to a standard formula, because the determining factors are variants, such as the height of the building in stories, the number of apartments per floor, and the type of patronage for which the house is built. In a building like Park Lane, where no peak of traffic on elevators can be claimed, allowance was made for one elevator for every 150 rooms, not including the maids' rooms and boudoirs. The number of stairways and their location in relation to elevator shafts are fixed by the requirements of law, as they come under the fire-safety provisions. In case of an emergency it is good planning to provide at least one stairway, located as remotely as possible from the elevators, thus affording two distinctly separate means of exit. For the apartment hotel which is operated as a hotel, the elevators are best placed in one group,



Photo. Dix Duryea

Dining Room Entrance

which tends to simplify the plan of the main floor.

The elevator equipment should include two service elevators, one detailed for freight and the other for service. As quick service of food to the apartments is essential, the service elevator should be placed as close to the kitchen as possible, and if space is so limited as to make only one service elevator possible, the risky combination of freight and service in one is best avoided by installing fast dumbwaiters. The advantage of a service elevator over a dumbwaiter, however, is so great as to make it worth while to provide for it unless it is absolutely impossible. Time in sending meals up from the kitchen is a factor of the utmost importance, and efficient service demands that the waiter should stay with the order he is serving, thus avoiding the delay usually resulting from dumbwaiter service, as well as the necessity for double handling.

With due regard to location close to the kitchen, the service elevators should be placed as centrally as possible on the typical floor plan. An inside corner, off the main corridor, is a good location, as it utilizes a dark place. The main kitchen should be relieved of considerable room service detail by the provision of service elevator halls on each floor, equipped with ice chests, china closets, linen and other necessities. In Park Lane the pantries included in each apartment unit make it possible for the tenants to use their own silver, linen and china, if they wish to do so.

The necessities of the modern hotel or apartment house find ample use for the dark spaces which



Photo. Dix Duryea

Ornamental Colonnets Enrich the Windows of Dining Room



Photo. Dix Duryea

Interesting Detail in Ballroom Suite.

occur in the typical floor plan, a few of them being service stairs, service elevator shafts, vent shafts from lower floors, housemaids' closets, linen storage and closets for the vacuum cleaners.

The Entrance Hall and Other Public Spaces. Because of its more private nature the apartment hotel does not need provision for as much space as the general hotel for dining room, lobby and lounge. The lobby in an apartment hotel should have, in fact, rather the atmosphere of the entrance hall of a club. A small office is necessary for keys, mail and the handling of accounts, this office being easily accessible in the entrance hall or the elevator lobby.

The size of the main dining room depends upon the number of tenants which the building will accommodate, with due allowance for their friends, and as nearly as it is possible to arrive at the size of the dining room by formula, a practical method for figuring in advance is that of basing it on the approximate number of tenants and guests and allowing, for each, 10 or 12 square feet of floor area. (See article, "Food Service in Apartment Hotels.")

If the plans of the management are to extend the use of the ballroom in an apartment hotel to outside entertainments, a separate entrance and foyer, with check rooms and other necessary requirements, should be provided, so that there is no interference with the house guests. This arrangement of the ballroom has been carefully worked out in the Park Lane plan, and provision has been

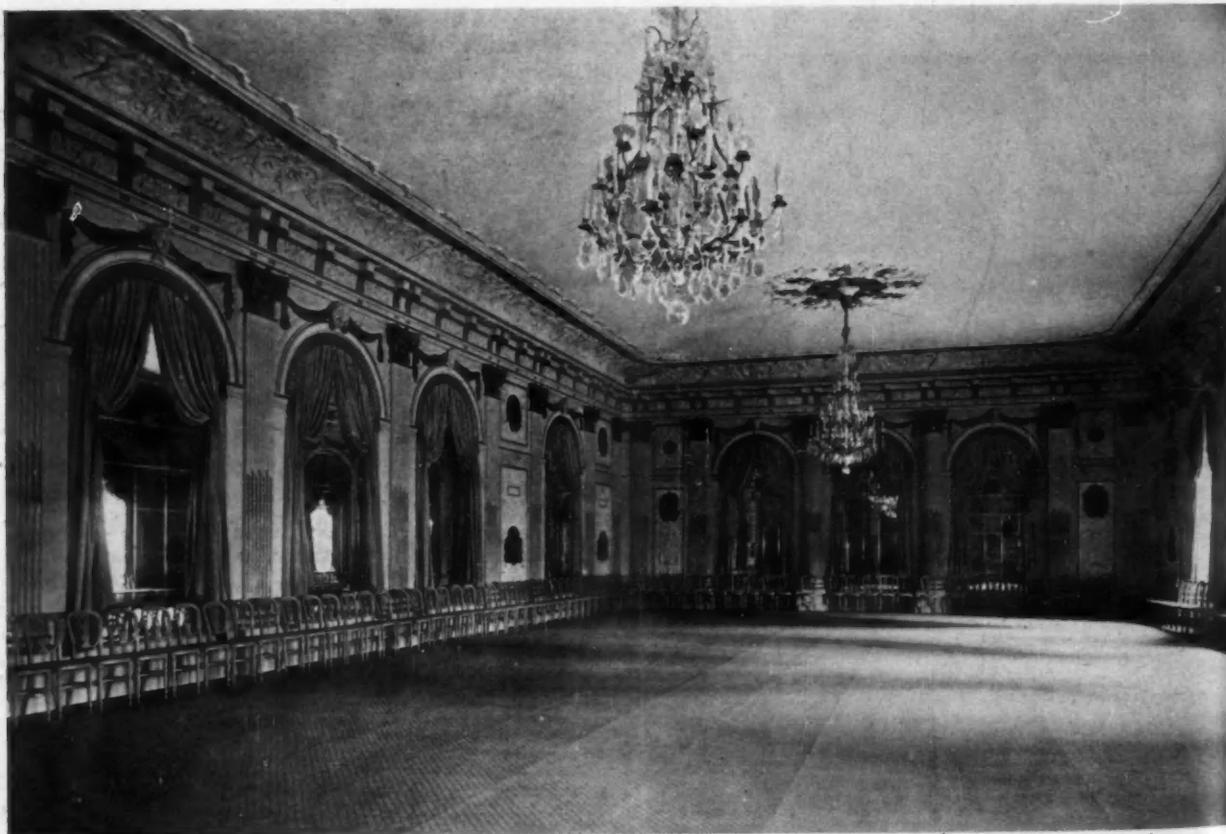


Photo. Amemiya

Designed in the Style of Louis XVI, the Ballroom Suggests the Famous Galerie des Glaces, Versailles

made for private dining rooms to be used in connection with the ballroom, or for private entertaining.

The Question of Shop Spaces. If the location fronts a business thoroughfare, the management of the modern hotel or apartment usually considers the income from shops on the street level as an important factor in revenue. In former years the incorporation of shops in a residential structure was considered undignified and undesirable, but the point of view on this has changed considerably of late, except in such distinctly exclusive buildings as Park Lane. The Hotel McAlpin, for instance, was planned with its entire base occupied by shops, since which time shops have been introduced in the Hotel Astor. The Commodore was planned to accommodate shops, as was also the Roosevelt, and at the present writing alterations are being made to put shops in the street floors of the Biltmore and the old Waldorf. These buildings, however, are of a type distinctly differing from Park Lane, where maintaining an exclusive, residential atmosphere outweighs in value such revenue as might be derived from shops. Certain portions of the ground floor space of apartment houses and apartment hotels can be arranged for doctors' offices.

Kitchen, Service and Concessions. The kitchen should be placed as closely as possible to the main dining room, and as nearly as possible on the same level, with the service elevator to the upper floors conveniently located in connection with it. The size



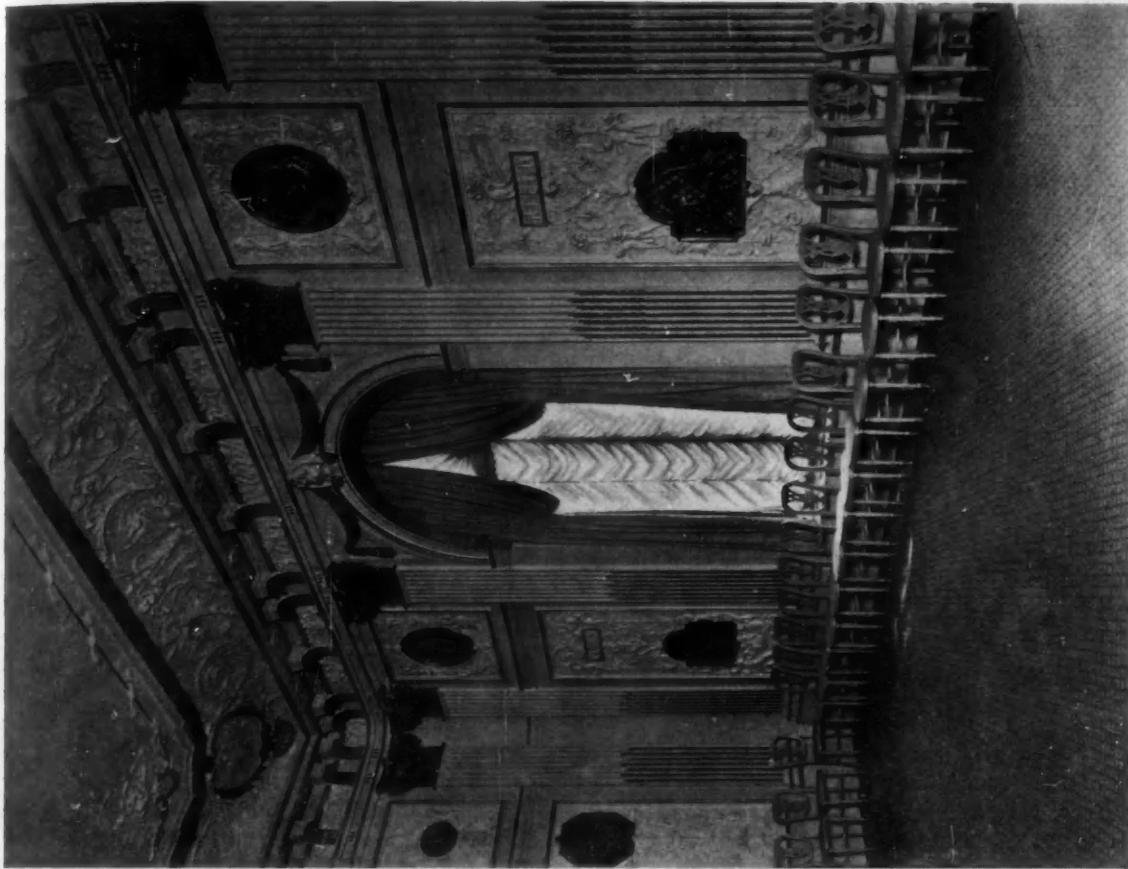
Photo. Dix Duryea

View from Elevator Lobby Toward Main Entrance



Photo. Amemiya

Antique Tapestries, Dull Gold Coffered Ceiling and Rich Cornice Make the Dining Room Magnificent



DETAIL OF THE BALLROOM, SHOWING USE OF GOLD IN THE DECORATIONS
 THE PARK LANE HOTEL, NEW YORK
 SCHULTZE & WEAVER, ARCHITECTS



Photo. *American*
 POLYCHROMED CEILING AND RICH RUGS GIVE WARMTH TO THE LOBBY
 THE PARK LANE HOTEL, NEW YORK
 SCHULTZE & WEAVER, ARCHITECTS

of any hotel or apartment house kitchen depends on the space required to install the standard hotel kitchen equipment necessary to handle the cooking required by the maximum number of persons to be served. Store rooms, refrigerators and refrigerated food storage rooms are located off the kitchen. Provision should be made for employes, so that every servant will have a place to change into uniform before going on duty, and all necessary toilet facilities as well as a servants' dining room should be included in the plan. It has been found that the interests of economy and efficiency are best served by keeping employes in the building rather than giving meal allowances, which entails extra detail in checking in and out.

If space is too limited to allow the inclusion in the plans of a large laundry for the entire house, a small laundry should be provided to allow the tenants' maids to do light washing of pieces which it might not be wished to entrust to outside laundries. In the dark spaces on the lower floors, there should be ample storage rooms, both large and small, for chairs, awnings, furniture, trunks and other things which at various times and various seasons of the year are to be put away on the premises.

As a convenience to guests it is well to consider provision in the plans for such services as barber shop, humidor, valet service, telegraph office, flower shop and news stand, the operation of which, whether direct or by letting them as concessions, is of course optional with the management. In an

apartment hotel of the type represented by Park Lane, the less such features are in evidence the better, because it is highly desirable to secure as much privacy and exclusiveness as possible in the atmosphere of the entrance hall.

Apartment Hotel or Hotel Apartment? In planning Park Lane certain considerations other than those purely architectural entered into the planning. It was the intention of the management to impart to Park Lane a sense of permanent rather than transient residence, to make it an apartment dwelling with hotel service rather than a hotel with apartments to lease. The distinction may seem unnecessarily fine, but it was endeavored to express in the architecture of Park Lane this intention on the part of the management, and to create an apartment building which would set a new model, as a variant from the typical, in the field of apartment hotels.

With the distinctions now being made as between various types of apartments, each apartment house building offers a problem in itself, and in developing the plans the architect works out a number of different schemes, from which he eliminates those which do not meet the requirements. The final plan is then demonstrably the best to execute. The metropolitan apartment, operated on whatever system of rental or ownership, has become a highly specialized architectural type, developed today in the direction of conservative good taste in the matter of style and the utmost provision for comfort and convenience in its service and living accommodations.

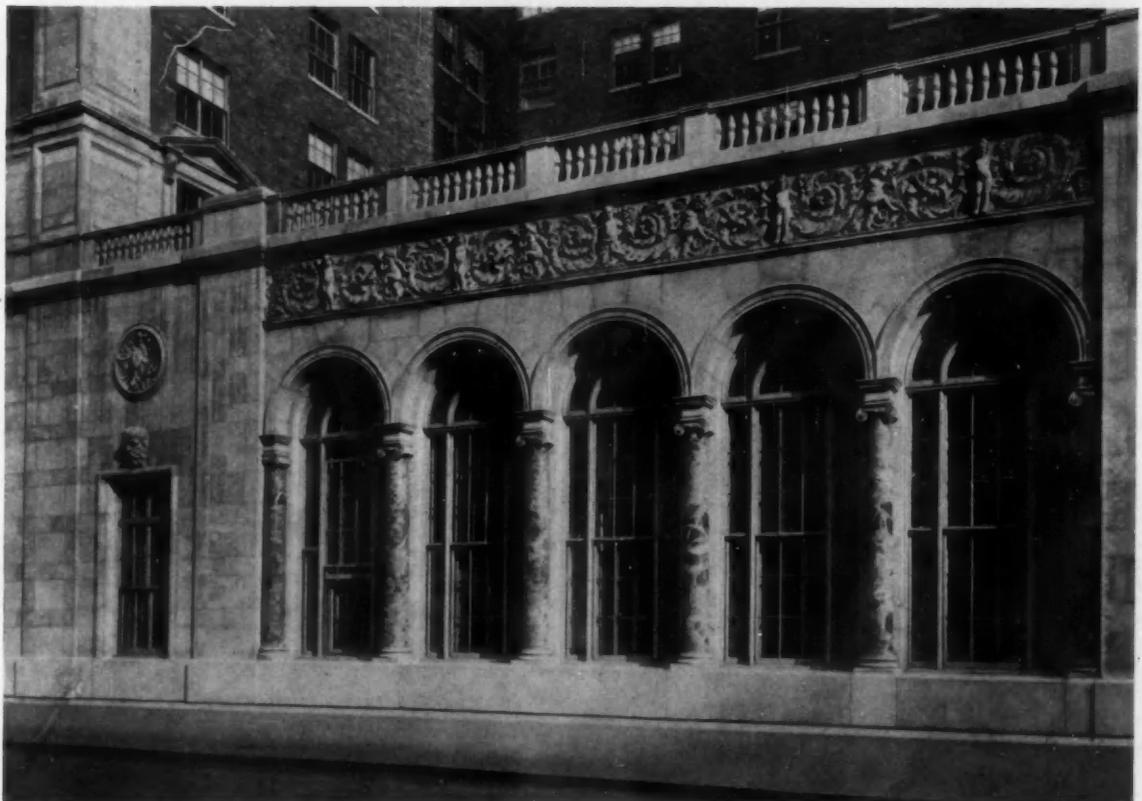


Photo. Dix Duryea

The Exterior of the Dining Room Is Indicated by an Arcade Enriched with Marble Colonnets and a Richly Carved Frieze

Economic Factors of An Apartment Hotel Project

THOSE who are considering the development of an apartment hotel project face a number of important business problems which directly affect the selection of location, the financing, and the planning and equipment of the proposed building.* These considerations bear primarily on the investment required, the gross income which may be expected, and the various expenses of operation, maintenance and depreciation which must be carefully considered and controlled in order to establish a net income commensurate with the financial risk involved. To indicate and describe in one article all the important elements involved in the economic considerations of a project of this nature is impossible, but in order to present many of these elements in a manner which will insure their careful consideration a classified tabulation has been worked out and will be found on the following two pages. In this tabulation there are four main divisions, each subdivided into logical groups of suggestions.

One chart (No. 1) outlines a number of factors influencing the selection of the site for an apartment hotel. This is divided into a consideration of local conditions of the proposed site, physical conditions of the land, conditions which affect appraisals, underlying conditions of the rental market, and some miscellaneous suggestions. Certain of the points briefly indicated will bear further explanation, while others are self-explanatory. The local conditions outlined represent the general demand on the part of the type of tenants who might logically be expected to live in an apartment hotel, so the requirements listed under this heading call for community facilities and physical characteristics of the neighborhood which will meet a clearly defined potential market. Under physical conditions, as indicated in the chart, experience has shown that the site should be chosen facing a park or a wide boulevard or at least be a corner lot so that permanent light and air are assured. If such a location is not available, an extra lot should be purchased adjoining the building on each side and maintained with low buildings to provide light and air. The orientation to insure sunlight, proper ventilation and good exposures is highly important. Another viewpoint from which the site should be considered is that of the mortgage loaning interests, which will appreciate the location and proposed building and will make decisions in regard to the financing in accordance with their liking for the location and their belief in its future. It is perhaps needless to emphasize the importance of a most thorough analysis of the rental market. For a project of this nature the demand should already be in existence, because pioneering in a torpid rental market is a long and expensive procedure. Local

rentals or at least rentals in a similar district must justify the investment. The best opinion advises omitting retail stores and shops unless they are absolutely necessary to help carry the high overhead of expensive real estate. Tenants in the apartment hotel think of the building as a home, and they are not favorably impressed with the intrusion of retail business, which generally destroys domestic character.

The restaurant offers an involved economic problem for which few apartment hotel owners have found a happy solution. A restaurant is a necessary detail, but in order to show any profit or even to pay its own way it must draw outside patronage in some manner. Hence the development of tea rooms and coffee shops as described in the article on "Food Service in Apartment Hotels" in this issue. In view of the fact that profits from the restaurant are questionable, this service should be analyzed carefully and space and equipment selected and arranged for economy of space and in a way calculated to attract outside patronage. Other interesting details which should be carefully considered will be found indicated in the tabulation.

Chart No. 4 provides a detailed analysis of special equipment and features which may increase rentals in an apartment hotel because they appeal directly to prospective tenants. Certain of these features require incorporation in the plan, and for this reason they should receive early consideration. Therefore, this tabulation has been divided, first into elements affecting the plan, then into factors of planning and equipment for living rooms, bedrooms, bathrooms and kitchenettes. Many of these factors are not only appreciated but required by apartment hotel tenants, as it is obvious that this method of living is luxurious to a degree only surpassed in finest private homes and large apartments. The tenant is ready to pay a high price for small space, provided that space constitutes an efficient and attractive home, easy and pleasant to live in, with a large proportion of the normal domestic problems solved through ingenuity of planning, equipment and service. The service features are also indicated in Chart No. 4, together with a number of miscellaneous suggestions. Naturally, these charts cannot be all-inclusive, but a serious effort has been made to include at least the more important features.

Chart No. 2 should be given primary consideration by the architect before the development of even the final sketch plans. In fact an analysis of the project based on Chart No. 2 will indicate primary elements of planning which fit almost any apartment hotel project and which will provide a basis for tentative as well as finished layouts. In Chart No. 2, will be found considerations for typical apartments; the possible requirements of food service, such as kitchen and restaurant space,

*EDITOR'S NOTE.—This article is based on information obtained from experienced apartment hotel proprietors and real estate managers prominent in the New York operating field.

CHART 1. FACTORS INFLUENCING THE SELECTION OF A SITE FOR AN APARTMENT HOTEL

The following points should receive serious consideration in selecting the locality and site for a proposed apartment hotel project. Even after land is purchased, these considerations should influence decision to build.

Local Conditions	Physical Conditions	Rental Market	Miscellaneous
<p>Established or coming social center. Close to active life of city or frankly suburban. Easy access to high class business districts. Neighborhood definitely high class residential. Quiet and privacy at night. Garage facilities near by if possible. High class shopping and marketing facilities near by. Restricted against business encroachment. Within accepted high rental districts. Easy access to theaters and restaurants. No smoke or fumes from nearby manufacturing. Good buildings in neighborhood probable.</p>	<p>Lot size and shape for practical perimeter. Subject to proper orientation. Facing park or wide boulevard. Adjoining church or permanent low buildings. If not, buy adjoining lots to protect light and air. Soundings if necessary to determine excavation conditions. Appraisal Conditions Well established and increasing land values. Favored location for mortgage loans. Logical location for type of building. Land cost commensurate with rental market.</p>	<p>Is there a real demand for such occupancy? Do local rentals justify this investment? Can stores and shops be omitted? Can restaurant be sub-let or open to public? Can high class lunchroom operate profitably? Is there a logical class of prospective tenants?</p>	<p>Experience of other buildings in similar locations. Opinions of experienced realty managers. Will landowner help in financing by subordinating part or all of land cost? Will it be necessary to buy adjoining buildings to protect light and air?</p>

CHART 2. ECONOMIC FACTORS WHICH INFLUENCE BASEMENT, GROUND AND TYPICAL FLOOR PLANS

The safest manner in which to approach the problem of planning an apartment hotel is to develop first a detailed written synopsis of aims and objectives to be attained in plan and equipment.

Typical Apartments	Food Service	Other Services	Public Space	Sub-Rentals	Miscellaneous
<p>Determine logical range in number of rooms to each apartment. Determine relative number of each size apartments. *Establish standard sizes desirable for typical rooms. From above data build up standard units from which logical shape of perimeter will develop. Light and air important. *See Chart 4.</p>	<p><i>May require</i> *Kitchen space and storage. *Restaurant and lunchroom with service. Uncooked food dept. *Service pantries. Location of service elevator. Kitchen or kitchenette space to be allowed in each apartment. Location of shaft if incinerator is used *See article on page 265.</p>	<p><i>Plan space for</i> General or private laundry rooms with dryers. Trunk storage rooms. Valet (in large building). Maid service to apartments. Servants' quarters for private domestic help. Rooms and lockers for various employees. Children's playroom. Ballroom. Garden courts.</p>	<p>Main lobby. Reception room for visitors. Restaurant or tea room open to public. Arcade, lounge or other special features. Switchboard and house service desk. Telephone booths. Management Executive offices. Superintendent's quarters. Maintenance department.</p>	<p><i>May include.</i> Restaurant. Lunch or tea room. Coffee and pastry shop. Valet and barber. Other concessions. Retail stores and shops. Physicians and dentists on ground floor. Clubrooms. Turkish baths. Roof garden. Furnished apartments.</p>	<p>Shape and size of lot. Value of land. Orientation, air and light. Heights of adjoining buildings. Character of adjoining occupancies. Required rental per sq. ft. Advisability of partial hotel plan and service. Local building codes and laws. Local insurance requirements. Structural system adopted.</p>

CHART 3. ELEMENTS OF INVESTMENT AND INCOME AFFECTING PLANS AND SPECIFICATIONS

Planning is the key to rental appeal and profits. Specifications cut maintenance and depreciation costs if good materials and equipment are used. Proper layouts and equipment will cut operating costs. This is the architect's responsibility—to design a profitable building!

Investment	Financing	Income	Operating Costs	Maintenance	Miscellaneous
Total investment.	Are impressive sketch-plans required for:	<i>Primary sources</i>	Heat and hot water.	Plant upkeep and repair.	Is building for speculative or investment purpose?
How much for land and excavation?	Mortgage applications.	Apartment rentals.	Refrigeration.	Furnishing and upkeep of public space.	Exterior should be good but not lavish.
How much for building?	Mortgage bond issues.	Furnished apartments.	Food service.	Redecorating apartments.	Clever planning and modern equipment only can make the restaurant pay.
Allowance for furniture and decorations.	Coöperative selling.	Restaurant-food service.	Elevator lobby service.	Repairs—plumbing and other installations.	Stores are not desirable.
Cost of restaurant and kitchen installation.	Leasing before construction.	Retail stores and shops.	Door and lobby service.	Keep down expense by original use of good materials and equipment.	Public space should be cut to a minimum.
Other special costs.	If coöperative—Apartment layouts to suit tenant-owner.	<i>Secondary sources</i>	Superintendent.		
Net building margin.	If space is sublet—Layout to suit tenant.	Concessions.	Janitor service.		
		Physicians' offices.	Garbage disposal.		
		Ballroom.	Window cleaning.		
		Club quarters.	Maid service.		
			Linens, laundry, etc. (if operated on hotel plan).		

These charts present points for preliminary consideration before laying out floors and deciding general specifications for an apartment hotel project.

CHART 4. SPECIAL EQUIPMENT AND FEATURES WHICH MAY INCREASE RENTALS IN AN APARTMENT HOTEL

Following are suggestions covering points which appeal to the tenant of an apartment hotel and increase the rental income by justifying higher rents and decreasing vacancy charges and rental competition. (See particularly articles on pages 227 and 253.)

In Plan	Living Rooms	Bedrooms	Kitchenettes	Service	Miscellaneous
Ample light and air.	Large, oblong, at least 300 sq. ft.	Size and wall space for full furnishing.	Large enough to function as real kitchens.	Laundry, general or private rooms with dryers.	Convenient electric switches.
Attractive entrance.	Good floors.	Large closets.	Full equipment built-in.	Storage room in basement.	Telephones in foyer and bedroom.
Good elevator location.	Fireplace and screen.	Conservative decoration.	Refrigeration.	Food service in restaurant.	Cabinet service doors.
Foyer in each apartment.	Simple, attractive mantel.	Concealed radiators.	Garbage disposal.	Food service to apartments.	Supply cooking utensils.
Living room 300 sq. ft. or over.	Good, restrained hardware.	Ample light.	Service door.	Uncooked food service.	Generous closet space.
Bedroom 220 sq. ft. or over.	Simple side wall lighting.	Cross ventilation.	Dining alcove.	Package and mail deliveries.	Impressive exterior and entrance only good if inside is good.
Ample closet space and 35 sq. ft. minimum.	Avoid over-ornamentation.	Overhead and side wall lighting.	Kitchen cabinet.	Maid and cook service.	Efficient elevator service.
Large bathroom.	Electric outlets—3 or more.	Overhead and side wall lighting.	Built-in ironing board.	Cleaning apartments.	Switchboard telephone service.
Large kitchenette.	Wall space for large pieces of furniture.	Electric outlets, 3 or more.	Electric outlets, 3 or more.	Coal and wood for fireplaces.	Efficiency planning for double-utility space.
Separate service door.	Concealed radiators.	Bathrooms	Floor, sanitary and cleanable.	Window cleaning.	Generous heat and hot water supply.
Dressing closets (where door beds are used).	Ample windows.	Ample size, good fixtures.	Walls, washable finish.	Furnishing apartments.	Attractive restaurant.
	Good painted or papered walls not over-paneled.	Tiled floor and walls.	Ventilation.	Ice water supply.	Efficient main kitchen.
		Overhead and side light.	Light, large overhead.	Vacuum cleaning.	
		Always provide shower.	Dishwashing machine.		

service elevators, pantries in private kitchens; other forms of service for which space will be necessary; the possible requirements of public spaces and suggestions as to the types of occupancy which may be provided for sub-rental purposes. A number of miscellaneous considerations which directly affect planning will also be found in this tabulation.

Other elements, particularly those of investment and income which naturally affect the development of plans and specifications, will be found in Chart No. 3. Planning is unquestionably the key to rental appeal and profits. Specifications form the insurance policy against high maintenance and depreciation costs. Proper layouts and equipment will cut operating costs. Thus the various points indicated in Chart No. 3 should be analyzed from the viewpoint of making the project a profitable building, and a general budget can be developed which to a considerable degree will establish the amount of space and the amount of overhead cost which would be allowed under each division. Each apartment hotel project is a distinct problem. It is well known that no two are comparable, so the provision in these columns of actual income and expense figures on individual operations of this nature would be valueless and probably misleading. For that reason detailed suggestions are made in the various charts, and the sources of information are almost obvious. In fact it is quite probable that the architect can obtain much additional information from the owner, who has undoubtedly given serious consideration and comprehensive study to the problem, and from other sources of information.

In developing the plans and specifications for a complex and important type of building, such as an apartment hotel, there is a method which has recently come into vogue in several important architectural offices and can be highly recommended. This method involves the primary preparation of a comprehensive detailed report which fully describes the plan, construction and equipment of the building. The first step is to lay out a tabulation such as that accompanying this article, covering all the points which may occur to the architect or of which he may be told by the owner. These various subjects are correlated as in the charts presented here, and a full written description of the proposed building is prepared with suggestions as to how the various requirements should be made. To illustrate this preliminary report rough floor layouts are indicated, with perhaps a few thumb-nail sketches of important details. The next step is to go over this report carefully with the owner and with the manager, who should be selected during the early stages of the planning, so that the benefit of his advice may be gained. If no manager has been selected, a consulting expert should be called in,—an individual who has had practical experience in the apartment hotel field. As the various items are taken up point by point, the proposed solution of each problem is approved or amended, so that this

final corrected report becomes an exact basis upon which to develop the first plans and the first draft of the specifications. In checking over the actual efficiency of this method, as opposed to the ordinary method of developing sketch plans and making tentative changes from time to time in a series of conferences, it has been found that the final approved plans and specifications can be arrived at in about one-half the time usually required and that, moreover, a more efficient building is usually developed. It is a strange fact that the average prospective owner of a building is not able to visualize the finished result from an examination of plans unless he thoroughly understands a written description. The type of report to which these paragraphs refer virtually makes possible visualizing the entire building through a descriptive exposition which begins with the proposed entrance and public spaces and covers the full layout, and at least the general equipment for all floors, typical apartments and surfaces, and other essential details.

In common with all types of investment buildings, the success of the apartment hotel project, measured from the architect's viewpoint, should be found primarily in profitable operation rather than in architectural beauty and structural success. The happy combination of these three elements is that for which the architect must strive. His fundamental responsibility is to create a building which contains in plan and specifications no obstacles to profit. In planning such buildings it must be remembered that among apartment hotel owners there is an established axiom to the effect that tenants rent from the "inside out," not from the "outside in." That is to say, that even though the exterior of the building may be impressive to the point of magnificence and the interior layout of apartments impractical and not of the required æsthetic and utility characteristics, apartments will be difficult to rent. On the other hand, a good, simple exterior with carefully planned and developed interiors and apartment layouts is almost certain to appeal to a dependable class of tenants. In fact, the architectural design of residential buildings, such as apartment hotels, often predicates the class of tenants.

In the article in this issue on the subject of "Efficiency Planning and Equipment" there will be found a description of a modern trend in planning apartment hotels which creates rentable spaces of a double-utility character, so that while maintaining a high rental income per square foot, the apartment hotel may offer to a tenant within a comparatively limited area all of the important features of living comfort which he may demand, but at an annual rental within the limits of his income. Buildings planned in this way offer not only high class living accommodations at a reasonable rental but they offer a solution of the problem of a tenant who wishes to live in the city during the winter months and in the country in the summer, because the overhead during the summer is not prohibitively high.

The Lake Shore Drive and The Belmont Hotels, Chicago

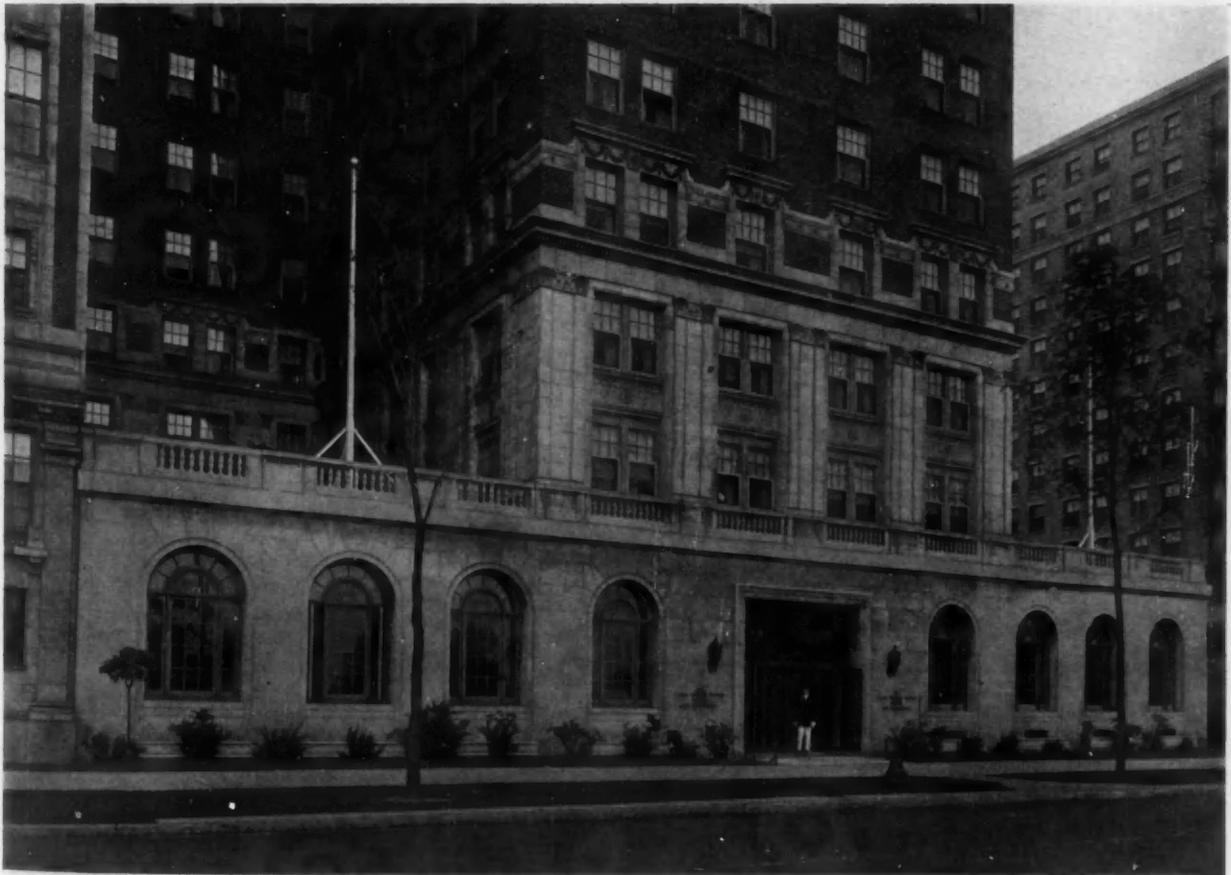
FUGARD & KNAPP, Architects; WARREN & WETMORE, Consulting Architects on The Belmont

IN the design of the new Lake Shore Drive Hotel, which we will consider first, the all-important factor of location was considered with great care, since the site the hotel occupies is of strategic importance. Furthermore, to develop this property to its highest and most efficient use, it was decided that for this particular location a building 19 stories high, adapted to high class apartment hotel purposes, would eventually prove to be the best investment, as its location was already surrounded by the most modern apartment buildings and hotels in Chicago.

With a passing word we may take for granted the importance of sound financing, correct location and good architecture; we may assume in this analysis that the type and general plans of this hotel will meet local requirements and establish a sound business prospectus. There is one test, however, which applies equally to the preliminary analysis of any hotel project, to the finished plans of the hotel, to the completed building and its administration,—it is the test of guest service. In any hotel the most important factor is rooms, and room service becomes of paramount interest in

planning. Next in importance, and often of equal importance, is the restaurant service. The planning of the details of service rooms and restaurant forms the primary test factor in considering a hotel plan. Every hotel requires a different solution of these important service problems, depending upon location of site, dimensions of building lot and character of neighborhood. It was therefore decided in this case that the rooms should be laid out in four- and five-room suites, each having a large living room, small dining room and kitchenette, two or three bedrooms and a bathroom. These rooms are so arranged that they can be thrown together, enlarging or diminishing the size of a suite as occasion requires. It was desired that the layout of the public rooms should assume a domestic character, resembling in aspect the refined home of a gentleman, in order to attract the most desirable clientele.

The exterior design follows the style of the Georgian and Adam periods. The three lower stories are of Indiana limestone, conservatively enriched with small pilasters above the first floor. The shaft of the building is of a reddish face brick with light joints, while the upper portion is relieved with



The Main Entrance and Public Rooms Are in the One-Story Pavilion Extending Across the Entire Front of The Lake Shore Drive Hotel, Chicago



The Windows in the Dining Room of The Belmont Pierce the Deep Cove of the Ceiling, Forming Interesting Breaks

simple quoins and cornices of stone, and parapets which have balustrades and urns to create an interesting skyline. This treatment is carried around all the four sides, slightly simplified, because the building, owing to its unusual height, is conspicuous from all directions.

The walls of the entrance hall to this hotel are of a hone-finished San Saba marble, with small allegorical plaques to give points of interest. Bronze grilles and carved wood revolving doors of this entry afford an interesting contrast to the plain wall treatment. The main lobby possesses dignity in spite of the simplicity of its treatment. A delicately designed ceiling of patterned plaster, slightly arched, carried on a plaster cornice above fluted wood pilasters, forms the chief architectural feature of this lobby. The wall panels, slightly recessed, are in plaster. The entire room is in an ivory tone, painted and glazed. This treatment of the walls is in striking contrast to the rich red rug covering the marble floor. The furniture and ornaments, which are antiques, show to advantage against the plain wall treatment.

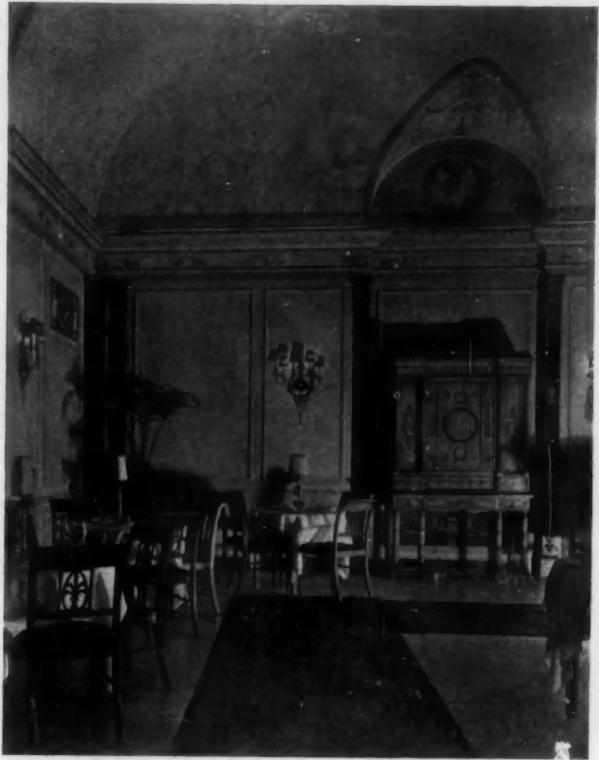
Marble steps at the west of the lobby lead into a spacious dining room decorated in the Adam style. Here simplicity is again the note through the sparing use of ornament and decoration. The tones of ivory and pearl gray, relieved by touches of gold



The Decorations of the Dining Room of The Lake Shore Drive Hotel Show a Restrained and Dignified Use of Motifs and Furniture in the Adam Style

and green, make up the color scheme. Plain walls relieved by delicate pilasters and wall torches of delicate design form a pleasing background for the costumes of the women guests, as well as for the attractive furniture, specially designed in the Adam style. At the east of the lobby the main lounge is entered by a short flight of marble steps. An atmosphere of rest and quiet was secured here by painting the ceiling to imitate antique walnut with polychrome decorations. The walls of this room are sand-finished plaster, perfectly plain except for recessed panels, and painted in an interesting shade of soft old gold. The floor is covered with a carpet of a deep plum color which tones well with the walls and ceiling. Under the ceiling light in the center a bright Venetian silk canopy, supported on wood masts, softens the light from overhead to a subdued and pleasing quality. The entire room is furnished in rare antique furniture, draperies and brocades. From this lounge opens a women's boudoir which is designed and decorated in Louis XVI fashion, appropriate to feminine occupancy.

On the 18th floor is located a cozy playroom overlooking an attractive roof garden. The walls of this playroom are covered with a reproduction of an old hand-painted French paper, which together with gaily painted wicker furniture makes this a charming and attractive place for recreation. The 420



Dining Room of The Belmont Shows an Effective Use of the Directoire Style in Decorations and Furniture



Coupled Columns and Pilasters in Pavanazzo Marble with Dull Gold Capitals Lend Dignity and Richness to the Lobby of The Belmont

rooms of this hotel are arranged in approximately 180 apartments, which may be increased or decreased in size according to the requirements of the tenants. Three to eight rooms form the suites in which tenants are allowed to prepare their meals themselves, or to have them served to them in their apartments by the management of the hotel.

The Belmont was planned as a residential hotel, so suites can be rented with or without kitchenettes, and owing to the flexibility of the plan even single rooms are procurable for transient rental during the summer months, when the renting of apartments is more difficult. The main lobby of the hotel is entered through a spacious arched vestibule,

the groined ceiling of which is sumptuously decorated with sgraffito. The background of this sgraffito is a dull Della Robbia blue, roughly scratched, giving it life and vigor; with it the delicate ornamentation in stone colored coating contrasts strikingly. The lunettes below this vaulting are also treated in sgraffito with designs in fawn color showing large cartouches containing the hotel crest. In contrast to this rich decoration are the plain and severe stone walls below, and the delicately wrought bronze entrance doors.

The main lobby is an imposing room, 30 feet wide by 100 feet long, extending through to the west lobby; together they give a vista of 125 feet. This vista is closed by a beautiful fountain in the form of a niche, the background of which is covered with iridescent gold glass mosaic, softly illuminated, to throw a restful glow over the marble figure which forms the center of the fountain design. The lobby proper is reached from the vestibule by a short flight of marble steps flanked by imposing Ionic columns and balustrades of Pavanazzo marble. The walls of this entrance end are of San Saba marble surmounted by a delicately carved frieze of Greek figures in low relief. The upper walls of the main lobby are penetrated by mirrors in the form of windows having bronze railings, between Pavanazzo marble pilasters in the Ionic style. The ceiling is coffered with a center feature of delicately modeled plaques and medallions. On the north side of the lobby a short passage leads to a women's



Terra Cotta Details in the Adam Style Enrich the Upper Stories of The Belmont Hotel

room in the Directoire style, having a flat and delicately ornamented ceiling of plaster.

The north lounge is a magnificent room, decorated in the rich and restful style evolved by Grinling Gibbon. The ceiling in this room is suggestive of an old English mansion. It is laid out in a geometrical pattern of English strapwork, painted in soft tones. To simulate the old ceilings it was found best to treat this ceiling with two coats of white shellac, rubbing and dusting it down with rotten stone to the desired antique effect. In this manner the thumb-finished background and ornament, together with the hand-finished moulds, give a soft and modulated color to the entire ceiling. The room, which

is about 16 feet in height, is paneled in dark brown American walnut, effectively filled and waxed. In the center of this room the fireplace opening has been decorated with a marble moulding of Breche Violette, above which hangs an old English portrait.

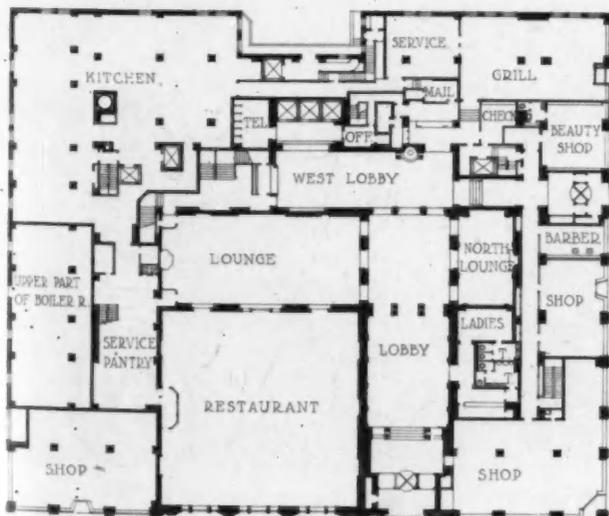
The Belmont is equipped with a modern refrigerating plant which supplies all the hotel refrigerators, as well as the kitchen ice boxes, and ice water for the rooms. A special unit of this plant furnishes cooled air for the dining room and lounges. The kitchen is completely equipped with electric ovens and electric cooking devices of every sort, as well as with all modern kitchen machinery, dishwashers, silver polishers, cutting and mixing machines. It is unusually light and spacious, and has every known device and equipment to make it absolutely sanitary as well as convenient.

The heating system for the hotel comprises four tubular boilers with mechanical stokers, having a capacity in excess of 800 h. p. This system is complete in every respect, having also high pressure boilers providing steam for kitchens and laundries and for heating water and driving machines. Heating is on a vacuum system, permitting the regulation of the amount of heat in the radiators by the occupants of all rooms. The hotel has its own laundry, with complete equipment for caring for all hotel and private work. The Belmont contains 693 rooms, which may be divided into 250 apartments, ranging in size from three to seven rooms each, according to the varied demands of guests.

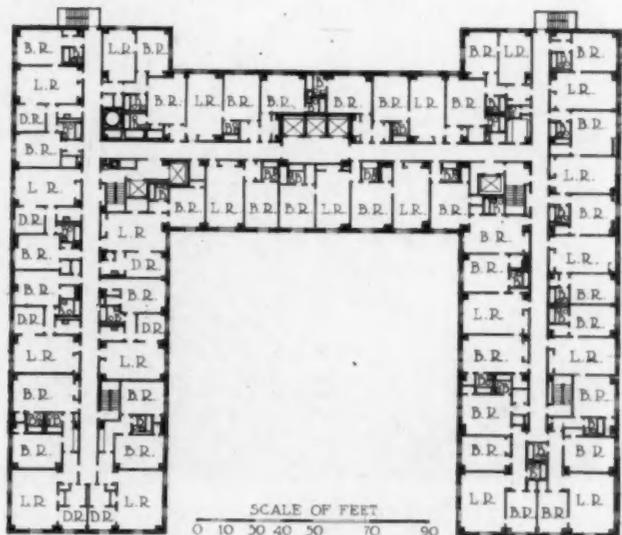


NUMBER of apartments approximately 250; 693 rooms altogether. Hotel management permits tenants to prepare meals in rooms or will serve meals in the apartments when desired. Each apartment has a small kitchenette or pantry containing sink, ice box, gas range, china closet, dishwasher, linen,

dishes, silver, pots and pans. Maid service furnished as desired; 32 maids' rooms in the hotel. Dining room can seat about one-half of the tenants at one time. Work begun June, 1923, completed March, 1924, at a cost, for construction only, of 80 cents per cubic foot.



GROUND FLOOR PLAN



TYPICAL FLOOR PLAN

THE BELMONT HOTEL, CHICAGO

FUGARD & KNAPP, ARCHITECTS; WARREN & WETMORE, CONSULTING ARCHITECTS

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THE DIRECTOIRE DINING ROOM

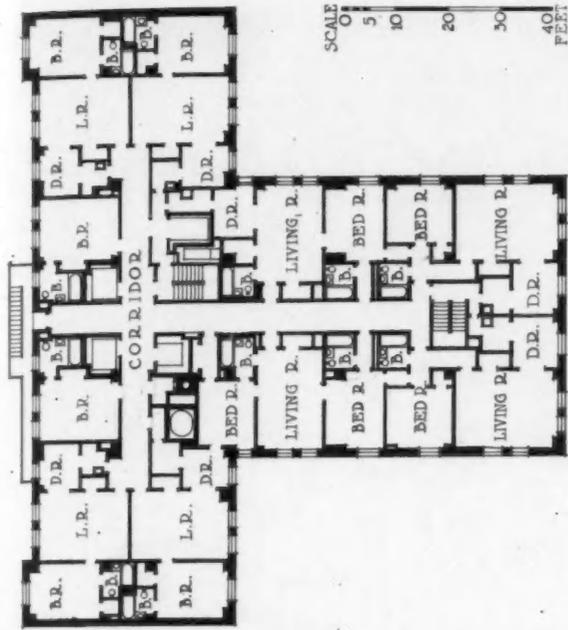


Photos, Trowbridge

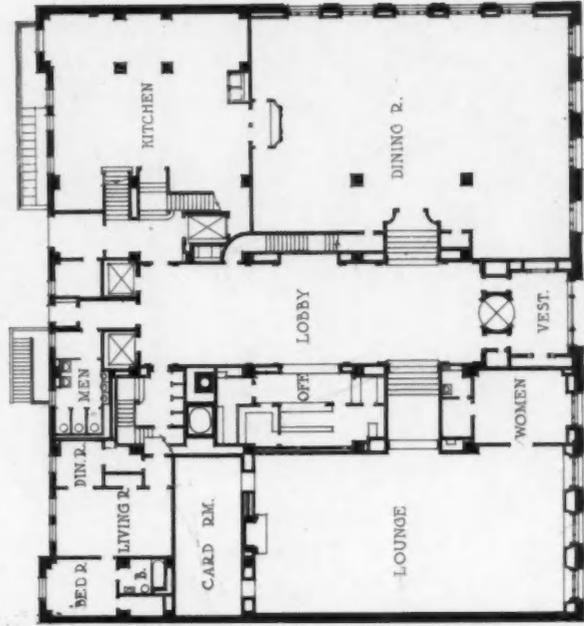
THE MAIN LOBBY
THE BELMONT HOTEL, CHICAGO
FUGARD & KNAPP, ARCHITECTS; WARREN & WETMORE, CONSULTING ARCHITECTS

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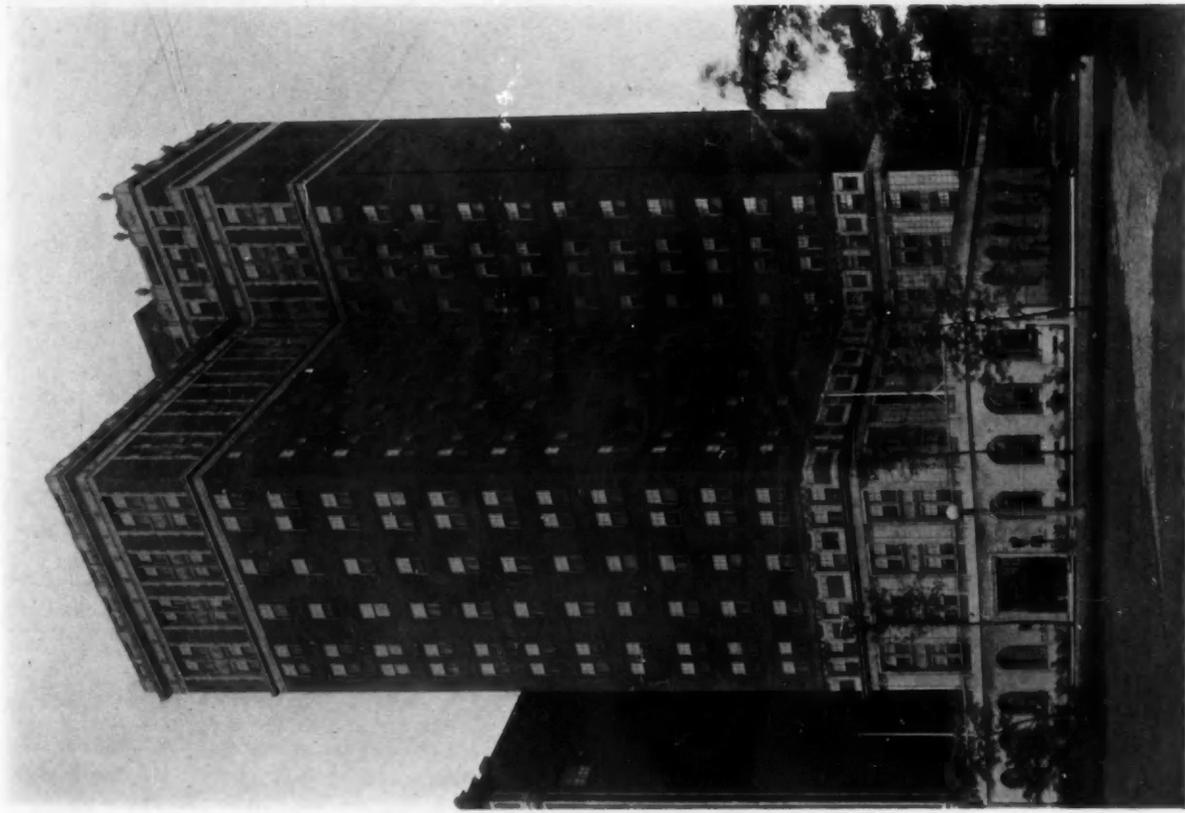
TYPICAL FLOOR PLAN



GROUND FLOOR PLAN

NUMBER of apartments 180, varying in size from three to eight rooms; 420 rooms altogether. Tenants are permitted to prepare meals themselves or hotel management will serve meals in apartments when desired. The kitchenette or pantry closet contains sink, ice box, gas stove, china closet, silver, dishes, pots and pans, etc. Maid service for all apartments furnished if desired. Rooms on the roof for approximately 12 maids, all other servants sleeping outside. Dining room seats 120, or a little less than one-half the tenants, who number approximately 300. Work was begun July, 1922, and completed May, 1923, at a cost for construction only of 80c per cu. ft.

Construction: steel frame, concrete floors. Interior partitions: clay tile, soundproofed between apartments. Floors: cement trowel finish, carpeted. Windows: wood frame and sash. Heating: high pressure plant, vapor system. Refrigeration provided.



GENERAL EXTERIOR VIEW

THE LAKE SHORE DRIVE HOTEL, CHICAGO
FUGARD & KNAPP, ARCHITECTS

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THE MAIN DINING ROOM



Photos. Trowbridge

WEST WALL OF THE LOBBY
THE LAKE SHORE DRIVE HOTEL, CHICAGO
FUGARD & KNAPP, ARCHITECTS

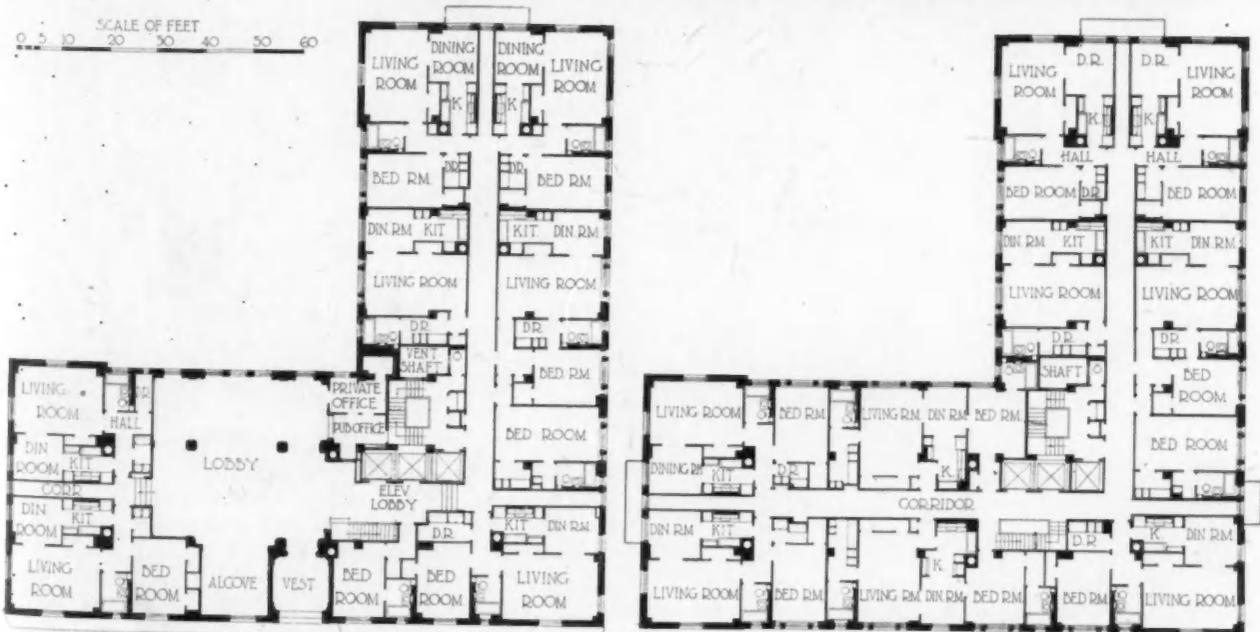
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NUMBER of the apartments 140, varying in size from one to six rooms, according to demand. Tenants are permitted to prepare meals in apartments or meals will be served by management in apartments when so desired. Kitchenettes equipped with electric ranges, sinks, cupboards, refrigerators and incinerators. Maids furnished by the management as a special service, paid for by the hour. No general dining room in this house. A few rooms for maids are located in basement. Construction: steel framing, concrete floors, brick exterior walls. Interior partitions: hollow tile and solid plaster. Floor construction and finish: concrete reinforced and finished with cement top covered with carpet. Tile floors in all bathrooms, and marble in lobby. Work begun in May, 1923, at a cost per cubic foot of 65 cents or \$7.50 per square foot, including floor and roof. Entrance lobby has stucco walls painted and decorated, wood trim, travertine floors.



SCALE OF FEET
0 5 10 20 30 40 50 60



FIRST FLOOR PLAN

TYPICAL FLOOR PLAN

HUNTINGTON APARTMENTS, SAN FRANCISCO
WEEKS & DAY, ARCHITECTS

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VIEW TOWARD ALCOVE IN LOBBY



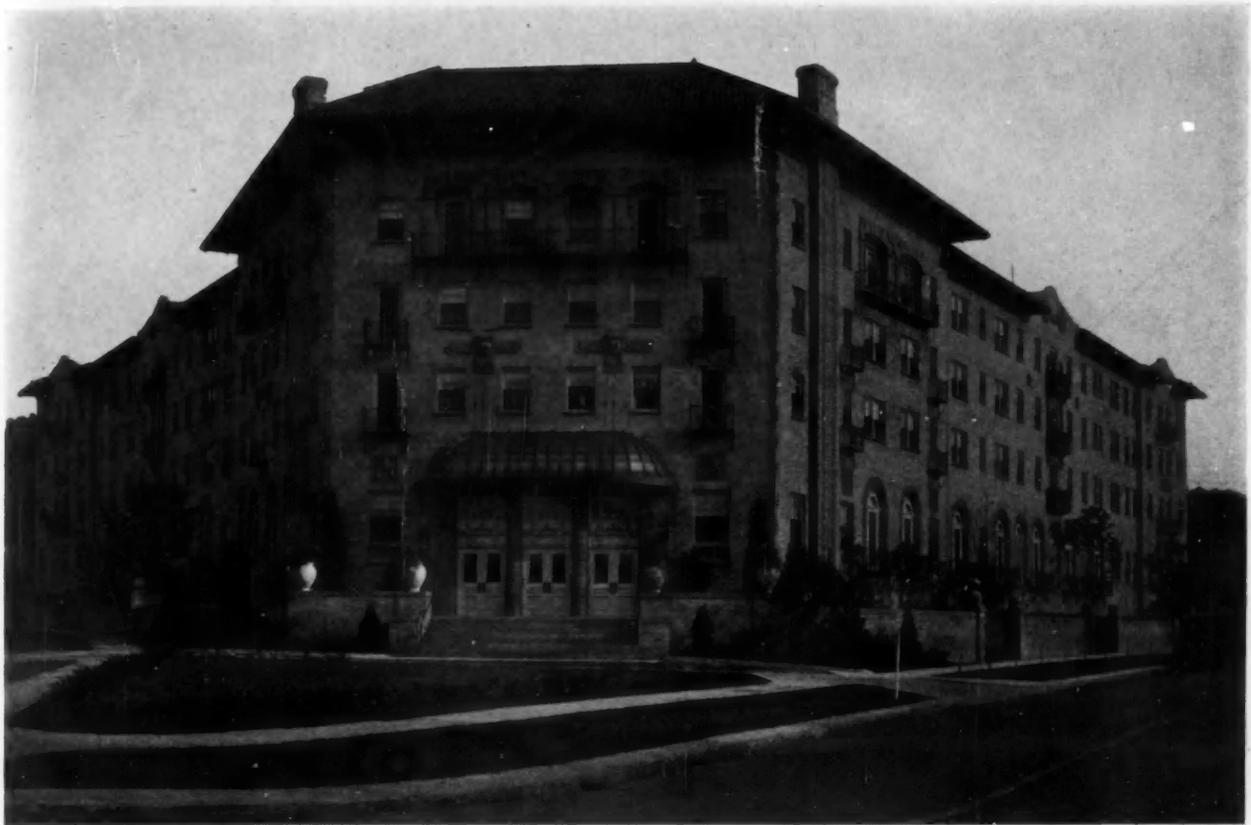
VIEW TOWARD ENTRANCE IN LOBBY

Photos. Gabriel Moulin

HUNTINGTON APARTMENTS, SAN FRANCISCO
WEEKS & DAY, ARCHITECTS

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NUMBER of apartments 175, varying from one to six rooms to each apartment; 88 apartments have kitchenettes for use of tenants. Management will serve meals in apartments at a service charge of 25 cents per person. Kitchenettes are equipped with gas ranges, iceless refrigerators, sinks, china closets,

silver, linen, glass, china, electric percolators, cooking utensils and garbage removal service. Maid service provided by management for all tenants. Main dining room seats 250, private dining room 50. Work begun March, 1922, completed November, 1923; cost of 70 cents per cubic foot for building.



FIRST FLOOR PLAN



TYPICAL FLOOR PLAN

SCALE OF FEET
0 5 10 20 30 40 50 60 70 80 90 100

ALCAZAR HOTEL, CLEVELAND
H. T. JEFFERY & SON, ARCHITECTS

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VIEW FROM THE FOUNTAIN TOWARD THE ARCADE



Photos. Tebbs & Knell, Inc.

VIEW TOWARD ENTRANCE TO LOBBY FROM THE GARDEN
ALCAZAR HOTEL, CLEVELAND
H. T. JEFFERY & SON, ARCHITECTS

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The Construction of Apartment Hotels

THE diversified problem presented by the actual construction of an apartment hotel building, or in fact of any large structure, is so extensive and has so many ramifications that it is impossible to present details in an article of this nature. It is the purpose, however, to make specific recommendations which may be of help to the architect as he faces this problem, and which may suggest some new and perhaps valuable ideas which can be easily made use of through consultation with engineers and building contractors.*

The first general decision to be made is in determining the type of construction which will be employed. There are two basic types used for this class of buildings. The first is steel skeleton construction with exterior curtain walls of brick paneled construction or of face brick and terra cotta tile. This type of construction is generally used, particularly if the building is more than six stories in height. The other type of construction which is employed occasionally is reinforced concrete, which is generally considered to be slightly less expensive than structural steel, depending on local conditions, and often requires more space than steel, and has not the same flexibility, thereby affecting the plan and the room layouts.

It is usually the case that the land on which an apartment hotel is located will bear a very high real estate valuation, and it is found desirable to provide as many square feet of rentable space as may be possible. Very often the increase of a room's dimension by 6 inches or by 1 foot makes a very definite difference in the rental value of an apartment, and for this reason it is advisable to seriously compare the two types in this connection. A determination of any dependable differentiation in cost between these two types of construction for an apartment hotel is extremely difficult and really reduces itself to taking bids on the individual building method. It is obvious, therefore, that as a decision in this matter must be made before plans are drawn, an inquiry into local conditions will provide the answer if from a structural viewpoint either reinforced concrete or steel construction will meet the requirements of the plan and comply with local building codes and laws. The speedy delivery of steel cannot always be secured, except through extra and prohibitive cost, and this condition alone may make it necessary that reinforced concrete construction be used. The location of the projected building often affects the type of construction, as in the case of a hotel located some distance from a shipping point, where the cost and difficulty of transporting the structural steel would involve too great an additional expense. It is therefore deemed

*Editor's Note — This article is based on information obtained from several well known construction engineers.

wise to study the local availability of materials, and also the availability of the type of labor to be used.

At the present time in the larger eastern cities the high class apartment hotel of from 12 to 18 stories in Class A fireproof construction is costing from 72 to 84 cents a cubic foot. The smaller types of buildings, of what might be termed Class B fireproof construction, are costing from 45 to 66 cents a cubic foot, with a probable 5 per cent saving represented by the use of reinforced concrete if delivery and labor conditions are favorable. Another practical point for consideration in deciding on the type of construction is that of the speed with which the building can be erected and completed. Whenever possible, it is the desire of owners to have this type of building completed for the September renting season, since the class of tenants who lease in such buildings return to the city at that time. It is obvious that every month of delay in construction represents a considerable loss on the investment, and it may be found that local conditions are such that completion of one or the other type of construction can be guaranteed by contractors within a shorter period of time. If there is any question as to which type of construction should be employed, the safest procedure is to draw up sketch plans of the building and, before any working drawings, details and specifications are considered, obtain estimates from dependable sources as to the relative values of the types considered together with any other data available to assist in the final determination. It must be realized that consideration should be given to the sources from which mortgage money is to be obtained, because some mortgage bankers favor one or the other type of construction and will make appraisals accordingly.

All architects justly feel that the best is none too good when it comes to the question of construction, because the permanency of a building and the minimizing of maintenance and depreciation costs depend primarily on the quality of the materials and equipment selected and the quality of workmanship and construction methods employed. If the internal structure, that is, the floors, piers, beams and walls, are well built, the external details, such as partitions, finish and ornamentation, can be made simple or elaborate and changed if necessary. The structure of a building, even if it is carried out in a cheap and indifferent manner, can never be changed except by the most expensive kind of remodeling. The useful life of a building is primarily determined by its degree of structural excellence. In the past, cheap materials and equipment, particularly cheap mechanical equipment, piping systems, etc., have been employed in the effort to reduce first investment costs, and the result has been invariably that after a period of years the cost of maintenance and repairs

has mounted to almost prohibitive levels. A present-day comparison of old buildings in the hotel field is very interesting from the viewpoint of structural excellence. Certain old hotels which were originally well built are still functioning as highly paying investments. In these buildings external details have been changed, sometimes often, new types of decoration have been introduced; public spaces have been cut down and retail stores introduced through remodeling. Floors, walls and ceilings have been treated in various ways; new plumbing fixtures have been introduced, and a variety of changes made to keep the building modern, because of its original structural excellence. On the other hand, many buildings are to be found in which it is impractical to carry out modernizing alterations and external changes because the structural cores of the buildings are not good, and the investments are not justified. The useful life of a modern and well constructed apartment hotel can be safely established at from 33 to 40 years and depreciation figured on that basis, while if the construction is cheap and inefficient, the entire cost of the building should be written off in 20 years from a practical and economic viewpoint.

A careful analysis of construction methods and the advice of structural engineers and practical building contractors have double value, particularly if they be had during the early stages of planning. It is not possible to give many practical examples of the value of the construction experts' advice, but one detail may serve to illustrate this point. In some of the large apartment hotels recently built or under construction in New York and Philadelphia, the buildings are structural steel and fire-resistive throughout as required by local building codes and insurance regulations. It has been found, however, that by fireproofing steel beams with concrete these beams can be allowed to show in the finished rooms, being surfaced with the regular plaster finish employed. The heights from floor to ceiling as required by the building codes can in this manner be reduced several inches as opposed to the type of construction where floor beams are completely concealed. In a 15-story building this saving represents the height of practically one entire floor, which materially reduces the necessary investment without reducing the net rentable area. For buildings of this type, the steelwork is designed so that these beams will show in the apartments at regular intervals, and there seems to be no objection from the tenants' viewpoint, as in many instances the effect of the ceiling is good and is even emphasized.

The relative fire-resistiveness of the types of construction employed is highly important, not only to the degree enforced by local building conditions, but also from the viewpoint of safeguarding the investment, preventing a serious loss to the disruption of the hotel's business in case of fire and gaining a material reduction in insurance rates which often amounts to enough to justify the additional investment purely as a business proposition. The minimum

of fireproofness in smaller cities and towns where building code requirements are not specific should be governed by the Board of Underwriters' rules.

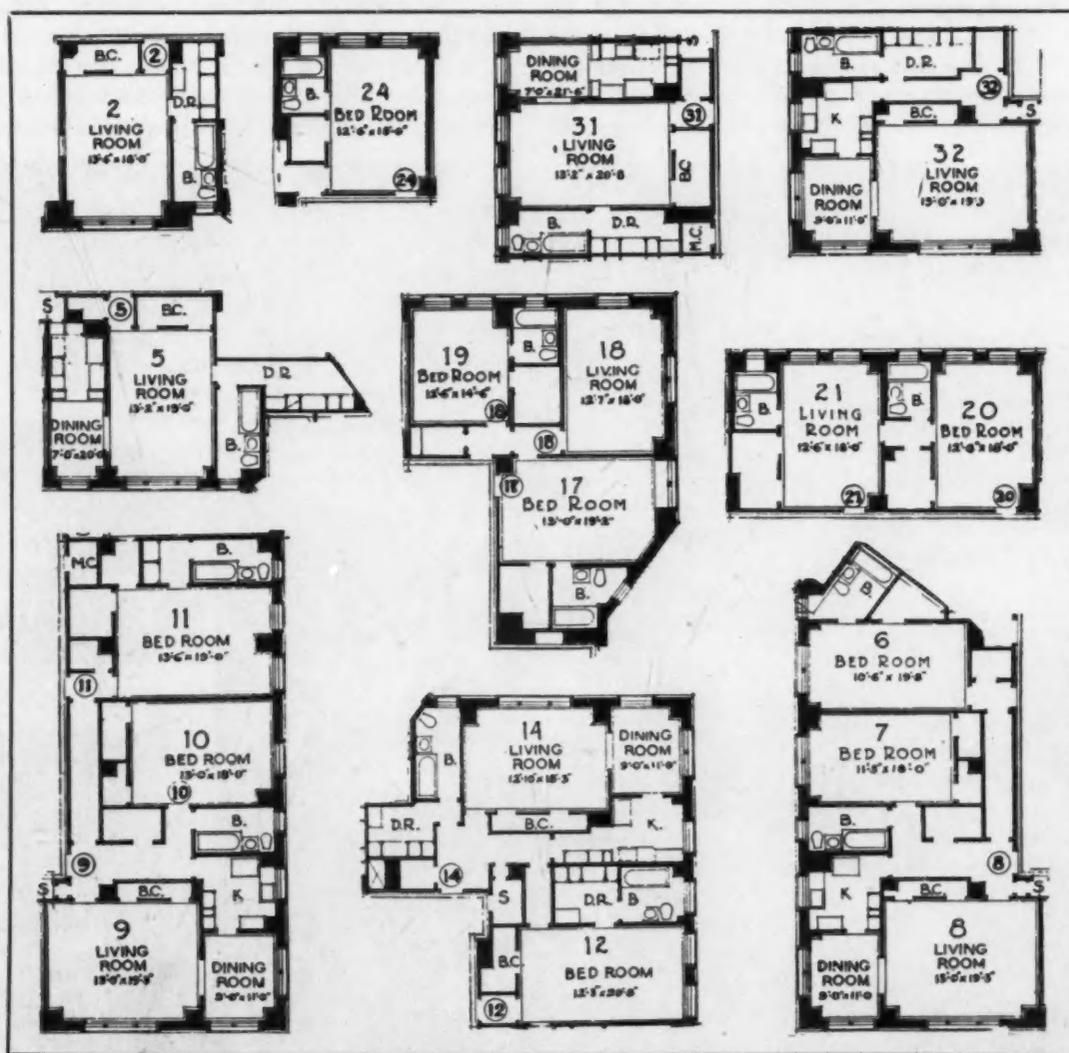
The hazards of the building should be carefully analyzed, both the exterior and the interior. The principal fire hazards in an apartment hotel structure are exterior and vertical openings. If the building is constructed adjoining low or non-fireproofed buildings where there is a danger of conflagration hazard, steps should be taken to prevent the ingress of flames through windows and doors. Over dangerous exposures, wire glass windows should be used wherever possible, and window frames, sash, etc., should be of metal throughout. Vertical openings, such as elevator shafts, smoke towers, dumbwaiter shafts, pipe shafts, etc., should be constructed so that fire cannot spread through these passages. The construction will be of masonry materials, and all doors or openings into such shafts should be of metal and wire glass. The entrance doors to all apartments should be fire-resistive, and the trim of stairs and halls should be of metal or of fireproofed wood, which is much less satisfactory. In semi-fireproof buildings the floors should be divided into definite fire areas so that a continuous partition wall of masonry acts as a subdivision, and in case of fire it can be definitely confined to one section on the floor on which it originates. It does not seem necessary that trim and doors in the apartments should be of fireproof material, but it is good practice to surround occasional groups of apartment units with 8-inch brick walls and to have the walls of the public corridors of 6- or 8-inch fireproof material, such as terra cotta blocks, as in semi-fireproof buildings. This type of construction also insures stronger and more durable walls and partitions. Besides having the merit of a high degree of fire retardance, plaster on terra cotta, gypsum or plaster block is less liable to damage and less likely to develop cracks, thus providing a definite saving in maintenance and depreciation costs.

The importance of properly employed fire-resistive materials and fire protection equipment cannot be too greatly stressed, not only for apartment hotels but for all types of buildings. It is generally true that architects have never had sufficient information on this subject, and in many instances the insurance engineer will have a number of recommendations to make when plans and specifications have been completed without thorough consideration of this problem. It is a mistake to believe that the placing of an insurance policy is the beginning and the end of the problem of fire loss. While insurance may cover a fair proportion of the direct intrinsic loss, it does not pay for the interruption to income and other expenses which invariably are chargeable to a fire loss. The provision of proper protection against fire is termed "insurance engineering," and many large insurance companies, insurance agents, brokers and rating bureaus employ insurance engineers whose services are available for the

architect and owner. The rating bureaus, as organized by fire insurance companies, provide definite allowances for each standard item of fire protection incorporated in the building. These allowances are established in rating tables, and information is available to the architect through local underwriters and representatives of fire insurance companies.

Even at the sacrifice of some degree of costliness in interior decoration, the structural integrity of a building should be maintained under rigid specifications. There are certain points where high maintenance costs will be sure to develop if the original installation and workmanship are not of the best. One very important factor is the roofing of the building. Architects are familiar with the built-up roofings for large flat areas and other types of roof construction, but many instances have been known in which weak spots were left by the use of improper flashing materials and other exterior metalwork which because of local hazard conditions in the air,—local dampness and salt air,—or because of the nature of the metal employed, deteriorated rapidly and

demanded constant maintenance and frequent replacement. Careful study should be given to this question, and local conditions should be analyzed. There are available several types of good exterior metal materials, each well fitted to meet given conditions provided the selection is made after an analysis of the situation. Similarly in the provision of pipe and plumbing fixtures. A chemical analysis of the local water should be obtained with definite information as to the type of metal which can logically be employed in that section. To the deterioration of piping, particularly in older buildings, where the plumbing lines were concealed, may be charged a tremendous annual loss in the building field. Similarly, with elevator equipment and other forms of mechanical equipment required in buildings of this type, there are today a number of apartment hotels where constant trouble and annoyance are the result of using poor installations, and in one instance at least which has come to the writer's attention, the cost of repairs and replacements has in the first two years exceeded the additional cost of put-



A Study of Typical Apartment Plans for an Apartment Hotel. These Are Plans of the New Windermere East (Chicago). Note Combination of Regular and "Efficiency" Planning. C. W. and Geo. Rapp, Architects.

ting in a first class elevator installation when the structure was built. Attention may also be directed to the proper finishing of public spaces in the building. Floorings should be selected with an eye to long wear, minimum discoloration and ease of cleaning. Similarly, coves, bases and wainscoting should be of materials which meet these requirements. The necessity for repainting, replacement or use of abrasive cleaning should be avoided entirely, not only because of expense but because of the interruption and annoyance occasioned tenants.

This article would perhaps not be complete without a brief reference to the architect's relations with the general contractor and subcontractors who may undertake the building of an apartment hotel. Certain specific requirements enter definitely into the construction of a building of this type. In the first place, there is invariably a demand for speed. Building progress is scheduled to meet rental demand. In a situation of this kind it is the owner's duty to allow the architect definite leeway in the selection of contractors and to refrain from insisting on the acceptance of lowest bids. The reputation of the contractor's organization has intrinsic value, if it is good. Where loose specifications are provided and cheap bids are accepted, there arise almost from the beginning constant bickering and time-consuming

disputes or arbitrations. All apartment hotels are, or should be, well constructed. The use of good materials demands the workmanship and efforts of skilled contracting organizations. Good mechanics and craftsmen are absolutely essential, and in most instances, particularly in the larger cities, this type of mechanic is available primarily to the well established contracting organization which pays well and thoroughly understands the handling of the trades. In placing the contracts, therefore, not only price but the element of time and excellence of performance should be definitely included and evaluated, so that the owner may clearly choose between satisfactory progress and performance or the dangerous results of delay and inefficiency.

In letting contracts for construction work careful consideration should be given to the possibility of including proper arbitration clauses so that disputes which might arise will not involve serious delay in the progress of the work. Financing arrangements should also be of a definite character with a clear understanding as to when payments are to be made and the method of making payments. The owner should know exactly what will be expected of him in this respect and should realize that as he expects service from the architect and contractor, so he must discharge his duties to them justly and without delay.



The Jacobean Library in The Pearson Hotel, Chicago.
Robert S. De Golyer & Company, Architects

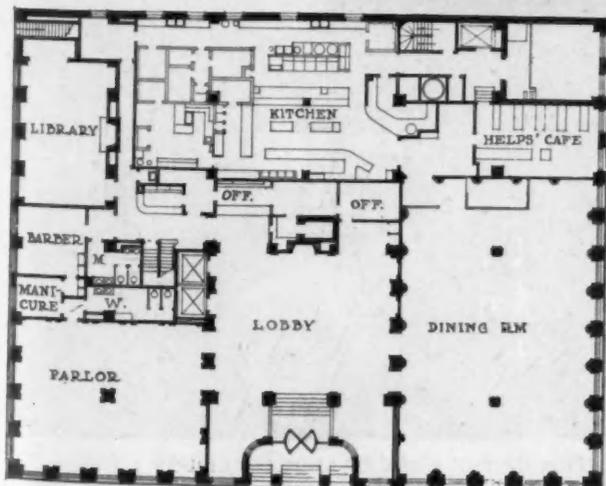
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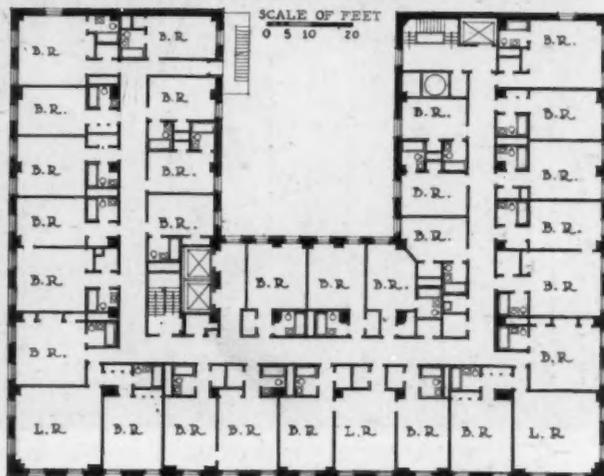
The Pearson Hotel, Chicago

ROBERT S. DE GOLYER & COMPANY, Architects

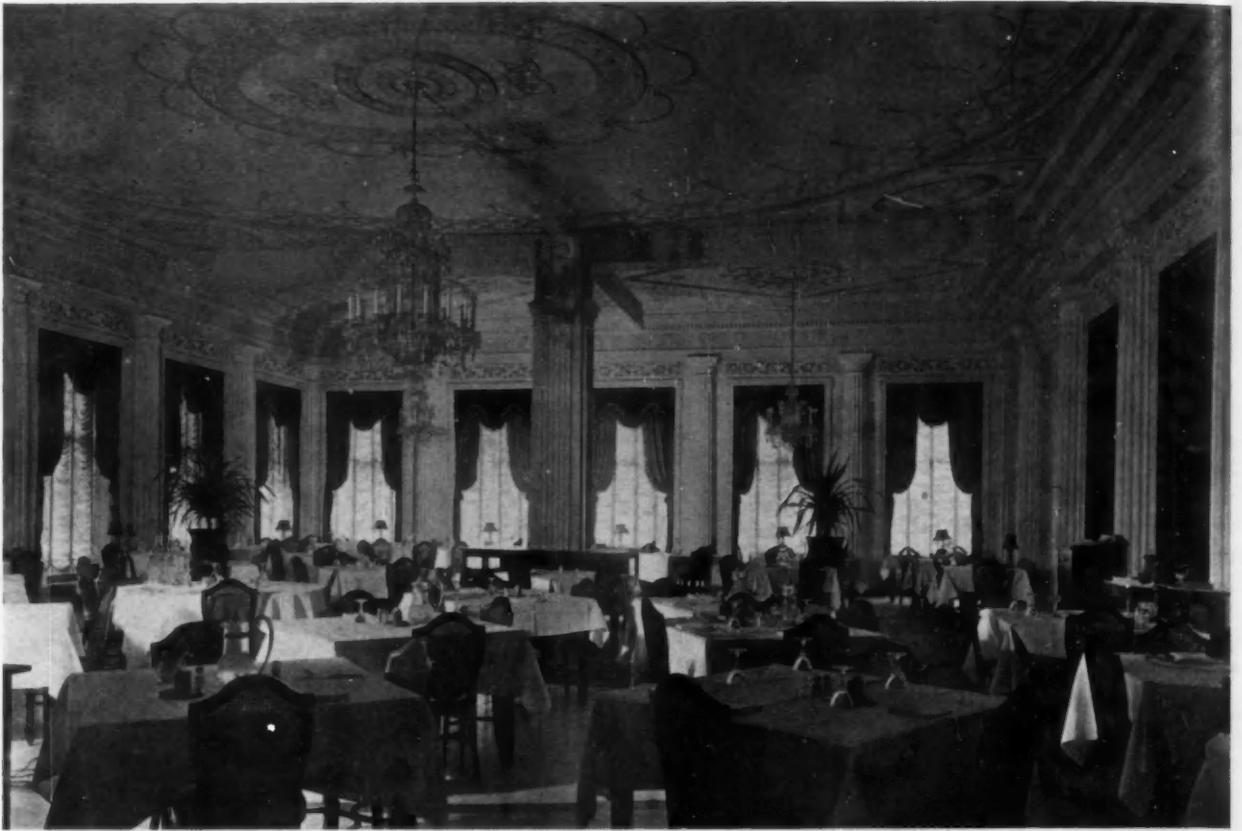
A COMPACT, balanced and well studied plan. Exterior walls are of brick and Indiana limestone. Construction is the skeleton type of reinforced concrete. Heating is by vacuum steam, no automatic temperature control. Electricity provided by public service company. Elevators are car switch control, 500 feet per minute. Cars finished in American walnut. Windows are of wood frame and sash, double-hung. Entrance lobby is finished in American walnut. Dining room is a combination of plaster and birch trim and columns painted. Floors: marble in lobby, terrazzo in the dining and living rooms. Cement, carpeted, in all the tenants' rooms. All walls on typical floors are canvased and paneled with wood mouldings. Cost per cubic foot, approximately 65 cents. Work begun October, 1922. Number of rooms, 325, arranged for combination in apartments of varying sizes.



FIRST FLOOR PLAN



TYPICAL FLOOR PLAN



THE DINING ROOM SHOWS CEILING AND WALL TREATMENT IN THE ADAM STYLE



THE LOBBY IS A FINE EXAMPLE OF THE ADAPTATION OF THE WORK OF GRINLING GIBBON
THE PEARSON HOTEL, CHICAGO
ROBERT S. DE GOLYER & COMPANY, ARCHITECTS

Special Equipment for Apartment Hotels

By WILLIAM L. ROUSE

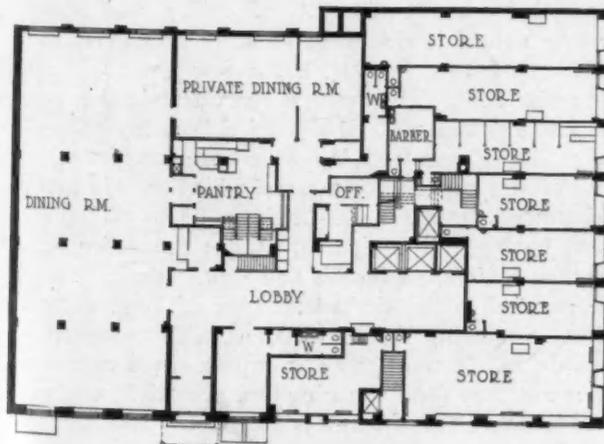
Of Rouse & Goldstone, Architects, New York

THE importance of the apartment hotel as a factor in the housing situation is due to changing economic and social conditions which have been intensified by high rentals and the difficulty of obtaining efficient domestic service. An analysis of the types of tenants who lease space in apartment hotels indicates that approximately 20 per cent are those who have given up city homes because of the high cost and inconvenience of maintaining large establishments; about 40 per cent consist of tenants who use apartments in the fall and winter months and live in country homes or hotels in the summer, while the remaining 40 per cent are retired business men and women or families having good incomes, but not desirous of carrying the burden of regular housekeeping establishments. The entire tenantry in the apartment hotel classification may be characterized as a group accustomed to good living conditions and able and willing to pay for the modern conveniences and comforts of living.

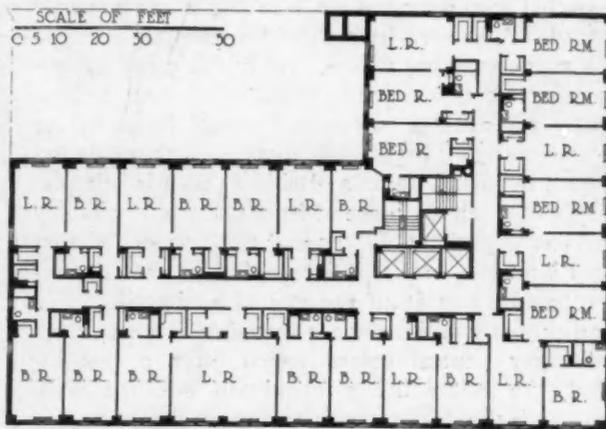
It is evident that as the primary purpose of the apartment hotel is to cater to this special class of residents, the problem of convenient and even luxurious equipment must be studied carefully and an effort be made to meet every possible demand which might arise under these conditions of living. With the definite limitations of space established in planning in apartment hotels, one of the first considerations is to provide unusually ample closet and storage space. A relative quantity of closet space should not be that of the average apartment, for it should be remembered that tenants of the type who will lease space in the apartment hotel usually possess more than the average quantity of clothing, luggage, sport gear and other equipment which requires space for active storage. There should be one closet opening directly from each bedroom and containing at least 35 square feet which will provide ample room for hanging a large number of dresses, coats and suits.

The upper part of this closet should have deep shelving which will accommodate bags, bedding, hat boxes and similar equipment used only occasionally. There should also be shelving for shoes, and the tenant will usually find space in this closet for storing a sewing machine if desired. A linen closet is an important adjunct in such an apartment and will be used not only for the storage of table linens but for towels and sheets. It should be located close to the bathroom. There should be at least two additional closets, of not less than 15 square feet, equipped with upper shelving, hanging poles and hooks. Many tenants in apartment hotels employ domestic day service, and a small closet should be provided for a maid's uniform and clothing. No consideration need be given to trunk storage space, since this is provided in the basement where a general checkroom is usually sufficient.

It is, of course, a valuable addition to the plan if a closet can be provided opening directly off the bathroom. This closet would be used for the storage of linens and towels, and it should also have small shelving for bottles and other paraphernalia for which there is no room in the average medicine cabinet. Wherever possible two medicine closets should be built into the walls of the bathroom, affording an appreciated extra convenience. The plan and equipment of the bathroom should receive particularly careful study, and any extra provisions in this room add greatly to the rental value of the apartment. It is a mistake to cramp the size of the bathroom or to crowd the fixtures together. When possible, there should be sufficient wall space to allow the introduction of a small dressing table and a hamper for soiled clothes. The fixtures should be selected with care, not only to keep down depreciation and maintenance cost but to provide an impression of luxury, comfort and highly sanitary conditions. The bathtub should be of the built-in



Ground Floor Plan



Typical Floor Plan

The Madison, New York
Rouse & Goldstone, Architects



Rich Toned Rugs, Old English Furniture, Lamps and Ornaments, Have Produced an Atmosphere of Refinement in the Lobby of The Madison

type with no space underneath, and coved where connected with floor and walls so that it can be easily cleaned. A shower bath should always be installed with proper mixing valves, and in the more expensive apartments a separate enclosed shower bath is greatly appreciated. Provision should be made for ice water supply in the bathroom, and there should be both overhead lights and side lights for mirrors.

This room should have at least one and preferably two electric outlets. Floors and walls should be surfaced with tile, and it is interesting to note the recent trend away from the use of white tile. For flooring many architects are introducing gray, black and other neutral colors which offer a pleasing effect, the colors being introduced into the walls also, and the tile manufacturers are encouraging this trend by providing unusually attractive colors and finishes. The use of color in the bathroom seems to have a distinct appeal to the feminine mem-

bers of the household and gets away from the monotonous white which has become a national habit, based perhaps on its sanitary appeal and possibly on the fact that in years past it was not easy to get good tile in colored glazes for this purpose.

The market offers a wide and interesting variety of built-in fixtures and bathroom conveniences. Soap dishes, towel bars, toothbrush holders and other conveniences are to be had in the form of specially designed enameled or the more desirable porcelain fixtures ready to be built into the tilework. These are sanitary and practical and should be included in planning when specifying for the bathrooms. Where space allows, an extra lavatory affords a definite convenience. The bathroom should be comfortably heated, and small wall radiators are found to save floor space. Heating the bathroom by means of a riser only is not satisfactory.

In the kitchen it is well to include a built-in ironing and sleeve board which folds into a small closet when not in use. This closet will also serve for brooms and mops and should have a small, low shelf where the electric iron can be kept. An electrical

outlet located in this closet is a great convenience. Special kitchen equipment of utility and space-saving nature is discussed in other articles in this number of THE FORUM, but a few notes will not be amiss here. The average apartment in this type of building has what is termed a "serving pantry" or a "butler's pantry," but which often achieves the full service capacity of a regular kitchen. In many apartments it is a room of from 65 to 80 square feet, having full equipment of gas range, ice box, kitchen cabinet, cupboards and sink. Again, it may be reduced to the kitchenette type of long, narrow closet containing sink and ice box, with storage cupboards and in most cases at least a small electrical range so that food warming and even light cooking can be done. This feature is thoroughly appreciated, even by families taking most meals in the restaurant, and in many apartment hotels uncooked food service has been established as a convenience for tenants.

In view of the fact that this phase of housekeeping will exist to a greater or lesser extent also, provision should be made for garbage disposal and the delivery of ice, groceries and other kitchen supplies. Electrical outlets should be provided, at least two or preferably three in number, as the conveniences for electrical cooking have been developed to such a high degree that two or three utensils may be in use at one time. Many apartment hotels include small electrical dishwashing machines with the larger apartments, and these are found to appeal to tenants. Another useful piece of equipment, where there is space for it, is a small clothes dryer hung at the ceiling, since it is usually found desirable to launder silk and other delicate pieces in the apartments, and a small amount of drying space is needed. In kitchens and kitchenettes floors should be attractive and sanitary, and the materials suggested include tile, linoleum, or rubber. Walls will be preferably tile up to a height of 6 feet or else finished in some washable surfacing. Definite provision should be made for forced ventilation unless there is ample window space,

in which case hoods and flues should be provided to draw off heat and cooking odors. Kitchen cupboards and pantry equipment are now manufactured in steel as well as in wood and in a great variety of convenient stock sizes and shapes, so that the architect has merely to choose from the viewpoint of capacity, cleanliness and appearance. Sinks should be of porcelain with hot and cold water supply and large drain boards. Ice boxes are preferably of the electrical type or kept chilled from a central refrigerator system. The necessity of delivering ice should be eliminated wherever possible, as it creates awkward complications in households such as these. Gas and electrical stoves have been developed within the past few years to a point where further ingenuity seems impossible. They may be had in all sizes and capacities, from two to six burners, with or without ovens and broilers, with smooth cooking tops or in combination of gas and

electricity, and all designed so that they occupy very little space. They are the last word in convenience.

For the living room there are many refinements which justify high rentals and provide conveniences to which tenants have been accustomed when occupying large apartments or dwellings. The introduction of a fireplace is invariably appealing, and it often justifies increased rental of \$300 or \$400 a year, which is a good return on the additional investment necessary. The fireplace and mantel should, of course, be in correct scale according to the size of the room, and the hearth and facing should be in warm masonry colors, using tile, face brick, or marble. The depth of the fireplace should be sufficient to insure a good draft and complete avoidance of the smoke nuisance. A throat damper should be placed in the flue with a movable deflector plate, so that the heat can be controlled. The mantel chosen should be simple, not ornate, as the decorative



Entrance Hall of The Madison Shows Paneling, Carved Door Entablature and Cornice in the English Renaissance Style



The Madison, New York, Is a Typical High Class Apartment Hotel in Which Shops Have Been Introduced on the Street Front

feature can better be left to the tenant's taste in furnishing his own bric-a-brac. The lighting for this room will be preferably of the side wall type, and electrical outlets should be so placed that any part of the room can be lighted with a floor lamp. There should also be outlets for table lamps, and the recommended minimum number of outlets for a living room is three or preferably four. Attention is directed to the newer types of multiplying outlets which are small fixtures available for transforming one outlet into two or three at the tenant's convenience. The side wall lighting should be controlled by a conveniently located switch close to the entrance door, and each light should have the usual independent cut-off.

The living room floor is preferably of hardwood and provided with waxed finish. Walls will be treated in accordance with the architectural motif of the room. Painted, stippled finishes and wall paper both have their advocates. Care should be taken not to cut up the wall surfaces with too much decorative paneling. The placing of doors and windows

must take into consideration the fact that the average tenant will have at least three large pieces of furniture—a grand piano, a refectory table, and a divan. It has been found a paying investment also to provide a fire screen in each apartment instead of leaving installing this precautionary device to the tenant. Where there is a fireplace there should also be provided in the kitchen or kitchenette a special box for storing a small amount of wood or cannel coal. To prevent wall damage in the hanging of draperies, the management should be ready to provide and install the necessary boards above windows. The heating of the living room should be from concealed radiators, usually placed under the windows, and of a type low and as unobtrusive as possible. Windows should be located from the viewpoint of interior decoration so that their treatment may be correctly handled. In some apartment hotels windows will be unusually large because the living room is designed as a studio. In general, however, the use of average size windows in groups of three or four is recommended.

In the bedroom the spacing of wall surfaces must be carefully considered, so that the average bedroom suite, consisting of twin beds, chiffonier, dresser, "vanity table," night table and chair, can be accommodated without overcrowding. The principal bedroom should not be less than 12 by 18 feet, and perhaps nothing is more greatly

appreciated by tenants than ample size in such a room. Here again the location and size of windows should be considered from the decorative viewpoint, and radiators should be made as unobtrusive as possible. The lighting in this room can be of an overhead type, but at least two side wall lights should be provided, and three electric outlets to care for reading lights on beds, table lamp, and one floor lamp. Provision should be made for a telephone in the bedroom and in the foyer. The hardware and lighting fixtures for bedrooms and living rooms should be selected with great care and should be of simple, good lines and finish. These fixtures are preferably not of too definite a period nature, but should be chosen in form and coloring to blend with any type of furniture and decoration which the tenant may choose, unless the apartments are let furnished.

In approaching this problem of equipment, the primary objective should be to anticipate the tenant's mode of daily life and domestic activity and to provide all possible modern facilities for comfort, time saving and efficiency to make the house attractive.

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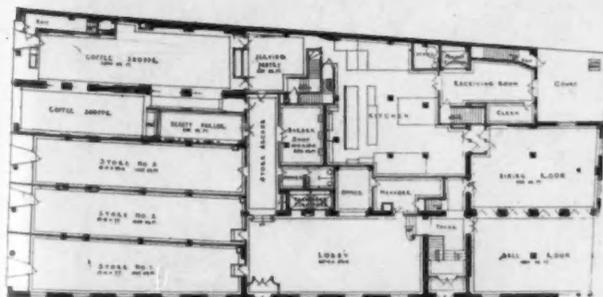
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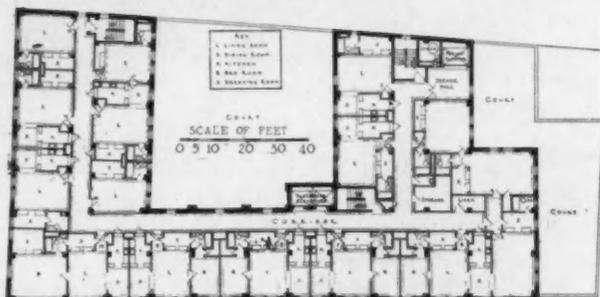
Fenway Hall, Cleveland

GEORGE B. POST & SONS, Architects

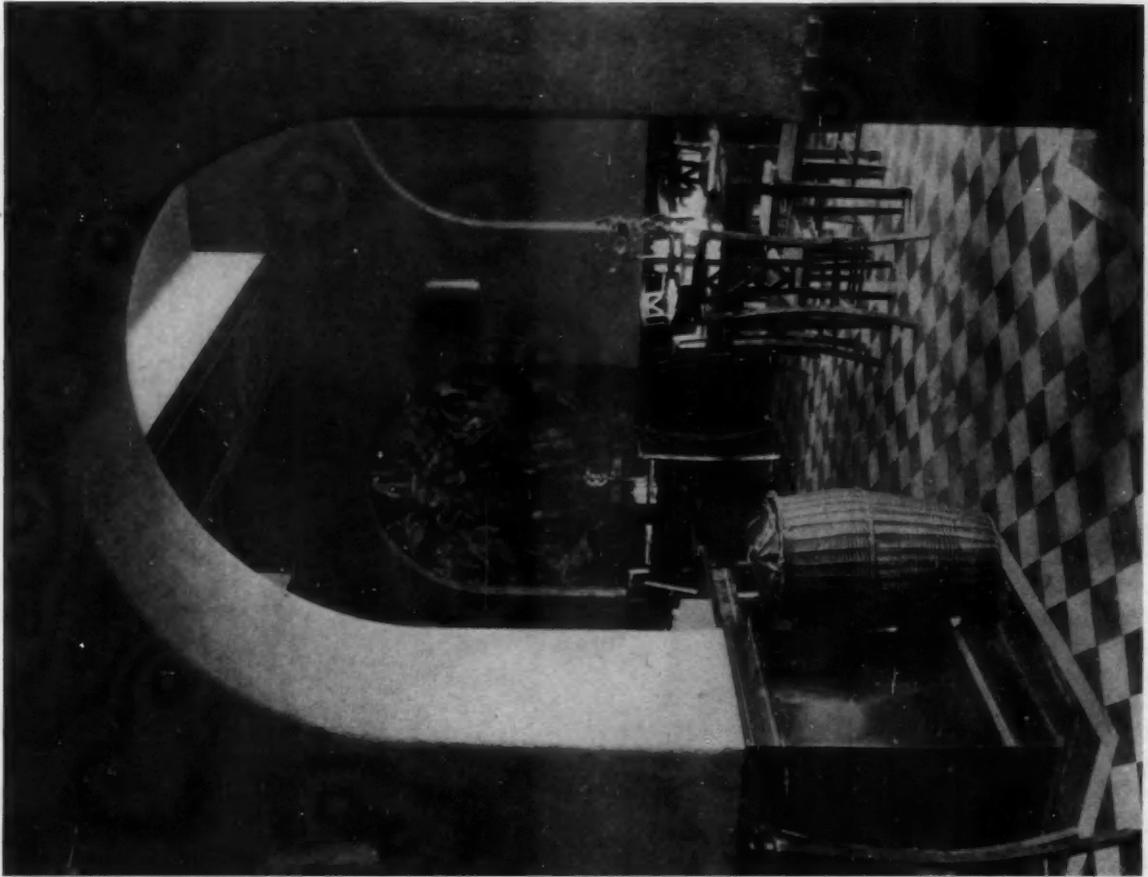
NUMBER of apartments 189, accommodating approximately 400 guests; one, two or three rooms and bath to each apartment. Tenants permitted to prepare meals. Complete kitchenette equipment, including iceless refrigeration, is provided. Management will serve meals in either main dining room or apartments. A successful feature of this hotel is the coffee shop. Kitchenettes are equipped with gas ranges, sinks, iceless refrigerators, small cupboards, tables, ironing boards and cupboards, storage and kitchen utensils. No servants sleep in the house. About 37 per cent of the tenants, or 150, can be seated in main dining room, and about 30 per cent in coffee shop, 87 at separate tables and 33 at counters. Construction: steel, metal joists. Interior partitions: terra cotta tile. Heating: steam furnished from outside company. Vacuum cleaner provided. Begun July, 1922.



FIRST FLOOR PLAN



TYPICAL FLOOR PLAN



ENTRANCE TO COFFEE SHOP, SHOWING WALL DECORATION



VIEW IN LOBBY TOWARD DOORWAY TO ENTRANCE FOYER

FENWAY HALL, CLEVELAND
GEO. B. POST & SONS, ARCHITECTS

Photos, Tebb & Knell, Inc.

Mechanical Equipment of Apartment Hotels

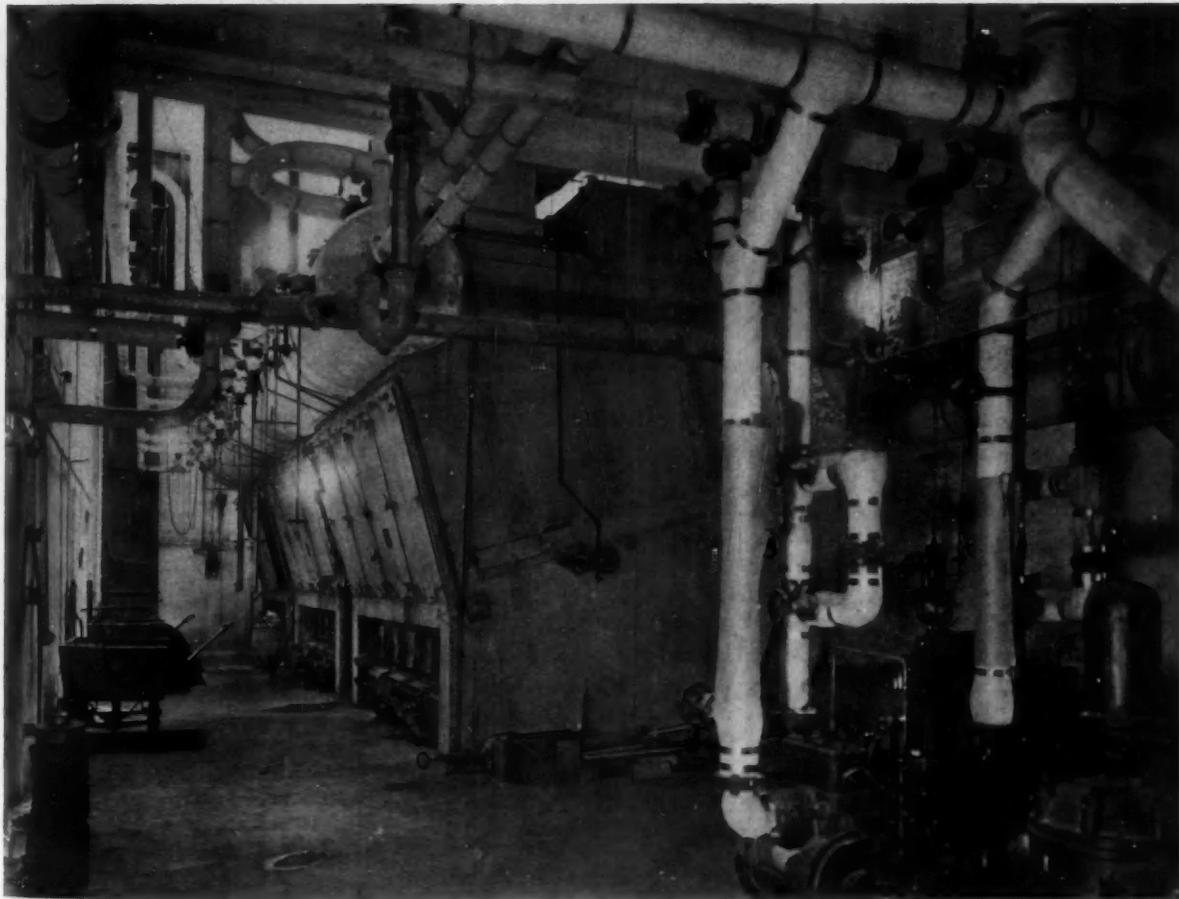
By J. F. MUSSELMAN, M.E.
Consulting Engineer, New York

AT the outset it is necessary to start with a definition, for there is likely to be a difference of opinion as to what constitutes an apartment hotel. For the purposes of this article, we shall maintain, with disregard of anything the dictionaries may say to the contrary, that an apartment hotel is one equipped not only with a restaurant designed to accommodate the tenants of the building, but also equipped in such a way that meals can be prepared in each individual suite or served to the suite from the restaurant kitchen. This double-barreled culinary arrangement is popular and is becoming more so. It fits ideally the family with a variable appetite and no servant. Even the lack of this latter luxury is not serious in a building of the kind described, for the management usually provides at a small additional charge servants fitted for any emergency or for regular requirements.

As compared with a regulation apartment house, the individual kitchens of an apartment hotel have shrunk, or have been compressed, and the name has been changed to "kitchenette." They have been made parts of the living rooms or ends next to win-

dows have been partitioned off with cabinets and called "dining alcoves." The baths, too, have been moved away from the windows, to meet the demands of modesty, perhaps, and now occupy places on small vent flues and have only artificial light. All of these changes and rearrangements have necessitated corresponding changes in the building arrangement, until the equipment of an apartment hotel is distinctly different from that of an apartment house or that of a hotel.

As regards the heating apparatus, no very radical change in type has come about, the heating equipment of a modern apartment hotel being not unlike that of the modern hotel or apartment house. One question that does arise, however, is whether these inside baths should be heated, and if so how. They have no exposures, and at first thought it seems as if they should keep warm without any special provisions, but the facts that a bath, to be comfortable, must be warmer than a sleeping room and that a bath should be kept warm at night when the sleeping room is cooled down, have to be taken into account. For these reasons it is necessary that all baths,



The Boiler Room of the Hotel Pennsylvania, Philadelphia, Shows Some of the Mechanical Equipment Needed in a Large Apartment Hotel

whether they be inside or exposed, be provided with radiators if they are to be comfortably heated.

The system of heating usually selected for tall apartment hotels that is called, through courtesy, a modulating steam system. The fact that with such a system the temperature cannot be modulated does not seem to have detracted from the popularity of the name. At any rate it is the best we know for such a building, and has marked advantages over the one-pipe steam system that was once in general use. For the low and long drawn out building, no other system of heating has as many advantages as forced circulation hot water. It is economical in operation, not excessive in first cost, and is readily adjusted to the idiosyncrasies of the weather.

Whatever the system of heating may be, the requirements in the way of boiler plant are about the same. On account of the requirements of a steam kitchen for the restaurant and probably a steam laundry, it is necessary that at least part of the boiler plant be operated at medium pressure, that is, from 60 to 100 pounds. On this account it is generally desirable to operate all boilers of the plant at medium pressure, which can be done with the same efficiency and considerably simpler piping arrangement.

Too often in buildings of this kind the boilers are crowded into whatever space happens to be left after other requirements have been met. It isn't the question of ease of repairs only, but the ever-present operating costs that make a properly located and adequate boiler room imperative. It should be correctly located, relative to the fuel and other parts of the mechanical plant as well as to the load, and should have sufficient height and area to make crowding unnecessary.

The kind of fuel to be provided for is that which will secure the minimum total cost of generating steam at the time the building is constructed. But this is likely to change with the changing prices of fuel, so as a safety precaution it is well to so arrange the equipment that coal can be substituted if oil is used, or the reverse. As a rule no extension system of automatic temperature control can be afforded in a building of this type, on account of the fact that the first cost of the building is given more serious consideration than the cost of operation. There is little doubt but that a simple, reliable, inexpensive system of temperature control on every radiator would be a good investment for any such building.

More ventilation is required in an apartment hotel than in an apartment house—which as a rule has almost none at all. The restaurant and its kitchen must be ventilated in the same way as those of a hotel, for if this is not done, the odors of food will find their way immediately to the tenants' suites. Other public portions of such buildings are generally provided with no ventilation. The baths, if they have no windows, must have an exhaust system with either high velocity in the flues and a fan

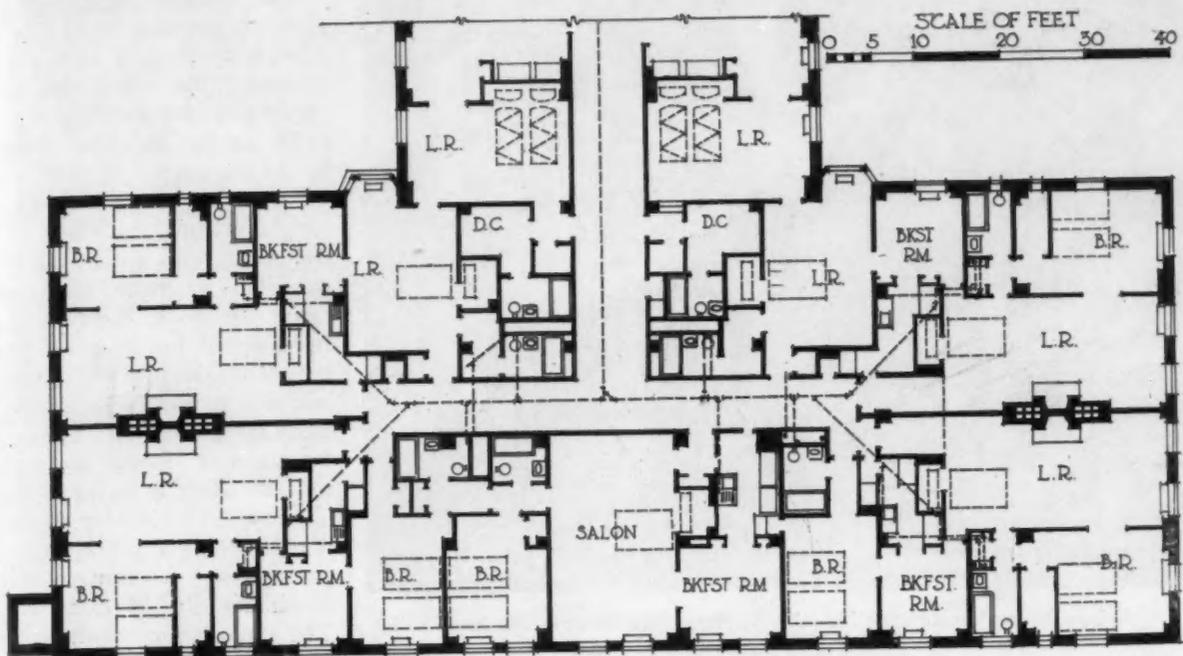
on the roof or with larger flues and a gravity ventilator. The fan, if used, depends for its usefulness on the inclination of the operating engineer to keep it running, while with the gravity ventilator one assumes that the wind will always blow; neither premise is altogether sound. The individual kitchenettes of such a building, opening, as they usually do, directly into the living rooms, imperatively require positive and ample exhaust ventilation in order to control the cooking odors. This can be best effected by connecting each range hood vent to a general vent flue, in which positive air velocity is always maintained. With wall beds or door beds that fold up in closets or unexposed dressing rooms, it is undoubtedly advisable to exhaust some air in such a way as to cause a circulation around the beds.

The ice problem of the apartment hotel is annoying, and it presents service difficulties that are hard to overcome and expensive to eliminate. The better class apartment hotels are coming once more to the use of mechanical refrigeration for kitchenette refrigerators. This can be done by either the unit type of machine in each box or by a central system with brine circulation through coils in the boxes. This latter system may seem primitive and out of date, but its first cost is only about half as great as that of a unit system, and it has the advantage of being noiseless and comparatively free from danger from shutdowns for repairs.

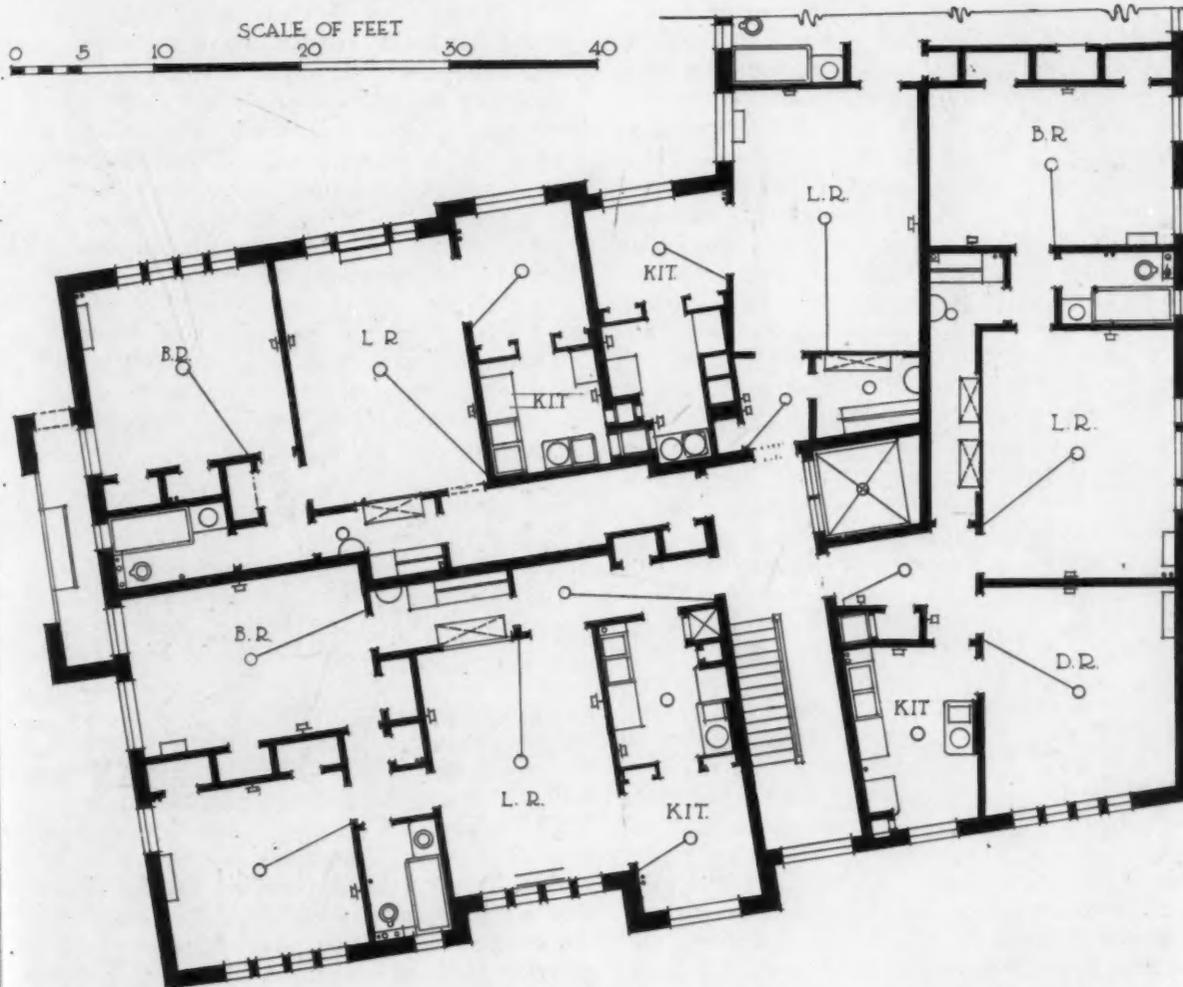
From the standpoint of plumbing work, there is little difference between an apartment hotel and any other kind of a hotel. The amount of water consumed per capita is about the same, and the storage and heater capacity requirements can be estimated from the same tables as are used in hotel work. As in hotel work, or in fact in any work where hot water is corrosive and the temperature carried is high, it is necessary to make provisions for protecting the pipes of the hot water system, either by removing the corrosive elements from the water when it is heated, or by the use of materials in the piping that are not easily susceptible to corrosion. The character of the water used in the building is the principal factor in this matter of corrosion. The chemistry of the local water supply should be determined, and piping material chosen accordingly.

Where the water available for the plumbing system is hard, it is sometimes advisable to use a water-softening plant, especially if a central laundry is included in the building. As a rule this is not considered necessary for water used by the tenants. Conveniences that are coming into general use in apartment hotels are electric dishwashers in combination with the kitchen sinks. These are comparatively simple devices, and in doing an unpleasant task with efficiency they meet with high favor among the tenants.

Tenants in modern apartment hotels demand vacuum cleaning equipment, and it is customary now to see that the tenant's every wish is gratified. The vacuum cleaning provision may be nothing more



Typical Apartments in The Hotel Walker, Washington



Typical Apartments in The Hudson View Apartments, New York



The Hudson View Apartments, New York, Have Fire Escapes Set into Wall Recesses Which Help to Conceal Them

than electric base plugs, distributed in such a way that portable machines can be used, but it cannot be denied that portable machines are less efficient in their cleaning than a central system and are generally objectionably noisy. They also suffer by comparison from the fact that after the sweeping is done, the machine still has to be cleaned and the dust disposed of. If a central vacuum cleaning plant can be afforded, it is not logical to be too economical in the number of outlets, and it is certainly more convenient, from the tenant's point of view, to attach the hose to an outlet in his own suite than to connect with an outlet in the public hall and allow the hose to string past the doors of other tenants.

The garbage or rubbish of an apartment hotel is of a different character from that of an apartment house or that of a hotel. This arises from the fact that it is of two different origins. The portion which includes that from the restaurant and public parts of the building can be handled in the same way as that of a hotel, and involves no unusual problem, but the garbage from the tenants' kitchens, which are provided with no dumbwaiters and often inadequately provided for in service elevators, is a nuisance unless some incinerator provision is made. The obvious method of disposing of this tenant garbage and rubbish is to provide in each apartment a flue with an incinerator at its base, into which it can be thrown as it accumulates. Wrongly located, flues and incinerators have a disagreeable habit of getting in the way where there are large public spaces in the lower stories. If there is a roof garden, such incinerators should be made to discharge into a special chimney built for the purpose. On the whole, they are more popular than an individual incinerator in each kitchenette, for these occupy valuable space and are not always free from odors.

The elevator equipment is probably the first thing that a prospective tenant sees when he enters the house, and for this reason the building is apt to be judged as good or bad by its elevators. If these are unusually slow, badly arranged or fitted with cars that are gaudy and cheap, an impression is made that can never be lived down. The usual speed for fireproof city houses is 350 feet per minute, but this is excessive for six-story structures, and for such buildings a speed of more than 250 feet is unwarranted. The type of elevator control is undergoing a radical change just now—a change that eliminates the elevator boy. The automatic push-button control, whereby each man is

his own elevator boy, is coming into general use. Such elevators are reliable, safe, and, from the owner's standpoint, remove one of the largest items of operating costs. It might be well to add a word of warning against placing elevator machines overhead in a building of this kind. The noise of overhead machines is a nuisance difficult to overcome.

In this electrical age of ours, there is continually less opportunity of doing anything original or unusual in the way of electric installation than in any other kind of equipment. For this reason the designing of the electric installation, from the standpoint of the engineer, is drudgery of the most uninteresting kind. It consists, for the most part, in locating outlets of unnecessarily large capacity in the most obvious places possible, and then persuading the owner that he can afford still more plugs.

Appliance outlets for electric irons, toasters, hot plates and percolators are insisted on by modern tenants, and whether they are used or not, they have to be provided. Such outlets, when they are in use, consume current at such a rate as to necessitate substantial additions to the feeders on their account. The use of electric ranges in the individual kitchens is a genuine convenience. At first thought this seems an extravagant luxury, but the periods of use of such ranges are so short that where electricity can be had at a cost of three cents per kilowatt hour there is very little complaint of excessive cost to the tenant.

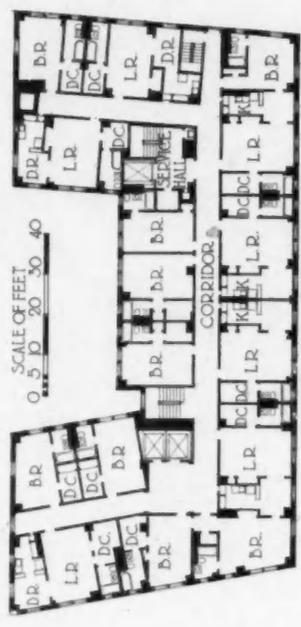
The location of tenants' electric meters requires some little study, since these locations must be approved by the company serving the building, and they are surely most unsightly if they are placed on the walls of one of the principal rooms. As with all other kinds of equipment, it is, of course, necessary to conform to the requirements of the underwriters and the local codes of building and wiring.

NUMBER of apartments 169, divided in this way: 78 one-room apartments; 65 four-room; 15 five-room; 13 six-room. Tenants are permitted to prepare meals in their apartments, or the management will serve meals if desired. Kitchens are equipped with combination refrigerators, garbage disposal, receiving compartments, storage closets, gas ranges and sinks. Dining room and roof garden furnish ample seating capacity for all tenants. No maids sleep in the house. Construction, reinforced concrete. Interior partitions, hollow tile. Floor construction and finish, monolithic cement. Heating, vapor steam. Work was begun in January, 1921, and was done by separate or sub-contract method under the direction of the architect.

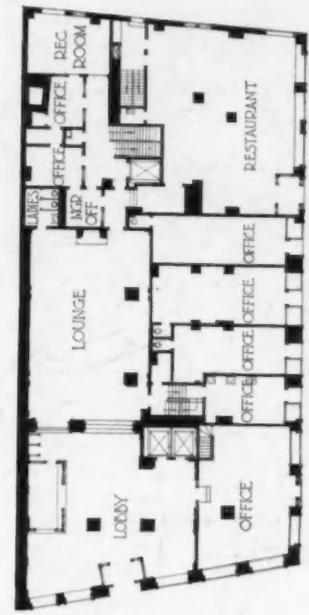


GENERAL EXTERIOR VIEW

THE MELBOURNE HOTEL, ST. LOUIS
 PRESTON J. BRADSHAW, ARCHITECT



TYPICAL FLOOR PLAN



FIRST FLOOR PLAN

THE ARCHITECTURAL LIBRARY

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THE TUDOR DINING ROOM



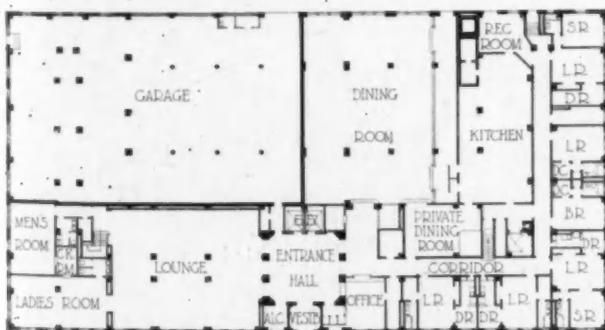
VIEW FROM THE LOBBY TOWARD THE LOUNGE
THE MELBOURNE HOTEL, ST. LOUIS
PRESTON J. BRADSHAW, ARCHITECT

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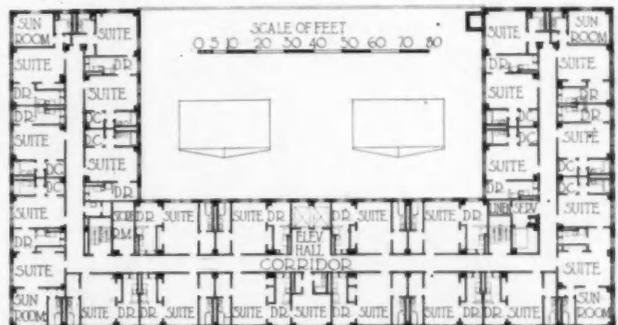


NUMBER of apartments 167, divided in this way: 200 single rooms; 101 four-room apartments; 44 five-room apartments. Tenants are permitted to prepare meals themselves, or the management will serve meals in apartments if desired. Kitchenettes are equipped with combination refrigerators, garbage disposal, receiving compartments

and kitchen storage, gas ranges and sinks. Maid service furnished by management at nominal charge. The dining room is of ample size to accommodate guests from outside as well as such tenants as desire to use it. No servants sleep in the house. Work begun August, 1922, and carried out by separate or sub-contract method under direction of architect.



GROUND FLOOR PLAN



TYPICAL FLOOR PLAN

BELLERIVE APARTMENT HOTEL, KANSAS CITY
PRESTON J. BRADSHAW, ARCHITECT

Architectural
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VIEW FROM ENTRANCE HALL TOWARD LOUNGE



THE DINING ROOM

BELLERIVE APARTMENT HOTEL, KANSAS CITY
PRESTON J. BRADSHAW, ARCHITECT

Architectural
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The Interior Architecture of Apartment Hotels

By W. SYDNEY WAGNER

Of the Firm of George B. Post & Sons, Architects, New York

IT may have been the grandiose and pompous effect so frequently aimed at in the interior architecture of hotels a generation ago that led an English visitor to observe that Americans, since their homes are generally of only moderate size and seldom if ever splendid, are obliged to express their fondness for magnificence upon a vast scale, to indulge their liking for the halls of baronial England or eighteenth century France, in their hotels! It could scarcely be maintained that this tendency has as yet been wholly overcome,—perhaps it was too deeply rooted,—but considerable familiarity with modern hotels of every kind proves that at least it has been curbed, and that several hotels recently built are exerting the influence which follows the setting of a good example.

Nothing so immediately establishes the character of any hotel, and perhaps particularly an apartment hotel intended for occupancy for at least a considerable period, as the impression of its interior architecture which the visitor receives as he enters. This character is determined largely by the location of the house, the type of its clientele, and also to a considerable extent (though perhaps less than is sometimes supposed) upon the amount of money which may be spent. Different rooms of an hotel

demand different types of architectural treatment; an entrance hall or lobby, open as it is to the public, may well express hospitality of a somewhat dignified order; a ballroom or banquet room, upon the other hand, by reason of its very functions should be made to suggest gaiety and lightness; a dining room or restaurant should emphasize the idea of comfort and hospitality of an intimate kind, while in the family rooms of an apartment hotel there lie so many opportunities for expressing domesticity and intimate comfort that one marvels at the chilly, austere and at times even forbidding atmosphere of family rooms even in some of the best apartment hotels. The character which is so desired by the owners of the hotel and valued by the guest is not altogether a matter of furnishing,—not even entirely a matter of decoration,—but it depends in the final analysis upon what the architect has provided as a background or basis for decorations and furnishings.

An apartment hotel, being less of an hotel than a home, may well express domestic comfort of a high order. Intended to a considerable extent for winter occupancy, it should make use of architectural types which are rich even though simple. Almost any style of interior architecture which would be appropriate in a fine private home would



Solarium on Roof of The Sagamore Hotel, Rochester, Decorated and Furnished in Chinese Chippendale Style
John Archibald Armstrong, Architect



Jacobean Ceiling Combined with English Renaissance Paneling; The Belmont Hotel, Chicago

be suitable, though care should be taken to select a type of which the guest or tenant will not quickly tire. Scarcely anything could be better suited to such use than the English styles, Jacobean, Stuart or Georgian, abounding as they do with opportunities for securing effects which may be intimate, domestic and richly simple, or else by a somewhat different treatment be made slightly formal and even ceremonious. These styles have stood the test of time and have been found adaptable and satisfactory. American architects are beginning to realize the opportunities which the Jacobean and Stuart styles present for use in living rooms, libraries, dining rooms and restaurants. Their paneling may be developed in woods far less costly than oak and yet be given much the same finish; the plaster or "parged" ceilings in relief may be flat or coved and as elaborate or as simple as desired, and the provision of such a setting should stimulate decorator or furnisher to carry out the English effect, which may be done at no great cost. Much may be made of the early American type, an outgrowth of the English styles, and this type, which is particularly appropriate for family rooms, may be economically worked out besides affording an opportunity for successful decoration and furnishing. Much can be done when architect and decorator are persuaded to work in harmony. In this way unity is secured.

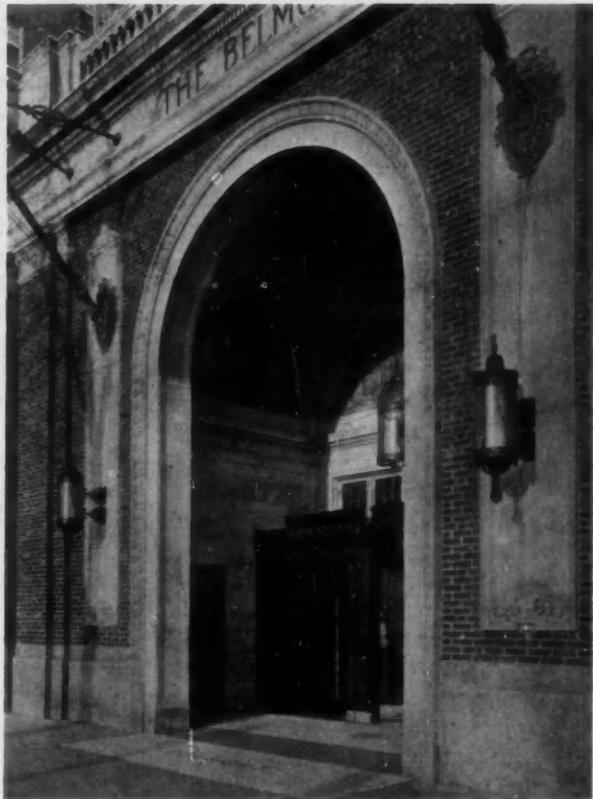
The entrance hall or lobby of an apartment hotel



Architectural Treatment of Main Lounge in The Belmont Hotel, Chicago, Gives Distinctive Elegance to This Room

may well differ in certain important respects from that of an hotel intended for transient patronage. In an hotel of the usual type the thing chiefly desired is probably to get the guest registered and into his room, and with this in view the office and elevators are placed in positions of prominence. In a house of the apartment hotel type, on the other hand, office and elevators, while they must be readily seen and be easily accessible, need not be made quite so prominent. Opening from this lobby, lounge or hall, placed near the entrance, there may be a small reception room which might be designed in a manner a trifle more informal than that chosen for the lobby proper, and when it can be arranged, a women's dressing room opening from the reception room should be included. Nothing adds more to the atmosphere of dignity and hospitality of a lobby than a chimneypiece and fireplace, always provided, of course, that neither chimneypiece nor fireplace be a sham, not too large in scale, and that the fireplace will be actually used. A certain well known hotel in Boston owes much of its charm to a bona fide fireplace in its hospitable lounge, where the guest feels sure a pile of blazing or smouldering logs will be found whenever the weather affords a pretext.

The dining room or restaurant of an apartment hotel is easily made so attractive that it might well be placed where a glimpse into it may be had from the lounge or lobby. The suitability of the English



A Spacious Arch Forms the Entrance to the Vestibule of The Belmont



The Spacious Windows of the Dining Room Are Decorated With the Typical Fan Motif of the Adam Style

styles for such a room has already been dwelt upon, but often in planning an apartment hotel the necessity of having a light shaft or court makes possible the utilization of the ground floor of the shaft as an alcove opening from the restaurant or dining room. Provided with a skylight, it might aid in lighting the dining room, and such an alcove might well be given a form of treatment which would render it of distinct architectural value. Were the dining room paneled in English fashion, the walls of the alcove might be faced with travertine, the floor paved with brick or tile, and against part of the ample wall space there might be built a fountain with overflow into a pool sunk in the floor. Such a detail would add much to the attractiveness of the dining room.

Where a ballroom is included in an apartment hotel an architect has an opportunity which may well challenge his best efforts. The ballroom in a large hotel, together with the other rooms which belong with it, should wherever possible have a separate entrance from the street, and when necessary have elevators which serve only the ballroom suite. A low ceiled antechamber leading into the ballroom may offer opportunities for a musicians' gallery above, or else it may be better to combine this with a small stage at one end of the ballroom. If space permits, a suitable supper or banquet room may be included, connecting with the kitchens. Dressing and coat rooms, which must be provided for women and men, may be entered from the vesti-

bule of the ballroom suite. It is difficult to limit the imagination when it comes to dwelling upon the planning of the interior architecture of a ballroom suite. There exist many styles, all highly appropriate for such use, among which are the various French Renaissance types, with their mirrors, and their paneled walls, which may be painted cream, gray, blue, buff, or any one of many other colors, in soft tones combined possibly with gold. Ballroom floors, intended as they are for dancing, should be of hardwood, either inlaid or of narrow strips. The lighting may be from crystal chandeliers or wall candelabra which aid greatly in interpreting the character appropriate for a ballroom.

But even the most attractive planning of the public or semi-public rooms of an apartment hotel will not atone in the estimation of the guest or tenant for any shortcoming in the planning or arrangement of the residence suites themselves. It would seem to be the part of wisdom for the architect to plan these suites with great care and thought, incorporating every detail of planning and equipment which can properly be included, and to plan, as already suggested, with the aim to aiding the interior decorator and furnisher in creating homelike and really domestic interiors. This necessity for cooperation between the architect and the decorator is iterated and reiterated, since only when such cooperation is possible are the hotel owner and his guests or tenants properly served and really satisfied.



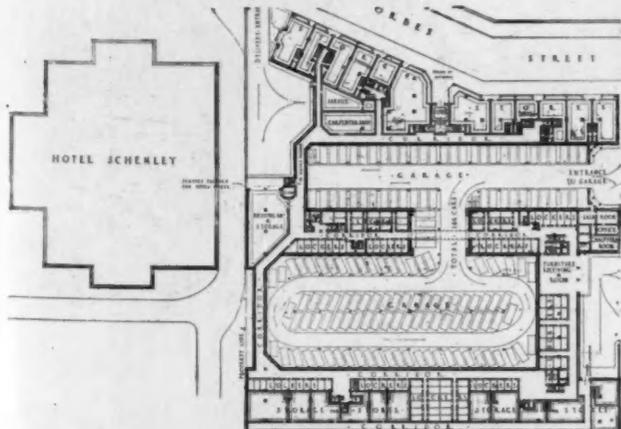
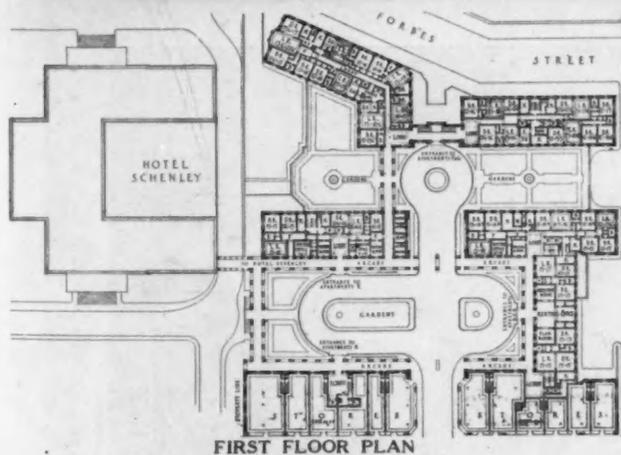
Lobby of The Lake Shore Drive Hotel, Chicago, Shows the Value of Ornamental Interior Architecture

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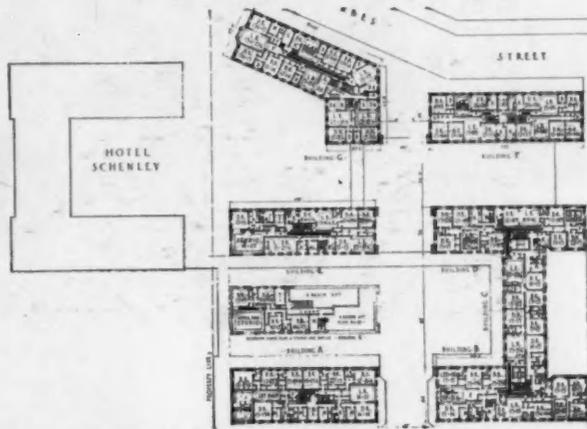
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Schenley Apartments, Pittsburgh

H. HORNBOSTEL and ERIC FISHER WOOD, Architects

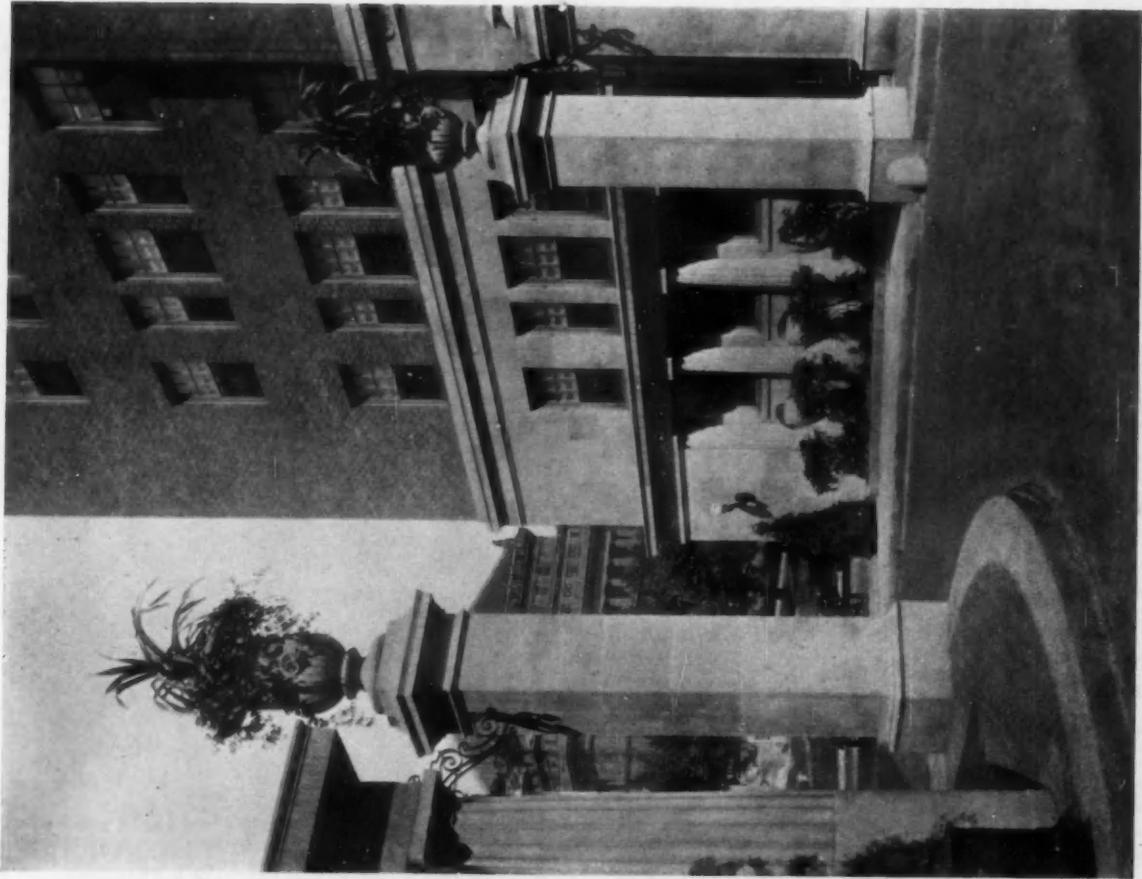


NUMBER of apartments, 245; three to ten rooms each. Tenants permitted to prepare meals, or meals will be served from Hotel Schenley, which connects with apartment buildings. Kitchenettes in every apartment, equipped with sinks and wash trays, combination electric and gas ranges for cooking, frigidaires, garbage chutes and large store closets. Seven- to ten-room apartments include maids' rooms with toilets. No general servants sleep in any of these buildings. Construction: steel skeleton with concrete floors. Interior partitions: terra cotta and gypsum block. Exterior materials: gray brick and limestone. Work was begun September, 1922. Cost per cubic foot, 56 cents.

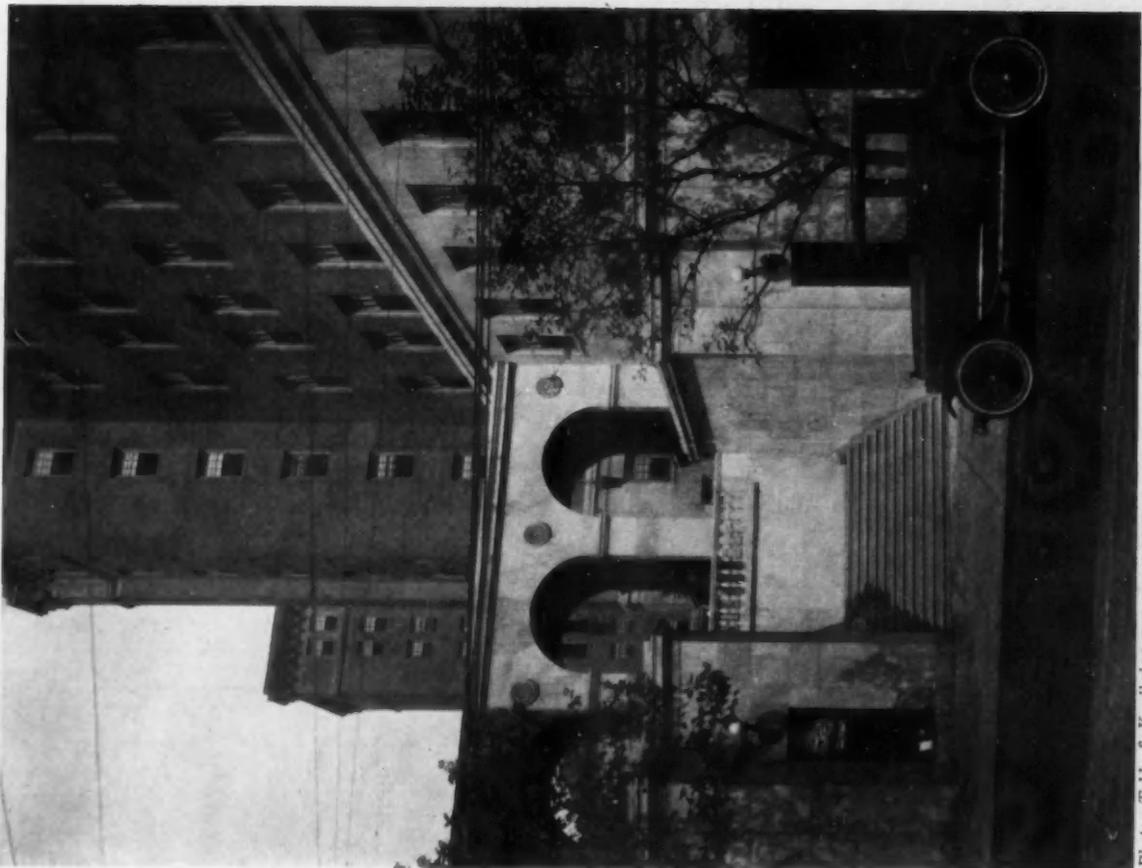


GARAGE AND SHOPS ON STREET LEVEL

PLAN OF THE TYPICAL APARTMENT FLOORS



DRIVEWAY ENTRANCE ON FIFTH AVENUE



ENTRANCE TO THE GARDEN LEVEL FROM FORBES AVENUE

SCHENLEY APARTMENTS, PITTSBURGH

H. HORNBOSTEL & ERIC FISHER WOOD, ARCHITECTS

Photos. Tebbs & Kwell, Inc.

The Decoration and Furnishing of Public Rooms

By HOWARD MAJOR, *Architect, New York*

PRIMARILY, the apartment hotel is a home. It must be decorated as a home, with domesticity expressed at every turn. Splendor, magnificence and monumentality must be eliminated. The architect and decorator who confer this all-important character of "homeliness" will be well on the road to creating interiors that will prove a "selling" force in renting. This particular factor seems to be but little understood, and it is high time that those responsible for interiors and their furnishings awoke to its realization and discarded the set commercialism of the average apartment hotel.

After all, the problem is not more difficult than that of the home. Unfortunately, it is approached differently and without the careful, solicitous thought expended upon the latter. The usual method of procedure for the hotel is to have several large and financially responsible concerns submit estimates for furnishing from top to bottom. One of these bids is accepted, and the familiar commercial result follows. The bid and sketches submitted by the successful competitor are primarily for profit,—excellent business for the concern, but extremely bad business for the hotel. As such is the custom of all holding companies, we must expect "grand

magnificence" in execrable taste until they are shown the error of their ways by better example.

In this important element of the apartment hotel problem the field is open, and cultivating it begins with the architect. It is his duty to impress the owners with the necessity of not only securing professional advice on decorating but also of paying for this artistic advice just as engineering fees are paid in the building operations. Then the architect must consult with the selected decorator and, long before the plans and specifications are prepared, determine upon the decorative scheme. That which is in vogue with people of culture should not only be considered but adopted, for where they lead others soon follow. Today we find such people universally adopting period, and correct period, interiors. The obvious course, then, is for the hotel to adopt the use of similar period interiors. Most hotel managements delude themselves into thinking they have taken this step, but the result is generally only a commercial caricature of architectural styles. Personally, I believe it is a physical impossibility for a successful hotel architect to thoroughly assimilate interior domestic period decoration, as it requires altogether too much meticulous study for a man whose other



The Dining Room of The Madison, New York, Combines Color in Ceiling, Hangings and Carpet with Walnut Paneling of Unusual Design and Occasional Mirrors in Ornate Settings



An Interesting Feature of the Park Lane Villa, Cleveland,
Is the Circular Stairway with Wrought Iron
Railing in Italian Style

problems are so varied and so intricate. If the architect realizes this, he will be well repaid by the results for securing the services of one familiar with this specialized branch of the profession.

Returning to the subject, after the interior styles have been agreed upon, the architect must endeavor, in designing the interiors, to avoid set, harsh results. As in the private house, search for quaint characteristics of the period, and introduce them with relish. Forget hotel scale, and resort to the small scale of the home. Keep detail undersized, for the tendency is usually the other way, particularly with architects of large hotels. Avoid stateliness and over-decoration. Modesty in architecture is as desirable as in personality. Avoid bizarre effects and the use of formal styles which are not appropriate. What excuse exists for Spanish or Italian Renaissance interiors with Georgian exteriors in our northern climate? One New York hotel went so far as to have an enormous lounge executed as an outdoor patio! Such ideas are not only vulgar, but most inappropriate; but although avoided by people of refinement, they are, after all, the type the average hotel man most admires and desires,—but later regrets! The various public rooms and lobbies should all be in the same period or in closely related periods, so that there is no jarring contrast as one progresses from room to room, and these periods should also be closely related to the exterior architecture. Glass doors separating rooms are as undesirable in the

hotel as in the home. Let the designer assume that he is doing the large living or dining room of a private home, observing the same theories of design, and his success will be assured. In furnishing the same principle holds true. In selecting the color scheme, appropriateness to the period should be kept in mind, and quaintness and harmony in contrasting effects for walls and furnishings should be attempted. Avoid hackneyed color schemes, and introduce some personality in the tones and distribution of the colors selected.

In grouping furniture in the lounge, divide it up into intimate, informal groups. Here the ingenuity of the decorator may come into successful play. The average hotel grouping is as set as cast iron and as impractical for comfort, convenience and conversation. Nothing will so create atmosphere as the introduction of some antique pieces. I was surprised on dropping into The Gladstone apartment hotel in New York to discover the effect of "hominess" which the owner had obtained by filling his reception room with antique furniture and wall decorations. He explained to me that he had been frequenting auction rooms in order that his guests, on leaving their country homes for the winter in town, might not find themselves in alien surroundings. This work was done by an amateur who possessed correct fundamental ideas. Here is one apartment hotel owner who is striving for the "homey" note so very necessary to hotel comfort, with the result that he is repaid by a full house on top price leases.



Dining Room in The Alcazar Hotel, Cleveland,
Furniture Copied from Italian Antiques

If the architect has refrained from over-decoration, the great amount of money saved will enable the owner to procure suitable wall decorations, such as seventeenth or eighteenth century decorative paintings, tapestries, etc. These, if well selected, will increase in value as the years go by and will further improve the home atmosphere which bare walls or architectural over-decoration invariably destroy. As in the private home, many small tables about the *tete-a-tete* groups add comfort and coziness and heighten the domestic atmosphere.

Probably the most garish feature in the usual hotel lounge is the ballroom-like lighting arrangements. Think for a moment; would you even consider for your own living room the lighting usual in an apartment hotel lounge? Then why not light the lounge in the far more attractive manner of the home by well distributed and balanced lamps, throwing a mellow and pleasant glow on the occupants? Furthermore, think of the unnecessary expense of these over-elaborate and generally ugly lighting fixtures! Probably 99 out of every 100 lounges would be greatly improved if they were stripped of this one feature. A word is not amiss concerning the enormous chimneypieces often seen in these rooms. An over-large chimneypiece is a grievous mistake as a creator of intimacy. As in detail, it is far safer to err on the side of smallness than on that of dominance. Much delightful character may be introduced in an otherwise characterless room by procuring an old chimneypiece of appropriate size, in



Homelike Atmosphere Is Obtained in the Foyer of The Gladstone, New York, by Use of Antique Furniture and Decorations



Antique Tapestries Are Used in the Entrance Hall of The Gladstone, New York

either wood or marble. The possibilities of this idea are enormous. To sum up, the room must be handled in an intimate, cozy and if possible quaint, way from its architectural background to its smallest detail, such as ash trays, keeping constantly in mind the home living room as a model.

Although individual lighting of dining room tables is now well understood, many innovations may well be made use of for the service on the table. Color, for instance, may be introduced in the glassware, and period design and color for the china. Red or green damask table cloths would at once stamp a dining room as individual, and the effect of many small tables thus covered would be most striking. It is not difficult to secure a quaint antique side chair which could be easily reproduced for dining room use, rather than employ the poor stock substitute likely to be submitted by the commercial decorating company.

The apartment hotel operator is awake to this problem of successfully decorating the public rooms, but he is helplessly struggling with commercial decorating companies which are in business for profit alone. He hesitates to involve himself with those whom he considers "muddle brained" artists. The artist undoubtedly reciprocates in thinking of him as an uncultured barbarian. Their opinions are formed because of widely different training and ideals. They need each other, although judging from conditions the hotel proprietor is perhaps even more in need of the artist than the artist is of him!



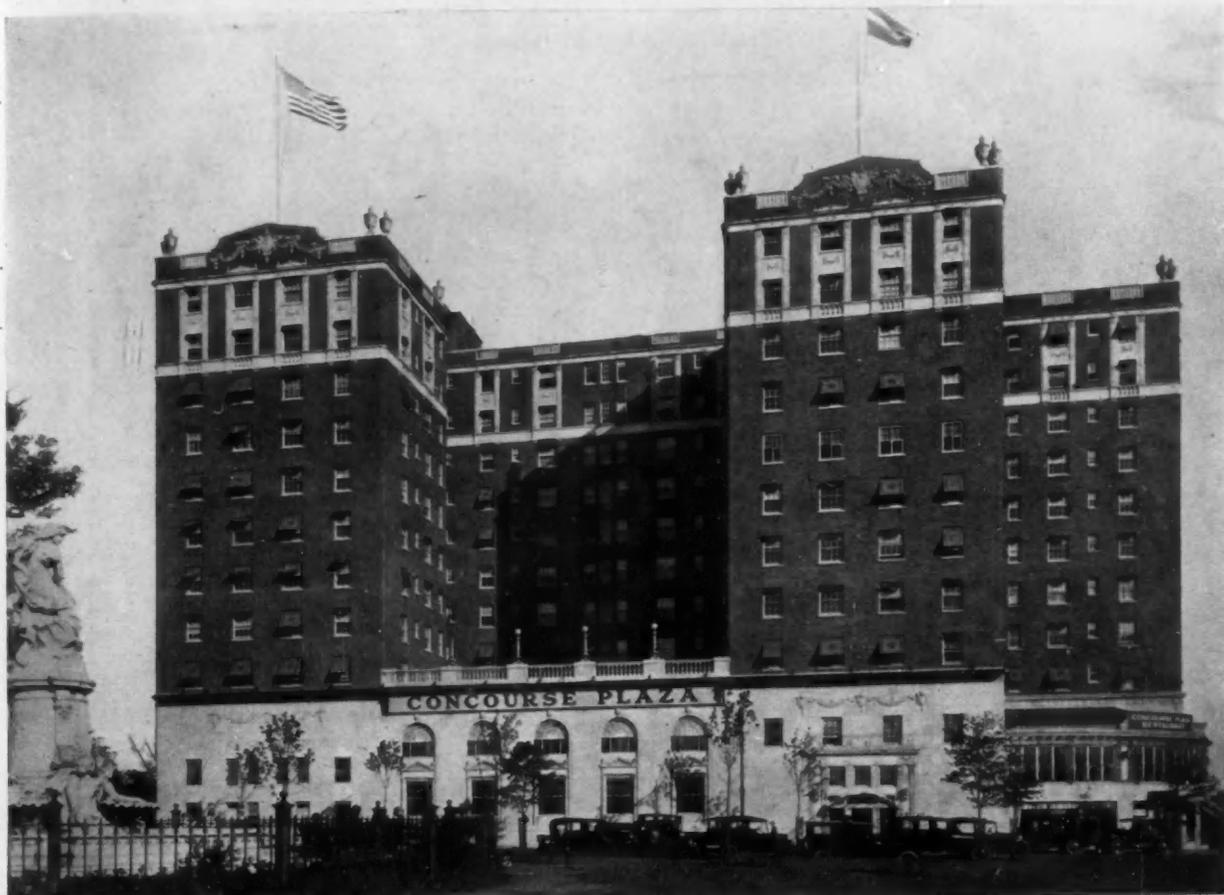
SOFT TONED WALLS MAKE A BACKGROUND FOR FURNITURE OF DIFFERENT PERIODS



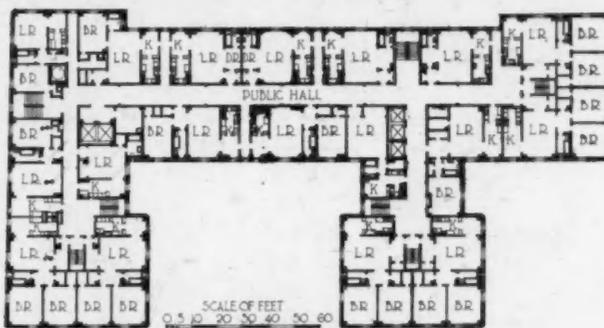
CHINESE WALL DECORATION FORMS A QUAIN BACKGROUND FOR EMPIRE FURNITURE
TWO ROOMS IN THE GLADSTONE APARTMENT HOTEL, NEW YORK
GEORGE F. PELHAM, ARCHITECT

Concourse Plaza Apartments, New York

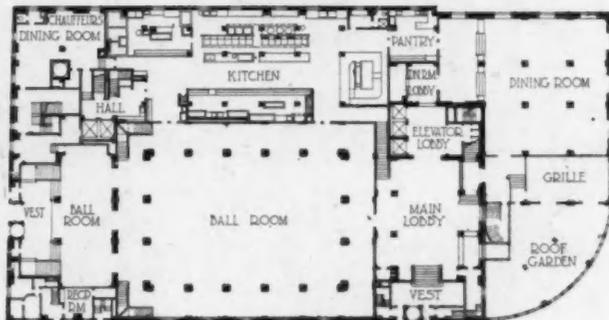
MAYNICKE & FRANKE, Architects



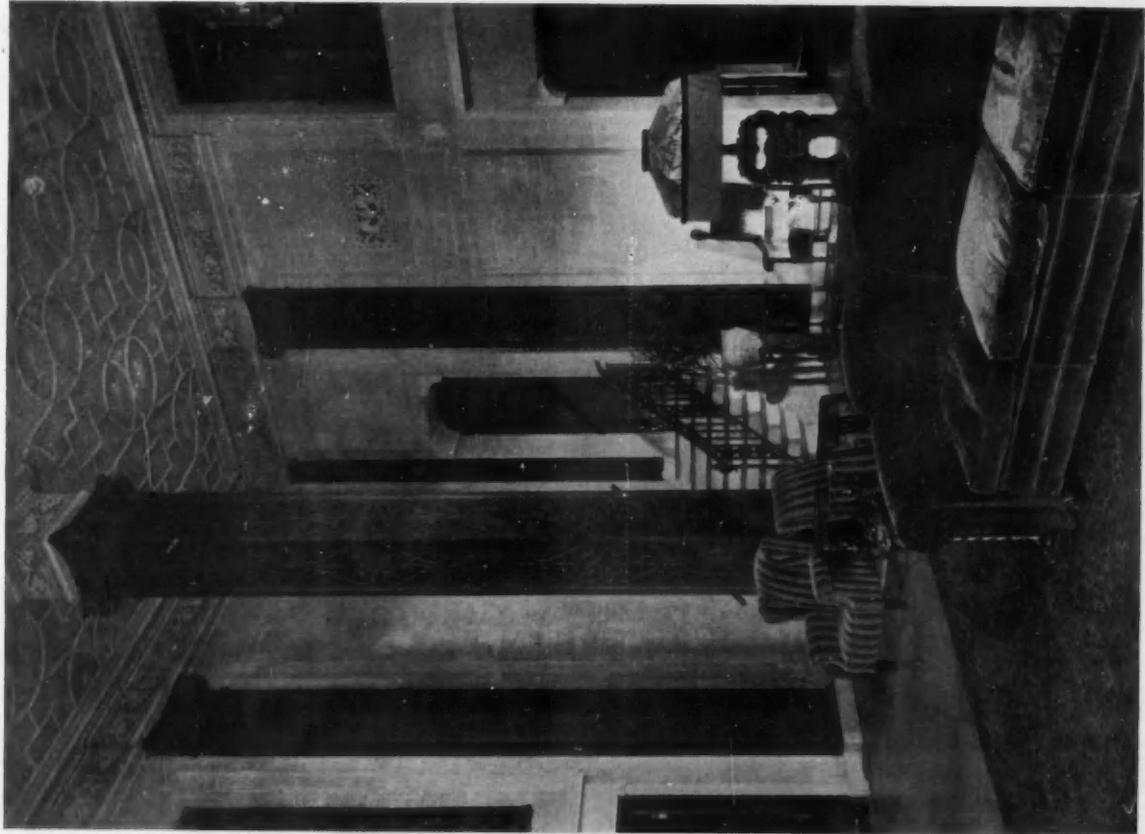
NUMBER of apartments is 160, two to four rooms each. Tenants are permitted to prepare meals. Management serves meals in apartments as well as in main dining room. Apartments have small kitchens equipped with gas ranges, sinks, and kitchen cabinets having refrigerator compartments. Tenants secure maid service by the hour from the management. The dining and grill rooms seat 300. There are nine rooms for maids on the first and second mezzanine floors. Construction: steel skeleton with cinder concrete arches. Interior partitions: gypsum, with terra cotta blocks for stairways and elevator shafts. Heating: low pressure vacuum steam. Electricity is supplied by public service company. Elevators: electric overhead traction. Finish of cars: baked enamel on steel. Windows: wood, double-hung, except where steel frames and sash and wire glass are required by law. Portable vacuum cleaning, refrigeration for main kitchen and ice making are provided. Finish of main entrance lobby: oak and travertine. Floors in rooms: wood, except in kitchenettes, where cement was used. Work begun March, 1922. Cost per cubic foot, exclusive of architects' fees or cost of financing, was 67 cents.



TYPICAL FLOOR PLAN



FIRST FLOOR PLAN



MAIN LOBBY, LOOKING TOWARD CORNER STAIRWAY TO THE KITCHEN
 CONCOURSE PLAZA APARTMENTS, NEW YORK
 MAYNICKE & FRANKE, ARCHITECTS



MAIN LOBBY, LOOKING TOWARD ENTRANCE VESTIBULE
 CONCOURSE PLAZA APARTMENTS, NEW YORK
 MAYNICKE & FRANKE, ARCHITECTS

Photos, Dr. Duryea

The Decorative Treatment of Furnished Apartments

By JOHN H. HUTAFF, *Interior Decorator, New York*

IN the problem of decorating and furnishing a hotel apartment one must take into consideration the private and social life that the tenant may wish to enjoy, entertaining his friends there as he would in his own home. The whole undertaking demands thought, guided by feeling, through the result of which the owners or occupants may receive comfort and satisfaction. One end much to be desired is that people who buy and use furniture and decorations, whether in their apartments or their houses, should acquire some knowledge of the general principles of interior decoration. Rooms should reflect good taste, decorative charm and a sense of repose. Naturally enough, the "home" note should be decidedly emphasized, especially in the living room, where the entertainment of passing friends is at once a duty and a pleasure. "Hospitality" rooms which are planned and equipped appropriately show, in the case of living rooms for instance, spaciousness and relative luxury, the aim being to provide rooms, which, while thoroughly comfortable and commo-

dious for the home circle, will readily adapt themselves to the reception of formally invited guests or the sudden invasion of the unexpected. Success depends upon the translation of these requirements into terms of decoration and furnishing.

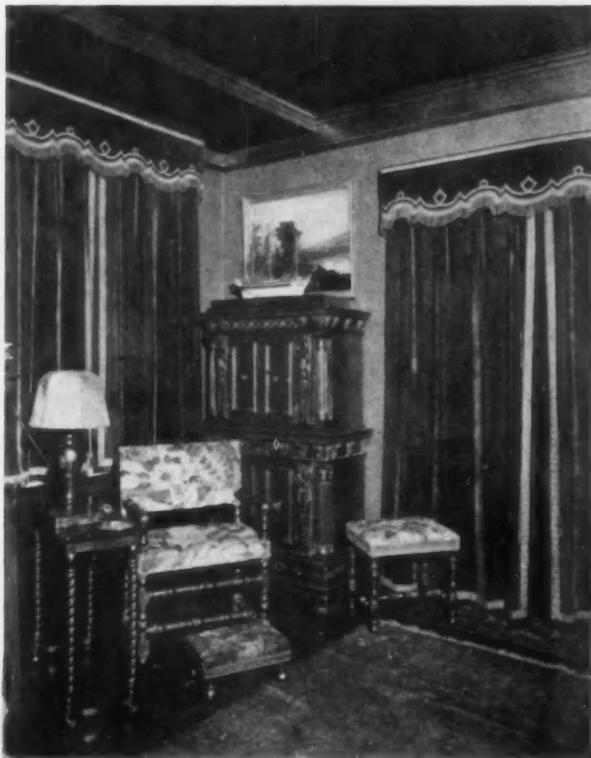
In decoration it is what one dares to do in color, quite as much as in design, that often gives the most effective interior. The use of color should be carefully considered and not confined to floor and furniture coverings and in a minor degree to walls, as so often happens. Colors must be used and distributed deftly, to emphasize and blend form, whether it be of chimneypieces, cornices or furniture. But let not the amateur rush in where the professional decorator would fear to tread, or the result may be fatal!

Rooms should have some architectural background, but not necessarily period architecture, because a close adherence to one period is likely to make the interior stiff and over-dignified where an atmosphere of home comfort and informality is most to be



Simplicity Marks This Balanced Arrangement. The Side Wall Panels Are Blind Doors to China Closets

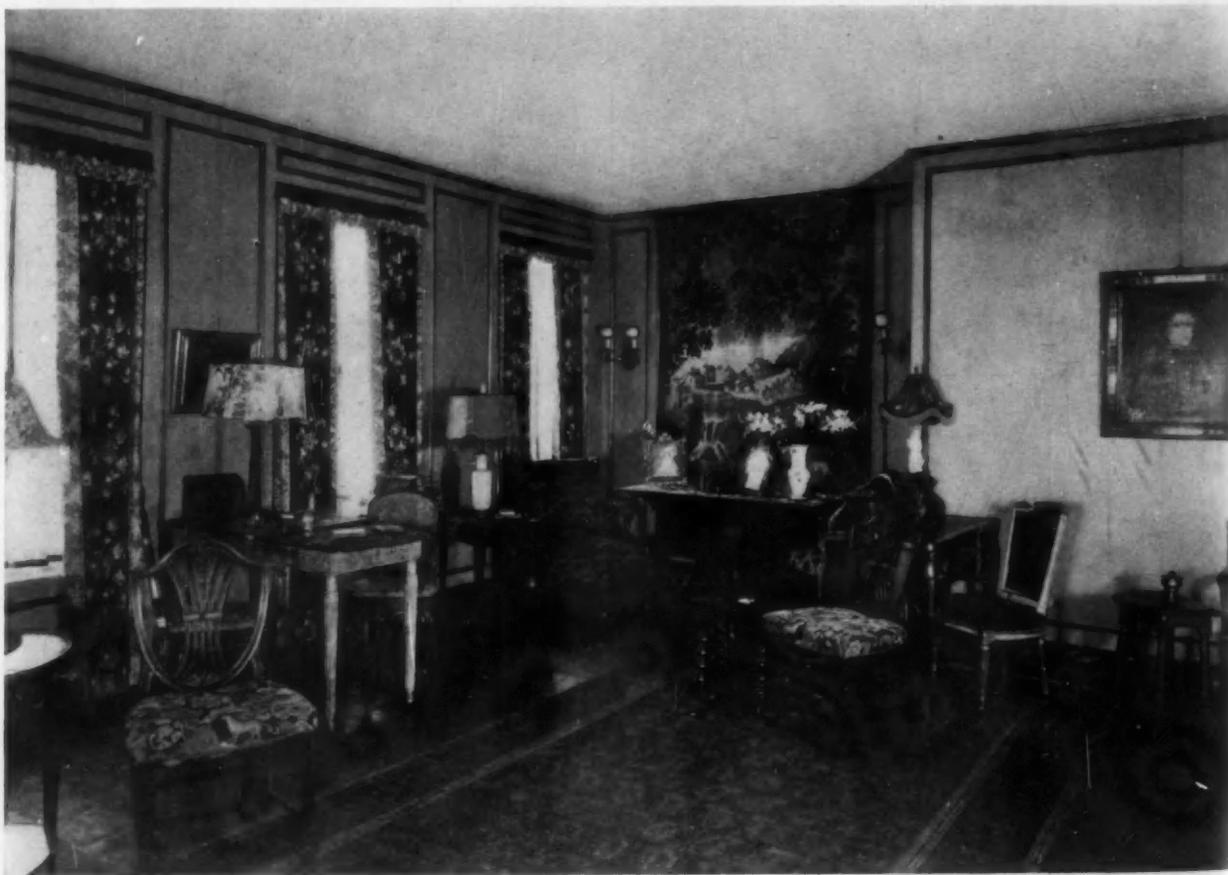
John H. Hutaff, Interior Decorator



Dull Gold Ceiling and Walls Contrasted with Brown Velvet Hangings and Italian Furniture

desired. Why shouldn't we be awakened and inspired, however, by touches and suggestions of that wonderful epoch, the eighteenth century in France and England?—by suggestions recalling memories of old rooms, which preserve the very essence of the art and charm of that epoch in which good taste seemed to have been almost a matter of instinct?

Of recent years the interest taken in the furnishing of apartments has so greatly increased that it is now more necessary than ever to pay careful attention to the character and quality of the details. Although much has been written about the decoration and furnishings of residence apartments, very little has been said about the hotel apartment, which has become an important part of our daily life, since so many people are making hotels their homes. In decorating and furnishing such apartments, the first thing to be considered is good taste. This is the fundamental quality for which to strive, no matter whether the work has to be done economically or without regard for cost. Quiet simplicity, often obtained at as great a cost as ostentatious display, is always pleasing and satisfying, but it should be achieved through a discreet handling of materials and furnishings; otherwise the effect may be cold and depressing. Many rooms are devoid of all feeling and atmosphere, because of harsh and inharmonious color combinations and the thoughtless arrange-



Walls Are Painted Gray-Green; Panel Mouldings Picked Out in Dull Gold; Linen Hangings at Windows

John H. Hutaff, Interior Decorator

ment of the furniture, which might have been good.

When we enter a room we wish to find the home touch,—that intimate quality which suggests hospitality. This quality may be obtained by interspersing a few antique chairs, tables and lamps of good design among comfortable, modern upholstered easy chairs and couches. Carpets covering the entire floor, which are again in vogue, as well as reproductions of old French and English papers for the walls, especially in dining rooms and bedrooms, give an atmosphere of homelike informality. Painted walls paneled with wood mouldings, and hardwood floors of oak, chestnut or birch, are equally popular. Color schemes can be worked out attractively with carpets and wall papers as well as with imported rugs and painted walls. Where figured wall papers are used, the hangings and carpets should be monotone, either without figures or with simple figures or designs in two tones of the same color. Some of the reproductions of old Victorian wall papers show simple and formal designs in varying shades of one color, with which highly colored decorative chintzes and printed linens may be successfully and pleasingly combined. Some of the smaller chairs and couch cushions should be covered with the material used for the hangings, in order to tie together the whole decorative scheme. Large armchairs and couches should usually be upholstered with plain materials of a color in har-



Window Hangings in This Apartment Room Are Chinese Blue Brocade Against Buff Painted Walls



Balanced Arrangement of Pictures, Ornaments and Furniture Gives Dignity and Repose to This Living Room.
John H. Hutaff, Interior Decorator



Ship Pictures and Antique Furniture and Ornaments Give a Personal Quality to This Room

monious contrast with the coloring of the walls, hangings, rugs or carpet. If velvet or velour is used for the hangings and the covering of part of the furniture, it often gives a pleasing note of contrast, in an informal living room, to upholster two chairs, or a chair and a bench or stool with chintz or printed linen. The unlimited number of attractive fabrics of every description produced of late years leaves no possible excuse for failure to combine materials harmoniously and attractively in any decorative scheme. Block printed linens as well as chintzes, which have never been better in color and design than today, are among the many materials being extensively used for decorative effects.

Great progress has been made in recent years in the development of wall treatments. Not only is there a variety of pleasing designs for the use of wood and plaster mouldings to form panels of various shapes and sizes, but there are also many different wall effects to be had through the type and handling of the plaster itself. Painted, paneled walls are very attractive if well done, and well thought out, but they have been overdone in some cases and badly done in others, especially in smaller houses and cheaper apartments, where often no thought, from an architectural standpoint has been given to the arrangement of the panels because the work has been done by carpenters who know nothing about architecture or decoration. There are many types of plastering, ranging from the smooth, eggshell finish, which is essential if wall paper, canvas, burlap or other such materials are to be applied to the wall, to the very rough sand or "carpet float" finish. This latter treatment can be carried out with only two coats of plaster, as the third or finish coat is

not necessary. One of the most popular plaster finishes is the "antique Italian," produced by a crude and rough application of the third or smooth finish coat. Antiqued plaster when properly finished and glazed will give a warm and mellow wall, well suited as a background for tapestries and antique decorative paintings. Old portraits, ship pictures, paintings of still life, flowers and architectural subjects make interesting notes of color for overmantel or wall decorations. Old paintings of uniform size and color may be effectively used as mural decorations when set into wall or over-door panels. Architectural and landscape wall papers, which are used extensively in private apartment dining rooms and halls, give an intimate and homelike atmosphere. Carefully chosen sections from these same papers make excellent decorations for wall panels when glazed and antiqued, giving much the same general effect as paintings.

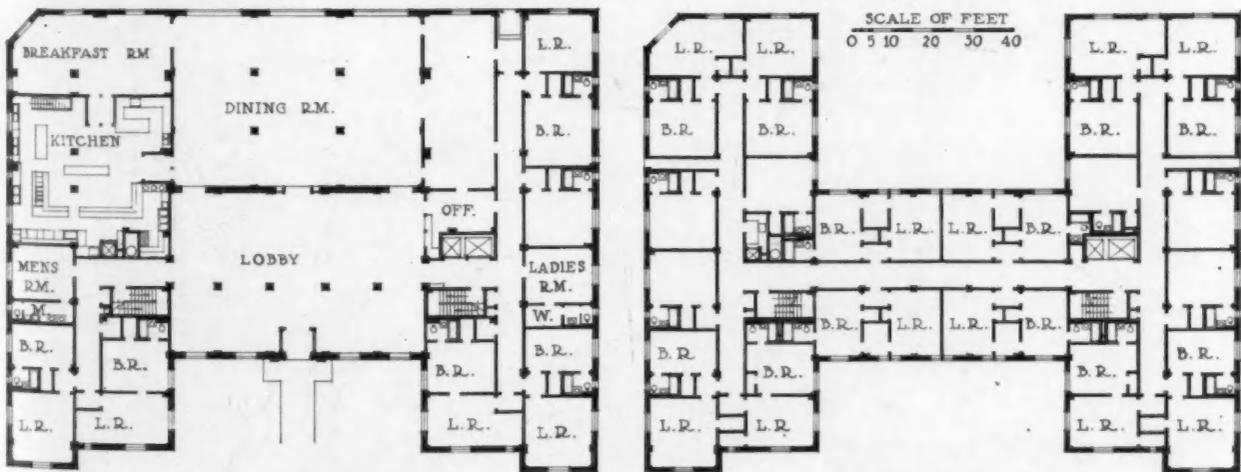
There are to be had today many attractive wall coverings, such as the reproductions of Colonial papers found in old houses in Portsmouth and Salem, and the interesting architectural and landscape papers reprinted from old French and English blocks cut over a century ago, which make most attractive wall decorations. These papers cover a wide range of subjects as well as colors, some showing as many as ten colors, while others are in two tones of the same color. It is always possible to use these papers appropriately and successfully as a part of a studied color scheme. Harmony and color in the decoration of a home are always refreshing, for they give an atmosphere of repose and warmth to any room.

In the rooms of an apartment hotel space is likely to be limited, and every advantage should be taken of ways of arranging furniture to create an effect of space. This may sometimes be done by placing furniture so that the center of a room is unobstructed, and sometimes by leaving ample areas of wall free of pictures or other ornaments. Every effort should be made to secure an appearance of richness, dignity, simplicity and character.

In furnishing interiors in buildings of the apartment hotel type much dependence must be placed upon color. The arrangement of these structures almost invariably necessitates planning rooms not particularly well lighted, and many rooms must face interior courts. Under these circumstances use should be made of colors which make the most of what light there is or which create brightness and cheer. Americans as a rule are afraid of the use of color, and yet its discriminating use is at the root of all really successful decoration of any kind, and more study of it should be made.



VIEW FROM BAY STATE ROAD OF THE ENTRANCE FRONT

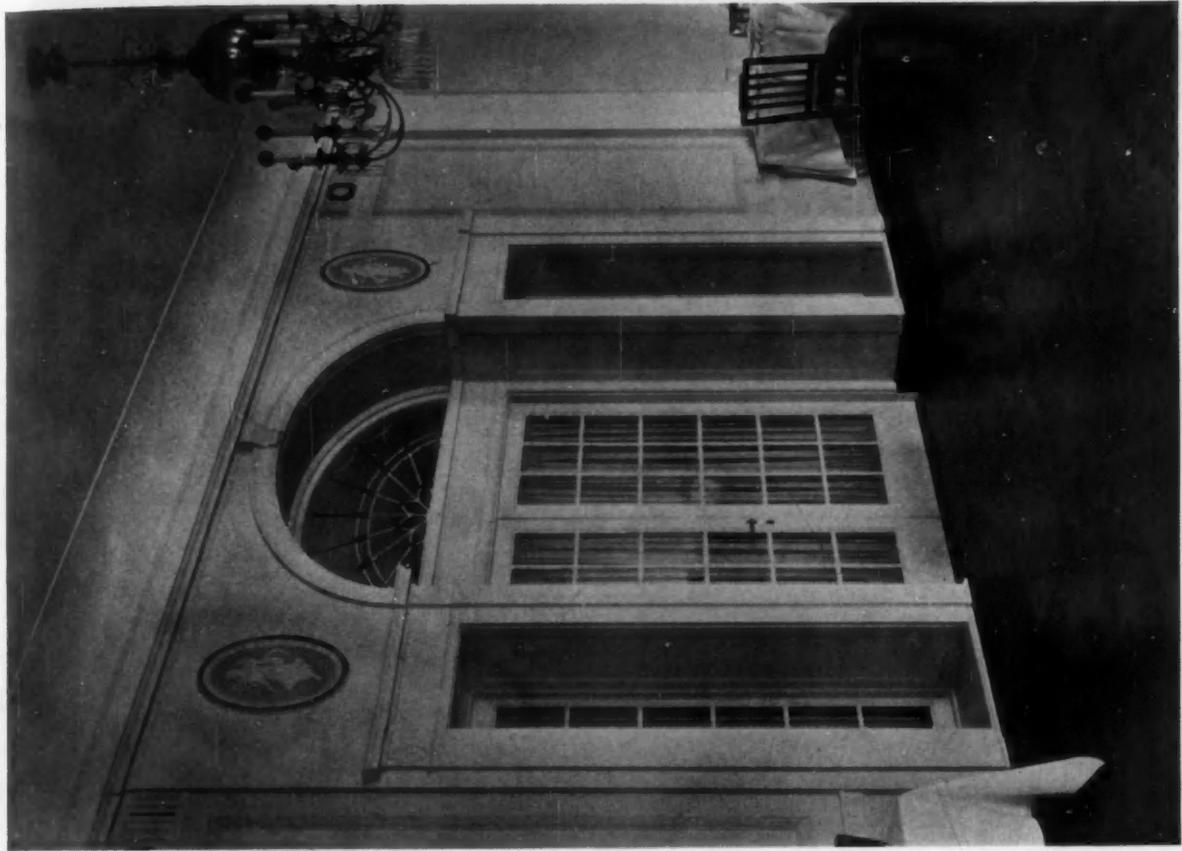


GROUND FLOOR PLAN

TYPICAL FLOOR PLAN

THE SHERATON, BOSTON
 STRICKLAND, BLODGET & LAW, ARCHITECTS

Architectural
Library



DOORS BETWEEN LOBBY AND DINING ROOM



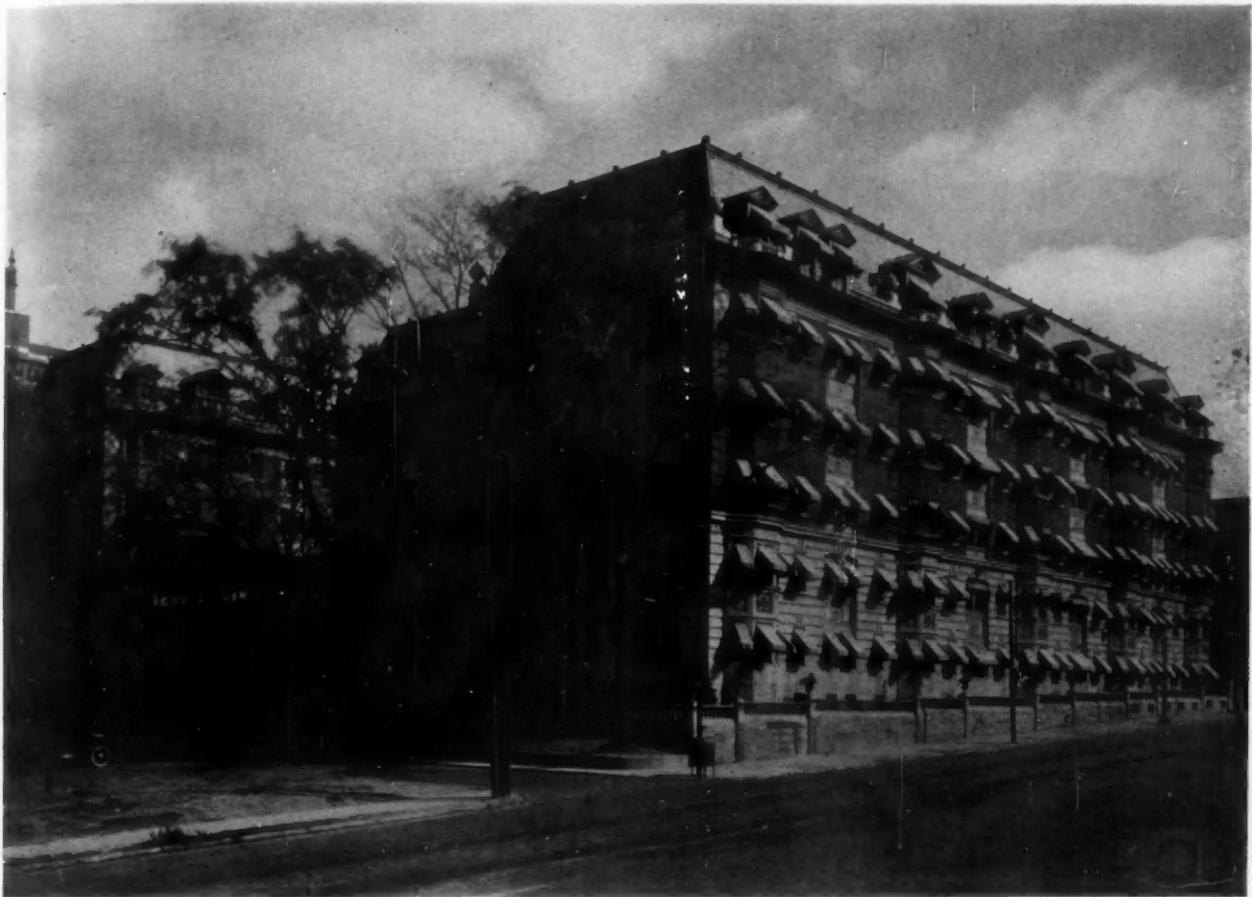
DETAIL OF THE MAIN ENTRANCE

Photos. Paul J. Weber

THE SHERATON, BOSTON
STRICKLAND, BLODGET & LAW, ARCHITECTS

Architectural
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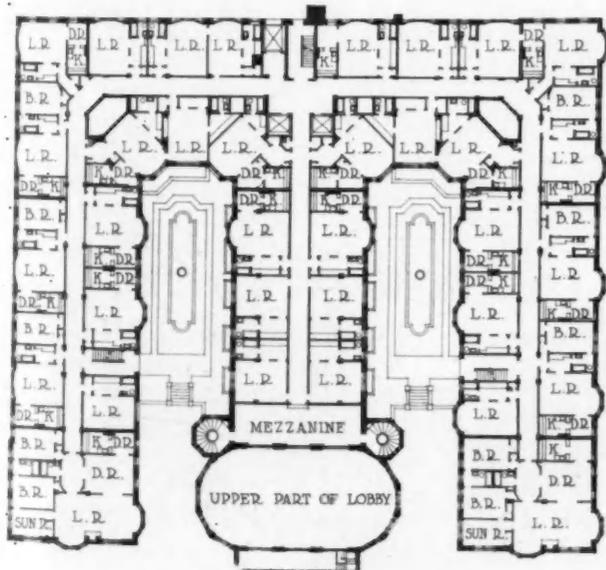
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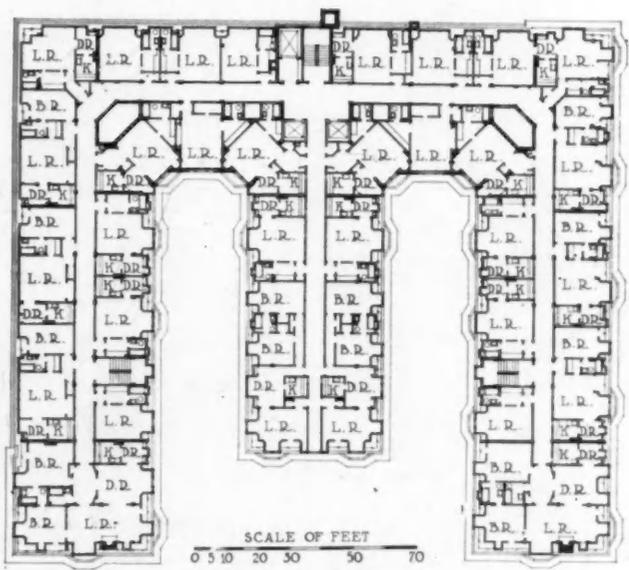
VIEW OF THE PARK LANE VILLA FROM EAST 105TH STREET

NUMBER of apartments 193, varying in size from one room to six or seven. Almost all apartments contain kitchenettes and dining alcoves. Kitchenettes contain gas stoves, sinks, cupboards and

iceless refrigerators. No accommodation for permanent residence of servants. Dining room seats from 250 to 300 guests. Work begun June, 1922, at a cost per cubic foot of 75 cents.



FIRST FLOOR PLAN

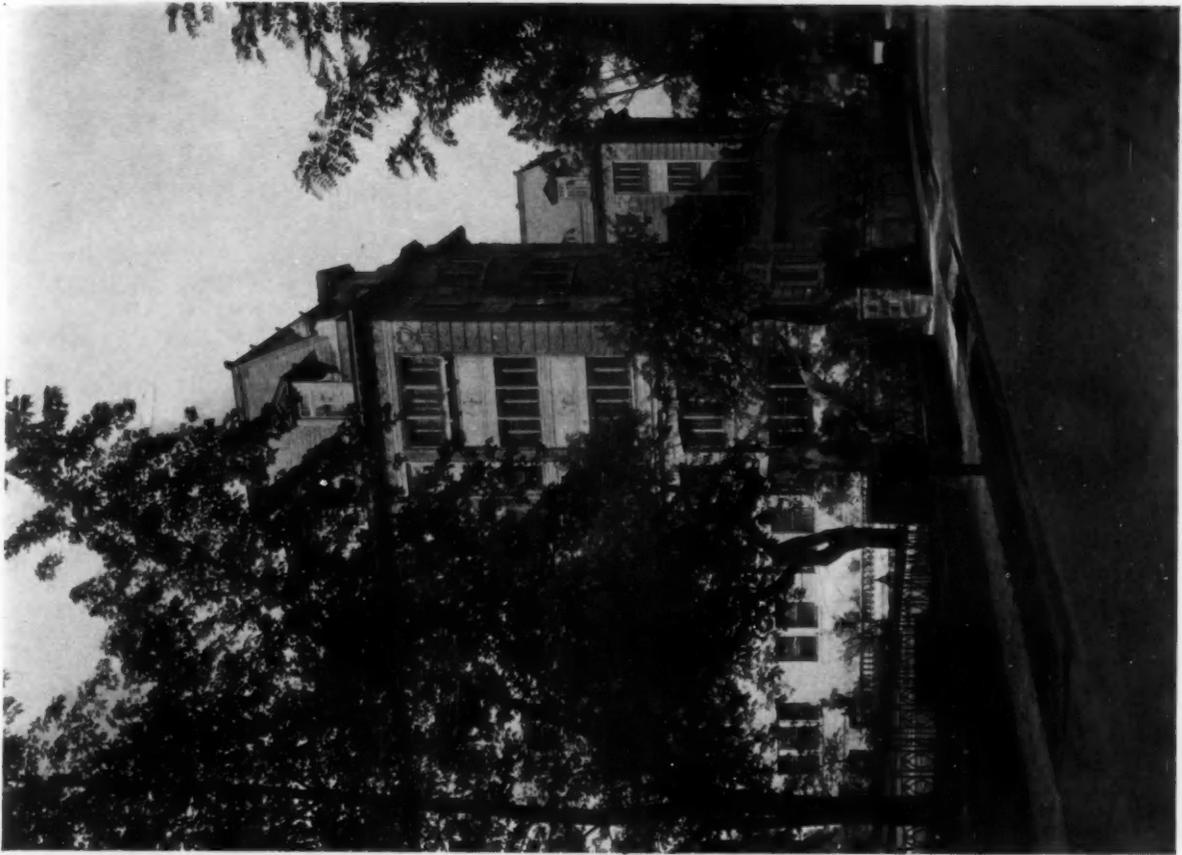


TYPICAL FLOOR PLAN

THE PARK LANE VILLA, CLEVELAND
REYNOLD H. HINSDALE, ARCHITECT

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THE PARK LANE FACADE OF THE VILLA



THE MAIN ENTRANCE AND LOUNGE AT STREET LEVEL

THE PARK LANE VILLA, CLEVELAND
REYNOLD H. HINSDALE, ARCHITECT

Photos. Tebbes & Knell, Inc.

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Efficiency Planning and Equipment

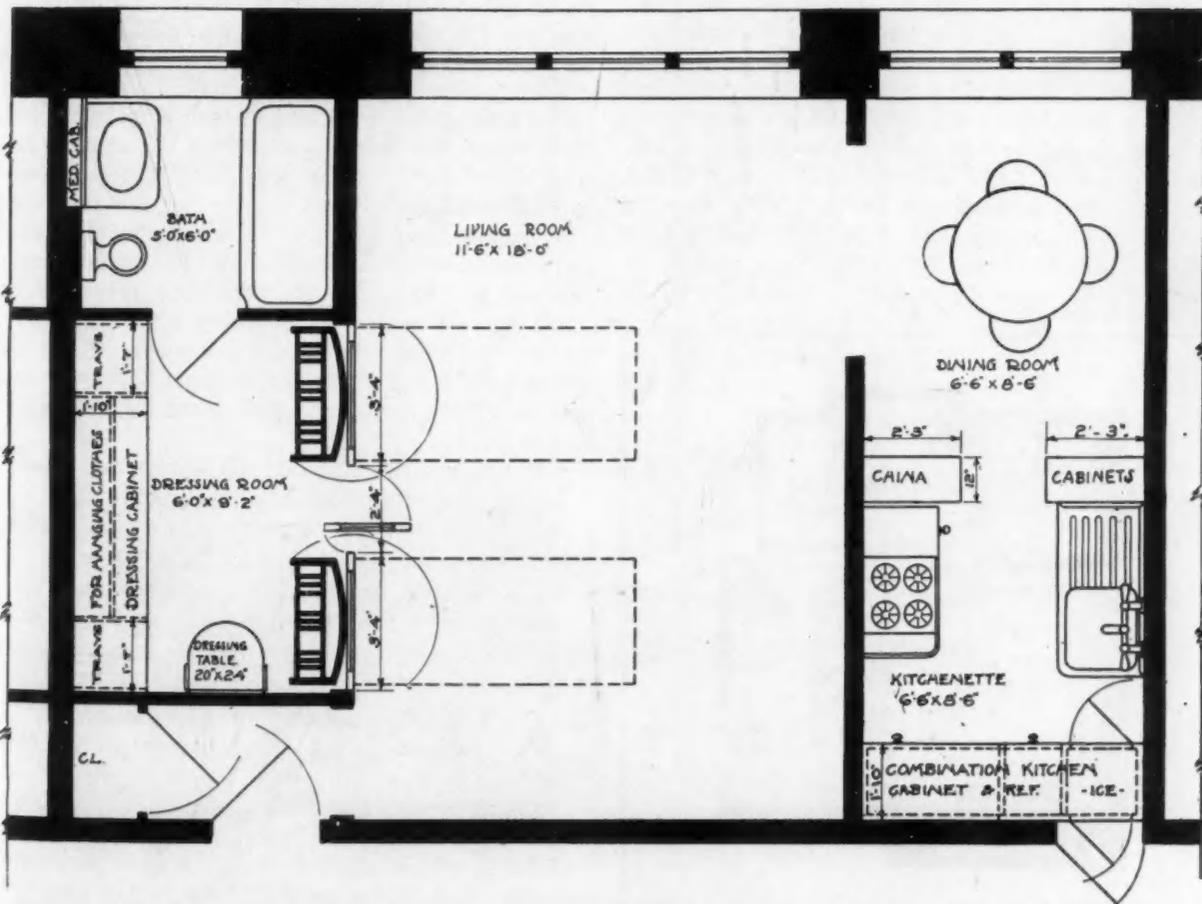
By C. STANLEY TAYLOR

AN analysis of the fundamental trends of modern apartment hotel planning and equipment would not be complete without careful consideration of the "efficiency" apartment idea. Known for several years on the Pacific coast and in the middle western states, this system of apartment planning has recently come into high favor in the eastern states, particularly in the New York metropolitan area.

Briefly, efficiency planning may be defined as the arrangement of comfortable facilities for living within comparatively confined space in a modern apartment building. This result is accomplished by the provision of double-utility rooms, with the partial or complete elimination of bedrooms through the use of "door beds" and other forms of special equipment described in later paragraphs. The demand for this type of planning is the result of high land and building costs which have enforced high rentals in modern apartment buildings, often beyond the purse-reach of tenants who wish to live in comfortable and attractive surroundings. To this problem

there has been but one solution. Builders and their architects have been forced to study ways and means for increasing the rental value of each square foot of apartment space by planning the apartments so that tenants may have complete and attractive living facilities within a smaller floor area than that to which they have been accustomed in the past. Thus the efficiency plan, which has been adopted for many of the finest apartment and apartment hotel buildings in this country, has been developed to meet a specific need from both owners' and tenants' viewpoints. It is an answer to a popular demand.

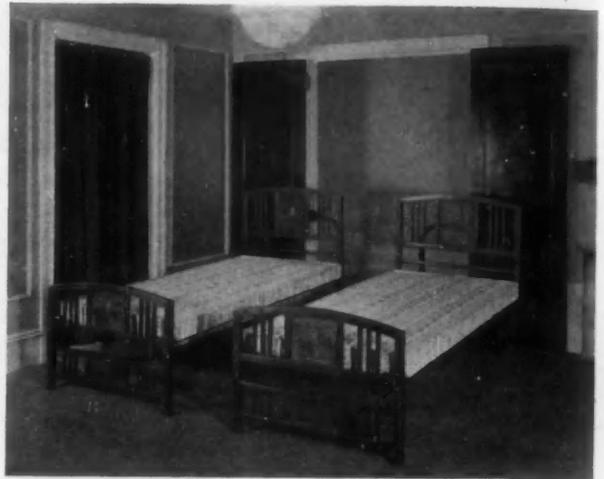
A study of the accompanying plans will show that the basis of efficiency planning is two-fold: first, eliminating or combining rooms so that the same space serves two purposes; and, second, arranging for full kitchen and dining room service within a limited area of floor space. Thus a one-room apartment is provided which has the facilities of living room and bedroom in the same space, with bath, dressing room and kitchenette as a complement. Two rooms may be living room and dining room,



Plan of Typical "Efficiency" Apartment Showing Double Utility Space, Compact Arrangement and the Usual Equipment



A Living Room by Day
In the "Efficiency" Plan One Room Serves Two Purposes

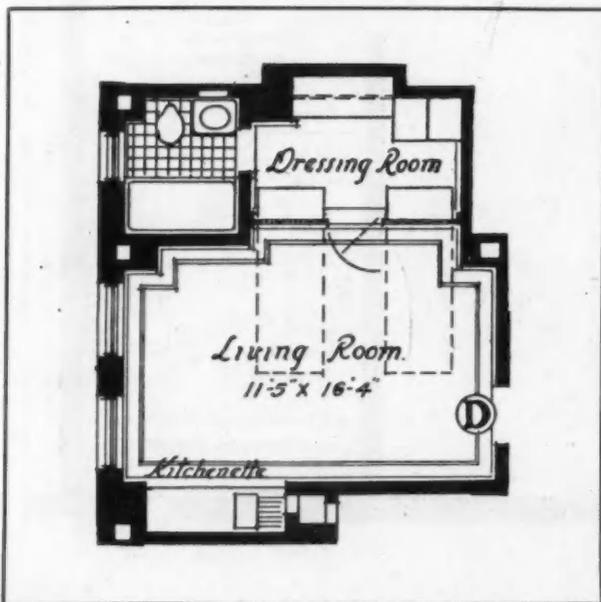


A Bedroom by Night

sun room or library by day, and bedrooms to accommodate four persons at night, with one or two baths, separate dressing rooms and a completely equipped "dinettes" or combination kitchen and dining alcove. The important consideration from the viewpoint of the architect is that the adoption of complete or partial efficiency planning often results in favorable consideration on the part of an owner who has found that investment in an apartment building under the ordinary method of planning does not show a high enough rental income to justify proceeding with the project under present conditions resulting from high material and labor costs.

To illustrate the comparative possibilities of efficiency planning, there will be found on page 255 a graphic comparison of the old and new planning methods. These plans are of buildings which have been actually constructed in New York on lots of practically the same dimensions. Plan A is that of

a building built several years ago, and represents an early step in efficiency planning which conserves the space allotted to each individual apartment by eliminating the dining room and providing a large living room which functions in both capacities. This represents a method of planning which has been adopted for many large apartment buildings and which has been proved fairly successful, although many tenants do not like the idea of eating in the living room. Plan B is that of a building just finished in New York, and represents a typical full efficiency plan in which bedrooms have been eliminated through use of door beds and dressing rooms; the kitchen has been developed on a compact plan, and eating facilities are provided for some apartments in dining alcoves, while for the one-room apartments small kitchenettes are built in. These buildings contain approximately the same square footage per floor. In the building represented by Plan A, this space is subdivided into four apartments, for which the room and rental figures are given here. For purposes of comparison, the rentals for both plans are established in the same location.



Need for Special Bed Closet Obviated by Combining It with Dressing Room

Front apartment, consisting of living room, kitchen, foyer, two bedrooms and bath and extra lavatory; the rental is.....	\$2,400.
Front apartment, consisting of living room, kitchen, foyer, two bedrooms and bath and extra lavatory; the rental is.....	\$2,400.
Rear apartment, consisting of living room, bedroom, kitchen and bath; rental is....	\$1,600.
Rear apartment, consisting of living room, bedroom, kitchen and bath; rental is....	\$1,600.
Total Rental Per Floor.....	\$8,000.

Plan B, within approximately the same perimeter, provides these seven individual apartments:

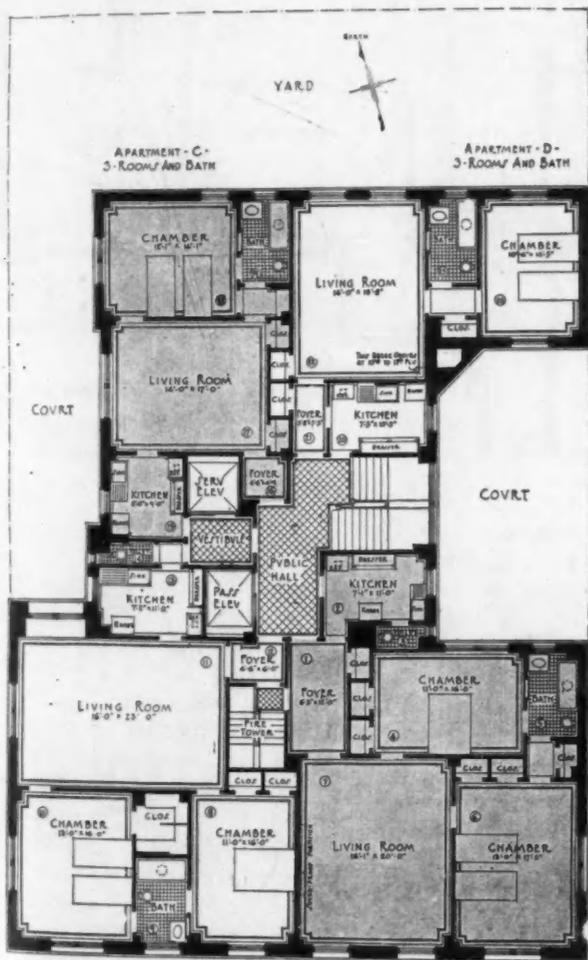
Front apartment, consisting of living room, bedroom, dressing room with two door

- beds (which convert living room into bedroom at night), foyer, bath, kitchen and dining alcove; rental is..... \$2,900.
- Front apartment, consisting of living room, dressing room with two door beds (for converting living room into bedroom at night), bath, foyer, kitchen and dining alcove; rental is..... \$2,400.
- Two left-center apartments, each having living room, dressing room with two door beds (which convert living room into bedroom at night), bath and kitchenette, each renting at \$100 per month; rental is.... \$2,400.
- Central-right apartment, consisting of living room, dressing room with two door beds (which convert living room into bedroom at night), bath, kitchenette and dining alcove; rental is..... \$1,600.
- Rear apartment, consisting of living room, dressing room with two door beds (which convert living room into bedroom at night), bath and kitchenette; rental is... \$1,300.

Rear apartment, consisting of living room, dressing room with two door beds (which convert living room into bedroom at night), bath, foyer, kitchen and dining alcove; rental is..... \$1,800.

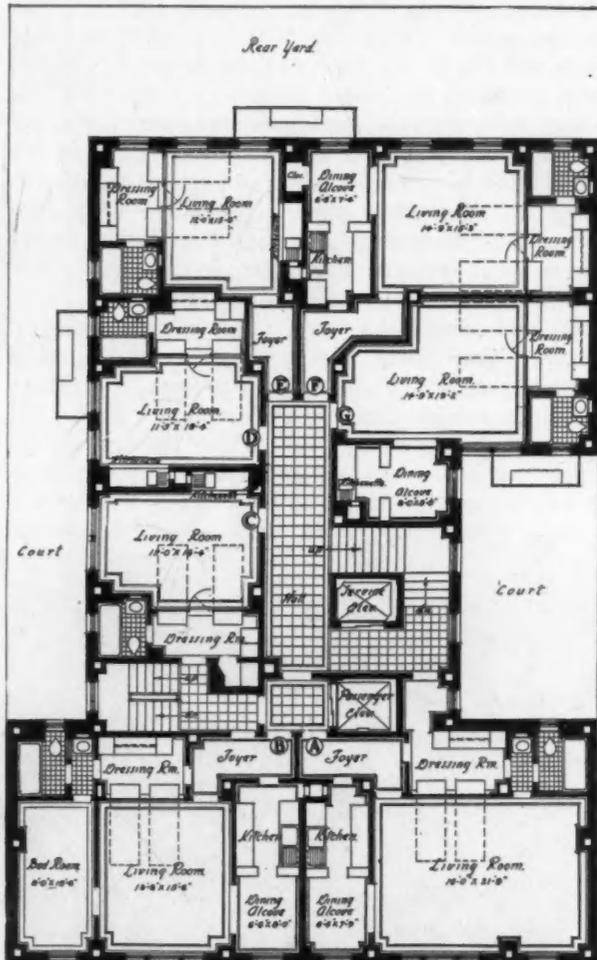
Total Rental Per Floor of Same Area as Plan A.....\$12,400.

This comparison shows that in two buildings on the same sized lots and with approximately the same perimeters the rental income under the efficiency method of planning is \$4,400 more per year per floor, or in such an eight-story building approximately 7½ times; this amount represents the additional yearly rental to be gained under the efficiency method of planning. Perhaps the rentals established for these plans will be questioned, and it may be considered that rentals shown for Plan B are high in comparison with those in Plan A. Practical experience has proved that this is not true, and the reason for this may be seen by considering the two buildings from a tenant's viewpoint. In leasing an



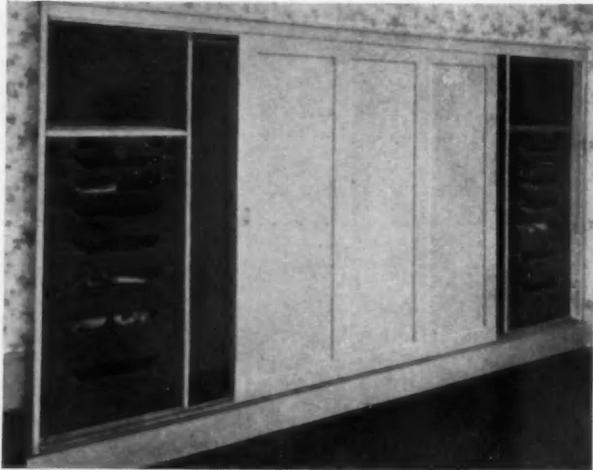
Comparison of "Regular" and "Efficiency" Planning
Plan A

This plan represents a first step in efficiency planning as developed a few years ago. The effort then in space-saving was confined principally to the elimination of dining rooms and the arrangement of the apartments in compact grouping of rooms. On each floor there are four apartments, providing a total rental of \$8,000 per year, as described in the accompanying article



Plan B

A modern efficiency plan developed upon a lot of approximately the same size. This plan provides on each floor seven apartments at a total rental of \$12,400 per year, and with only a comparatively small increase in the cost of the building. Here the "double-utility" space idea is carried out fully or partially in each apartment by means of door beds and other equipment



Typical Dressing Room Cabinet

apartment in Plan A, the tenant is paying rent for a considerable amount of space which is used only at night. It is necessary also that the tenant shall completely furnish such an apartment, which means purchasing complete bedroom furniture for one or two bedrooms as well as furniture for living room and foyer. In renting an apartment in Plan B, it is necessary for the tenant to furnish only the living room and the foyer, and sometimes provide table and chairs for the dining alcove, because under the efficiency planning and equipment method the concealed beds are already installed with box springs and mattresses; the furniture for the dressing room is built-in; a complete kitchen is built-in with a china closet for the dining alcove, and sometimes table and benches are provided in the dining alcove. This means that the tenant has to make a much smaller investment in furniture, the difference in cost often being considerable.

In comparing room sizes in the two plans, the living rooms in A are somewhat larger than built in B, but not enough larger to make a great difference from a tenant's viewpoint. The cost of construct-



Efficiency Apartment in the "Bolton Square," Cleveland

ing and equipping the building represented by Plan B is somewhat greater than with Plan A. There are more bathrooms in B; there is more interior construction, and there is the additional cost of the built-in equipment. This additional cost, however, is far more than offset by the higher rentals and by the fact that it is easier to rent apartments in the house with Plan B as they range as low as \$1,200 a year and offer a wider choice to the tenant; a greater range for selection is offered.

It is obvious that an owner of a high priced lot might analyze Plan A and find that with present building costs he is not justified in going ahead with such a project because he cannot get a high enough total annual rental. When he has Plan B as an alternate his decision may be changed entirely by the greatly increased rental which can be obtained. He realizes that the maintenance costs on these buildings are approximately the same and that the element of depreciation is not greatly increased, if at all, by the use of the built-in furniture. He will

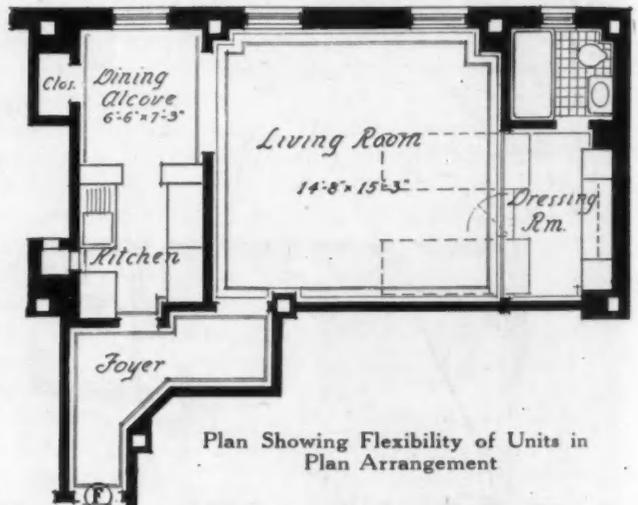
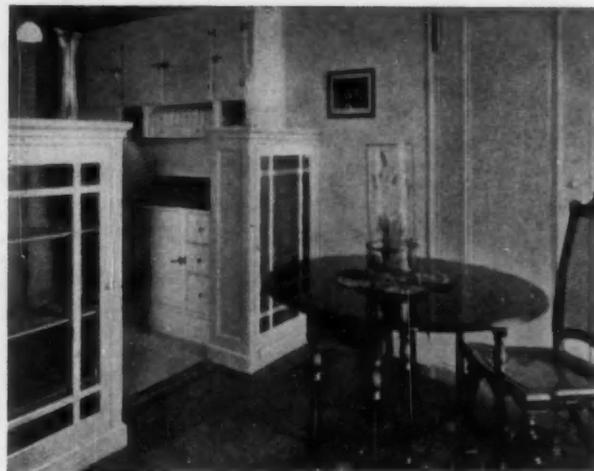


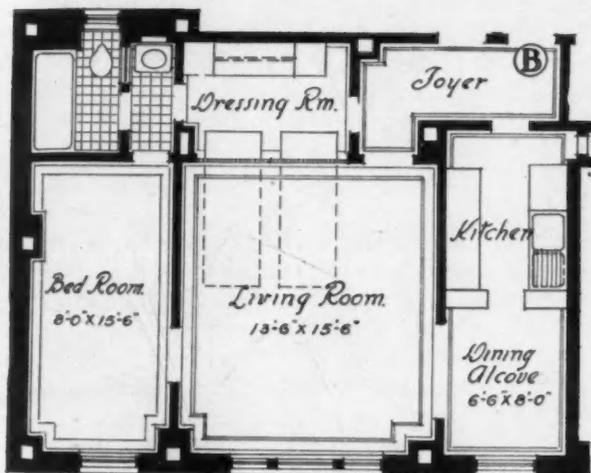
figure that heating and upkeep will be slightly more expensive with Plan B, but here again he has the factor of greatly increased rental income as an offsetting consideration. This information, together with these illustrations, will serve to demonstrate for the architect the important economic and planning factors involved in laying out this type of building. It is obvious that where an architect wishes to make comparisons of income on the old and new types of plans he has but to make rough layouts and take them to experienced real estate rental managers for opinions as to rental values and demand for such space in the different communities.

There is another highly important consideration which directly affects the planning of efficiency apartments. Needless to say, a considerable variety of space-saving and utility equipment has been developed to be built into apartments of this type. It will be interesting, therefore, to describe briefly some such details of equipment as may be available for various rooms and utility purposes. The first

problem is that of service to the apartment. Deliveries to be made may be divided roughly into two classes; the first, what might be termed front door delivery, includes mail, outside packages and parcels from laundries, while the second class consists of kitchen deliveries, such as ice, groceries, etc., and includes also the removal of garbage and rubbish. For the front door deliveries there is an interesting type of service door such as that used in some of the Statler Hotels, which consists of a hollow door having a large enough space to take laundry parcels, clothes, mail, packages, etc. This door has a smaller outside door which opens for delivery into the containing space but which does not allow entrance into the apartment. Deliveries can be made through this door, and the tenant can remove packages through an inner door without opening the main door at any time. This type of door also has special ventilating features which recommend it. An alternative to this method, although at times a waste of space, is the small foyer located at the main



A Typical "Dinette" Unit



The "Partial Efficiency" Plan

entrance or at a second entrance to the apartment. For the delivery of ice and groceries, as indicated in the plan on page 253, a special kitchen door with small doors opening directly into the ice box or a delivery box may be provided. The removal of garbage and rubbish is accomplished either by the built-in incinerator, which if properly constructed is an excellent feature, or by a small iron receptacle set in the kitchen wall so that access may be had to remove the garbage pail from the service hall without the garbage remover's having to enter the kitchen or even make his presence known.

For the kitchen special types of wood or metal cabinets have been designed, some of which are hung on the wall to save floor space. Such a cabinet is usually located over range, ice box, sink or other equipment. Another type of equipment for the kitchen may be had in complete units, which include kitchen cabinets, ice box, a small gas and electric range and dish closets, compactly designed as one piece of kitchen furniture. For individual

gas stoves, there have been introduced within recent years very interesting improvements in compactness of cooking arrangements. Ranges will be found with smooth iron tops, easily cleanable and kept warm with one burner. Other types have double-utility ovens in which the gas burners are located at the bottom of the oven with lids and may be used for auxiliary cooking purposes. For the kitchen there will also be found special broom and ironing board closets, ready to be built into the wall. These contain storage spaces also for electric irons, mops and other household equipment. In the kitchen also there should be at least three outlets for electrical equipment, an outlet for the electric iron being placed in the ironing board closet, and outlets at other convenient points relative to kitchen cabinet or the culinary table. Interior finishes and flooring for kitchens are discussed in the article by William L. Rouse in this issue of THE FORUM. The door beds need no description other than given graphically. It might be noted, however, that these beds have been developed to a point where they are quite as comfortable as the ordinary type of bed, and carry box springs and mattresses in a similar man-



The Kitchen Complete in All Details



Door Beds Concealed in Dressing Room

ner. They are installed with perfect balance which requires no effort to move them up or down and from one room to another. The dressing room also calls for specially designed built-in furniture. This is available in the form of dressing tables which can be attached to the wall, and large clothes cabinets such as that illustrated. Bathrooms are planned and equipped in the ordinary way. The "dinette," or the small dining alcove, is usually provided next to the kitchen and is separated from it by specially designed built-in china closets such as that illustrated. Dining room furniture is usually of the smaller or "breakfast room" type, but it may also be noted that for this room there are available built-in tables and benches which fit into spaces in the wall when not in use.

From a business viewpoint, efficiency planning long ago ceased to be an experiment, at least on the Pacific coast and in the middle west. In the eastern states public acceptance of this type of planning has been slower to develop, primarily because of the established conservative attitude toward radical changes in structural methods and the planning of residential projects, and also because it was affected by difficult provisions of building codes in such cities as New York, Boston and Philadelphia, which to a considerable extent have been overcome in the apartment hotel field because this class of building is removed from jurisdiction of the Tenement House Law in New York and some other eastern cities. Perhaps another reason that efficiency planning has only recently been developed generally in the east is because transportation facilities are so good in eastern states that large areas of outlying land have been developed for

apartment house projects. This has meant low land cost which allows more building space under established rentals. Throughout the better districts in the cities and suburbs land values have been steadily rising in the last few years and have finally reached a point where serious consideration must be given to this element as well as to that of high costs.

The differential of rental gained by the use of the efficiency system of apartment planning is difficult to express in exact figures, because of the wide variations of rents in different sections of the country and even in adjoining localities. Figures which have been selected from various operations of this nature would seem to indicate that the rental income from a given number of square feet of rentable apartment space can be increased approximately one-third by the introduction of the double-utility element in planning and equipment. The additional cost of the original investment which is necessary to take care of the increased volume of partitions, heating equipment, bathroom finish and equipment and other increases necessitated when more families are housed on one floor, seems to approximate 5 per cent of the total cost of the building. Even if this were 10 per cent it would seem a wise investment, if the income can be increased one-third by the introduction of this system of planning.

While efficiency planning was in its early stages, and until very recently in the eastern section of the country, there existed decided opposition on the part of mortgage interests. This situation was probably a reflection of the conservative attitude of the average banker, which does not encourage innovations, and requires assurances of experience to prove that such a radical change in housing methods is not a temporary trend or fad, but that it represents the true answer to a definite demand on the part of the public. As a criterion of the soundness of this method of planning apartment buildings it is to be noted now that mortgage loans are being made on structures of this type through very conservative sources in building estates, insurance companies, and large mortgage bond houses and other interests.



How Door Beds are Operated

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Highland Plaza Apartments, Birmingham, Ala.

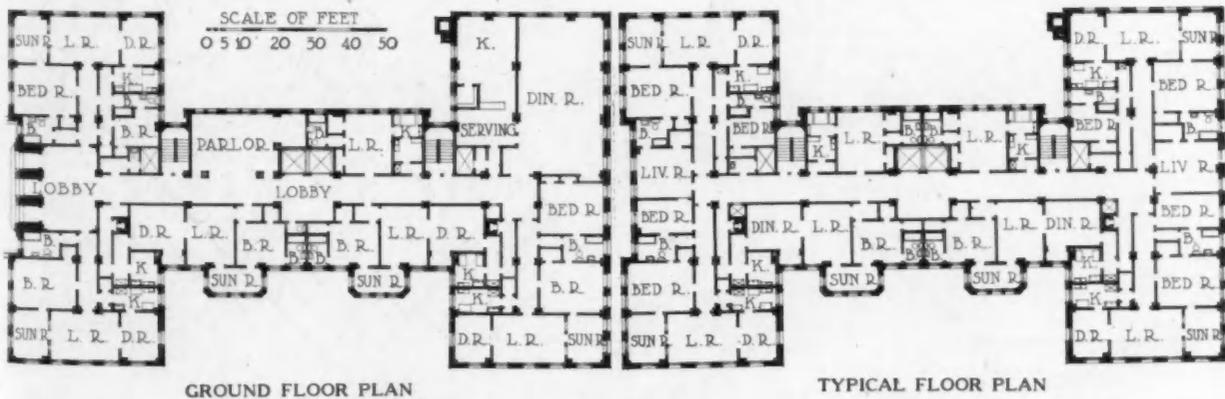
DENHAM, VAN KEUREN & DENHAM, Architects



CONSISTENT USE OF COLONIAL DETAIL RELIEVES THE SEVERITY OF DESIGN

EXTERIOR walls, hollow tile faced with Harvard brick trimmed with limestone. Construction, reinforced beam and slab concrete. Heating, vapor steam. Electricity supplied by public service company. Elevators, overhead traction type; cars entirely steel. Windows, wood frame and sash, double-hung; generally steel in stairways, elevator shafts and kitchens. Entrance lobby floored with rubber

tile; corridors, concrete with carpets over. Dining room, oak walls. Elsewhere, walls plaster painted to imitate Caen stone. Cost per cubic foot, approximately 52 cents. Work begun June, 1923. Plan shows several types of apartments, housekeeping and non-housekeeping. Small bedrooms have connecting doors making possible a flexible arrangement of suites to suit the tenants' various requirements.



Alden Park Manor, Brookline

K. M. DE VOS & CO., Architects

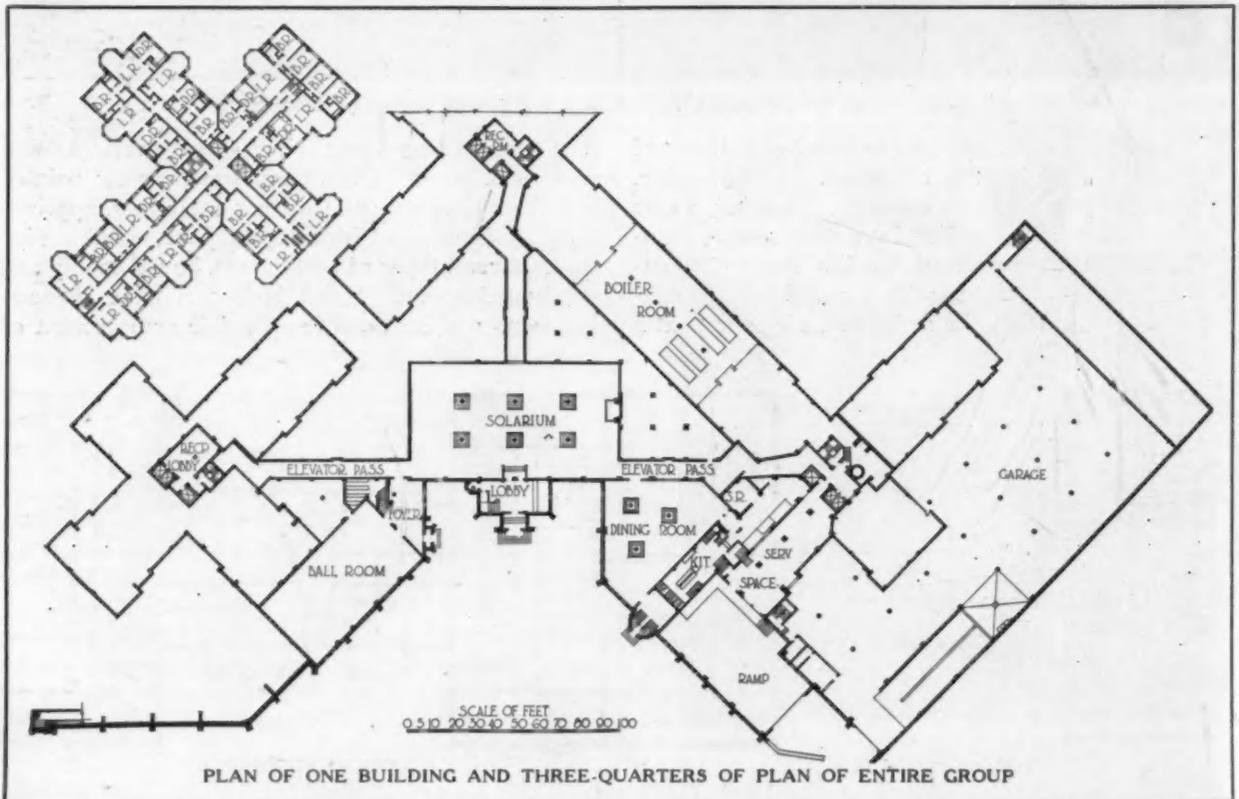
HAROLD FIELD KELLOGG and GEORGE R. WIREN, Consulting Architects



THREE APARTMENT BUILDINGS CONNECTED BY LOW TWO-STORY STRUCTURE, ALL IN ENGLISH TUDOR STYLE

THREE buildings are connected by low, two-story structure containing ballroom, lounge, dining room, grill, kitchen, storerooms and garage, all constructed of reinforced concrete. Exterior, brick with stone trimming. Windows, steel sash and frame. Floors, waxed cork over concrete. Trim and baseboard, steel, wood paneling; plaster walls,

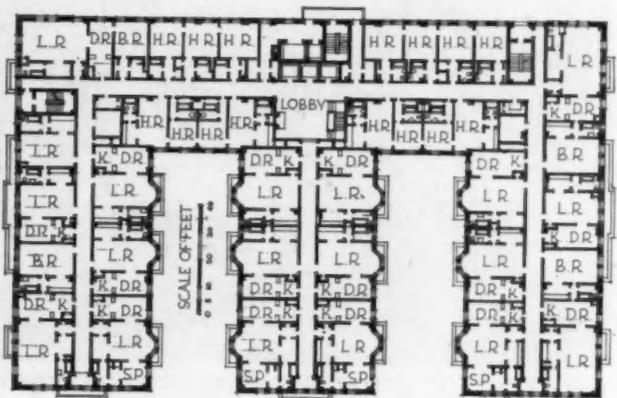
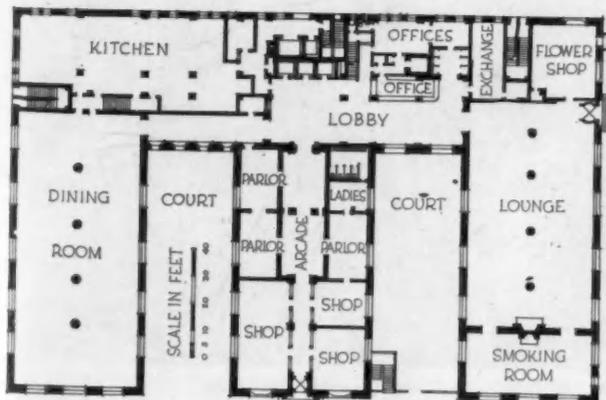
brackets and cornices throughout. Oil-burning boilers; vacuum steam heat, no automatic control. Portable vacuum cleaning. Mechanical refrigeration. Cost per cubic foot, \$1.20. Work begun April, 1924. Number of apartments, 240; two to seven rooms to each apartment, including kitchen. Meals served by management in suites if desired.



Hotel Pennsylvania, Philadelphia

CLARENCE E. WUNDER, Architect

EXTERIOR, limestone for lower stories, buff brick with terra cotta trimming above. Six hundred rooms and baths, divided into 140 single rooms, each with bath, available for either transient or permanent guests, and 160 rooms arranged in suites of from two to six rooms. Rooms provided on top floor for tenants' servants. Every apartment provided with kitchen, equipped with gas range, refrigerator, dresser, storage closet and broom closet. Delivery receptacles connect with hotel corridors. Kitchens and dining rooms are separated by china closets extending half the height of the rooms; meals served from main kitchen to all rooms, as well as in main dining room. Commissary department provided in basement for convenience of tenants having housekeeping apartments. Power plant in separate building.





FURNISHINGS IN THE ITALIAN STYLE RELIEVE THE AUSTERITY OF THE LOUNGE

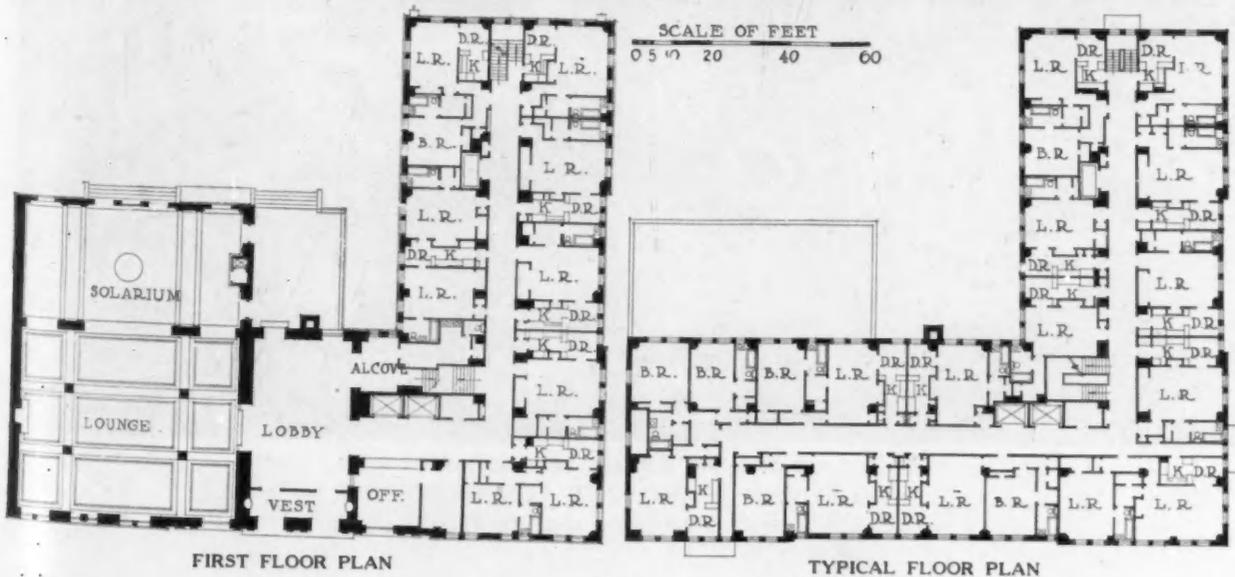


TREATMENT OF DINING ROOM SHOWS A DIGNIFIED USE OF CLASSIC DETAIL
HOTEL PENNSYLVANIA, PHILADELPHIA
CLARENCE E. WUNDER, ARCHITECT

Gaylord Apartments, Los Angeles

WALKER & EISEN, Architects

THIS high class apartment hotel has large lounge and solarium, occupying together 4256 square feet of the first floor with an attractive garden in rear, but no general dining room is provided for tenants. Each apartment has a small dining alcove and interior kitchen, provided with gas range, sink, broom closet, garbage chute and liberal shelving. In about half of the apartments the living room serves at night as a bedroom, by the use of door beds and bed closets. 163 rooms are divided into two-, three- and four-room suites. No servants sleep in the house. Construction: Class A, reinforced concrete. Interior partitions: gypsum blocks. Floors: removable steel pans, cement finish for floors with wood strips embedded. Floors covered with carpets throughout. Windows: wood, double-hung. Heating: steam. Portable vacuum cleaning equipment supplied. Work was begun January, 1923. Cost per cubic foot was approximately 75 cents.





THE FOUNTAIN AND ITS BRONZEWORL IN THE SOLARIUM, DESIGNED BY OSCAR BACH



VIEW OF LOUNGE, LOOKING TOWARD DOORWAY INTO MAIN LOBBY
GAYLORD APARTMENTS, LOS ANGELES
WALKER & EISEN, ARCHITECTS

Food Service in Apartment Hotels

By ALBERT E. MERRILL

Equipment Engineer, Chicago

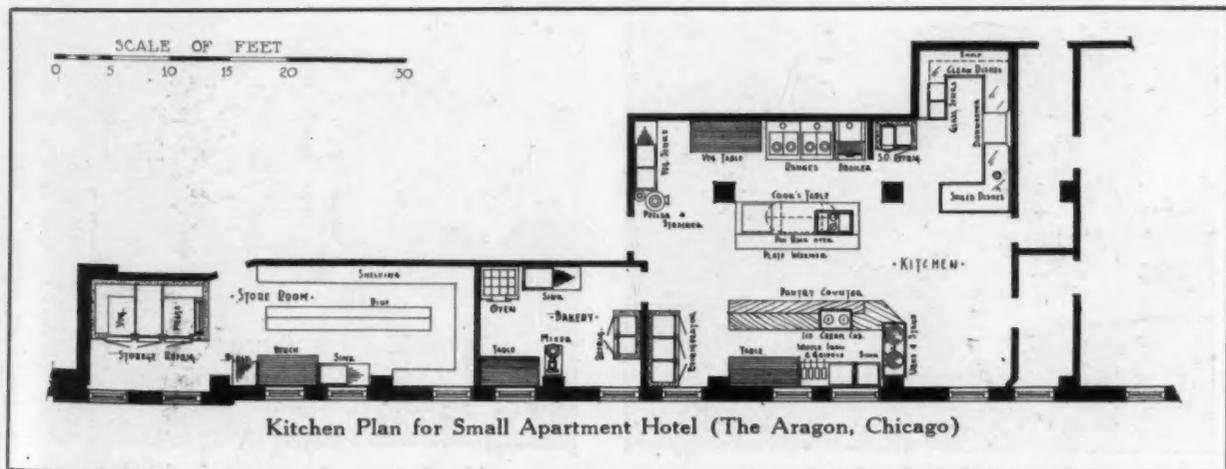
THE designation "apartment hotel" has been stretched to cover nearly every type of hotel building, whether exclusively devoted to apartments or to accommodation of both transient and apartment patronage. Therefore the discussion of the kitchen really means a study of the hotel kitchen in all its branches, and the same variations occur in dining room and service facilities. There are apartment hotels with from 60 to 75 apartments which either have no main kitchens at all or else lease basement rooms for restaurant purposes, while in the larger examples, such as the new Walker Hotel in Washington, 1,000 transient rooms are combined with several hundred apartments where dining room service is most elaborate and complete in every respect.

An examination of 12 of the more recent buildings, which have a combined room capacity of over 3,000 or an average of 250 per hotel, shows several interesting facts. The average main dining room seating capacity is equal to the number of rooms. Seven out of the 12 have elaborate banquet halls. Seven also have popular priced lunch rooms. One only subleases the restaurant space, all the others being operated by the hotel. In only one instance was arrangement made for two dining rooms in the same building to be operated at the same time. From this it may be gleaned that the dining room is regarded as a necessary hazard to the apartment hotel owner,—something which he cannot exist without, but which he feels sure will be operated at a loss. In fact, in certain cities and districts, as in New York, the restrictions of building and fire protection codes practically define apartment hotels as buildings operating restaurants and kitchens and with no real kitchens in the private apartments. These buildings do not come directly under the jurisdiction of the tenement house laws with their

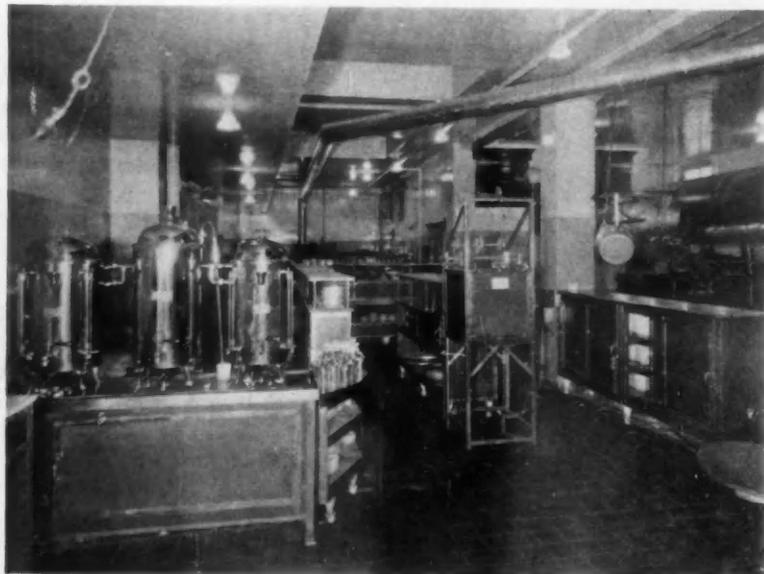
onerous requirements of numerous smoke towers or enclosed fire escapes. For this reason many owners of elaborate apartment buildings which are planned for subdivision into small apartments adopt the apartment hotel idea with a basement restaurant and no real kitchens in the apartments, but with large "serving pantries" which have actually the requisite facilities for private cooking. Thus to meet the demands of a new mode of living or the practical requirements enforced by building regulations the apartment hotel has been established as applying to a special type of building in which restaurant service must be maintained. The problem of the management is to make the restaurant service pay at least enough to carry its cost and share of space in the building, to prevent its being a heavy burden.

Of the group of hotels analyzed, seven have met this problem by the establishment of popular priced lunch rooms as adjuncts to the regular building service. Of course the location of the building primarily predetermines the feasibility of such a venture, but it may be assumed that the average apartment hotel is located in a thickly populated district, logical for such lunch room service. The tendency in equipping these rooms seems to be toward very elaborate and costly construction and the most ornate and decorative counters fitted with stools provided with upholstered seats and cane backs. Such rooms should always have street entrances as well as lobby entrances, with direct access to the main kitchens in order to prove profitable.

"Coffee Shop" is the name which has been recently given to hotel lunch rooms, and these, as well as other popular priced dining rooms, are really separate institutions in themselves. They require special fixtures for all food preparation except the few entrees which are secured from the main kitchens. The greater part of the food is cooked to order,



Kitchen Plan for Small Apartment Hotel (The Aragon, Chicago)



Kitchen in The Pearson Hotel, Chicago

and short order ranges are a wonderful and varied item today. Sometimes they are built over 30 feet in length, including steamers, steam tables, egg boilers, toasters, broilers, cake griddles, waffle irons, range ovens, top burners, coffee urns and many other cooking conveniences, all combined in one fixture. Such fixtures are a necessity, not a fad, as they promote the idea of rapid service and sanitary food. They are always built of the finest materials, their sides being of tile or porcelain, the framework of nickel silver covered metal or polished brass bars, and they are covered with attractive hoods of expensive design, all shelves and serving stations being made either of nickel silver or planished iron. They are so located that as the customer sits at the counter he is able to see his own order prepared from the breaking of the egg to placing of it on the plate or in the cup. The "Coffee Shop" idea seems to have completely uprooted the dairy lunch and cafeteria service of a few years back, and along with it the grill or grill range has replaced the long steam table.



Kitchen in The Coronado Hotel
St. Louis

Economy of space is of the utmost importance in this type of lunch room, so we find centralized fixtures for serving water, milk, cream and butter, and combination urns combining the hot water urn and coffee urn in one. A width of room which permits the horseshoe counter with the short order grill at the end is preferable to the long, narrow space which permits only a straight counter on one side. Tables and chairs to seat as many as the counter will accommodate are generally included along one side or in an alcove.

Assuming that the hotel has 200 apartments, the main dining room should seat 200 people. It should be a room of approximately 4,000 square feet. About the same amount of space is the minimum necessary for a kitchen including bake shop, dish pantry *garde manger* and pantry service in addition

to the main food preparation room with store room space and locker rooms for the various employes.

If the hotel specializes in banquet and tea room service, suitable serving pantries must be provided for each such room and contain the necessary fixtures for serving hot and cold ready prepared dishes, hot and cold drinks, and pastry. All short orders are prepared in the main kitchen and served from there. In case a specialty is made of banquets, the fixtures are naturally very complete, with many shelves and as much serving space as possible to facilitate rapid service and accommodate a large number of waiters at one time.

The same general rules that apply to any commercial hotel apply to the size and selection of equipment for the apartment hotel* except that dining rooms are generally somewhat smaller in proportion to the sizes of the buildings, and the kitchen requirements proportionately less. A great deal in the way of

*See article "The Planning and Equipment of Hotel Kitchens," by Albert E. Merrill, in the Hotel Reference Number of THE FORUM, November, 1923, for a complete discussion of this subject.



Ventilation a Feature of the Kitchen
Wade Park Manor, Cleveland

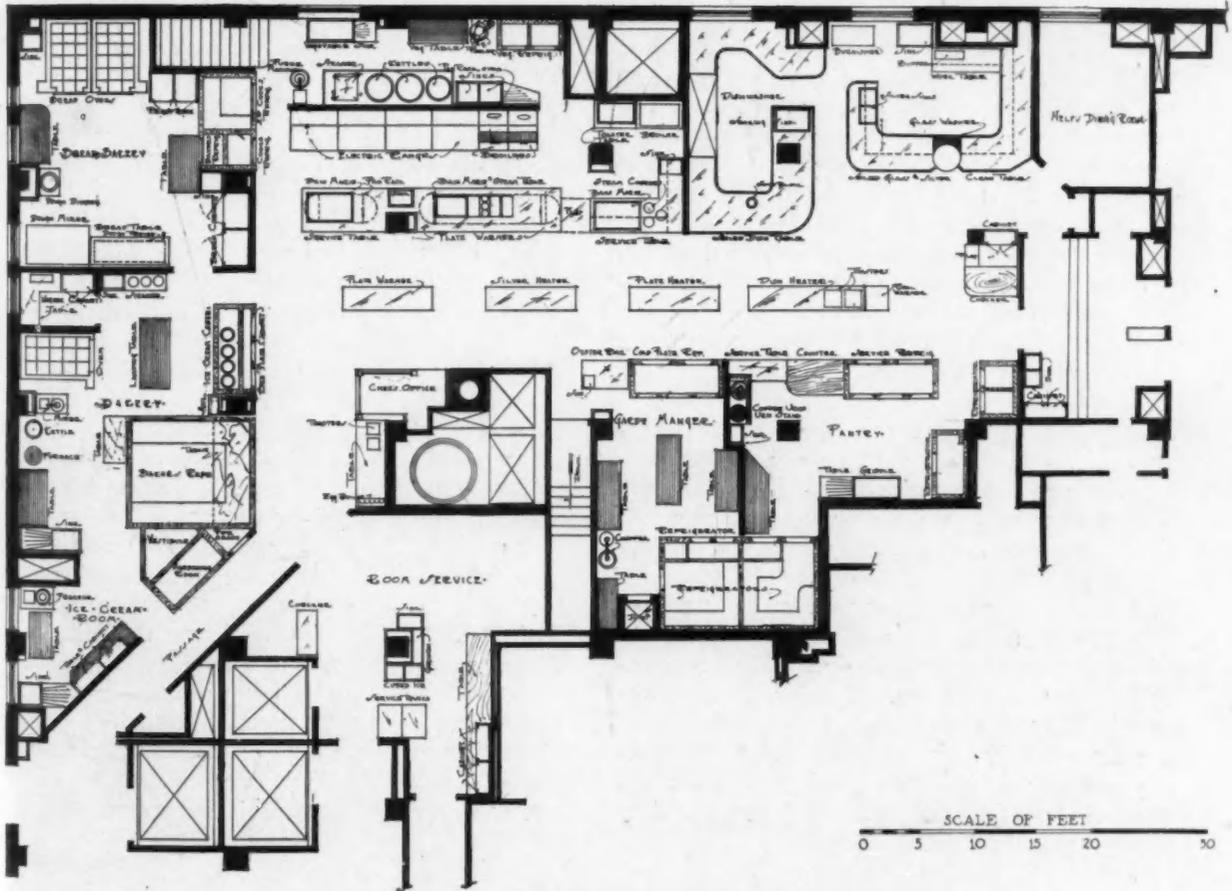
planning depends upon the shape of the kitchen area. The room should be as nearly square as possible, laid out in hollow square formation, opening into a dining room on the same floor if possible, with adequate supply entrances at the opposite end. In every instance right-hand service should be secured. With a little consideration the disagreeable and unsightly portions of the work, such as pot washing, vegetable preparation and vegetable steaming, may be hidden by a partition extending possibly 7 feet above the floor and placed back of ranges and counters. The general tendency is to have all dish heaters and counter fronts, which are first seen as a visitor enters a kitchen from the dining room, very attractively finished. This does not add a prohibitive sum to the entire cost of equipment, and it creates an impression of sanitary service that is invaluable. Either planished iron with nickel plated frames or polished steel trim and white porcelain held in nickel silver frames are extensively used and are most practical for this purpose.

Where gas is available, gas ranges are selected for the heavy cooking. Coal is dirty and dusty,

causes a great deal of labor, and requires space for storage. Oil is also dirty, and unless carefully watched creates such intense heat that it will melt and burn out the heaviest range or oven. Electricity is considered where a power rate of approximately 2 cents a kilowatt may be obtained. There is a constantly increasing number of power companies



Coffee Shop Equipment; The Belden-Stratford Hotel, Chicago



Kitchen Arrangement; The Belden-Stratford Hotel, Chicago

catering to this heavy duty patronage, and electric kitchens are increasingly in demand. The work of the ranges is supplemented by stock kettles and steamers, either placed at their sides or, as already suggested, back of a partition behind the ranges. Steam for kitchens is essential, and if it is not available at the necessary pressure of from 25 to 35 pounds, gas-heated boilers producing live steam should be provided. There are on the market many makes of these boilers which are well adapted to kitchen requirements. As a general rule a 10 h.p. boiler will furnish all steam requirements for the kitchen of a dining room seating 200. It requires but little space and is very easily operated.

Service heaters for silver and plates are provided in front of the cooks' tables as well as in the center of the room. The central fixtures should be low enough to act as tray stands for the waiters, and their tops should not be heated. The tops of these fixtures should be of metal which will not corrode by contact with vegetable acids or impart a taste to either liquid or solid foods. The doors on dish heaters, instead of extending their full height, should be provided for each separate shelf or compartment and may be either made sliding, rolling on casters, or of the lift type which raise back and over the shelf. These smaller doors are much easier to handle, do not waste the heat, and last a great deal longer than the large, heavy construction of former years.

Service counters for pastry, pantry goods and cold meats occupy the remaining space of the hollow square formation. Wooden counters, though still to be found, are mostly discarded in favor of the all-metal construction, save for the working tops which are of built-up sectional maple, tongued, glued and rodded together. The fronts and ends are made to match the heaters. Cold plate refrigerators replace the service heaters and are made to exactly duplicate them in appearance. Refrigerators, ice cream cabinets and fish boxes, together with sinks and tables, occupy the space back of counters and are arranged to conveniently carry and handle all kinds of ready-to-serve foods.

No kitchen of any size now uses ice for refrigeration. Either ammonia or carbonic acid gas machines for producing artificial refrigeration with brine circulating systems are now as standard a part of kitchen equipment as the range itself. This universal use of coil cooling systems has also made for much better refrigerator construction. The very best of lumber, heavy brass hardware, sheet cork-board insulation and good workmanship are invariably specified on all work. The larger refrigerators are built up on the ground of cork and cement. This construction creates the result that ice boxes after years of use, instead of being the most unsightly and dirty fixtures, now stand up as well as

the rest of the equipment and save materially in the expense of refrigeration, a result desirable indeed.

Power machinery is found to be a paying investment, and in addition to the dishwasher and peeler, which have long been used, the meat chopper, meat slicer, bread slicer, coffee mill, mayonnaise mixer, mixing machines, potato mashers, etc., are just as common and practical. For pantry work many electrical devices have been recently added, such as automatic electric toasters, electric waffle irons, automatic electric egg boilers, and other pieces of equipment which expedite service and improve its quality.

The dishwashing pantry is the most used and may be, at the same time, the most unsightly department of the kitchen. With modern machines, however, a great deal of the drudgery is done away with, and either a conveyor or basket machine, provided with overhead sprays and a washing bed built on a level with the soiled and clean dish tables, will rapidly handle a large number of dishes. The breakage of dishes is practically eliminated in such a type of machine, but in order to protect the glazed surfaces of the china, the tables, which should always be built of metal, should be covered on the bottom with battleship linoleum or fiber. The fronts of these tables may be screened with white porcelain panels and be made to effectually conceal garbage cans, dish racks and other unsightly necessities of this department. In the larger hotels a silver burnishing and cleaning machine must be located near the dish pantries to complete the operation of cleaning the silver after it has gone through the dishwashing machine.

In order to have the proper framework for the equipment such as is here described, the room in which it is placed must be naturally lighted, with a skylight where possible, and thoroughly ventilated with a suitable hood over every fixture which either creates heat or gives off steam. Floors may be of red tile set in black mortar, and all walls be of 6-inch square white or light yellow tile or of equally efficient sanitary and attractive materials.

No kitchen would be complete without arrangement for room service which, except in the very largest hotels, consists of a desk where orders are received by telephone and an adjacent rack for room service tables which are taken away one at a time and made ready to receive the orders which, when prepared, are delivered by the waiter to the room, being carried through on special room service elevators. In order to keep an accurate check on the silver and dishes used for room service, separate dish heaters should be provided near this station.

Room service trucks which have both heated and cold compartments and a top which folds over and when open acts as a table, are being tried out. At present they are not entirely satisfactory, since anything on wheels which has to contend with the kitchen floor, elevators, and carpets is not a great success.